

16C0235

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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.: 16C0235

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.: 16C0235

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 07, 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>
16C0235-01	01/LSB-1	Soil	03/04/2016	03/07/2016
16C0235-02	02/LSB-1	Soil	03/04/2016	03/07/2016
16C0235-03	03/LSB-2	Soil	03/04/2016	03/07/2016
16C0235-04	04/LSB-2	Soil	03/04/2016	03/07/2016
16C0235-06	06/TB-1	Water	03/04/2016	03/07/2016

General Notes for York Project (SDG) No.: 16C0235

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-1

York Sample ID: 16C0235-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16C0235

100433202

Soil

March 4, 2016 11:45 am

03/07/2016

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	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
563-58-6	1,1-Dichloropropylene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	NELAC-NY10854,NJDEP			
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	NELAC-NY10854,NJDEP			
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	NELAC-NY10854,NJDEP			
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	NELAC-NY10854,NJDEP			
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
142-28-9	1,3-Dichloropropane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	NELAC-NY10854,NJDEP			
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.066	0.13	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	NELAC-NY10854,NJDEP			
594-20-7	2,2-Dichloropropane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
							Certifications:	NELAC-NY10854,NJDEP			



Sample Information

Client Sample ID: 01/LSB-1

York Sample ID: 16C0235-01

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 4, 2016 11:45 am

Date Received
03/07/2016

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	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
95-49-8	2-Chlorotoluene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: NELAC-NY10854,NJDEP			
591-78-6	2-Hexanone	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
106-43-4	4-Chlorotoluene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: NELAC-NY10854,NJDEP			
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
67-64-1	Acetone	ND		mg/kg dry	0.0066	0.013	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
107-02-8	Acrolein	ND		mg/kg dry	0.0066	0.013	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
71-43-2	Benzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
108-86-1	Bromobenzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: NELAC-NY10854,NJDEP			
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: NELAC-NY10854,NJDEP			
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
75-25-2	Bromoform	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
74-83-9	Bromomethane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
75-00-3	Chloroethane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
67-66-3	Chloroform	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
74-87-3	Chloromethane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
110-82-7	Cyclohexane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: NELAC-NY10854,NJDEP			
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C	03/12/2016 15:06	03/12/2016 15:06	SS
								Certifications: NELAC-NY10854,NJDEP,PADEP			



Sample Information

Client Sample ID: 01/LSB-1

York Sample ID: 16C0235-01

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 4, 2016 11:45 am

Date Received
03/07/2016

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	0.0033	0.0066	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:06	03/12/2016 15:06	SS
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
79-20-9	Methyl acetate	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
75-09-2	Methylene chloride	0.0083	J	mg/kg dry	0.0066	0.013	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:06	03/12/2016 15:06	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	03/12/2016 15:06	03/12/2016 15:06	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0066	0.013	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	03/12/2016 15:06	03/12/2016 15:06	SS
99-87-6	p-Isopropyltoluene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
100-42-5	Styrene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0033	0.013	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:06	03/12/2016 15:06	SS
108-88-3	Toluene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:06	03/12/2016 15:06	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:06	03/12/2016 15:06	SS
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:06	03/12/2016 15:06	SS
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:06	03/12/2016 15:06	SS



Sample Information

Client Sample ID: 01/LSB-1

York Sample ID: 16C0235-01

York Project (SDG) No.
16C0235

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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	0.0033	0.0066	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:06	03/12/2016 15:06	SS
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0033	0.0066	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:06	03/12/2016 15:06	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.0099	0.020	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:06	03/12/2016 15:06	SS
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	107 %			77-125						
2037-26-5	Surrogate: Toluene-d8	109 %			85-120						
460-00-4	Surrogate: p-Bromofluorobenzene	98.7 %			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	0.0471	0.0939	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:45	SR
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		mg/kg dry	0.0939	0.188	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:45	SR
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: NELAC-NY10854	03/11/2016 06:56	03/11/2016 17:45	SR
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:45	SR
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: NELAC-NY10854	03/11/2016 06:56	03/11/2016 17:45	SR
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: NELAC-NY10854	03/11/2016 06:56	03/11/2016 17:45	SR
58-90-2	2,3,4,6-Tetrachlorophenol	ND		mg/kg dry	0.0939	0.188	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:45	SR
95-95-4	2,4,5-Trichlorophenol	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
88-06-2	2,4,6-Trichlorophenol	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
120-83-2	2,4-Dichlorophenol	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
105-67-9	2,4-Dimethylphenol	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
51-28-5	2,4-Dinitrophenol	ND		mg/kg dry	0.0939	0.188	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
121-14-2	2,4-Dinitrotoluene	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
606-20-2	2,6-Dinitrotoluene	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR



Sample Information

Client Sample ID: 01/LSB-1

York Sample ID: 16C0235-01

York Project (SDG) No.
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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	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
95-57-8	2-Chlorophenol	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
91-57-6	2-Methylnaphthalene	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:45	SR
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
88-74-4	2-Nitroaniline	ND		mg/kg dry	0.0939	0.188	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
88-75-5	2-Nitrophenol	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:45	SR
91-94-1	3,3'-Dichlorobenzidine	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
99-09-2	3-Nitroaniline	ND		mg/kg dry	0.0939	0.188	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
534-52-1	4,6-Dinitro-2-methylphenol	ND		mg/kg dry	0.0939	0.188	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:45	SR
101-55-3	4-Bromophenyl phenyl ether	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
59-50-7	4-Chloro-3-methylphenol	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
106-47-8	4-Chloroaniline	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
7005-72-3	4-Chlorophenyl phenyl ether	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
100-01-6	4-Nitroaniline	ND		mg/kg dry	0.0939	0.188	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
100-02-7	4-Nitrophenol	ND		mg/kg dry	0.0939	0.188	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
83-32-9	Acenaphthene	0.0675	J	mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
98-86-2	Acetophenone	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:45	SR
62-53-3	Aniline	ND		mg/kg dry	0.188	0.376	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
120-12-7	Anthracene	0.137		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
1912-24-9	Atrazine	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:45	SR
100-52-7	Benzaldehyde	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:45	SR
92-87-5	Benzidine	ND		mg/kg dry	0.188	0.376	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854	03/11/2016 06:56	03/11/2016 17:45	SR



Sample Information

Client Sample ID: 01/LSB-1

York Sample ID: 16C0235-01

York Project (SDG) No.

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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	0.472		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
50-32-8	Benzo(a)pyrene	0.394		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
205-99-2	Benzo(b)fluoranthene	0.330		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
191-24-2	Benzo(g,h,i)perylene	0.170		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
207-08-9	Benzo(k)fluoranthene	0.388		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
65-85-0	Benzoic acid	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	NELAC-NY10854,NJDEP			
100-51-6	Benzyl alcohol	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
85-68-7	Benzyl butyl phthalate	0.790		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
111-91-1	Bis(2-chloroethoxy)methane	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
111-44-4	Bis(2-chloroethyl)ether	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
108-60-1	Bis(2-chloroisopropyl)ether	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
117-81-7	Bis(2-ethylhexyl)phthalate	0.595		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
105-60-2	Caprolactam	ND		mg/kg dry	0.0939	0.188	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	NELAC-NY10854,NJDEP			
86-74-8	Carbazole	0.0780	J	mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
218-01-9	Chrysene	0.492		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
53-70-3	Dibenzo(a,h)anthracene	0.0916	J	mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
84-66-2	Diethyl phthalate	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
131-11-3	Dimethyl phthalate	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
84-74-2	Di-n-butyl phthalate	0.144		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
117-84-0	Di-n-octyl phthalate	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
206-44-0	Fluoranthene	0.896		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
86-73-7	Fluorene	0.0630	J	mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D	03/11/2016 06:56	03/11/2016 17:45	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			



Sample Information

Client Sample ID: 01/LSB-1

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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	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
77-47-4	Hexachlorocyclopentadiene	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
67-72-1	Hexachloroethane	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
193-39-5	Indeno(1,2,3-cd)pyrene	0.172		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
78-59-1	Isophorone	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:45	SR
98-95-3	Nitrobenzene	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
62-75-9	N-Nitrosodimethylamine	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:45	SR
621-64-7	N-nitroso-di-n-propylamine	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
86-30-6	N-Nitrosodiphenylamine	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:45	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
85-01-8	Phenanthrene	0.695		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
108-95-2	Phenol	ND		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
129-00-0	Pyrene	0.814		mg/kg dry	0.0471	0.0939	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
110-86-1	Pyridine	ND		mg/kg dry	0.188	0.376	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:45	SR
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	70.3 %	20-108								
4165-62-2	Surrogate: Phenol-d5	76.6 %	23-114								
4165-60-0	Surrogate: Nitrobenzene-d5	74.9 %	22-108								
321-60-8	Surrogate: 2-Fluorobiphenyl	76.0 %	21-113								
118-79-6	Surrogate: 2,4,6-Tribromophenol	125 %	19-110								
1718-51-0	Surrogate: Terphenyl-d14	92.8 %	24-116								

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

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	ND		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
72-55-9	4,4'-DDE	0.0110		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC



Sample Information

Client Sample ID: 01/LSB-1

York Sample ID: 16C0235-01

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 4, 2016 11:45 am

Date Received
03/07/2016

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

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	0.0350		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
5103-71-9	alpha-Chlordane	0.00842		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 17:25	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
57-74-9	Chlordane, total	ND		mg/kg dry	0.0743	0.0743	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 17:25	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
5566-34-7	gamma-Chlordane	0.00867		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 17:25	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00186	0.00186	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
72-43-5	Methoxychlor	ND		mg/kg dry	0.00929	0.00929	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:25	AMC
8001-35-2	Toxaphene	ND		mg/kg dry	0.0940	0.0940	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 17:25	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	88.9 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	82.0 %	30-140								



Sample Information

Client Sample ID: 01/LSB-1

York Sample ID: 16C0235-01

York Project (SDG) No.
16C0235

Client Project ID
100433202

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Date Received
03/07/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

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	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 14:37	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 14:37	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 14:37	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 14:37	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 14:37	AMC
11097-69-1	Aroclor 1254	0.0424		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 14:37	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 14:37	AMC
1336-36-3	* Total PCBs	0.0424		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications:	03/10/2016 13:40	03/11/2016 14:37	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	73.6 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	61.8 %	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	5900		mg/kg dry	5.63	5.63	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-36-0	Antimony	ND		mg/kg dry	0.563	0.563	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-38-2	Arsenic	8.29		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-39-3	Barium	88.3		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-41-7	Beryllium	ND		mg/kg dry	0.113	0.113	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-43-9	Cadmium	2.81		mg/kg dry	0.338	0.338	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-70-2	Calcium	40100		mg/kg dry	0.563	5.63	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-47-3	Chromium	18.0		mg/kg dry	0.563	0.563	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-48-4	Cobalt	4.91		mg/kg dry	0.563	0.563	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-50-8	Copper	50.0		mg/kg dry	0.563	0.563	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:02	KV
7439-89-6	Iron	14500		mg/kg dry	2.25	2.25	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:02	KV



Sample Information

Client Sample ID: 01/LSB-1

York Sample ID: 16C0235-01

York Project (SDG) No.
16C0235

Client Project ID
100433202

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Soil

Collection Date/Time
March 4, 2016 11:45 am

Date Received
03/07/2016

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	401		mg/kg dry	0.338	0.338	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:02	KV
7439-95-4	Magnesium	4360		mg/kg dry	5.63	5.63	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:02	KV
7439-96-5	Manganese	283		mg/kg dry	0.563	0.563	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-02-0	Nickel	17.2		mg/kg dry	0.563	0.563	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-09-7	Potassium	766		mg/kg dry	5.63	5.63	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:02	KV
7782-49-2	Selenium	ND		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-22-4	Silver	2.31		mg/kg dry	0.563	0.563	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-23-5	Sodium	153		mg/kg dry	11.3	11.3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-28-0	Thallium	ND		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-62-2	Vanadium	16.2		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:02	KV
7440-66-6	Zinc	1070		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:02	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	2.75		mg/kg dry	0.0338	0.0338	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	03/10/2016 06:53	03/11/2016 06:46	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	88.8		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	03/08/2016 16:29	03/09/2016 13:57	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	0.394	0.563	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854	03/11/2016 11:12	03/11/2016 17:59	SC



Sample Information

Client Sample ID: 02/LSB-1

York Sample ID: 16C0235-02

York Project (SDG) No.

Client Project ID

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16C0235

100433202

Soil

March 4, 2016 12:20 pm

03/07/2016

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	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
563-58-6	1,1-Dichloropropylene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
142-28-9	1,3-Dichloropropane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.044	0.088	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
594-20-7	2,2-Dichloropropane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS



Sample Information

Client Sample ID: 02/LSB-1

York Sample ID: 16C0235-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16C0235

100433202

Soil

March 4, 2016 12:20 pm

03/07/2016

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	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
95-49-8	2-Chlorotoluene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: NELAC-NY10854,NJDEP			
591-78-6	2-Hexanone	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
106-43-4	4-Chlorotoluene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: NELAC-NY10854,NJDEP			
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
67-64-1	Acetone	ND		mg/kg dry	0.0044	0.0088	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
107-02-8	Acrolein	ND		mg/kg dry	0.0044	0.0088	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
71-43-2	Benzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
108-86-1	Bromobenzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: NELAC-NY10854,NJDEP			
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: NELAC-NY10854,NJDEP			
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
75-25-2	Bromoform	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
74-83-9	Bromomethane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
75-00-3	Chloroethane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
67-66-3	Chloroform	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
74-87-3	Chloromethane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP			
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
110-82-7	Cyclohexane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: NELAC-NY10854,NJDEP			
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C	03/12/2016 15:40	03/12/2016 15:40	SS
								Certifications: NELAC-NY10854,NJDEP,PADEP			



Sample Information

Client Sample ID: 02/LSB-1

York Sample ID: 16C0235-02

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 4, 2016 12:20 pm

Date Received
03/07/2016

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	0.0022	0.0044	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
79-20-9	Methyl acetate	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
75-09-2	Methylene chloride	0.0046	J	mg/kg dry	0.0044	0.0088	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	03/12/2016 15:40	03/12/2016 15:40	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0044	0.0088	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	03/12/2016 15:40	03/12/2016 15:40	SS
99-87-6	p-Isopropyltoluene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
100-42-5	Styrene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0022	0.0088	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
108-88-3	Toluene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS



Sample Information

Client Sample ID: 02/LSB-1

York Sample ID: 16C0235-02

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 4, 2016 12:20 pm

Date Received
03/07/2016

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	0.0022	0.0044	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 15:40	03/12/2016 15:40	SS
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0022	0.0044	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.0066	0.013	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 15:40	03/12/2016 15:40	SS
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	99.3 %		77-125							
2037-26-5	Surrogate: Toluene-d8	96.6 %		85-120							
460-00-4	Surrogate: p-Bromofluorobenzene	98.5 %		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	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		mg/kg dry	0.0945	0.189	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: NELAC-NY10854	03/11/2016 06:56	03/11/2016 17:14	SR
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: NELAC-NY10854	03/11/2016 06:56	03/11/2016 17:14	SR
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: NELAC-NY10854	03/11/2016 06:56	03/11/2016 17:14	SR
58-90-2	2,3,4,6-Tetrachlorophenol	ND		mg/kg dry	0.0945	0.189	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
95-95-4	2,4,5-Trichlorophenol	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
88-06-2	2,4,6-Trichlorophenol	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
120-83-2	2,4-Dichlorophenol	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
105-67-9	2,4-Dimethylphenol	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
51-28-5	2,4-Dinitrophenol	ND		mg/kg dry	0.0945	0.189	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
121-14-2	2,4-Dinitrotoluene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
606-20-2	2,6-Dinitrotoluene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR



Sample Information

Client Sample ID: 02/LSB-1

York Sample ID: 16C0235-02

York Project (SDG) No.
16C0235

Client Project ID
100433202

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March 4, 2016 12:20 pm

Date Received
03/07/2016

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	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
95-57-8	2-Chlorophenol	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
91-57-6	2-Methylnaphthalene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
88-74-4	2-Nitroaniline	ND		mg/kg dry	0.0945	0.189	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
88-75-5	2-Nitrophenol	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
91-94-1	3,3'-Dichlorobenzidine	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
99-09-2	3-Nitroaniline	ND		mg/kg dry	0.0945	0.189	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
534-52-1	4,6-Dinitro-2-methylphenol	ND		mg/kg dry	0.0945	0.189	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
101-55-3	4-Bromophenyl phenyl ether	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
59-50-7	4-Chloro-3-methylphenol	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
106-47-8	4-Chloroaniline	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
7005-72-3	4-Chlorophenyl phenyl ether	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
100-01-6	4-Nitroaniline	ND		mg/kg dry	0.0945	0.189	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
100-02-7	4-Nitrophenol	ND		mg/kg dry	0.0945	0.189	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
98-86-2	Acetophenone	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
62-53-3	Aniline	ND		mg/kg dry	0.189	0.378	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
120-12-7	Anthracene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
1912-24-9	Atrazine	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
100-52-7	Benzaldehyde	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
92-87-5	Benzidine	ND		mg/kg dry	0.189	0.378	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854	03/11/2016 06:56	03/11/2016 17:14	SR



Sample Information

Client Sample ID: 02/LSB-1

York Sample ID: 16C0235-02

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 4, 2016 12:20 pm

Date Received
03/07/2016

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	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
50-32-8	Benzo(a)pyrene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
205-99-2	Benzo(b)fluoranthene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
191-24-2	Benzo(g,h,i)perylene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
207-08-9	Benzo(k)fluoranthene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
65-85-0	Benzoic acid	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
100-51-6	Benzyl alcohol	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
85-68-7	Benzyl butyl phthalate	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
111-91-1	Bis(2-chloroethoxy)methane	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
111-44-4	Bis(2-chloroethyl)ether	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
108-60-1	Bis(2-chloroisopropyl)ether	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
117-81-7	Bis(2-ethylhexyl)phthalate	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
105-60-2	Caprolactam	ND		mg/kg dry	0.0945	0.189	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
86-74-8	Carbazole	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
218-01-9	Chrysene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
53-70-3	Dibenzo(a,h)anthracene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
84-66-2	Diethyl phthalate	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
131-11-3	Dimethyl phthalate	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
84-74-2	Di-n-butyl phthalate	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
117-84-0	Di-n-octyl phthalate	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
206-44-0	Fluoranthene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
86-73-7	Fluorene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR



Sample Information

Client Sample ID: 02/LSB-1

York Sample ID: 16C0235-02

York Project (SDG) No.
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March 4, 2016 12:20 pm

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03/07/2016

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	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
77-47-4	Hexachlorocyclopentadiene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
67-72-1	Hexachloroethane	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
78-59-1	Isophorone	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
98-95-3	Nitrobenzene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
62-75-9	N-Nitrosodimethylamine	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
621-64-7	N-nitroso-di-n-propylamine	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
86-30-6	N-Nitrosodiphenylamine	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 17:14	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
85-01-8	Phenanthrene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
108-95-2	Phenol	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
129-00-0	Pyrene	ND		mg/kg dry	0.0474	0.0945	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
110-86-1	Pyridine	ND		mg/kg dry	0.189	0.378	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 17:14	SR
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	52.7 %	20-108								
4165-62-2	Surrogate: Phenol-d5	57.3 %	23-114								
4165-60-0	Surrogate: Nitrobenzene-d5	58.6 %	22-108								
321-60-8	Surrogate: 2-Fluorobiphenyl	55.6 %	21-113								
118-79-6	Surrogate: 2,4,6-Tribromophenol	90.3 %	19-110								
1718-51-0	Surrogate: Terphenyl-d14	65.8 %	24-116								

Pesticides, 8081 target list

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
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC



Sample Information

Client Sample ID: 02/LSB-1

York Sample ID: 16C0235-02

York Project (SDG) No.
16C0235

Client Project ID
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March 4, 2016 12:20 pm

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Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

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		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 17:40	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
57-74-9	Chlordane, total	ND		mg/kg dry	0.0748	0.0748	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 17:40	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
5566-34-7	gamma-Chlordane	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 17:40	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00187	0.00187	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
72-43-5	Methoxychlor	ND		mg/kg dry	0.00935	0.00935	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:40	AMC
8001-35-2	Toxaphene	ND		mg/kg dry	0.0946	0.0946	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 17:40	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	87.0 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	67.8 %	30-140								



Sample Information

Client Sample ID: 02/LSB-1

York Sample ID: 16C0235-02

York Project (SDG) No.
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Client Project ID
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Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

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	0.0189	0.0189	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 14:56	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0189	0.0189	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 14:56	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0189	0.0189	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 14:56	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0189	0.0189	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 14:56	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0189	0.0189	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 14:56	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0189	0.0189	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 14:56	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0189	0.0189	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 14:56	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0189	0.0189	1	EPA 8082A Certifications:	03/10/2016 13:40	03/11/2016 14:56	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	84.1 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	60.9 %	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	10700		mg/kg dry	5.66	5.66	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-36-0	Antimony	ND		mg/kg dry	0.566	0.566	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-38-2	Arsenic	1.66		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-39-3	Barium	72.4		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-41-7	Beryllium	ND		mg/kg dry	0.113	0.113	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.340	0.340	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-70-2	Calcium	3490		mg/kg dry	0.566	5.66	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-47-3	Chromium	23.9		mg/kg dry	0.566	0.566	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-48-4	Cobalt	13.7		mg/kg dry	0.566	0.566	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-50-8	Copper	37.1		mg/kg dry	0.566	0.566	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:07	KV
7439-89-6	Iron	21200		mg/kg dry	2.27	2.27	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:07	KV



Sample Information

Client Sample ID: 02/LSB-1

York Sample ID: 16C0235-02

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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	8.28		mg/kg dry	0.340	0.340	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:07	KV
7439-95-4	Magnesium	6730		mg/kg dry	5.66	5.66	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:07	KV
7439-96-5	Manganese	413		mg/kg dry	0.566	0.566	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-02-0	Nickel	23.3		mg/kg dry	0.566	0.566	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-09-7	Potassium	2700		mg/kg dry	5.66	5.66	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:07	KV
7782-49-2	Selenium	ND		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-22-4	Silver	ND		mg/kg dry	0.566	0.566	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-23-5	Sodium	220		mg/kg dry	11.3	11.3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-28-0	Thallium	ND		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-62-2	Vanadium	34.3		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:07	KV
7440-66-6	Zinc	50.9		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:07	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	ND		mg/kg dry	0.0340	0.0340	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	03/10/2016 06:53	03/10/2016 16:46	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	88.3		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	03/08/2016 16:29	03/09/2016 13:57	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	0.566	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854	03/11/2016 11:12	03/11/2016 17:59	SC



Sample Information

Client Sample ID: 03/LSB-2

York Sample ID: 16C0235-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16C0235

100433202

Soil

March 4, 2016 1:15 pm

03/07/2016

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	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
563-58-6	1,1-Dichloropropylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
142-28-9	1,3-Dichloropropane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.052	0.10	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
594-20-7	2,2-Dichloropropane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS



Sample Information

Client Sample ID: 03/LSB-2

York Sample ID: 16C0235-03

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
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Collection Date/Time
March 4, 2016 1:15 pm

Date Received
03/07/2016

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	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
95-49-8	2-Chlorotoluene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
591-78-6	2-Hexanone	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
106-43-4	4-Chlorotoluene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
67-64-1	Acetone	0.0072	J	mg/kg dry	0.0052	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
107-02-8	Acrolein	ND		mg/kg dry	0.0052	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
71-43-2	Benzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
108-86-1	Bromobenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
75-25-2	Bromoform	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
74-83-9	Bromomethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
75-00-3	Chloroethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
67-66-3	Chloroform	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
74-87-3	Chloromethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
110-82-7	Cyclohexane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS



Sample Information

Client Sample ID: 03/LSB-2

York Sample ID: 16C0235-03

York Project (SDG) No.

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16C0235

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Soil

March 4, 2016 1:15 pm

03/07/2016

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	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
79-20-9	Methyl acetate	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.0052	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	03/12/2016 16:14	03/12/2016 16:14	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0052	0.010	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	03/12/2016 16:14	03/12/2016 16:14	SS
99-87-6	p-Isopropyltoluene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
100-42-5	Styrene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0026	0.010	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
108-88-3	Toluene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS



Sample Information

Client Sample ID: 03/LSB-2

York Sample ID: 16C0235-03

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 4, 2016 1:15 pm

Date Received
03/07/2016

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	0.0026	0.0052	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:14	03/12/2016 16:14	SS
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0026	0.0052	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.0079	0.016	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:14	03/12/2016 16:14	SS
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	101 %		77-125							
2037-26-5	Surrogate: Toluene-d8	98.1 %		85-120							
460-00-4	Surrogate: p-Bromofluorobenzene	97.3 %		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	0.0492	0.0982	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:48	SR
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		mg/kg dry	0.0982	0.196	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:48	SR
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: NELAC-NY10854	03/11/2016 06:56	03/11/2016 18:48	SR
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:48	SR
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: NELAC-NY10854	03/11/2016 06:56	03/11/2016 18:48	SR
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: NELAC-NY10854	03/11/2016 06:56	03/11/2016 18:48	SR
58-90-2	2,3,4,6-Tetrachlorophenol	ND		mg/kg dry	0.0982	0.196	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:48	SR
95-95-4	2,4,5-Trichlorophenol	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
88-06-2	2,4,6-Trichlorophenol	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
120-83-2	2,4-Dichlorophenol	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
105-67-9	2,4-Dimethylphenol	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
51-28-5	2,4-Dinitrophenol	ND		mg/kg dry	0.0982	0.196	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
121-14-2	2,4-Dinitrotoluene	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
606-20-2	2,6-Dinitrotoluene	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR



Sample Information

Client Sample ID: 03/LSB-2

York Sample ID: 16C0235-03

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 4, 2016 1:15 pm

Date Received
03/07/2016

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	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
95-57-8	2-Chlorophenol	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
91-57-6	2-Methylnaphthalene	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:48	SR
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
88-74-4	2-Nitroaniline	ND		mg/kg dry	0.0982	0.196	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
88-75-5	2-Nitrophenol	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:48	SR
91-94-1	3,3'-Dichlorobenzidine	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
99-09-2	3-Nitroaniline	ND		mg/kg dry	0.0982	0.196	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
534-52-1	4,6-Dinitro-2-methylphenol	ND		mg/kg dry	0.0982	0.196	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:48	SR
101-55-3	4-Bromophenyl phenyl ether	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
59-50-7	4-Chloro-3-methylphenol	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
106-47-8	4-Chloroaniline	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
7005-72-3	4-Chlorophenyl phenyl ether	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
100-01-6	4-Nitroaniline	ND		mg/kg dry	0.0982	0.196	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
100-02-7	4-Nitrophenol	ND		mg/kg dry	0.0982	0.196	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
83-32-9	Acenaphthene	0.0707	J	mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
208-96-8	Acenaphthylene	0.0557	J	mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
98-86-2	Acetophenone	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:48	SR
62-53-3	Aniline	ND		mg/kg dry	0.197	0.393	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
120-12-7	Anthracene	0.148		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
1912-24-9	Atrazine	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:48	SR
100-52-7	Benzaldehyde	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:48	SR
92-87-5	Benzidine	ND		mg/kg dry	0.197	0.393	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854	03/11/2016 06:56	03/11/2016 18:48	SR



Sample Information

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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	0.535		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
50-32-8	Benzo(a)pyrene	0.634		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
205-99-2	Benzo(b)fluoranthene	0.424		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
191-24-2	Benzo(g,h,i)perylene	0.141		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
207-08-9	Benzo(k)fluoranthene	0.376		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
65-85-0	Benzoic acid	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	NELAC-NY10854,NJDEP			
100-51-6	Benzyl alcohol	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
85-68-7	Benzyl butyl phthalate	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
111-91-1	Bis(2-chloroethoxy)methane	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
111-44-4	Bis(2-chloroethyl)ether	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
108-60-1	Bis(2-chloroisopropyl)ether	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
117-81-7	Bis(2-ethylhexyl)phthalate	0.0636	J	mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
105-60-2	Caprolactam	ND		mg/kg dry	0.0982	0.196	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	NELAC-NY10854,NJDEP			
86-74-8	Carbazole	0.0597	J	mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
218-01-9	Chrysene	0.535		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
53-70-3	Dibenzo(a,h)anthracene	0.0730	J	mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
84-66-2	Diethyl phthalate	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
131-11-3	Dimethyl phthalate	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
84-74-2	Di-n-butyl phthalate	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
117-84-0	Di-n-octyl phthalate	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
206-44-0	Fluoranthene	1.09		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
86-73-7	Fluorene	0.0604	J	mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:48	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			



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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	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
77-47-4	Hexachlorocyclopentadiene	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
67-72-1	Hexachloroethane	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
193-39-5	Indeno(1,2,3-cd)pyrene	0.150		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
78-59-1	Isophorone	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:48	SR
98-95-3	Nitrobenzene	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
62-75-9	N-Nitrosodimethylamine	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:48	SR
621-64-7	N-nitroso-di-n-propylamine	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
86-30-6	N-Nitrosodiphenylamine	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:48	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
85-01-8	Phenanthrene	0.670		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
108-95-2	Phenol	ND		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
129-00-0	Pyrene	0.972		mg/kg dry	0.0492	0.0982	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
110-86-1	Pyridine	ND		mg/kg dry	0.197	0.393	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:48	SR
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	59.8 %	20-108								
4165-62-2	Surrogate: Phenol-d5	65.1 %	23-114								
4165-60-0	Surrogate: Nitrobenzene-d5	65.9 %	22-108								
321-60-8	Surrogate: 2-Fluorobiphenyl	61.5 %	21-113								
118-79-6	Surrogate: 2,4,6-Tribromophenol	97.2 %	19-110								
1718-51-0	Surrogate: Terphenyl-d14	75.0 %	24-116								

Pesticides, 8081 target list

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
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
72-55-9	4,4'-DDE	0.0259		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC



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Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

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	0.0841		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
5103-71-9	alpha-Chlordane	0.0140		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 17:55	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
57-74-9	Chlordane, total	0.132		mg/kg dry	0.0777	0.0777	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
60-57-1	Dieldrin	0.0245		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 17:55	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
5566-34-7	gamma-Chlordane	0.0141		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 17:55	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00194	0.00194	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
72-43-5	Methoxychlor	ND		mg/kg dry	0.00972	0.00972	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 17:55	AMC
8001-35-2	Toxaphene	ND		mg/kg dry	0.0983	0.0983	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 17:55	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	83.0 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	68.1 %	30-140								



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Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

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	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 15:15	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 15:15	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 15:15	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 15:15	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 15:15	AMC
11097-69-1	Aroclor 1254	0.134		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 15:15	AMC
11096-82-5	Aroclor 1260	0.0593		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 15:15	AMC
1336-36-3	* Total PCBs	0.193		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications:	03/10/2016 13:40	03/11/2016 15:15	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	66.7 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	58.0 %	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	4170		mg/kg dry	5.89	5.89	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-36-0	Antimony	ND		mg/kg dry	0.589	0.589	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-38-2	Arsenic	3.87		mg/kg dry	1.18	1.18	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-39-3	Barium	161		mg/kg dry	1.18	1.18	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-41-7	Beryllium	ND		mg/kg dry	0.118	0.118	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-43-9	Cadmium	0.359		mg/kg dry	0.353	0.353	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-70-2	Calcium	33900		mg/kg dry	0.589	5.89	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-47-3	Chromium	55.5		mg/kg dry	0.589	0.589	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-48-4	Cobalt	8.12		mg/kg dry	0.589	0.589	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-50-8	Copper	31.2		mg/kg dry	0.589	0.589	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:12	KV
7439-89-6	Iron	9780		mg/kg dry	2.36	2.36	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:12	KV



Sample Information

Client Sample ID: 03/LSB-2

York Sample ID: 16C0235-03

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 4, 2016 1:15 pm

Date Received
03/07/2016

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	230		mg/kg dry	0.353	0.353	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:12	KV
7439-95-4	Magnesium	16500		mg/kg dry	5.89	5.89	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:12	KV
7439-96-5	Manganese	202		mg/kg dry	0.589	0.589	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-02-0	Nickel	102		mg/kg dry	0.589	0.589	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-09-7	Potassium	841		mg/kg dry	5.89	5.89	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:12	KV
7782-49-2	Selenium	ND		mg/kg dry	1.18	1.18	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-22-4	Silver	ND		mg/kg dry	0.589	0.589	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-23-5	Sodium	273		mg/kg dry	11.8	11.8	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-28-0	Thallium	ND		mg/kg dry	1.18	1.18	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-62-2	Vanadium	18.4		mg/kg dry	1.18	1.18	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:12	KV
7440-66-6	Zinc	267		mg/kg dry	1.18	1.18	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:12	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	0.218		mg/kg dry	0.0353	0.0353	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	03/10/2016 06:53	03/10/2016 16:54	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	84.9		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	03/08/2016 16:29	03/09/2016 13:57	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	0.412	0.589	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854	03/11/2016 11:12	03/11/2016 17:59	SC



Sample Information

Client Sample ID: 04/LSB-2

York Sample ID: 16C0235-04

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16C0235

100433202

Soil

March 4, 2016 1:30 pm

03/07/2016

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	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
563-58-6	1,1-Dichloropropylene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
142-28-9	1,3-Dichloropropane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.055	0.11	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
594-20-7	2,2-Dichloropropane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS



Sample Information

Client Sample ID: 04/LSB-2

York Sample ID: 16C0235-04

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 4, 2016 1:30 pm

Date Received
03/07/2016

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	0.0034	J	mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
95-49-8	2-Chlorotoluene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	NELAC-NY10854,NJDEP			
591-78-6	2-Hexanone	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
106-43-4	4-Chlorotoluene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	NELAC-NY10854,NJDEP			
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
67-64-1	Acetone	0.045		mg/kg dry	0.0055	0.011	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
107-02-8	Acrolein	ND		mg/kg dry	0.0055	0.011	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
71-43-2	Benzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
108-86-1	Bromobenzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	NELAC-NY10854,NJDEP			
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	NELAC-NY10854,NJDEP			
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
75-25-2	Bromoform	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
74-83-9	Bromomethane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
75-00-3	Chloroethane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
67-66-3	Chloroform	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
74-87-3	Chloromethane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
110-82-7	Cyclohexane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	NELAC-NY10854,NJDEP			
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C	03/12/2016 16:48	03/12/2016 16:48	SS
							Certifications:	NELAC-NY10854,NJDEP,PADEP			



Sample Information

Client Sample ID: 04/LSB-2

York Sample ID: 16C0235-04

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 4, 2016 1:30 pm

Date Received
03/07/2016

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	0.0055	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
79-20-9	Methyl acetate	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.0055	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	03/12/2016 16:48	03/12/2016 16:48	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0055	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	03/12/2016 16:48	03/12/2016 16:48	SS
99-87-6	p-Isopropyltoluene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
100-42-5	Styrene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0028	0.011	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
108-88-3	Toluene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS



Sample Information

Client Sample ID: 04/LSB-2

York Sample ID: 16C0235-04

York Project (SDG) No.
16C0235

Client Project ID
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March 4, 2016 1:30 pm

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03/07/2016

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	0.0055	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/12/2016 16:48	03/12/2016 16:48	SS
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0028	0.0055	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.0083	0.017	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/12/2016 16:48	03/12/2016 16:48	SS
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	104 %			77-125						
2037-26-5	Surrogate: Toluene-d8	102 %			85-120						
460-00-4	Surrogate: p-Bromofluorobenzene	113 %			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	0.0596	0.119	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:16	SR
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		mg/kg dry	0.119	0.238	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:16	SR
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: NELAC-NY10854	03/11/2016 06:56	03/11/2016 18:16	SR
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:16	SR
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: NELAC-NY10854	03/11/2016 06:56	03/11/2016 18:16	SR
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: NELAC-NY10854	03/11/2016 06:56	03/11/2016 18:16	SR
58-90-2	2,3,4,6-Tetrachlorophenol	ND		mg/kg dry	0.119	0.238	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:16	SR
95-95-4	2,4,5-Trichlorophenol	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
88-06-2	2,4,6-Trichlorophenol	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
120-83-2	2,4-Dichlorophenol	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
105-67-9	2,4-Dimethylphenol	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
51-28-5	2,4-Dinitrophenol	ND		mg/kg dry	0.119	0.238	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
121-14-2	2,4-Dinitrotoluene	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
606-20-2	2,6-Dinitrotoluene	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR



Sample Information

Client Sample ID: 04/LSB-2

York Sample ID: 16C0235-04

York Project (SDG) No.
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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	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
95-57-8	2-Chlorophenol	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
91-57-6	2-Methylnaphthalene	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:16	SR
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
88-74-4	2-Nitroaniline	ND		mg/kg dry	0.119	0.238	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
88-75-5	2-Nitrophenol	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:16	SR
91-94-1	3,3'-Dichlorobenzidine	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
99-09-2	3-Nitroaniline	ND		mg/kg dry	0.119	0.238	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
534-52-1	4,6-Dinitro-2-methylphenol	ND		mg/kg dry	0.119	0.238	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:16	SR
101-55-3	4-Bromophenyl phenyl ether	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
59-50-7	4-Chloro-3-methylphenol	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
106-47-8	4-Chloroaniline	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
7005-72-3	4-Chlorophenyl phenyl ether	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
100-01-6	4-Nitroaniline	ND		mg/kg dry	0.119	0.238	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
100-02-7	4-Nitrophenol	ND		mg/kg dry	0.119	0.238	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
98-86-2	Acetophenone	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:16	SR
62-53-3	Aniline	ND		mg/kg dry	0.238	0.477	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
120-12-7	Anthracene	0.0685	J	mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/11/2016 06:56	03/11/2016 18:16	SR
1912-24-9	Atrazine	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:16	SR
100-52-7	Benzaldehyde	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/11/2016 06:56	03/11/2016 18:16	SR
92-87-5	Benzidine	ND		mg/kg dry	0.238	0.477	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854	03/11/2016 06:56	03/11/2016 18:16	SR



Sample Information

Client Sample ID: 04/LSB-2

York Sample ID: 16C0235-04

York Project (SDG) No.
16C0235

Client Project ID
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Soil

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Date Received
03/07/2016

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	0.243		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
50-32-8	Benzo(a)pyrene	0.185		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
205-99-2	Benzo(b)fluoranthene	0.159		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
191-24-2	Benzo(g,h,i)perylene	0.0780	J	mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
207-08-9	Benzo(k)fluoranthene	0.211		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
65-85-0	Benzoic acid	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	NELAC-NY10854,NJDEP			
100-51-6	Benzyl alcohol	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
85-68-7	Benzyl butyl phthalate	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
111-91-1	Bis(2-chloroethoxy)methane	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
111-44-4	Bis(2-chloroethyl)ether	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
108-60-1	Bis(2-chloroisopropyl)ether	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
117-81-7	Bis(2-ethylhexyl)phthalate	0.179		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
105-60-2	Caprolactam	ND		mg/kg dry	0.119	0.238	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	NELAC-NY10854,NJDEP			
86-74-8	Carbazole	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
218-01-9	Chrysene	0.257		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
53-70-3	Dibenzo(a,h)anthracene	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
84-66-2	Diethyl phthalate	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
131-11-3	Dimethyl phthalate	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
84-74-2	Di-n-butyl phthalate	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
117-84-0	Di-n-octyl phthalate	0.179		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
206-44-0	Fluoranthene	0.558		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
86-73-7	Fluorene	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			



Sample Information

Client Sample ID: 04/LSB-2

York Sample ID: 16C0235-04

York Project (SDG) No.

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03/07/2016

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	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
77-47-4	Hexachlorocyclopentadiene	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
67-72-1	Hexachloroethane	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
193-39-5	Indeno(1,2,3-cd)pyrene	0.0809	J	mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
78-59-1	Isophorone	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
91-20-3	Naphthalene	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
98-95-3	Nitrobenzene	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
62-75-9	N-Nitrosodimethylamine	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
621-64-7	N-nitroso-di-n-propylamine	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
86-30-6	N-Nitrosodiphenylamine	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
85-01-8	Phenanthrene	0.342		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
108-95-2	Phenol	ND		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
129-00-0	Pyrene	0.487		mg/kg dry	0.0596	0.119	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
110-86-1	Pyridine	ND		mg/kg dry	0.238	0.477	2	EPA 8270D	03/11/2016 06:56	03/11/2016 18:16	SR
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
Surrogate Recoveries		Result		Acceptance Range							
367-12-4	Surrogate: 2-Fluorophenol	52.5 %									
4165-62-2	Surrogate: Phenol-d5	55.5 %									
4165-60-0	Surrogate: Nitrobenzene-d5	59.7 %									
321-60-8	Surrogate: 2-Fluorobiphenyl	59.5 %									
118-79-6	Surrogate: 2,4,6-Tribromophenol	76.6 %									
1718-51-0	Surrogate: Terphenyl-d14	60.2 %									

Pesticides, 8081 target list

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
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00235	0.00235	5	EPA 8081B	03/10/2016 13:40	03/11/2016 18:11	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
72-55-9	4,4'-DDE	0.116		mg/kg dry	0.00235	0.00235	5	EPA 8081B	03/10/2016 13:40	03/11/2016 18:11	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			



Sample Information

Client Sample ID: 04/LSB-2

York Sample ID: 16C0235-04

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 4, 2016 1:30 pm

Date Received
03/07/2016

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

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	0.324		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
5103-71-9	alpha-Chlordane	0.0133		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 18:11	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
57-74-9	Chlordane, total	0.124		mg/kg dry	0.0942	0.0942	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
60-57-1	Dieldrin	0.0381		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 18:11	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
5566-34-7	gamma-Chlordane	0.0118		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 18:11	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00235	0.00235	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
72-43-5	Methoxychlor	ND		mg/kg dry	0.0118	0.0118	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 18:11	AMC
8001-35-2	Toxaphene	ND		mg/kg dry	0.119	0.119	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/10/2016 13:40	03/11/2016 18:11	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	83.6 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	76.5 %	30-140								



Sample Information

Client Sample ID: 04/LSB-2

York Sample ID: 16C0235-04

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 4, 2016 1:30 pm

Date Received
03/07/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

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	0.0238	0.0238	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 15:31	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0238	0.0238	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 15:31	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0238	0.0238	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 15:31	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0238	0.0238	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 15:31	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0238	0.0238	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 15:31	AMC
11097-69-1	Aroclor 1254	0.0743		mg/kg dry	0.0238	0.0238	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 15:31	AMC
11096-82-5	Aroclor 1260	0.0420		mg/kg dry	0.0238	0.0238	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/10/2016 13:40	03/11/2016 15:31	AMC
1336-36-3	* Total PCBs	0.116		mg/kg dry	0.0238	0.0238	1	EPA 8082A Certifications:	03/10/2016 13:40	03/11/2016 15:31	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	85.1 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	59.9 %	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	4910		mg/kg dry	7.13	7.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-36-0	Antimony	ND		mg/kg dry	0.713	0.713	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-38-2	Arsenic	3.53		mg/kg dry	1.43	1.43	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-39-3	Barium	687		mg/kg dry	1.43	1.43	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-41-7	Beryllium	ND		mg/kg dry	0.143	0.143	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.428	0.428	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-70-2	Calcium	35100		mg/kg dry	0.713	7.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-47-3	Chromium	18.4		mg/kg dry	0.713	0.713	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-48-4	Cobalt	5.45		mg/kg dry	0.713	0.713	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-50-8	Copper	31.3		mg/kg dry	0.713	0.713	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:17	KV
7439-89-6	Iron	47500		mg/kg dry	2.85	2.85	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:17	KV



Sample Information

Client Sample ID: 04/LSB-2

York Sample ID: 16C0235-04

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 4, 2016 1:30 pm

Date Received
03/07/2016

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	464		mg/kg dry	0.428	0.428	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:17	KV
7439-95-4	Magnesium	6350		mg/kg dry	7.13	7.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:17	KV
7439-96-5	Manganese	345		mg/kg dry	0.713	0.713	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-02-0	Nickel	12.3		mg/kg dry	0.713	0.713	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-09-7	Potassium	1600		mg/kg dry	7.13	7.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:17	KV
7782-49-2	Selenium	3.68		mg/kg dry	1.43	1.43	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-22-4	Silver	ND		mg/kg dry	0.713	0.713	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-23-5	Sodium	398		mg/kg dry	14.3	14.3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-28-0	Thallium	ND		mg/kg dry	1.43	1.43	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-62-2	Vanadium	16.5		mg/kg dry	1.43	1.43	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:17	KV
7440-66-6	Zinc	694		mg/kg dry	1.43	1.43	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/08/2016 09:59	03/09/2016 04:17	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	1.25		mg/kg dry	0.0428	0.0428	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	03/10/2016 06:53	03/10/2016 17:03	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	70.1		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	03/08/2016 16:29	03/09/2016 13:57	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	0.499	0.713	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854	03/11/2016 11:12	03/11/2016 17:59	SC



Sample Information

Client Sample ID: 06/TB-1

York Sample ID: 16C0235-06

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16C0235

100433202

Water

March 4, 2016 12:00 am

03/07/2016

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	03/11/2016 08:42	03/11/2016 12:18	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	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	03/11/2016 08:42	03/11/2016 12:18	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS



Sample Information

Client Sample ID: 06/TB-1

York Sample ID: 16C0235-06

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 4, 2016 12:00 am

Date Received
03/07/2016

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	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	NELAC-NY10854,NJDEP			
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	NELAC-NY10854,NJDEP			
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
107-02-8	Acrolein	ND		ug/L	0.20	2.0	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
107-13-1	Acrylonitrile	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	NELAC-NY10854,NJDEP			
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	NELAC-NY10854,NJDEP			
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
110-82-7	Cyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	NELAC-NY10854,NJDEP			
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	03/11/2016 08:42	03/11/2016 12:18	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			



Sample Information

Client Sample ID: 06/TB-1

York Sample ID: 16C0235-06

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 4, 2016 12:00 am

Date Received
03/07/2016

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	03/11/2016 08:42	03/11/2016 12:18	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
79-20-9	Methyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
108-87-2	Methylcyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	03/11/2016 08:42	03/11/2016 12:18	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	03/11/2016 08:42	03/11/2016 12:18	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	0.50	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS



Sample Information

Client Sample ID: 06/TB-1

York Sample ID: 16C0235-06

York Project (SDG) No.
16C0235

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 4, 2016 12:00 am

Date Received
03/07/2016

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	03/11/2016 08:42	03/11/2016 12:18	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	03/11/2016 08:42	03/11/2016 12:18	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	98.7 %	69-130								
2037-26-5	Surrogate: Toluene-d8	99.8 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	105 %	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 **3/7/2016 5:45:00 PM** :

01/LSB-1 Soil
02/LSB-1 Soil
03/LSB-2 Soil
04/LSB-2 Soil
06/TB-1 Water

The 6 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 3.6 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-1 Soil No Qualifiers
02/LSB-1 Soil No Qualifiers
03/LSB-2 Soil No Qualifiers
04/LSB-2 Soil No Qualifiers

06/TB-1 Water Qualifiers

Volatile Organics, NYSDEC Part 375 List - Acetone - The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).

Volatile Organics, NYSDEC Part 375 List - Acetone - The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration (average Rf>20%).

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.: 16C0235 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

$$C_x \text{ (ug/m3)} = \frac{(\text{ppbv} \times \text{Molecular wt.})}{(24.040)}$$

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

Soils/Waters

Medium Level Soils

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

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

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: 16C0235

Laboratory Sample ID(s): 16C0235-01 - 16C0235-06 Sampling Date(s): 03/04/2016 - 03/04/2016

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

QC Sample Nonconformances

Batch ID: BC60625 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
BC60625-BS1	Vinyl acetate - 108-05-4	11 ug/L	LCS	106	21-90	High Bias				
BC60625-BSD1	Vinyl acetate - 108-05-4	11 ug/L	LCS Dup	106	21-90	High Bias	0.00	30		

Batch ID: Y6C0906 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
Y6C0906-CRL1	Selenium - 7782-49-2	0.005 ug/mL	Instrument RL Check	45.1	70-130	Low Bias				
Y6C0906-CRL1	Selenium - 7782-49-2	0.005 ug/mL	Instrument RL Check	45.1	70-130	Low Bias				

Batch ID: BC60625 General Method: Volatile Organic Compounds by GC/MS

YORK Sample ID Client Sample ID

16C0235-06	06/TB-1
BC60625-BLK1	Blank
BC60625-BS1	LCS
BC60625-BSD1	LCS Dup



Laboratory:	York Analytical Laboratories, Inc.	Client:	Langan Engineering & Environmental Services (
Project:	100433202	Lab Project No:	16C0235
Laboratory Sample ID(s):	16C0235-01 - 16C0235-06	Sampling Date(s):	03/04/2016 - 03/04/2016
Review Date(s):	12/30/1899 - 03/28/2016	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
16C0235-01 (01/LSB-1)	Surrogate: 2,4,6-Tribromophenol	3.52 mg/kg dry	Surrogate	125	19-110	High Bias				

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: BC60404 **Preparation Method:** EPA 3050B **Prepared By:** ALD

YORK Sample ID	Client Sample ID	Preparation Date
16C0235-01	01/LSB-1	03/08/16
16C0235-02	02/LSB-1	03/08/16
16C0235-03	03/LSB-2	03/08/16
16C0235-04	04/LSB-2	03/08/16
BC60404-BLK1	Blank	03/08/16
BC60404-SRM1	Reference	03/08/16

Batch ID: BC60432 **Preparation Method:** % Solids Prep **Prepared By:** CLS

YORK Sample ID	Client Sample ID	Preparation Date
16C0235-01	01/LSB-1	03/08/16
16C0235-02	02/LSB-1	03/08/16
16C0235-03	03/LSB-2	03/08/16
16C0235-04	04/LSB-2	03/08/16
BC60432-DUP1	Duplicate	03/08/16

Batch ID: BC60525 **Preparation Method:** EPA 7473 soil **Prepared By:** ALD

YORK Sample ID	Client Sample ID	Preparation Date
16C0235-01	01/LSB-1	03/10/16
16C0235-02	02/LSB-1	03/10/16
16C0235-03	03/LSB-2	03/10/16
16C0235-04	04/LSB-2	03/10/16
BC60525-BLK1	Blank	03/10/16
BC60525-SRM1	Reference	03/10/16

Batch ID: BC60572 **Preparation Method:** EPA 3550C **Prepared By:** MGL

YORK Sample ID	Client Sample ID	Preparation Date
16C0235-01	01/LSB-1	03/10/16
16C0235-01	01/LSB-1	03/10/16
16C0235-02	02/LSB-1	03/10/16
16C0235-02	02/LSB-1	03/10/16
16C0235-03	03/LSB-2	03/10/16
16C0235-03	03/LSB-2	03/10/16
16C0235-04	04/LSB-2	03/10/16
16C0235-04	04/LSB-2	03/10/16
BC60572-BLK1	Blank	03/10/16
BC60572-BLK2	Blank	03/10/16
BC60572-BS1	LCS	03/10/16
BC60572-BS2	LCS	03/10/16
BC60572-BSD1	LCS Dup	03/10/16



Batch ID: BC60616

Preparation Method: EPA 3550C

Prepared By: TB

YORK Sample ID	Client Sample ID	Preparation Date
16C0235-01	01/LSB-1	03/11/16
16C0235-02	02/LSB-1	03/11/16
16C0235-03	03/LSB-2	03/11/16
16C0235-04	04/LSB-2	03/11/16

Batch ID: BC60625

Preparation Method: EPA 5030B

Prepared By: SS

YORK Sample ID	Client Sample ID	Preparation Date
16C0235-06	06/TB-1	03/11/16
BC60625-BLK1	Blank	03/11/16
BC60625-BS1	LCS	03/11/16
BC60625-BSD1	LCS Dup	03/11/16

Batch ID: BC60638

Preparation Method: EPA SW846-3060

Prepared By: SC

YORK Sample ID	Client Sample ID	Preparation Date
16C0235-01	01/LSB-1	03/11/16
16C0235-02	02/LSB-1	03/11/16
16C0235-03	03/LSB-2	03/11/16
16C0235-04	04/LSB-2	03/11/16
BC60638-BLK1	Blank	03/11/16
BC60638-SRM1	Reference	03/11/16

Batch ID: BC60676

Preparation Method: EPA 5035A

Prepared By: SS

YORK Sample ID	Client Sample ID	Preparation Date
16C0235-01	01/LSB-1	03/12/16
16C0235-02	02/LSB-1	03/12/16
16C0235-03	03/LSB-2	03/12/16
16C0235-04	04/LSB-2	03/12/16
BC60676-BLK1	Blank	03/12/16
BC60676-BS1	LCS	03/12/16
BC60676-BSD1	LCS Dup	03/12/16



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 BC60625 - EPA 5030B

Blank (BC60625-BLK1)

Prepared & Analyzed: 03/11/2016

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	0.50	"
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	40	"
2,2-Dichloropropane	ND	0.50	"
2-Butanone	ND	0.50	"
2-Chlorotoluene	ND	0.50	"
2-Hexanone	ND	0.50	"
4-Chlorotoluene	ND	0.50	"
4-Methyl-2-pentanone	ND	0.50	"
Acetone	ND	2.0	"
Acrolein	ND	0.50	"
Acrylonitrile	ND	0.50	"
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	"



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 BC60625 - EPA 5030B

Blank (BC60625-BLK1)

Prepared & Analyzed: 03/11/2016

Hexachlorobutadiene	ND	0.50	ug/L
Isopropylbenzene	ND	0.50	"
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	1.0	"
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	9.91	"	10.0	99.1	69-130
Surrogate: Toluene-d8	9.94	"	10.0	99.4	81-117
Surrogate: p-Bromofluorobenzene	10.4	"	10.0	104	79-122



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 BC60625 - EPA 5030B											
LCS (BC60625-BS1)						Prepared & Analyzed: 03/11/2016					
1,1,1,2-Tetrachloroethane	11		ug/L	10.0		107	82-126				
1,1,1-Trichloroethane	11		"	10.0		108	78-136				
1,1,2,2-Tetrachloroethane	10		"	10.0		104	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11		"	10.0		108	54-165				
1,1,2-Trichloroethane	10		"	10.0		103	82-123				
1,1-Dichloroethane	11		"	10.0		108	82-129				
1,1-Dichloroethylene	11		"	10.0		112	68-138				
1,1-Dichloropropylene	11		"	10.0		111	83-133				
1,2,3-Trichlorobenzene	10		"	10.0		103	76-136				
1,2,3-Trichloropropane	10		"	10.0		105	77-128				
1,2,4-Trichlorobenzene	10		"	10.0		104	76-137				
1,2,4-Trimethylbenzene	11		"	10.0		112	82-132				
1,2-Dibromo-3-chloropropane	9.5		"	10.0		95.3	45-147				
1,2-Dibromoethane	10		"	10.0		103	83-124				
1,2-Dichlorobenzene	11		"	10.0		114	79-123				
1,2-Dichloroethane	10		"	10.0		105	73-132				
1,2-Dichloropropane	11		"	10.0		105	78-126				
1,3,5-Trimethylbenzene	11		"	10.0		113	80-131				
1,3-Dichlorobenzene	12		"	10.0		117	86-122				
1,3-Dichloropropane	10		"	10.0		103	81-125				
1,4-Dichlorobenzene	12		"	10.0		117	85-124				
1,4-Dioxane	200		"	200		100	10-349				
2,2-Dichloropropane	11		"	10.0		109	56-150				
2-Butanone	8.9		"	10.0		89.4	49-152				
2-Chlorotoluene	12		"	10.0		117	79-130				
2-Hexanone	9.2		"	10.0		92.2	51-146				
4-Chlorotoluene	12		"	10.0		120	79-128				
4-Methyl-2-pentanone	9.5		"	10.0		95.3	57-145				
Acetone	7.5		"	10.0		75.1	14-150				
Acrolein	11		"	10.0		111	10-153				
Acrylonitrile	10		"	10.0		104	51-150				
Benzene	11		"	10.0		108	85-126				
Bromobenzene	11		"	10.0		106	78-129				
Bromochloromethane	11		"	10.0		111	77-128				
Bromodichloromethane	10		"	10.0		102	79-128				
Bromoform	9.7		"	10.0		97.2	78-133				
Bromomethane	11		"	10.0		112	43-168				
Carbon disulfide	11		"	10.0		107	68-146				
Carbon tetrachloride	11		"	10.0		109	77-141				
Chlorobenzene	11		"	10.0		112	88-120				
Chloroethane	12		"	10.0		117	65-136				
Chloroform	11		"	10.0		106	82-128				
Chloromethane	11		"	10.0		113	43-155				
cis-1,2-Dichloroethylene	11		"	10.0		108	83-129				
cis-1,3-Dichloropropylene	11		"	10.0		106	80-131				
Cyclohexane	11		"	10.0		110	63-149				
Dibromochloromethane	10		"	10.0		104	80-130				
Dibromomethane	10		"	10.0		101	72-134				
Dichlorodifluoromethane	13		"	10.0		134	44-144				
Ethyl Benzene	11		"	10.0		111	80-131				
Hexachlorobutadiene	11		"	10.0		114	67-146				



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 BC60625 - EPA 5030B

LCS (BC60625-BS1)

Prepared & Analyzed: 03/11/2016

Isopropylbenzene	12		ug/L	10.0		122	76-140				
Methyl acetate	10		"	10.0		102	51-139				
Methyl tert-butyl ether (MTBE)	10		"	10.0		103	76-135				
Methylcyclohexane	11		"	10.0		110	72-143				
Methylene chloride	10		"	10.0		103	55-137				
n-Butylbenzene	12		"	10.0		115	79-132				
n-Propylbenzene	12		"	10.0		121	78-133				
o-Xylene	12		"	10.0		117	78-130				
p- & m- Xylenes	23		"	20.0		115	77-133				
p-Isopropyltoluene	11		"	10.0		115	81-136				
sec-Butylbenzene	12		"	10.0		124	79-137				
Styrene	10		"	10.0		105	67-132				
tert-Butyl alcohol (TBA)	9.4		"	10.0		93.7	25-162				
tert-Butylbenzene	12		"	10.0		120	77-138				
Tetrachloroethylene	11		"	10.0		106	82-131				
Toluene	10		"	10.0		104	80-127				
trans-1,2-Dichloroethylene	11		"	10.0		112	80-132				
trans-1,3-Dichloropropylene	10		"	10.0		105	78-131				
Trichloroethylene	11		"	10.0		110	82-128				
Trichlorofluoromethane	12		"	10.0		119	67-139				
Vinyl acetate	11		"	10.0		106	21-90	High Bias			
Vinyl Chloride	12		"	10.0		121	58-145				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>9.79</i>		<i>"</i>	<i>10.0</i>		<i>97.9</i>	<i>69-130</i>				
<i>Surrogate: Toluene-d8</i>	<i>10.1</i>		<i>"</i>	<i>10.0</i>		<i>101</i>	<i>81-117</i>				
<i>Surrogate: p-Bromofluorobenzene</i>	<i>10.1</i>		<i>"</i>	<i>10.0</i>		<i>101</i>	<i>79-122</i>				

LCS Dup (BC60625-BSD1)

Prepared & Analyzed: 03/11/2016

1,1,1,2-Tetrachloroethane	11		ug/L	10.0		108	82-126		0.651	30	
1,1,1-Trichloroethane	10		"	10.0		100	78-136		7.76	30	
1,1,2,2-Tetrachloroethane	11		"	10.0		105	76-129		1.82	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.7		"	10.0		97.2	54-165		10.2	30	
1,1,2-Trichloroethane	11		"	10.0		107	82-123		3.52	30	
1,1-Dichloroethane	10		"	10.0		104	82-129		3.79	30	
1,1-Dichloroethylene	10		"	10.0		103	68-138		8.10	30	
1,1-Dichloropropylene	10		"	10.0		102	83-133		8.26	30	
1,2,3-Trichlorobenzene	11		"	10.0		108	76-136		4.76	30	
1,2,3-Trichloropropane	11		"	10.0		108	77-128		3.19	30	
1,2,4-Trichlorobenzene	11		"	10.0		106	76-137		1.90	30	
1,2,4-Trimethylbenzene	11		"	10.0		107	82-132		4.47	30	
1,2-Dibromo-3-chloropropane	9.9		"	10.0		99.3	45-147		4.11	30	
1,2-Dibromoethane	10		"	10.0		105	83-124		1.93	30	
1,2-Dichlorobenzene	11		"	10.0		112	79-123		2.03	30	
1,2-Dichloroethane	11		"	10.0		107	73-132		1.89	30	
1,2-Dichloropropane	11		"	10.0		105	78-126		0.285	30	
1,3,5-Trimethylbenzene	11		"	10.0		108	80-131		4.98	30	
1,3-Dichlorobenzene	11		"	10.0		114	86-122		2.59	30	
1,3-Dichloropropane	11		"	10.0		106	81-125		2.86	30	
1,4-Dichlorobenzene	11		"	10.0		113	85-124		3.14	30	
1,4-Dioxane	180		"	200		92.1	10-349		8.51	30	
2,2-Dichloropropane	10		"	10.0		102	56-150		7.10	30	
2-Butanone	9.6		"	10.0		96.5	49-152		7.64	30	
2-Chlorotoluene	11		"	10.0		112	79-130		4.27	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 BC60625 - EPA 5030B											
LCS Dup (BC60625-BSD1)						Prepared & Analyzed: 03/11/2016					
2-Hexanone	9.9		ug/L	10.0		99.2	51-146		7.31	30	
4-Chlorotoluene	11		"	10.0		114	79-128		4.27	30	
4-Methyl-2-pentanone	10		"	10.0		101	57-145		5.71	30	
Acetone	7.9		"	10.0		78.6	14-150		4.55	30	
Acrolein	11		"	10.0		111	10-153		0.180	30	
Acrylonitrile	10		"	10.0		104	51-150		0.289	30	
Benzene	10		"	10.0		104	85-126		3.76	30	
Bromobenzene	10		"	10.0		105	78-129		1.33	30	
Bromochloromethane	11		"	10.0		107	77-128		3.12	30	
Bromodichloromethane	10		"	10.0		102	79-128		0.588	30	
Bromoform	10		"	10.0		102	78-133		5.31	30	
Bromomethane	10		"	10.0		103	43-168		7.99	30	
Carbon disulfide	10		"	10.0		100	68-146		6.76	30	
Carbon tetrachloride	10		"	10.0		101	77-141		7.55	30	
Chlorobenzene	11		"	10.0		110	88-120		1.80	30	
Chloroethane	11		"	10.0		108	65-136		7.64	30	
Chloroform	10		"	10.0		103	82-128		2.49	30	
Chloromethane	11		"	10.0		111	43-155		1.43	30	
cis-1,2-Dichloroethylene	11		"	10.0		106	83-129		2.15	30	
cis-1,3-Dichloropropylene	11		"	10.0		107	80-131		0.468	30	
Cyclohexane	10		"	10.0		99.7	63-149		9.46	30	
Dibromochloromethane	11		"	10.0		106	80-130		2.38	30	
Dibromomethane	10		"	10.0		104	72-134		2.63	30	
Dichlorodifluoromethane	12		"	10.0		120	44-144		11.2	30	
Ethyl Benzene	11		"	10.0		108	80-131		3.56	30	
Hexachlorobutadiene	11		"	10.0		110	67-146		3.38	30	
Isopropylbenzene	11		"	10.0		114	76-140		6.45	30	
Methyl acetate	11		"	10.0		106	51-139		3.46	30	
Methyl tert-butyl ether (MTBE)	11		"	10.0		106	76-135		2.11	30	
Methylcyclohexane	10		"	10.0		104	72-143		5.82	30	
Methylene chloride	10		"	10.0		102	55-137		0.879	30	
n-Butylbenzene	11		"	10.0		109	79-132		5.61	30	
n-Propylbenzene	11		"	10.0		114	78-133		5.69	30	
o-Xylene	11		"	10.0		115	78-130		2.07	30	
p- & m- Xylenes	22		"	20.0		112	77-133		2.72	30	
p-Isopropyltoluene	11		"	10.0		108	81-136		6.56	30	
sec-Butylbenzene	12		"	10.0		116	79-137		6.50	30	
Styrene	10		"	10.0		105	67-132		0.0954	30	
tert-Butyl alcohol (TBA)	8.9		"	10.0		89.2	25-162		4.92	30	
tert-Butylbenzene	11		"	10.0		114	77-138		5.29	30	
Tetrachloroethylene	10		"	10.0		101	82-131		4.82	30	
Toluene	10		"	10.0		101	80-127		2.54	30	
trans-1,2-Dichloroethylene	10		"	10.0		104	80-132		7.04	30	
trans-1,3-Dichloropropylene	11		"	10.0		106	78-131		1.52	30	
Trichloroethylene	10		"	10.0		105	82-128		4.47	30	
Trichlorofluoromethane	11		"	10.0		106	67-139		11.4	30	
Vinyl acetate	11		"	10.0		106	21-90	High Bias	0.00	30	
Vinyl Chloride	11		"	10.0		112	58-145		7.45	30	
Surrogate: 1,2-Dichloroethane-d4	9.78		"	10.0		97.8	69-130				
Surrogate: Toluene-d8	10.0		"	10.0		100	81-117				
Surrogate: p-Bromofluorobenzene	9.97		"	10.0		99.7	79-122				



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 BC60676 - EPA 5035A

Blank (BC60676-BLK1)

Prepared & Analyzed: 03/12/2016

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	"
Hexachlorobutadiene	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 BC60676 - EPA 5035A

Blank (BC60676-BLK1)

Prepared & Analyzed: 03/12/2016

Isopropylbenzene	ND	0.0050	mg/kg wet
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	"

<i>Surrogate: 1,2-Dichloroethane-d4</i>	49.2		ug/L	50.0	98.4	77-125
<i>Surrogate: Toluene-d8</i>	48.8		"	50.0	97.5	85-120
<i>Surrogate: p-Bromofluorobenzene</i>	48.6		"	50.0	97.2	76-130

LCS (BC60676-BS1)

Prepared & Analyzed: 03/12/2016

1,1,1,2-Tetrachloroethane	47		ug/L	50.0	94.9	75-129
1,1,1-Trichloroethane	49		"	50.0	97.3	71-137
1,1,2,2-Tetrachloroethane	45		"	50.0	89.3	79-129
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	49		"	50.0	98.8	58-146
1,1,2-Trichloroethane	47		"	50.0	93.6	83-123
1,1-Dichloroethane	50		"	50.0	101	75-130
1,1-Dichloroethylene	46		"	50.0	92.0	64-137
1,1-Dichloropropylene	49		"	50.0	98.0	77-127
1,2,3-Trichlorobenzene	47		"	50.0	93.4	81-140
1,2,3-Trichloropropane	44		"	50.0	89.0	81-126
1,2,4-Trichlorobenzene	47		"	50.0	94.9	80-141
1,2,4-Trimethylbenzene	45		"	50.0	89.9	84-125
1,2-Dibromo-3-chloropropane	49		"	50.0	98.1	74-142
1,2-Dibromoethane	49		"	50.0	98.9	86-123
1,2-Dichlorobenzene	49		"	50.0	97.1	85-122
1,2-Dichloroethane	51		"	50.0	101	71-133
1,2-Dichloropropane	46		"	50.0	91.8	81-122
1,3,5-Trimethylbenzene	44		"	50.0	87.3	82-126
1,3-Dichlorobenzene	47		"	50.0	94.7	84-124
1,3-Dichloropropane	48		"	50.0	95.8	83-123
1,4-Dichlorobenzene	47		"	50.0	93.2	84-124
1,4-Dioxane	1200		"	1000	116	10-228
2,2-Dichloropropane	48		"	50.0	95.4	67-136
2-Butanone	47		"	50.0	93.1	58-147



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 BC60676 - EPA 5035A											
LCS (BC60676-BS1)						Prepared & Analyzed: 03/12/2016					
2-Chlorotoluene	47		ug/L	50.0		93.0	78-127				
2-Hexanone	48		"	50.0		96.8	70-139				
4-Chlorotoluene	47		"	50.0		93.6	79-125				
4-Methyl-2-pentanone	48		"	50.0		96.2	72-132				
Acetone	50		"	50.0		100	36-155				
Acrolein	32		"	50.0		64.1	10-238				
Acrylonitrile	49		"	50.0		97.3	66-141				
Benzene	49		"	50.0		98.0	77-127				
Bromobenzene	45		"	50.0		90.6	77-129				
Bromochloromethane	46		"	50.0		91.0	74-129				
Bromodichloromethane	47		"	50.0		93.6	81-124				
Bromoform	45		"	50.0		89.2	80-136				
Bromomethane	53		"	50.0		107	32-177				
Carbon disulfide	47		"	50.0		94.5	10-136				
Carbon tetrachloride	48		"	50.0		95.9	66-143				
Chlorobenzene	46		"	50.0		91.5	86-120				
Chloroethane	52		"	50.0		104	51-142				
Chloroform	49		"	50.0		97.6	76-131				
Chloromethane	53		"	50.0		106	49-132				
cis-1,2-Dichloroethylene	47		"	50.0		94.4	74-132				
cis-1,3-Dichloropropylene	46		"	50.0		91.9	81-129				
Cyclohexane	51		"	50.0		102	70-130				
Dibromochloromethane	49		"	50.0		97.1	10-200				
Dibromomethane	47		"	50.0		94.3	83-124				
Dichlorodifluoromethane	46		"	50.0		91.2	28-158				
Ethyl Benzene	46		"	50.0		92.8	84-125				
Hexachlorobutadiene	46		"	50.0		92.9	83-133				
Isopropylbenzene	45		"	50.0		89.4	81-127				
Methyl acetate	55		"	50.0		110	41-143				
Methyl tert-butyl ether (MTBE)	51		"	50.0		102	74-131				
Methylcyclohexane	47		"	50.0		93.5	70-130				
Methylene chloride	48		"	50.0		95.6	57-141				
n-Butylbenzene	46		"	50.0		91.5	80-130				
n-Propylbenzene	45		"	50.0		89.4	74-136				
o-Xylene	48		"	50.0		95.7	83-123				
p- & m- Xylenes	91		"	100		91.3	82-128				
p-Isopropyltoluene	45		"	50.0		90.6	85-125				
sec-Butylbenzene	45		"	50.0		89.4	83-125				
Styrene	48		"	50.0		95.0	86-126				
tert-Butyl alcohol (TBA)	57		"	50.0		115	70-130				
tert-Butylbenzene	46		"	50.0		91.2	80-127				
Tetrachloroethylene	44		"	50.0		88.6	80-129				
Toluene	45		"	50.0		91.0	85-121				
trans-1,2-Dichloroethylene	49		"	50.0		98.4	72-132				
trans-1,3-Dichloropropylene	44		"	50.0		87.6	78-132				
Trichloroethylene	46		"	50.0		92.2	84-123				
Trichlorofluoromethane	51		"	50.0		102	62-140				
Vinyl acetate	56		"	50.0		111	67-136				
Vinyl Chloride	53		"	50.0		107	52-130				
Surrogate: 1,2-Dichloroethane-d4	53.0		"	50.0		106	77-125				
Surrogate: Toluene-d8	48.5		"	50.0		97.0	85-120				



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 BC60676 - EPA 5035A											
LCS (BC60676-BS1)						Prepared & Analyzed: 03/12/2016					
Surrogate: <i>p</i> -Bromofluorobenzene	48.2		ug/L	50.0		96.4	76-130				
LCS Dup (BC60676-BS1)						Prepared & Analyzed: 03/12/2016					
1,1,1,2-Tetrachloroethane	49		ug/L	50.0		98.8	75-129		3.96	30	
1,1,1-Trichloroethane	48		"	50.0		96.7	71-137		0.619	30	
1,1,2,2-Tetrachloroethane	47		"	50.0		94.1	79-129		5.23	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	49		"	50.0		97.1	58-146		1.74	30	
1,1,2-Trichloroethane	48		"	50.0		95.8	83-123		2.26	30	
1,1-Dichloroethane	49		"	50.0		98.0	75-130		2.86	30	
1,1-Dichloroethylene	47		"	50.0		94.2	64-137		2.39	30	
1,1-Dichloropropylene	50		"	50.0		99.8	77-127		1.82	30	
1,2,3-Trichlorobenzene	49		"	50.0		97.3	81-140		4.15	30	
1,2,3-Trichloropropane	47		"	50.0		93.5	81-126		4.91	30	
1,2,4-Trichlorobenzene	50		"	50.0		99.3	80-141		4.51	30	
1,2,4-Trimethylbenzene	48		"	50.0		95.0	84-125		5.49	30	
1,2-Dibromo-3-chloropropane	49		"	50.0		99.0	74-142		0.914	30	
1,2-Dibromoethane	49		"	50.0		98.7	86-123		0.142	30	
1,2-Dichlorobenzene	50		"	50.0		99.7	85-122		2.62	30	
1,2-Dichloroethane	49		"	50.0		98.1	71-133		3.17	30	
1,2-Dichloropropane	48		"	50.0		95.6	81-122		4.05	30	
1,3,5-Trimethylbenzene	49		"	50.0		97.7	82-126		11.3	30	
1,3-Dichlorobenzene	50		"	50.0		101	84-124		6.18	30	
1,3-Dichloropropane	49		"	50.0		98.7	83-123		3.00	30	
1,4-Dichlorobenzene	50		"	50.0		101	84-124		7.97	30	
1,4-Dioxane	1000		"	1000		100	10-228		14.5	30	
2,2-Dichloropropane	48		"	50.0		95.2	67-136		0.168	30	
2-Butanone	44		"	50.0		87.5	58-147		6.11	30	
2-Chlorotoluene	50		"	50.0		100	78-127		7.37	30	
2-Hexanone	48		"	50.0		95.0	70-139		1.90	30	
4-Chlorotoluene	51		"	50.0		101	79-125		7.68	30	
4-Methyl-2-pentanone	47		"	50.0		94.0	72-132		2.29	30	
Acetone	44		"	50.0		87.0	36-155		13.9	30	
Acrolein	34		"	50.0		67.3	10-238		4.81	30	
Acrylonitrile	49		"	50.0		98.8	66-141		1.59	30	
Benzene	47		"	50.0		93.2	77-127		4.98	30	
Bromobenzene	47		"	50.0		95.0	77-129		4.68	30	
Bromochloromethane	53		"	50.0		106	74-129		15.1	30	
Bromodichloromethane	47		"	50.0		94.2	81-124		0.639	30	
Bromoform	47		"	50.0		93.8	80-136		4.98	30	
Bromomethane	53		"	50.0		107	32-177		0.0562	30	
Carbon disulfide	47		"	50.0		94.1	10-136		0.466	30	
Carbon tetrachloride	48		"	50.0		96.5	66-143		0.582	30	
Chlorobenzene	50		"	50.0		99.9	86-120		8.74	30	
Chloroethane	53		"	50.0		107	51-142		2.49	30	
Chloroform	48		"	50.0		95.2	76-131		2.55	30	
Chloromethane	53		"	50.0		105	49-132		0.247	30	
cis-1,2-Dichloroethylene	48		"	50.0		96.9	74-132		2.59	30	
cis-1,3-Dichloropropylene	47		"	50.0		93.1	81-129		1.32	30	
Cyclohexane	50		"	50.0		101	70-130		0.928	30	
Dibromochloromethane	49		"	50.0		97.7	10-200		0.534	30	
Dibromomethane	46		"	50.0		92.2	83-124		2.21	30	
Dichlorodifluoromethane	47		"	50.0		93.6	28-158		2.62	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 BC60676 - EPA 5035A

LCS Dup (BC60676-BSD1)

Prepared & Analyzed: 03/12/2016

Ethyl Benzene	49		ug/L	50.0		98.8	84-125		6.24	30
Hexachlorobutadiene	50		"	50.0		101	83-133		8.18	30
Isopropylbenzene	49		"	50.0		97.8	81-127		8.95	30
Methyl acetate	45		"	50.0		89.0	41-143		21.4	30
Methyl tert-butyl ether (MTBE)	49		"	50.0		97.5	74-131		4.96	30
Methylcyclohexane	51		"	50.0		101	70-130		8.04	30
Methylene chloride	46		"	50.0		92.0	57-141		3.84	30
n-Butylbenzene	49		"	50.0		97.8	80-130		6.70	30
n-Propylbenzene	49		"	50.0		98.1	74-136		9.28	30
o-Xylene	49		"	50.0		98.5	83-123		2.88	30
p- & m- Xylenes	98		"	100		97.5	82-128		6.55	30
p-Isopropyltoluene	48		"	50.0		96.3	85-125		6.08	30
sec-Butylbenzene	49		"	50.0		97.1	83-125		8.26	30
Styrene	48		"	50.0		96.1	86-126		1.17	30
tert-Butyl alcohol (TBA)	53		"	50.0		107	70-130		7.37	30
tert-Butylbenzene	49		"	50.0		97.2	80-127		6.37	30
Tetrachloroethylene	47		"	50.0		93.3	80-129		5.21	30
Toluene	47		"	50.0		94.2	85-121		3.50	30
trans-1,2-Dichloroethylene	49		"	50.0		98.6	72-132		0.203	30
trans-1,3-Dichloropropylene	46		"	50.0		91.2	78-132		3.98	30
Trichloroethylene	48		"	50.0		96.5	84-123		4.49	30
Trichlorofluoromethane	51		"	50.0		102	62-140		0.255	30
Vinyl acetate	53		"	50.0		107	67-136		4.00	30
Vinyl Chloride	54		"	50.0		107	52-130		0.655	30
Surrogate: 1,2-Dichloroethane-d4	47.7		"	50.0		95.3	77-125			
Surrogate: Toluene-d8	48.4		"	50.0		96.9	85-120			
Surrogate: p-Bromofluorobenzene	49.9		"	50.0		99.9	76-130			



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 BC60572 - EPA 3550C

Blank (BC60572-BLK1)

Prepared: 03/10/2016 Analyzed: 03/11/2016

4,4'-DDD	ND	0.000330	mg/kg wet								
4,4'-DDE	ND	0.000330	"								
4,4'-DDT	ND	0.000330	"								
Aldrin	ND	0.000330	"								
alpha-BHC	ND	0.000330	"								
alpha-Chlordane	ND	0.000330	"								
beta-BHC	ND	0.000330	"								
Chlordane, total	ND	0.0132	"								
delta-BHC	ND	0.000330	"								
Dieldrin	ND	0.000330	"								
Endosulfan I	ND	0.000330	"								
Endosulfan II	ND	0.000330	"								
Endosulfan sulfate	ND	0.000330	"								
Endrin	ND	0.000330	"								
Endrin aldehyde	ND	0.000330	"								
Endrin ketone	ND	0.000330	"								
gamma-BHC (Lindane)	ND	0.000330	"								
gamma-Chlordane	ND	0.000330	"								
Heptachlor	ND	0.000330	"								
Heptachlor epoxide	ND	0.000330	"								
Methoxychlor	ND	0.00165	"								
Toxaphene	ND	0.0167	"								

Surrogate: Tetrachloro-m-xylene

0.0597

"

0.0670

89.1

30-140

Surrogate: Decachlorobiphenyl

0.0465

"

0.0690

67.4

30-140

LCS (BC60572-BS1)

Prepared: 03/10/2016 Analyzed: 03/11/2016

4,4'-DDD	0.0356	0.000330	mg/kg wet	0.0333		107	40-140
4,4'-DDE	0.0353	0.000330	"	0.0333		106	40-140
4,4'-DDT	0.0344	0.000330	"	0.0333		103	40-140
Aldrin	0.0347	0.000330	"	0.0333		104	40-140
alpha-BHC	0.0363	0.000330	"	0.0333		109	40-140
alpha-Chlordane	0.0351	0.000330	"	0.0333		105	40-140
beta-BHC	0.0358	0.000330	"	0.0333		107	40-140
delta-BHC	0.0348	0.000330	"	0.0333		104	40-140
Dieldrin	0.0369	0.000330	"	0.0333		111	40-140
Endosulfan I	0.0374	0.000330	"	0.0333		112	40-140
Endosulfan II	0.0380	0.000330	"	0.0333		114	40-140
Endosulfan sulfate	0.0352	0.000330	"	0.0333		106	40-140
Endrin	0.0361	0.000330	"	0.0333		108	40-140
Endrin aldehyde	0.0308	0.000330	"	0.0333		92.3	40-140
Endrin ketone	0.0389	0.000330	"	0.0333		117	40-140
gamma-BHC (Lindane)	0.0368	0.000330	"	0.0333		110	40-140
gamma-Chlordane	0.0357	0.000330	"	0.0333		107	40-140
Heptachlor	0.0341	0.000330	"	0.0333		102	40-140
Heptachlor epoxide	0.0354	0.000330	"	0.0333		106	40-140
Methoxychlor	0.0337	0.00165	"	0.0333		101	40-140

Surrogate: Tetrachloro-m-xylene

0.0661

"

0.0670

98.7

30-140

Surrogate: Decachlorobiphenyl

0.0529

"

0.0690

76.7

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 BC60572 - EPA 3550C											
LCS Dup (BC60572-BSD1)						Prepared: 03/10/2016 Analyzed: 03/11/2016					
4,4'-DDD	0.0324	0.000330	mg/kg wet	0.0333		97.2	40-140		9.56	30	
4,4'-DDE	0.0301	0.000330	"	0.0333		90.4	40-140		15.8	30	
4,4'-DDT	0.0259	0.000330	"	0.0333		77.6	40-140		28.3	30	
Aldrin	0.0277	0.000330	"	0.0333		83.2	40-140		22.2	30	
alpha-BHC	0.0280	0.000330	"	0.0333		84.1	40-140		25.5	30	
alpha-Chlordane	0.0295	0.000330	"	0.0333		88.4	40-140		17.4	30	
beta-BHC	0.0286	0.000330	"	0.0333		85.9	40-140		22.2	30	
delta-BHC	0.0274	0.000330	"	0.0333		82.3	40-140		23.5	30	
Dieldrin	0.0280	0.000330	"	0.0333		84.1	40-140		27.3	30	
Endosulfan I	0.0293	0.000330	"	0.0333		87.9	40-140		24.4	30	
Endosulfan II	0.0291	0.000330	"	0.0333		87.3	40-140		26.6	30	
Endosulfan sulfate	0.0275	0.000330	"	0.0333		82.6	40-140		24.6	30	
Endrin	0.0290	0.000330	"	0.0333		86.9	40-140		22.0	30	
Endrin aldehyde	0.0264	0.000330	"	0.0333		79.1	40-140		15.4	30	
Endrin ketone	0.0303	0.000330	"	0.0333		90.9	40-140		24.8	30	
gamma-BHC (Lindane)	0.0278	0.000330	"	0.0333		83.5	40-140		27.8	30	
gamma-Chlordane	0.0280	0.000330	"	0.0333		84.1	40-140		24.1	30	
Heptachlor	0.0272	0.000330	"	0.0333		81.7	40-140		22.4	30	
Heptachlor epoxide	0.0268	0.000330	"	0.0333		80.5	40-140		27.4	30	
Methoxychlor	0.0334	0.00165	"	0.0333		100	40-140		0.681	30	
Surrogate: Tetrachloro-m-xylene	0.0564		"	0.0670		84.1	30-140				
Surrogate: Decachlorobiphenyl	0.0529		"	0.0690		76.7	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 BC60572 - EPA 3550C

Blank (BC60572-BLK2)

Prepared: 03/10/2016 Analyzed: 03/11/2016

Aroclor 1016	ND	0.0167	mg/kg wet							
Aroclor 1221	ND	0.0167	"							
Aroclor 1232	ND	0.0167	"							
Aroclor 1242	ND	0.0167	"							
Aroclor 1248	ND	0.0167	"							
Aroclor 1254	ND	0.0167	"							
Aroclor 1260	ND	0.0167	"							
Total PCBs	ND	0.0167	"							

Surrogate: Tetrachloro-m-xylene

0.0620

"

0.0670

92.5

30-140

Surrogate: Decachlorobiphenyl

0.0487

"

0.0690

70.5

30-140

LCS (BC60572-BS2)

Prepared: 03/10/2016 Analyzed: 03/11/2016

Aroclor 1016	0.359	0.0167	mg/kg wet	0.333		108	40-130			
Aroclor 1260	0.338	0.0167	"	0.333		101	40-130			

Surrogate: Tetrachloro-m-xylene

0.0610

"

0.0670

91.0

30-140

Surrogate: Decachlorobiphenyl

0.0507

"

0.0690

73.4

30-140



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 BC60404 - EPA 3050B

Blank (BC60404-BLK1)

Prepared: 03/08/2016 Analyzed: 03/09/2016

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 (BC60404-SRM1)

Prepared: 03/08/2016 Analyzed: 03/09/2016

Aluminum	9230	5.00	mg/kg wet	8060	115	38.9-160
Antimony	89.6	0.500	"	94.0	95.3	22.8-257.5
Arsenic	117	1.00	"	113	104	69.7-142.5
Barium	167	1.00	"	155	108	72.9-127.1
Beryllium	113	0.100	"	109	103	74.7-124.8
Cadmium	69.1	0.300	"	67.5	102	73.2-126.8
Calcium	6430	5.00	"	5850	110	73.7-126.5
Chromium	175	0.500	"	164	107	70.7-129.9
Cobalt	106	0.500	"	100	106	74.4-126
Copper	140	0.500	"	128	109	75.2-125.8
Iron	19500	2.00	"	15200	128	37.4-162.5
Lead	91.5	0.300	"	90.1	102	70.1-129.9
Magnesium	3140	5.00	"	2790	112	65.2-135.1
Manganese	382	0.500	"	363	105	75.8-124.5
Nickel	103	0.500	"	89.3	116	72-127.7
Potassium	3030	5.00	"	2770	110	61.7-138.3
Selenium	159	1.00	"	156	102	67.3-132.1
Silver	52.8	0.500	"	52.6	100	66.7-133.5
Sodium	699	10.0	"	686	102	55.8-144.2
Thallium	95.7	1.00	"	116	82.5	67.4-131.9
Vanadium	82.3	1.00	"	73.0	113	59.7-139.7
Zinc	170	1.00	"	168	101	69-131.5



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 BC60525 - EPA 7473 soil

Blank (BC60525-BLK1)

Prepared & Analyzed: 03/10/2016

Mercury ND 0.0300 mg/kg wet

Reference (BC60525-SRM1)

Prepared & Analyzed: 03/10/2016

Mercury 7.3686 mg/kg 5.76 128 71.2-129



Miscellaneous Physical 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 BC60432 - % Solids Prep

Duplicate (BC60432-DUP1)		*Source sample: 16C0235-04 (04/LSB-2)					Prepared: 03/08/2016 Analyzed: 03/09/2016				
% Solids	77.6	0.100	%		70.1				10.2	20	



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 BC60638 - EPA SW846-3060

Blank (BC60638-BLK1)

Prepared & Analyzed: 03/11/2016

Chromium, Hexavalent ND 0.500 mg/kg wet

Reference (BC60638-SRM1)

Prepared & Analyzed: 03/11/2016

Chromium, Hexavalent 96.4 mg/L 110 87.6 30.3-201



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
16C0235-01	01/LSB-1	40mL Vial with Stir Bar-Cool 4° C
16C0235-02	02/LSB-1	40mL Vial with Stir Bar-Cool 4° C
16C0235-03	03/LSB-2	40mL Vial with Stir Bar-Cool 4° C
16C0235-04	04/LSB-2	40mL Vial with Stir Bar-Cool 4° C
16C0235-06	06/TB-1	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



Notes and Definitions

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.

* 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.: 16C0235

Samples Received: 03/07/2016 17:45 By: Tom Gabrielson Logged In: 03/07/2016 11:02 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
16C0235-01	% Solids Prep	03/08/2016 16:29	03/08/2016 16:29	Carlos L. Santos
16C0235-02	% Solids Prep	03/08/2016 16:29	03/08/2016 16:29	Carlos L. Santos
16C0235-03	% Solids Prep	03/08/2016 16:29	03/08/2016 16:29	Carlos L. Santos
16C0235-04	% Solids Prep	03/08/2016 16:29	03/08/2016 16:29	Carlos L. Santos
16C0235-01	EPA 3050B	03/08/2016 9:59	03/08/2016 9:59	Amanda DeBiase
16C0235-02	EPA 3050B	03/08/2016 9:59	03/08/2016 9:59	Amanda DeBiase
16C0235-03	EPA 3050B	03/08/2016 9:59	03/08/2016 9:59	Amanda DeBiase
16C0235-04	EPA 3050B	03/08/2016 9:59	03/08/2016 9:59	Amanda DeBiase
16C0235-01	EPA 3550C	03/11/2016 6:56	03/11/2016 6:56	Tonesha Boyd
16C0235-01	EPA 3550C	03/10/2016 13:40	03/10/2016 13:40	Michael G. Leon
16C0235-01	EPA 3550C	03/10/2016 13:40	03/10/2016 13:40	Michael G. Leon
16C0235-02	EPA 3550C	03/10/2016 13:40	03/10/2016 13:40	Michael G. Leon
16C0235-02	EPA 3550C	03/10/2016 13:40	03/10/2016 13:40	Michael G. Leon
16C0235-02	EPA 3550C	03/11/2016 6:56	03/11/2016 6:56	Tonesha Boyd
16C0235-03	EPA 3550C	03/10/2016 13:40	03/10/2016 13:40	Michael G. Leon
16C0235-03	EPA 3550C	03/11/2016 6:56	03/11/2016 6:56	Tonesha Boyd
16C0235-03	EPA 3550C	03/10/2016 13:40	03/10/2016 13:40	Michael G. Leon
16C0235-04	EPA 3550C	03/10/2016 13:40	03/10/2016 13:40	Michael G. Leon
16C0235-04	EPA 3550C	03/10/2016 13:40	03/10/2016 13:40	Michael G. Leon
16C0235-04	EPA 3550C	03/11/2016 6:56	03/11/2016 6:56	Tonesha Boyd
16C0235-06	EPA 5030B	03/11/2016 8:42	03/11/2016 8:42	Steve Swift
16C0235-01	EPA 5035A	03/12/2016 15:06	03/12/2016 15:06	Steve Swift
16C0235-02	EPA 5035A	03/12/2016 15:40	03/12/2016 15:40	Steve Swift
16C0235-03	EPA 5035A	03/12/2016 16:14	03/12/2016 16:14	Steve Swift
16C0235-04	EPA 5035A	03/12/2016 16:48	03/12/2016 16:48	Steve Swift
16C0235-01	EPA 7473 soil	03/10/2016 6:53	03/10/2016 6:53	Amanda DeBiase
16C0235-02	EPA 7473 soil	03/10/2016 6:53	03/10/2016 6:53	Amanda DeBiase
16C0235-03	EPA 7473 soil	03/10/2016 6:53	03/10/2016 6:53	Amanda DeBiase



Preparation Chain-of-Custody

Sample ID	Reason Prep	Prep Start Date	Prep End Date	Prep Analyst
16C0235-04	EPA 7473 soil	03/10/2016 6:53	03/10/2016 6:53	Amanda DeBiase
16C0235-01	EPA SW846-3060	03/11/2016 11:12	03/11/2016 11:12	Stephanie Couture
16C0235-02	EPA SW846-3060	03/11/2016 11:12	03/11/2016 11:12	Stephanie Couture
16C0235-03	EPA SW846-3060	03/11/2016 11:12	03/11/2016 11:12	Stephanie Couture
16C0235-04	EPA SW846-3060	03/11/2016 11:12	03/11/2016 11:12	Stephanie Couture

Analysis Chain-of-Custody

Sample ID	Reason Analysis	Analysis Start Date	Analysis End Date	Analyst
16C0235-01	Chromium, Hexavalent	03/11/2016 11:12	03/11/2016 17:59	Stephanie Couture
16C0235-02	Chromium, Hexavalent	03/11/2016 11:12	03/11/2016 17:59	Stephanie Couture
16C0235-03	Chromium, Hexavalent	03/11/2016 11:12	03/11/2016 17:59	Stephanie Couture
16C0235-04	Chromium, Hexavalent	03/11/2016 11:12	03/11/2016 17:59	Stephanie Couture
16C0235-01	Mercury by 7473	03/10/2016 6:53	03/11/2016 6:46	Amanda DeBiase
16C0235-02	Mercury by 7473	03/10/2016 6:53	03/10/2016 16:46	Amanda DeBiase
16C0235-03	Mercury by 7473	03/10/2016 6:53	03/10/2016 16:54	Amanda DeBiase
16C0235-04	Mercury by 7473	03/10/2016 6:53	03/10/2016 17:03	Amanda DeBiase
16C0235-01	Metals, Target Analyte	03/08/2016 9:59	03/09/2016 4:02	Kassandra Velez
16C0235-02	Metals, Target Analyte	03/08/2016 9:59	03/09/2016 4:07	Kassandra Velez
16C0235-03	Metals, Target Analyte	03/08/2016 9:59	03/09/2016 4:12	Kassandra Velez
16C0235-04	Metals, Target Analyte	03/08/2016 9:59	03/09/2016 4:17	Kassandra Velez
16C0235-01	Pesticides, 8081 target list	03/10/2016 13:40	03/11/2016 17:25	Amanda M Caminiti
16C0235-02	Pesticides, 8081 target list	03/10/2016 13:40	03/11/2016 17:40	Amanda M Caminiti
16C0235-03	Pesticides, 8081 target list	03/10/2016 13:40	03/11/2016 17:55	Amanda M Caminiti
16C0235-04	Pesticides, 8081 target list	03/10/2016 13:40	03/11/2016 18:11	Amanda M Caminiti
16C0235-01	Polychlorinated Biphenyls (PCB)	03/10/2016 13:40	03/11/2016 14:37	Amanda M Caminiti
16C0235-02	Polychlorinated Biphenyls (PCB)	03/10/2016 13:40	03/11/2016 14:56	Amanda M Caminiti
16C0235-03	Polychlorinated Biphenyls (PCB)	03/10/2016 13:40	03/11/2016 15:15	Amanda M Caminiti
16C0235-04	Polychlorinated Biphenyls (PCB)	03/10/2016 13:40	03/11/2016 15:31	Amanda M Caminiti
16C0235-01	Semi-Volatiles, 8270 - Comprehensive	03/11/2016 6:56	03/11/2016 17:45	Sal Rianna
16C0235-02	Semi-Volatiles, 8270 - Comprehensive	03/11/2016 6:56	03/11/2016 17:14	Sal Rianna
16C0235-03	Semi-Volatiles, 8270 - Comprehensive	03/11/2016 6:56	03/11/2016 18:48	Sal Rianna
16C0235-04	Semi-Volatiles, 8270 - Comprehensive	03/11/2016 6:56	03/11/2016 18:16	Sal Rianna
16C0235-01	Total Solids	03/08/2016 16:29	03/09/2016 13:57	Carlos L. Santos
16C0235-02	Total Solids	03/08/2016 16:29	03/09/2016 13:57	Carlos L. Santos
16C0235-03	Total Solids	03/08/2016 16:29	03/09/2016 13:57	Carlos L. Santos
16C0235-04	Total Solids	03/08/2016 16:29	03/09/2016 13:57	Carlos L. Santos
16C0235-01	Volatile Organics, 8260 - Comprehensive	03/12/2016 15:06	03/12/2016 15:06	Steve Swift
16C0235-02	Volatile Organics, 8260 - Comprehensive	03/12/2016 15:40	03/12/2016 15:40	Steve Swift



Analysis Chain-of-Custody

Sample ID	Reason Analysis	Analysis Start Date	Analysis End Date	Analyst
16C0235-03	Volatile Organics, 8260 - Comprehens	03/12/2016 16:14	03/12/2016 16:14	Steve Swift
16C0235-04	Volatile Organics, 8260 - Comprehens	03/12/2016 16:48	03/12/2016 16:48	Steve Swift
16C0235-06	Volatile Organics, 8260 - Comprehens	03/11/2016 8:42	03/11/2016 12:18	Steve Swift



YORK
ANALYTICAL LABORATORIES INC

YORK ANALYTICAL LABORATORIES
120 RESEARCH DR.
STRATFORD, CT 06615
(203) 325-1371
FAX (203) 357-0166

Field Chain-of-Custody Record

NOTE: York's Std. Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions.

Page 1 of 1

York Project No. 16C0235

YOUR INFORMATION		Report To:		Invoice To:		YOUR PROJECT ID		Turn-Around Time		Report Type	
Company:	LANGAN	Company:		Company:		YOUR PROJECT ID	100433202	RUSH - Same Day	☐	Summary Report	
Address:	300 KIMBAUDI	Address:		Address:				RUSH - Next Day	☐	Summary w/ QA Summary	
Phone No.	973-560-4900	Phone No.		Phone No.				RUSH - Two Day	☐	CT RCP Package	
Attention:		Attention:		Attention:				RUSH - Three Day	☐	CT RCP DQ/DUE Pkg	
Contact Person:	A. FORSBERG							RUSH - Four Day	☐	NY ASP A Package	
E-Mail Address:	a.forsberg@langanlab.com									NY ASP B Package	
										NJDEP Red. Deliv.	
										Electronic Data Deliverables (EDD)	
										Simple Excel	
										NYSDEC EQuIS	
										EQuIS (std)	
										EZ-EDD (EQuIS)	
										NJDEP SRP HazSite EDD	
										GIS/KEY (std)	
										Other	
										York Regulatory Comparison	
										Excel Spreadsheet	
										Compare to the following Regs. (please fill in):	
										Brownfields Subpart	
										375-6	

Sample Identification	Date/Time Sampled	Sample Matrix	Choose Analyses Needed from the Menu Above and Enter Below	Container Description(s)
01/LSB-1	3/4/2016 1145	S	NYNDEC Part 375 VOCs SVOCs PCBs/pest metals cyanide hex chrome	1 802 4 VOA
02/LSB-1	3/4/2016 1220	S		
03/LSB-2	3/4/2016 1315	S		
04/LSB-2	3/4/2016 1330	S		
05/LSB-2	3/4/2016 1500	S		
06/TB-1	3/4/2016	S	VOCs	2 VOA
ATC				
ATC				

Comments	Temperature on Receipt
CAT B DELIVERABLE	3.6 °C

Preservation	4°C	Frozen	HCl	MeOH	HNO ₃	H ₂ O ₂	NaOH
Check those Applicable							
Special Instructions							
Field Filled ☐							
Lab to Filter ☐							

Samples Relinquished By	Date/Time	Samples Received By	Date/Time
AKubizyn	3/4/2016	AKubizyn	3/4/16 6am

York Analytical Laboratories, Inc.

SDG: 16C0235

CLASS: VOA

METHOD: EPA 8260C

DATA PACKAGE COVER PAGE

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-1

02/LSB-1

03/LSB-2

04/LSB-2

06/TB-1

Lab Sample Id:

16C0235-01

16C0235-02

16C0235-03

16C0235-04

16C0235-06

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:

3/25/2016

Title:

Laboratory Director

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 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
06/TB-1 (16C0235-06) Lab File ID: V706931.D Analyzed: 03/11/16 12:18								
1,2-Dichloroethane-d4	10.0	98.7	69 - 130	5.719				
Toluene-d8	10.0	99.8	81 - 117	7.539				
p-Bromofluorobenzene	10.0	105	79 - 122	10.31				
LCS (BC60676-BS1) Lab File ID: V5384185.D Analyzed: 03/12/16 12:15								
1,2-Dichloroethane-d4	50.0	106	77 - 125	5.5				
Toluene-d8	50.0	97.0	85 - 120	7.3				
p-Bromofluorobenzene	50.0	96.4	76 - 130	10.07				
LCS Dup (BC60676-BSD1) Lab File ID: V5384186.D Analyzed: 03/12/16 12:49								
1,2-Dichloroethane-d4	50.0	95.3	77 - 125	5.5				
Toluene-d8	50.0	96.9	85 - 120	7.3				
p-Bromofluorobenzene	50.0	99.9	76 - 130	10.07				
Blank (BC60676-BLK1) Lab File ID: V5384187.D Analyzed: 03/12/16 13:23								
1,2-Dichloroethane-d4	50.0	98.4	77 - 125	5.5				
Toluene-d8	50.0	97.5	85 - 120	7.31				
p-Bromofluorobenzene	50.0	97.2	76 - 130	10.07				
01/LSB-1 (16C0235-01) Lab File ID: V5384190.D Analyzed: 03/12/16 15:06								
1,2-Dichloroethane-d4	50.0	107	77 - 125	5.51				
Toluene-d8	50.0	109	85 - 120	7.31				
p-Bromofluorobenzene	50.0	98.7	76 - 130	10.08				
02/LSB-1 (16C0235-02) Lab File ID: V5384191.D Analyzed: 03/12/16 15:40								
1,2-Dichloroethane-d4	50.0	99.3	77 - 125	5.52				
Toluene-d8	50.0	96.6	85 - 120	7.31				
p-Bromofluorobenzene	50.0	98.5	76 - 130	10.08				
03/LSB-2 (16C0235-03) Lab File ID: V5384192.D Analyzed: 03/12/16 16:14								
1,2-Dichloroethane-d4	50.0	101	77 - 125	5.51				
Toluene-d8	50.0	98.1	85 - 120	7.32				
p-Bromofluorobenzene	50.0	97.3	76 - 130	10.08				
04/LSB-2 (16C0235-04) Lab File ID: V5384193.D Analyzed: 03/12/16 16:48								
1,2-Dichloroethane-d4	50.0	104	77 - 125	5.52				
Toluene-d8	50.0	102	85 - 120	7.31				
p-Bromofluorobenzene	50.0	113	76 - 130	10.08				

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Sequence: Y6C1426 Instrument: MSVOA7
 Matrix: Water Calibration: UNASSIGNED

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
LCS (BC60625-BS1) Lab File ID: V706925.D Analyzed: 03/11/16 09:43								
1,2-Dichloroethane-d4	10.0	97.9	69 - 130	5.714				
Toluene-d8	10.0	101	81 - 117	7.539				
p-Bromofluorobenzene	10.0	101	79 - 122	10.31				
LCS Dup (BC60625-BSD1) Lab File ID: V706926.D Analyzed: 03/11/16 10:09								
1,2-Dichloroethane-d4	10.0	97.8	69 - 130	5.717				
Toluene-d8	10.0	100	81 - 117	7.539				
p-Bromofluorobenzene	10.0	99.7	79 - 122	10.31				
Blank (BC60625-BLK1) Lab File ID: V706928.D Analyzed: 03/11/16 11:00								
1,2-Dichloroethane-d4	10.0	99.1	69 - 130	5.72				
Toluene-d8	10.0	99.4	81 - 117	7.539				
p-Bromofluorobenzene	10.0	104	79 - 122	10.31				

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60625Laboratory ID: BC60625-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	107	82 - 126
1,1,1-Trichloroethane	10.0	11	108	78 - 136
1,1,2,2-Tetrachloroethane	10.0	10	104	76 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.0	11	108	54 - 165
1,1,2-Trichloroethane	10.0	10	103	82 - 123
1,1-Dichloroethane	10.0	11	108	82 - 129
1,1-Dichloroethylene	10.0	11	112	68 - 138
1,1-Dichloropropylene	10.0	11	111	83 - 133
1,2,3-Trichlorobenzene	10.0	10	103	76 - 136
1,2,3-Trichloropropane	10.0	10	105	77 - 128
1,2,4-Trichlorobenzene	10.0	10	104	76 - 137
1,2,4-Trimethylbenzene	10.0	11	112	82 - 132
1,2-Dibromo-3-chloropropane	10.0	9.5	95.3	45 - 147
1,2-Dibromoethane	10.0	10	103	83 - 124
1,2-Dichlorobenzene	10.0	11	114	79 - 123
1,2-Dichloroethane	10.0	10	105	73 - 132
1,2-Dichloropropane	10.0	11	105	78 - 126
1,3,5-Trimethylbenzene	10.0	11	113	80 - 131
1,3-Dichlorobenzene	10.0	12	117	86 - 122
1,3-Dichloropropane	10.0	10	103	81 - 125
1,4-Dichlorobenzene	10.0	12	117	85 - 124
1,4-Dioxane	200	200	100	10 - 349
2,2-Dichloropropane	10.0	11	109	56 - 150
2-Butanone	10.0	8.9	89.4	49 - 152
2-Chlorotoluene	10.0	12	117	79 - 130
2-Hexanone	10.0	9.2	92.2	51 - 146
4-Chlorotoluene	10.0	12	120	79 - 128
4-Methyl-2-pentanone	10.0	9.5	95.3	57 - 145
Acetone	10.0	7.5	75.1	14 - 150
Acrolein	10.0	11	111	10 - 153

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60625Laboratory ID: BC60625-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	10	104	51 - 150
Benzene	10.0	11	108	85 - 126
Bromobenzene	10.0	11	106	78 - 129
Bromochloromethane	10.0	11	111	77 - 128
Bromodichloromethane	10.0	10	102	79 - 128
Bromoform	10.0	9.7	97.2	78 - 133
Bromomethane	10.0	11	112	43 - 168
Carbon disulfide	10.0	11	107	68 - 146
Carbon tetrachloride	10.0	11	109	77 - 141
Chlorobenzene	10.0	11	112	88 - 120
Chloroethane	10.0	12	117	65 - 136
Chloroform	10.0	11	106	82 - 128
Chloromethane	10.0	11	113	43 - 155
cis-1,2-Dichloroethylen	10.0	11	108	83 - 129
cis-1,3-Dichloropropylene	10.0	11	106	80 - 131
Cyclohexane	10.0	11	110	63 - 149
Dibromochloromethane	10.0	10	104	80 - 130
Dibromomethane	10.0	10	101	72 - 134
Dichlorodifluoromethane	10.0	13	134	44 - 144
Ethyl Benzene	10.0	11	111	80 - 131
Hexachlorobutadiene	10.0	11	114	67 - 146
Isopropylbenzene	10.0	12	122	76 - 140
Methyl acetate	10.0	10	102	51 - 139
Methyl tert-butyl ether (MTBE)	10.0	10	103	76 - 135
Methylcyclohexane	10.0	11	110	72 - 143
Methylene chloride	10.0	10	103	55 - 137
n-Butylbenzene	10.0	12	115	79 - 132
n-Propylbenzene	10.0	12	121	78 - 133
o-Xylene	10.0	12	117	78 - 130
p- & m- Xylenes	20.0	23	115	77 - 133

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60625Laboratory ID: BC60625-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	115	81 - 136
sec-Butylbenzene	10.0	12	124	79 - 137
Styrene	10.0	10	105	67 - 132
tert-Butyl alcohol (TBA)	10.0	9.4	93.7	25 - 162
tert-Butylbenzene	10.0	12	120	77 - 138
Tetrachloroethylene	10.0	11	106	82 - 131
Toluene	10.0	10	104	80 - 127
trans-1,2-Dichloroethylene	10.0	11	112	80 - 132
trans-1,3-Dichloropropylene	10.0	10	105	78 - 131
Trichloroethylene	10.0	11	110	82 - 128
Trichlorofluoromethane	10.0	12	119	67 - 139
Vinyl acetate	10.0	11	106 *	21 - 90
Vinyl Chloride	10.0	12	121	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: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60625Laboratory ID: BC60625-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	11	108	0.651	30	82 - 126
1,1,1-Trichloroethane	10.0	10	100	7.76	30	78 - 136
1,1,2,2-Tetrachloroethane	10.0	11	105	1.82	30	76 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.7	97.2	10.2	30	54 - 165
1,1,2-Trichloroethane	10.0	11	107	3.52	30	82 - 123
1,1-Dichloroethane	10.0	10	104	3.79	30	82 - 129
1,1-Dichloroethylene	10.0	10	103	8.10	30	68 - 138
1,1-Dichloropropylene	10.0	10	102	8.26	30	83 - 133
1,2,3-Trichlorobenzene	10.0	11	108	4.76	30	76 - 136
1,2,3-Trichloropropane	10.0	11	108	3.19	30	77 - 128
1,2,4-Trichlorobenzene	10.0	11	106	1.90	30	76 - 137
1,2,4-Trimethylbenzene	10.0	11	107	4.47	30	82 - 132
1,2-Dibromo-3-chloropropane	10.0	9.9	99.3	4.11	30	45 - 147
1,2-Dibromoethane	10.0	10	105	1.93	30	83 - 124
1,2-Dichlorobenzene	10.0	11	112	2.03	30	79 - 123
1,2-Dichloroethane	10.0	11	107	1.89	30	73 - 132
1,2-Dichloropropane	10.0	11	105	0.285	30	78 - 126
1,3,5-Trimethylbenzene	10.0	11	108	4.98	30	80 - 131
1,3-Dichlorobenzene	10.0	11	114	2.59	30	86 - 122
1,3-Dichloropropane	10.0	11	106	2.86	30	81 - 125
1,4-Dichlorobenzene	10.0	11	113	3.14	30	85 - 124
1,4-Dioxane	200	180	92.1	8.51	30	10 - 349
2,2-Dichloropropane	10.0	10	102	7.10	30	56 - 150
2-Butanone	10.0	9.6	96.5	7.64	30	49 - 152
2-Chlorotoluene	10.0	11	112	4.27	30	79 - 130
2-Hexanone	10.0	9.9	99.2	7.31	30	51 - 146
4-Chlorotoluene	10.0	11	114	4.27	30	79 - 128
4-Methyl-2-pentanone	10.0	10	101	5.71	30	57 - 145
Acetone	10.0	7.9	78.6	4.55	30	14 - 150
Acrolein	10.0	11	111	0.180	30	10 - 153

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60625Laboratory ID: BC60625-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	10	104	0.289	30	51 - 150
Benzene	10.0	10	104	3.76	30	85 - 126
Bromobenzene	10.0	10	105	1.33	30	78 - 129
Bromoethanol	10.0	11	107	3.12	30	77 - 128
Bromodichloromethane	10.0	10	102	0.588	30	79 - 128
Bromoform	10.0	10	102	5.31	30	78 - 133
Bromomethane	10.0	10	103	7.99	30	43 - 168
Carbon disulfide	10.0	10	100	6.76	30	68 - 146
Carbon tetrachloride	10.0	10	101	7.55	30	77 - 141
Chlorobenzene	10.0	11	110	1.80	30	88 - 120
Chloroethane	10.0	11	108	7.64	30	65 - 136
Chloroform	10.0	10	103	2.49	30	82 - 128
Chloromethane	10.0	11	111	1.43	30	43 - 155
cis-1,2-Dichloroethylene	10.0	11	106	2.15	30	83 - 129
cis-1,3-Dichloropropylene	10.0	11	107	0.468	30	80 - 131
Cyclohexane	10.0	10	99.7	9.46	30	63 - 149
Dibromochloromethane	10.0	11	106	2.38	30	80 - 130
Dibromomethane	10.0	10	104	2.63	30	72 - 134
Dichlorodifluoromethane	10.0	12	120	11.2	30	44 - 144
Ethyl Benzene	10.0	11	108	3.56	30	80 - 131
Hexachlorobutadiene	10.0	11	110	3.38	30	67 - 146
Isopropylbenzene	10.0	11	114	6.45	30	76 - 140
Methyl acetate	10.0	11	106	3.46	30	51 - 139
Methyl tert-butyl ether (MTBE)	10.0	11	106	2.11	30	76 - 135
Methyleyclohexane	10.0	10	104	5.82	30	72 - 143
Methylene chloride	10.0	10	102	0.879	30	55 - 137
n-Butylbenzene	10.0	11	109	5.61	30	79 - 132
n-Propylbenzene	10.0	11	114	5.69	30	78 - 133
o-Xylene	10.0	11	115	2.07	30	78 - 130
p- & m- Xylenes	20.0	22	112	2.72	30	77 - 133

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Water

Batch: BC60625

Laboratory ID: BC60625-BSD1

Preparation: EPA 5030B

Initial/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	108	6.56	30	81 - 136
sec-Butylbenzene	10.0	12	116	6.50	30	79 - 137
Styrene	10.0	10	105	0.0954	30	67 - 132
tert-Butyl alcohol (TBA)	10.0	8.9	89.2	4.92	30	25 - 162
tert-Butylbenzene	10.0	11	114	5.29	30	77 - 138
Tetrachloroethylen	10.0	10	101	4.82	30	82 - 131
Tolucnc	10.0	10	101	2.54	30	80 - 127
trans-1,2-Dichloroethylene	10.0	10	104	7.04	30	80 - 132
trans-1,3-Dichloropropylene	10.0	11	106	1.52	30	78 - 131
Trichloroethylene	10.0	10	105	4.47	30	82 - 128
Trichlorofluoromethane	10.0	11	106	11.4	30	67 - 139
Vinyl acetate	10.0	11	106 *	0.00	30	21 - 90
Vinyl Chloride	10.0	11	112	7.45	30	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: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60676Laboratory ID: BC60676-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	47	94.9	75 - 129
1,1,1-Trichloroethane	50.0	49	97.3	71 - 137
1,1,2,2-Tetrachloroethane	50.0	45	89.3	79 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	50.0	49	98.8	58 - 146
1,1,2-Trichloroethane	50.0	47	93.6	83 - 123
1,1-Dichloroethane	50.0	50	101	75 - 130
1,1-Dichloroethylene	50.0	46	92.0	64 - 137
1,1-Dichloropropylene	50.0	49	98.0	77 - 127
1,2,3-Trichlorobenzene	50.0	47	93.4	81 - 140
1,2,3-Trichloropropane	50.0	44	89.0	81 - 126
1,2,4-Trichlorobenzene	50.0	47	94.9	80 - 141
1,2,4-Trimethylbenzene	50.0	45	89.9	84 - 125
1,2-Dibromo-3-chloropropane	50.0	49	98.1	74 - 142
1,2-Dibromoethane	50.0	49	98.9	86 - 123
1,2-Dichlorobenzene	50.0	49	97.1	85 - 122
1,2-Dichloroethane	50.0	51	101	71 - 133
1,2-Dichloropropane	50.0	46	91.8	81 - 122
1,3,5-Trimethylbenzene	50.0	44	87.3	82 - 126
1,3-Dichlorobenzene	50.0	47	94.7	84 - 124
1,3-Dichloropropane	50.0	48	95.8	83 - 123
1,4-Dichlorobenzene	50.0	47	93.2	84 - 124
1,4-Dioxane	1000	1200	116	10 - 228
2,2-Dichloropropane	50.0	48	95.4	67 - 136
2-Butanone	50.0	47	93.1	58 - 147
2-Chlorotoluene	50.0	47	93.0	78 - 127
2-Hexanone	50.0	48	96.8	70 - 139
4-Chlorotoluene	50.0	47	93.6	79 - 125
4-Methyl-2-pentanone	50.0	48	96.2	72 - 132
Acetone	50.0	50	100	36 - 155
Acrolein	50.0	32	64.1	10 - 238

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60676Laboratory ID: BC60676-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	49	97.3	66 - 141
Benzene	50.0	49	98.0	77 - 127
Bromobenzene	50.0	45	90.6	77 - 129
Bromochloromethane	50.0	46	91.0	74 - 129
Bromodichloromethane	50.0	47	93.6	81 - 124
Bromoform	50.0	45	89.2	80 - 136
Bromomethane	50.0	53	107	32 - 177
Carbon disulfide	50.0	47	94.5	10 - 136
Carbon tetrachloride	50.0	48	95.9	66 - 143
Chlorobenzene	50.0	46	91.5	86 - 120
Chloroethane	50.0	52	104	51 - 142
Chloroform	50.0	49	97.6	76 - 131
Chloromethane	50.0	53	106	49 - 132
cis-1,2-Dichloroethylene	50.0	47	94.4	74 - 132
cis-1,3-Dichloropropylene	50.0	46	91.9	81 - 129
Cyclohexane	50.0	51	102	70 - 130
Dibromochloromethane	50.0	49	97.1	10 - 200
Dibromomethane	50.0	47	94.3	83 - 124
Dichlorodifluoromethane	50.0	46	91.2	28 - 158
Ethyl Benzene	50.0	46	92.8	84 - 125
Hexachlorobutadiene	50.0	46	92.9	83 - 133
Isopropylbenzene	50.0	45	89.4	81 - 127
Methyl acetate	50.0	55	110	41 - 143
Methyl tert-butyl ether (MTBE)	50.0	51	102	74 - 131
Methylcyclohexane	50.0	47	93.5	70 - 130
Methylene chloride	50.0	48	95.6	57 - 141
n-Butylbenzene	50.0	46	91.5	80 - 130
n-Propylbenzene	50.0	45	89.4	74 - 136
o-Xylene	50.0	48	95.7	83 - 123
p- & m- Xylenes	100	91	91.3	82 - 128

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil
 Batch: BC60676 Laboratory ID: BC60676-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	45	90.6	85 - 125
sec-Butylbenzene	50.0	45	89.4	83 - 125
Styrene	50.0	48	95.0	86 - 126
tert-Butyl alcohol (TBA)	50.0	57	115	70 - 130
tert-Butylbenzene	50.0	46	91.2	80 - 127
Tetrachloroethylene	50.0	44	88.6	80 - 129
Toluene	50.0	45	91.0	85 - 121
trans-1,2-Dichloroethylene	50.0	49	98.4	72 - 132
trans-1,3-Dichloropropylene	50.0	44	87.6	78 - 132
Trichloroethylene	50.0	46	92.2	84 - 123
Trichlorofluoromethane	50.0	51	102	62 - 140
Vinyl acetate	50.0	56	111	67 - 136
Vinyl Chloride	50.0	53	107	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: 16C0235

 Client: Langan Engineering & Environmental Services (NJ)

 Project: 100433202

 Matrix: Soil

 Batch: BC60676

 Laboratory ID: BC60676-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.
1,1,1,2-Tetrachloroethane	50.0	49	98.8	3.96	30	75 - 129
1,1,1-Trichloroethane	50.0	48	96.7	0.619	30	71 - 137
1,1,2,2-Tetrachloroethane	50.0	47	94.1	5.23	30	79 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	49	97.1	1.74	30	58 - 146
1,1,2-Trichloroethane	50.0	48	95.8	2.26	30	83 - 123
1,1-Dichloroethane	50.0	49	98.0	2.86	30	75 - 130
1,1-Dichloroethylene	50.0	47	94.2	2.39	30	64 - 137
1,1-Dichloropropylene	50.0	50	99.8	1.82	30	77 - 127
1,2,3-Trichlorobenzene	50.0	49	97.3	4.15	30	81 - 140
1,2,3-Trichloropropane	50.0	47	93.5	4.91	30	81 - 126
1,2,4-Trichlorobenzene	50.0	50	99.3	4.51	30	80 - 141
1,2,4-Trimethylbenzene	50.0	48	95.0	5.49	30	84 - 125
1,2-Dibromo-3-chloropropane	50.0	49	99.0	0.914	30	74 - 142
1,2-Dibromoethane	50.0	49	98.7	0.142	30	86 - 123
1,2-Dichlorobenzene	50.0	50	99.7	2.62	30	85 - 122
1,2-Dichloroethane	50.0	49	98.1	3.17	30	71 - 133
1,2-Dichloropropane	50.0	48	95.6	4.05	30	81 - 122
1,3,5-Trimethylbenzene	50.0	49	97.7	11.3	30	82 - 126
1,3-Dichlorobenzene	50.0	50	101	6.18	30	84 - 124
1,3-Dichloropropane	50.0	49	98.7	3.00	30	83 - 123
1,4-Dichlorobenzene	50.0	50	101	7.97	30	84 - 124
1,4-Dioxane	1000	1000	100	14.5	30	10 - 228
2,2-Dichloropropane	50.0	48	95.2	0.168	30	67 - 136
2-Butanone	50.0	44	87.5	6.11	30	58 - 147
2-Chlorotoluene	50.0	50	100	7.37	30	78 - 127
2-Hexanone	50.0	48	95.0	1.90	30	70 - 139
4-Chlorotoluene	50.0	51	101	7.68	30	79 - 125
4-Methyl-2-pentanone	50.0	47	94.0	2.29	30	72 - 132
Acetone	50.0	44	87.0	13.9	30	36 - 155
Acrolein	50.0	34	67.3	4.81	30	10 - 238

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60676Laboratory ID: BC60676-BSD1Preparation: EPA 5035AInitial/Final: 5 g / 5 ml

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Acrylonitrile	50.0	49	98.8	1.59	30	66 - 141
Benzene	50.0	47	93.2	4.98	30	77 - 127
Bromobenzene	50.0	47	95.0	4.68	30	77 - 129
Bromochloromethane	50.0	53	106	15.1	30	74 - 129
Bromodichloromethane	50.0	47	94.2	0.639	30	81 - 124
Bromoform	50.0	47	93.8	4.98	30	80 - 136
Bromomethane	50.0	53	107	0.0562	30	32 - 177
Carbon disulfide	50.0	47	94.1	0.466	30	10 - 136
Carbon tetrachloride	50.0	48	96.5	0.582	30	66 - 143
Chlorobenzene	50.0	50	99.9	8.74	30	86 - 120
Chloroethane	50.0	53	107	2.49	30	51 - 142
Chloroform	50.0	48	95.2	2.55	30	76 - 131
Chloromethane	50.0	53	105	0.247	30	49 - 132
cis-1,2-Dichloroethylene	50.0	48	96.9	2.59	30	74 - 132
cis-1,3-Dichloropropylene	50.0	47	93.1	1.32	30	81 - 129
Cyclohexane	50.0	50	101	0.928	30	70 - 130
Dibromochloromethane	50.0	49	97.7	0.534	30	10 - 200
Dibromomethane	50.0	46	92.2	2.21	30	83 - 124
Dichlorodifluoromethane	50.0	47	93.6	2.62	30	28 - 158
Ethyl Benzene	50.0	49	98.8	6.24	30	84 - 125
Hexachlorobutadiene	50.0	50	101	8.18	30	83 - 133
Isopropylbenzene	50.0	49	97.8	8.95	30	81 - 127
Methyl acetate	50.0	45	89.0	21.4	30	41 - 143
Methyl tert-butyl ether (MTBE)	50.0	49	97.5	4.96	30	74 - 131
Methylcyclohexane	50.0	51	101	8.04	30	70 - 130
Methylene chloride	50.0	46	92.0	3.84	30	57 - 141
n-Butylbenzene	50.0	49	97.8	6.70	30	80 - 130
n-Propylbenzene	50.0	49	98.1	9.28	30	74 - 136
o-Xylene	50.0	49	98.5	2.88	30	83 - 123
p- & m- Xylenes	100	98	97.5	6.55	30	82 - 128

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60676Laboratory ID: BC60676-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	48	96.3	6.08	30	85 - 125
sec-Butylbenzene	50.0	49	97.1	8.26	30	83 - 125
Styrene	50.0	48	96.1	1.17	30	86 - 126
tert-Butyl alcohol (TBA)	50.0	53	107	7.37	30	70 - 130
tert-Butylbenzene	50.0	49	97.2	6.37	30	80 - 127
Tetrachloroethylene	50.0	47	93.3	5.21	30	80 - 129
Toluene	50.0	47	94.2	3.50	30	85 - 121
trans-1,2-Dichloroethylene	50.0	49	98.6	0.203	30	72 - 132
trans-1,3-Dichloropropylene	50.0	46	91.2	3.98	30	78 - 132
Trichloroethylene	50.0	48	96.5	4.49	30	84 - 123
Trichlorofluoromethane	50.0	51	102	0.255	30	62 - 140
Vinyl acetate	50.0	53	107	4.00	30	67 - 136
Vinyl Chloride	50.0	54	107	0.655	30	52 - 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 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60625-BLK1 File ID: V706928.D
 Prepared: 03/11/16 08:42 Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Analyzed: 03/11/16 11:00 Instrument: MSVOA7
 Batch: BC60625 Sequence: Y6C1426 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-Dichloroethane	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	0.50	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	40	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	0.50	U
106-43-4	4-Chlorotoluene	0.50	U
108-10-1	4-Methyl-2-pentanone	0.50	U
67-64-1	Acetone	2.0	U
107-02-8	Acrolein	0.50	U

FORM I

METHOD BLANK DATA SHEET

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60625-BLK1 File ID: V706928.D
 Prepared: 03/11/16 08:42 Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Analyzed: 03/11/16 11:00 Instrument: MSVOA7
 Batch: BC60625 Sequence: Y6C1426 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (ug/L)	Q
107-13-1	Acrylonitrile	0.50	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: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60625-BLK1 File ID: V706928.D
 Prepared: 03/11/16 08:42 Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Analyzed: 03/11/16 11:00 Instrument: MSVOA7
 Batch: BC60625 Sequence: Y6C1426 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)	1.0	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	9.91	99.1	69 - 130	
Toluene-d8	10.0	9.94	99.4	81 - 117	
p-Bromofluorobenzene	10.0	10.4	104	79 - 122	

FORM I

METHOD BLANK DATA SHEET
EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60676-BLK1 File ID: V5384187.D
 Prepared: 03/12/16 13:23 Preparation: EPA 5035A Initial/Final: 5 g / 5 ml
 Analyzed: 03/12/16 13:23 Instrument: VOA No. 5
 Batch: BC60676 Sequence: Calibration:

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: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60676-BLK1 File ID: V5384187.D
 Prepared: 03/12/16 13:23 Preparation: EPA 5035A Initial/Final: 5 g / 5 ml
 Analyzed: 03/12/16 13:23 Instrument: VOA No. 5
 Batch: BC60676 Sequence: Calibration:

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: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60676-BLK1 File ID: V5384187.D
 Prepared: 03/12/16 13:23 Preparation: EPA 5035A Initial/Final: 5 g / 5 ml
 Analyzed: 03/12/16 13:23 Instrument: VOA No. 5
 Batch: BC60676 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
99-87-6	p-Isopropyltoluenc	0.0050	U
135-98-8	scc-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-Butylbenzenc	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-Dichloropropylenc	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	49.2	98.4	77 - 125	
Toluene-d8	50.0	48.8	97.5	85 - 120	
p-Bromofluorobenzene	50.0	48.6	97.2	76 - 130	

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

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60625 Batch Matrix: Water Preparation: EPA 5030B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
06/TB-1	16C0235-06	V706931.D	03/11/16 08:42	
Blank	BC60625-BLK1	V706928.D	03/11/16 08:42	
LCS	BC60625-BS1	V706925.D	03/11/16 08:42	
LCS Dup	BC60625-BSD1	V706926.D	03/11/16 08:42	

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

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60676 Batch Matrix: Soil Preparation: EPA 5035A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-1	16C0235-01	V5384190.D	03/12/16 15:06	
02/LSB-1	16C0235-02	V5384191.D	03/12/16 15:40	
03/LSB-2	16C0235-03	V5384192.D	03/12/16 16:14	
04/LSB-2	16C0235-04	V5384193.D	03/12/16 16:48	
Blank	BC60676-BLK1	V5384187.D	03/12/16 13:23	
LCS	BC60676-BS1	V5384185.D	03/12/16 12:15	
LCS Dup	BC60676-BSD1	V5384186.D	03/12/16 12:49	

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

Lab Name: York Analytical Laboratories, Inc.
 Client: Langan Engineering & Environmental Services (NJ)
 Lab File ID: V706882.D
 Instrument ID: VOA No. 7
 Calibration: V7LO0049

SDG: 16C0235
 Project: 100433202
 BFB Injection Date: 03/10/16
 BFB Injection Time: 07:48
 Sequence: QBV7031016A

m/e	Ion Abundance Criteria	% Relative Abundance	
50	15.0-40.0% of mass 95	17.7	
75	30.0-60.0% of mass 95	45.8	
95	Base peak, 100% relative abundance	100.0	
96	5.0-9.0% of mass 95	6.7	
173	Less than 2.0% of mass 174	0.0	82.0 1
174	50.0-100.0% of mass 95	82.0	
175	5.0-9.0% of mass 174	7.8	82 1
176	95.0-101.0% of mass 174	99.6	82 1
177	5.0-9.0% of mass 176	6.7	99.6 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 LEVEL 1	V706888.D	03/10/16	11:20
2		VOA CALIBRATION LEVEL 2	V706889.D	03/10/16	11:46
3		VOA CALIBRATION LEVEL 3	V706890.D	03/10/16	12:12
4		VOA CALIBRATION LEVEL 4	V706891.D	03/10/16	12:38
5		VOA CALIBRATION LEVEL 5	V706892.D	03/10/16	13:04
6		VOA CALIBRATION LEVEL 6	V706893.D	03/10/16	13:29
7		VOA CALIBRATION LEVEL 7	V706894.D	03/10/16	13:55
8		VOA CALIBRATION LEVEL 8	V706895.D	03/10/16	14:21
9		VOA CALIBRATION LEVEL 9	V706896.D	03/10/16	14:46
10		ICV 1	V706898.D	03/10/16	15:38
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: V5384111C.D
 Instrument ID: VOA No. 5
 Calibration: V5C00149

SDG: 16C0235
 Project: 100433202
 BFB Injection Date: 03/10/16
 BFB InjectionTime: 13:22
 Sequence: QBV5031016A

m/e	Ion Abundance Criteria	% Relative Abundance	
50	15.0-40.0% of mass 95	25.2	
75	30.0-60.0% of mass 95	50.0	
95	Base peak, 100% relative abundance	100.0	
96	5.0-9.0% of mass 95	6.9	
173	Less than 2.0% of mass 174	0.0	82.1 1
174	50.0-100.0% of mass 95	82.1	
175	5.0-9.0% of mass 174	7.7	82.1 1
176	95.0-101.0% of mass 174	95.5	82.1 1
177	5.0-9.0% of mass 176	6.6	95.5 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	V5384112C.D	03/10/16	13:56
2		10 ppb VOA CALIBRATION STD	V5384113C.D	03/10/16	14:30
3		20 ppb VOA CALIBRATION STD	V5384114C.D	03/10/16	15:04
4		50 ppb VOA CALIBRATION STD	V5384115C.D	03/10/16	15:39
5		100 ppb VOA CALIBRATION STD	V5384116C.D	03/10/16	16:13
6		200 ppb VOA CALIBRATION STD	V5384117C.D	03/10/16	16:47
7		ICV	V5384119C.D	03/10/16	17:56
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: V706922.D
 Instrument ID: VOA No. 7
 Calibration: V7LO0049

SDG: 16C0235
 Project: 100433202
 BFB Injection Date: 03/11/16
 BFB Injection Time: 08:03
 Sequence: QBV7031116A

m/e	Ion Abundance Criteria	% Relative Abundance	
50	15.0-40.0% of mass 95	17.3	
75	30.0-60.0% of mass 95	47.2	
95	Base peak, 100% relative abundance	100.0	
96	5.0-9.0% of mass 95	6.6	
173	Less than 2.0% of mass 174	0.0	86.6 1
174	50.0-100.0% of mass 95	86.6	
175	5.0-9.0% of mass 174	8.0	86.6 1
176	95.0-101.0% of mass 174	99.6	86.6 1
177	5.0-9.0% of mass 176	6.4	99.6 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	V706923.D	03/11/16	08:31
2		BC60625-BS1	V706925.D	3/11/2016	09:43
3		BC60625-BSD1	V706926.D	3/11/2016	10:09
4		BC60625-BLK1	V706928.D	3/11/2016	11:00
5	06/TB-1	16C0235-06	V706931.D	3/11/2016	12:18
6					
7					
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: V5384183C.D
 Instrument ID: VOA No. 5
 Calibration: V5C00149

SDG: 16C0235
 Project: 100433202
 BFB Injection Date: 03/12/16
 BFB InjectionTime: 11:08
 Sequence: QBV5031216A

m/e	Ion Abundance Criteria	% Relative Abundance	
50	15.0-40.0% of mass 95	24.3	
75	30.0-60.0% of mass 95	50.2	
95	Base peak, 100% relative abundance	100.0	
96	5.0-9.0% of mass 95	7.4	
173	Less than 2.0% of mass 174	0.0	84.4 1
174	50.0-100.0% of mass 95	84.4	
175	5.0-9.0% of mass 174	5.0	84.4 1
176	95.0-101.0% of mass 174	96.8	84.4 1
177	5.0-9.0% of mass 176	6.2	96.8 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	V5384184.D	03/12/16	11:39
2		BC60676-BS1	V5384185.D	3/12/2016	12:15
3		BC60676-BSD1	V5384186.D	3/12/2016	12:49
4		BC60676-BLK1	V5384187.D	3/12/2016	13:23
5	01/LSB-1	16C0235-01	V5384190.D	3/12/2016	15:06
6	02/LSB-1	16C0235-02	V5384191.D	3/12/2016	15:40
7	03/LSB-2	16C0235-03	V5384192.D	3/12/2016	16:14
8	04/LSB-2	16C0235-04	V5384193.D	3/12/2016	16:48
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Form 8A

Lab Name: York Analytical Laboratories, Inc.
Client: Langan Engineering & Environmental Services (NJ)
Sequence: QBV7031116A
Calibration: V7LO0049
Lab File ID: V706923.D

SDG: 16C0235
Project: 100433202
Instrument ID: VOA No. 7
Injection Date: 03/11/16
Injection Time: 08:31

[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

Form 8A

Lab Name: York Analytical Laboratories, Inc
Client: Langan Engineering & Environmental Services (NJ)
Sequence: QBV5031216A
Calibration: V5C00149
Lab File ID: V5384184.D

SDG: 16C0235
Project: 100433202
Instrument ID: VOA No. 5
Injection Date: 03/12/16
InjectionTime: 11:39

[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: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Water

Instrument:

Analyte	LOD	LOQ	Units
1,1,1,2-Tetrachloroethane	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,1,1-Trichloroethane	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,1,2,2-Tetrachloroethane	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,1,2-Trichloroethane	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
1,1-Dichloroethane	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,1-Dichloroethylene	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,1-Dichloropropylene	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,2,3-Trichlorobenzene	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,2,3-Trichloropropane	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,2,4-Trichlorobenzene	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,2,4-Trimethylbenzene	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,2-Dibromo-3-chloropropane	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,2-Dibromoethane	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,2-Dichlorobenzene	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,2-Dichloroethane	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,2-Dichloropropane	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,3,5-Trimethylbenzene	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,3-Dichlorobenzene	0.20	0.50	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument:

Analyte	LOD	LOQ	Units
1,3-Dichlorobenzene	0.0025	0.0050	mg/kg
1,3-Dichloropropane	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,4-Dichlorobenzene	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
1,4-Dioxane	40	40	ug/L
	0.050	0.10	mg/kg
2,2-Dichloropropane	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
2-Butanone	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
2-Chlorotoluene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
2-Hexanone	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
4-Chlorotoluene	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
4-Methyl-2-pentanone	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
Acetone	1.0	2.0	ug/L
	0.0050	0.010	mg/kg
Acrolein	0.20	0.50	ug/L
	0.0050	0.010	mg/kg
Acrylonitrile	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Benzene	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
Bromobenzene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Bromochloromethane	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Bromodichloromethane	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Bromoform	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Bromomethane	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument:

Analyte	LOD	LOQ	Units
Carbon disulfide	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Carbon tetrachloride	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
Chlorobenzene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Chloroethane	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Chloroform	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Chloromethane	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
cis-1,2-Dichloroethylene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
cis-1,3-Dichloropropylene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Cyclohexane	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Dibromochloromethane	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Dibromomethane	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Dichlorodifluoromethane	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Ethyl Benzene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Hexachlorobutadiene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Isopropylbenzene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Methyl acetate	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Methyl tert-butyl ether (MTBE)	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Methylcyclohexane	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Methylene chloride	0.0050	0.010	mg/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Water

Instrument:

Analyte	LOD	LOQ	Units
Methylene chloride	1.0	2.0	ug/L
n-Butylbenzene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
n-Propylbenzene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
o-Xylene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
p- & m- Xylenes	0.0050	0.010	mg/kg
	0.50	1.0	ug/L
p-Isopropyltoluene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
sec-Butylbenzene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Styrene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
tert-Butyl alcohol (TBA)	0.0025	0.0050	mg/kg
	0.50	1.0	ug/L
tert-Butylbenzene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Tetrachloroethylene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Toluene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
trans-1,2-Dichloroethylene	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
trans-1,3-Dichloropropylene	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
Trichloroethylene	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Trichlorofluoromethane	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
Vinyl acetate	0.20	0.50	ug/L
	0.0025	0.0050	mg/kg
Vinyl Chloride	0.0025	0.0050	mg/kg
	0.20	0.50	ug/L
Xylenes, Total	0.0075	0.015	mg/kg
	0.60	1.5	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Water

Instrument: MSVOA7

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: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Water

Instrument: MSVOA7

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
Methylcyclohexane	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: 16C0235

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-1	03/04/16 11:45	03/07/16 17:45	03/12/16 15:06	8.14	14.00	03/12/16 15:06	8.14	14.00	
02/LSB-1	03/04/16 12:20	03/07/16 17:45	03/12/16 15:40	8.14	14.00	03/12/16 15:40	8.14	14.00	
03/LSB-2	03/04/16 13:15	03/07/16 17:45	03/12/16 16:14	8.12	14.00	03/12/16 16:14	8.12	14.00	
04/LSB-2	03/04/16 13:30	03/07/16 17:45	03/12/16 16:48	8.14	14.00	03/12/16 16:48	8.14	14.00	
06/TB-1	03/04/16 00:00	03/07/16 17:45	03/11/16 08:42	7.36	14.00	03/11/16 12:18	7.51	14.00	

FORM I

ORGANIC ANALYSIS DATA SHEET

01/LSB-1

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-01 File ID: V5384190.D
 Sampled: 03/04/16 11:45 Prepared: 03/12/16 15:06 Analyzed: 03/12/16 15:06
 Solids: 88.84 Preparation: EPA 5035A Initial/Final: 4.26 g / 5 ml
 Batch: BC60676 Sequence: Calibration: Instrument: VOA No. 5

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
630-20-6	1,1,1,2-Tetrachloroethane	1	0.0066	U
71-55-6	1,1,1-Trichloroethane	1	0.0066	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.0066	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1	0.0066	U
79-00-5	1,1,2-Trichloroethane	1	0.0066	U
75-34-3	1,1-Dichloroethane	1	0.0066	U
75-35-4	1,1-Dichloroethylene	1	0.0066	U
563-58-6	1,1-Dichloropropylene	1	0.0066	U
87-61-6	1,2,3-Trichlorobenzene	1	0.0066	U
96-18-4	1,2,3-Trichloropropane	1	0.0066	U
120-82-1	1,2,4-Trichlorobenzene	1	0.0066	U
95-63-6	1,2,4-Trimethylbenzene	1	0.0066	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.0066	U
106-93-4	1,2-Dibromoethane	1	0.0066	U
95-50-1	1,2-Dichlorobenzene	1	0.0066	U
107-06-2	1,2-Dichloroethane	1	0.0066	U
78-87-5	1,2-Dichloropropane	1	0.0066	U
108-67-8	1,3,5-Trimethylbenzene	1	0.0066	U
541-73-1	1,3-Dichlorobenzene	1	0.0066	U
142-28-9	1,3-Dichloropropane	1	0.0066	U
106-46-7	1,4-Dichlorobenzene	1	0.0066	U
123-91-1	1,4-Dioxane	1	0.13	U
594-20-7	2,2-Dichloropropane	1	0.0066	U
78-93-3	2-Butanone	1	0.0066	U
95-49-8	2-Chlorotoluene	1	0.0066	U
591-78-6	2-Hexanone	1	0.0066	U
106-43-4	4-Chlorotoluene	1	0.0066	U
108-10-1	4-Methyl-2-pentanone	1	0.0066	U
67-64-1	Acetone	1	0.013	U
107-02-8	Acrolein	1	0.013	U
107-13-1	Acrylonitrile	1	0.0066	U
71-43-2	Benzene	1	0.0066	U
108-86-1	Bromobenzene	1	0.0066	U
74-97-5	Bromochloromethane	1	0.0066	U
75-27-4	Bromodichloromethane	1	0.0066	U
75-25-2	Bromoform	1	0.0066	U
74-83-9	Bromomethane	1	0.0066	U
75-15-0	Carbon disulfide	1	0.0066	U
56-23-5	Carbon tetrachloride	1	0.0066	U
108-90-7	Chlorobenzene	1	0.0066	U

FORM I

ORGANIC ANALYSIS DATA SHEET

01/LSB-1

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-01 File ID: V5384190.D
 Sampled: 03/04/16 11:45 Prepared: 03/12/16 15:06 Analyzed: 03/12/16 15:06
 Solids: 88.84 Preparation: EPA 5035A Initial/Final: 4.26 g / 5 ml
 Batch: BC60676 Sequence: Calibration: Instrument: VOA No. 5

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
75-00-3	Chloroethane	1	0.0066	U
67-66-3	Chloroform	1	0.0066	U
74-87-3	Chloromethane	1	0.0066	U
156-59-2	cis-1,2-Dichloroethylene	1	0.0066	U
10061-01-5	cis-1,3-Dichloropropylene	1	0.0066	U
110-82-7	Cyclohexane	1	0.0066	U
124-48-1	Dibromochloromethane	1	0.0066	U
74-95-3	Dibromomethane	1	0.0066	U
75-71-8	Dichlorodifluoromethane	1	0.0066	U
100-41-4	Ethyl Benzene	1	0.0066	U
87-68-3	Hexachlorobutadiene	1	0.0066	U
98-82-8	Isopropylbenzene	1	0.0066	U
79-20-9	Methyl acetate	1	0.0066	U
1634-04-4	Methyl tert-butyl ether (MTBE)	1	0.0066	U
108-87-2	Methylcyclohexane	1	0.0066	U
75-09-2	Methylene chloride	1	0.0083	J
104-51-8	n-Butylbenzene	1	0.0066	U
103-65-1	n-Propylbenzene	1	0.0066	U
95-47-6	o-Xylene	1	0.0066	U
179601-23-1	p- & m- Xylenes	1	0.013	U
99-87-6	p-Isopropyltoluene	1	0.0066	U
135-98-8	sec-Butylbenzene	1	0.0066	U
100-42-5	Styrene	1	0.0066	U
75-65-0	tert-Butyl alcohol (TBA)	1	0.013	U
98-06-6	tert-Butylbenzene	1	0.0066	U
127-18-4	Tetrachloroethylene	1	0.0066	U
108-88-3	Toluene	1	0.0066	U
156-60-5	trans-1,2-Dichloroethylene	1	0.0066	U
10061-02-6	trans-1,3-Dichloropropylene	1	0.0066	U
79-01-6	Trichloroethylene	1	0.0066	U
75-69-4	Trichlorofluoromethane	1	0.0066	U
108-05-4	Vinyl acetate	1	0.0066	U
75-01-4	Vinyl Chloride	1	0.0066	U
1330-20-7	Xylenes, Total	1	0.020	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4	50.0	53.6	107	77 - 125	
Toluene-d8	50.0	54.6	109	85 - 120	
p-Bromofluorobenzene	50.0	49.3	98.7	76 - 130	

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data File : G:\MSVOA5 V5\AILYDAT\V5031216\V5384190.D Vial: 7
 Acq On : 12 Mar 2016 3:06 pm Operator: SS
 Sample : 16C0235-01 Inst : VOA No. 5
 Misc : QBV5031216A NYSDEC 375 4.26g B Multiplr: 1.00
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:13 2016 Quant Results File: V5C00149.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 2016
 Response via : Initial Calibration
 DataAcq Meth : V5C0001A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.80	70	116980	50.00	ppb	0.00
36) CHLOROBENZENE-d5(ISTD)	8.81	117	445356	50.00	ppb	-0.01
62) 1,2-DICHLOROBENZENE-d4(IST	11.79	152	170557	50.00	ppb	0.00

System Monitoring Compounds

32) d4-1,2-Dichloroethane(SURR	5.51	65	186608	53.59	ppb	-0.01
Spiked Amount	50.000	Range	64 - 122	Recovery	=	107.18%
47) Toluene-d8(SURR)	7.31	98	508203	54.57	ppb	-0.02
Spiked Amount	50.000	Range	83 - 114	Recovery	=	109.14%
64) p-Bromofluorobenzene(SURR)	10.08	174	149952	49.33	ppb	-0.01
Spiked Amount	50.000	Range	71 - 126	Recovery	=	98.66%

Target Compounds

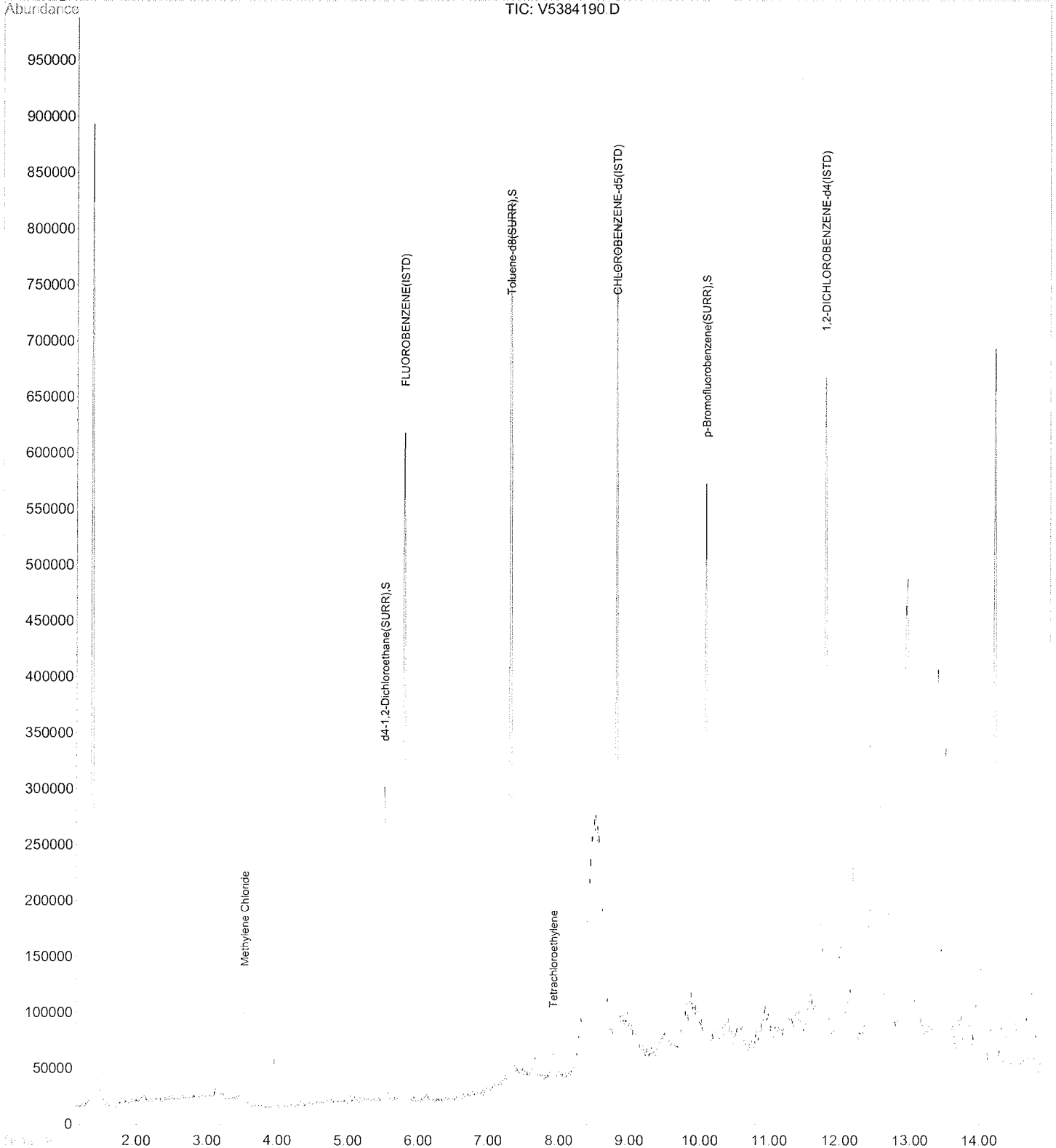
	R.T.	QIon	Response	Conc	Units	Qvalue
17) Methylene Chloride	3.53	49	43143	6.26	ppb	100
52) Tetrachloroethylene	7.92	166	6658	1.43	ppb	98

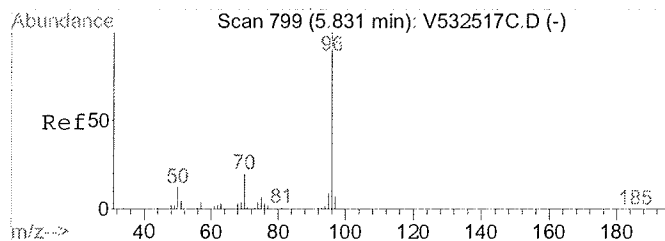
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\MSVOA5 V5\AILYDAT\V5031216\V5384190.D Vial: 7
 Acq On : 12 Mar 2016 3:06 pm Operator: SS
 Sample : 16C0235-01 Inst : VOA No. 5
 Misc : QBV5031216A NYSDEC 375 4.26g B Multiplr: 1.00
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:13 2016 Quant Results File: V5C00149.RES

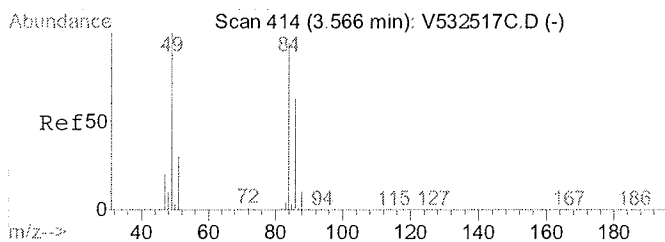
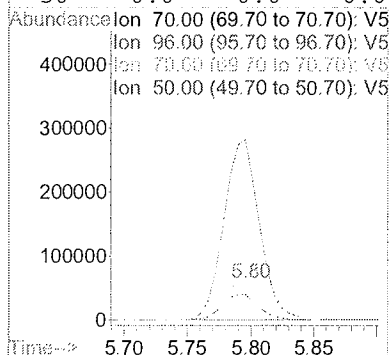
Method : G:\MSVOA METHODS\V5C00148.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Thu Feb 25 10:10:34 2016
 Response via : Initial Calibration





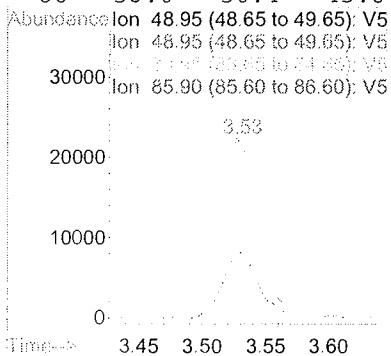
#1
 FLUOROBENZENE (ISTD)
 Concen: 50.00 ppb
 RT: 5.80 min Scan# 791
 Delta R.T. -0.01 min
 Lab File: V5384190.D
 Acq: 12 Mar 2016 3:06 pm

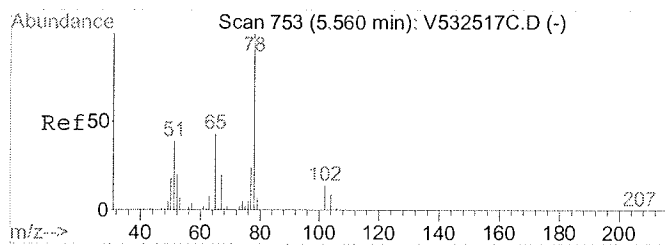
Tgt Ion: 70 Resp: 116980
 Ion Ratio Lower Upper
 70 100
 96 468.7 0.0 0.0#
 70 100.0 0.4 0.6#
 50 0.0 0.0 0.0



#17
 Methylene Chloride
 Concen: 6.26 ppb
 RT: 3.53 min Scan# 406
 Delta R.T. -0.01 min
 Lab File: V5384190.D
 Acq: 12 Mar 2016 3:06 pm

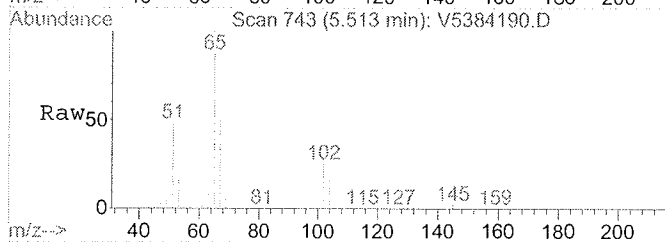
Tgt Ion: 49 Resp: 43143
 Ion Ratio Lower Upper
 49 100
 49 100.0 80.0 120.0
 84 56.7 46.2 69.2
 86 38.0 30.4 45.6





#32
d4-1,2-Dichloroethane (SURR)
Concen: Below ppb
RT: 5.51 min Scan# 743
Delta R.T. -0.01 min
Lab File: V5384190.D
Acq: 12 Mar 2016 3:06 pm

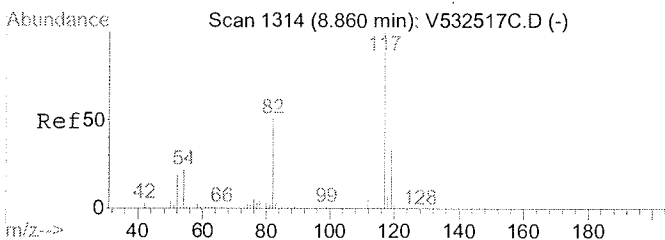
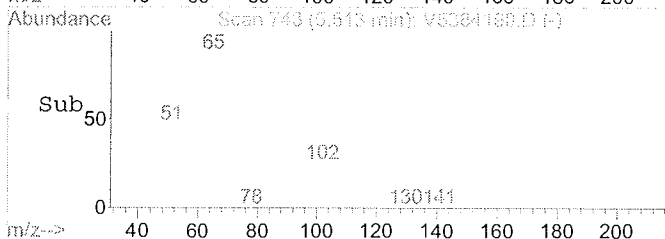
Tgt Ion: 65 Resp: 186608
Ion Ratio Lower Upper
65 100
65 100.0 80.0 120.0
102 24.9 20.4 30.6



Abundance

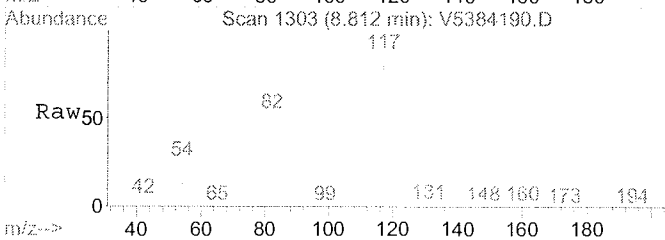
Ion 65.00 (64.70 to 65.70): V5

Time-->



#36
CHLOROBENZENE-d5 (ISTD)
Concen: 50.00 ppb
RT: 8.81 min Scan# 1303
Delta R.T. -0.01 min
Lab File: V5384190.D
Acq: 12 Mar 2016 3:06 pm

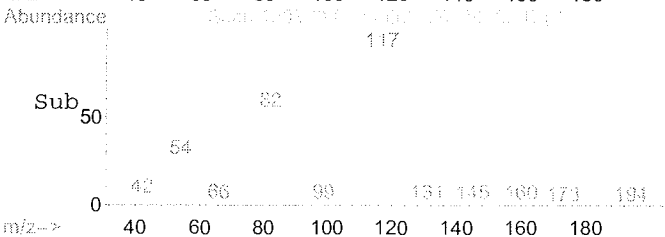
Tgt Ion: 117 Resp: 445356
Ion Ratio Lower Upper
117 100
117 100.0 22.6 33.8#
82 0.0 0.0 0.0
119 31.9 21.6 32.4

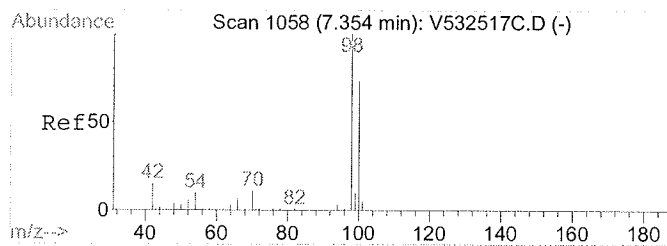


Abundance

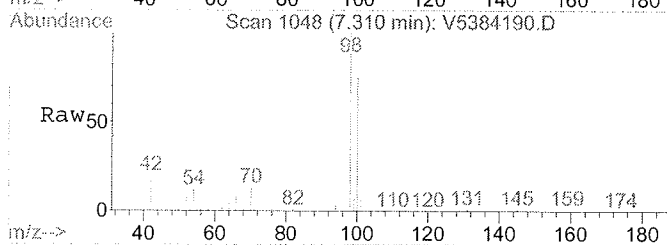
Ion 117.00 (116.70 to 117.70): V5

Time-->





#47
Toluene-d8 (SURR)
Concen: N.D. ppb
RT: 7.31 min Scan# 1048
Delta R.T. -0.02 min
Lab File: V5384190.D
Acq: 12 Mar 2016 3:06 pm



Tgt Ion: 98 Resp: 508203

Ion	Ratio	Lower	Upper
98	100		
98	100.0	80.0	120.0
100	76.8	38.0	113.9
70	0.0	0.0	0.0

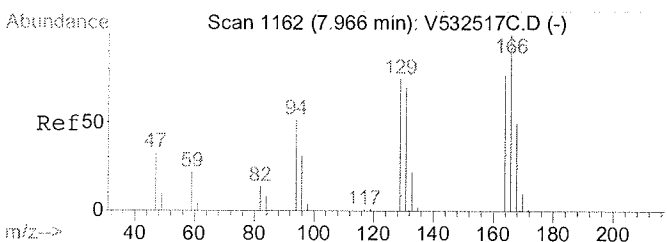
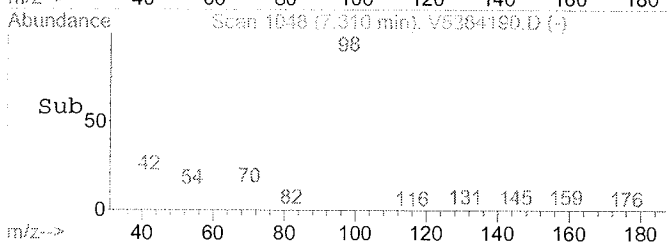
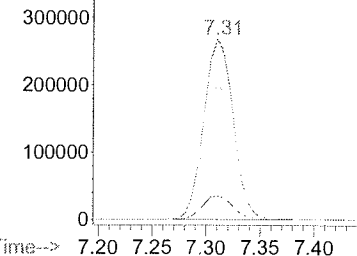
Abundance

Ion 98.00 (97.70 to 98.70): V5

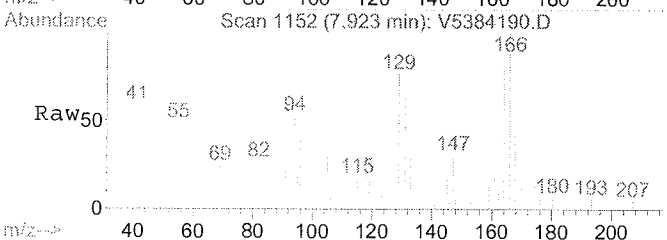
Ion 98.00 (97.70 to 98.70): V5

Ion 100.00 (99.70 to 100.70): V5

Ion 70.00 (69.70 to 70.70): V5



#52
Tetrachloroethylene
Concen: 1.43 ppb
RT: 7.92 min Scan# 1152
Delta R.T. -0.01 min
Lab File: V5384190.D
Acq: 12 Mar 2016 3:06 pm



Tgt Ion: 166 Resp: 6658

Ion	Ratio	Lower	Upper
166	100		
166	100.0	80.0	120.0
164	78.6	39.9	119.6
129	66.4	35.6	106.9

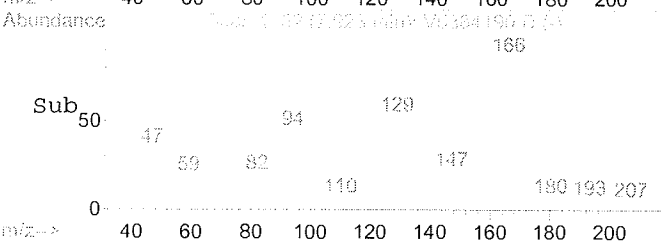
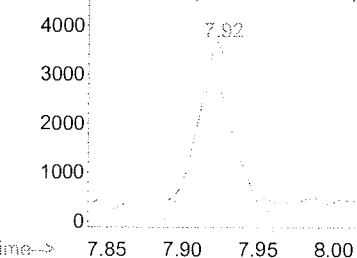
Abundance

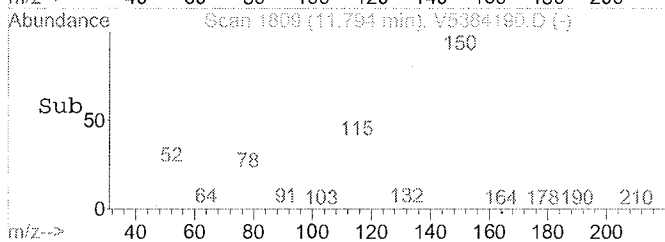
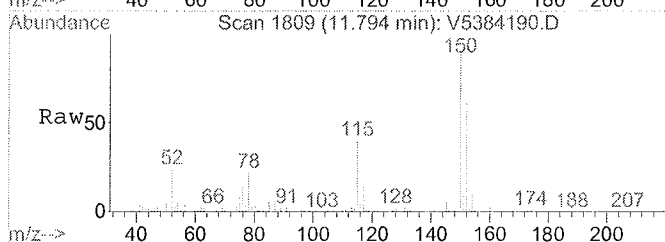
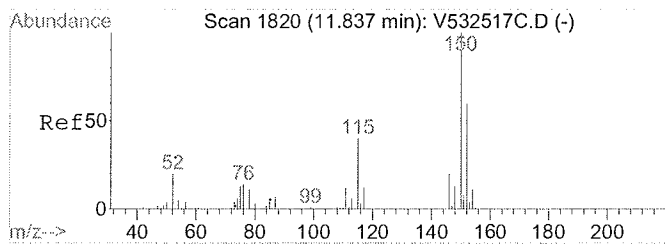
Ion 165.85 (165.55 to 166.55):

Ion 165.85 (165.55 to 166.55):

Ion 164.80 (164.50 to 165.00):

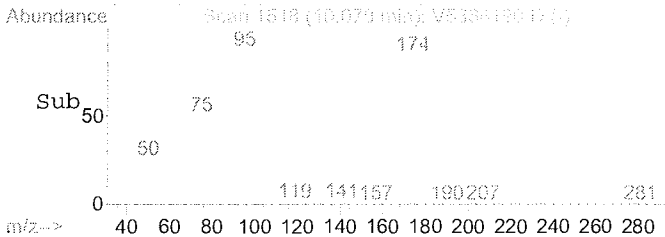
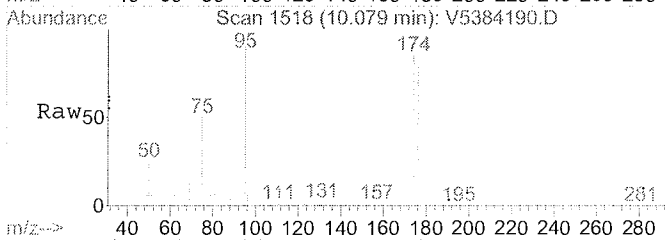
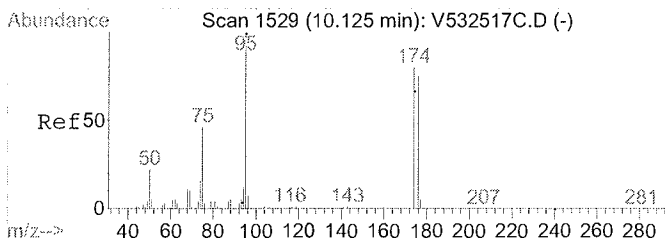
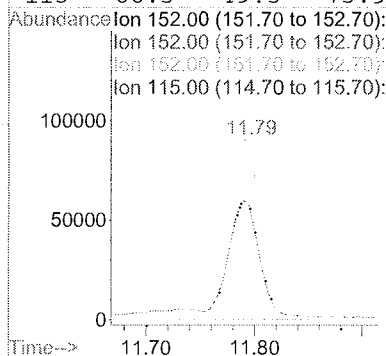
Ion 128.80 (128.50 to 129.50):





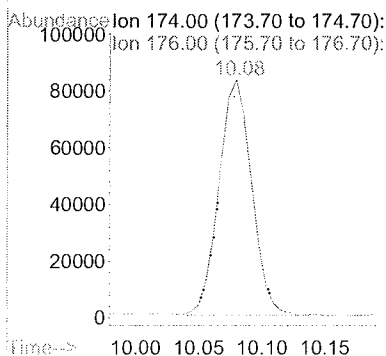
#62
1,2-DICHLOROBENZENE-d4 (ISTD)
Concen: 50.00 ppb
RT: 11.79 min Scan# 1809
Delta R.T. -0.01 min
Lab File: V5384190.D
Acq: 12 Mar 2016 3:06 pm

Tgt Ion	Ratio	Lower	Upper
152	100		
152	100.0	80.0	120.0
152	100.0	80.0	120.0
115	66.3	49.3	73.9



#64
p-Bromofluorobenzene (SURR)
Concen: Below ppb
RT: 10.08 min Scan# 1518
Delta R.T. -0.01 min
Lab File: V5384190.D
Acq: 12 Mar 2016 3:06 pm

Tgt Ion	Ratio	Lower	Upper
174	100		
174	97.2	77.8	116.6



FORM I

ORGANIC ANALYSIS DATA SHEET

02/LSB-1

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-02 File ID: V5384191.D
 Sampled: 03/04/16 12:20 Prepared: 03/12/16 15:40 Analyzed: 03/12/16 15:40
 Solids: 88.27 Preparation: EPA 5035A Initial/Final: 6.41 g / 5 ml
 Batch: BC60676 Sequence: Calibration: Instrument: VOA No. 5

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
630-20-6	1,1,1,2-Tetrachloroethane	1	0.0044	U
71-55-6	1,1,1-Trichloroethane	1	0.0044	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.0044	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1	0.0044	U
79-00-5	1,1,2-Trichloroethane	1	0.0044	U
75-34-3	1,1-Dichloroethane	1	0.0044	U
75-35-4	1,1-Dichloroethylene	1	0.0044	U
563-58-6	1,1-Dichloropropylene	1	0.0044	U
87-61-6	1,2,3-Trichlorobenzene	1	0.0044	U
96-18-4	1,2,3-Trichloropropane	1	0.0044	U
120-82-1	1,2,4-Trichlorobenzene	1	0.0044	U
95-63-6	1,2,4-Trimethylbenzene	1	0.0044	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.0044	U
106-93-4	1,2-Dibromoethane	1	0.0044	U
95-50-1	1,2-Dichlorobenzene	1	0.0044	U
107-06-2	1,2-Dichloroethane	1	0.0044	U
78-87-5	1,2-Dichloropropane	1	0.0044	U
108-67-8	1,3,5-Trimethylbenzene	1	0.0044	U
541-73-1	1,3-Dichlorobenzene	1	0.0044	U
142-28-9	1,3-Dichloropropane	1	0.0044	U
106-46-7	1,4-Dichlorobenzene	1	0.0044	U
123-91-1	1,4-Dioxane	1	0.088	U
594-20-7	2,2-Dichloropropane	1	0.0044	U
78-93-3	2-Butanone	1	0.0044	U
95-49-8	2-Chlorotoluene	1	0.0044	U
591-78-6	2-Hexanone	1	0.0044	U
106-43-4	4-Chlorotoluene	1	0.0044	U
108-10-1	4-Methyl-2-pentanone	1	0.0044	U
67-64-1	Acetone	1	0.0088	U
107-02-8	Acrolein	1	0.0088	U
107-13-1	Acrylonitrile	1	0.0044	U
71-43-2	Benzene	1	0.0044	U
108-86-1	Bromobenzene	1	0.0044	U
74-97-5	Bromochloromethane	1	0.0044	U
75-27-4	Bromodichloromethane	1	0.0044	U
75-25-2	Bromoform	1	0.0044	U
74-83-9	Bromomethane	1	0.0044	U
75-15-0	Carbon disulfide	1	0.0044	U
56-23-5	Carbon tetrachloride	1	0.0044	U
108-90-7	Chlorobenzene	1	0.0044	U

FORM I

ORGANIC ANALYSIS DATA SHEET

02/LSB-1

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-02 File ID: V5384191.D
 Sampled: 03/04/16 12:20 Prepared: 03/12/16 15:40 Analyzed: 03/12/16 15:40
 Solids: 88.27 Preparation: EPA 5035A Initial/Final: 6.41 g / 5 ml
 Batch: BC60676 Sequence: Calibration: Instrument: VOA No. 5

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
75-00-3	Chloroethane	1	0.0044	U
67-66-3	Chloroform	1	0.0044	U
74-87-3	Chloromethane	1	0.0044	U
156-59-2	cis-1,2-Dichloroethylene	1	0.0044	U
10061-01-5	cis-1,3-Dichloropropylene	1	0.0044	U
110-82-7	Cyclohexane	1	0.0044	U
124-48-1	Dibromochloromethane	1	0.0044	U
74-95-3	Dibromomethane	1	0.0044	U
75-71-8	Dichlorodifluoromethane	1	0.0044	U
100-41-4	Ethyl Benzene	1	0.0044	U
87-68-3	Hexachlorobutadiene	1	0.0044	U
98-82-8	Isopropylbenzene	1	0.0044	U
79-20-9	Methyl acetate	1	0.0044	U
1634-04-4	Methyl tert-butyl ether (MTBE)	1	0.0044	U
108-87-2	Methylcyclohexane	1	0.0044	U
75-09-2	Methylene chloride	1	0.0046	J
104-51-8	n-Butylbenzene	1	0.0044	U
103-65-1	n-Propylbenzene	1	0.0044	U
95-47-6	o-Xylene	1	0.0044	U
179601-23-1	p- & m- Xylenes	1	0.0088	U
99-87-6	p-Isopropyltoluene	1	0.0044	U
135-98-8	sec-Butylbenzene	1	0.0044	U
100-42-5	Styrene	1	0.0044	U
75-65-0	tert-Butyl alcohol (TBA)	1	0.0088	U
98-06-6	tert-Butylbenzene	1	0.0044	U
127-18-4	Tetrachloroethylene	1	0.0044	U
108-88-3	Toluene	1	0.0044	U
156-60-5	trans-1,2-Dichloroethylene	1	0.0044	U
10061-02-6	trans-1,3-Dichloropropylene	1	0.0044	U
79-01-6	Trichloroethylene	1	0.0044	U
75-69-4	Trichlorofluoromethane	1	0.0044	U
108-05-4	Vinyl acetate	1	0.0044	U
75-01-4	Vinyl Chloride	1	0.0044	U
1330-20-7	Xylenes, Total	1	0.013	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4	50.0	49.6	99.3	77 - 125	
Toluene-d8	50.0	48.3	96.6	85 - 120	
p-Bromofluorobenzene	50.0	49.2	98.5	76 - 130	

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data File : G:\MSVOA5 V5\AILYDAT\V5031216\V5384191.D Vial: 8
Acq On : 12 Mar 2016 3:40 pm Operator: SS
Sample : 16C0235-02 Inst : VOA No. 5
Misc : QBV5031216A NYSDEC 375 6.41g B Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 14 10:14 2016 Quant Results File: V5C00149.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
Title : VOCs BY GC/MS EPA SW846-8260
Last Update : Fri Mar 11 09:44:58 2016
Response via : Initial Calibration
DataAcq Meth : V5C0001A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.79	70	129954	50.00	ppb	0.00
36) CHLOROBENZENE-d5(ISTD)	8.82	117	572519	50.00	ppb	0.00
62) 1,2-DICHLOROBENZENE-d4(IST	11.79	152	251695	50.00	ppb	0.00

System Monitoring Compounds

32) d4-1,2-Dichloroethane(SURR	5.52	65	192069	49.65	ppb	0.00
Spiked Amount	50.000	Range	64 - 122	Recovery	=	99.30%
47) Toluene-d8(SURR)	7.31	98	578457	48.32	ppb	-0.01
Spiked Amount	50.000	Range	83 - 114	Recovery	=	96.64%
64) p-Bromofluorobenzene(SURR)	10.08	174	220908	49.25	ppb	0.00
Spiked Amount	50.000	Range	71 - 126	Recovery	=	98.50%

Target Compounds

17) Methylene Chloride	3.53	49	40252	5.26	ppb	Qvalue 99

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

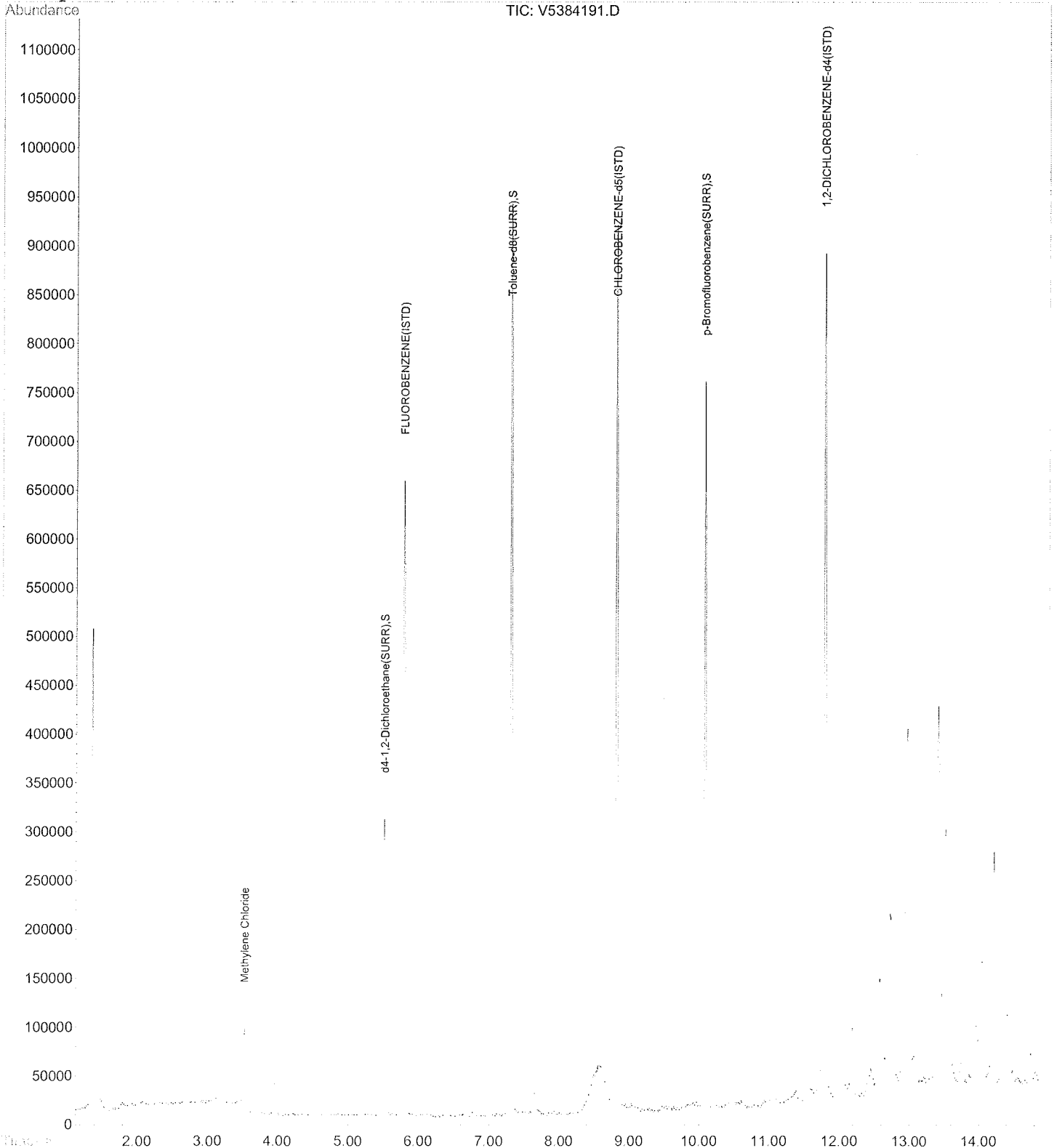
V5384191.D V5C00148.M Mon Mar 14 10:46:55 2016 123

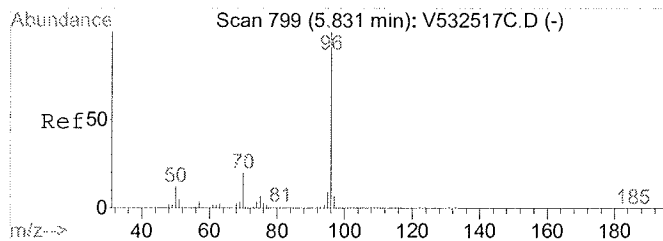
Page 1

Quantitation Report

Data File : G:\MSVOA5 V5\AILYDAT\V5031216\V5384191.D Vial: 8
 Acq On : 12 Mar 2016 3:40 pm Operator: SS
 Sample : 16C0235-02 Inst : VOA No. 5
 Misc : QBV5031216A NYSDEC 375 6.41g B Multiplr: 1.00
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:14 2016 Quant Results File: V5C00149.RES

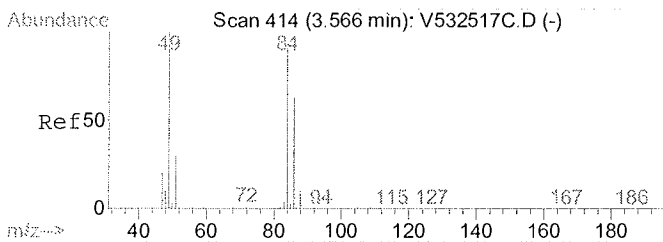
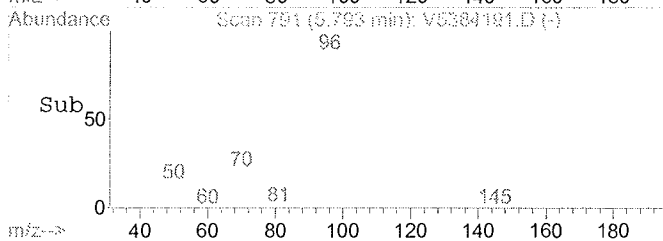
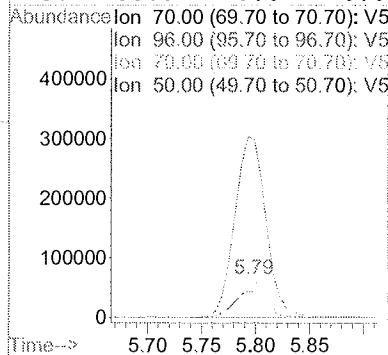
Method : G:\MSVOA METHODS\V5C00148.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Thu Feb 25 10:10:34 2016
 Response via : Initial Calibration





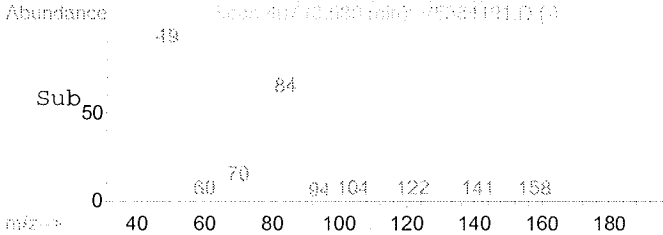
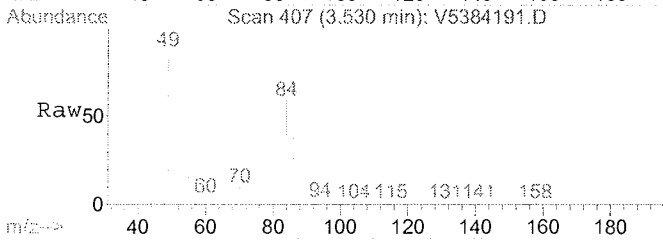
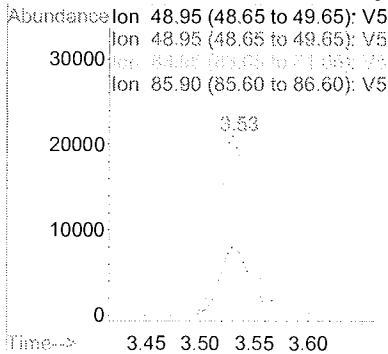
#1
 FLUOROBENZENE (ISTD)
 Concen: 50.00 ppb
 RT: 5.79 min Scan# 791
 Delta R.T. -0.01 min
 Lab File: V5384191.D
 Acq: 12 Mar 2016 3:40 pm

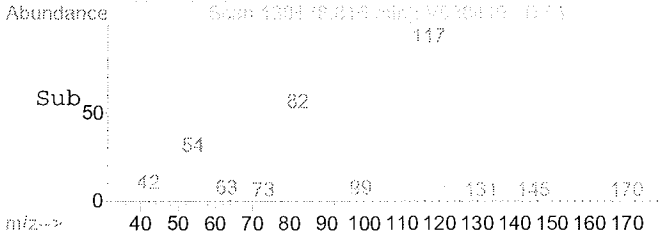
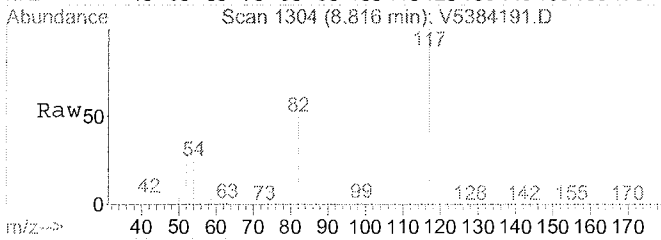
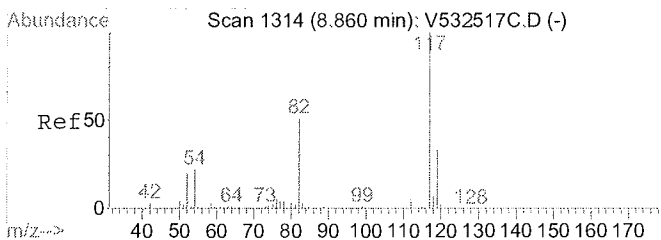
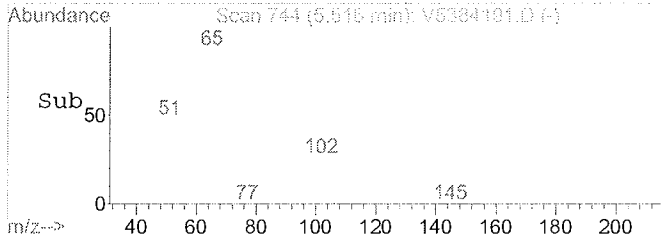
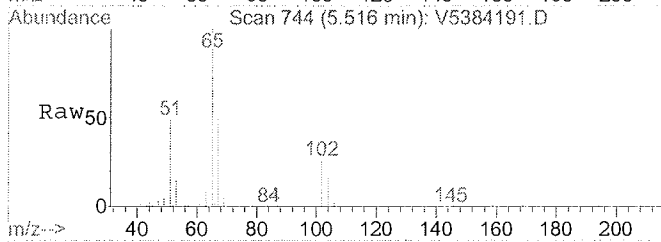
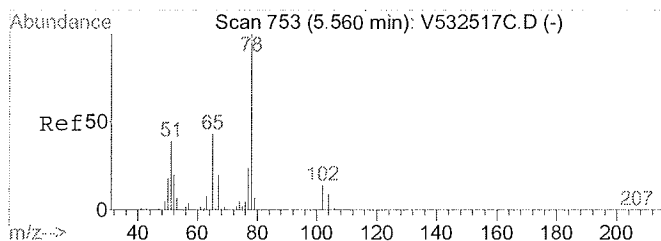
Tgt Ion	Ratio	Lower	Upper
70	100		
96	0.0	0.0	0.0
70	100.0	0.4	0.6
50	66.8	0.0	0.0



#17
 Methylene Chloride
 Concen: 5.26 ppb
 RT: 3.53 min Scan# 407
 Delta R.T. -0.01 min
 Lab File: V5384191.D
 Acq: 12 Mar 2016 3:40 pm

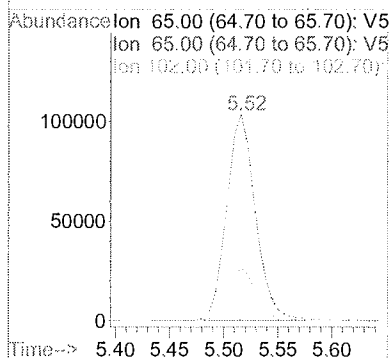
Tgt Ion	Ratio	Lower	Upper
49	100		
49	100.0	80.0	120.0
84	59.5	46.2	69.2
86	40.2	30.4	45.6





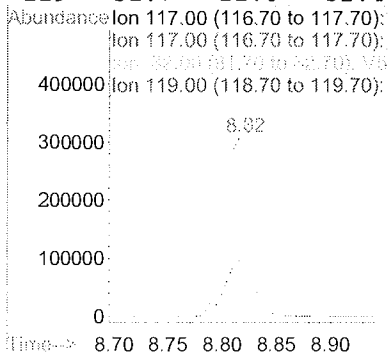
#32
d4-1,2-Dichloroethane (SURR)
Concen: Below ppb
RT: 5.52 min Scan# 744
Delta R.T. -0.01 min
Lab File: V5384191.D
Acq: 12 Mar 2016 3:40 pm

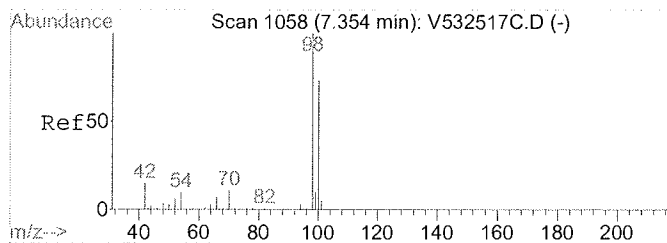
Tgt Ion	Ratio	Lower	Upper
65	100		
65	100.0	80.0	120.0
102	25.4	20.4	30.6



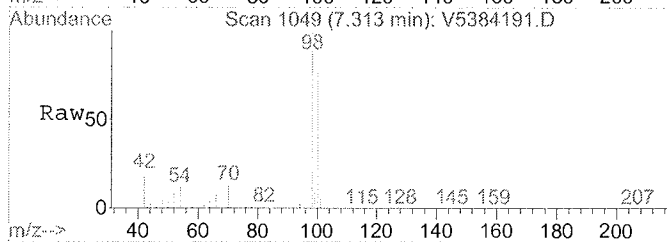
#36
CHLOROBENZENE-d5 (ISTD)
Concen: 50.00 ppb
RT: 8.82 min Scan# 1304
Delta R.T. -0.01 min
Lab File: V5384191.D
Acq: 12 Mar 2016 3:40 pm

Tgt Ion	Ratio	Lower	Upper
117	100		
117	100.0	22.6	33.8#
82	0.0	0.0	0.0
119	31.7	21.6	32.4

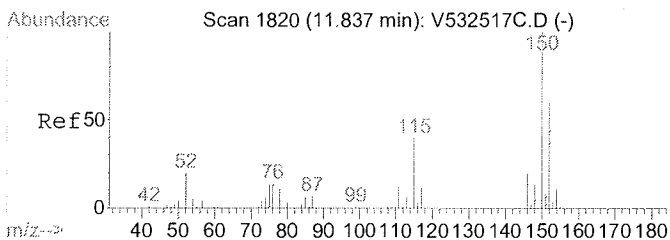
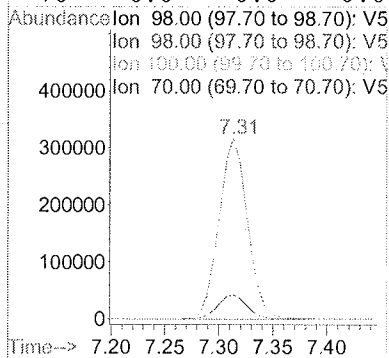
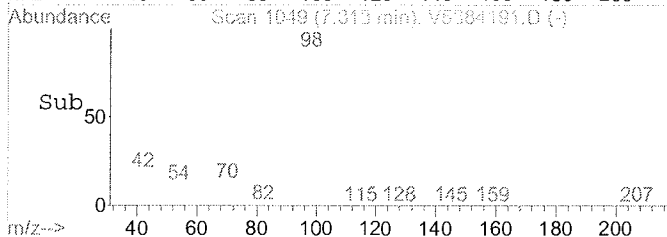




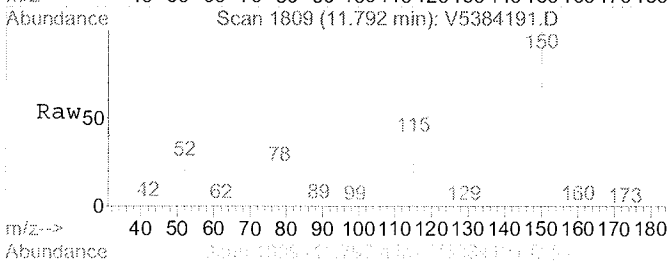
#47
Toluene-d8 (SURR)
Concen: Below ppb
RT: 7.31 min Scan# 1049
Delta R.T. -0.01 min
Lab File: V5384191.D
Acq: 12 Mar 2016 3:40 pm



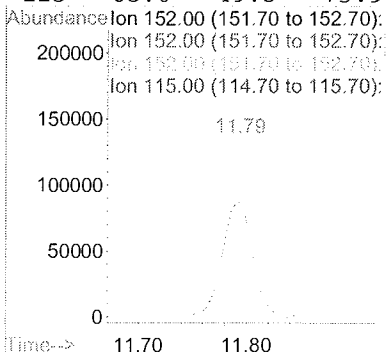
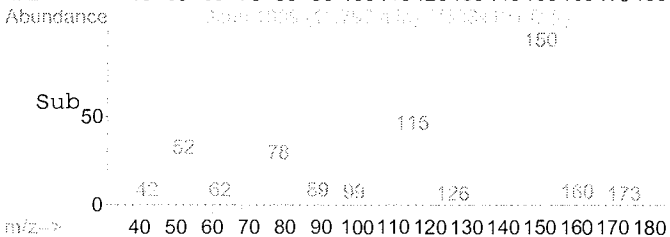
Tgt Ion: 98 Resp: 578457
Ion Ratio Lower Upper
98 100
98 100.0 80.0 120.0
100 77.2 38.0 113.9
70 0.0 0.0 0.0

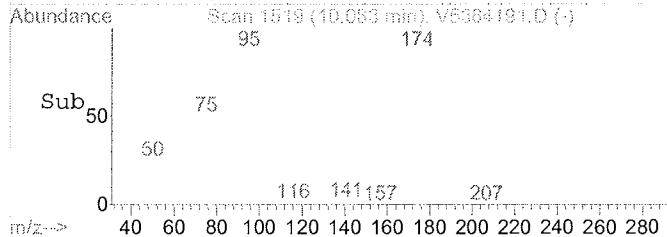
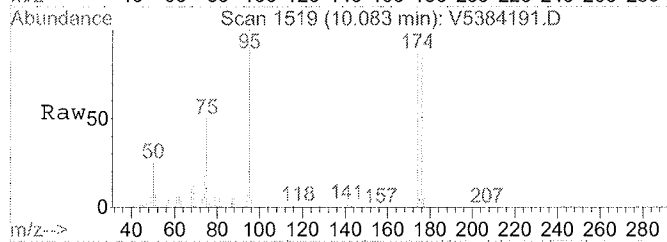
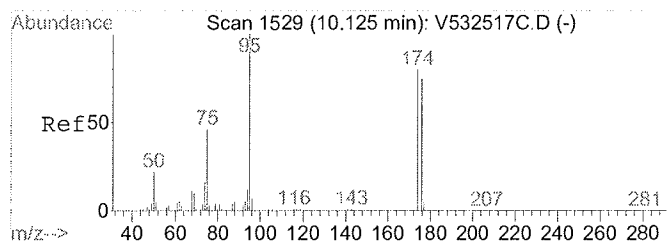


#62
1,2-DICHLOROBENZENE-d4 (ISTD)
Concen: 50.00 ppb
RT: 11.79 min Scan# 1809
Delta R.T. -0.01 min
Lab File: V5384191.D
Acq: 12 Mar 2016 3:40 pm



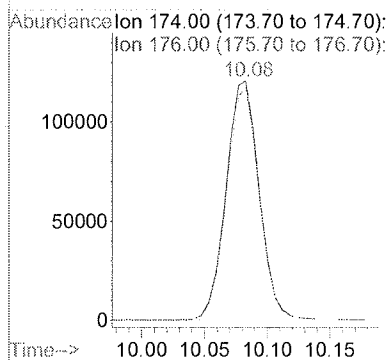
Tgt Ion: 152 Resp: 251695
Ion Ratio Lower Upper
152 100
152 100.0 80.0 120.0
152 100.0 80.0 120.0
115 65.0 49.3 73.9





#64
 p-Bromofluorobenzene (SURR)
 Concen: Below ppb
 RT: 10.08 min Scan# 1519
 Delta R.T. -0.01 min
 Lab File: V5384191.D
 Acq: 12 Mar 2016 3:40 pm

Tgt Ion: 174 Resp: 220908
 Ion Ratio Lower Upper
 174 100
 176 96.3 77.8 116.6



FORM I

ORGANIC ANALYSIS DATA SHEET

03/LSB-2

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-03 File ID: V5384192.D
 Sampled: 03/04/16 13:15 Prepared: 03/12/16 16:14 Analyzed: 03/12/16 16:14
 Solids: 84.92 Preparation: EPA 5035A Initial/Final: 5.62 g / 5 ml
 Batch: BC60676 Sequence: Calibration: Instrument: VOA No. 5

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
630-20-6	1,1,1,2-Tetrachloroethane	1	0.0052	U
71-55-6	1,1,1-Trichloroethane	1	0.0052	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.0052	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1	0.0052	U
79-00-5	1,1,2-Trichloroethane	1	0.0052	U
75-34-3	1,1-Dichloroethane	1	0.0052	U
75-35-4	1,1-Dichloroethylene	1	0.0052	U
563-58-6	1,1-Dichloropropylene	1	0.0052	U
87-61-6	1,2,3-Trichlorobenzene	1	0.0052	U
96-18-4	1,2,3-Trichloropropane	1	0.0052	U
120-82-1	1,2,4-Trichlorobenzene	1	0.0052	U
95-63-6	1,2,4-Trimethylbenzene	1	0.0052	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.0052	U
106-93-4	1,2-Dibromoethane	1	0.0052	U
95-50-1	1,2-Dichlorobenzene	1	0.0052	U
107-06-2	1,2-Dichloroethane	1	0.0052	U
78-87-5	1,2-Dichloropropane	1	0.0052	U
108-67-8	1,3,5-Trimethylbenzene	1	0.0052	U
541-73-1	1,3-Dichlorobenzene	1	0.0052	U
142-28-9	1,3-Dichloropropane	1	0.0052	U
106-46-7	1,4-Dichlorobenzene	1	0.0052	U
123-91-1	1,4-Dioxane	1	0.10	U
594-20-7	2,2-Dichloropropane	1	0.0052	U
78-93-3	2-Butanone	1	0.0052	U
95-49-8	2-Chlorotoluene	1	0.0052	U
591-78-6	2-Hexanone	1	0.0052	U
106-43-4	4-Chlorotoluene	1	0.0052	U
108-10-1	4-Methyl-2-pentanone	1	0.0052	U
67-64-1	Acetone	1	0.0072	J
107-02-8	Acrolein	1	0.010	U
107-13-1	Acrylonitrile	1	0.0052	U
71-43-2	Benzene	1	0.0052	U
108-86-1	Bromobenzene	1	0.0052	U
74-97-5	Bromochloromethane	1	0.0052	U
75-27-4	Bromodichloromethane	1	0.0052	U
75-25-2	Bromoform	1	0.0052	U
74-83-9	Bromomethane	1	0.0052	U
75-15-0	Carbon disulfide	1	0.0052	U
56-23-5	Carbon tetrachloride	1	0.0052	U
108-90-7	Chlorobenzene	1	0.0052	U

FORM I

ORGANIC ANALYSIS DATA SHEET

03/LSB-2

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-03 File ID: V5384192.D
 Sampled: 03/04/16 13:15 Prepared: 03/12/16 16:14 Analyzed: 03/12/16 16:14
 Solids: 84.92 Preparation: EPA 5035A Initial/Final: 5.62 g / 5 ml
 Batch: BC60676 Sequence: Calibration: Instrument: VOA No. 5

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
75-00-3	Chloroethane	1	0.0052	U
67-66-3	Chloroform	1	0.0052	U
74-87-3	Chloromethane	1	0.0052	U
156-59-2	cis-1,2-Dichloroethylene	1	0.0052	U
10061-01-5	cis-1,3-Dichloropropylene	1	0.0052	U
110-82-7	Cyclohexane	1	0.0052	U
124-48-1	Dibromochloromethane	1	0.0052	U
74-95-3	Dibromomethane	1	0.0052	U
75-71-8	Dichlorodifluoromethane	1	0.0052	U
100-41-4	Ethyl Benzene	1	0.0052	U
87-68-3	Hexachlorobutadiene	1	0.0052	U
98-82-8	Isopropylbenzene	1	0.0052	U
79-20-9	Methyl acetate	1	0.0052	U
1634-04-4	Methyl tert-butyl ether (MTBE)	1	0.0052	U
108-87-2	Methyleyclohexane	1	0.0052	U
75-09-2	Methylene chloride	1	0.010	U
104-51-8	n-Butylbenzene	1	0.0052	U
103-65-1	n-Propylbenzene	1	0.0052	U
95-47-6	o-Xylene	1	0.0052	U
179601-23-1	p- & m- Xylenes	1	0.010	U
99-87-6	p-Isopropyltoluene	1	0.0052	U
135-98-8	sec-Butylbenzene	1	0.0052	U
100-42-5	Styrene	1	0.0052	U
75-65-0	tert-Butyl alcohol (TBA)	1	0.010	U
98-06-6	tert-Butylbenzene	1	0.0052	U
127-18-4	Tetrachloroethylene	1	0.0052	U
108-88-3	Toluene	1	0.0052	U
156-60-5	trans-1,2-Dichloroethylene	1	0.0052	U
10061-02-6	trans-1,3-Dichloropropylene	1	0.0052	U
79-01-6	Trichloroethylene	1	0.0052	U
75-69-4	Trichlorofluoromethane	1	0.0052	U
108-05-4	Vinyl acetate	1	0.0052	U
75-01-4	Vinyl Chloride	1	0.0052	U
1330-20-7	Xylenes, Total	1	0.016	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	49.1	98.1	85 - 120	
p-Bromofluorobenzene	50.0	48.6	97.3	76 - 130	

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data File : G:\MSVOA5 V5\AILYDAT\V5031216\V5384192.D Vial: 9
 Acq On : 12 Mar 2016 4:14 pm Operator: SS
 Sample : 16C0235-03 Inst : VOA No. 5
 Misc : QBV5031216A NYSDEC 375 5.62g B Multiplr: 1.00
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:15 2016 Quant Results File: V5C00149.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)

Title : VOCs BY GC/MS EPA SW846-8260

Last Update : Fri Mar 11 09:44:58 2016

Response via : Initial Calibration

DataAcq Meth : V5C0001A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.80	70	130678	50.00	ppb	0.00
36) CHLOROBENZENE-d5(ISTD)	8.81	117	561101	50.00	ppb	0.00
62) 1,2-DICHLOROBENZENE-d4(IST	11.80	152	230614	50.00	ppb	0.00

System Monitoring Compounds

32) d4-1,2-Dichloroethane(SURR	5.51	65	195817	50.34	ppb	0.00
Spiked Amount	50.000	Range	64 - 122	Recovery	=	100.68%
47) Toluene-d8(SURR)	7.32	98	575679	49.06	ppb	0.00
Spiked Amount	50.000	Range	83 - 114	Recovery	=	98.12%
64) p-Bromofluorobenzene(SURR)	10.08	174	199935	48.64	ppb	0.00
Spiked Amount	50.000	Range	71 - 126	Recovery	=	97.28%

Target Compounds

						Qvalue
16) Carbon Disulfide	3.25	76	31347	1.98	ppb	100
17) Methylene Chloride	3.53	49	22280	2.90	ppb	100
20) Acetone	3.13	43	12783	6.86	ppb	# 1
81) 1,4-Dichlorobenzene	11.39	146	7617	0.91	ppb	# 69
87) Naphthalene	13.92	128	9274	0.88	ppb	# 99

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

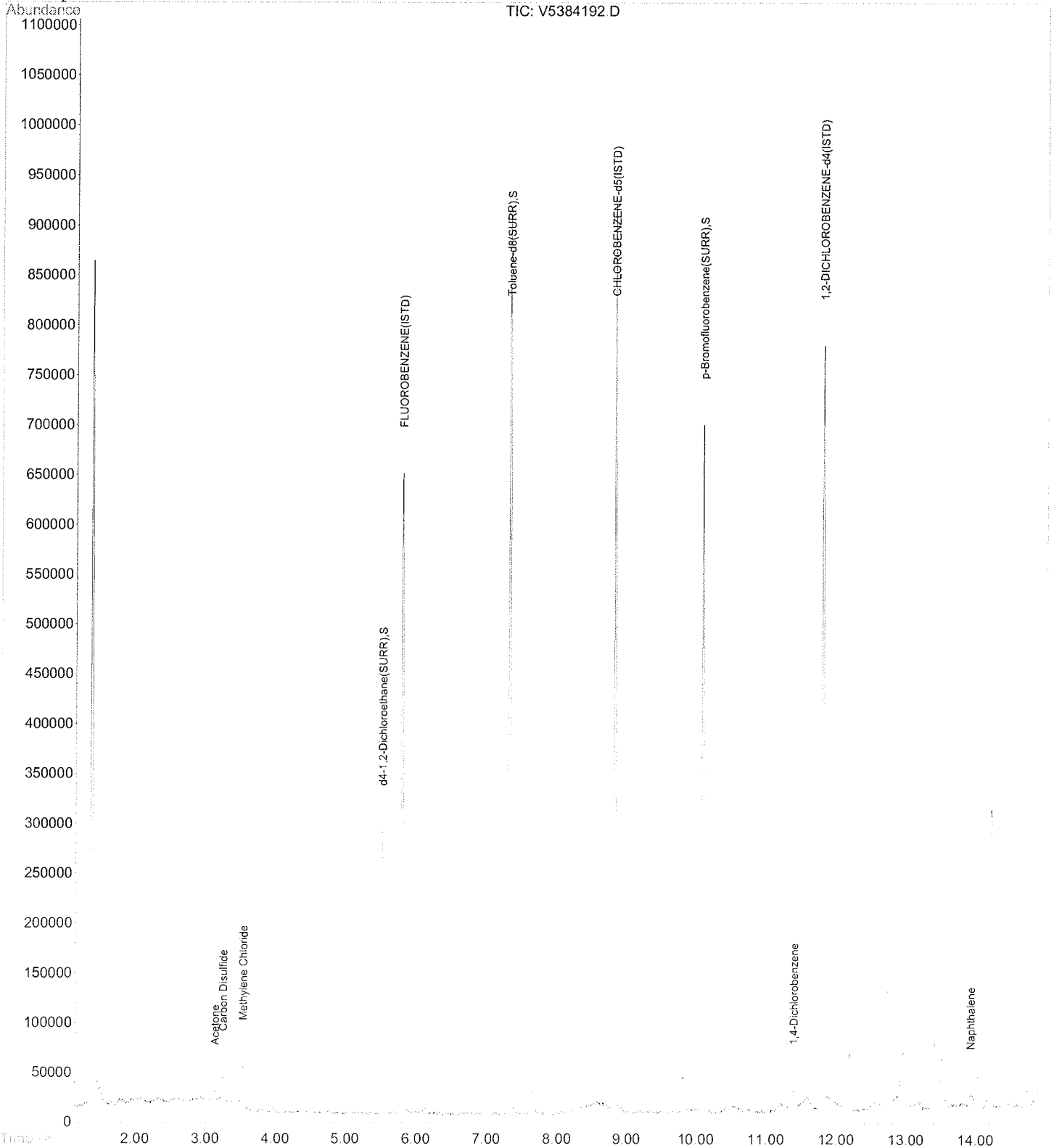
V5384192.D V5C00148.M Mon Mar 14 10:47:00 2016 123

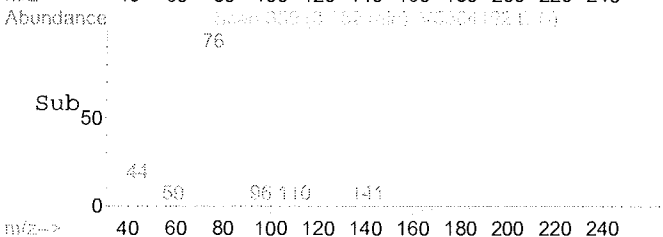
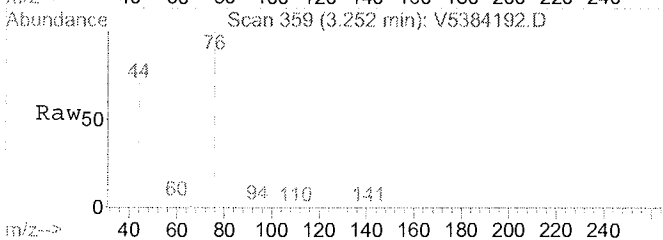
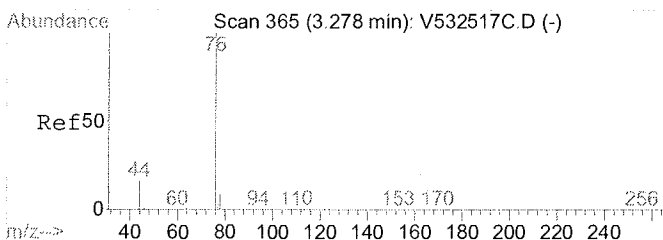
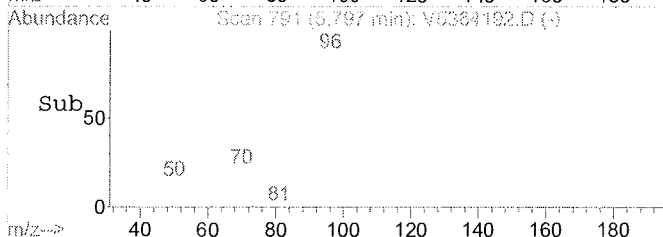
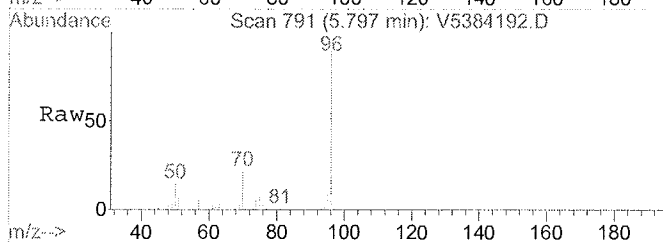
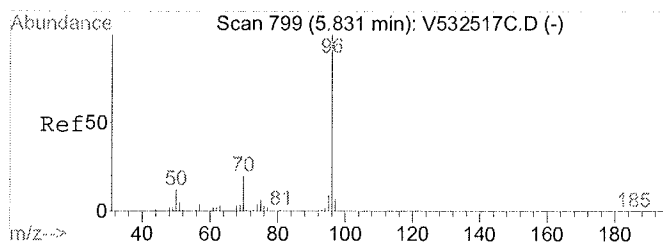
Page 1

Quantitation Report

Data File : G:\MSVOA5 V5\AILYDAT\V5031216\V5384192.D Vial: 9
 Acq On : 12 Mar 2016 4:14 pm Operator: SS
 Sample : 16C0235-03 Inst : VOA No. 5
 Misc : QBV5031216A NYSDEC 375 5.62g B Multiplr: 1.00
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:15 2016 Quant Results File: V5C00149.RES

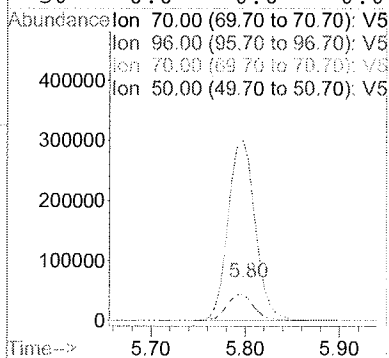
Method : G:\MSVOA METHODS\V5C00148.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Thu Feb 25 10:10:34 2016
 Response via : Initial Calibration





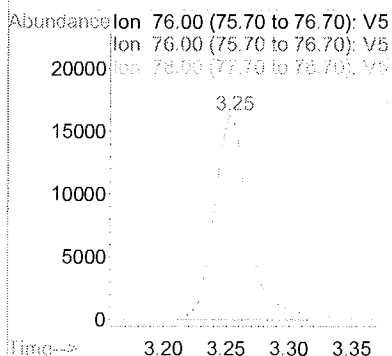
#1
FLUOROBENZENE (ISTD)
Concen: 50.00 ppb
RT: 5.80 min Scan# 791
Delta R.T. -0.00 min
Lab File: V5384192.D
Acq: 12 Mar 2016 4:14 pm

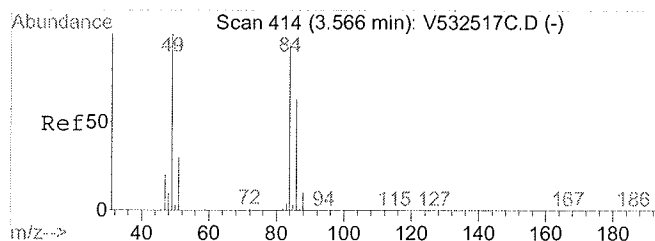
Tgt Ion	Ratio	Lower	Upper
70	100		
96	464.8	0.0	0.0#
70	100.0	0.4	0.6#
50	0.0	0.0	0.0



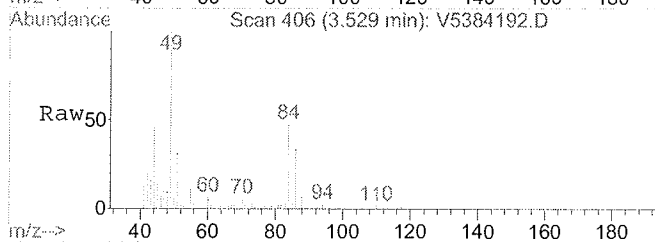
#16
Carbon Disulfide
Concen: 1.98 ppb
RT: 3.25 min Scan# 359
Delta R.T. -0.00 min
Lab File: V5384192.D
Acq: 12 Mar 2016 4:14 pm

Tgt Ion	Ratio	Lower	Upper
76	100		
76	100.0	50.0	150.0
78	6.9	0.0	17.6





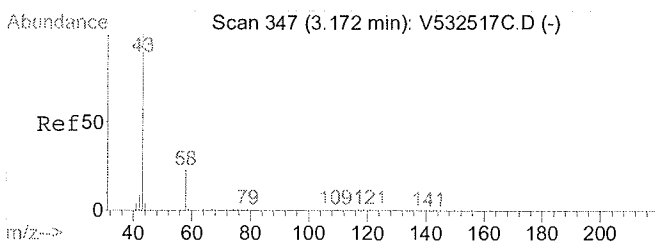
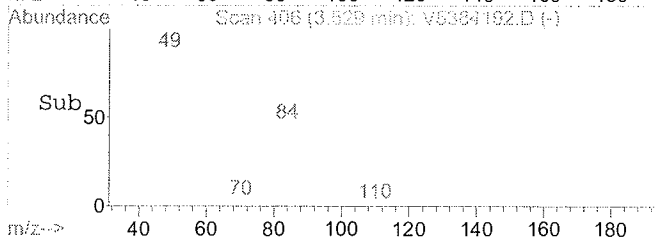
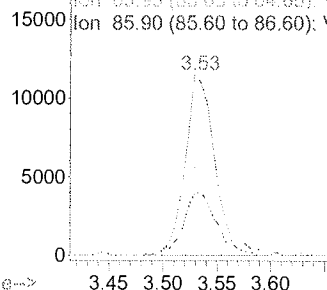
#17
Methylene Chloride
Concen: 2.90 ppb
RT: 3.53 min Scan# 406
Delta R.T. -0.01 min
Lab File: V5384192.D
Acq: 12 Mar 2016 4:14 pm



Tgt Ion: 49 Resp: 22280

Ion	Ratio	Lower	Upper
49	100		
49	100.0	80.0	120.0
84	58.1	46.2	69.2
86	37.8	30.4	45.6

Abundance Ion 48.95 (48.65 to 49.65): V5
Ion 48.95 (48.65 to 49.65): V5
Ion 83.95 (83.65 to 84.65): V5
Ion 85.90 (85.60 to 86.60): V5

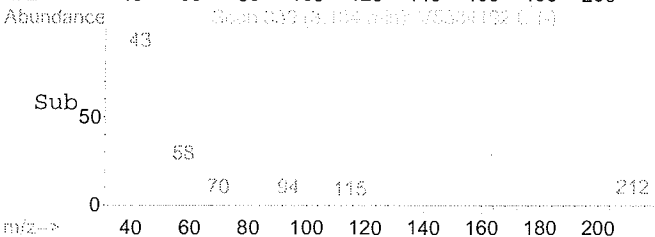
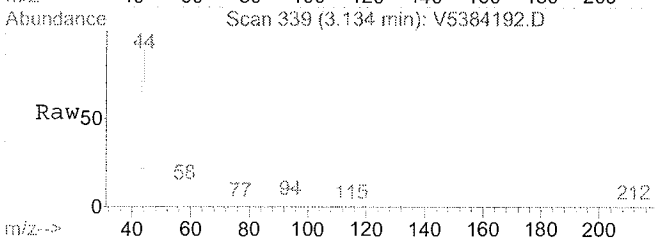
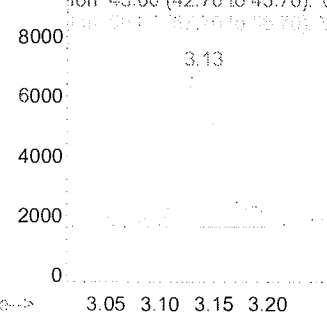


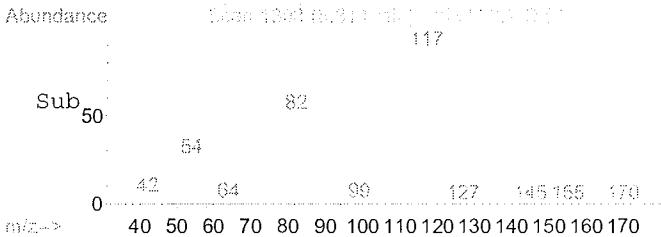
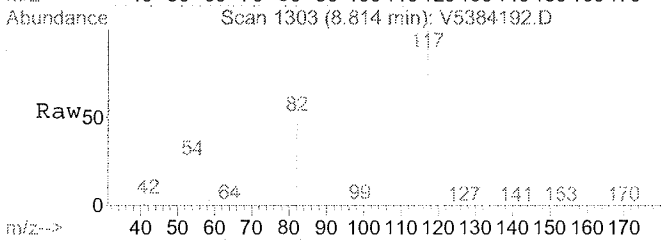
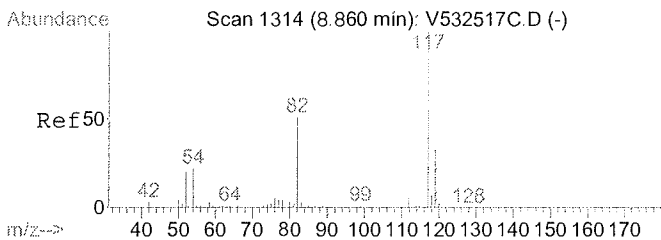
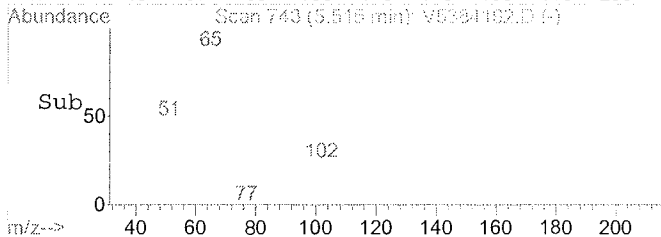
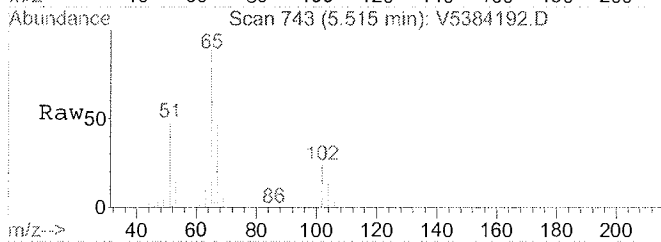
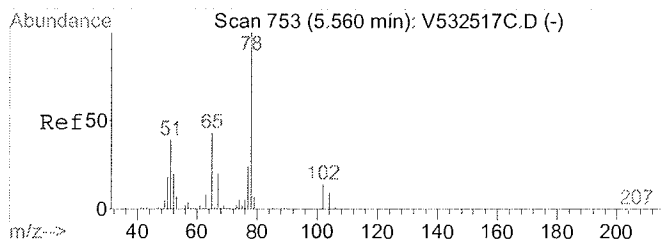
#20
Acetone
Concen: 6.86 ppb
RT: 3.13 min Scan# 339
Delta R.T. -0.00 min
Lab File: V5384192.D
Acq: 12 Mar 2016 4:14 pm

Tgt Ion: 43 Resp: 12783

Ion	Ratio	Lower	Upper
43	100		
43	100.0	6.7	10.1#
58	24.7	0.0	0.0#

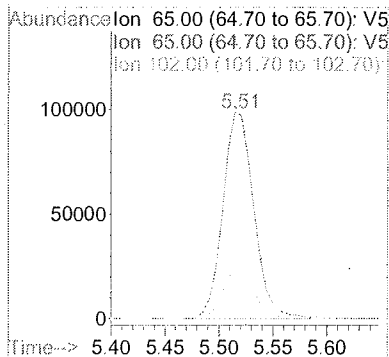
Abundance Ion 43.00 (42.70 to 43.70): V5
Ion 43.00 (42.70 to 43.70): V5
Ion 58.00 (57.70 to 58.70): V5





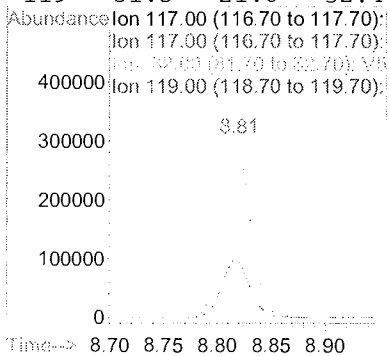
#32
d4-1,2-Dichloroethane (SURR)
Concen: Below ppb
RT: 5.51 min Scan# 743
Delta R.T. -0.01 min
Lab File: V5384192.D
Acq: 12 Mar 2016 4:14 pm

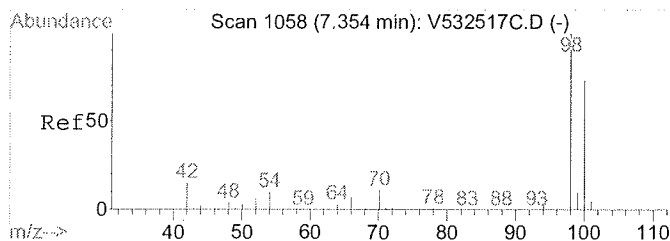
Tgt Ion	65	102	Resp	195817
Ion Ratio	100	24.8	Lower	Upper
	100.0	20.4	80.0	120.0



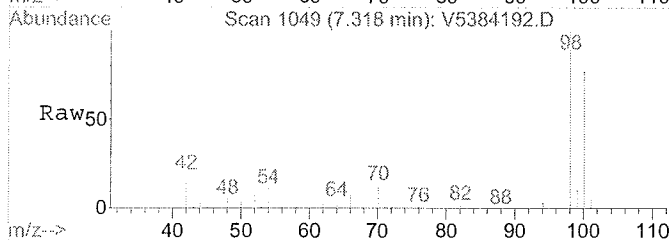
#36
CHLOROBENZENE-d5 (ISTD)
Concen: 50.00 ppb
RT: 8.81 min Scan# 1303
Delta R.T. -0.01 min
Lab File: V5384192.D
Acq: 12 Mar 2016 4:14 pm

Tgt Ion	117	Resp	561101
Ion Ratio	100	22.6	33.8#
	100.0	0.0	0.0
	31.5	21.6	32.4

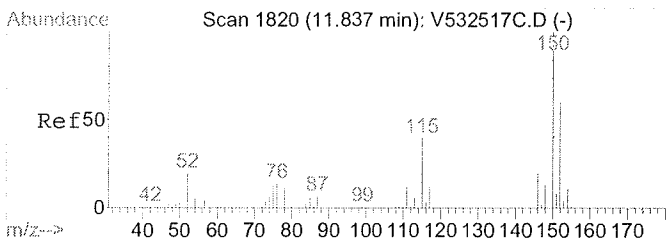
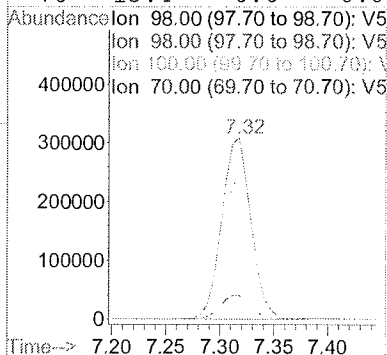
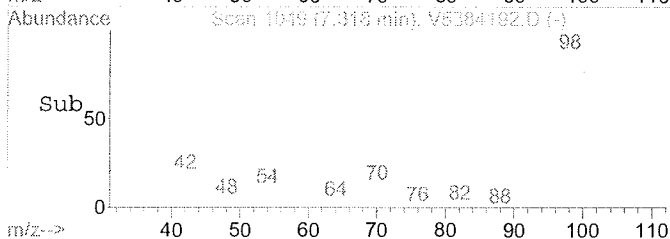




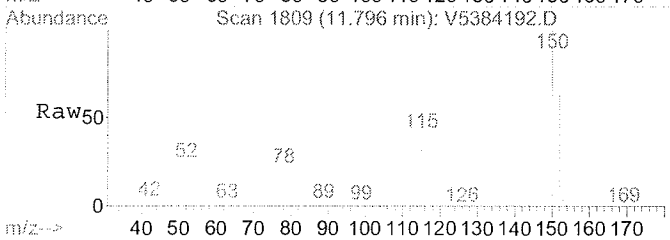
#47
Toluene-d8 (SURRE)
Concen: Below ppb
RT: 7.32 min Scan# 1049
Delta R.T. -0.01 min
Lab File: V5384192.D
Acq: 12 Mar 2016 4:14 pm



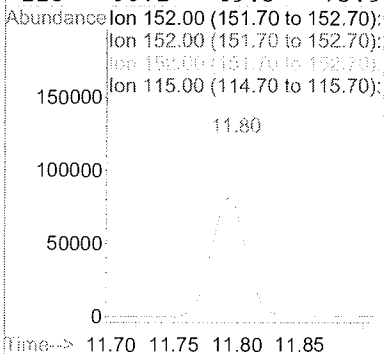
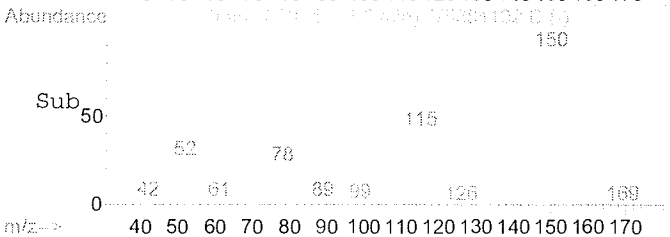
Tgt Ion: 98 Resp: 575679
Ion Ratio Lower Upper
98 100
98 100.0 80.0 120.0
100 0.0 38.0 113.9#
70 13.4 0.0 0.0#

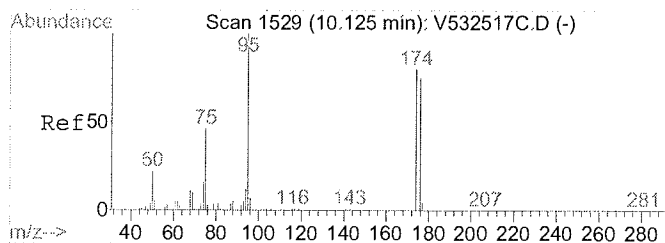


#62
1,2-DICHLOROBENZENE-d4 (ISTD)
Concen: 50.00 ppb
RT: 11.80 min Scan# 1809
Delta R.T. -0.00 min
Lab File: V5384192.D
Acq: 12 Mar 2016 4:14 pm



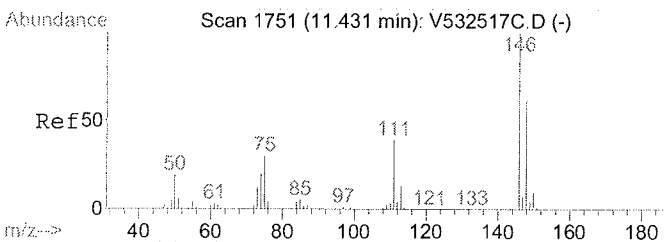
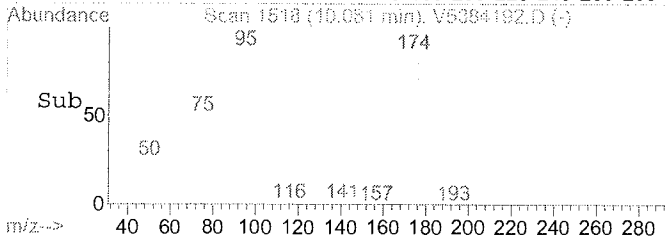
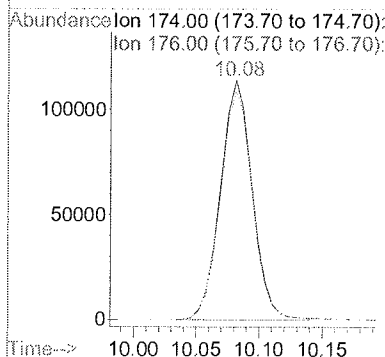
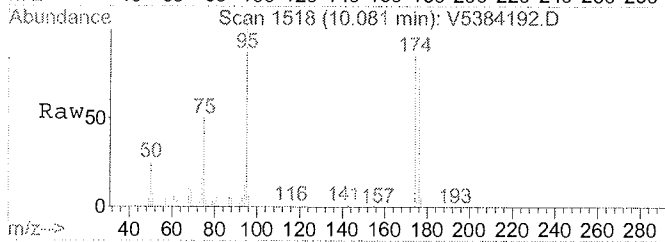
Tgt Ion: 152 Resp: 230614
Ion Ratio Lower Upper
152 100
152 100.0 80.0 120.0
152 100.0 80.0 120.0
115 66.1 49.3 73.9





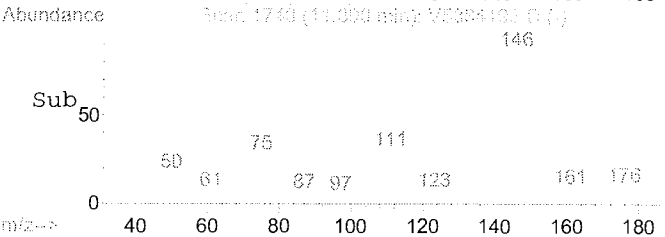
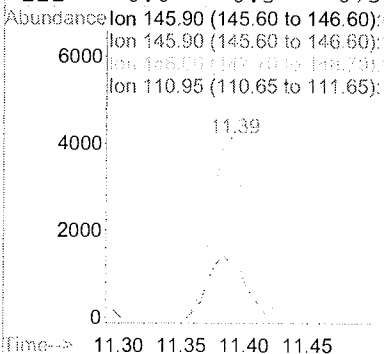
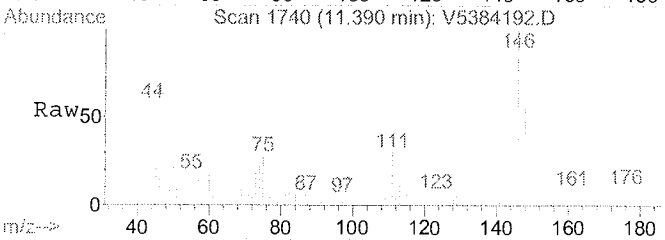
#64
p-Bromofluorobenzene (SURR)
Concen: N.D. ppb
RT: 10.08 min Scan# 1518
Delta R.T. -0.01 min
Lab File: V5384192.D
Acq: 12 Mar 2016 4:14 pm

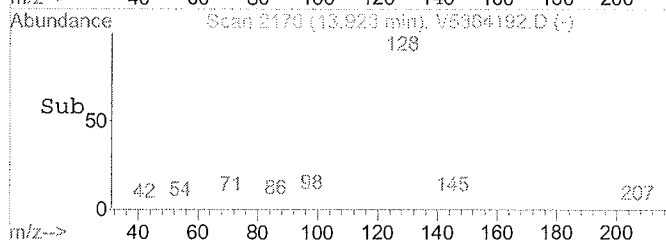
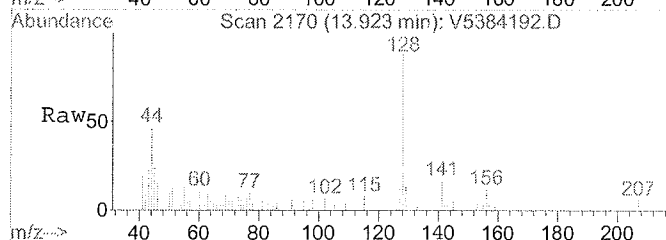
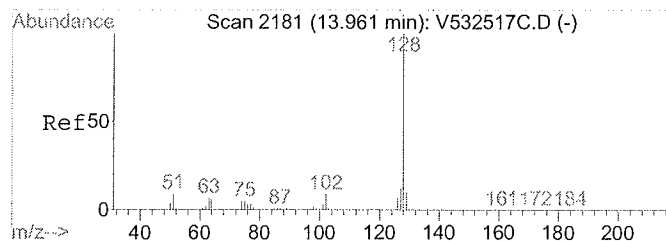
Tgt Ion:174 Resp: 199935
Ion Ratio Lower Upper
174 100
176 97.1 77.8 116.6



#81
1,4-Dichlorobenzene
Concen: 0.91 ppb
RT: 11.39 min Scan# 1740
Delta R.T. -0.01 min
Lab File: V5384192.D
Acq: 12 Mar 2016 4:14 pm

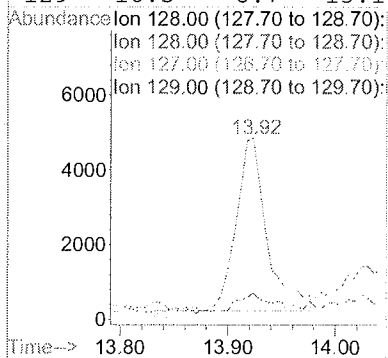
Tgt Ion:146 Resp: 7617
Ion Ratio Lower Upper
146 100
146 100.0 80.0 120.0
148 0.0 50.6 75.8#
111 0.0 0.3 0.5#





#87
 Naphthalene
 Concen: 0.88 ppb
 RT: 13.92 min Scan# 2170
 Delta R.T. -0.00 min
 Lab File: V5384192.D
 Acq: 12 Mar 2016 4:14 pm

Tgt Ion:128 Resp: 9274
 Ion Ratio Lower Upper
 128 100
 128 100.0 80.0 120.0
 127 0.0 0.0 0.0
 129 16.5 8.7 13.1#



FORM I

ORGANIC ANALYSIS DATA SHEET

04/LSB-2

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-04 File ID: V5384193.D
 Sampled: 03/04/16 13:30 Prepared: 03/12/16 16:48 Analyzed: 03/12/16 16:48
 Solids: 70.08 Preparation: EPA 5035A Initial/Final: 6.44 g / 5 ml
 Batch: BC60676 Sequence: Calibration: Instrument: VOA No. 5

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
630-20-6	1,1,1,2-Tetrachloroethane	1	0.0055	U
71-55-6	1,1,1-Trichloroethane	1	0.0055	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.0055	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1	0.0055	U
79-00-5	1,1,2-Trichloroethane	1	0.0055	U
75-34-3	1,1-Dichloroethane	1	0.0055	U
75-35-4	1,1-Dichloroethylene	1	0.0055	U
563-58-6	1,1-Dichloropropylene	1	0.0055	U
87-61-6	1,2,3-Trichlorobenzene	1	0.0055	U
96-18-4	1,2,3-Trichloropropane	1	0.0055	U
120-82-1	1,2,4-Trichlorobenzene	1	0.0055	U
95-63-6	1,2,4-Trimethylbenzene	1	0.0055	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.0055	U
106-93-4	1,2-Dibromoethane	1	0.0055	U
95-50-1	1,2-Dichlorobenzene	1	0.0055	U
107-06-2	1,2-Dichloroethane	1	0.0055	U
78-87-5	1,2-Dichloropropane	1	0.0055	U
108-67-8	1,3,5-Trimethylbenzene	1	0.0055	U
541-73-1	1,3-Dichlorobenzene	1	0.0055	U
142-28-9	1,3-Dichloropropane	1	0.0055	U
106-46-7	1,4-Dichlorobenzene	1	0.0055	U
123-91-1	1,4-Dioxane	1	0.11	U
594-20-7	2,2-Dichloropropane	1	0.0055	U
78-93-3	2-Butanone	1	0.0034	J
95-49-8	2-Chlorotoluene	1	0.0055	U
591-78-6	2-Hexanone	1	0.0055	U
106-43-4	4-Chlorotoluene	1	0.0055	U
108-10-1	4-Methyl-2-pentanone	1	0.0055	U
67-64-1	Acetone	1	0.045	
107-02-8	Acrolein	1	0.011	U
107-13-1	Acrylonitrile	1	0.0055	U
71-43-2	Benzene	1	0.0055	U
108-86-1	Bromobenzene	1	0.0055	U
74-97-5	Bromochloromethane	1	0.0055	U
75-27-4	Bromodichloromethane	1	0.0055	U
75-25-2	Bromoform	1	0.0055	U
74-83-9	Bromomethane	1	0.0055	U
75-15-0	Carbon disulfide	1	0.0055	U
56-23-5	Carbon tetrachloride	1	0.0055	U
108-90-7	Chlorobenzene	1	0.0055	U

FORM I

ORGANIC ANALYSIS DATA SHEET

04/LSB-2

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-04 File ID: V5384193.D
 Sampled: 03/04/16 13:30 Prepared: 03/12/16 16:48 Analyzed: 03/12/16 16:48
 Solids: 70.08 Preparation: EPA 5035A Initial/Final: 6.44 g / 5 ml
 Batch: BC60676 Sequence: Calibration: Instrument: VOA No. 5

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
75-00-3	Chloroethane	1	0.0055	U
67-66-3	Chloroform	1	0.0055	U
74-87-3	Chloromethane	1	0.0055	U
156-59-2	cis-1,2-Dichloroethylene	1	0.0055	U
10061-01-5	cis-1,3-Dichloropropylene	1	0.0055	U
110-82-7	Cyclohexane	1	0.0055	U
124-48-1	Dibromochloromethane	1	0.0055	U
74-95-3	Dibromomethane	1	0.0055	U
75-71-8	Dichlorodifluoromethane	1	0.0055	U
100-41-4	Ethyl Benzene	1	0.0055	U
87-68-3	Hexachlorobutadiene	1	0.0055	U
98-82-8	Isopropylbenzene	1	0.0055	U
79-20-9	Methyl acetate	1	0.0055	U
1634-04-4	Methyl tert-butyl ether (MTBE)	1	0.0055	U
108-87-2	Methyleyclohexane	1	0.0055	U
75-09-2	Methylene chloride	1	0.011	U
104-51-8	n-Butylbenzene	1	0.0055	U
103-65-1	n-Propylbenzene	1	0.0055	U
95-47-6	o-Xylene	1	0.0055	U
179601-23-1	p- & m- Xylenes	1	0.011	U
99-87-6	p-Isopropyltoluene	1	0.0055	U
135-98-8	sec-Butylbenzene	1	0.0055	U
100-42-5	Styrene	1	0.0055	U
75-65-0	tert-Butyl alcohol (TBA)	1	0.011	U
98-06-6	tert-Butylbenzene	1	0.0055	U
127-18-4	Tetrachloroethylene	1	0.0055	U
108-88-3	Toluene	1	0.0055	U
156-60-5	trans-1,2-Dichloroethylene	1	0.0055	U
10061-02-6	trans-1,3-Dichloropropylene	1	0.0055	U
79-01-6	Trichloroethylene	1	0.0055	U
75-69-4	Trichlorofluoromethane	1	0.0055	U
108-05-4	Vinyl acetate	1	0.0055	U
75-01-4	Vinyl Chloride	1	0.0055	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	52.1	104	77 - 125	
Toluene-d8	50.0	51.1	102	85 - 120	
p-Bromofluorobenzene	50.0	56.3	113	76 - 130	

* Values outside of QC limits

Data File : G:\MSVOA5 V5\DAILYDAT\V5031216\V5384193.D Vial: 10
 Acq On : 12 Mar 2016 4:48 pm Operator: SS
 Sample : 16C0235-04 Inst : VOA No. 5
 Misc : QBV5031216A NYSDEC 375 6.44g B Multiplr: 1.00
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:16 2016 Quant Results File: V5C00149.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)

Title : VOCs BY GC/MS EPA SW846-8260

Last Update : Fri Mar 11 09:44:58 2016

Response via : Initial Calibration

DataAcq Meth : V5C0001A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.79	70	124204	50.00	ppb	0.00
36) CHLOROBENZENE-d5(ISTD)	8.82	117	508698	50.00	ppb	0.00
62) 1,2-DICHLOROBENZENE-d4(IST	11.80	152	176532	50.00	ppb	0.00

System Monitoring Compounds

32) d4-1,2-Dichloroethane(SURR	5.52	65	192681	52.12	ppb	0.00
Spiked Amount	50.000	Range	64 - 122	Recovery	=	104.24%
47) Toluene-d8(SURR)	7.31	98	543887	51.13	ppb	-0.01
Spiked Amount	50.000	Range	83 - 114	Recovery	=	102.26%
64) p-Bromofluorobenzene(SURR)	10.08	174	177050	56.27	ppb	0.00
Spiked Amount	50.000	Range	71 - 126	Recovery	=	112.54%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
17) Methylene Chloride	3.53	49	23343	3.19	ppb	99
20) Acetone	3.13	43	71859	40.55	ppb	# 1
24) 2-Butanone	4.77	72	1548	3.04	ppb	46
27) Chloroform	5.04	83	9744	1.14	ppb	100
83) p-Isopropyltoluene	11.27	119	17969	1.39	ppb	# 99
87) Naphthalene	13.92	128	7983	0.99	ppb	# 99

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

V5384193.D V5C00148.M

Mon Mar 14 10:47:04 2016

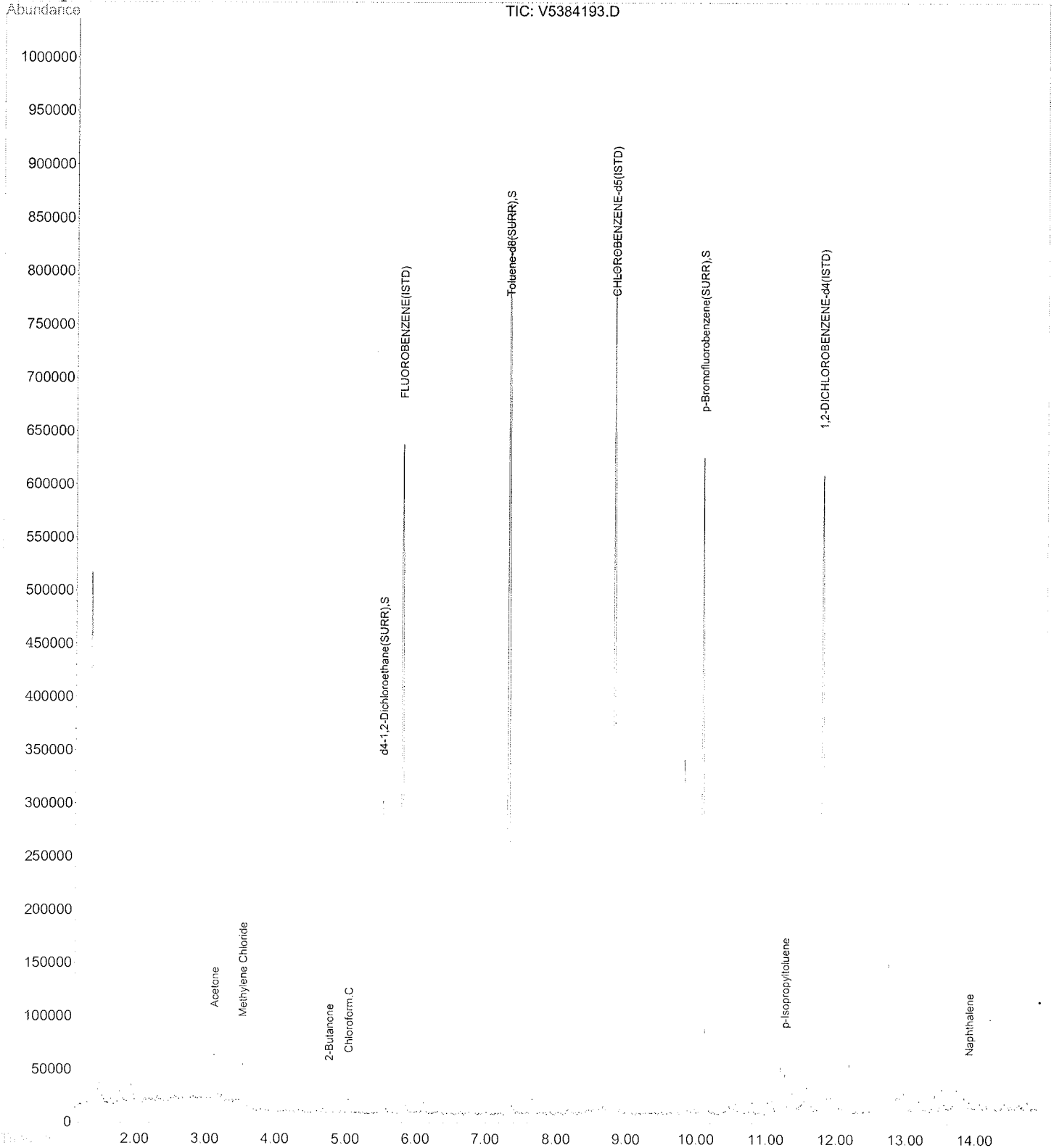
123

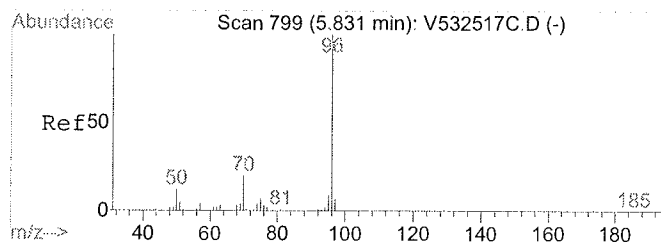
Page 1

Quantitation Report

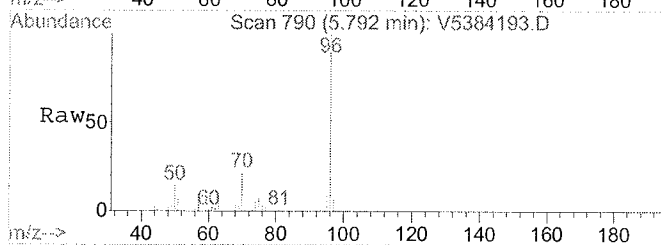
Data File : G:\MSVOA5 V5\DAI\LYDAT\V5031216\V5384193.D Vial: 10
 Acq On : 12 Mar 2016 4:48 pm Operator: SS
 Sample : 16C0235-04 Inst : VOA No. 5
 Misc : QBV5031216A NYSDEC 375 6.44g B Multiplr: 1.00
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:16 2016 Quant Results File: V5C00149.RES

Method : G:\MSVOA METHODS\V5C00148.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Thu Feb 25 10:10:34 2016
 Response via : Initial Calibration



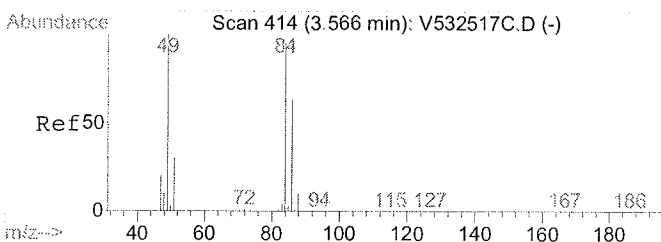
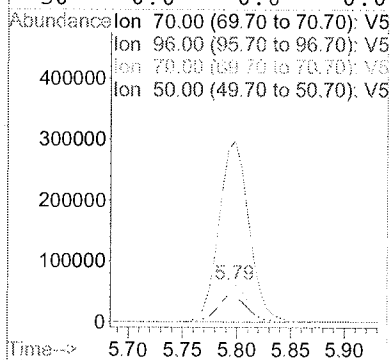
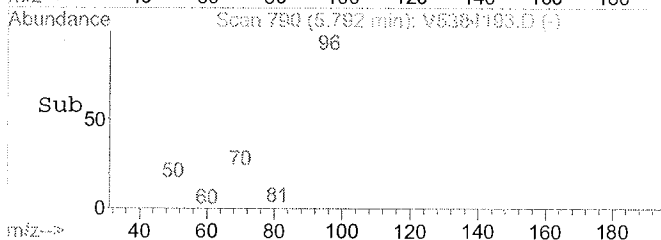


#1
 FLUOROBENZENE (ISTD)
 Concen: 50.00 ppb
 RT: 5.79 min Scan# 790
 Delta R.T. -0.01 min
 Lab File: V5384193.D
 Acq: 12 Mar 2016 4:48 pm

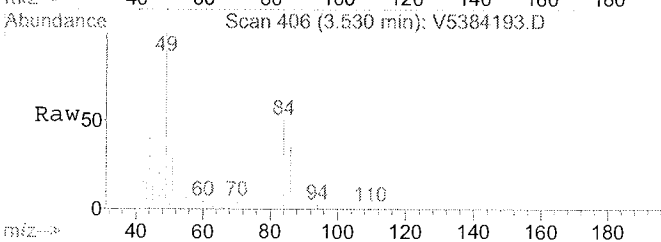


Tgt Ion: 70 Resp: 124204

Ion	Ratio	Lower	Upper
70	100		
96	463.7	0.0	0.0#
70	100.0	0.4	0.6#
50	0.0	0.0	0.0

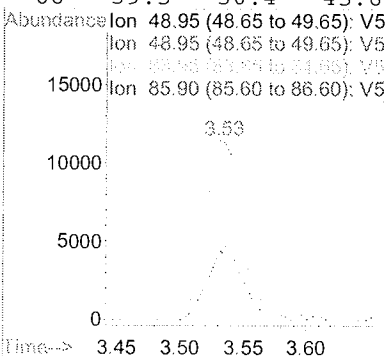
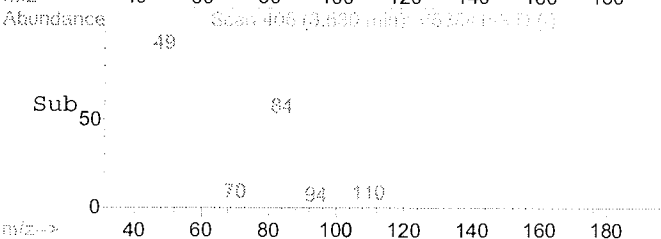


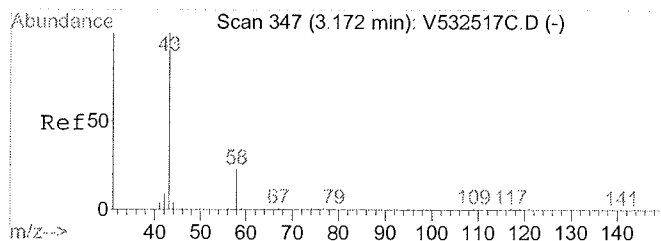
#17
 Methylene Chloride
 Concen: 3.19 ppb
 RT: 3.53 min Scan# 406
 Delta R.T. -0.01 min
 Lab File: V5384193.D
 Acq: 12 Mar 2016 4:48 pm



Tgt Ion: 49 Resp: 23343

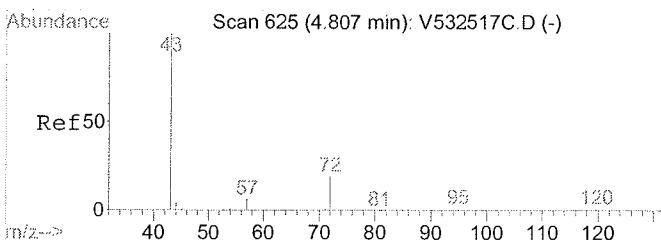
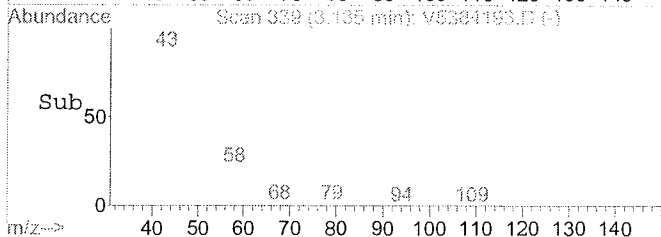
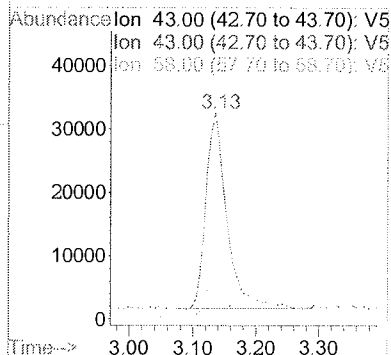
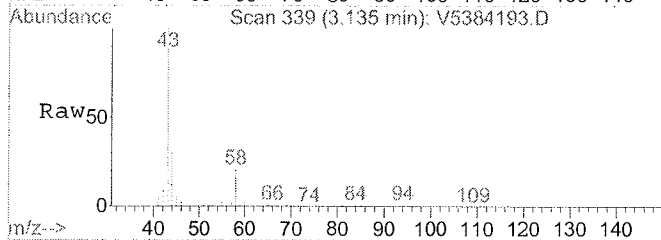
Ion	Ratio	Lower	Upper
49	100		
49	100.0	80.0	120.0
84	59.1	46.2	69.2
86	39.5	30.4	45.6





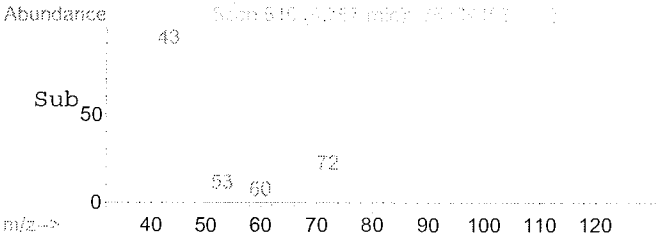
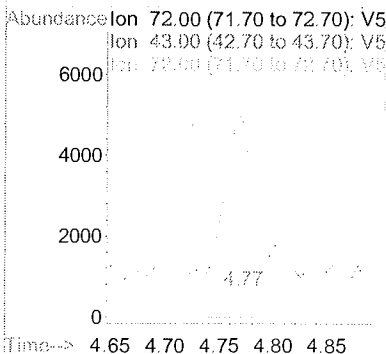
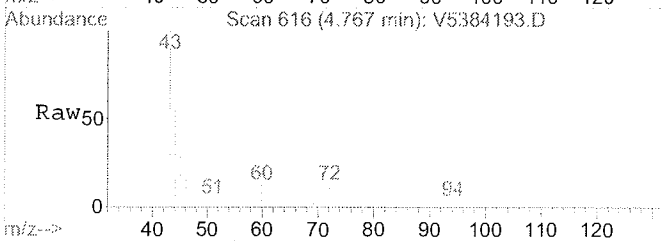
#20
Acetone
Concen: 40.55 ppb
RT: 3.13 min Scan# 339
Delta R.T. -0.00 min
Lab File: V5384193.D
Acq: 12 Mar 2016 4:48 pm

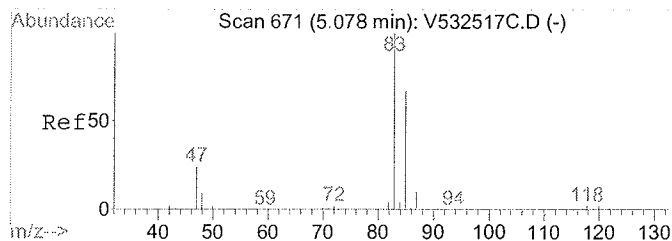
Tgt Ion: 43 Resp: 71859
Ion Ratio Lower Upper
43 100
43 100.0 6.7 10.1#
58 20.5 0.0 0.0#



#24
2-Butanone
Concen: 3.04 ppb
RT: 4.77 min Scan# 616
Delta R.T. -0.00 min
Lab File: V5384193.D
Acq: 12 Mar 2016 4:48 pm

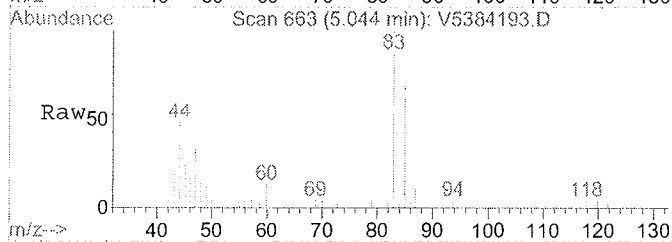
Tgt Ion: 72 Resp: 1548
Ion Ratio Lower Upper
72 100
43 692.1 307.0 716.2
72 100.0 0.0 200.0





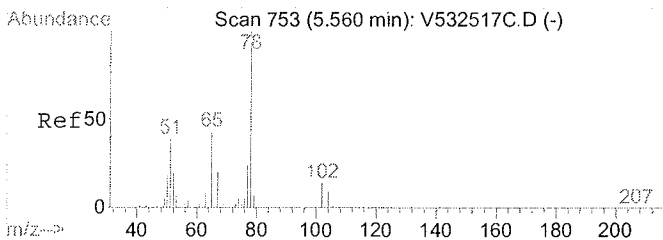
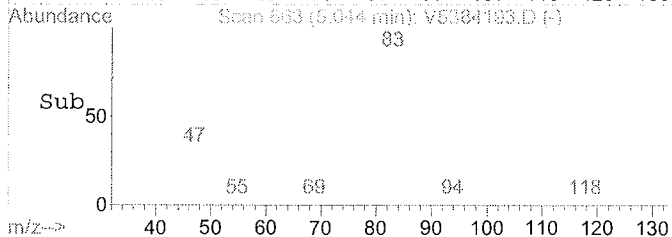
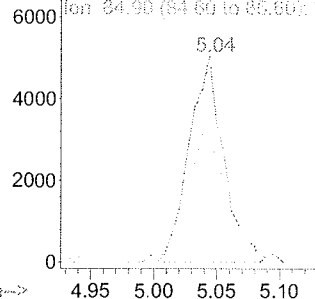
#27
Chloroform
Concen: 1.14 ppb
RT: 5.04 min Scan# 663
Delta R.T. -0.00 min
Lab File: V5384193.D
Acq: 12 Mar 2016 4:48 pm

Tgt Ion: 83 Resp: 9744
Ion Ratio Lower Upper
83 100
83 100.0 80.0 120.0
85 66.8 53.8 80.6



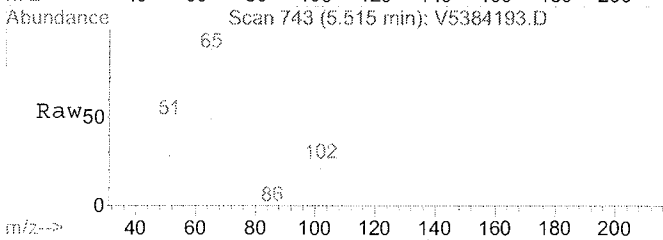
Abundance

Ion 82.95 (82.65 to 83.65): V5
Ion 82.95 (82.65 to 83.65): V5
Ion 84.90 (84.60 to 85.60): V5



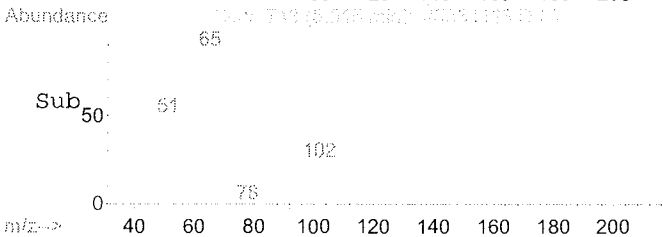
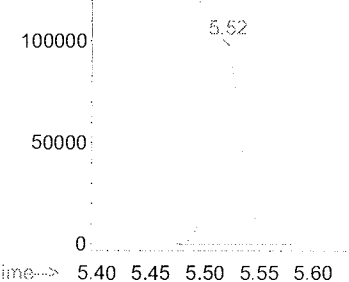
#32
d4-1,2-Dichloroethane (SURR)
Concen: Below ppb
RT: 5.52 min Scan# 743
Delta R.T. -0.01 min
Lab File: V5384193.D
Acq: 12 Mar 2016 4:48 pm

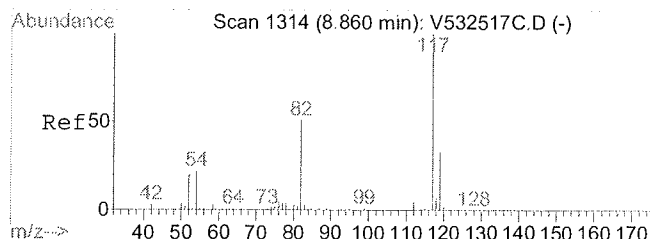
Tgt Ion: 65 Resp: 192681
Ion Ratio Lower Upper
65 100
65 100.0 80.0 120.0
102 24.9 20.4 30.6



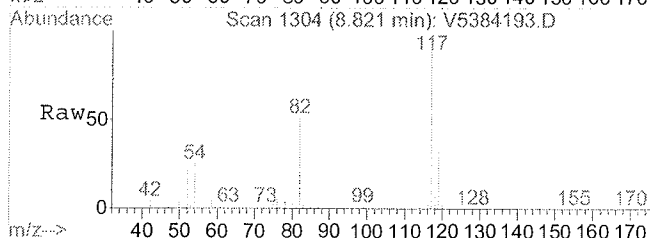
Abundance

Ion 65.00 (64.70 to 65.70): V5
Ion 65.00 (64.70 to 65.70): V5
Ion 102.00 (101.00 to 102.70): V5

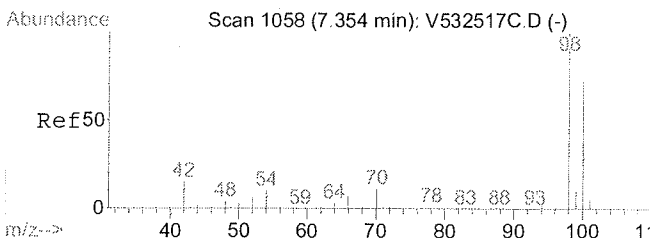
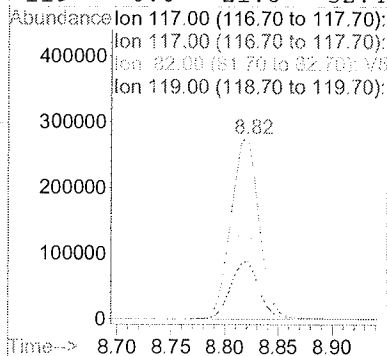
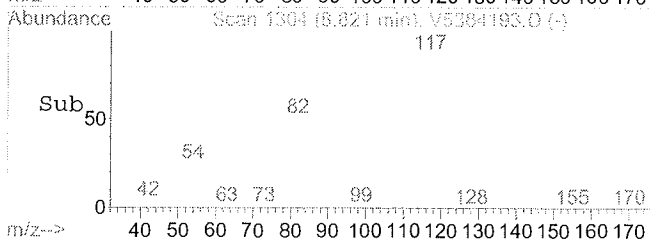




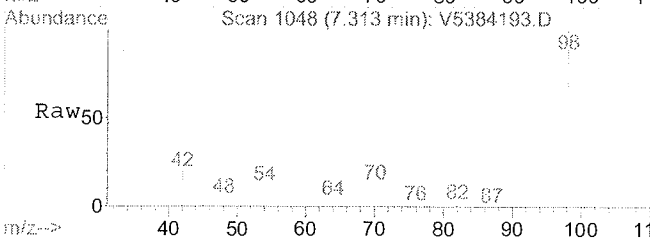
#36
CHLOROBENZENE-d5 (ISTD)
Concen: 50.00 ppb
RT: 8.82 min Scan# 1304
Delta R.T. -0.00 min
Lab File: V5384193.D
Acq: 12 Mar 2016 4:48 pm



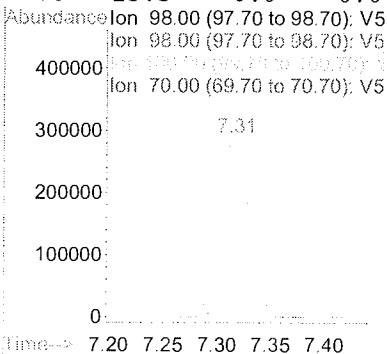
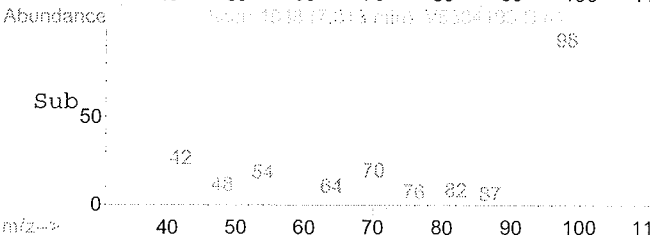
Tgt Ion: 117 Resp: 508698
Ion Ratio Lower Upper
117 100
117 100.0 22.6 33.8#
82 51.2 0.0 0.0#
119 0.0 21.6 32.4#

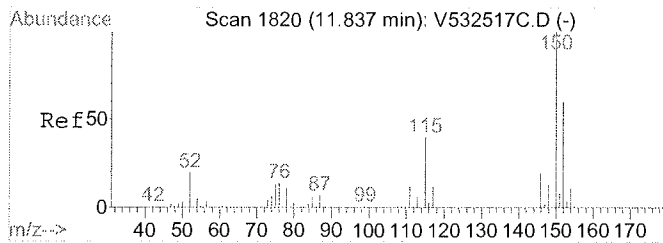


#47
Toluene-d8 (SURR)
Concen: Below ppb
RT: 7.31 min Scan# 1048
Delta R.T. -0.01 min
Lab File: V5384193.D
Acq: 12 Mar 2016 4:48 pm



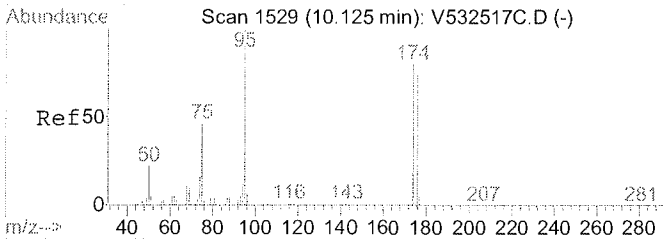
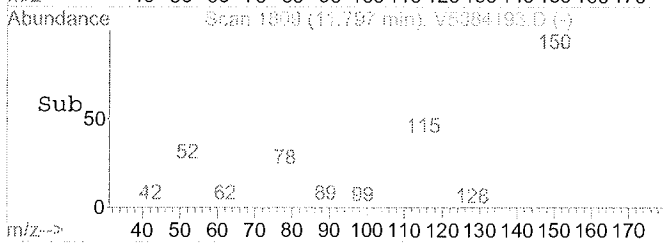
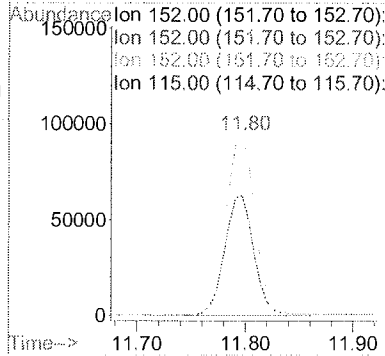
Tgt Ion: 98 Resp: 543887
Ion Ratio Lower Upper
98 100
98 100.0 80.0 120.0
100 76.3 38.0 113.9
70 13.5 0.0 0.0#





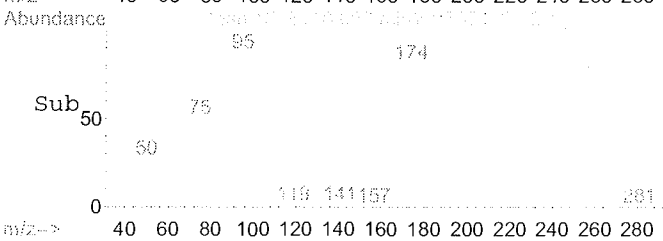
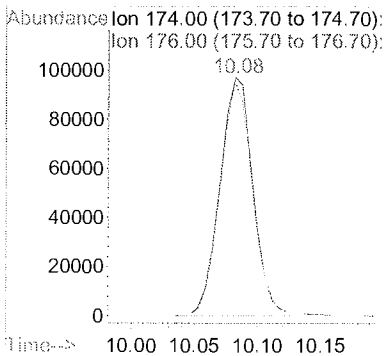
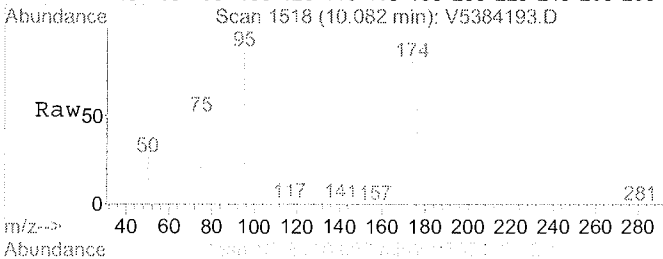
#62
1,2-DICHLOROBENZENE-d4 (ISTD)
Concen: 50.00 ppb
RT: 11.80 min Scan# 1809
Delta R.T. -0.00 min
Lab File: V5384193.D
Acq: 12 Mar 2016 4:48 pm

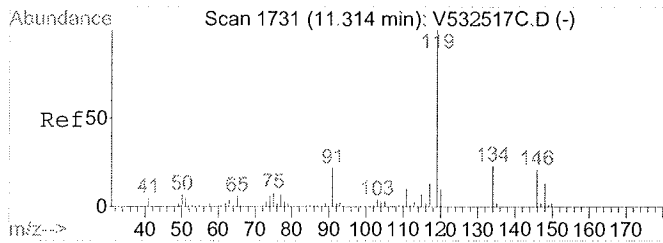
Tgt Ion	Ratio	Lower	Upper
152	100		
152	100.0	80.0	120.0
152	100.0	80.0	120.0
115	66.3	49.3	73.9



#64
p-Bromofluorobenzene (SURR)
Concen: N.D. ppb
RT: 10.08 min Scan# 1518
Delta R.T. -0.01 min
Lab File: V5384193.D
Acq: 12 Mar 2016 4:48 pm

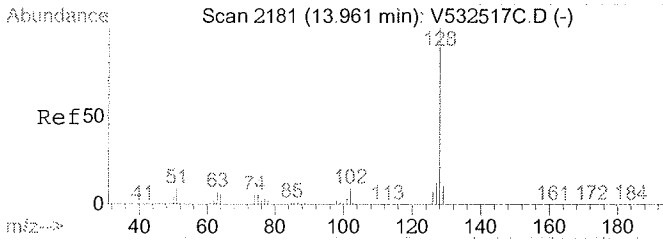
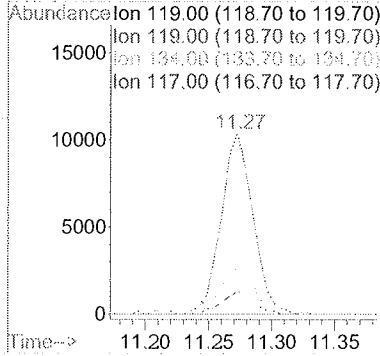
Tgt Ion	Ratio	Lower	Upper
174	100		
176	95.1	77.8	116.6





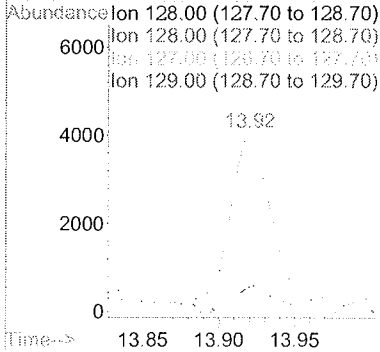
#83
p-Isopropyltoluene
Concen: 1.39 ppb
RT: 11.27 min Scan# 1720
Delta R.T. -0.01 min
Lab File: V5384193.D
Acq: 12 Mar 2016 4:48 pm

Tgt Ion:119 Resp: 17969
Ion Ratio Lower Upper
119 100
119 100.0 80.0 120.0
134 27.5 20.4 30.6
117 12.7 0.0 0.0#



#87
Naphthalene
Concen: 0.99 ppb
RT: 13.92 min Scan# 2169
Delta R.T. -0.01 min
Lab File: V5384193.D
Acq: 12 Mar 2016 4:48 pm

Tgt Ion:128 Resp: 7983
Ion Ratio Lower Upper
128 100
128 100.0 80.0 120.0
127 0.0 0.0 0.0
129 14.2 8.7 13.1#



FORM I

ORGANIC ANALYSIS DATA SHEET

06/TB-1

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: 16C0235-06 File ID: V706931.D
 Sampled: 03/04/16 00:00 Prepared: 03/11/16 08:42 Analyzed: 03/11/16 12:18
 Solids: Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Batch: BC60625 Sequence: Calibration: Instrument: MSVOA7

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	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	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	0.50	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	2.0	U
107-13-1	Acrylonitrile	1	0.50	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

06/TB-1

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: 16C0235-06 File ID: V706931.D
 Sampled: 03/04/16 00:00 Prepared: 03/11/16 08:42 Analyzed: 03/11/16 12:18
 Solids: Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Batch: BC60625 Sequence: Calibration: Instrument: MSVOA7

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	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	9.87	98.7	69 - 130	
Toluene-d8	10.0	9.98	99.8	81 - 117	
p-Bromofluorobenzene	10.0	10.5	105	79 - 122	

* Values outside of QC limits

Data Path : C:\msdchem\1\data\V7031116\
 Data File : V706931.D
 Acq On : 11 Mar 2016 12:18 pm
 InstName : MSVOA7
 Operator : SS
 Sample : 16C0235-06
 Misc : QBV7031116A NYSDEC 375 A
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 14 14:28:10 2016
 Quant Method : C:\msdchem\1\methods\V7LO0049.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 15:13:37 2016
 Response via : Initial Calibration

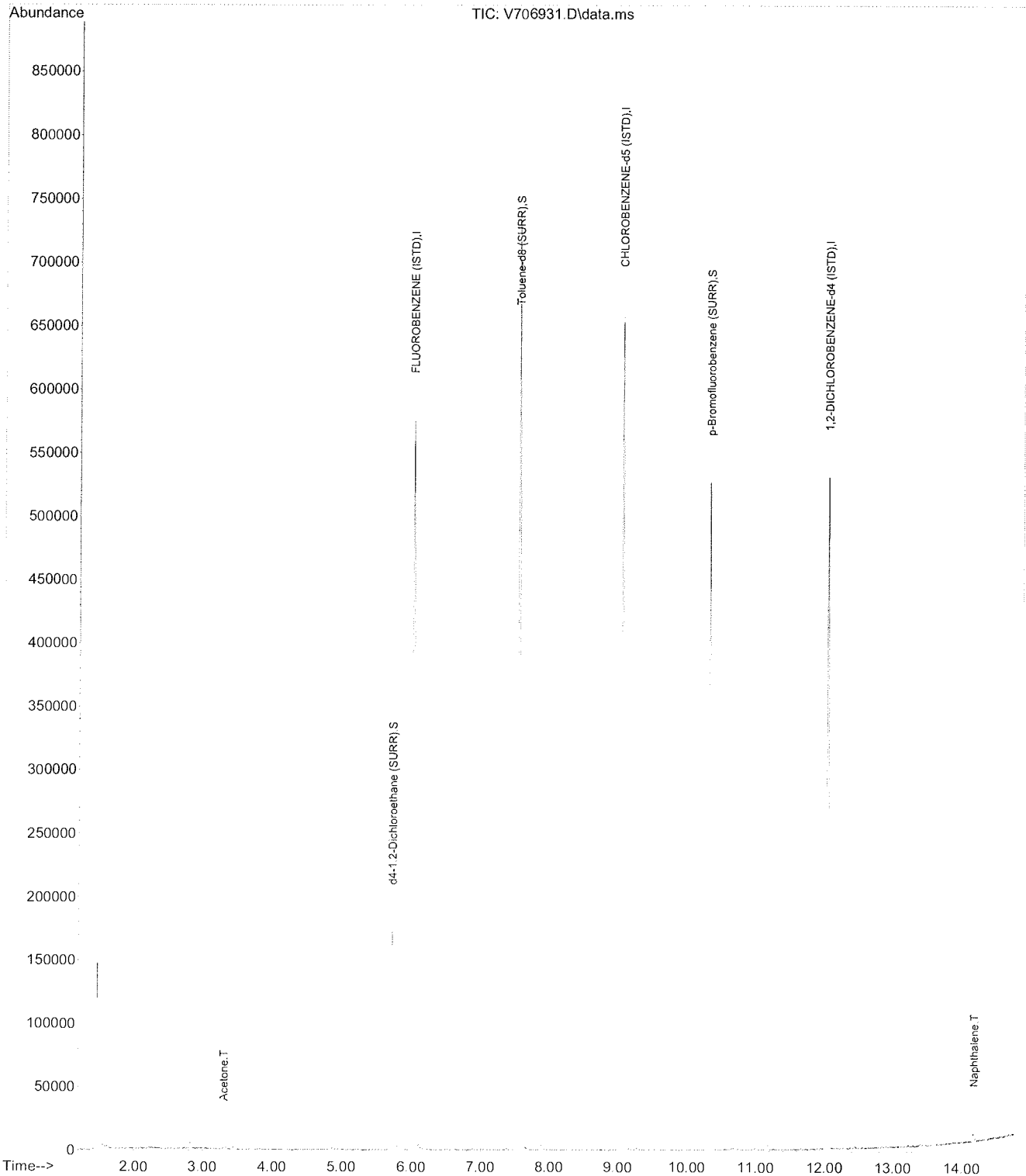
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

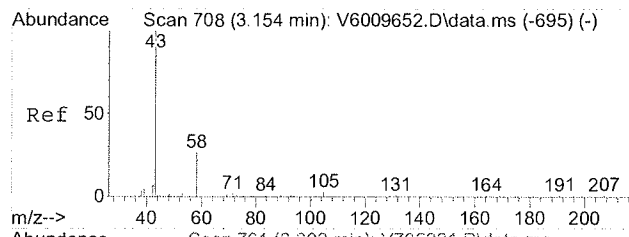
Internal Standards						
1) FLUOROBENZENE (ISTD)	6.009	70	110753	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	9.044	117	461840	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	12.032	152	171814	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.719	65	125094	9.87	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	98.70%	
51) Toluene-d8 (SURR)	7.539	98	574152	9.98	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	99.80%	
70) p-Bromofluorobenzene (...)	10.310	95	209014	10.51	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	105.10%	
Target Compounds						
12) Acetone	3.302	43	1401	0.61	ppb	Qvalue 94
93) Naphthalene	14.172	128	5929	0.34	ppb	# 90

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

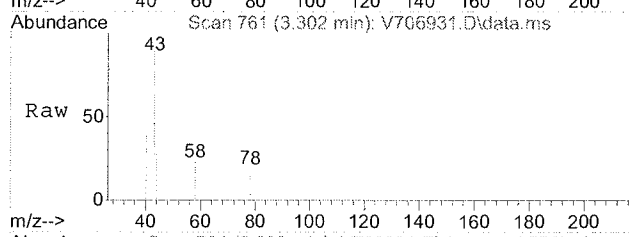
Data Path : C:\msdchem\1\data\V7031116\
Data File : V706931.D
Acq On : 11 Mar 2016 12:18 pm
InstName : MSVOA7
Operator : SS
Sample : 16C0235-06
Misc : QBV7031116A NYSDEC 375 A
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 14 14:28:10 2016
Quant Method : C:\msdchem\1\methods\V7LO0049.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Thu Mar 10 15:13:37 2016
Response via : Initial Calibration

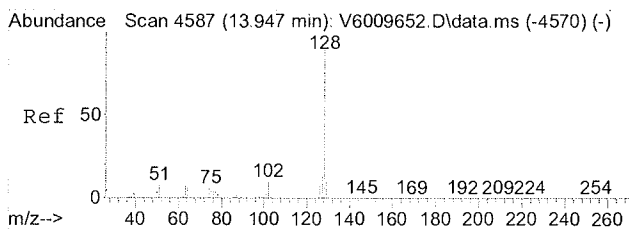
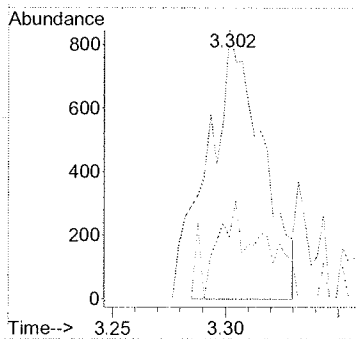
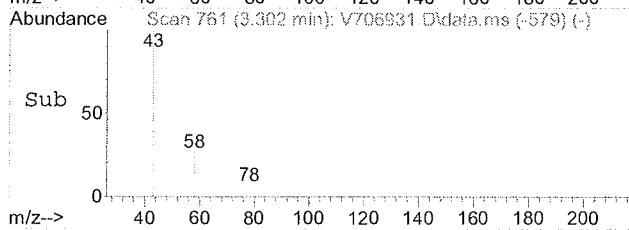




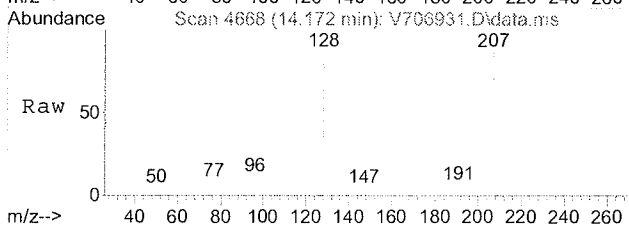
#12
Acetone
Concen: 0.61 ppb
RT: 3.302 min Scan# 761
Delta R.T. 0.006 min
Lab File: V706931.D
Acq: 11 Mar 2016 12:18 pm



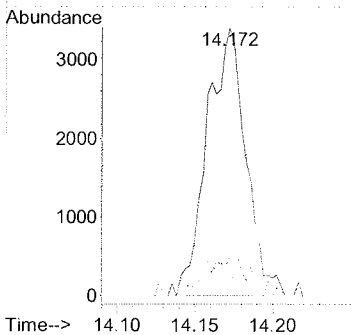
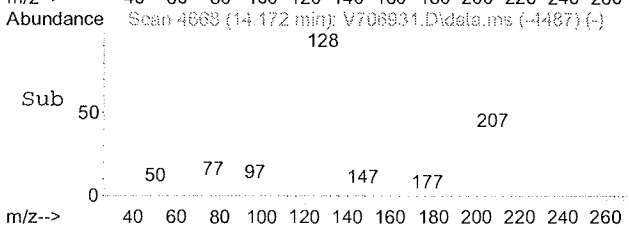
Tgt Ion: 43 Resp: 1401
Ion Ratio Lower Upper
43 100
43 100.0 80.0 120.0
58 18.3 16.0 47.9



#93
Naphthalene
Concen: 0.34 ppb
RT: 14.172 min Scan# 4668
Delta R.T. 0.003 min
Lab File: V706931.D
Acq: 11 Mar 2016 12:18 pm



Tgt Ion: 128 Resp: 5929
Ion Ratio Lower Upper
128 100
127 7.3 8.5 17.6#
129 8.9 7.2 15.0



Response Factor Report MSVOA7

Method Path : C:\msdchem\1\methods\
 Method File : V7LO0049.M
 Title : Volatile Organics EPA 8260C
 Last Update : Thu Mar 10 15:13:37 2016
 Response Via : Initial Calibration

Calibration Files

0.5=V706888.D 2.0 =V706889.D 4.0 =V706890.D 10.0=V706891.D 20.0=V706892.D 40.0=V706893.D
 80.0=V706894.D 120 =V706895.D 160 =V706896.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...	0.8939	0.9742	1.0105	0.8047	0.9989	0.8608	0.6915	0.8500	0.7993	0.876	12.05
3)	T	Chloromethane	0.9401	0.9255	0.9569	0.8642	0.9581	1.0067	1.1179	1.2403	1.2274	1.026	13.27
4)	T	Vinyl Chloride	1.0110	1.1523	1.2104	1.1089	1.2363	1.1914	1.0909	1.2604	1.1984	1.162	6.84
5)	T	Bromomethane	0.3669	0.3990	0.4008	0.4249	0.5561	0.6017	0.6663	0.6954	0.6760	0.532	25.27
6)	T	Chloroethane	0.7546	0.7428	0.7611	0.7288	0.7684	0.7577	0.7174	0.7663	0.7116	0.745	2.87
7)	T	Trichloroflu...	1.4565	1.6257	1.6850	1.5904	1.7007	1.5573	1.3188	1.5600	1.4470	1.549	7.95
8)		Ethanol	0.0035	0.0039	0.0041	0.0032	0.0027	0.0020	0.0025	0.0028	0.0028	0.003	22.36
9)	T	Freon-113	0.9559	1.0669	1.1053	1.0380	1.0949	1.0055	0.8834	1.1019	1.0483	1.033	7.20
10)	T	1,1-Dichloro...	1.5105	1.6056	1.6505	1.4932	1.6482	1.5482	1.4225	1.6000	1.5149	1.555	4.95
11)	T	Acrolein		0.0459	0.0439	0.0402	0.0466	0.0581	0.0677	0.0744	0.0791	0.057	26.47
12)	T	Acetone		0.4251	0.2866	0.1775	0.1648	0.1561	0.1499	0.1533	0.1495	0.208	47.63
13)	T	Iodomethane		0.4166	0.5971	0.7615	0.9919	1.0276	1.0353	1.0580	1.0844	0.872	28.77
14)	T	Methyl Acetate	0.3743	0.4008	0.4053	0.4038	0.4037	0.4474	0.4523	0.4376	0.4276	0.417	6.16
15)	T	Carbon disul...	3.5328	3.4016	3.3862	3.0638	3.3319	3.2076	3.0311	3.3672	3.2262	3.283	5.02
16)	T	tert-Butyl A...		0.0751	0.0730	0.0567	0.0568	0.0600	0.0647	0.0640	0.0631	0.064	10.60
17)	T	Methylene Ch...	1.7746	1.4149	1.4146	1.2747	1.3384	1.3565	1.4272	1.4067	1.3402	1.416	10.11
18)	T	Acrylonitrile	0.1562	0.1859	0.2243	0.1712	0.2109	0.2250	0.2406	0.2426	0.2375	0.210	15.18
19)	T	trans-1,2-Di...	1.4558	1.5974	1.5968	1.4763	1.6186	1.5961	1.5866	1.6569	1.5628	1.572	4.16
20)	T	tert-Butyl M...	2.1580	2.4564	2.5676	2.4839	2.7005	2.8890	3.0285	2.9312	2.8643	2.675	10.54
21)	T	1,1-Dichloro...	2.0524	2.0562	2.1133	1.9521	2.1222	2.1441	2.2043	2.1134	1.9960	2.084	3.72
22)	T	Vinyl Acetate	2.7180	2.8363	3.0443	2.9492	3.1591	3.3278	3.4030	3.2684	3.0930	3.089	7.38
23)	T	Diisopropyl ...	2.9100	3.1960	3.4100	3.4022	3.6599	3.8005	3.9826	3.8297	3.6246	3.535	9.59
24)	T	Ethyl-tert-B...	2.6291	2.9719	3.1789	3.1756	3.4449	3.6077	3.7779	3.6567	3.5310	3.330	11.16
25)	T	cis-1,2-Dich...	1.6992	1.8151	1.8217	1.7169	1.8516	1.8917	1.9401	1.9091	1.8228	1.830	4.44
26)	T	2-Butanone	0.1010	0.0762	0.0849	0.0729	0.0776	0.0832	0.0878	0.0868	0.0855	0.084	9.81
27)	T	2,2-Dichloro...	1.7776	1.8354	1.8135	1.6736	1.8033	1.7659	1.7019	1.8201	1.7144	1.767	3.28
28)	T	Tetrahydrofuran	0.0473	0.0726	0.0671	0.0582	0.0684	0.0730	0.0792	0.0788	0.0786	0.069	15.39
29)	T	Bromochlorom...	0.7975	0.8508	0.8102	0.7568	0.7804	0.7835	0.7974	0.7476	0.7285	0.784	4.66
30)	T	Chloroform	2.0241	2.0645	2.0731	1.9205	2.0492	2.0947	2.1616	2.1425	2.0388	2.063	3.42
31)	T	1,1,1-Trichl...	1.7313	1.8159	1.8554	1.7151	1.8705	1.8191	1.7550	1.9243	1.8212	1.812	3.76
32)	T	Cyclohexane	1.6440	1.8172	1.8898	1.8289	1.9560	1.8103	1.6340	2.0063	1.8981	1.832	6.93
33)	T	1,1-Dichloro...	1.4320	1.5518	1.5700	1.4793	1.6196	1.5977	1.5426	1.7265	1.6298	1.572	5.49
34)	S	d4-1,2-Dichl...	1.1678	1.1585	1.1739	1.1378	1.1471	1.1816	1.1185	1.1241	1.0901	1.144	2.60
35)	T	Carbon Tetra...	1.4569	1.5677	1.6000	1.4856	1.6657	1.5933	1.4921	1.6965	1.5963	1.573	5.19
36)	T	tert-Amyl al...	0.0596	0.0477	0.0486	0.0451	0.0502	0.0540	0.0607	0.0604	0.0606	0.054	11.74
37)	T	1,2-Dichloro...	1.2016	1.2882	1.2749	1.1897	1.2611	1.3307	1.3472	1.2826	1.2118	1.265	4.38

38)	T	Benzene	4.6571	4.8019	4.8175	4.4954	4.8680	4.9261	5.0152	5.0489	4.7796	4.823	3.57
39)	T	tert-Amyl me...	2.4482	2.6064	2.6722	2.7896	3.1493	3.3985	3.5484	3.3880	3.2527	3.028	13.31
40)	I	CHLOROBENZENE-d5 (...)											
41)	T	Trichloroeth...	0.2880	0.2857	0.2885	0.2724	0.2914	0.2876	0.2993	0.3221	0.3058	0.293	4.83
42)	T	Methyl Cyclo...	0.3673	0.4283	0.4631	0.4484	0.4749	0.4314	0.4057	0.5102	0.4820	0.446	9.68
43)	T	Methyl Metha...	0.0897	0.1079	0.1164	0.1113	0.1234	0.1340	0.1447	0.1430	0.1404	0.123	15.18
44)	T	Dibromomethane	0.1239	0.1334	0.1331	0.1256	0.1331	0.1396	0.1492	0.1452	0.1369	0.136	6.11
45)	T	Bromodichlor...	0.3233	0.3620	0.3569	0.3391	0.3572	0.3696	0.4018	0.3937	0.3742	0.364	6.74
46)	T	1,2-Dichloro...	0.2591	0.2775	0.2758	0.2583	0.2742	0.2814	0.3062	0.3051	0.2918	0.281	6.18
47)	T	1,4-Dioxane		0.0012	0.0011	0.0010	0.0013	0.0012	0.0013	0.0012	0.0013	0.001	7.69
48)	T	2-Chloroethy...										0.000	-1.00
49)	T	cis-1,3-Dich...	0.3522	0.4054	0.3993	0.3946	0.4243	0.4418	0.4799	0.4709	0.4524	0.425	9.64
50)	T	4-Methyl-2-P...	0.2035	0.2373	0.2490	0.2404	0.2527	0.2759	0.2959	0.2880	0.2780	0.258	11.37
51)	S	Toluene-d8 (...)	1.2408	1.2397	1.2442	1.2526	1.2376	1.2402	1.2582	1.2521	1.2456	1.246	0.57
52)	T	Toluene	1.7256	1.3628	1.2931	1.1842	1.2425	1.2111	1.2603	1.2696	1.1841	1.304	12.88
53)	T	trans-1,3-Di...	0.2931	0.3374	0.3374	0.3261	0.3515	0.3735	0.3998	0.3873	0.3702	0.353	9.44
54)	T	1,1,2-Trichl...	0.1603	0.1912	0.1948	0.1808	0.1883	0.1988	0.2112	0.2050	0.1974	0.192	7.74
55)	T	1,3-Dichloro...	0.2882	0.3367	0.3245	0.3064	0.3258	0.3426	0.3655	0.3515	0.3413	0.331	7.07
56)	T	Tetrachloroe...	0.3302	0.3406	0.3396	0.3171	0.3363	0.3148	0.3100	0.3446	0.3235	0.329	3.84
57)	T	2-Hexanone	0.0839	0.0910	0.0900	0.0860	0.0945	0.1031	0.1101	0.1060	0.1022	0.096	9.68
58)	T	Dibromochlor...	0.1937	0.2306	0.2237	0.2145	0.2278	0.2440	0.2635	0.2580	0.2482	0.234	9.46
59)	T	1,2-Dibromoe...	0.1565	0.1765	0.1754	0.1672	0.1761	0.1879	0.1993	0.1937	0.1877	0.180	7.47
60)	T	Chlorobenzene	0.7778	0.7642	0.7428	0.6993	0.7417	0.7410	0.7909	0.7861	0.7436	0.754	3.81
61)	T	1,1,1,2-tetr...	0.2476	0.2824	0.2738	0.2585	0.2790	0.2859	0.3106	0.2978	0.2770	0.279	6.75
62)	T	Ethyl Benzene	1.2120	1.2952	1.3098	1.2519	1.3500	1.3190	1.3702	1.3784	1.2496	1.304	4.41
63)	T	p- & m-Xylenes	0.9177	0.9816	0.9934	0.9445	1.0162	0.9941	1.0167	0.9803	0.8645	0.968	5.19
64)	T	o-Xylene	0.8523	0.9410	0.9396	0.9087	0.9800	0.9721	1.0193	1.0168	0.9446	0.953	5.51
65)	T	Styrene	0.6753	0.8001	0.7980	0.7824	0.8421	0.8547	0.8991	0.8747	0.8103	0.815	8.00
66)	T	Bromoform	0.0946	0.1171	0.1178	0.1138	0.1244	0.1366	0.1487	0.1455	0.1423	0.127	14.08
67)	I	1,2-DICHLOROBENZEN...											
68)	T	p-Ethyltoluene	2.2751	2.5484	2.4682	2.3732	2.4370	2.3311	2.3877	2.5652	2.4182	2.423	3.92
69)	T	Isopropylben...	2.5844	2.8627	2.8214	2.7416	2.8628	2.7038	2.7480	2.9864	2.8291	2.793	4.11
70)	S	p-Bromofluor...	1.1788	1.1881	1.1507	1.1804	1.1418	1.1268	1.1400	1.1382	1.1756	1.158	1.97
71)	T	1,1,2,2-Tetr...	0.4211	0.4837	0.4630	0.4408	0.4463	0.4816	0.5076	0.5069	0.4994	0.472	6.60
72)	T	Bromobenzene	1.0956	1.1902	1.1178	1.0582	1.0772	1.1003	1.1780	1.1904	1.1568	1.129	4.48
73)	T	trans-1,4-Di...	0.4430	0.5020	0.4844	0.4574	0.4683	0.5137	0.5544	0.5517	0.5475	0.502	8.42
74)	T	1,2,3-Trichl...	0.1277	0.1479	0.1349	0.1282	0.1289	0.1362	0.1442	0.1417	0.1394	0.137	5.38
75)	T	n-Propylbenzene	3.1269	3.4426	3.3910	3.2781	3.3917	3.1831	3.2216	3.4876	3.2547	3.309	3.76
76)	T	2-Chlorotoluene	2.1844	2.4106	2.3277	2.2280	2.3071	2.2389	2.3421	2.4046	2.2529	2.300	3.45
77)	T	4-Chlorotoluene	1.9863	2.2335	2.0889	2.0191	2.0770	2.0393	2.1366	2.1510	2.0498	2.087	3.65
78)	T	1,3,5-Trimet...	2.2751	2.5484	2.4682	2.3732	2.4370	2.3311	2.3877	2.5652	2.4182	2.423	3.92
79)	T	tert-Butylbe...	1.7019	1.9084	1.8990	1.8451	1.9381	1.8113	1.8449	2.0949	1.9700	1.890	5.82
80)	T	1,2,4-Trimet...	2.2854	2.5747	2.4768	2.4157	2.4795	2.4287	2.5356	2.6373	2.4371	2.475	4.12
81)	T	sec-Butylben...	2.4188	2.6799	2.6966	2.6035	2.7206	2.5195	2.5406	2.8753	2.6854	2.638	5.07
82)	T	1,3-Dichloro...	1.3535	1.4152	1.3279	1.3010	1.3355	1.3327	1.4083	1.3974	1.3145	1.354	3.14
83)	T	p-Isopropylt...	2.2336	2.5581	2.5718	2.4877	2.5932	2.4296	2.4954	2.7453	2.5397	2.517	5.48
84)	T	1,4-Dichloro...	1.3207	1.4071	1.3360	1.2899	1.3269	1.3307	1.4286	1.4238	1.3795	1.360	3.71
85)	T	1,2,3-Trimet...	2.2133	2.4649	2.3863	2.4666	2.4474	2.4511	2.5618	2.5721	2.4272	2.443	4.30
86)	T	p-Diethylben...	1.0297	1.3151	1.3321	1.3305	1.3796	1.3060	1.3376	1.4925	1.4043	1.325	9.44
87)	T	1,2-Dichloro...	1.1400	1.2446	1.1691	1.1167	1.1438	1.1604	1.2285	1.2216	1.1819	1.179	3.75

88)	T	n-Butylbenzene	2.4624	2.7219	2.7043	2.6188	2.7031	2.5250	2.5351	2.8208	2.6212	2.635	4.32
89)	T	1,2-Dibromo-	0.0732	0.0702	0.0669	0.0611	0.0598	0.0652	0.0675	0.0674	0.0663	0.066	6.22
90)	T	1,2,4,5-Tetr	1.7771	2.0063	2.1003	2.1554	2.2153	2.2036	2.2980	2.4887	2.3821	2.181	9.61
91)	T	1,2,4-Trichl	0.5967	0.6849	0.6702	0.6431	0.6621	0.7051	0.7371	0.8011	0.7900	0.699	9.62
92)	T	Hexachloro-l	0.3237	0.3568	0.3494	0.3284	0.3495	0.3318	0.3364	0.4148	0.4061	0.355	9.35
93)	T	Naphthalene	0.8461	0.9835	0.9553	0.9424	0.9615	1.0789	1.1270	1.1747	1.1722	1.027	11.25
94)	T	1,2,3-Trichl	0.4259	0.4619	0.4600	0.4431	0.4524	0.4912	0.5135	0.5538	0.5527	0.484	9.70

(#) = Out of Range

Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706888.D
 Acq On : 10 Mar 2016 11:20 am
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL1
 Misc : QBV7031016A <2 OW
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 10 11:43:53 2016
 Quant Method : C:\msdchem\1\methods\V7LO0048.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Wed Mar 09 12:48:14 2016
 Response via : Initial Calibration

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

Internal Standards						
1) FLUOROBENZENE (ISTD)	6.009	70	107710	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	9.044	117	448165	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	12.032	152	173752	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.717	65	125783	10.29	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.90%		
51) Toluene-d8 (SURR)	7.539	98	556078	9.83	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.30%		
70) p-Bromofluorobenzene (...)	10.310	95	204819	10.20	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.00%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.635	85	4814	0.41	ppb	99
3) Chloromethane	1.847	50	5063	0.34	ppb	# 96
4) Vinyl Chloride	1.955	62	5445	0.36	ppb	97
6) Chloroethane	2.425	64	4064	0.42	ppb	100
7) Trichlorofluoromethane	2.681	101	7844	0.40	ppb	100
8) Ethanol	2.929	45	929m	26.92	ppb	
9) Freon-113	3.196	101	5148	0.41	ppb	# 72
10) 1,1-Dichloroethylene	3.216	61	8135	0.42	ppb	# 79
12) Acetone	3.307	43	6447	Below Cal		# 92
14) Methyl Acetate	3.613	43	2016m	0.37	ppb	
15) Carbon disulfide	3.446	76	19026	0.46	ppb	100
16) tert-Butyl Alcohol (TBA)	3.830	59	906m	0.96	ppb	
17) Methylene Chloride	3.714	49	9557	0.52	ppb	97
18) Acrylonitrile	3.997	53	841m	0.33	ppb	
19) trans-1,2-Dichloroethy...	3.964	61	7840	0.39	ppb	99
20) tert-Butyl Methyl Ethe...	3.947	73	11622	0.34	ppb	# 92
21) 1,1-Dichloroethane	4.384	63	11053	0.41	ppb	# 84
22) Vinyl Acetate	4.412	43	14638m	0.37	ppb	
23) Diisopropyl ether (DIPE)	4.387	45	15672	0.34	ppb	99
24) Ethyl-tert-Butyl ether...	4.737	59	14159	0.33	ppb	# 99
25) cis-1,2-Dichloroethylene	4.941	61	9151	0.38	ppb	99
26) 2-Butanone	4.952	72	544m	0.47	ppb	
27) 2,2-Dichloropropane	4.918	77	9573	0.43	ppb	# 100
28) Tetrahydrofuran	5.216	71	255m	0.28	ppb	
29) Bromochloromethane	5.171	49	4295	0.43	ppb	95
30) Chloroform	5.235	83	10901	0.41	ppb	# 99
31) 1,1,1-Trichloroethane	5.391	97	9324	0.40	ppb	# 74
32) Cyclohexane	5.430	56	8854	0.39	ppb	94
33) 1,1-Dichloropropylene	5.542	75	7712	0.39	ppb	96
35) Carbon Tetrachloride	5.536	117	7846	0.40	ppb	# 92
36) tert-Amyl alcohol (TAA)	5.747	59	3210m	4.55	ppb	
37) 1,2-Dichloroethane	5.789	62	6471m	0.39	ppb	
38) Benzene	5.753	78	25081	0.40	ppb	# 1
39) tert-Amyl methyl ether...	5.814	73	13185m	0.34	ppb	
41) Trichloroethylene	6.357	95	6453	0.40	ppb	# 79
42) Methyl Cyclohexane	6.507	83	8230	0.35	ppb	# 80
43) Methyl Methacrylate	6.668	69	2011	0.30	ppb	# 82
44) Dibromomethane	6.727	93	2777	0.38	ppb	97
45) Bromodichloromethane	6.863	83	7245	0.36	ppb	# 75

Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706888.D
 Acq On : 10 Mar 2016 11:20 am
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL1
 Misc : QBV7031016A <2 OW
 ALS Vial : 6 Sample Multiplier: 1

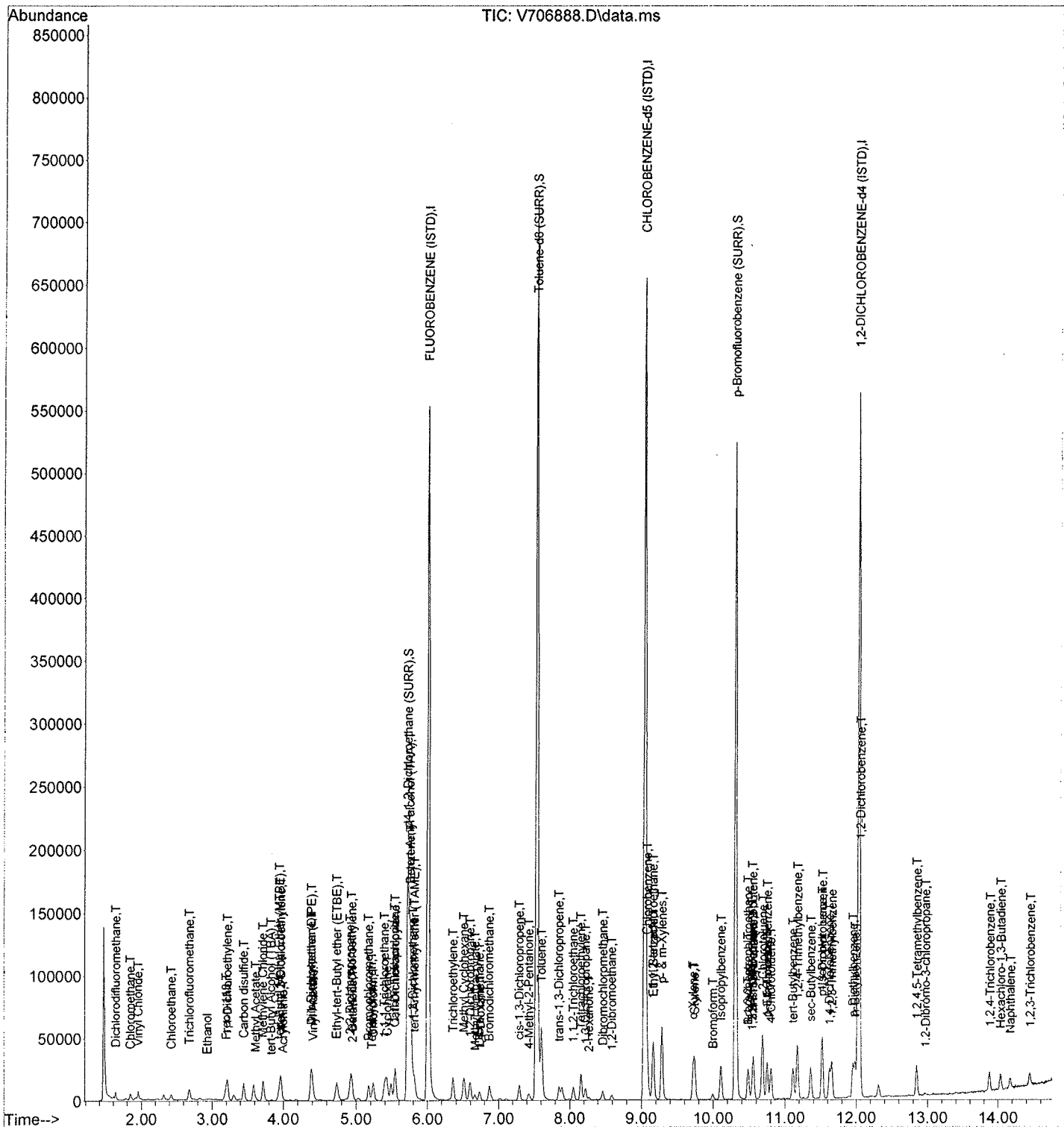
Quant Time: Mar 10 11:43:53 2016
 Quant Method : C:\msdchem\1\methods\V7L00048.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Wed Mar 09 12:48:14 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
46) 1,2-Dichloropropane	6.596	63	5807	0.38	ppb	94
47) 1,4-Dioxane	6.743	88	351m	5.45	ppb	
49) cis-1,3-Dichloropropene	7.292	75	7893	0.34	ppb	98
50) 4-Methyl-2-Pentanone	7.428	43	4559	0.33	ppb	# 85
52) Toluene	7.606	91	38667	0.53	ppb	100
53) trans-1,3-Dichloropropene	7.851	75	6568	0.34	ppb	# 99
54) 1,1,2-Trichloroethane	8.046	97	3592	0.34	ppb	89
55) 1,3-Dichloropropane	8.224	76	6459	0.36	ppb	# 99
56) Tetrachloroethylene	8.154	166	7399	0.41	ppb	# 98
57) 2-Hexanone	8.271	43	1881	0.36	ppb	# 4
58) Dibromochloromethane	8.468	129	4341	0.34	ppb	# 66
59) 1,2-Dibromoethane	8.591	107	3506	0.36	ppb	# 38
60) Chlorobenzene	9.075	112	17429	0.42	ppb	# 90
61) 1,1,1,2-tetrachloroethane	9.158	131	5548	0.36	ppb	# 51
62) Ethyl Benzene	9.161	91	27158	0.38	ppb	98
63) p- & m-Xylenes	9.284	91	41127	0.78	ppb	96
64) o-Xylene	9.715	91	19098	0.36	ppb	100
65) Styrene	9.740	104	15133	0.34	ppb	# 100
66) Bromoform	9.993	173	2120	0.31	ppb	# 100
68) p-Ethyltoluene	10.750	105	19765	0.39	ppb	# 100
69) Isopropylbenzene	10.104	105	22452	0.38	ppb	97
71) 1,1,2,2-Tetrachloroethane	10.483	83	3658	0.37	ppb	# 98
72) Bromobenzene	10.483	77	9518	0.39	ppb	97
73) trans-1,4-Dichloro-2-b...	10.547	75	3849	0.35	ppb	# 83
74) 1,2,3-Trichloropropane	10.541	110	1109m	0.38	ppb	
75) n-Propylbenzene	10.555	91	27165	0.39	ppb	99
76) 2-Chlorotoluene	10.686	91	18977	0.39	ppb	100
77) 4-Chlorotoluene	10.800	91	17256	0.39	ppb	99
78) 1,3,5-Trimethylbenzene	10.750	105	19765	0.39	ppb	97
79) tert-Butylbenzene	11.109	119	14785	0.37	ppb	99
80) 1,2,4-Trimethylbenzene	11.176	105	19855m	0.38	ppb	
81) sec-Butylbenzene	11.356	105	21014	0.39	ppb	98
82) 1,3-Dichlorobenzene	11.521	146	11759	0.41	ppb	98
83) p-Isopropyltoluene	11.515	119	19405	0.37	ppb	99
84) 1,4-Dichlorobenzene	11.621	146	11474	0.39	ppb	97
85) 1,2,3-Trimethylbenzene	11.657	105	19228m	0.37	ppb	
86) p-Diethylbenzene	11.952	105	8946	0.32	ppb	# 76
87) 1,2-Dichlorobenzene	12.052	146	9904	0.39	ppb	# 96
88) n-Butylbenzene	11.982	91	21392	0.39	ppb	97
89) 1,2-Dibromo-3-chloropr...	12.965	75	636m	0.45	ppb	
90) 1,2,4,5-Tetramethylben...	12.845	119	15439	0.33	ppb	98
91) 1,2,4-Trichlorobenzene	13.877	180	5184	0.36	ppb	94
92) Hexachloro-1,3-Butadiene	14.030	225	2812	0.39	ppb	# 88
93) Naphthalene	14.166	128	7351	0.34	ppb	# 92
94) 1,2,3-Trichlorobenzene	14.445	180	3700	0.37	ppb	# 95

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

Data Path : C:\msdchem\1\data\V7031016\
Data File : V706888.D
Acq On : 10 Mar 2016 11:20 am
InstName : MSVOA7
Operator : SS
Sample : SEQ-CAL1
Misc : QBV7031016A <2 OW
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 10 11:43:53 2016
Quant Method : C:\msdchem\1\methods\V7L00048.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Wed Mar 09 12:48:14 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706889.D
 Acq On : 10 Mar 2016 11:46 am
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL2
 Misc : QBV7031016A <2 OW
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 10 12:27:16 2016
 Quant Method : C:\msdchem\1\methods\V7LO0048.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Wed Mar 09 12:48:14 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) FLUOROBENZENE (ISTD)	6.009	70	109237	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	9.044	117	455081	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	12.032	152	178774	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.720	65	126553	10.21	ppb	0.00
Spiked Amount 10.000	Range 70	- 130	Recovery	=	102.10%	
51) Toluene-d8 (SURR)	7.539	98	564159	9.82	ppb	0.00
Spiked Amount 10.000	Range 70	- 130	Recovery	=	98.20%	
70) p-Bromofluorobenzene (...)	10.310	95	212407	10.28	ppb	0.00
Spiked Amount 10.000	Range 70	- 130	Recovery	=	102.80%	
Target Compounds						
2) Dichlorodifluoromethane	1.635	85	21283	1.80	ppb	# 86
3) Chloromethane	1.849	50	20219	1.32	ppb	99
4) Vinyl Chloride	1.955	62	25175	1.63	ppb	99
5) Bromomethane	2.320	94	8718	0.79	ppb	100
6) Chloroethane	2.428	64	16228	1.67	ppb	100
7) Trichlorofluoromethane	2.679	101	35518	1.78	ppb	100
8) Ethanol	2.932	45	4255m	121.57	ppb	
9) Freon-113	3.193	101	23308	1.81	ppb	99
10) 1,1-Dichloroethylene	3.215	61	35078	1.77	ppb	97
11) Acrolein	3.149	56	1002m	1.05	ppb	
12) Acetone	3.302	43	9288	Below	Cal	99
13) Iodomethane	3.391	142	9102	0.57	ppb	100
14) Methyl Acetate	3.611	43	8757	1.57	ppb	99
15) Carbon disulfide	3.446	76	74316	1.76	ppb	100
16) tert-Butyl Alcohol (TBA)	3.844	59	1640m	1.71	ppb	
17) Methylene Chloride	3.719	49	30912	1.65	ppb	97
18) Acrylonitrile	3.992	53	4062	1.56	ppb	# 91
19) trans-1,2-Dichloroethy...	3.969	61	34899	1.69	ppb	99
20) tert-Butyl Methyl Ethe...	3.944	73	53667	1.54	ppb	# 94
21) 1,1-Dichloroethane	4.378	63	44922	1.64	ppb	100
22) Vinyl Acetate	4.409	43	61966	1.55	ppb	100
23) Diisopropyl ether (DIPE)	4.390	45	69825	1.51	ppb	100
24) Ethyl-tert-Butyl ether...	4.732	59	64928	1.48	ppb	# 99
25) cis-1,2-Dichloroethylene	4.935	61	39656	1.64	ppb	98
26) 2-Butanone	4.954	72	1664	1.43	ppb	78
27) 2,2-Dichloropropane	4.918	77	40098	1.76	ppb	# 100
28) Tetrahydrofuran	5.227	71	1586m	1.69	ppb	
29) Bromochloromethane	5.171	49	18587	1.81	ppb	98
30) Chloroform	5.235	83	45103	1.66	ppb	# 100
31) 1,1,1-Trichloroethane	5.394	97	39673	1.69	ppb	# 87
32) Cyclohexane	5.419	56	39701	1.71	ppb	98
33) 1,1-Dichloropropylene	5.544	75	33902	1.68	ppb	97
35) Carbon Tetrachloride	5.541	117	34251	1.71	ppb	99
36) tert-Amyl alcohol (TAA)	5.753	59	10429	14.56	ppb	# 88
37) 1,2-Dichloroethane	5.789	62	28143	1.69	ppb	99
38) Benzene	5.750	78	104909	1.65	ppb	# 72
39) tert-Amyl methyl ether...	5.814	73	56944	1.47	ppb	# 100
41) Trichloroethylene	6.359	95	26000	1.59	ppb	98
42) Methyl Cyclohexane	6.510	83	38981	1.61	ppb	97

Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706889.D
 Acq On : 10 Mar 2016 11:46 am
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL2
 Misc : QBV7031016A <2 OW
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 10 12:27:16 2016
 Quant Method : C:\msdchem\1\methods\V7L00048.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Wed Mar 09 12:48:14 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
43) Methyl Methacrylate	6.665	69	9823	1.43	ppb	# 100
44) Dibromomethane	6.727	93	12138	1.62	ppb	100
45) Bromodichloromethane	6.866	83	32952	1.60	ppb	100
46) 1,2-Dichloropropane	6.593	63	25253	1.61	ppb	100
47) 1,4-Dioxane	6.741	88	2175m	33.26	ppb	
49) cis-1,3-Dichloropropene	7.289	75	36902	1.55	ppb	98
50) 4-Methyl-2-Pentanone	7.425	43	21594	1.52	ppb	# 85
52) Toluene	7.609	91	124036	1.68	ppb	100
53) trans-1,3-Dichloropropene	7.851	75	30710	1.56	ppb	# 86
54) 1,1,2-Trichloroethane	8.048	97	17402	1.62	ppb	96
55) 1,3-Dichloropropane	8.224	76	30647	1.66	ppb	# 99
56) Tetrachloroethylene	8.160	166	30996	1.71	ppb	# 77
57) 2-Hexanone	8.274	43	8280	1.56	ppb	# 76
58) Dibromochloromethane	8.466	129	20992	1.61	ppb	100
59) 1,2-Dibromoethane	8.588	107	16063	1.60	ppb	100
60) Chlorobenzene	9.078	112	69555	1.67	ppb	96
61) 1,1,1,2-tetrachloroethane	9.164	131	25705	1.66	ppb	98
62) Ethyl Benzene	9.161	91	117884	1.64	ppb	99
63) p- & m-Xylenes	9.284	91	178682	3.33	ppb	97
64) o-Xylene	9.718	91	85643	1.61	ppb	100
65) Styrene	9.745	104	72819	1.59	ppb	# 100
66) Bromoform	9.993	173	10662	1.53	ppb	# 76
68) p-Ethyltoluene	10.747	105	91118	1.73	ppb	# 100
69) Isopropylbenzene	10.107	105	102356	1.69	ppb	98
71) 1,1,2,2-Tetrachloroethane	10.485	83	17295	1.68	ppb	# 99
72) Bromobenzene	10.485	77	42555	1.72	ppb	97
73) trans-1,4-Dichloro-2-b...	10.544	75	17950	1.60	ppb	# 84
74) 1,2,3-Trichloropropane	10.544	110	5288	1.75	ppb	82
75) n-Propylbenzene	10.555	91	123089	1.73	ppb	98
76) 2-Chlorotoluene	10.683	91	86189	1.72	ppb	100
77) 4-Chlorotoluene	10.800	91	79857	1.74	ppb	99
78) 1,3,5-Trimethylbenzene	10.747	105	91118	1.73	ppb	99
79) tert-Butylbenzene	11.117	119	68236	1.67	ppb	98
80) 1,2,4-Trimethylbenzene	11.173	105	92058	1.71	ppb	99
81) sec-Butylbenzene	11.356	105	95819	1.71	ppb	99
82) 1,3-Dichlorobenzene	11.523	146	50600	1.70	ppb	98
83) p-Isopropyltoluene	11.515	119	91466	1.70	ppb	99
84) 1,4-Dichlorobenzene	11.623	146	50312	1.68	ppb	98
85) 1,2,3-Trimethylbenzene	11.660	105	88132	1.64	ppb	# 1
86) p-Diethylbenzene	11.954	105	47020	1.66	ppb	92
87) 1,2-Dichlorobenzene	12.052	146	44499	1.71	ppb	# 99
88) n-Butylbenzene	11.982	91	97321	1.74	ppb	97
89) 1,2-Dibromo-3-chloropr...	12.962	75	2511	1.73	ppb	88
90) 1,2,4,5-Tetramethylben...	12.845	119	71735	1.50	ppb	100
91) 1,2,4-Trichlorobenzene	13.874	180	24487	1.64	ppb	99
92) Hexachloro-1,3-Butadiene	14.033	225	12759	1.71	ppb	98
93) Naphthalene	14.169	128	35166	1.57	ppb	99
94) 1,2,3-Trichlorobenzene	14.445	180	16516	1.62	ppb	95

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

Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706890.D
 Acq On : 10 Mar 2016 12:12 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL3
 Misc : QBV7031016A <2 OW
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 10 12:36:11 2016
 Quant Method : C:\msdchem\1\methods\V7LO0048.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Wed Mar 09 12:48:14 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) FLUOROBENZENE (ISTD)	6.009	70	109962	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	9.044	117	459135	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	12.030	152	185487	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.720	65	129088	10.35	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	103.50%	
51) Toluene-d8 (SURR)	7.539	98	571255	9.86	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	98.60%	
70) p-Bromofluorobenzene (...)	10.313	95	213436	9.96	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	99.60%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.635	85	44447	3.74	ppb	100
3) Chloromethane	1.847	50	42089	2.74	ppb	99
4) Vinyl Chloride	1.952	62	53240	3.42	ppb	# 86
5) Bromomethane	2.323	94	17630	1.58	ppb	98
6) Chloroethane	2.428	64	33479	3.42	ppb	100
7) Trichlorofluoromethane	2.681	101	74115	3.68	ppb	100
8) Ethanol	2.932	45	9083m	257.80	ppb	
9) Freon-113	3.193	101	48618	3.75	ppb	99
10) 1,1-Dichloroethylene	3.216	61	72598	3.63	ppb	97
11) Acrolein	3.141	56	1929	2.01	ppb	96
12) Acetone	3.302	43	12605	Below	Cal	99
13) Iodomethane	3.388	142	26264	1.64	ppb	100
14) Methyl Acetate	3.605	43	17826	3.18	ppb	99
15) Carbon disulfide	3.449	76	148940	3.51	ppb	100
16) tert-Butyl Alcohol (TBA)	3.833	59	3209m	3.33	ppb	
17) Methylene Chloride	3.722	49	62220	3.30	ppb	99
18) Acrylonitrile	3.981	53	9865m	3.77	ppb	
19) trans-1,2-Dichloroethy...	3.967	61	70233	3.38	ppb	100
20) tert-Butyl Methyl Ethe...	3.945	73	112934	3.21	ppb	100
21) 1,1-Dichloroethane	4.381	63	92952	3.38	ppb	100
22) Vinyl Acetate	4.406	43	133904	3.33	ppb	100
23) Diisopropyl ether (DIPE)	4.390	45	149989	3.23	ppb	# 89
24) Ethyl-tert-Butyl ether...	4.735	59	139824	3.18	ppb	# 100
25) cis-1,2-Dichloroethylene	4.935	61	80127	3.29	ppb	99
26) 2-Butanone	4.949	72	3735m	3.18	ppb	
27) 2,2-Dichloropropane	4.918	77	79766	3.47	ppb	# 100
28) Tetrahydrofuran	5.210	71	2950m	3.12	ppb	
29) Bromochloromethane	5.174	49	35635	3.46	ppb	99
30) Chloroform	5.241	83	91183	3.34	ppb	# 100
31) 1,1,1-Trichloroethane	5.394	97	81610	3.44	ppb	# 74
32) Cyclohexane	5.422	56	83123	3.55	ppb	98
33) 1,1-Dichloropropylene	5.542	75	69056	3.41	ppb	96
35) Carbon Tetrachloride	5.542	117	70374	3.48	ppb	# 91
36) tert-Amyl alcohol (TAA)	5.747	59	21374	29.65	ppb	# 71
37) 1,2-Dichloroethane	5.795	62	56077	3.34	ppb	100
38) Benzene	5.753	78	211897	3.31	ppb	# 94
39) tert-Amyl methyl ether...	5.809	73	117534	3.01	ppb	# 90
41) Trichloroethylene	6.360	95	52980	3.21	ppb	98
42) Methyl Cyclohexane	6.507	83	85041	3.48	ppb	99

Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706890.D
 Acq On : 10 Mar 2016 12:12 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL3
 Misc : QBV7031016A <2 OW
 ALS Vial : 8 Sample Multiplier: 1

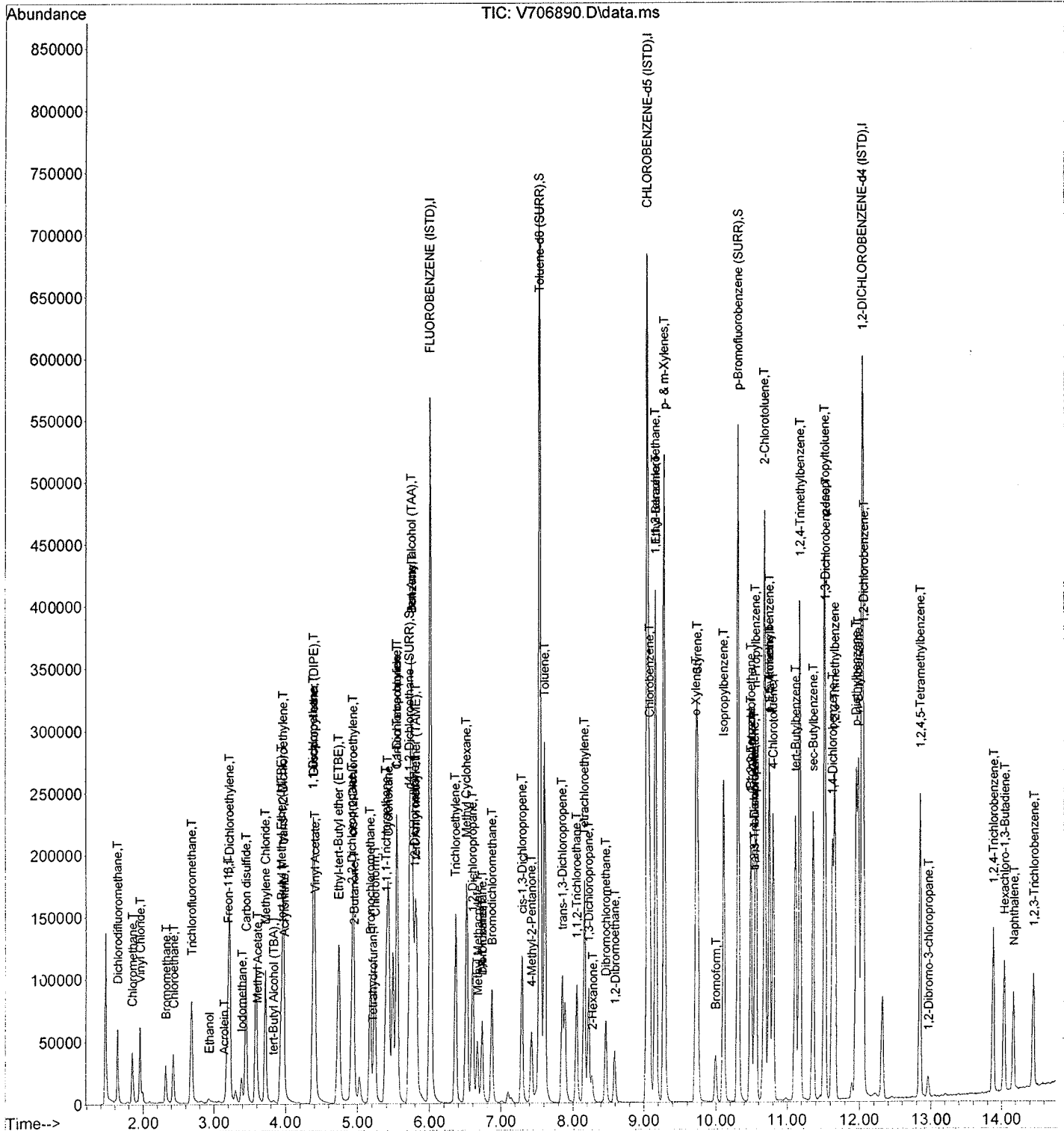
Quant Time: Mar 10 12:36:11 2016
 Quant Method : C:\msdchem\1\methods\V7LO0048.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Wed Mar 09 12:48:14 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Methyl Methacrylate	6.663	69	21385	3.09	ppb	# 100
44) Dibromomethane	6.730	93	24449	3.24	ppb	100
45) Bromodichloromethane	6.869	83	65548	3.15	ppb	99
46) 1,2-Dichloropropane	6.593	63	50655	3.20	ppb	# 84
47) 1,4-Dioxane	6.730	88	4128m	62.57	ppb	
49) cis-1,3-Dichloropropene	7.294	75	73335	3.05	ppb	100
50) 4-Methyl-2-Pentanone	7.422	43	45736	3.19	ppb	# 91
52) Toluene	7.606	91	237479	3.19	ppb	100
53) trans-1,3-Dichloropropene	7.854	75	61971	3.12	ppb	# 86
54) 1,1,2-Trichloroethane	8.048	97	35769	3.29	ppb	99
55) 1,3-Dichloropropane	8.221	76	59599	3.20	ppb	# 70
56) Tetrachloroethylene	8.160	166	62368	3.40	ppb	# 77
57) 2-Hexanone	8.274	43	16524	3.09	ppb	90
58) Dibromochloromethane	8.463	129	41076	3.12	ppb	99
59) 1,2-Dibromoethane	8.591	107	32222	3.19	ppb	98
60) Chlorobenzene	9.075	112	136422	3.24	ppb	# 95
61) 1,1,1,2-tetrachloroethane	9.159	131	50289	3.22	ppb	99
62) Ethyl Benzene	9.161	91	240548	3.32	ppb	97
63) p- & m-Xylenes	9.284	91	364902	6.74	ppb	96
64) o-Xylene	9.718	91	172561	3.21	ppb	100
65) Styrene	9.740	104	146556	3.18	ppb	# 100
66) Bromoform	9.993	173	21627	3.07	ppb	# 76
68) p-Ethyltoluene	10.747	105	183126	3.35	ppb	# 100
69) Isopropylbenzene	10.107	105	209336	3.34	ppb	99
71) 1,1,2,2-Tetrachloroethane	10.488	83	34350	3.22	ppb	# 100
72) Bromobenzene	10.486	77	82933	3.22	ppb	97
73) trans-1,4-Dichloro-2-b...	10.538	75	35942	3.08	ppb	93
74) 1,2,3-Trichloropropane	10.538	110	10012	3.20	ppb	85
75) n-Propylbenzene	10.558	91	251591	3.40	ppb	98
76) 2-Chlorotoluene	10.680	91	172703	3.33	ppb	100
77) 4-Chlorotoluene	10.800	91	154984	3.25	ppb	99
78) 1,3,5-Trimethylbenzene	10.747	105	183126	3.35	ppb	98
79) tert-Butylbenzene	11.114	119	140895	3.32	ppb	100
80) 1,2,4-Trimethylbenzene	11.176	105	183766	3.28	ppb	100
81) sec-Butylbenzene	11.356	105	200077	3.44	ppb	99
82) 1,3-Dichlorobenzene	11.526	146	98526	3.18	ppb	99
83) p-Isopropyltoluene	11.515	119	190816	3.41	ppb	99
84) 1,4-Dichlorobenzene	11.624	146	99126	3.19	ppb	98
85) 1,2,3-Trimethylbenzene	11.657	105	177050m	3.18	ppb	
86) p-Diethylbenzene	11.949	105	98835	3.35	ppb	92
87) 1,2-Dichlorobenzene	12.052	146	86744	3.21	ppb	# 99
88) n-Butylbenzene	11.980	91	200645	3.46	ppb	98
89) 1,2-Dibromo-3-chloropr...	12.959	75	4965	3.29	ppb	92
90) 1,2,4,5-Tetramethylben...	12.845	119	155829	3.14	ppb	99
91) 1,2,4-Trichlorobenzene	13.874	180	49729	3.21	ppb	99
92) Hexachloro-1,3-Butadiene	14.033	225	25927	3.35	ppb	98
93) Naphthalene	14.169	128	70882	3.05	ppb	100
94) 1,2,3-Trichlorobenzene	14.448	180	34127	3.22	ppb	99

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

Data Path : C:\msdchem\1\data\V7031016\
Data File : V706890.D
Acq On : 10 Mar 2016 12:12 pm
InstName : MSVOA7
Operator : SS
Sample : SEQ-CAL3
Misc : QBV7031016A <2 OW
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 10 12:36:11 2016
Quant Method : C:\msdchem\1\methods\V7L00048.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Wed Mar 09 12:48:14 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706891.D
 Acq On : 10 Mar 2016 12:38 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL4
 Misc : QBV7031016A <2 OW
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 10 13:13:20 2016
 Quant Method : C:\msdchem\1\methods\V7L00048.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Wed Mar 09 12:48:14 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) FLUOROBENZENE (ISTD)	6.009	70	111391	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	9.044	117	462244	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	12.030	152	185705	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.720	65	126740	10.03	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.30%		
51) Toluene-d8 (SURR)	7.539	98	579005	9.93	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.30%		
70) p-Bromofluorobenzene (...)	10.310	95	219213	10.22	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.20%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.632	85	89641	7.44	ppb	# 86
3) Chloromethane	1.844	50	96261	6.18	ppb	99
4) Vinyl Chloride	1.952	62	123520	7.84	ppb	100
5) Bromomethane	2.320	94	47331	4.18	ppb	100
6) Chloroethane	2.425	64	81187	8.18	ppb	100
7) Trichlorofluoromethane	2.681	101	177153	8.69	ppb	100
8) Ethanol	2.921	45	17714m	496.33	ppb	
9) Freon-113	3.199	101	115624	8.81	ppb	98
10) 1,1-Dichloroethylene	3.218	61	166324	8.21	ppb	98
11) Acrolein	3.149	56	4479	4.61	ppb	99
12) Acetone	3.302	43	19774	Below	Cal	99
13) Iodomethane	3.385	142	84829	5.22	ppb	100
14) Methyl Acetate	3.608	43	44978	7.93	ppb	99
15) Carbon disulfide	3.446	76	341285	7.94	ppb	100
16) tert-Butyl Alcohol (TBA)	3.836	59	6320m	6.48	ppb	
17) Methylene Chloride	3.719	49	141991	7.42	ppb	99
18) Acrylonitrile	3.986	53	19071	7.20	ppb	96
19) trans-1,2-Dichloroethy...	3.967	61	164450	7.81	ppb	99
20) tert-Butyl Methyl Ethe...	3.944	73	276681	7.77	ppb	100
21) 1,1-Dichloroethane	4.384	63	217446	7.80	ppb	100
22) Vinyl Acetate	4.406	43	328519	8.07	ppb	100
23) Diisopropyl ether (DIPE)	4.387	45	378972	8.05	ppb	# 97
24) Ethyl-tert-Butyl ether...	4.732	59	353737	7.93	ppb	# 100
25) cis-1,2-Dichloroethylene	4.935	61	191242	7.74	ppb	99
26) 2-Butanone	4.949	72	8115	6.83	ppb	94
27) 2,2-Dichloropropane	4.921	77	186426	8.00	ppb	# 100
28) Tetrahydrofuran	5.210	71	6487	6.77	ppb	# 23
29) Bromochloromethane	5.174	49	84300	8.07	ppb	98
30) Chloroform	5.238	83	213930	7.73	ppb	# 100
31) 1,1,1-Trichloroethane	5.394	97	191051	7.96	ppb	100
32) Cyclohexane	5.425	56	203721	8.60	ppb	99
33) 1,1-Dichloropropylene	5.541	75	164777	8.02	ppb	98
35) Carbon Tetrachloride	5.541	117	165477	8.08	ppb	# 92
36) tert-Amyl alcohol (TAA)	5.747	59	50212	68.76	ppb	# 66
37) 1,2-Dichlorooctane	5.792	62	132519	7.79	ppb	99
38) Benzene	5.750	78	500750	7.73	ppb	# 92
39) tert-Amyl methyl ether...	5.809	73	310737	7.85	ppb	# 90
41) Trichloroethylene	6.357	95	125910	7.58	ppb	99
42) Methyl Cyclohexane	6.510	83	207253	8.43	ppb	99

Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706891.D
 Acq On : 10 Mar 2016 12:38 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL4
 Misc : QBV7031016A <2 OW
 ALS Vial : 9 Sample Multiplier: 1

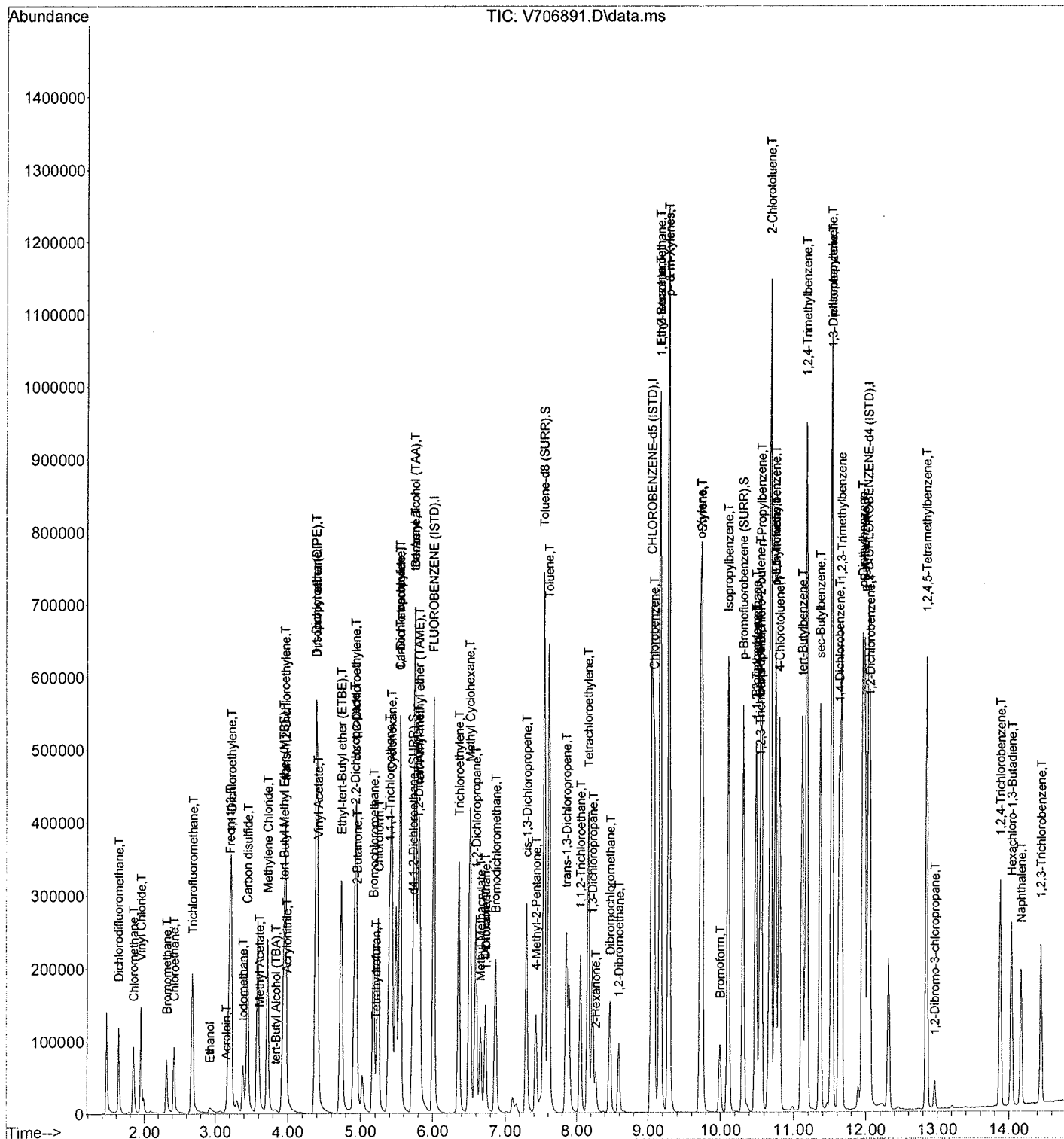
Quant Time: Mar 10 13:13:20 2016
 Quant Method : C:\msdchem\1\methods\V7LO0048.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Wed Mar 09 12:48:14 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Methyl Methacrylate	6.660	69	51437	7.38	ppb	# 82
44) Dibromomethane	6.727	93	58038	7.64	ppb	99
45) Bromodichloromethane	6.869	83	156746	7.49	ppb	99
46) 1,2-Dichloropropane	6.596	63	119378	7.49	ppb	100
47) 1,4-Dioxane	6.735	88	9391m	141.39	ppb	
49) cis-1,3-Dichloropropene	7.292	75	182419	7.55	ppb	98
50) 4-Methyl-2-Pentanone	7.425	43	111128	7.69	ppb	100
52) Toluene	7.609	91	547402	7.30	ppb	99
53) trans-1,3-Dichloropropene	7.851	75	150733	7.53	ppb	# 86
54) 1,1,2-Trichloroethane	8.048	97	83586	7.64	ppb	99
55) 1,3-Dichloropropane	8.221	76	141636	7.55	ppb	# 100
56) Tetrachloroethylene	8.160	166	146591	7.94	ppb	# 77
57) 2-Hexanone	8.268	43	39753	7.38	ppb	90
58) Dibromochloromethane	8.466	129	99146	7.47	ppb	99
59) 1,2-Dibromoethane	8.591	107	77276	7.59	ppb	99
60) Chlorobenzene	9.075	112	323256	7.63	ppb	98
61) 1,1,1,2-tetrachloroethane	9.164	131	119507	7.59	ppb	99
62) Ethyl Benzene	9.161	91	578706	7.92	ppb	97
63) p- & m-Xylenes	9.284	91	873194	16.01	ppb	97
64) o-Xylene	9.720	91	420052	7.77	ppb	100
65) Styrene	9.740	104	361658	7.79	ppb	# 100
66) Bromoform	9.993	173	52608	7.41	ppb	# 76
68) p-Ethyltoluene	10.747	105	440717	8.05	ppb	# 100
69) Isopropylbenzene	10.104	105	509135	8.11	ppb	99
71) 1,1,2,2-Tetrachloroethane	10.491	83	81867	7.66	ppb	# 68
72) Bromobenzene	10.486	77	196505	7.62	ppb	98
73) trans-1,4-Dichloro-2-b...	10.544	75	84944	7.28	ppb	95
74) 1,2,3-Trichloropropane	10.541	110	23801	7.59	ppb	85
75) n-Propylbenzene	10.558	91	608756	8.22	ppb	98
76) 2-Chlorotoluene	10.683	91	413757	7.96	ppb	100
77) 4-Chlorotoluene	10.800	91	374961	7.86	ppb	100
78) 1,3,5-Trimethylbenzene	10.747	105	440717	8.05	ppb	99
79) tert-Butylbenzene	11.114	119	342650	8.06	ppb	99
80) 1,2,4-Trimethylbenzene	11.173	105	448610	8.01	ppb	99
81) sec-Butylbenzene	11.356	105	483492	8.31	ppb	99
82) 1,3-Dichlorobenzene	11.523	146	241595	7.79	ppb	99
83) p-Isopropyltoluene	11.515	119	461983	8.25	ppb	99
84) 1,4-Dichlorobenzene	11.623	146	239547	7.70	ppb	99
85) 1,2,3-Trimethylbenzene	11.654	105	458058m	8.22	ppb	
86) p-Diethylbenzene	11.952	105	247073	8.38	ppb	95
87) 1,2-Dichlorobenzene	12.055	146	207383	7.67	ppb	# 68
88) n-Butylbenzene	11.980	91	486332	8.38	ppb	99
89) 1,2-Dibromo-3-chloropr...	12.962	75	11339	7.50	ppb	95
90) 1,2,4,5-Tetramethylben...	12.842	119	400275	8.06	ppb	99
91) 1,2,4-Trichlorobenzene	13.874	180	119426	7.70	ppb	99
92) Hexachloro-1,3-Butadiene	14.033	225	60981	7.88	ppb	99
93) Naphthalene	14.166	128	175014	7.51	ppb	99
94) 1,2,3-Trichlorobenzene	14.445	180	82295	7.76	ppb	99

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

Data Path : C:\msdchem\1\data\V7031016\
Data File : V706891.D
Acq On : 10 Mar 2016 12:38 pm
InstName : MSVOA7
Operator : SS
Sample : SEQ-CAL4
Misc : QBV7031016A <2 OW
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 10 13:13:20 2016
Quant Method : C:\msdchem\1\methods\V7L00048.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Wed Mar 09 12:48:14 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706892.D
 Acq On : 10 Mar 2016 1:04 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL5
 Misc : QBV7031016A <2 OW
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 10 13:25:16 2016
 Quant Method : C:\msdchem\1\methods\V7LO0048.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Wed Mar 09 12:48:14 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) FLUOROBENZENE (ISTD)	6.009	70	112149	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	9.047	117	475724	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	12.032	152	199746	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.719	65	128647	10.11	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	101.10%	
51) Toluene-d8 (SURR)	7.539	98	588760	9.81	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	98.10%	
70) p-Bromofluorobenzene (...)	10.310	95	228072	9.88	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	98.80%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.635	85	224051	18.47	ppb	100
3) Chloromethane	1.844	50	214907	13.70	ppb	99
4) Vinyl Chloride	1.955	62	277298	17.48	ppb	100
5) Bromomethane	2.320	94	124727	10.95	ppb	100
6) Chloroethane	2.425	64	172346	17.24	ppb	100
7) Trichlorofluoromethane	2.681	101	381463	18.58	ppb	100
8) Ethanol	2.923	45	30327	843.99	ppb	100
9) Freon-113	3.193	101	245576	18.58	ppb	99
10) 1,1-Dichloroethylene	3.215	61	369696	18.13	ppb	96
11) Acrolein	3.143	56	10449	10.69	ppb	100
12) Acetone	3.296	43	36963	Below	Cal	99
13) Iodomethane	3.385	142	222490	13.59	ppb	100
14) Methyl Acetate	3.608	43	90548	15.86	ppb	100
15) Carbon disulfide	3.446	76	747336	17.28	ppb	100
16) tert-Butyl Alcohol (TBA)	3.830	59	12740	12.97	ppb	# 1
17) Methylene Chloride	3.719	49	300191	15.59	ppb	100
18) Acrylonitrile	3.978	53	47300	17.73	ppb	# 66
19) trans-1,2-Dichloroethy...	3.967	61	363046	17.13	ppb	100
20) tert-Butyl Methyl Ethe...	3.942	73	605727	16.89	ppb	100
21) 1,1-Dichloroethane	4.384	63	475996	16.96	ppb	100
22) Vinyl Acetate	4.403	43	708587	17.29	ppb	100
23) Diisopropyl ether (DIPE)	4.387	45	820898	17.31	ppb	# 89
24) Ethyl-tert-Butyl ether...	4.729	59	772684	17.21	ppb	# 80
25) cis-1,2-Dichloroethylene	4.935	61	415320	16.70	ppb	100
26) 2-Butanone	4.949	72	17405	14.55	ppb	100
27) 2,2-Dichloropropane	4.918	77	404484	17.25	ppb	# 100
28) Tetrahydrofuran	5.205	71	15336	15.90	ppb	90
29) Bromochloromethane	5.177	49	175052	16.64	ppb	99
30) Chloroform	5.238	83	459629	16.50	ppb	# 100
31) 1,1,1-Trichloroethane	5.394	97	419550	17.36	ppb	# 74
32) Cyclohexane	5.422	56	438737	18.39	ppb	100
33) 1,1-Dichloropropylene	5.544	75	363262	17.56	ppb	97
35) Carbon Tetrachloride	5.544	117	373615	18.12	ppb	# 92
36) tert-Amyl alcohol (TAA)	5.747	59	112512	153.03	ppb	# 70
37) 1,2-Dichloroethane	5.792	62	282872	16.52	ppb	100
38) Benzene	5.747	78	1091890	16.75	ppb	96
39) tert-Amyl methyl ether...	5.811	73	706372	17.71	ppb	# 90
41) Trichloroethylene	6.357	95	277271	16.23	ppb	99
42) Methyl Cyclohexane	6.510	83	451873	17.86	ppb	99

Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706892.D
 Acq On : 10 Mar 2016 1:04 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL5
 Misc : QBV7031016A <2 OW
 ALS Vial : 10 Sample Multiplier: 1

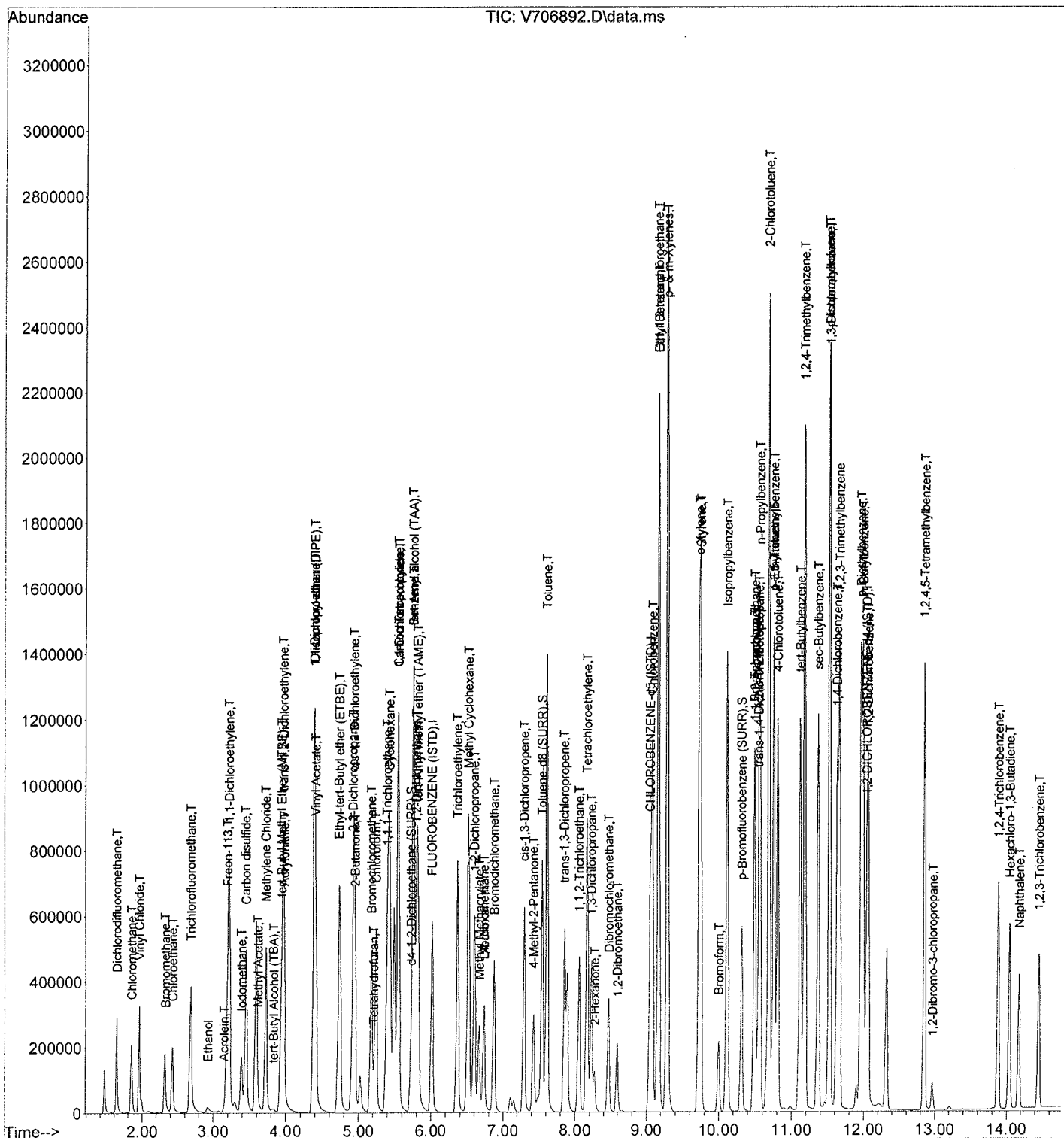
Quant Time: Mar 10 13:25:16 2016
 Quant Method : C:\msdchem\1\methods\V7L00048.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Wed Mar 09 12:48:14 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Methyl Methacrylate	6.663	69	117367	16.36	ppb	# 82
44) Dibromomethane	6.729	93	126675	16.20	ppb	100
45) Bromodichloromethane	6.869	83	339833	15.79	ppb	100
46) 1,2-Dichloropropane	6.596	63	260857	15.91	ppb	99
47) 1,4-Dioxane	6.727	88	24495m	358.35	ppb	
49) cis-1,3-Dichloropropene	7.291	75	403666	16.23	ppb	98
50) 4-Methyl-2-Pentanone	7.422	43	240409	16.17	ppb	99
52) Toluene	7.606	91	1182198	15.32	ppb	100
53) trans-1,3-Dichloropropene	7.851	75	334424	16.23	ppb	# 86
54) 1,1,2-Trichloroethane	8.051	97	179142	15.90	ppb	99
55) 1,3-Dichloropropane	8.221	76	309991	16.07	ppb	# 70
56) Tetrachloroethylene	8.159	166	320016	16.84	ppb	# 100
57) 2-Hexanone	8.268	43	89945	16.22	ppb	95
58) Dibromochloromethane	8.468	129	216705	15.87	ppb	99
59) 1,2-Dibromoethane	8.591	107	167575	15.99	ppb	99
60) Chlorobenzene	9.075	112	705725	16.18	ppb	98
61) 1,1,1,2-tetrachloroethane	9.161	131	265469	16.38	ppb	100
62) Ethyl Benzene	9.164	91	1284428	17.08	ppb	98
63) p- & m-Xylenes	9.283	91	1933809	34.46	ppb	97
64) o-Xylene	9.720	91	932442	16.77	ppb	100
65) Styrene	9.743	104	801188	16.77	ppb	# 100
66) Bromoform	9.993	173	118353	16.20	ppb	# 100
68) p-Ethyltoluene	10.750	105	973556	16.52	ppb	# 100
69) Isopropylbenzene	10.107	105	1143671	16.94	ppb	98
71) 1,1,2,2-Tetrachloroethane	10.491	83	178276	15.50	ppb	# 68
72) Bromobenzene	10.485	77	430330	15.52	ppb	99
73) trans-1,4-Dichloro-2-b...	10.541	75	187084	14.90	ppb	96
74) 1,2,3-Trichloropropane	10.544	110	51496	15.28	ppb	88
75) n-Propylbenzene	10.558	91	1354959	17.00	ppb	98
76) 2-Chlorotoluene	10.683	91	921667	16.49	ppb	100
77) 4-Chlorotoluene	10.803	91	829731	16.18	ppb	100
78) 1,3,5-Trimethylbenzene	10.750	105	973556	16.52	ppb	99
79) tert-Butylbenzene	11.114	119	774266	16.94	ppb	100
80) 1,2,4-Trimethylbenzene	11.173	105	990531	16.43	ppb	99
81) sec-Butylbenzene	11.359	105	1086838	17.37	ppb	98
82) 1,3-Dichlorobenzene	11.523	146	533540	16.00	ppb	99
83) p-Isopropyltoluene	11.515	119	1035959	17.19	ppb	99
84) 1,4-Dichlorobenzene	11.623	146	530067	15.84	ppb	99
85) 1,2,3-Trimethylbenzene	11.657	105	977732m	16.31	ppb	
86) p-Diethylbenzene	11.952	105	551143	17.37	ppb	95
87) 1,2-Dichlorobenzene	12.055	146	456952	15.71	ppb	# 100
88) n-Butylbenzene	11.982	91	1079875	17.29	ppb	99
89) 1,2-Dibromo-3-chloropr...	12.962	75	23905	14.71	ppb	99
90) 1,2,4,5-Tetramethylben...	12.845	119	884992	16.57	ppb	100
91) 1,2,4-Trichlorobenzene	13.877	180	264511	15.85	ppb	99
92) Hexachloro-1,3-Butadiene	14.033	225	139626	16.77	ppb	99
93) Naphthalene	14.169	128	384093	15.32	ppb	100
94) 1,2,3-Trichlorobenzene	14.445	180	180721	15.83	ppb	100

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

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Data Path : C:\msdchem\1\data\V7031016\  
Data File : V706892.D  
Acq On    : 10 Mar 2016      1:04 pm  
InstName  : MSVOA7  
Operator  : SS  
Sample    : SEQ-CAL5  
Misc      : QBV7031016A <2 OW  
ALS Vial  : 10      Sample Multiplier: 1
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Quant Time: Mar 10 13:25:16 2016
Quant Method : C:\msdchem\1\methods\V7L00048.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Wed Mar 09 12:48:14 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706893.D
 Acq On : 10 Mar 2016 1:29 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL6
 Misc : QBV7031016A <2 OW
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 10 13:49:18 2016
 Quant Method : C:\msdchem\1\methods\V7LO0048.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Wed Mar 09 12:48:14 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) FLUOROBENZENE (ISTD)	6.009	70	113656	10.00	ppb	0.00
40) CHLOROBENZENE-d5 (ISTD)	9.044	117	489409	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	12.032	152	207747	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.720	65	134293	10.42	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	104.20%		
51) Toluene-d8 (SURR)	7.539	98	606944	9.83	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.30%		
70) p-Bromofluorobenzene (...)	10.313	95	234094	9.75	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.50%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.635	85	391343	31.83	ppb	100
3) Chloromethane	1.847	50	457689	28.78	ppb	99
4) Vinyl Chloride	1.955	62	541631	33.69	ppb	100
5) Bromomethane	2.320	94	273534	23.69	ppb	100
6) Chloroethane	2.425	64	344460	34.01	ppb	100
7) Trichlorofluoromethane	2.684	101	707985	34.02	ppb	99
8) Ethanol	2.923	45	45339	1245.04	ppb	100
9) Freon-113	3.193	101	457112	34.13	ppb	99
10) 1,1-Dichloroethylene	3.218	61	703857	34.06	ppb	96
11) Acrolein	3.143	56	26395	26.65	ppb	99
12) Acetone	3.299	43	70946	13.14	ppb	100
13) Iodomethane	3.388	142	467174	28.17	ppb	100
14) Methyl Acetate	3.602	43	203392	35.15	ppb	100
15) Carbon disulfide	3.446	76	1458232	33.27	ppb	100
16) tert-Butyl Alcohol (TBA)	3.830	59	27297m	27.41	ppb	
17) Methylene Chloride	3.722	49	616701	31.60	ppb	98
18) Acrylonitrile	3.983	53	102285	37.83	ppb	97
19) trans-1,2-Dichloroethy...	3.967	61	725632	33.79	ppb	99
20) tert-Butyl Methyl Ethe...	3.942	73	1313413	36.13	ppb	100
21) 1,1-Dichloroethane	4.384	63	974756	34.26	ppb	# 97
22) Vinyl Acetate	4.404	43	1512899	36.42	ppb	# 100
23) Diisopropyl ether (DIPE)	4.384	45	1727808	35.96	ppb	100
24) Ethyl-tert-Butyl ether...	4.729	59	1640132	36.05	ppb	# 80
25) cis-1,2-Dichloroethylene	4.935	61	860030	34.13	ppb	100
26) 2-Butanone	4.949	72	37803	31.18	ppb	100
27) 2,2-Dichloropropane	4.918	77	802825	33.78	ppb	# 100
28) Tetrahydrofuran	5.208	71	33175	33.95	ppb	# 69
29) Bromochloromethane	5.174	49	356186	33.42	ppb	100
30) Chloroform	5.238	83	952312	33.74	ppb	# 100
31) 1,1,1-Trichloroethane	5.391	97	827026	33.77	ppb	100
32) Cyclohexane	5.422	56	823003	34.05	ppb	99
33) 1,1-Dichloropropylene	5.544	75	726336	34.65	ppb	100
35) Carbon Tetrachloride	5.541	117	724342	34.67	ppb	100
36) tert-Amyl alcohol (TAA)	5.745	59	245648	329.68	ppb	# 86
37) 1,2-Dichloroethane	5.792	62	604977	34.87	ppb	# 98
38) Benzene	5.750	78	2239505	33.89	ppb	96
39) tert-Amyl methyl ether...	5.811	73	1545049	38.23	ppb	# 90
41) Trichloroethylene	6.357	95	563081	32.04	ppb	99
42) Methyl Cyclohexane	6.510	83	844618	32.46	ppb	99

Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706893.D
 Acq On : 10 Mar 2016 1:29 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL6
 Misc : QBV7031016A <2 OW
 ALS Vial : 11 Sample Multiplier: 1

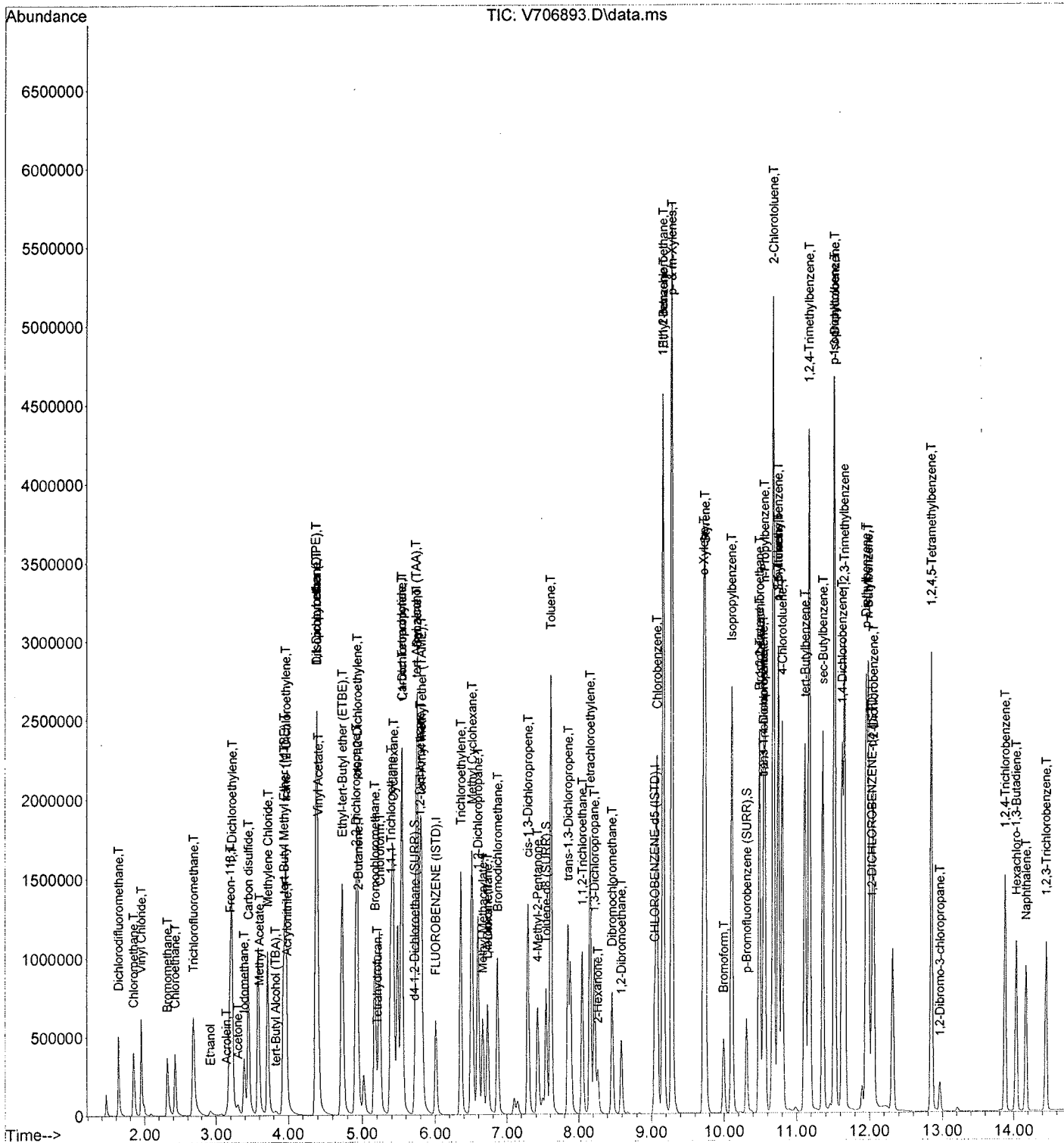
Quant Time: Mar 10 13:49:18 2016
 Quant Method : C:\msdchem\1\methods\V7LO0048.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Wed Mar 09 12:48:14 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
43) Methyl Methacrylate	6.660	69	262395	35.55	ppb	# 82
44) Dibromomethane	6.729	93	273322	33.98	ppb	# 62
45) Bromodichloromethane	6.869	83	723608	32.67	ppb	99
46) 1,2-Dichloropropane	6.593	63	550923	32.66	ppb	99
47) 1,4-Dioxane	6.732	88	47925m	681.51	ppb	
49) cis-1,3-Dichloropropene	7.292	75	864829	33.80	ppb	98
50) 4-Methyl-2-Pentanone	7.422	43	540070	35.32	ppb	98
52) Toluene	7.609	91	2370845	29.86	ppb	100
53) trans-1,3-Dichloropropene	7.854	75	731086	34.50	ppb	# 100
54) 1,1,2-Trichloroethane	8.051	97	389188	33.59	ppb	99
55) 1,3-Dichloropropane	8.221	76	670676	33.79	ppb	# 70
56) Tetrachloroethylene	8.160	166	616357	31.53	ppb	# 77
57) 2-Hexanone	8.268	43	201756	35.36	ppb	93
58) Dibromochloromethane	8.466	129	477634	34.01	ppb	99
59) 1,2-Dibromoethane	8.591	107	367811	34.12	ppb	100
60) Chlorobenzene	9.078	112	1450691	32.34	ppb	99
61) 1,1,1,2-tetrachloroethane	9.161	131	559611	33.57	ppb	100
62) Ethyl Benzene	9.164	91	2582058	33.38	ppb	98
63) p- & m-Xylenes	9.284	91	3892013	67.41	ppb	97
64) o-Xylene	9.720	91	1903027	33.26	ppb	100
65) Styrene	9.743	104	1673248	34.04	ppb	# 100
66) Bromoform	9.993	173	267424	35.59	ppb	# 100
68) p-Ethyltoluene	10.750	105	1937110	31.61	ppb	# 100
69) Isopropylbenzene	10.107	105	2246845	31.99	ppb	98
71) 1,1,2,2-Tetrachloroethane	10.488	83	400172	33.45	ppb	# 99
72) Bromobenzene	10.486	77	914318	31.71	ppb	98
73) trans-1,4-Dichloro-2-b...	10.541	75	426867	32.68	ppb	92
74) 1,2,3-Trichloropropane	10.541	110	113149	32.27	ppb	86
75) n-Propylbenzene	10.561	91	2645081	31.91	ppb	98
76) 2-Chlorotoluene	10.686	91	1860510	32.01	ppb	100
77) 4-Chlorotoluene	10.803	91	1694662	31.77	ppb	100
78) 1,3,5-Trimethylbenzene	10.750	105	1937110	31.61	ppb	99
79) tert-Butylbenzene	11.114	119	1505131	31.67	ppb	100
80) 1,2,4-Trimethylbenzene	11.176	105	2018259	32.20	ppb	99
81) sec-Butylbenzene	11.359	105	2093686	32.16	ppb	98
82) 1,3-Dichlorobenzene	11.523	146	1107461	31.92	ppb	99
83) p-Isopropyltoluene	11.515	119	2018955	32.21	ppb	99
84) 1,4-Dichlorobenzene	11.623	146	1105789	31.76	ppb	99
85) 1,2,3-Trimethylbenzene	11.657	105	2036825m	32.67	ppb	
86) p-Diethylbenzene	11.952	105	1085282	32.89	ppb	97
87) 1,2-Dichlorobenzene	12.055	146	964298	31.88	ppb	# 100
88) n-Butylbenzene	11.982	91	2098204	32.30	ppb	99
89) 1,2-Dibromo-3-chloropr...	12.959	75	54151	32.04	ppb	100
90) 1,2,4,5-Tetramethylben...	12.845	119	1831191	32.97	ppb	100
91) 1,2,4-Trichlorobenzene	13.877	180	585946	33.76	ppb	99
92) Hexachloro-1,3-Butadiene	14.033	225	275687	31.84	ppb	99
93) Naphthalene	14.169	128	896557	34.39	ppb	99
94) 1,2,3-Trichlorobenzene	14.447	180	408150	34.38	ppb	99

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

Data Path : C:\msdchem\1\data\V7031016\
Data File : V706893.D
Acq On : 10 Mar 2016 1:29 pm
InstName : MSVOA7
Operator : SS
Sample : SEQ-CAL6
Misc : QBV7031016A <2 OW
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 10 13:49:18 2016
Quant Method : C:\msdchem\1\methods\V7L00048.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Wed Mar 09 12:48:14 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706894.D
 Acq On : 10 Mar 2016 1:55 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL7
 Misc : QBV7031016A <2 OW
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 10 14:24:15 2016
 Quant Method : C:\msdchem\1\methods\V7LO0048.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 13:49:30 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) FLUOROBENZENE (ISTD)	6.009	70	119610	10.00	ppb	0.00
40) CHLOROBENZENE-d5 (ISTD)	9.044	117	499470	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	12.035	152	209378	10.00	ppb	0.00

System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.720	65	133785	9.86	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.60%		
51) Toluene-d8 (SURR)	7.539	98	628431	9.97	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.70%		
70) p-Bromofluorobenzene (...)	10.310	95	238686	9.87	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.70%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.633	85	661693	51.13	ppb	# 86
3) Chloromethane	1.841	50	1069650	63.92	ppb	99
4) Vinyl Chloride	1.955	62	1043904	61.70	ppb	100
5) Bromomethane	2.320	94	637569	52.47	ppb	99
6) Chloroethane	2.425	64	686466	64.40	ppb	100
7) Trichlorofluoromethane	2.684	101	1261940	57.62	ppb	100
8) Ethanol	2.921	45	118866	3101.65	ppb	100
9) Freon-113	3.193	101	845309	59.97	ppb	100
10) 1,1-Dichloroethylene	3.218	61	1361201	62.59	ppb	95
11) Acrolein	3.143	56	64771	62.13	ppb	100
12) Acetone	3.296	43	143443	44.69	ppb	100
13) Iodomethane	3.388	142	990642	56.75	ppb	100
14) Methyl Acetate	3.605	43	432791	71.07	ppb	100
15) Carbon disulfide	3.447	76	2900429	62.88	ppb	100
16) tert-Butyl Alcohol (TBA)	3.828	59	61933m	59.10	ppb	
17) Methylene Chloride	3.719	49	1365657	66.50	ppb	98
18) Acrylonitrile	3.981	53	230251	80.92	ppb	97
19) trans-1,2-Dichloroethy...	3.967	61	1518216	67.18	ppb	99
20) tert-Butyl Methyl Ethe...	3.942	73	2897915	75.75	ppb	100
21) 1,1-Dichloroethane	4.384	63	2109214	70.44	ppb	100
22) Vinyl Acetate	4.404	43	3256222	74.48	ppb	# 100
23) Diisopropyl ether (DIPE)	4.387	45	3810910	75.37	ppb	# 89
24) Ethyl-tert-Butyl ether...	4.732	59	3614994	75.50	ppb	# 80
25) cis-1,2-Dichloroethylene	4.935	61	1856487	70.01	ppb	99
26) 2-Butanone	4.949	72	84043	65.86	ppb	97
27) 2,2-Dichloropropane	4.918	77	1628476	65.11	ppb	# 100
28) Tetrahydrofuran	5.208	71	75781	73.69	ppb	99
29) Bromochloromethane	5.177	49	763009	68.02	ppb	# 69
30) Chloroform	5.238	83	2068433	69.63	ppb	# 100
31) 1,1,1-Trichloroethane	5.394	97	1679281	65.15	ppb	100
32) Cyclohexane	5.422	56	1563536	61.46	ppb	98
33) 1,1-Dichloropropylene	5.544	75	1476107	66.92	ppb	97
35) Carbon Tetrachloride	5.542	117	1427719	64.93	ppb	100
36) tert-Amyl alcohol (TAA)	5.742	59	580668	740.50	ppb	99
37) 1,2-Dichloroethane	5.792	62	1289115	70.60	ppb	100
38) Benzene	5.750	78	4798915	69.01	ppb	97
39) tert-Amyl methyl ether...	5.809	73	3395368	79.83	ppb	# 100
41) Trichloroethylene	6.360	95	1195855	66.67	ppb	99
42) Methyl Cyclohexane	6.513	83	1620931	61.04	ppb	98

Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706894.D
 Acq On : 10 Mar 2016 1:55 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL7
 Misc : QBV7031016A <2 OW
 ALS Vial : 12 Sample Multiplier: 1

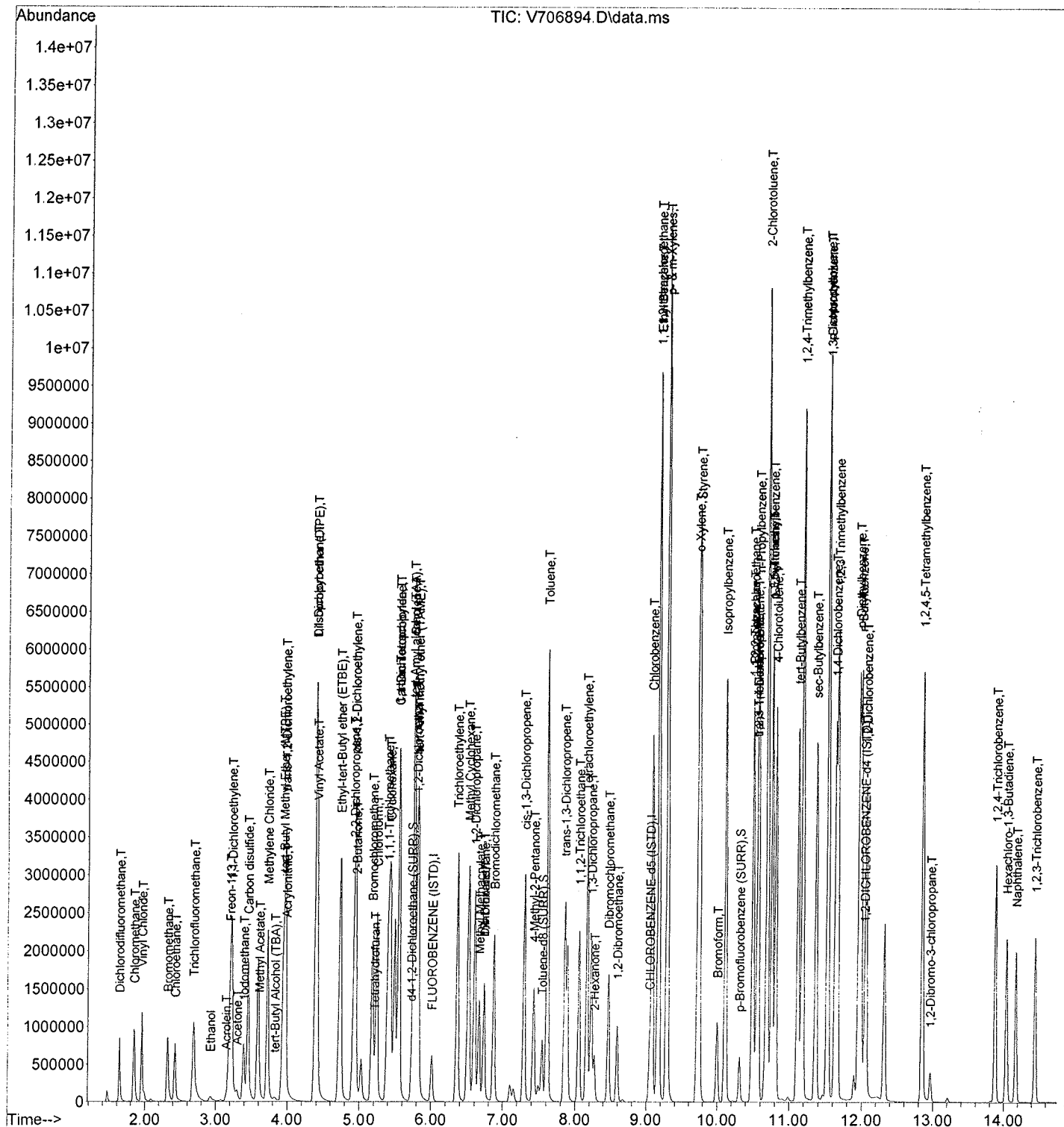
Quant Time: Mar 10 14:24:15 2016
 Quant Method : C:\msdchem\1\methods\V7LO0048.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 13:49:30 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Methyl Methacrylate	6.660	69	578377	76.77	ppb	# 100
44) Dibromomethane	6.730	93	596061	72.62	ppb	99
45) Bromodichloromethane	6.869	83	1605367	71.03	ppb	99
46) 1,2-Dichloropropane	6.593	63	1223691	71.07	ppb	99
47) 1,4-Dioxane	6.730	88	101297	1411.46	ppb	94
49) cis-1,3-Dichloropropene	7.294	75	1917459	73.42	ppb	97
50) 4-Methyl-2-Pentanone	7.422	43	1182175	75.75	ppb	98
52) Toluene	7.609	91	5035839	62.15	ppb	100
53) trans-1,3-Dichloropropene	7.851	75	1597623	73.86	ppb	# 86
54) 1,1,2-Trichloroethane	8.051	97	843991	71.37	ppb	99
55) 1,3-Dichloropropane	8.221	76	1460478	72.10	ppb	# 70
56) Tetrachloroethylene	8.160	166	1238676	62.08	ppb	# 77
57) 2-Hexanone	8.268	43	439759	75.53	ppb	98
58) Dibromochloromethane	8.466	129	1052992	73.46	ppb	99
59) 1,2-Dibromoethane	8.591	107	796171	72.38	ppb	100
60) Chlorobenzene	9.078	112	3160242	69.03	ppb	98
61) 1,1,1,2-tetrachloroethane	9.161	131	1240903	72.93	ppb	100
62) Ethyl Benzene	9.167	91	5475097	69.36	ppb	98
63) p- & m-Xylenes	9.286	91	8125071	137.90	ppb	98
64) o-Xylene	9.721	91	4072897	69.75	ppb	100
65) Styrene	9.743	104	3592682	71.61	ppb	# 100
66) Bromoform	9.996	173	594089	77.47	ppb	# 100
68) p-Ethyltoluene	10.750	105	3999463	64.75	ppb	# 100
69) Isopropylbenzene	10.107	105	4603034	65.02	ppb	99
71) 1,1,2,2-Tetrachloroethane	10.491	83	850188	70.52	ppb	# 68
72) Bromobenzene	10.488	77	1973201	67.90	ppb	99
73) trans-1,4-Dichloro-2-b...	10.544	75	928572	70.54	ppb	90
74) 1,2,3-Trichloropropane	10.544	110	241479	68.34	ppb	85
75) n-Propylbenzene	10.561	91	5396251	64.60	ppb	99
76) 2-Chlorotoluene	10.686	91	3923048	66.97	ppb	100
77) 4-Chlorotoluene	10.806	91	3578806	66.57	ppb	100
78) 1,3,5-Trimethylbenzene	10.750	105	3999463	64.75	ppb	99
79) tert-Butylbenzene	11.117	119	3090287	64.51	ppb	100
80) 1,2,4-Trimethylbenzene	11.176	105	4247137	67.22	ppb	99
81) sec-Butylbenzene	11.359	105	4255518	64.87	ppb	99
82) 1,3-Dichlorobenzene	11.526	146	2358971	67.47	ppb	99
83) p-Isopropyltoluene	11.518	119	4179879	66.16	ppb	99
84) 1,4-Dichlorobenzene	11.629	146	2392983	68.20	ppb	99
85) 1,2,3-Trimethylbenzene	11.660	105	4291115m	68.29	ppb	
86) p-Diethylbenzene	11.955	105	2240533	67.36	ppb	98
87) 1,2-Dichlorobenzene	12.058	146	2057731	67.50	ppb	# 100
88) n-Butylbenzene	11.985	91	4246309	64.86	ppb	98
89) 1,2-Dibromo-3-chloropr...	12.962	75	113041	66.36	ppb	98
90) 1,2,4,5-Tetramethylben...	12.845	119	3849168	68.77	ppb	99
91) 1,2,4-Trichlorobenzene	13.880	180	1234614	70.59	ppb	99
92) Hexachloro-1,3-Butadiene	14.036	225	563549	64.57	ppb	99
93) Naphthalene	14.169	128	1887826	71.85	ppb	100
94) 1,2,3-Trichlorobenzene	14.448	180	860154	71.90	ppb	99

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

Data Path : C:\msdchem\1\data\V7031016\
Data File : V706894.D
Acq On : 10 Mar 2016 1:55 pm
InstName : MSVOA7
Operator : SS
Sample : SEQ-CAL7
Misc : QBV7031016A <2 OW
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 10 14:24:15 2016
Quant Method : C:\msdchem\1\methods\V7L00048.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Thu Mar 10 13:49:30 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706895.D
 Acq On : 10 Mar 2016 2:21 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL8
 Misc : QBV7031016A <2 OW
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 10 14:57:22 2016
 Quant Method : C:\msdchem\1\methods\V7L00048.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 13:49:30 2016
 Response via : Initial Calibration

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

Internal Standards						
1) FLUOROBENZENE (ISTD)	6.009	70	125236	10.00	ppb	0.00
40) CHLOROBEZENE-d5 (ISTD)	9.047	117	520059	10.00	ppb	0.00
67) 1,2-DICHLOROBEZENE-d4...	12.032	152	213565	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.719	65	140773	9.91	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	99.10%	
51) Toluene-d8 (SURR)	7.542	98	651163	9.92	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	99.20%	
70) p-Bromofluorobenzene (...)	10.313	95	243071	9.85	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	98.50%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.635	85	1277362	94.28	ppb	100
3) Chloromethane	1.841	50	1863957	106.38	ppb	99
4) Vinyl Chloride	1.955	62	1894217	106.92	ppb	100
5) Bromomethane	2.320	94	1045037	82.14	ppb	99
6) Chloroethane	2.425	64	1151590	103.18	ppb	100
7) Trichlorofluoromethane	2.681	101	2344480	102.24	ppb	100
8) Ethanol	2.923	45	213314	5316.09	ppb	100
9) Freon-113	3.193	101	1655924	112.20	ppb	# 68
10) 1,1-Dichloroethylene	3.218	61	2404545	105.60	ppb	98
11) Acrolein	3.146	56	111758	102.39	ppb	100
12) Acetone	3.296	43	230413	83.12	ppb	99
13) Iodomethane	3.388	142	1590039	87.00	ppb	99
14) Methyl Acetate	3.605	43	657581	103.14	ppb	100
15) Carbon disulfide	3.446	76	5060301	104.78	ppb	100
16) tert-Butyl Alcohol (TBA)	3.830	59	96116m	87.60	ppb	
17) Methylene Chloride	3.719	49	2114009	98.31	ppb	97
18) Acrylonitrile	3.978	53	364631	122.38	ppb	# 88
19) trans-1,2-Dichloroethy...	3.967	61	2490083	105.24	ppb	99
20) tert-Butyl Methyl Ethe...	3.939	73	4405064	109.97	ppb	# 92
21) 1,1-Dichloroethane	4.384	63	3176045	101.31	ppb	100
22) Vinyl Acetate	4.403	43	4911893	107.30	ppb	# 100
23) Diisopropyl ether (DIPE)	4.387	45	5755446	108.71	ppb	100
24) Ethyl-tert-Butyl ether...	4.729	59	5495416	109.61	ppb	# 100
25) cis-1,2-Dichloroethylene	4.938	61	2869015	103.34	ppb	99
26) 2-Butanone	4.946	72	130500	97.68	ppb	96
27) 2,2-Dichloropropane	4.918	77	2735231	104.44	ppb	# 100
28) Tetrahydrofuran	5.202	71	118387	109.95	ppb	# 22
29) Bromochloromethane	5.177	49	1123580	95.67	ppb	98
30) Chloroform	5.238	83	3219828	103.51	ppb	# 100
31) 1,1,1-Trichloroethane	5.391	97	2891884	107.16	ppb	100
32) Cyclohexane	5.425	56	3015145	113.20	ppb	98
33) 1,1-Dichloropropylene	5.544	75	2594586	112.34	ppb	98
35) Carbon Tetrachloride	5.544	117	2549543	110.74	ppb	100
36) tert-Amyl alcohol (TAA)	5.745	59	907518	1105.33	ppb	100
37) 1,2-Dichloroethane	5.792	62	1927473	100.81	ppb	100
38) Benzene	5.753	78	7587604	104.21	ppb	98
39) tert-Amyl methyl ether...	5.811	73	5091551	114.33	ppb	# 90
41) Trichloroethylene	6.359	95	2010367	107.64	ppb	99
42) Methyl Cyclohexane	6.510	83	3183927	115.15	ppb	98

Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706895.D
 Acq On : 10 Mar 2016 2:21 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL8
 Misc : QBV7031016A <2 OW
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 10 14:57:22 2016

Quant Method : C:\msdchem\1\methods\V7L00048.M

Quant Title : Volatile Organics EPA 8260C

QLast Update : Thu Mar 10 13:49:30 2016

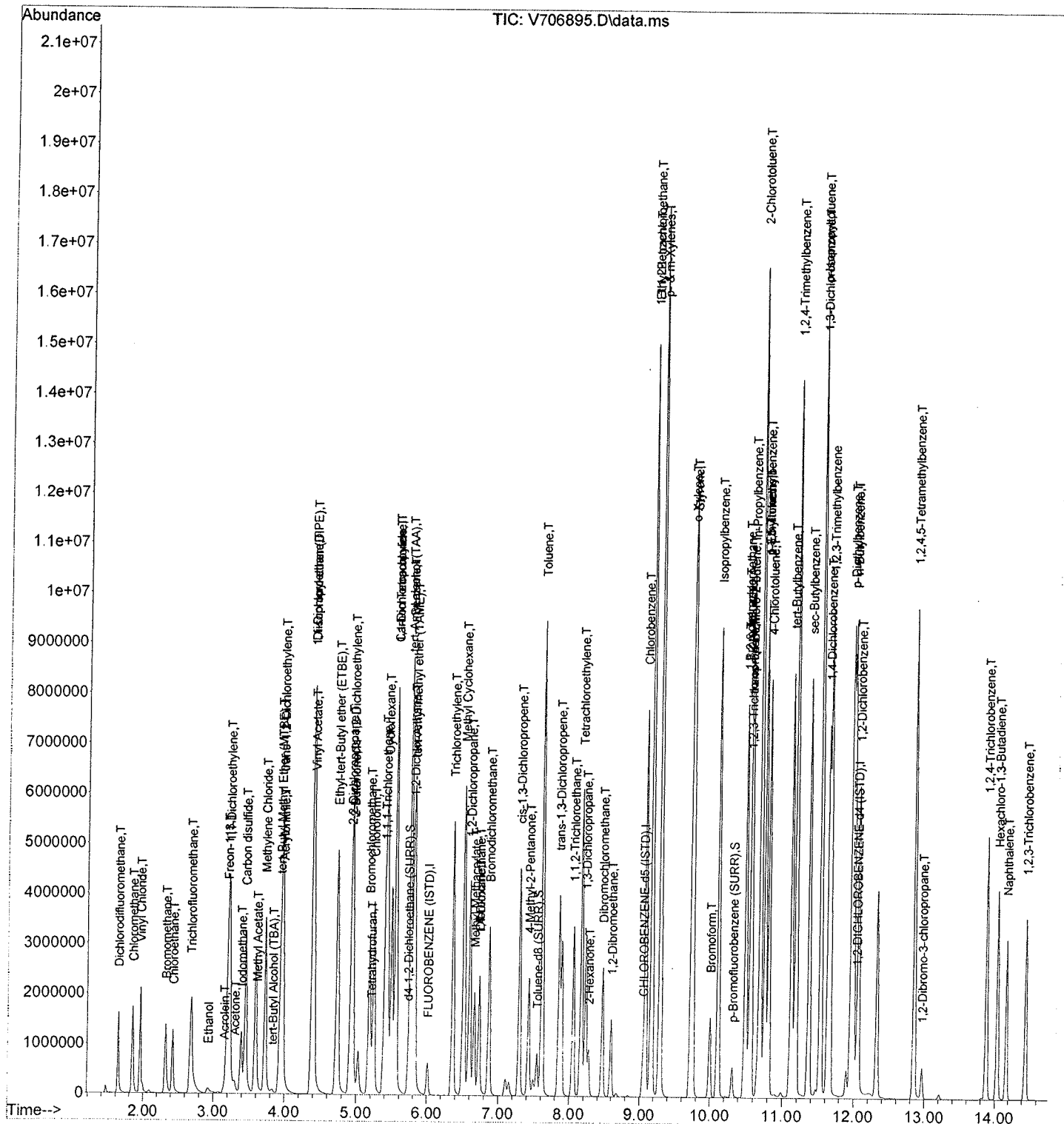
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Methyl Methacrylate	6.660	69	892543	113.78	ppb	# 82
44) Dibromomethane	6.729	93	906317	106.05	ppb	# 62
45) Bromodichloromethane	6.866	83	2457113	104.40	ppb	99
46) 1,2-Dichloropropane	6.596	63	1903887	106.20	ppb	99
47) 1,4-Dioxane	6.732	88	159687	2136.97	ppb	98
49) cis-1,3-Dichloropropene	7.291	75	2938850	108.08	ppb	96
50) 4-Methyl-2-Pentanone	7.422	43	1797239	110.61	ppb	98
52) Toluene	7.609	91	7923438	93.91	ppb	100
53) trans-1,3-Dichloropropene	7.851	75	2417240	107.33	ppb	# 100
54) 1,1,2-Trichloroethane	8.051	97	1279218	103.89	ppb	98
55) 1,3-Dichloropropane	8.221	76	2193849	104.01	ppb	# 98
56) Tetrachloroethylene	8.162	166	2150382	103.51	ppb	# 100
57) 2-Hexanone	8.268	43	661656	109.14	ppb	95
58) Dibromochloromethane	8.466	129	1610252	107.89	ppb	99
59) 1,2-Dibromoethane	8.594	107	1208712	105.53	ppb	99
60) Chlorobenzene	9.078	112	4905870	102.92	ppb	98
61) 1,1,1,2-tetrachloroethane	9.164	131	1858558	104.91	ppb	100
62) Ethyl Benzene	9.167	91	8602142	104.66	ppb	99
63) p- & m-Xylenes	9.286	91	12235126	199.43	ppb	99
64) o-Xylene	9.723	91	6345321	104.36	ppb	100
65) Styrene	9.745	104	5458977	104.50	ppb	# 100
66) Bromoform	9.996	173	907969	113.72	ppb	# 100
68) p-Ethyltoluene	10.753	105	6573918	104.35	ppb	# 100
69) Isopropylbenzene	10.107	105	7653374	106.00	ppb	100
71) 1,1,2,2-Tetrachloroethane	10.491	83	1299108	105.64	ppb	# 100
72) Bromobenzene	10.488	77	3050838	102.93	ppb	99
73) trans-1,4-Dichloro-2-b...	10.547	75	1413845	105.30	ppb	91
74) 1,2,3-Trichloropropane	10.544	110	363155	100.75	ppb	89
75) n-Propylbenzene	10.563	91	8938062	104.90	ppb	100
76) 2-Chlorotoluene	10.686	91	6162479	103.13	ppb	100
77) 4-Chlorotoluene	10.808	91	5512461	100.53	ppb	100
78) 1,3,5-Trimethylbenzene	10.753	105	6573918	104.35	ppb	99
79) tert-Butylbenzene	11.117	119	5368686	109.87	ppb	99
80) 1,2,4-Trimethylbenzene	11.178	105	6758878	104.88	ppb	100
81) sec-Butylbenzene	11.362	105	7368718	110.12	ppb	99
82) 1,3-Dichlorobenzene	11.529	146	3581273	100.42	ppb	100
83) p-Isopropyltoluene	11.520	119	7035610	109.18	ppb	99
84) 1,4-Dichlorobenzene	11.629	146	3648782	101.96	ppb	99
85) 1,2,3-Trimethylbenzene	11.662	105	6591624m	102.84	ppb	
86) p-Diethylbenzene	11.954	105	3824943	112.74	ppb	98
87) 1,2-Dichlorobenzene	12.057	146	3130723	100.68	ppb	# 100
88) n-Butylbenzene	11.985	91	7229033	108.26	ppb	98
89) 1,2-Dibromo-3-chloropr...	12.962	75	172650	99.36	ppb	97
90) 1,2,4,5-Tetramethylben...	12.845	119	6378077	111.71	ppb	99
91) 1,2,4-Trichlorobenzene	13.877	180	2053070	115.08	ppb	99
92) Hexachloro-1,3-Butadiene	14.036	225	1063030	119.42	ppb	99
93) Naphthalene	14.169	128	3010503	112.33	ppb	100
94) 1,2,3-Trichlorobenzene	14.445	180	1419251	116.30	ppb	99

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

Data Path : C:\msdchem\1\data\V7031016\
Data File : V706895.D
Acq On : 10 Mar 2016 2:21 pm
InstName : MSVOA7
Operator : SS
Sample : SEQ-CAL8
Misc : QBV7031016A <2 OW
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 10 14:57:22 2016
Quant Method : C:\msdchem\1\methods\V7L00048.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Thu Mar 10 13:49:30 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706896.D
 Acq On : 10 Mar 2016 2:46 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL9
 Misc : QBV7031016A <2 OW
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 10 15:09:28 2016

Quant Method : C:\msdchem\1\methods\V7L00049.M

Quant Title : Volatile Organics EPA 8260C

QLast Update : Thu Mar 10 14:24:43 2016

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) FLUOROBENZENE (ISTD)	6.009	70	127724	10.00	ppb	0.00
40) CHLOROBENZENE-d5 (ISTD)	9.047	117	535751	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	12.035	152	213570	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.722	65	139230	9.44	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	94.40%	
51) Toluene-d8 (SURR)	7.542	98	667327	10.01	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	100.10%	
70) p-Bromofluorobenzene (...)	10.313	95	251083	10.15	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	101.50%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.635	85	1633354	143.58	ppb	100
3) Chloromethane	1.841	50	2508220	203.07	ppb	100
4) Vinyl Chloride	1.952	62	2449061	167.75	ppb	100
5) Bromomethane	2.320	94	1381467	221.66	ppb	99
6) Chloroethane	2.423	64	1454310	152.37	ppb	100
7) Trichlorofluoromethane	2.681	101	2957096	148.22	ppb	100
8) Ethanol	2.923	45	284995	7152.05	ppb	100
9) Freon-113	3.193	101	2142342	164.22	ppb	99
10) 1,1-Dichloroethylene	3.218	61	3095882	155.97	ppb	97
11) Acrolein	3.143	56	161621	251.18	ppb	99
12) Acetone	3.296	43	305511	105.53	ppb	100
13) Iodomethane	3.388	142	2216040	239.69	ppb	98
14) Methyl Acetate	3.605	43	873740	165.83	ppb	100
15) Carbon disulfide	3.446	76	6592948	157.41	ppb	100
16) tert-Butyl Alcohol (TBA)	3.830	59	128897m	127.39	ppb	
17) Methylene Chloride	3.719	49	2738746	150.09	ppb	95
18) Acrylonitrile	3.978	53	485334	188.10	ppb	# 88
19) trans-1,2-Dichloroethy...	3.969	61	3193660	160.17	ppb	99
20) tert-Butyl Methyl Ethe...	3.942	73	5853364	175.45	ppb	99
21) 1,1-Dichloroethane	4.387	63	4078955	152.65	ppb	# 87
22) Vinyl Acetate	4.404	43	6320765	161.59	ppb	# 100
23) Diisopropyl ether (DIPE)	4.387	45	7407214	166.64	ppb	99
24) Ethyl-tert-Butyl ether...	4.729	59	7215933	173.56	ppb	# 100
25) cis-1,2-Dichloroethylene	4.938	61	3725036	160.29	ppb	99
26) 2-Butanone	4.949	72	174827	164.20	ppb	94
27) 2,2-Dichloropropane	4.918	77	3503614	155.21	ppb	# 100
28) Tetrahydrofuran	5.205	71	160550	188.91	ppb	# 22
29) Bromochloromethane	5.177	49	1488652	146.30	ppb	97
30) Chloroform	5.238	83	4166395	158.71	ppb	# 100
31) 1,1,1-Trichloroethane	5.391	97	3721833	162.37	ppb	# 87
32) Cyclohexane	5.425	56	3878827	168.98	ppb	97
33) 1,1-Dichloropropylene	5.544	75	3330705	169.13	ppb	97
35) Carbon Tetrachloride	5.544	117	3262229	164.61	ppb	# 92
36) tert-Amyl alcohol (TAA)	5.745	59	1237729	1853.96	ppb	# 71
37) 1,2-Dichloroethane	5.795	62	2476362	152.61	ppb	100
38) Benzene	5.750	78	9767519	159.41	ppb	99
39) tert-Amyl methyl ether...	5.811	73	6647211	176.74	ppb	# 100
41) Trichloroethylene	6.359	95	2621426	170.16	ppb	98
42) Methyl Cyclohexane	6.512	83	4131690	178.81	ppb	97

Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706896.D
 Acq On : 10 Mar 2016 2:46 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CAL9
 Misc : QBV7031016A <2 OW
 ALS Vial : 14 Sample Multiplier: 1

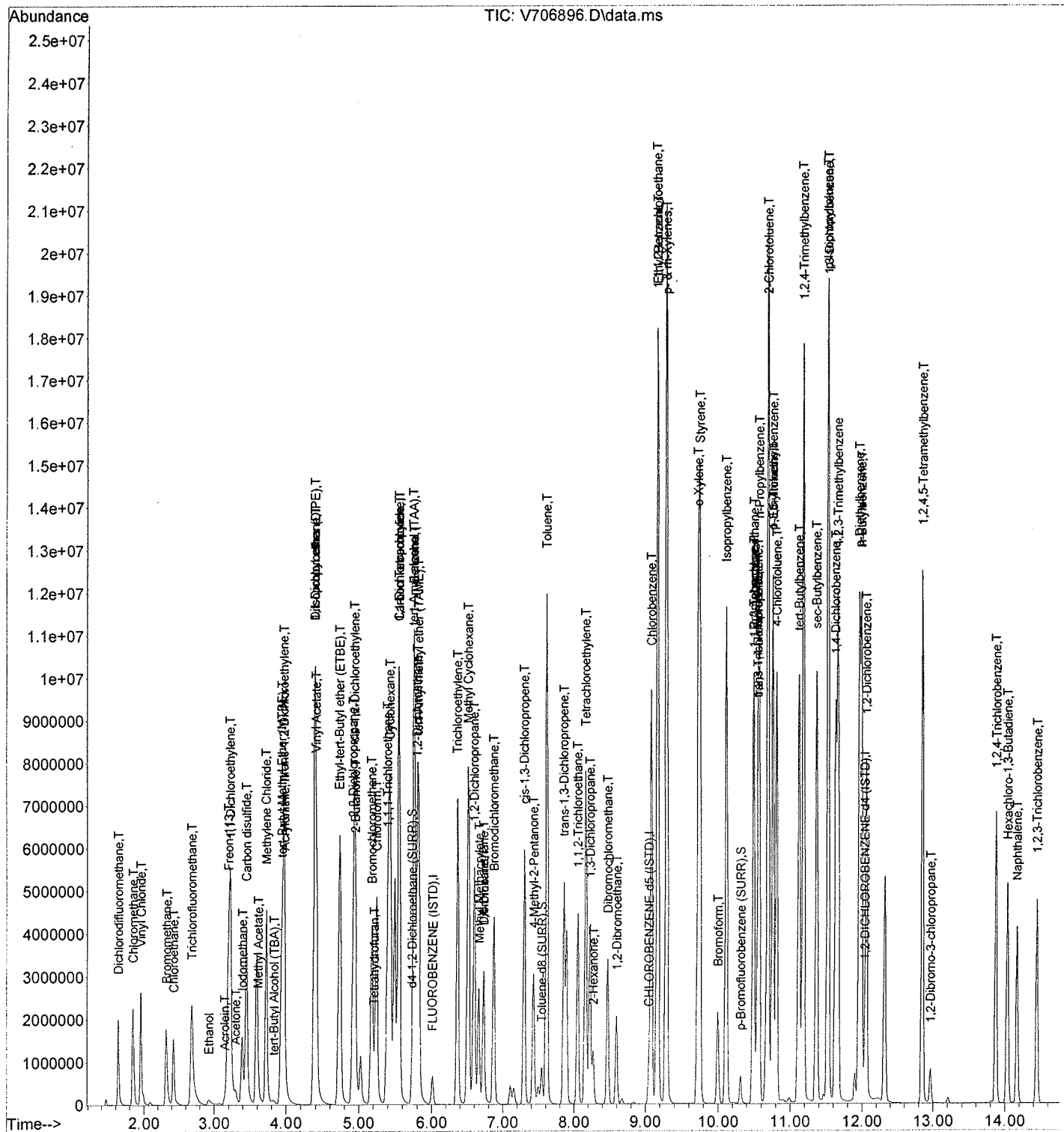
Quant Time: Mar 10 15:09:28 2016
 Quant Method : C:\msdchem\1\methods\V7L00049.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 14:24:43 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
43) Methyl Methacrylate	6.663	69	1203115	189.96	ppb	# 82
44) Dibromomethane	6.729	93	1173916	163.54	ppb	98
45) Bromodichloromethane	6.869	83	3207296	166.96	ppb	99
46) 1,2-Dichloropropane	6.596	63	2501323	169.11	ppb	99
47) 1,4-Dioxane	6.729	88	219638	3457.97	ppb	99
49) cis-1,3-Dichloropropene	7.294	75	3878244	174.88	ppb	95
50) 4-Methyl-2-Pentanone	7.425	43	2383377	177.48	ppb	97
52) Toluene	7.609	91	10150286	142.92	ppb	100
53) trans-1,3-Dichloropropene	7.853	75	3173280	171.41	ppb	# 100
54) 1,1,2-Trichloroethane	8.051	97	1692543	166.85	ppb	98
55) 1,3-Dichloropropane	8.223	76	2925770	166.95	ppb	# 70
56) Tetrachloroethylene	8.162	166	2773048	158.31	ppb	# 100
57) 2-Hexanone	8.268	43	876148	173.83	ppb	92
58) Dibromochloromethane	8.468	129	2127152	173.95	ppb	99
59) 1,2-Dibromoethane	8.594	107	1609154	169.71	ppb	100
60) Chlorobenzene	9.080	112	6374213	158.40	ppb	99
61) 1,1,1,2-tetrachloroethane	9.164	131	2374381	160.09	ppb	99
62) Ethyl Benzene	9.167	91	10711816	153.66	ppb	100
63) p- & m-Xylenes	9.289	91	14820584	282.10	ppb	99
64) o-Xylene	9.723	91	8097508	159.99	ppb	100
65) Styrene	9.745	104	6945479	160.57	ppb	# 100
66) Bromoform	9.996	173	1219384	186.78	ppb	# 100
68) p-Ethyltoluene	10.755	105	8263205	161.01	ppb	# 100
69) Isopropylbenzene	10.110	105	9667408	163.97	ppb	99
71) 1,1,2,2-Tetrachloroethane	10.494	83	1706653	172.44	ppb	# 68
72) Bromobenzene	10.488	77	3952969	165.74	ppb	99
73) trans-1,4-Dichloro-2-b...	10.547	75	1870781	179.12	ppb	89
74) 1,2,3-Trichloropropane	10.547	110	476401	164.73	ppb	88
75) n-Propylbenzene	10.566	91	11121870	158.25	ppb	99
76) 2-Chlorotoluene	10.689	91	7698356	157.32	ppb	100
77) 4-Chlorotoluene	10.808	91	7004377	157.45	ppb	100
78) 1,3,5-Trimethylbenzene	10.755	105	8263205	161.01	ppb	100
79) tert-Butylbenzene	11.117	119	6731757	170.40	ppb	99
80) 1,2,4-Trimethylbenzene	11.178	105	8327697	158.72	ppb	99
81) sec-Butylbenzene	11.365	105	9176279	165.44	ppb	99
82) 1,3-Dichlorobenzene	11.529	146	4491869	155.40	ppb	99
83) p-Isopropyltoluene	11.520	119	8678558	163.76	ppb	99
84) 1,4-Dichlorobenzene	11.629	146	4713756	163.66	ppb	100
85) 1,2,3-Trimethylbenzene	11.662	105	8293952m	159.99	ppb	
86) p-Diethylbenzene	11.957	105	4798550	174.16	ppb	99
87) 1,2-Dichlorobenzene	12.057	146	4038820	161.37	ppb	# 68
88) n-Butylbenzene	11.988	91	8956907	160.68	ppb	98
89) 1,2-Dibromo-3-chloropr...	12.964	75	226573	160.08	ppb	95
90) 1,2,4,5-Tetramethylben...	12.848	119	8139882	180.80	ppb	99
91) 1,2,4-Trichlorobenzene	13.880	180	2699614	188.29	ppb	99
92) Hexachloro-1,3-Butadiene	14.038	225	1387847	191.44	ppb	99
93) Naphthalene	14.169	128	4005641	190.42	ppb	100
94) 1,2,3-Trichlorobenzene	14.447	180	1888625	190.59	ppb	99

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

Data Path : C:\msdchem\1\data\V7031016\
Data File : V706896.D
Acq On : 10 Mar 2016 2:46 pm
InstName : MSVOA7
Operator : SS
Sample : SEQ-CAL9
Misc : QBV7031016A <2 OW
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 10 15:09:28 2016
Quant Method : C:\msdchem\1\methods\V7L00049.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Thu Mar 10 14:24:43 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706898.D
 Acq On : 10 Mar 2016 3:38 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-SCV1
 Misc : QBV7031016A <2 OW
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 10 15:58:04 2016
 Quant Method : C:\msdchem\1\methods\V7LO0049.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 15:13:37 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) FLUOROBENZENE (ISTD)	6.009	70	124219	10.00	ppb	0.00
40) CHLOROBENZENE-d5 (ISTD)	9.044	117	524024	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	12.033	152	215593	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.720	65	138755	9.76	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.60%		
51) Toluene-d8 (SURR)	7.539	98	653964	10.02	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.20%		
70) p-Bromofluorobenzene (...)	10.310	95	246321	9.87	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.70%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.633	85	105964	9.74	ppb	100
3) Chloromethane	1.847	50	137647	10.80	ppb	98
4) Vinyl Chloride	1.955	62	165231	11.44	ppb	100
5) Bromomethane	2.320	94	91190	13.80	ppb	99
6) Chloroethane	2.428	64	100689	10.87	ppb	100
7) Trichlorofluoromethane	2.681	101	203039	10.55	ppb	100
8) Ethanol	2.932	45	17235m	454.63	ppb	
9) Freon-113	3.193	101	122286	9.53	ppb	# 78
10) 1,1-Dichloroethylene	3.216	61	200432	10.38	ppb	94
11) Acrolein	3.149	56	7098	10.03	ppb	99
12) Acetone	3.299	43	24709	9.57	ppb	100
13) Iodomethane	3.388	142	74457	6.88	ppb	99
14) Methyl Acetate	3.605	43	46091	8.90	ppb	100
15) Carbon disulfide	3.447	76	421651	10.34	ppb	100
16) tert-Butyl Alcohol (TBA)	3.833	59	7559m	9.48	ppb	
17) Methylene Chloride	3.716	49	165181	9.39	ppb	98
18) Acrylonitrile	3.984	53	19993	7.65	ppb	95
19) trans-1,2-Dichloroethy...	3.967	61	204687	10.48	ppb	99
20) tert-Butyl Methyl Ethe...	3.945	73	315656	9.50	ppb	100
21) 1,1-Dichloroethane	4.381	63	262545	10.14	ppb	100
22) Vinyl Acetate	4.404	43	370156	9.65	ppb	100
23) Diisopropyl ether (DIPE)	4.387	45	455997	10.38	ppb	100
24) Ethyl-tert-Butyl ether...	4.729	59	424478	10.26	ppb	# 80
25) cis-1,2-Dichloroethylene	4.938	61	231437	10.18	ppb	99
26) 2-Butanone	4.952	72	9155	8.77	ppb	97
27) 2,2-Dichloropropane	4.916	77	216135	9.85	ppb	# 100
28) Tetrahydrofuran	5.213	71	7617	8.86	ppb	# 71
29) Bromochloromethane	5.174	49	94241	9.68	ppb	98
30) Chloroform	5.238	83	250232	9.76	ppb	# 100
31) 1,1,1-Trichloroethane	5.394	97	231238	10.27	ppb	# 74
32) Cyclohexane	5.427	56	228224	10.03	ppb	99
33) 1,1-Dichloropropylene	5.542	75	209566	10.73	ppb	96
35) Carbon Tetrachloride	5.539	117	199616	10.22	ppb	100
36) tert-Amyl alcohol (TAA)	5.750	59	60056	89.38	ppb	95
37) 1,2-Dichloroethane	5.792	62	148504	9.45	ppb	100
38) Benzene	5.753	78	617928	10.31	ppb	# 92
39) tert-Amyl methyl ether...	5.811	73	371668	9.88	ppb	# 90
41) Trichloroethylene	6.360	95	160756	10.46	ppb	97
42) Methyl Cyclohexane	6.510	83	230249	9.86	ppb	99

Data Path : C:\msdchem\1\data\V7031016\
 Data File : V706898.D
 Acq On : 10 Mar 2016 3:38 pm
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-SCV1
 Misc : QBV7031016A <2 OW
 ALS Vial : 16 Sample Multiplier: 1

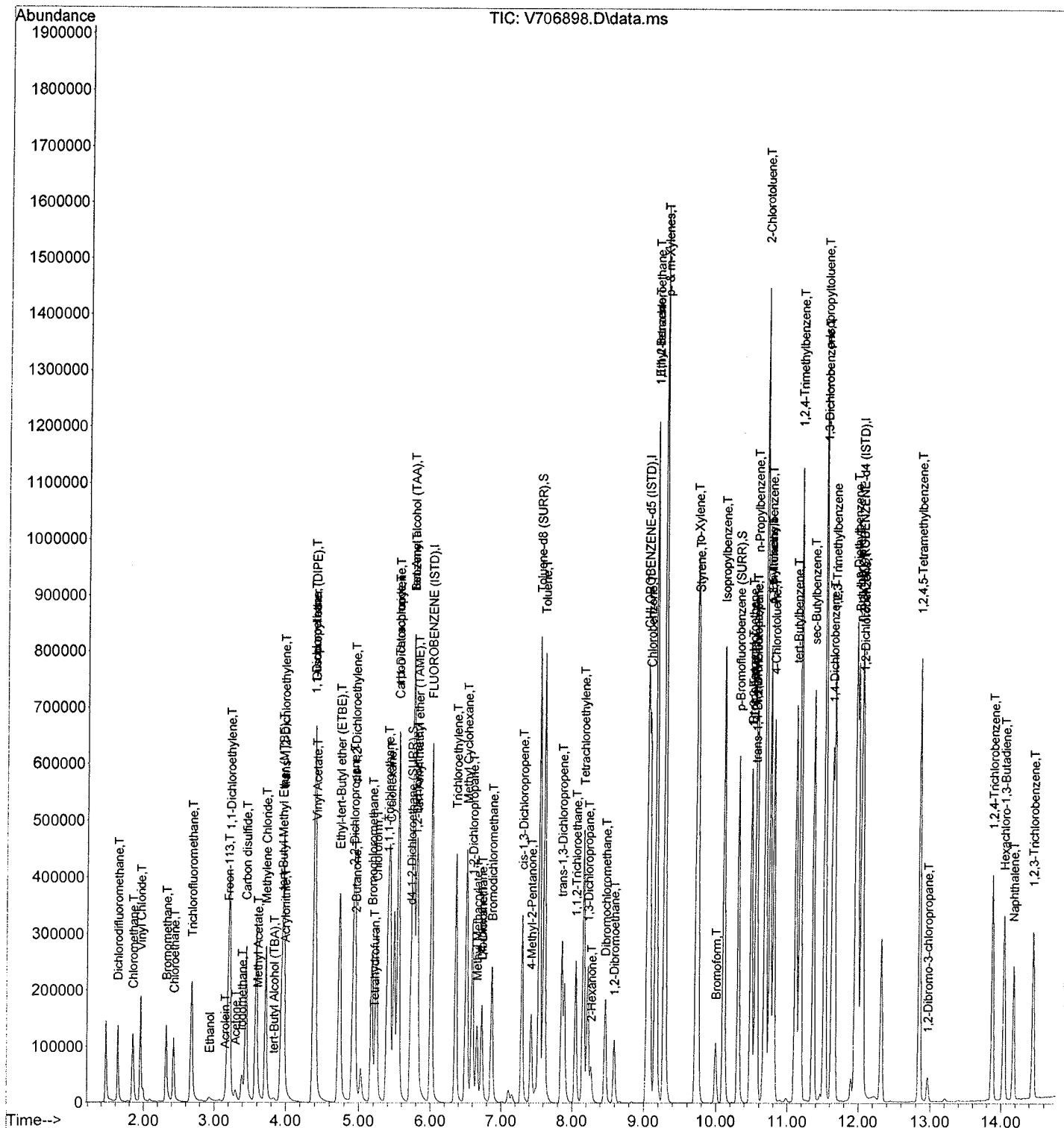
Quant Time: Mar 10 15:58:04 2016
 Quant Method : C:\msdchem\1\methods\V7L00049.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 15:13:37 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
43) Methyl Methacrylate	6.660	69	62078	9.60	ppb	# 99
44) Dibromomethane	6.730	93	66198	9.32	ppb	# 62
45) Bromodichloromethane	6.869	83	177394	9.29	ppb	99
46) 1,2-Dichloropropane	6.593	63	145425	9.87	ppb	99
47) 1,4-Dioxane	6.732	88	11701m	185.64	ppb	
49) cis-1,3-Dichloropropene	7.294	75	217690	9.79	ppb	97
50) 4-Methyl-2-Pentanone	7.422	43	129433	9.58	ppb	98
52) Toluene	7.609	91	688115	10.07	ppb	99
53) trans-1,3-Dichloropropene	7.851	75	177737	9.61	ppb	# 86
54) 1,1,2-Trichloroethane	8.051	97	96692	9.61	ppb	98
55) 1,3-Dichloropropane	8.224	76	168652	9.71	ppb	# 70
56) Tetrachloroethylene	8.160	166	178225	10.35	ppb	# 100
57) 2-Hexanone	8.271	43	46503	9.21	ppb	95
58) Dibromochloromethane	8.468	129	118181	9.65	ppb	99
59) 1,2-Dibromoethane	8.588	107	90728	9.62	ppb	99
60) Chlorobenzene	9.075	112	419460	10.61	ppb	98
61) 1,1,1,2-tetrachloroethane	9.164	131	146594	10.02	ppb	100
62) Ethyl Benzene	9.161	91	729485	10.68	ppb	98
63) p- & m-Xylenes	9.284	91	1117347	22.03	ppb	97
64) o-Xylene	9.720	91	552003	11.06	ppb	100
65) Styrene	9.743	104	419639	9.82	ppb	# 100
66) Bromoform	9.996	173	62861	9.46	ppb	# 100
68) p-Ethyltoluene	10.747	105	546704	10.47	ppb	# 100
69) Isopropylbenzene	10.107	105	681157	11.31	ppb	99
71) 1,1,2,2-Tetrachloroethane	10.488	83	94321	9.26	ppb	# 100
72) Bromobenzene	10.486	77	232884	9.56	ppb	99
73) trans-1,4-Dichloro-2-b...	10.541	75	99523	9.19	ppb	95
74) 1,2,3-Trichloropropane	10.544	110	27943	9.49	ppb	90
75) n-Propylbenzene	10.558	91	797469	11.18	ppb	99
76) 2-Chlorotoluene	10.683	91	532974	10.75	ppb	100
77) 4-Chlorotoluene	10.800	91	479574	10.66	ppb	100
78) 1,3,5-Trimethylbenzene	10.747	105	546704	10.47	ppb	99
79) tert-Butylbenzene	11.114	119	456551	11.20	ppb	99
80) 1,2,4-Trimethylbenzene	11.173	105	550602	10.32	ppb	99
81) sec-Butylbenzene	11.356	105	644059	11.33	ppb	98
82) 1,3-Dichlorobenzene	11.526	146	307091	10.52	ppb	98
83) p-Isopropyltoluene	11.515	119	575076	10.60	ppb	99
84) 1,4-Dichlorobenzene	11.626	146	306428	10.45	ppb	99
85) 1,2,3-Trimethylbenzene	11.657	105	546179m	10.37	ppb	
86) p-Diethylbenzene	11.952	105	320286	11.21	ppb	98
87) 1,2-Dichlorobenzene	12.052	146	260238	10.24	ppb	# 100
88) n-Butylbenzene	11.982	91	599965	10.56	ppb	98
89) 1,2-Dibromo-3-chloropr...	12.959	75	12808	8.95	ppb	99
90) 1,2,4,5-Tetramethylben...	12.842	119	510405	10.86	ppb	99
91) 1,2,4-Trichlorobenzene	13.874	180	157302	10.44	ppb	98
92) Hexachloro-1,3-Butadiene	14.033	225	87664	11.45	ppb	98
93) Naphthalene	14.166	128	231794	10.47	ppb	99
94) 1,2,3-Trichlorobenzene	14.445	180	117900	11.30	ppb	98

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

Data Path : C:\msdchem\1\data\V7031016\
Data File : V706898.D
Acq On : 10 Mar 2016 3:38 pm
InstName : MSVOA7
Operator : SS
Sample : SEQ-SCV1
Misc : QBV7031016A <2 OW
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 10 15:58:04 2016
Quant Method : C:\msdchem\1\methods\V7L00049.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Thu Mar 10 15:13:37 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\V7031116\
 Data File : V706923.D
 Acq On : 11 Mar 2016 8:31 am
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CCV1
 Misc : QBV7031116A <2 OW Y16A035
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 11 14:57:41 2016
 Quant Method : C:\msdchem\1\methods\V7LO0049.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 15:13:37 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	103	0.00
2 T	Dichlorodifluoromethane	0.876	0.912	-4.1	116	0.00
3 T	Chloromethane	1.026	0.978	4.7	116	0.00
4 T	Vinyl Chloride	1.162	1.259	-8.3	117	0.00
5 T	Bromomethane	0.532	0.515	3.1	124	0.00
6 T	Chloroethane	0.745	0.791	-6.2	111	0.00
7 T	Trichlorofluoromethane	1.549	1.708	-10.3	110	0.00
8	Ethanol	0.003	0.002	38.7#	62	0.00
9 T	Freon-113	1.033	1.089	-5.4	108	0.00
10 T	1,1-Dichloroethylene	1.555	1.646	-5.9	113	0.00
11 T	Acrolein	0.057	0.067	-18.1	172#	0.00
12 T	Acetone	0.208	0.155	25.4#	90	0.00
13 T	Iodomethane	0.872	1.044	-19.8	141	0.00
14 T	Methyl Acetate	0.417	0.407	2.3	104	0.00
15 T	Carbon disulfide	3.283	3.442	-4.8	115	0.00
16 T	tert-Butyl Alcohol (TBA)	0.064	0.055	14.0	100	0.00
17 T	Methylene Chloride	1.416	1.423	-0.5	115	0.00
18 T	Acrylonitrile	0.210	0.175	16.8	105	0.00
19 T	trans-1,2-Dichloroethylene	1.572	1.676	-6.6	117	0.00
20 T	tert-Butyl Methyl Ether (MT)	2.676	2.675	0.0	111	0.00
21 T	1,1-Dichloroethane	2.084	2.216	-6.3	116	0.00
22 T	Vinyl Acetate	3.089	3.181	-3.0	111	0.00
23 T	Diisopropyl ether (DIPE)	3.535	3.656	-3.4	110	0.00
24 T	Ethyl-tert-Butyl ether (ETB)	3.330	3.388	-1.7	109	0.00
25 T	cis-1,2-Dichloroethylene	1.830	1.935	-5.7	116	0.00
26 T	2-Butanone	0.084	0.073	12.6	103	0.00
27 T	2,2-Dichloropropane	1.767	1.910	-8.0	117	0.00
28 T	Tetrahydrofuran	0.069	0.067	2.6	119	0.00
29 T	Bromochloromethane	0.784	0.869	-10.9	118	0.00
30 T	Chloroform	2.063	2.159	-4.6	115	0.00
31 T	1,1,1-Trichloroethane	1.812	1.929	-6.5	115	0.00
32 T	Cyclohexane	1.832	1.937	-5.8	109	0.00
33 T	1,1-Dichloropropylene	1.572	1.632	-3.8	113	0.00
34 S	d4-1,2-Dichloroethane (SURR)	1.144	1.123	1.9	101	0.00
35 T	Carbon Tetrachloride	1.573	1.669	-6.1	115	0.00
36 T	tert-Amyl alcohol (TAA)	0.054	0.044	19.0	100	0.00
37 T	1,2-Dichloroethane	1.265	1.291	-2.0	111	0.00
38 T	Benzene	4.823	5.033	-4.4	115	0.00
39 T	tert-Amyl methyl ether (TAM)	3.028	2.875	5.1	106	0.00
40 I	CHLORO BENZENE-d5 (ISTD)	1.000	1.000	0.0	104	0.00
41 T	Trichloroethylene	0.293	0.305	-3.9	117	0.00
42 T	Methyl Cyclohexane	0.446	0.480	-7.7	112	0.00
43 T	Methyl Methacrylate	0.123	0.118	4.1	111	0.00
44 T	Dibromomethane	0.136	0.134	1.0	112	0.00
45 T	Bromodichloromethane	0.364	0.363	0.2	112	0.00
46 T	1,2-Dichloropropane	0.281	0.282	-0.3	114	0.00
47 T	1,4-Dioxane	0.001	0.001	33.3#	87	0.00
48 T	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	-7.61#

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\V7031116\
 Data File : V706923.D
 Acq On : 11 Mar 2016 8:31 am
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CCV1
 Misc : QBV7031116A <2 OW Y16A035
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 11 14:57:41 2016
 Quant Method : C:\msdchem\1\methods\V7LO0049.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 15:13:37 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)
49 T	cis-1,3-Dichloropropene	0.424	0.438	-3.1	116	0.00
50 T	4-Methyl-2-Pentanone	0.258	0.233	9.5	101	0.00
51 S	Toluene-d8 (SURR)	1.246	1.258	-1.0	105	0.00
52 T	Toluene	1.304	1.299	0.4	114	0.00
53 T	trans-1,3-Dichloropropene	0.353	0.354	-0.4	113	0.00
54 T	1,1,2-Trichloroethane	0.192	0.192	0.1	111	0.00
55 T	1,3-Dichloropropane	0.331	0.331	0.0	113	0.00
56 T	Tetrachloroethylene	0.329	0.338	-2.8	111	0.00
57 T	2-Hexanone	0.096	0.089	8.0	108	0.00
58 T	Dibromochloromethane	0.234	0.231	1.4	112	0.00
59 T	1,2-Dibromoethane	0.180	0.178	1.1	111	0.00
60 T	Chlorobenzene	0.754	0.774	-2.6	115	0.00
61 T	1,1,1,2-tetrachloroethane	0.279	0.284	-1.9	115	0.00
62 T	Ethyl Benzene	1.304	1.391	-6.7	116	0.00
63 T	p- & m-Xylenes	0.968	1.049	-8.4	116	0.00
64 T	o-Xylene	0.953	1.019	-7.0	117	0.00
65 T	Styrene	0.815	0.869	-6.6	116	0.00
66 T	Bromoform	0.127	0.120	5.1	110	0.00
67 I	1,2-DICHLOROBENZENE-d4 (IST	1.000	1.000	0.0	104	0.00
68 T	p-Ethyltoluene	2.423	2.613	-7.8	115	0.00
69 T	Isopropylbenzene	2.793	3.033	-8.6	115	0.00
70 S	p-Bromofluorobenzene (SURR)	1.158	1.164	-0.5	103	0.00
71 T	1,1,2,2-Tetrachloroethane	0.472	0.459	2.8	109	0.00
72 T	Bromobenzene	1.129	1.161	-2.8	114	0.00
73 T	trans-1,4-Dichloro-2-butene	0.502	0.478	4.8	109	0.00
74 T	1,2,3-Trichloropropane	0.137	0.132	3.3	107	0.00
75 T	n-Propylbenzene	3.309	3.606	-9.0	115	0.00
76 T	2-Chlorotoluene	2.300	2.458	-6.9	115	0.00
77 T	4-Chlorotoluene	2.087	2.248	-7.7	116	0.00
78 T	1,3,5-Trimethylbenzene	2.423	2.613	-7.8	115	0.00
79 T	tert-Butylbenzene	1.890	2.021	-6.9	114	0.00
80 T	1,2,4-Trimethylbenzene	2.474	2.661	-7.5	115	0.00
81 T	sec-Butylbenzene	2.638	2.824	-7.0	113	0.00
82 T	1,3-Dichlorobenzene	1.354	1.440	-6.4	115	0.00
83 T	p-Isopropyltoluene	2.517	2.687	-6.7	113	0.00
84 T	1,4-Dichlorobenzene	1.360	1.438	-5.7	116	0.00
85	1,2,3-Trimethylbenzene	2.443	2.029	17.0	86	0.00
86 T	p-Diethylbenzene	1.325	1.426	-7.6	112	0.00
87 T	1,2-Dichlorobenzene	1.179	1.215	-3.1	113	0.00
88 T	n-Butylbenzene	2.635	2.864	-8.7	114	0.00
89 T	1,2-Dibromo-3-chloropropane	0.066	0.057	13.6	98	0.00
90 T	1,2,4,5-Tetramethylbenzene	2.181	2.298	-5.4	111	0.00
91 T	1,2,4-Trichlorobenzene	0.699	0.678	3.0	110	0.00
92 T	Hexachloro-1,3-Butadiene	0.355	0.370	-4.1	117	0.00
93 T	Naphthalene	1.027	0.906	11.8	100	0.00
94 T	1,2,3-Trichlorobenzene	0.484	0.427	11.6	101	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\V7031116\
 Data File : V706923.D
 Acq On : 11 Mar 2016 8:31 am
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CCV1
 Misc : QBV7031116A <2 OW Y16A035
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 11 14:57:41 2016
 Quant Method : C:\msdchem\1\methods\V7LO0049.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 15:13:37 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)

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

Data Path : C:\msdchem\1\data\V7031116\
 Data File : V706923.D
 Acq On : 11 Mar 2016 8:31 am
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CCV1
 Misc : QBV7031116A <2 OW Y16A035
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 11 14:57:41 2016
 Quant Method : C:\msdchem\1\methods\V7LO0049.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 15:13:37 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) FLUOROBENZENE (ISTD)	6.006	70	114305	10.00	ppb	0.00
40) CHLOROBENZENE-d5 (ISTD)	9.044	117	482397	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	12.032	152	193652	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.719	65	128389	9.82	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	98.20%	
51) Toluene-d8 (SURR)	7.539	98	606907	10.10	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	101.00%	
70) p-Bromofluorobenzene (...)	10.310	95	225310	10.05	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	100.50%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.632	85	104234	10.41	ppb	100
3) Chloromethane	1.844	50	111756	9.53	ppb	100
4) Vinyl Chloride	1.955	62	143904	10.83	ppb	99
5) Bromomethane	2.320	94	58894	9.69	ppb	99
6) Chloroethane	2.425	64	90461	10.62	ppb	100
7) Trichlorofluoromethane	2.681	101	195277	11.03	ppb	100
8) Ethanol	2.932	45	11046	316.64	ppb	100
9) Freon-113	3.193	101	124520	10.54	ppb	# 68
10) 1,1-Dichloroethylene	3.215	61	188136	10.59	ppb	97
11) Acrolein	3.143	56	7688	11.81	ppb	98
12) Acetone	3.302	43	17729	7.46	ppb	99
13) Iodomethane	3.385	142	119336	11.98	ppb	99
14) Methyl Acetate	3.608	43	46568	9.77	ppb	100
15) Carbon disulfide	3.446	76	393464	10.48	ppb	100
16) tert-Butyl Alcohol (TBA)	3.839	59	6310m	8.60	ppb	
17) Methylene Chloride	3.719	49	162665	10.05	ppb	98
18) Acrylonitrile	3.981	53	20020	8.32	ppb	95
19) trans-1,2-Dichloroethy...	3.967	61	191610	10.66	ppb	# 69
20) tert-Butyl Methyl Ethe...	3.942	73	305740	10.00	ppb	100
21) 1,1-Dichloroethane	4.378	63	253272	10.63	ppb	100
22) Vinyl Acetate	4.406	43	363567	10.30	ppb	100
23) Diisopropyl ether (DIPE)	4.387	45	417945	10.34	ppb	# 89
24) Ethyl-tert-Butyl ether...	4.729	59	387236	10.17	ppb	# 80
25) cis-1,2-Dichloroethylene	4.935	61	221160	10.57	ppb	100
26) 2-Butanone	4.952	72	8394	8.74	ppb	99
27) 2,2-Dichloropropane	4.918	77	218266	10.80	ppb	# 100
28) Tetrahydrofuran	5.213	71	7707	9.74	ppb	# 66
29) Bromochloromethane	5.171	49	99370	11.09	ppb	99
30) Chloroform	5.235	83	246787	10.46	ppb	# 100
31) 1,1,1-Trichloroethane	5.391	97	220517	10.65	ppb	# 74
32) Cyclohexane	5.422	56	221451	10.58	ppb	99
33) 1,1-Dichloropropylene	5.541	75	186556	10.38	ppb	97
35) Carbon Tetrachloride	5.544	117	190781	10.61	ppb	100
36) tert-Amyl alcohol (TAA)	5.747	59	50069	80.98	ppb	# 68
37) 1,2-Dichloroethane	5.792	62	147554	10.20	ppb	99
38) Benzene	5.750	78	575319	10.44	ppb	# 94
39) tert-Amyl methyl ether...	5.811	73	328632	9.49	ppb	# 90
41) Trichloroethylene	6.357	95	147087	10.39	ppb	100
42) Methyl Cyclohexane	6.507	83	231614	10.77	ppb	88

Data Path : C:\msdchem\1\data\V7031116\
 Data File : V706923.D
 Acq On : 11 Mar 2016 8:31 am
 InstName : MSVOA7
 Operator : SS
 Sample : SEQ-CCV1
 Misc : QBV7031116A <2 OW Y16A035
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 11 14:57:41 2016
 Quant Method : C:\msdchem\1\methods\V7LO0049.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 15:13:37 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Methyl Methacrylate	6.663	69	57056	9.58	ppb	# 100
44) Dibromomethane	6.727	93	64804	9.91	ppb	99
45) Bromodichloromethane	6.868	83	175363	9.98	ppb	99
46) 1,2-Dichloropropane	6.593	63	135983	10.03	ppb	100
47) 1,4-Dioxane	6.735	88	8194	141.22	ppb	98
49) cis-1,3-Dichloropropene	7.291	75	211183	10.31	ppb	97
50) 4-Methyl-2-Pentanone	7.425	43	112475	9.04	ppb	97
52) Toluene	7.606	91	626576	9.96	ppb	99
53) trans-1,3-Dichloropropene	7.851	75	170912	10.04	ppb	# 86
54) 1,1,2-Trichloroethane	8.048	97	92552	9.99	ppb	100
55) 1,3-Dichloropropane	8.221	76	159858	10.00	ppb	# 70
56) Tetrachloroethylene	8.157	166	162879	10.28	ppb	# 99
57) 2-Hexanone	8.268	43	42762	9.20	ppb	89
58) Dibromochloromethane	8.465	129	111264	9.87	ppb	99
59) 1,2-Dibromoethane	8.591	107	85937	9.90	ppb	100
60) Chlorobenzene	9.075	112	373325	10.26	ppb	99
61) 1,1,1,2-tetrachloroethane	9.161	131	137198	10.19	ppb	99
62) Ethyl Benzene	9.161	91	671057	10.67	ppb	98
63) p- & m-Xylenes	9.283	91	1012039	21.68	ppb	97
64) o-Xylene	9.717	91	491714	10.70	ppb	100
65) Styrene	9.740	104	419383	10.66	ppb	# 100
66) Bromoform	9.993	173	58036	9.49	ppb	# 76
68) p-Ethyltoluene	10.747	105	505962	10.78	ppb	# 100
69) Isopropylbenzene	10.104	105	587339	10.86	ppb	98
71) 1,1,2,2-Tetrachloroethane	10.491	83	88916	9.72	ppb	# 99
72) Bromobenzene	10.485	77	224822	10.28	ppb	99
73) trans-1,4-Dichloro-2-b...	10.544	75	92650	9.52	ppb	95
74) 1,2,3-Trichloropropane	10.541	110	25578	9.67	ppb	89
75) n-Propylbenzene	10.558	91	698312	10.90	ppb	98
76) 2-Chlorotoluene	10.680	91	476094	10.69	ppb	100
77) 4-Chlorotoluene	10.803	91	435272	10.77	ppb	99
78) 1,3,5-Trimethylbenzene	10.747	105	505962	10.78	ppb	99
79) tert-Butylbenzene	11.114	119	391446	10.69	ppb	100
80) 1,2,4-Trimethylbenzene	11.173	105	515259	10.75	ppb	99
81) sec-Butylbenzene	11.356	105	546817	10.70	ppb	98
82) 1,3-Dichlorobenzene	11.523	146	278898	10.64	ppb	99
83) p-Isopropyltoluene	11.515	119	520334	10.67	ppb	99
84) 1,4-Dichlorobenzene	11.626	146	278467	10.57	ppb	99
85) 1,2,3-Trimethylbenzene	11.657	105	392872m	8.30	ppb	
86) p-Diethylbenzene	11.952	105	276051	10.76	ppb	94
87) 1,2-Dichlorobenzene	12.055	146	235221	10.31	ppb	# 100
88) n-Butylbenzene	11.982	91	554688	10.87	ppb	97
89) 1,2-Dibromo-3-chloropr...	12.964	75	11114	8.64	ppb	# 68
90) 1,2,4,5-Tetramethylben...	12.845	119	444994	10.54	ppb	99
91) 1,2,4-Trichlorobenzene	13.874	180	131245	9.70	ppb	99
92) Hexachloro-1,3-Butadiene	14.036	225	71616	10.41	ppb	100
93) Naphthalene	14.169	128	175494	8.83	ppb	100
94) 1,2,3-Trichlorobenzene	14.447	180	82780	8.84	ppb	98

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

Response Factor Report VOA No. 5

Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 2016
 Response via : Initial Calibration

Calibration Files

5 =V5384112.D 10 =V5384113.D 20 =V5384114.D
 50 =V5384115.D 100 =V5384116.D 200 =V5384117.D

	Compound	5	10	20	50	100	200	Avg	%RSD
1)	FLUOROBENZENE (ISTD)	-----ISTD-----							
2)	Dichlorodifluoromet	2.402	1.957	2.262	2.364	2.242	2.184	2.235	7.08
3) P	Chloromethane	2.753	2.553	2.756	2.824	2.854	2.677	2.736	3.98
4) C	Vinyl Chloride	2.366	2.189	2.348	2.442	2.430	2.402	2.363	3.92#
5)	Bromomethane	1.445	1.242	1.383	1.490	1.561	1.594	1.453	8.84
6)	Chloroethane	1.509	1.340	1.474	1.460	1.451	1.413	1.441	4.07
7)	Trichlorofluorometh	3.576	3.235	3.541	3.621	3.599	3.524	3.516	4.05
8)	Ethyl Ether	1.426	1.291	1.311	1.384	1.344	1.363	1.353	3.63
9)	Freon-113	2.226	1.911	2.151	2.175	2.120	2.112	2.116	5.13
10) C,M	1,1-Dichloroethylen	3.399	3.315	3.403	3.565	3.506	3.397	3.431	2.62#
11)	Acrolein		0.185	0.154	0.148	0.085	0.083	0.131	34.27
12)	Iodomethane	2.535	2.544	2.775	2.927	3.113	3.136	2.838	9.38
13)	Methyl Acetate	2.208	1.245	1.512	1.467	1.270	1.274	1.496	24.50
14)	tert-Butyl Alcohol		0.171	0.216	0.250	0.171	0.186	0.199	17.01
15)	trans-1,2-Dichloroe	3.171	2.972	3.115	3.151	3.097	2.911	3.069	3.39
16)	Carbon Disulfide	6.166	5.639	6.093	6.221	6.193	5.957	6.045	3.64
17)	Methylene Chloride	3.391	2.816	2.840	2.828	2.926	2.861	2.944	7.56
18)	Acrylonitrile	0.644	0.525	0.612	0.672	0.562	0.539	0.592	10.08
19)	tert-Butyl Methyl E	4.539	4.190	4.291	4.583	4.296	4.281	4.363	3.63
20)	Acetone		0.731	0.644	0.925	0.687	0.580	0.713	18.31
21) P	1,1-Dichloroethane	3.771	3.627	3.804	3.777	3.858	3.660	3.749	2.35
22)	Vinyl Acetate	4.519	3.434	3.902	4.219	3.793	3.938	3.967	9.34
23)	cis-1,2-Dichloroeth	2.238	2.146	2.199	2.181	2.179	2.114	2.176	1.97
24)	2-Butanone	0.260	0.212	0.198	0.216	0.171	0.173	0.205	15.96
25)	2,2-Dichloropropane	3.339	3.080	3.305	3.197	3.133	3.055	3.185	3.69
26)	Bromochloromethane	2.399	1.872	2.281	1.933	2.274	1.757	2.086	12.67
27) C	Chloroform	3.538	3.340	3.372	3.422	3.594	3.380	3.441	2.96#
28)	Tetrahydrofuran	0.313	0.205	0.185	0.214	0.175	0.158	0.208	26.44
29)	1,1-Dichloropropyle	3.019	2.540	2.950	2.970	2.796	2.791	2.844	6.19
30)	1,1,1-Trichloroetha	3.254	3.004	3.307	3.231	3.236	3.186	3.203	3.28
31)	Cyclohexane	3.879	3.272	3.702	3.792	3.574	3.384	3.600	6.57
32) S	d4-1,2-Dichloroetha	1.571	1.429	1.445	1.536	1.438	1.510	1.488	3.98
33)	Carbon Tetrachlorid	3.156	2.813	3.145	3.195	3.113	3.133	3.093	4.51
34)	1,2-Dichloroethane	2.456	2.249	2.359	2.388	2.422	2.420	2.382	3.08
35) M	Benzene	7.086	6.504	6.782	6.737	6.868	6.547	6.754	3.18
36)	CHLOROBENZENE-d5 (ISTD	-----ISTD-----							
37) M	Trichloroethylene	0.464	0.451	0.473	0.466	0.484	0.454	0.465	2.63
38)	Methyl Cyclohexane	0.721	0.640	0.760	0.710	0.739	0.691	0.710	5.90
39)	Dibromomethane	0.258	0.250	0.255	0.260	0.262	0.254	0.257	1.68
40)	Methyl Methacrylate	0.266	0.213	0.243	0.259	0.228	0.232	0.240	8.27
41)	Bromodichloromethan	0.584	0.595	0.591	0.601	0.598	0.594	0.594	1.03
42) C	1,2-Dichloropropane	0.406	0.407	0.413	0.410	0.420	0.408	0.411	1.29#

(#) = Out of Range

V5C00149.M

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Page 1

Response Factor Report VOA No. 5

Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 2016
 Response via : Initial Calibration

Calibration Files

5 =V5384112.D 10 =V5384113.D 20 =V5384114.D
 50 =V5384115.D 100 =V5384116.D 200 =V5384117.D

	Compound	5	10	20	50	100	200	Avg	%RSD
43)	1,4-Dioxane	0.004	0.002	0.003	0.004	0.003	0.003	0.003#	15.75
44)	2-Chloroethylvinyl	0.253	0.222	0.227	0.252	0.239	0.231	0.237	5.50
45)	cis-1,3-Dichloropro	0.683	0.683	0.687	0.659	0.713	0.680	0.684	2.52
46)	2-Hexanone	0.349	0.282	0.307	0.384	0.324	0.308	0.326	11.12
47)	S Toluene-d8 (SURR)	1.041	1.032	1.046	1.012	1.065	1.078	1.046	2.24
48)	C,M Toluene	1.544	1.536	1.520	1.488	1.545	1.507	1.524	1.49#
49)	trans-1,3-Dichlorop	0.603	0.602	0.607	0.630	0.630	0.610	0.614	2.13
50)	1,1,2-Trichloroetha	0.261	0.247	0.255	0.265	0.263	0.258	0.258	2.62
51)	1,3-Dichloropropane	0.534	0.531	0.536	0.578	0.565	0.544	0.548	3.48
52)	Tetrachloroethylene	0.512	0.475	0.517	0.520	0.598	0.514	0.523	7.74
53)	4-Methyl-2-Pentanone	0.495	0.391	0.426	0.512	0.440	0.427	0.448	10.25
54)	Dibromochloromethan	0.451	0.441	0.446	0.492	0.476	0.464	0.462	4.24
55)	1,2-Dibromoethane	0.345	0.325	0.335	0.360	0.347	0.334	0.341	3.61
56)	P,M Chlorobenzene	1.035	1.040	1.046	1.085	1.093	1.019	1.053	2.80
57)	C Ethyl Benzene	1.795	1.746	1.798	1.782	1.838	1.749	1.785	1.93#
58)	p- & m-Xylenes	1.338	1.293	1.355	1.292	1.330	1.262	1.312	2.66
59)	o-Xylene	1.292	1.281	1.341	1.341	1.327	1.202	1.298	4.08
60)	Styrene	1.011	1.040	1.027	1.039	1.042	0.953	1.019	3.33
61)	1,1,1,2-Tetrachloro	0.421	0.424	0.433	0.449	0.458	0.449	0.439	3.45
62)	1,2-DICHLOROBENZENE-d	-----ISTD-----							
63)	p Bromoform	0.580	0.585	0.600	0.712	0.642	0.627	0.624	7.90
64)	S p-Bromofluorobenzen	0.870	0.891	0.897	0.877	0.915	0.898	0.891	1.84
65)	p-Ethyltoluene	3.741	3.366	3.703	3.789	3.764	3.644	3.668	4.26
66)	p-Diethylbenzene	1.971	1.861	1.960	2.059	1.899	1.875	1.937	3.83
67)	P 1,1,2,2-Tetrachloro	0.925	0.852	0.867	1.032	0.871	0.854	0.900	7.74
68)	1,2,3-Trichloroprop	0.306	0.282	0.292	0.345	0.280	0.276	0.297	8.77
69)	Isopropylbenzene	3.861	3.888	4.229	4.203	4.079	3.889	4.025	4.17
70)	1,2-Dibromo-3-Chlor	0.168	0.132	0.143	0.174	0.139	0.135	0.148	12.26
71)	Bromobenzene	1.345	1.316	1.342	1.484	1.390	1.372	1.375	4.33
72)	trans-1,4-Dichloro-	1.032	0.948	0.960	1.157	0.957	0.929	0.997	8.62
73)	n-Propylbenzene	4.763	4.733	4.973	5.108	4.866	4.666	4.851	3.41
74)	2-Chlorotoluene	2.909	2.802	3.025	3.083	3.062	2.966	2.975	3.56
75)	4-Chlorotoluene	2.619	2.607	2.718	3.038	2.980	2.866	2.805	6.57
76)	tert-Butylbenzene	2.888	2.749	2.842	3.054	2.827	2.767	2.855	3.86
77)	1,3,5-trimethylbenz	3.036	2.978	3.130	3.287	3.143	2.940	3.085	4.13
78)	1,2,4-trimethylbenz	2.965	2.942	3.184	3.180	3.054	2.980	3.051	3.55
79)	sec-Butylbenzene	4.235	4.115	4.283	4.373	4.270	4.026	4.217	2.98
80)	1,3-Dichlorobenzene	1.813	1.813	1.837	1.910	1.828	1.734	1.823	3.10
81)	1,4-Dichlorobenzene	1.777	1.737	1.828	1.943	1.875	1.726	1.814	4.65
82)	1,2-Dichlorobenzene	1.578	1.534	1.572	1.705	1.642	1.568	1.600	3.89
83)	p-Isopropyltoluene	3.654	3.602	3.812	3.818	3.620	3.400	3.651	4.24
84)	n-Butylbenzene	3.963	3.878	3.979	4.118	3.823	3.691	3.909	3.74
85)	1,2,4,5-Tetramethyl	2.962	2.738	3.069	3.192	3.046	2.815	2.970	5.69

(#) = Out of Range

V5C00149.M

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Response Factor Report VOA No. 5

Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 2016
 Response via : Initial Calibration

Calibration Files

5 =V5384112.D 10 =V5384113.D 20 =V5384114.D
 50 =V5384115.D 100 =V5384116.D 200 =V5384117.D

	Compound	5	10	20	50	100	200	Avg	%RSD
86)	1,2,4-Trichlorobenz	1.016	1.016	1.044	1.153	1.079	1.048	1.060	4.87
87)	Naphthalene	2.327	2.134	2.242	2.584	2.240	2.144	2.278	7.27
88)	Hexachloro-1,3-Buta	0.631	0.603	0.671	0.699	0.671	0.646	0.654	5.20
89)	1,2,3-Trichlorobenz	0.868	0.865	0.880	0.985	0.916	0.885	0.900	5.05

(#) = Out of Range
 V5C00149.M

Fri Mar 11 09:46:35 2016

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Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\V5031016\V5384112.D

Vial: 8

Acq On : 10 Mar 2016 1:56 pm

Operator: SS

Sample : SEQ-CAL1

Inst : VOA No. 5

Misc : QBV5031016A

Multiplr: 1.00

MS Integration Params: RTEINT1.P

Quant Time: Mar 11 9:10 2016

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)

Title : VOCs BY GC/MS EPA SW846-8260

Last Update : Wed Feb 24 09:44:05 2016

Response via : Initial Calibration

DataAcq Meth : V5C0001A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.80	70	103137	50.00	ppb	-0.06
36) CHLOROBENZENE-d5(ISTD)	8.82	117	453862	50.00	ppb	-0.05
62) 1,2-DICHLOROBENZENE-d4(IST	11.80	152	202506	50.00	ppb	-0.06

System Monitoring Compounds

32) d4-1,2-Dichloroethane(SURR	5.52	65	162071	59.92	ppb	-0.05
Spiked Amount	50.000	Range	64 - 122	Recovery	=	119.84%
47) Toluene-d8(SURR)	7.32	98	472404	40.24	ppb	-0.05
Spiked Amount	50.000	Range	83 - 114	Recovery	=	80.48%#
64) p-Bromofluorobenzene(SURR)	10.09	174	176081	52.92	ppb	-0.05
Spiked Amount	50.000	Range	71 - 126	Recovery	=	105.84%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.53	85	24778	6.28	ppb	100
3) Chloromethane	1.72	50	28389	5.65	ppb	100
4) Vinyl Chloride	1.82	62	24405	6.88	ppb	98
5) Bromomethane	2.16	94	14900	7.16	ppb	96
6) Chloroethane	2.26	64	15568	7.52	ppb	99
7) Trichlorofluoromethane	2.50	101	36882	7.43	ppb	99
8) Ethyl Ether	2.80	59	14703	7.55	ppb	96
9) Freon-113	3.00	101	22959	7.51	ppb	98
10) 1,1-Dichloroethylene	3.03	61	35056	7.77	ppb	98
11) Acrolein	2.99	56	2674	16.15	ppb	95
12) Iodomethane	3.20	142	26150	5.76	ppb	98
13) Methyl Acetate	3.43	43	22774	10.47	ppb	98
14) tert-Butyl Alcohol (TBA)	3.67	59	3457	12.85	ppb	# 100
15) trans-1,2-Dichloroethylene	3.77	61	32701	7.58	ppb	94
16) Carbon Disulfide	3.25	76	63592	6.99	ppb	100
17) Methylene Chloride	3.53	49	34972	7.80	ppb	96
18) Acrylonitrile	3.81	53	6646	7.68	ppb	89
19) tert-Butyl Methyl Ether (M	3.75	73	46818	7.21	ppb	# 100
20) Acetone	3.13	43	14740	15.51	ppb	# 100
21) 1,1-Dichloroethane	4.19	63	38893	7.20	ppb	100
22) Vinyl Acetate	4.22	43	46603	11.78	ppb	100
23) cis-1,2-Dichloroethylene	4.74	96	23087	6.01	ppb	# 100
24) 2-Butanone	4.77	72	2678	8.19	ppb	99
25) 2,2-Dichloropropane	4.71	77	34441	6.69	ppb	100
26) Bromochloromethane	4.98	49	24745	7.91	ppb	93
27) Chloroform	5.04	83	36495	6.01	ppb	99
28) Tetrahydrofuran	5.02	71	3230	10.78	ppb	# 81
29) 1,1-Dichloropropylene	5.33	75	31134	6.60	ppb	99
30) 1,1,1-Trichloroethane	5.18	97	33562	6.27	ppb	99

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

V5384112.D V5C00149.M

Fri Mar 11 09:13:07 2016

Page 1

Data File : C:\HPCHEM\1\DATA\V5031016\V5384112.D
 Acq On : 10 Mar 2016 1:56 pm
 Sample : SEQ-CAL1
 Misc : QBV5031016A
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 11 9:10 2016

Vial: 8
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Wed Feb 24 09:44:05 2016
 Response via : Initial Calibration
 DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) Cyclohexane	5.20	56	40003	7.27	ppb	96
33) Carbon Tetrachloride	5.33	117	32549	6.55	ppb	99
34) 1,2-Dichloroethane	5.59	62	25329	7.30	ppb	100
35) Benzene	5.54	78	73085	6.13	ppb	# 61
37) Trichloroethylene	6.14	95	21040	4.73	ppb	94
38) Methyl Cyclohexane	6.27	83	32727	5.02	ppb	# 98
39) Dibromomethane	6.53	93	11702	4.49	ppb	# 70
40) Methyl Methacrylate	6.45	69	12054	5.67	ppb	98
41) Bromodichloromethane	6.66	83	26483	4.62	ppb	98
42) 1,2-Dichloropropane	6.39	63	18423	5.28	ppb	# 89
43) 1,4-Dioxane	6.52	88	3283	138.38	ppb	# 76
44) 2-Chloroethylvinyl ether	6.92	63	11474	12.09	ppb	98
45) cis-1,3-Dichloropropene	7.08	75	31020	4.79	ppb	99
46) 2-Hexanone	8.06	43	15832	6.07	ppb	99
48) Toluene	7.39	91	70088	4.72	ppb	99
49) trans-1,3-Dichloropropene	7.64	75	27374	4.84	ppb	# 97
50) 1,1,2-Trichloroethane	7.84	83	11833	4.58	ppb	# 95
51) 1,3-Dichloropropane	8.01	76	24246	4.55	ppb	# 99
52) Tetrachloroethylene	7.93	166	23235	5.44	ppb	99
53) 4-Methyl-2-Pentanone	7.22	43	22477	6.27	ppb	100
54) Dibromochloromethane	8.25	129	20475	5.23	ppb	100
55) 1,2-Dibromoethane	8.38	107	15678	4.84	ppb	98
56) Chlorobenzene	8.86	112	46996	4.89	ppb	96
57) Ethyl Benzene	8.93	91	81446	4.84	ppb	100
58) p- & m-Xylenes	9.06	91	121497	9.80	ppb	100
59) o-Xylene	9.49	91	58656	4.68	ppb	99
60) Styrene	9.52	104	45901	4.47	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.94	131	19104	5.18	ppb	100
63) Bromoform	9.77	173	11740	4.95	ppb	# 100
65) p-Ethyltoluene	10.45	105	75766	4.72	ppb	95
66) p-Diethylbenzene	11.71	119	39908	4.90	ppb	95
67) 1,1,2,2-Tetrachloroethane	10.28	83	18725	4.64	ppb	99
68) 1,2,3-Trichloropropane	10.32	110	6205	5.04	ppb	89
69) Isopropylbenzene	9.87	105	78184	4.46	ppb	# 95
70) 1,2-Dibromo-3-Chloropropan	12.73	75	3410	5.96	ppb	96
71) Bromobenzene	10.25	77	27234	4.49	ppb	95
72) trans-1,4-Dichloro-2-buten	10.32	75	20895m	5.07	ppb	
73) n-Propylbenzene	10.32	91	96450	4.62	ppb	100
74) 2-Chlorotoluene	10.45	91	58918	4.39	ppb	99
75) 4-Chlorotoluene	10.57	91	53042	4.29	ppb	97
76) tert-Butylbenzene	10.88	119	58484m	5.10	ppb	

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

V5384112.D V5C00149.M

Fri Mar 11 09:13:08 2016

Page 2

Data File : C:\HPCHEM\1\DATA\V5031016\V5384112.D
Acq On : 10 Mar 2016 1:56 pm
Sample : SEQ-CAL1
Misc : QBV5031016A
MS Integration Params: RTEINT1.P
Quant Time: Mar 11 9:10 2016

Vial: 8
Operator: SS
Inst : VOA No. 5
Multiplr: 1.00

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)
Title : VOCs BY GC/MS EPA SW846-8260
Last Update : Wed Feb 24 09:44:05 2016
Response via : Initial Calibration
DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,3,5-trimethylbenzene	10.51	105	61478	4.56	ppb	# 100
78) 1,2,4-trimethylbenzene	10.94	105	60048	4.57	ppb	99
79) sec-Butylbenzene	11.12	105	85756	4.67	ppb	# 99
80) 1,3-Dichlorobenzene	11.29	146	36709m	4.86	ppb	
81) 1,4-Dichlorobenzene	11.39	146	35990	4.90	ppb	# 82
82) 1,2-Dichlorobenzene	11.82	146	31959	4.78	ppb	# 99
83) p-Isopropyltoluene	11.28	119	73994	4.94	ppb	# 99
84) n-Butylbenzene	11.74	91	80245	4.60	ppb	98
85) 1,2,4,5-Tetramethylbenzene	12.60	119	59979	5.25	ppb	98
86) 1,2,4-Trichlorobenzene	13.63	180	20579	5.36	ppb	98
87) Naphthalene	13.92	128	47124m	5.97	ppb	
88) Hexachloro-1,3-Butadiene	13.78	225	12777	5.75	ppb	# 100
89) 1,2,3-Trichlorobenzene	14.20	182	17580	5.66	ppb	97

(#) = qualifier out of range (m) = manual integration
V5384112.D V5C00149.M Fri Mar 11 09:13:08 2016

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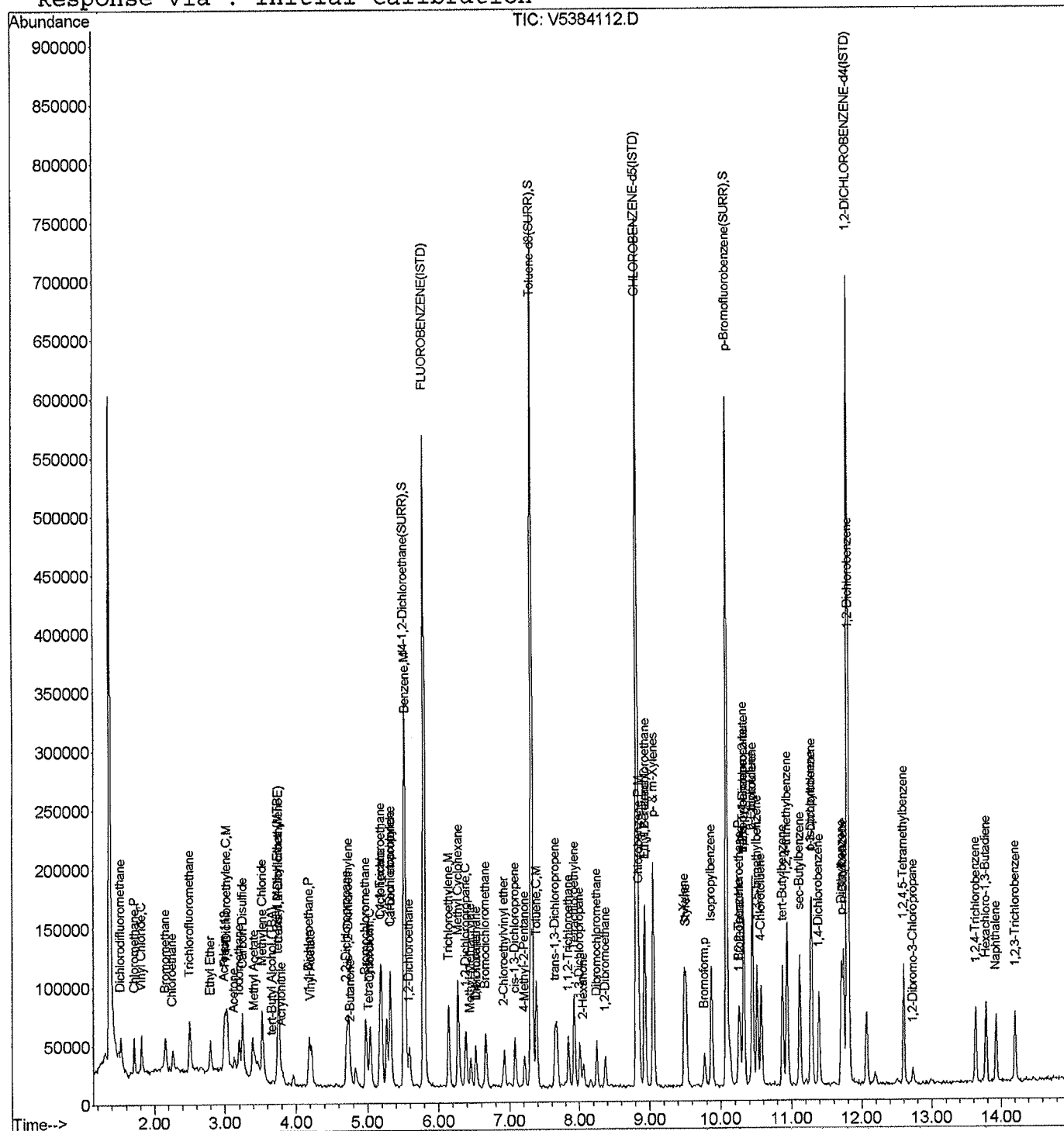
Quantitation Report

Data File : C:\HPCHEM\1\DATA\V5031016\V5384112.D
 Acq On : 10 Mar 2016 1:56 pm
 Sample : SEQ-CAL1
 Misc : QBV5031016A
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 11 9:10 2016

Vial: 8
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Quant Results File: V5C00147.RES

Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:12:56 2016
 Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\V5031016\V5384113.D

Vial: 9

Acq On : 10 Mar 2016 2:30 pm

Operator: SS

Sample : SEQ-CAL2

Inst : VOA No. 5

Misc : QBV5031016A

Multiplr: 1.00

MS Integration Params: RTEINT1.P

Quant Time: Mar 11 9:15 2016

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)

Title : VOCs BY GC/MS EPA SW846-8260

Last Update : Wed Feb 24 09:44:05 2016

Response via : Initial Calibration

DataAcq Meth : V5C0001A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.80	70	118572m	50.00	ppb	-0.05
36) CHLOROBENZENE-d5(ISTD)	8.82	117	503549m	50.00	ppb	-0.05
62) 1,2-DICHLOROBENZENE-d4(IST	11.80	152	219272	50.00	ppb	-0.06

System Monitoring Compounds

32) d4-1,2-Dichloroethane(SURR	5.52	65	169434	54.49	ppb	-0.05
Spiked Amount	50.000	Range	64 - 122	Recovery	=	108.98%
47) Toluene-d8(SURR)	7.32	98	519604	39.89	ppb	-0.05
Spiked Amount	50.000	Range	83 - 114	Recovery	=	79.78%#
64) p-Bromofluorobenzene(SURR)	10.09	174	195363	54.23	ppb	-0.05
Spiked Amount	50.000	Range	71 - 126	Recovery	=	108.46%

Target Compounds

Qvalue

2) Dichlorodifluoromethane	1.53	85	46417	10.23	ppb	100
3) Chloromethane	1.71	50	60552	10.49	ppb	100
4) Vinyl Chloride	1.82	62	51899	12.73	ppb	100
5) Bromomethane	2.16	94	29453	12.31	ppb	98
6) Chloroethane	2.27	64	31781	13.35	ppb	100
7) Trichlorofluoromethane	2.50	101	76709	13.44	ppb	99
8) Ethyl Ether	2.80	59	30604	13.67	ppb	94
9) Freon-113	3.01	101	45318	12.89	ppb	100
10) 1,1-Dichloroethylene	3.03	61	78604	15.16	ppb	97
11) Acrolein	2.98	56	4377	22.99	ppb	85
12) Iodomethane	3.21	142	60340	11.56	ppb	98
13) Methyl Acetate	3.43	43	29514	11.80	ppb	99
14) tert-Butyl Alcohol (TBA)	3.68	59	4051m	13.09	ppb	
15) trans-1,2-Dichloroethylene	3.77	61	70488	14.21	ppb	95
16) Carbon Disulfide	3.25	76	133731	12.79	ppb	100
17) Methylene Chloride	3.54	49	66784	12.96	ppb	97
18) Acrylonitrile	3.81	53	12439	12.50	ppb	97
19) tert-Butyl Methyl Ether (M	3.75	73	99360	13.31	ppb	# 100
20) Acetone	3.14	43	17330	15.86	ppb	# 100
21) 1,1-Dichloroethane	4.19	63	86012	13.84	ppb	100
22) Vinyl Acetate	4.22	43	81441	17.91	ppb	100
23) cis-1,2-Dichloroethylene	4.74	96	50902	11.53	ppb	# 99
24) 2-Butanone	4.77	72	5018	13.34	ppb	79
25) 2,2-Dichloropropane	4.71	77	73049	12.34	ppb	100
26) Bromochloromethane	4.98	49	44395	12.34	ppb	99
27) Chloroform	5.04	83	79206	11.35	ppb	100
28) Tetrahydrofuran	5.02	71	4862m	14.11	ppb	
29) 1,1-Dichloropropylene	5.33	75	60237	11.10	ppb	# 88
30) 1,1,1-Trichloroethane	5.18	97	71243	11.58	ppb	100

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

V5384113.D V5C00147.M

Fri Mar 11 09:15:58 2016

Page 1

Data File : C:\HPCHEM\1\DATA\V5031016\V5384113.D
 Acq On : 10 Mar 2016 2:30 pm
 Sample : SEQ-CAL2
 Misc : QBV5031016A
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 11 9:15 2016

Vial: 9
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Wed Feb 24 09:44:05 2016
 Response via : Initial Calibration
 DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) Cyclohexane	5.20	56	77586	12.26	ppb	96
33) Carbon Tetrachloride	5.33	117	66714	11.67	ppb	99
34) 1,2-Dichloroethane	5.59	62	53322	13.38	ppb	98
35) Benzene	5.54	78	154230	11.25	ppb	# 84
37) Trichloroethylene	6.15	95	45389	9.20	ppb	94
38) Methyl Cyclohexane	6.28	83	64443m	8.92	ppb	
39) Dibromomethane	6.52	93	25180m	8.70	ppb	
40) Methyl Methacrylate	6.46	69	21424	9.08	ppb	100
41) Bromodichloromethane	6.66	83	59947	9.43	ppb	100
42) 1,2-Dichloropropane	6.39	63	40972m	10.58	ppb	
43) 1,4-Dioxane	6.53	88	4874	185.17	ppb	# 70
44) 2-Chloroethylvinyl ether	6.93	63	22348	21.22	ppb	99
45) cis-1,3-Dichloropropene	7.08	75	68834	9.58	ppb	100
46) 2-Hexanone	8.06	43	28395	9.82	ppb	100
48) Toluene	7.39	91	154704m	9.39	ppb	
49) trans-1,3-Dichloropropene	7.64	75	60610	9.67	ppb	99
50) 1,1,2-Trichloroethane	7.84	83	24835	8.66	ppb	99
51) 1,3-Dichloropropane	8.01	76	53511	9.06	ppb	# 100
52) Tetrachloroethylene	7.93	166	47831	10.09	ppb	99
53) 4-Methyl-2-Pentanone	7.22	43	39372	9.90	ppb	99
54) Dibromochloromethane	8.26	129	44366	10.22	ppb	100
55) 1,2-Dibromoethane	8.37	107	32694	9.10	ppb	99
56) Chlorobenzene	8.86	112	104693	9.81	ppb	98
57) Ethyl Benzene	8.94	91	175794	9.41	ppb	100
58) p- & m-Xylenes	9.06	91	260457	18.93	ppb	99
59) o-Xylene	9.49	91	128987	9.28	ppb	100
60) Styrene	9.52	104	104746	9.19	ppb	99
61) 1,1,1,2-Tetrachloroethane	8.94	131	42743	10.45	ppb	97
63) Bromoform	9.78	173	25655	9.99	ppb	# 100
65) p-Ethyltoluene	10.45	105	147631	8.50	ppb	91
66) p-Diethylbenzene	11.71	119	81606	9.26	ppb	96
67) 1,1,2,2-Tetrachloroethane	10.28	83	37375m	8.56	ppb	
68) 1,2,3-Trichloropropane	10.33	110	12361	9.26	ppb	98
69) Isopropylbenzene	9.88	105	170523	8.99	ppb	# 95
70) 1,2-Dibromo-3-Chloropropan	12.73	75	5773	9.32	ppb	95
71) Bromobenzene	10.25	77	57707	8.79	ppb	93
72) trans-1,4-Dichloro-2-buten	10.33	75	41560m	9.31	ppb	
73) n-Propylbenzene	10.32	91	207554	9.17	ppb	99
74) 2-Chlorotoluene	10.45	91	122900	8.45	ppb	99
75) 4-Chlorotoluene	10.57	91	114321	8.54	ppb	97
76) tert-Butylbenzene	10.88	119	120564m	9.71	ppb	

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

V5384113.D V5C00147.M

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Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\V5031016\V5384113.D

Vial: 9

Acq On : 10 Mar 2016 2:30 pm

Operator: SS

Sample : SEQ-CAL2

Inst : VOA No. 5

Misc : QBV5031016A

Multiplr: 1.00

MS Integration Params: RTEINT1.P

Quant Time: Mar 11 9:15 2016

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)

Title : VOCs BY GC/MS EPA SW846-8260

Last Update : Wed Feb 24 09:44:05 2016

Response via : Initial Calibration

DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,3,5-trimethylbenzene	10.51	105	130578m	8.95	ppb	
78) 1,2,4-trimethylbenzene	10.94	105	129006	9.06	ppb	99
79) sec-Butylbenzene	11.12	105	180480	9.07	ppb	# 99
80) 1,3-Dichlorobenzene	11.29	146	79511m	9.73	ppb	
81) 1,4-Dichlorobenzene	11.39	146	76185	9.59	ppb	# 82
82) 1,2-Dichlorobenzene	11.82	146	67275	9.29	ppb	# 99
83) p-Isopropyltoluene	11.28	119	157947	9.75	ppb	# 99
84) n-Butylbenzene	11.74	91	170048	9.00	ppb	98
85) 1,2,4,5-Tetramethylbenzene	12.60	119	120086	9.70	ppb	96
86) 1,2,4-Trichlorobenzene	13.63	180	44540	10.71	ppb	99
87) Naphthalene	13.92	128	93581m	10.95	ppb	
88) Hexachloro-1,3-Butadiene	13.78	225	26453	11.00	ppb	# 100
89) 1,2,3-Trichlorobenzene	14.20	182	37943	11.29	ppb	97

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

V5384113.D V5C00147.M

Fri Mar 11 09:15:58 2016

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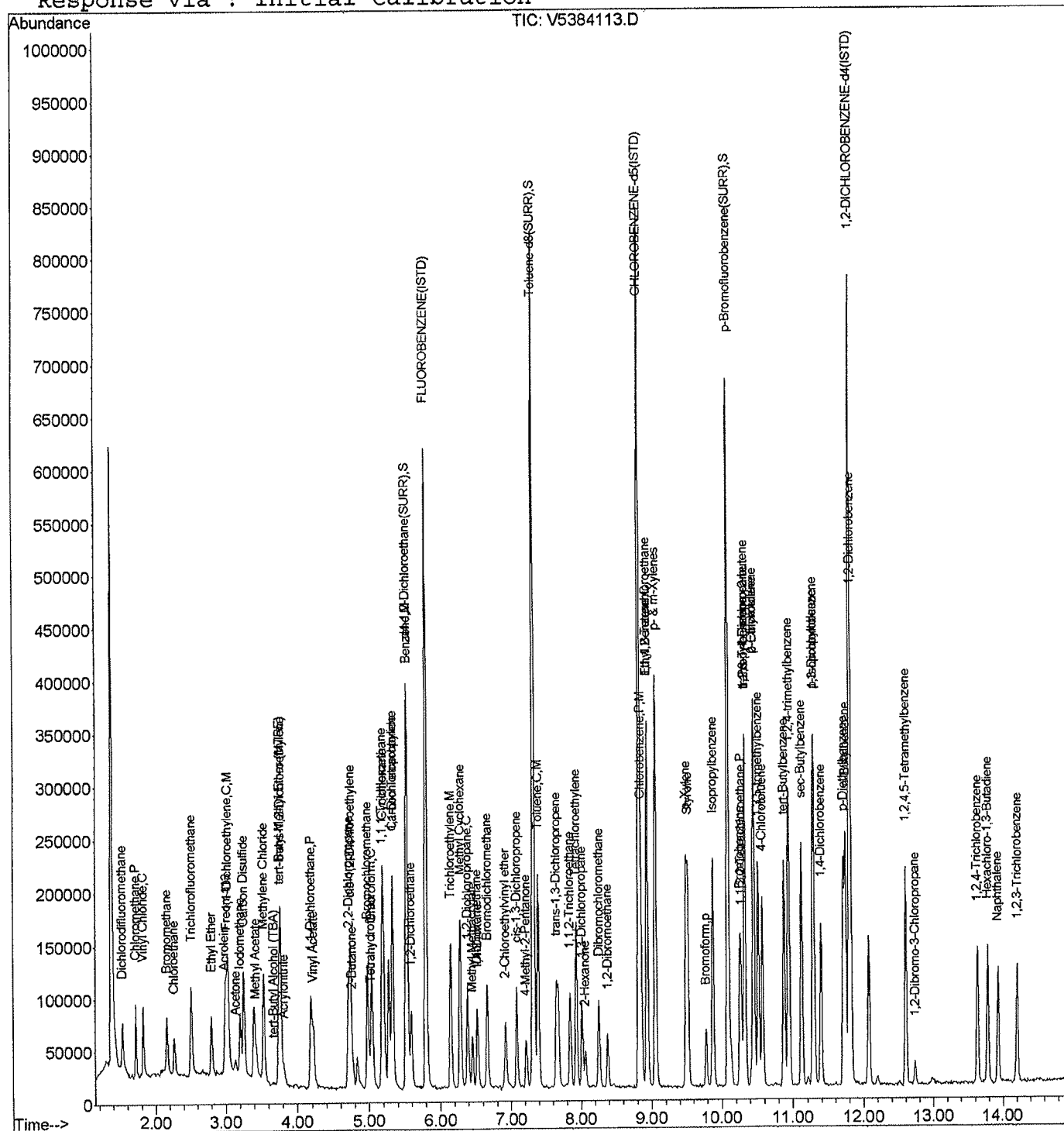
Quantitation Report

Data File : C:\HPCHEM\1\DATA\V5031016\V5384113.D
 Acq On : 10 Mar 2016 2:30 pm
 Sample : SEQ-CAL2
 Misc : QBV5031016A
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 11 9:15 2016

Vial: 9
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Quant Results File: V5C00147.RES

Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Wed Feb 24 09:44:05 2016
 Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\V5031016\V5384114.D
 Acq On : 10 Mar 2016 3:04 pm
 Sample : SEQ-CAL3
 Misc : QBV5031016A
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 11 9:19 2016

Vial: 10
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Wed Feb 24 09:44:05 2016
 Response via : Initial Calibration
 DataAcq Meth : V5C0001A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.80	70	105873	50.00	ppb	-0.05
36) CHLOROBENZENE-d5(ISTD)	8.82	117	449834	50.00	ppb	-0.05
62) 1,2-DICHLOROBENZENE-d4(IST	11.80	152	194648	50.00	ppb	-0.05

System Monitoring Compounds

32) d4-1,2-Dichloroethane(SURR	5.52	65	152992	55.10	ppb	-0.05
Spiked Amount	50.000	Range	64 - 122	Recovery	=	110.20%
47) Toluene-d8(SURR)	7.32	98	470420	40.43	ppb	-0.05
Spiked Amount	50.000	Range	83 - 114	Recovery	=	80.86%#
64) p-Bromofluorobenzene(SURR)	10.09	174	174569	54.59	ppb	-0.05
Spiked Amount	50.000	Range	71 - 126	Recovery	=	109.18%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.53	85	95788	23.65	ppb	99
3) Chloromethane	1.71	50	116721	22.65	ppb	100
4) Vinyl Chloride	1.82	62	99433	27.30	ppb	100
5) Bromomethane	2.16	94	58578	27.43	ppb	99
6) Chloroethane	2.27	64	62403	29.36	ppb	99
7) Trichlorofluoromethane	2.51	101	149965	29.42	ppb	99
8) Ethyl Ether	2.80	59	55526	27.78	ppb	94
9) Freon-113	3.00	101	91088	29.02	ppb	98
10) 1,1-Dichloroethylene	3.03	61	144101	31.13	ppb	97
11) Acrolein	2.99	56	6505	38.27	ppb	98
12) Iodomethane	3.21	142	117499	25.22	ppb	98
13) Methyl Acetate	3.43	43	64032	28.66	ppb	99
14) tert-Butyl Alcohol (TBA)	3.68	59	9146	33.11	ppb	# 100
15) trans-1,2-Dichloroethylene	3.77	61	131902	29.79	ppb	95
16) Carbon Disulfide	3.25	76	258042	27.64	ppb	100
17) Methylene Chloride	3.54	49	120268	26.13	ppb	97
18) Acrylonitrile	3.81	53	25910	29.15	ppb	95
19) tert-Butyl Methyl Ether (M	3.75	73	181721	27.26	ppb	# 100
20) Acetone	3.13	43	27252	27.94	ppb	# 100
21) 1,1-Dichloroethane	4.19	63	161110	29.04	ppb	100
22) Vinyl Acetate	4.22	43	165258	40.71	ppb	100
23) cis-1,2-Dichloroethylene	4.74	96	93108	23.63	ppb	# 100
24) 2-Butanone	4.77	72	8406	25.03	ppb	94
25) 2,2-Dichloropropane	4.71	77	139953	26.48	ppb	100
26) Bromochloromethane	4.98	49	96613	30.07	ppb	94
27) Chloroform	5.04	83	142803	22.91	ppb	100
28) Tetrahydrofuran	5.01	71	7843	25.49	ppb	# 98
29) 1,1-Dichloropropylene	5.33	75	124943	25.78	ppb	100
30) 1,1,1-Trichloroethane	5.18	97	140046	25.50	ppb	100

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

V5384114.D V5C00147.M

Fri Mar 11 09:19:27 2016

Page 1

Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\V5031016\V5384114.D

Vial: 10

Acq On : 10 Mar 2016 3:04 pm

Operator: SS

Sample : SEQ-CAL3

Inst : VOA No. 5

Misc : QBV5031016A

Multiplr: 1.00

MS Integration Params: RTEINT1.P

Quant Time: Mar 11 9:19 2016

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)

Title : VOCs BY GC/MS EPA SW846-8260

Last Update : Wed Feb 24 09:44:05 2016

Response via : Initial Calibration

DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) Cyclohexane	5.20	56	156772	27.76	ppb	96
33) Carbon Tetrachloride	5.33	117	133208	26.11	ppb	100
34) 1,2-Dichloroethane	5.59	62	99890	28.06	ppb	99
35) Benzene	5.54	78	287192	23.45	ppb	# 92
37) Trichloroethylene	6.15	95	85159	19.33	ppb	94
38) Methyl Cyclohexane	6.28	83	136802	21.19	ppb	# 100
39) Dibromomethane	6.52	93	45971	17.78	ppb	# 93
40) Methyl Methacrylate	6.46	69	43704	20.73	ppb	100
41) Bromodichloromethane	6.66	83	106389	18.74	ppb	99
42) 1,2-Dichloropropane	6.39	63	74324	21.49	ppb	98
43) 1,4-Dioxane	6.53	88	11403	484.96	ppb	90
44) 2-Chloroethylvinyl ether	6.93	63	40833	43.39	ppb	99
45) cis-1,3-Dichloropropene	7.08	75	123674	19.26	ppb	100
46) 2-Hexanone	8.06	43	55216	21.37	ppb	99
48) Toluene	7.39	91	273424	18.57	ppb	100
49) trans-1,3-Dichloropropene	7.64	75	109168	19.49	ppb	100
50) 1,1,2-Trichloroethane	7.84	83	45810	17.88	ppb	99
51) 1,3-Dichloropropane	8.01	76	96390	18.26	ppb	# 100
52) Tetrachloroethylene	7.93	166	92946	21.95	ppb	99
53) 4-Methyl-2-Pentanone	7.21	43	76629	21.56	ppb	99
54) Dibromochloromethane	8.26	129	80287	20.71	ppb	100
55) 1,2-Dibromoethane	8.38	107	60260	18.78	ppb	100
56) Chlorobenzene	8.86	112	188291	19.75	ppb	98
57) Ethyl Benzene	8.93	91	323571	19.39	ppb	100
58) p- & m-Xylenes	9.06	91	487692	39.69	ppb	100
59) o-Xylene	9.49	91	241299	19.43	ppb	100
60) Styrene	9.52	104	184735	18.13	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.94	131	77971	21.34	ppb	97
63) Bromoform	9.78	173	46741	20.50	ppb	# 100
65) p-Ethyltoluene	10.45	105	288300	18.69	ppb	92
66) p-Diethylbenzene	11.71	119	152598	19.50	ppb	95
67) 1,1,2,2-Tetrachloroethane	10.28	83	67513	17.41	ppb	99
68) 1,2,3-Trichloropropane	10.33	110	22727	19.19	ppb	100
69) Isopropylbenzene	9.88	105	329295	19.55	ppb	# 95
70) 1,2-Dibromo-3-Chloropropan	12.73	75	11098	20.18	ppb	97
71) Bromobenzene	10.26	77	104483	17.92	ppb	92
72) trans-1,4-Dichloro-2-buten	10.33	75	74709m	18.86	ppb	
73) n-Propylbenzene	10.32	91	387230	19.28	ppb	99
74) 2-Chlorotoluene	10.45	91	235556	18.24	ppb	99
75) 4-Chlorotoluene	10.57	91	211630	17.81	ppb	97
76) tert-Butylbenzene	10.88	119	221245m	20.08	ppb	

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

V5384114.D V5C00147.M

Fri Mar 11 09:19:28 2016

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Data File : C:\HPCHEM\1\DATA\V5031016\V5384114.D

Vial: 10

Acq On : 10 Mar 2016 3:04 pm

Operator: SS

Sample : SEQ-CAL3

Inst : VOA No. 5

Misc : QBV5031016A

Multiplr: 1.00

MS Integration Params: RTEINT1.P

Quant Time: Mar 11 9:19 2016

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)

Title : VOCs BY GC/MS EPA SW846-8260

Last Update : Wed Feb 24 09:44:05 2016

Response via : Initial Calibration

DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,3,5-trimethylbenzene	10.52	105	243678	18.81	ppb	# 100
78) 1,2,4-trimethylbenzene	10.94	105	247876	19.61	ppb	99
79) sec-Butylbenzene	11.12	105	333498	18.88	ppb	# 99
80) 1,3-Dichlorobenzene	11.29	146	143048m	19.72	ppb	
81) 1,4-Dichlorobenzene	11.39	146	142341	20.18	ppb	# 82
82) 1,2-Dichlorobenzene	11.82	146	122415	19.05	ppb	# 100
83) p-Isopropyltoluene	11.28	119	296790	20.63	ppb	# 99
84) n-Butylbenzene	11.74	91	309821	18.48	ppb	98
85) 1,2,4,5-Tetramethylbenzene	12.60	119	238923	21.75	ppb	96
86) 1,2,4-Trichlorobenzene	13.63	180	81315	22.03	ppb	98
87) Naphthalene	13.92	128	174559	23.01	ppb	# 100
88) Hexachloro-1,3-Butadiene	13.78	225	52237	24.47	ppb	# 100
89) 1,2,3-Trichlorobenzene	14.20	182	68483	22.95	ppb	99

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

V5384114.D V5C00147.M

Fri Mar 11 09:19:28 2016

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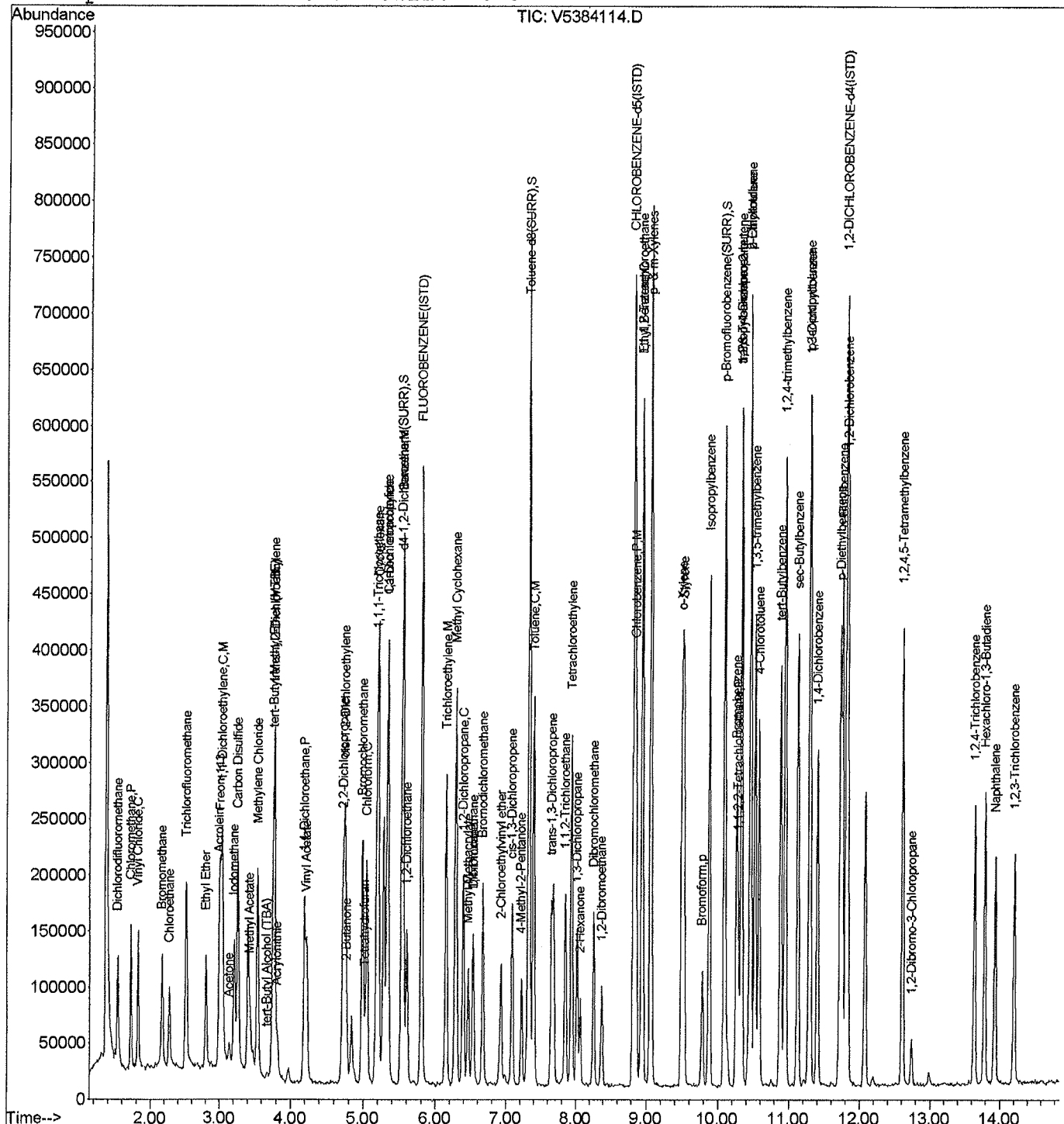
Quantitation Report

Data File : C:\HPCHEM\1\DATA\V5031016\V5384114.D
 Acq On : 10 Mar 2016 3:04 pm
 Sample : SEQ-CAL3
 Misc : QBV5031016A
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 11 9:19 2016

Vial: 10
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Quant Results File: V5C00147.RES

Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Wed Feb 24 09:44:05 2016
 Response via : Initial Calibration



Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\V5031016\V5384115.D

Vial: 11

Acq On : 10 Mar 2016 3:39 pm

Operator: SS

Sample : SEQ-CAL4

Inst : VOA No. 5

Misc : QBV5031016A

Multiplr: 1.00

MS Integration Params: RTEINT1.P

Quant Time: Mar 11 9:22 2016

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)

Title : VOCs BY GC/MS EPA SW846-8260

Last Update : Wed Feb 24 09:44:05 2016

Response via : Initial Calibration

DataAcq Meth : V5C0001A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.80	70	102857m	50.00	ppb	-0.05
36) CHLOROBENZENE-d5 (ISTD)	8.83	117	452670m	50.00	ppb	-0.05
62) 1,2-DICHLOROBENZENE-d4 (IST	11.80	152	194996	50.00	ppb	-0.05

System Monitoring Compounds

32) d4-1,2-Dichloroethane(SURR	5.52	65	157958	58.56	ppb	-0.05
Spiked Amount	50.000	Range	64 - 122	Recovery	=	117.12%
47) Toluene-d8(SURR)	7.32	98	458217	39.13	ppb	-0.05
Spiked Amount	50.000	Range	83 - 114	Recovery	=	78.26%#
64) p-Bromofluorobenzene(SURR)	10.09	174	170930	53.35	ppb	-0.05
Spiked Amount	50.000	Range	71 - 126	Recovery	=	106.70%

Target Compounds

Qvalue

2) Dichlorodifluoromethane	1.53	85	243155	61.80	ppb	100
3) Chloromethane	1.72	50	290437	58.00	ppb	100
4) Vinyl Chloride	1.82	62	251154	70.99	ppb	100
5) Bromomethane	2.16	94	153299	73.88	ppb	99
6) Chloroethane	2.27	64	150203	72.75	ppb	99
7) Trichlorofluoromethane	2.51	101	372441	75.22	ppb	100
8) Ethyl Ether	2.80	59	142342	73.31	ppb	96
9) Freon-113	3.00	101	223750	73.38	ppb	99
10) 1,1-Dichloroethylene	3.03	61	366728	81.54	ppb	96
11) Acrolein	2.98	56	15260	92.41	ppb	94
12) Iodomethane	3.20	142	301065	66.51	ppb	98
13) Methyl Acetate	3.43	43	150843	69.51	ppb	99
14) tert-Butyl Alcohol (TBA)	3.67	59	25680m	95.69	ppb	
15) trans-1,2-Dichloroethylene	3.77	61	324084	75.34	ppb	95
16) Carbon Disulfide	3.26	76	639880	70.56	ppb	100
17) Methylene Chloride	3.53	49	290873	65.05	ppb	97
18) Acrylonitrile	3.81	53	69171	80.10	ppb	95
19) tert-Butyl Methyl Ether (M	3.75	73	471349	72.78	ppb	# 100
20) Acetone	3.13	43	95123m	100.38	ppb	
21) 1,1-Dichloroethane	4.19	63	388471	72.07	ppb	99
22) Vinyl Acetate	4.22	43	433924	110.03	ppb	100
23) cis-1,2-Dichloroethylene	4.74	96	224313	58.59	ppb	# 100
24) 2-Butanone	4.77	72	22250	68.19	ppb	88
25) 2,2-Dichloropropane	4.71	77	328838	64.04	ppb	100
26) Bromochloromethane	4.98	49	198865	63.72	ppb	98
27) Chloroform	5.05	83	352002	58.14	ppb	100
28) Tetrahydrofuran	5.01	71	22037m	73.73	ppb	
29) 1,1-Dichloropropylene	5.33	75	305449	64.88	ppb	100
30) 1,1,1-Trichloroethane	5.18	97	332306	62.28	ppb	100

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

V5384115.D V5C00147.M

Fri Mar 11 09:22:45 2016

Page 1

Data File : C:\HPCHEM\1\DATA\V5031016\V5384115.D
 Acq On : 10 Mar 2016 3:39 pm
 Sample : SEQ-CAL4
 Misc : QBV5031016A
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 11 9:22 2016

Vial: 11
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Wed Feb 24 09:44:05 2016
 Response via : Initial Calibration
 DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) Cyclohexane	5.20	56	390047	71.08	ppb	94
33) Carbon Tetrachloride	5.33	117	328595	66.29	ppb	100
34) 1,2-Dichloroethane	5.60	62	245581	71.02	ppb	99
35) Benzene	5.54	78	692996	58.26	ppb	99
37) Trichloroethylene	6.14	95	210971	47.59	ppb	94
38) Methyl Cyclohexane	6.28	83	321209m	49.44	ppb	
39) Dibromomethane	6.53	93	117810m	45.29	ppb	
40) Methyl Methacrylate	6.46	69	117081	55.19	ppb	100
41) Bromodichloromethane	6.66	83	272109	47.64	ppb	99
42) 1,2-Dichloropropane	6.39	63	185604	53.33	ppb	98
43) 1,4-Dioxane	6.53	88	34820	1471.58	ppb	94
44) 2-Chloroethylvinyl ether	6.93	63	114080	120.48	ppb	99
45) cis-1,3-Dichloropropene	7.09	75	298344	46.17	ppb	100
46) 2-Hexanone	8.06	43	173887	66.87	ppb	98
48) Toluene	7.39	91	673756	45.47	ppb	99
49) trans-1,3-Dichloropropene	7.65	75	285070	50.58	ppb	100
50) 1,1,2-Trichloroethane	7.84	83	120181	46.62	ppb	99
51) 1,3-Dichloropropane	8.01	76	261739	49.28	ppb	# 100
52) Tetrachloroethylene	7.94	166	235215	55.19	ppb	99
53) 4-Methyl-2-Pentanone	7.22	43	231665	64.77	ppb	99
54) Dibromochloromethane	8.26	129	222652	57.07	ppb	100
55) 1,2-Dibromoethane	8.38	107	162886	50.44	ppb	100
56) Chlorobenzene	8.86	112	491251	51.20	ppb	99
57) Ethyl Benzene	8.94	91	806805	48.05	ppb	100
58) p- & m-Xylenes	9.06	91	1170047	94.61	ppb	99
59) o-Xylene	9.49	91	607077	48.57	ppb	100
60) Styrene	9.52	104	470117	45.86	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.94	131	203269	55.28	ppb	96
63) Bromoform	9.78	173	138896	60.82	ppb	# 100
65) p-Ethyltoluene	10.45	105	738796	47.82	ppb	99
66) p-Diethylbenzene	11.71	119	401409	51.21	ppb	94
67) 1,1,2,2-Tetrachloroethane	10.28	83	201177	51.79	ppb	# 98
68) 1,2,3-Trichloropropane	10.33	110	67278	56.70	ppb	95
69) Isopropylbenzene	9.87	105	819574	48.58	ppb	# 95
70) 1,2-Dibromo-3-Chloropropan	12.73	75	33962	61.65	ppb	95
71) Bromobenzene	10.26	77	289458	49.56	ppb	94
72) trans-1,4-Dichloro-2-buten	10.33	75	225641m	56.85	ppb	
73) n-Propylbenzene	10.33	91	995987	49.51	ppb	99
74) 2-Chlorotoluene	10.45	91	601204	46.47	ppb	99
75) 4-Chlorotoluene	10.58	91	592313	49.75	ppb	99
76) tert-Butylbenzene	10.88	119	595538m	53.96	ppb	

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\V5031016\V5384115.D
Acq On : 10 Mar 2016 3:39 pm
Sample : SEQ-CAL4
Misc : QBV5031016A

Vial: 11
Operator: SS
Inst : VOA No. 5
Multiplr: 1.00

MS Integration Params: RTEINT1.P

Quant Time: Mar 11 9:22 2016

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)

Title : VOCs BY GC/MS EPA SW846-8260

Last Update : Wed Feb 24 09:44:05 2016

Response via : Initial Calibration

DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,3,5-trimethylbenzene	10.52	105	640906	49.39	ppb	# 100
78) 1,2,4-trimethylbenzene	10.94	105	620009	48.97	ppb	99
79) sec-Butylbenzene	11.12	105	852810	48.20	ppb	# 99
80) 1,3-Dichlorobenzene	11.29	146	372529m	51.27	ppb	
81) 1,4-Dichlorobenzene	11.39	146	378929	53.62	ppb	# 82
82) 1,2-Dichlorobenzene	11.82	146	332472	51.65	ppb	# 100
83) p-Isopropyltoluene	11.28	119	744411	51.66	ppb	# 99
84) n-Butylbenzene	11.74	91	802918	47.80	ppb	98
85) 1,2,4,5-Tetramethylbenzene	12.60	119	622345	56.55	ppb	96
86) 1,2,4-Trichlorobenzene	13.63	180	224883	60.83	ppb	98
87) Naphthalene	13.92	128	503779	66.30	ppb	# 100
88) Hexachloro-1,3-Butadiene	13.78	225	136358	63.76	ppb	# 100
89) 1,2,3-Trichlorobenzene	14.20	182	192081	64.25	ppb	98

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

V5384115.D V5C00147.M

Fri Mar 11 09:22:45 2016

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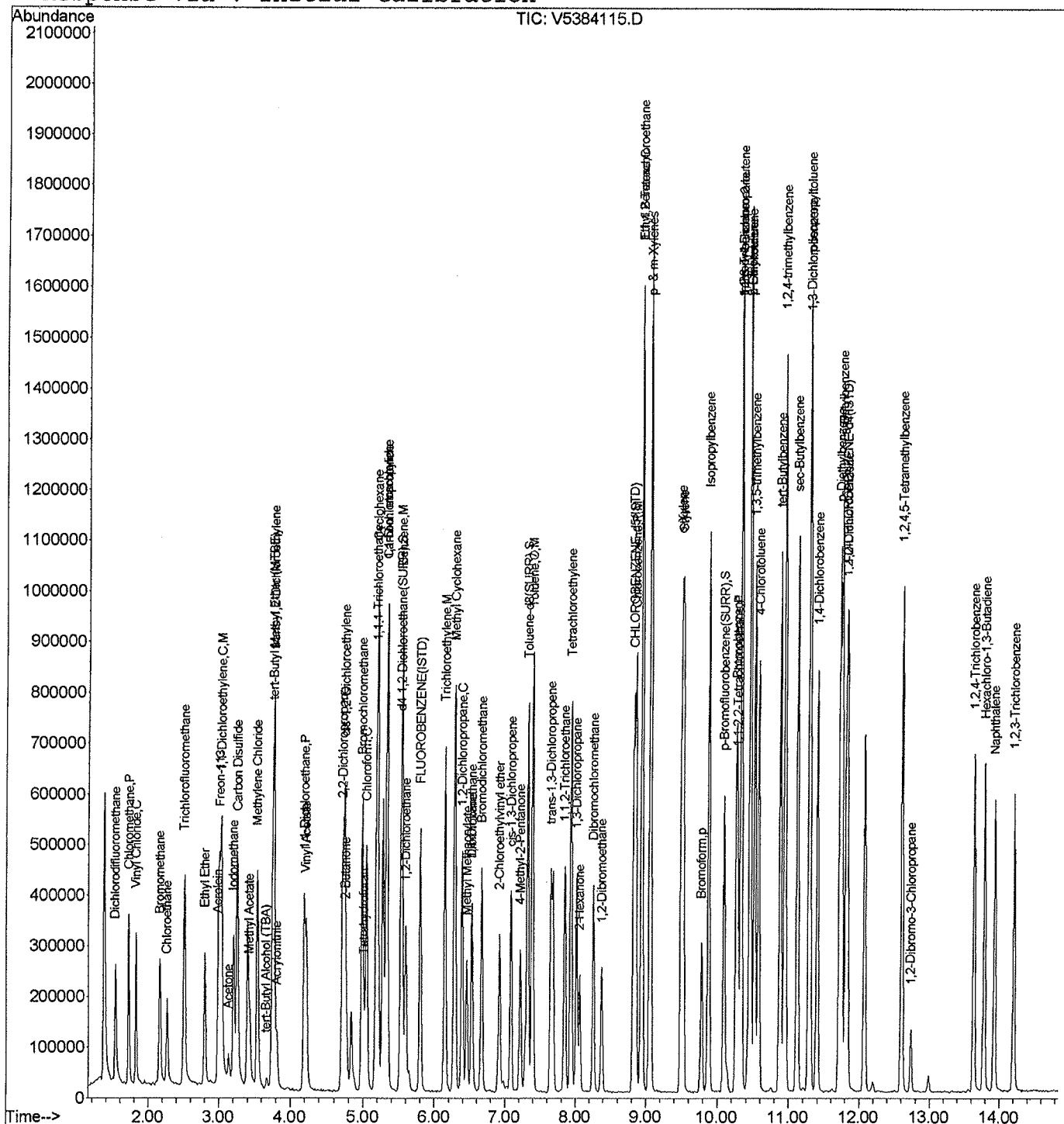
Quantitation Report

Data File : C:\HPCHEM\1\DATA\V5031016\V5384115.D
 Acq On : 10 Mar 2016 3:39 pm
 Sample : SEQ-CAL4
 Misc : QBV5031016A
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 11 9:22 2016

Vial: 11
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Quant Results File: V5C00147.RES

Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Wed Feb 24 09:44:05 2016
 Response via : Initial Calibration



Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\V5031016\V5384116.D

Vial: 12

Acq On : 10 Mar 2016 4:13 pm

Operator: SS

Sample : SEQ-CAL5

Inst : VOA No. 5

Misc : QBV5031016A

Multiplr: 1.00

MS Integration Params: RTEINT1.P

Quant Time: Mar 11 9:30 2016

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)

Title : VOCs BY GC/MS EPA SW846-8260

Last Update : Wed Feb 24 09:44:05 2016

Response via : Initial Calibration

DataAcq Meth : V5C0001A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) FLUOROBENZENE (ISTD)	5.80	70	114756m	50.00	ppb	-0.05
36) CHLORO BENZENE-d5 (ISTD)	8.82	117	480976m	50.00	ppb	-0.05
62) 1,2-DICHLORO BENZENE-d4 (IST	11.80	152	206996	50.00	ppb	-0.05

System Monitoring Compounds

32) d4-1,2-Dichloroethane (SURR	5.52	65	165013	54.83	ppb	-0.05
Spiked Amount	50.000	Range	64 - 122	Recovery	=	109.66%
47) Toluene-d8 (SURR)	7.32	98	512031	41.15	ppb	-0.05
Spiked Amount	50.000	Range	83 - 114	Recovery	=	82.30%#
64) p-Bromofluorobenzene (SURR)	10.09	174	189470	55.71	ppb	-0.05
Spiked Amount	50.000	Range	71 - 126	Recovery	=	111.42%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.53	85	514638	117.24	ppb	100
3) Chloromethane	1.72	50	655108	117.27	ppb	100
4) Vinyl Chloride	1.82	62	557629	141.27	ppb	100
5) Bromomethane	2.16	94	358326	154.78	ppb	99
6) Chloroethane	2.27	64	332942	144.53	ppb	99
7) Trichlorofluoromethane	2.51	101	826052	149.53	ppb	99
8) Ethyl Ether	2.80	59	308503	142.41	ppb	97
9) Freon-113	3.00	101	486481	142.99	ppb	99
10) 1,1-Dichloroethylene	3.04	61	804766	160.38	ppb	96
11) Acrolein	2.98	56	19547	106.09	ppb	85
12) Iodomethane	3.21	142	714525	141.48	ppb	99
13) Methyl Acetate	3.43	43	291528	120.40	ppb	99
14) tert-Butyl Alcohol (TBA)	3.67	59	39330m	131.36	ppb	
15) trans-1,2-Dichloroethylene	3.77	61	710730	148.09	ppb	95
16) Carbon Disulfide	3.25	76	1421306	140.48	ppb	100
17) Methylene Chloride	3.54	49	671493	134.60	ppb	97
18) Acrylonitrile	3.81	53	129033	133.93	ppb	96
19) tert-Butyl Methyl Ether (M	3.75	73	986039	136.46	ppb	# 100
20) Acetone	3.14	43	157660	149.13	ppb	# 100
21) 1,1-Dichloroethane	4.19	63	885391	147.23	ppb	100
22) Vinyl Acetate	4.22	43	870540	197.85	ppb	100
23) cis-1,2-Dichloroethylene	4.74	96	499992	117.05	ppb	# 100
24) 2-Butanone	4.77	72	39221	107.74	ppb	96
25) 2,2-Dichloropropane	4.72	77	719160	125.53	ppb	100
26) Bromochloromethane	4.99	49	521994	149.91	ppb	94
27) Chloroform	5.05	83	824757	122.10	ppb	100
28) Tetrahydrofuran	5.02	71	40170m	120.47	ppb	
29) 1,1-Dichloropropylene	5.33	75	641684	122.18	ppb	100
30) 1,1,1-Trichloroethane	5.18	97	742622	124.75	ppb	100

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

V5384116.D V5C00147.M

Fri Mar 11 09:30:57 2016

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Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\V5031016\V5384116.D

Vial: 12

Acq On : 10 Mar 2016 4:13 pm

Operator: SS

Sample : SEQ-CAL5

Inst : VOA No. 5

Misc : QBV5031016A

Multiplr: 1.00

MS Integration Params: RTEINT1.P

Quant Time: Mar 11 9:30 2016

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)

Title : VOCs BY GC/MS EPA SW846-8260

Last Update : Wed Feb 24 09:44:05 2016

Response via : Initial Calibration

DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) Cyclohexane	5.20	56	820275	133.98	ppb	96
33) Carbon Tetrachloride	5.33	117	714579	129.20	ppb	100
34) 1,2-Dichloroethane	5.59	62	555860	144.07	ppb	99
35) Benzene	5.54	78	1576215	118.76	ppb	98
37) Trichloroethylene	6.15	95	465349	98.80	ppb	93
38) Methyl Cyclohexane	6.28	83	710986	102.99	ppb	# 100
39) Dibromomethane	6.52	93	251820m	91.11	ppb	
40) Methyl Methacrylate	6.45	69	219110	97.21	ppb	100
41) Bromodichloromethane	6.67	83	575243	94.78	ppb	100
42) 1,2-Dichloropropane	6.39	63	404267	109.33	ppb	99
43) 1,4-Dioxane	6.52	88	57897	2302.88	ppb	96
44) 2-Chloroethylvinyl ether	6.93	63	230341	228.94	ppb	99
45) cis-1,3-Dichloropropene	7.08	75	685821	99.88	ppb	100
46) 2-Hexanone	8.06	43	311491	112.73	ppb	98
48) Toluene	7.39	91	1486481	94.42	ppb	100
49) trans-1,3-Dichloropropene	7.65	75	606487	101.28	ppb	# 88
50) 1,1,2-Trichloroethane	7.84	83	252860	92.32	ppb	99
51) 1,3-Dichloropropane	8.02	76	543122	96.24	ppb	# 100
52) Tetrachloroethylene	7.93	166	575188	127.03	ppb	99
53) 4-Methyl-2-Pentanone	7.21	43	423569	111.45	ppb	99
54) Dibromochloromethane	8.26	129	457729	110.42	ppb	100
55) 1,2-Dibromoethane	8.38	107	333345	97.14	ppb	100
56) Chlorobenzene	8.86	112	1051710	103.17	ppb	99
57) Ethyl Benzene	8.93	91	1767933	99.09	ppb	100
58) p- & m-Xylenes	9.06	91	2558958	194.75	ppb	99
59) o-Xylene	9.49	91	1276895	96.14	ppb	100
60) Styrene	9.52	104	1002251	92.02	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.95	131	440868	112.85	ppb	96
63) Bromoform	9.78	173	265874	109.67	ppb	# 100
65) p-Ethyltoluene	10.45	105	1558098m	95.00	ppb	
66) p-Diethylbenzene	11.72	119	785965	94.45	ppb	95
67) 1,1,2,2-Tetrachloroethane	10.28	83	360703	87.47	ppb	# 99
68) 1,2,3-Trichloropropane	10.33	110	115993	92.09	ppb	100
69) Isopropylbenzene	9.88	105	1688794	94.30	ppb	# 95
70) 1,2-Dibromo-3-Chloropropan	12.74	75	57415	98.18	ppb	94
71) Bromobenzene	10.26	77	575600	92.84	ppb	93
72) trans-1,4-Dichloro-2-buten	10.33	75	396306m	94.06	ppb	
73) n-Propylbenzene	10.33	91	2014575	94.33	ppb	99
74) 2-Chlorotoluene	10.45	91	1267585	92.29	ppb	99
75) 4-Chlorotoluene	10.57	91	1233526	97.61	ppb	99
76) tert-Butylbenzene	10.88	119	1170411m	99.90	ppb	

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

V5384116.D V5C00147.M

Fri Mar 11 09:30:57 2016

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Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\V5031016\V5384116.D
Acq On : 10 Mar 2016 4:13 pm
Sample : SEQ-CAL5
Misc : QBV5031016A
MS Integration Params: RTEINT1.P
Quant Time: Mar 11 9:30 2016

Vial: 12
Operator: SS
Inst : VOA No. 5
Multiplr: 1.00

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)
Title : VOCs BY GC/MS EPA SW846-8260
Last Update : Wed Feb 24 09:44:05 2016
Response via : Initial Calibration
DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,3,5-trimethylbenzene	10.52	105	1301028	94.45	ppb	# 100
78) 1,2,4-trimethylbenzene	10.94	105	1264192	94.07	ppb	99
79) sec-Butylbenzene	11.12	105	1767908	94.12	ppb	# 99
80) 1,3-Dichlorobenzene	11.29	146	756809m	98.12	ppb	
81) 1,4-Dichlorobenzene	11.39	146	776077	103.46	ppb	# 82
82) 1,2-Dichlorobenzene	11.82	146	679967	99.51	ppb	# 100
83) p-Isopropyltoluene	11.28	119	1498699	97.97	ppb	# 99
84) n-Butylbenzene	11.75	91	1582739	88.77	ppb	97
85) 1,2,4,5-Tetramethylbenzene	12.60	119	1261194	107.95	ppb	96
86) 1,2,4-Trichlorobenzene	13.64	180	446882	113.87	ppb	98
87) Naphthalene	13.93	128	927426	114.97	ppb	# 100
88) Hexachloro-1,3-Butadiene	13.78	225	277641	122.29	ppb	# 100
89) 1,2,3-Trichlorobenzene	14.20	182	379026	119.43	ppb	98

(#) = qualifier out of range (m) = manual integration
V5384116.D V5C00147.M Fri Mar 11 09:30:57 2016

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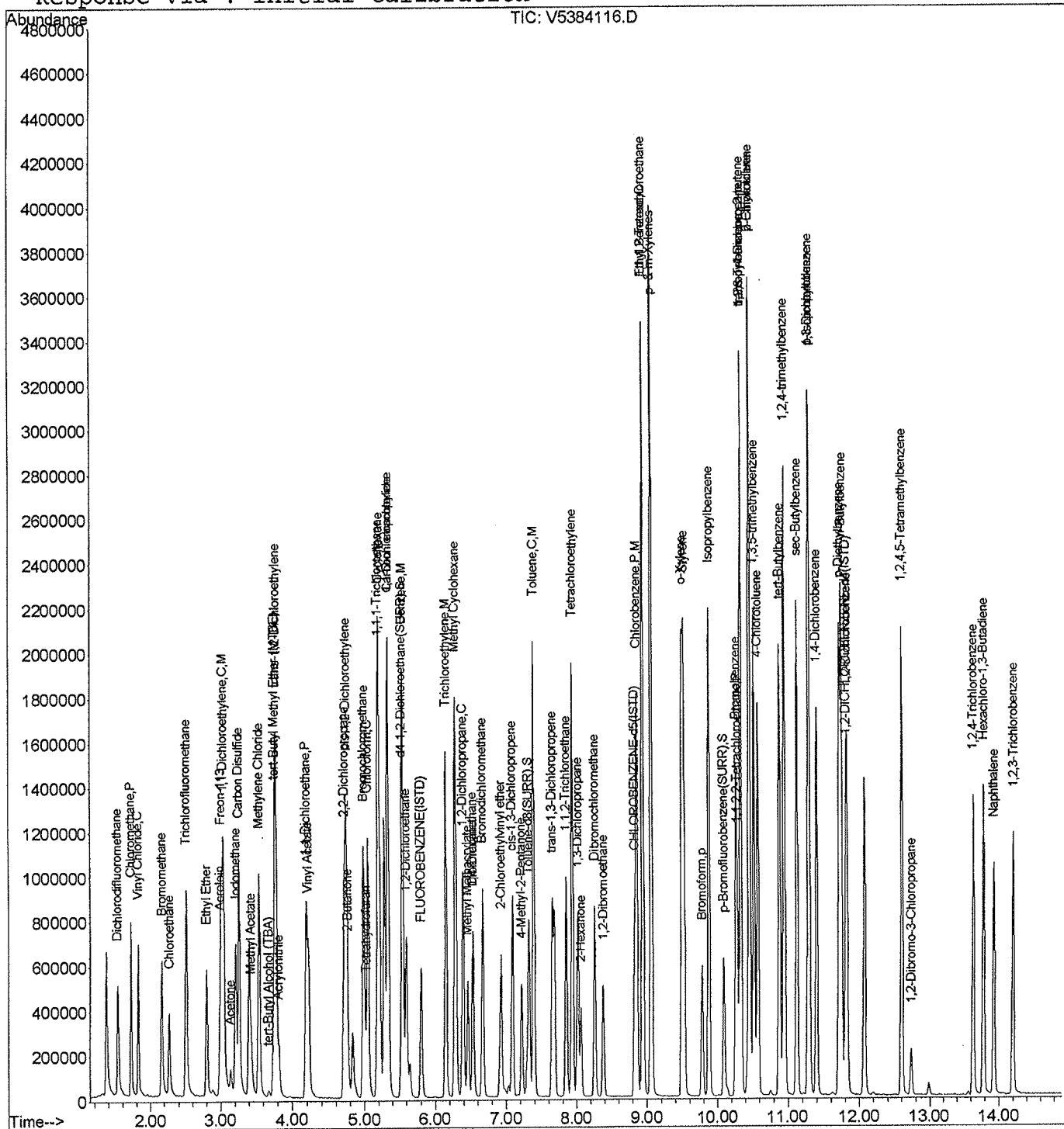
Quantitation Report

Data File : C:\HPCHEM\1\DATA\V5031016\V5384116.D
Acq On : 10 Mar 2016 4:13 pm
Sample : SEQ-CAL5
Misc : QBV5031016A
MS Integration Params: RTEINT1.P
Quant Time: Mar 11 9:30 2016 Quant

Vial: 12
Operator: SS
Inst : VOA No. 5
Multiplr: 1.00

Quant Results File: V5C00147.RES

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Method       : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)
Title        : VOCs BY GC/MS EPA SW846-8260
Last Update   : Wed Feb 24 09:44:05 2016
Response via  : Initial Calibration
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Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\V5031016\V5384117.D
 Acq On : 10 Mar 2016 4:47 pm
 Sample : SEQ-CAL6
 Misc : QBV5031016A
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 11 9:41 2016

Vial: 13
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Wed Feb 24 09:44:05 2016
 Response via : Initial Calibration
 DataAcq Meth : V5C0001A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE (ISTD)	5.80	70	115388	50.00	ppb	-0.05
36) CHLOROBENZENE-d5 (ISTD)	8.82	117	493071	50.00	ppb	-0.05
62) 1,2-DICHLOROBENZENE-d4 (IST)	11.80	152	212074	50.00	ppb	-0.06

System Monitoring Compounds

32) d4-1,2-Dichloroethane (SURR)	5.52	65	174283	57.60	ppb	-0.05
Spiked Amount	50.000	Range	64 - 122	Recovery	=	115.20%
47) Toluene-d8 (SURR)	7.33	98	531684	41.69	ppb	-0.05
Spiked Amount	50.000	Range	83 - 114	Recovery	=	83.38%
64) p-Bromofluorobenzene (SURR)	10.09	174	190345	54.63	ppb	-0.05
Spiked Amount	50.000	Range	71 - 126	Recovery	=	109.26%

Target Compounds

Qvalue

2) Dichlorodifluoromethane	1.53	85	1007881m	228.36	ppb	
3) Chloromethane	1.72	50	1235492	219.95	ppb	100
4) Vinyl Chloride	1.82	62	1108849	279.38	ppb	100
5) Bromomethane	2.17	94	735680	316.03	ppb	100
6) Chloroethane	2.27	64	651967	281.47	ppb	99
7) Trichlorofluoromethane	2.51	101	1626437	292.80	ppb	100
8) Ethyl Ether	2.80	59	629073	288.81	ppb	96
9) Freon-113	3.00	101	974759	284.95	ppb	99
10) 1,1-Dichloroethylene	3.04	61	1567919	310.76	ppb	96
11) Acrolein	2.98	56	38434	207.46	ppb	91
12) Iodomethane	3.21	142	1447528	285.06	ppb	98
13) Methyl Acetate	3.43	43	587952	241.50	ppb	99
14) tert-Butyl Alcohol (TBA)	3.67	59	85954	285.51	ppb	# 100
15) trans-1,2-Dichloroethylene	3.77	61	1343713	278.44	ppb	94
16) Carbon Disulfide	3.26	76	2749388	270.25	ppb	100
17) Methylene Chloride	3.54	49	1320637	263.26	ppb	97
18) Acrylonitrile	3.81	53	248858	256.88	ppb	97
19) tert-Butyl Methyl Ether (M)	3.75	73	1975868	271.96	ppb	# 100
20) Acetone	3.14	43	267917	252.03	ppb	# 100
21) 1,1-Dichloroethane	4.19	63	1689248	279.36	ppb	100
22) Vinyl Acetate	4.22	43	1817562	410.81	ppb	100
23) cis-1,2-Dichloroethylene	4.75	96	975734	227.17	ppb	# 100
24) 2-Butanone	4.77	72	80074	218.76	ppb	84
25) 2,2-Dichloropropane	4.72	77	1409907	244.76	ppb	100
26) Bromochloromethane	4.98	49	810921	231.61	ppb	97
27) Chloroform	5.05	83	1559952	229.67	ppb	100
28) Tetrahydrofuran	5.01	71	73027	217.80	ppb	# 98
29) 1,1-Dichloropropylene	5.34	75	1288203	243.93	ppb	100
30) 1,1,1-Trichloroethane	5.18	97	1470440	245.65	ppb	100

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

V5384117.D V5C00147.M

Fri Mar 11 09:41:55 2016

Page 1

Data File : C:\HPCHEM\1\DATA\V5031016\V5384117.D

Vial: 13

Acq On : 10 Mar 2016 4:47 pm

Operator: SS

Sample : SEQ-CAL6

Inst : VOA No. 5

Misc : QBV5031016A

Multiplr: 1.00

MS Integration Params: RTEINT1.P

Quant Time: Mar 11 9:41 2016

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)

Title : VOCs BY GC/MS EPA SW846-8260

Last Update : Wed Feb 24 09:44:05 2016

Response via : Initial Calibration

DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) Cyclohexane	5.20	56	1561966	253.73	ppb	96
33) Carbon Tetrachloride	5.33	117	1445962	260.02	ppb	100
34) 1,2-Dichloroethane	5.59	62	1116833	287.89	ppb #	99
35) Benzene	5.54	78	3021690	226.43	ppb	98
37) Trichloroethylene	6.14	95	895627	185.48	ppb	93
38) Methyl Cyclohexane	6.28	83	1363020	192.61	ppb #	71
39) Dibromomethane	6.53	93	501015	176.83	ppb #	93
40) Methyl Methacrylate	6.45	69	457678	198.08	ppb	100
41) Bromodichloromethane	6.67	83	1172455	188.45	ppb	100
42) 1,2-Dichloropropane	6.39	63	805604	212.52	ppb	99
43) 1,4-Dioxane	6.53	88	120332	4668.85	ppb	96
44) 2-Chloroethylvinyl ether	6.93	63	454808	440.96	ppb	99
45) cis-1,3-Dichloropropene	7.09	75	1341181	190.54	ppb	100
46) 2-Hexanone	8.06	43	606773	214.21	ppb	99
48) Toluene	7.39	91	2972920	184.21	ppb	100
49) trans-1,3-Dichloropropene	7.65	75	1203527	196.05	ppb	99
50) 1,1,2-Trichloroethane	7.85	83	508727	181.18	ppb	99
51) 1,3-Dichloropropane	8.02	76	1073832	185.61	ppb #	100
52) Tetrachloroethylene	7.93	166	1014378	218.52	ppb	99
53) 4-Methyl-2-Pentanone	7.22	43	841334	215.95	ppb	99
54) Dibromochloromethane	8.26	129	914303	215.14	ppb	100
55) 1,2-Dibromoethane	8.38	107	658965	187.32	ppb	100
56) Chlorobenzene	8.86	112	2009682	192.30	ppb	98
57) Ethyl Benzene	8.94	91	3449023	188.56	ppb	100
58) p- & m-Xylenes	9.06	91	4979867	369.69	ppb	99
59) o-Xylene	9.50	91	2371499	174.17	ppb	99
60) Styrene	9.52	104	1880566	168.42	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.95	131	885725	221.16	ppb	96
63) Bromoform	9.78	173	531696	214.08	ppb #	100
65) p-Ethyltoluene	10.45	105	3091037	183.95	ppb	99
66) p-Diethylbenzene	11.72	119	1590925	186.61	ppb	93
67) 1,1,2,2-Tetrachloroethane	10.29	83	724120	171.39	ppb #	99
68) 1,2,3-Trichloropropane	10.33	110	233882	181.23	ppb	99
69) Isopropylbenzene	9.88	105	3298818	179.79	ppb #	95
70) 1,2-Dibromo-3-Chloropropan	12.74	75	114419	190.97	ppb	95
71) Bromobenzene	10.26	77	1163564	183.19	ppb	92
72) trans-1,4-Dichloro-2-buten	10.33	75	787819m	182.50	ppb	
73) n-Propylbenzene	10.33	91	3957880	180.89	ppb	99
74) 2-Chlorotoluene	10.46	91	2515813	178.79	ppb	99
75) 4-Chlorotoluene	10.58	91	2431211	187.77	ppb	99
76) tert-Butylbenzene	10.88	119	2347281m	195.55	ppb	

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

V5384117.D V5C00147.M

Fri Mar 11 09:41:55 2016

Page 2

Data File : C:\HPCHEM\1\DATA\V5031016\V5384117.D
Acq On : 10 Mar 2016 4:47 pm
Sample : SEQ-CAL6
Misc : QBV5031016A
MS Integration Params: RTEINT1.P
Quant Time: Mar 11 9:41 2016

Vial: 13
Operator: SS
Inst : VOA No. 5
Multiplr: 1.00

Quant Results File: V5C00147.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)
Title : VOCs BY GC/MS EPA SW846-8260
Last Update : Wed Feb 24 09:44:05 2016
Response via : Initial Calibration
DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,3,5-trimethylbenzene	10.52	105	2493653	176.70	ppb	# 100
78) 1,2,4-trimethylbenzene	10.95	105	2527719	183.58	ppb	100
79) sec-Butylbenzene	11.12	105	3415182	177.47	ppb	# 99
80) 1,3-Dichlorobenzene	11.29	146	1471193m	186.17	ppb	
81) 1,4-Dichlorobenzene	11.40	146	1464170	190.51	ppb	# 82
82) 1,2-Dichlorobenzene	11.82	146	1330548	190.05	ppb	# 100
83) p-Isopropyltoluene	11.28	119	2884406	184.04	ppb	# 99
84) n-Butylbenzene	11.75	91	3131361	171.42	ppb	97
85) 1,2,4,5-Tetramethylbenzene	12.60	119	2387535	199.46	ppb	96
86) 1,2,4-Trichlorobenzene	13.63	180	889345	221.19	ppb	98
87) Naphthalene	13.93	128	1818503	220.04	ppb	# 100
88) Hexachloro-1,3-Butadiene	13.78	225	548208m	235.69	ppb	
89) 1,2,3-Trichlorobenzene	14.20	182	751100	231.01	ppb	98

(#) = qualifier out of range (m) = manual integration
V5384117.D V5C00147.M Fri Mar 11 09:41:55 2016

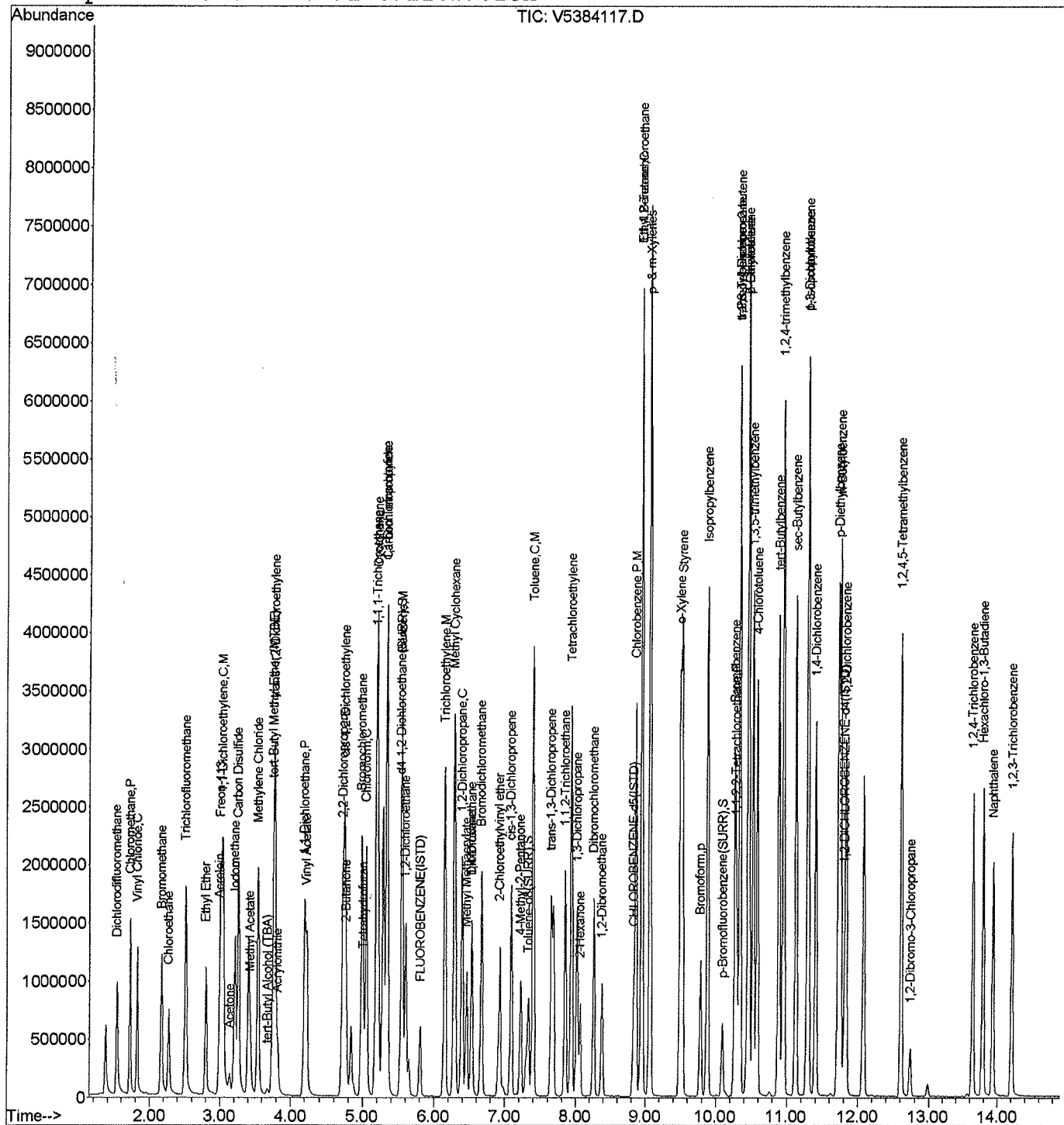
Quantitation Report

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Data File : C:\HPCHEM\1\DATA\V5031016\V5384117.D
Acq On    : 10 Mar 2016    4:47 pm
Sample    : SEQ-CAL6
Misc      : QBV5031016A
MS Integration Params: RTEINT1.P
Quant Time: Mar 11  9:41 2016                Quant
```

Vial: 13
Operator: SS
Inst : VOA No. 5
Multiplr: 1.00

Quant Results File: V5C00147.RES

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Method       : C:\HPCHEM\1\METHODS\V5C00147.M (RTE Integrator)
Title        : VOCs BY GC/MS EPA SW846-8260
Last Update  : Wed Feb 24 09:44:05 2016
Response via : Initial Calibration
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Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\V5031016\V5384119.D

Vial: 15

Acq On : 10 Mar 2016 5:56 pm

Operator: SS

Sample : SEQ-SCV1

Inst : VOA No. 5

Misc : QBV5031016A

Multiplr: 1.00

MS Integration Params: RTEINT1.P

Quant Time: Mar 11 9:46 2016

Quant Results File: V5C00149.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)

Title : VOCs BY GC/MS EPA SW846-8260

Last Update : Fri Mar 11 09:44:58 2016

Response via : Initial Calibration

DataAcq Meth : V5C0001A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE (ISTD)	5.80	70	99297	50.00	ppb	0.00
36) CHLOROBENZENE-d5 (ISTD)	8.83	117	463504	50.00	ppb	0.00
62) 1,2-DICHLOROBENZENE-d4 (IST	11.80	152	198773	50.00	ppb	0.00

System Monitoring Compounds

32) d4-1,2-Dichloroethane (SURR	5.52	65	159842	54.08	ppb	0.00
Spiked Amount	50.000	Range	64 - 122	Recovery	=	108.16%
47) Toluene-d8 (SURR)	7.32	98	474625	48.97	ppb	0.00
Spiked Amount	50.000	Range	83 - 114	Recovery	=	97.94%
64) p-Bromofluorobenzene (SURR)	10.09	174	179270	50.60	ppb	0.00
Spiked Amount	50.000	Range	71 - 126	Recovery	=	101.20%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.53	85	259861	58.54	ppb	100
3) Chloromethane	1.72	50	314105	57.81	ppb	100
4) Vinyl Chloride	1.82	62	272025	57.97	ppb	100
5) Bromomethane	2.16	94	167082	57.92	ppb	100
6) Chloroethane	2.27	64	157624	55.08	ppb	99
7) Trichlorofluoromethane	2.51	101	399001	57.14	ppb	100
8) Ethyl Ether	2.80	59	138911	51.70	ppb	98
9) Freon-113	3.01	101	232430	55.32	ppb	99
10) 1,1-Dichloroethylene	3.04	61	352904	51.79	ppb	100
11) Acrolein	2.98	56	10383	39.91	ppb	98
12) Iodomethane	3.21	142	309288	54.87	ppb	100
13) Methyl Acetate	3.43	43	161484m	54.36	ppb	
14) tert-Butyl Alcohol (TBA)	3.67	59	22351	56.61	ppb	1
15) trans-1,2-Dichloroethylene	3.77	61	322107	52.84	ppb	100
16) Carbon Disulfide	3.26	76	637502	53.10	ppb	100
17) Methylene Chloride	3.54	49	287387	49.16	ppb	100
18) Acrylonitrile	3.81	53	62524	53.14	ppb	99
19) tert-Butyl Methyl Ether (M	3.75	73	447083	51.59	ppb	# 100
20) Acetone	3.14	43	69169	48.83	ppb	# 1
21) 1,1-Dichloroethane	4.19	63	403196	54.15	ppb	99
22) Vinyl Acetate	4.22	43	446030	56.61	ppb	100
23) cis-1,2-Dichloroethylene	4.74	96	227999	52.76	ppb	# 100
24) 2-Butanone	4.77	72	20037	49.20	ppb	95
25) 2,2-Dichloropropane	4.71	77	330881	52.31	ppb	100
26) Bromochloromethane	4.99	49	204395	49.33	ppb	98
27) Chloroform	5.04	83	354572	51.89	ppb	100
28) Tetrahydrofuran	5.01	71	21070	50.89	ppb	# 1
29) 1,1-Dichloropropylene	5.33	75	309525	54.80	ppb	100
30) 1,1,1-Trichloroethane	5.19	97	339299	53.34	ppb	100

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

V5384119.D V5C00149.M

Fri Mar 11 09:47:14 2016

Page 1

Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\V5031016\V5384119.D
 Acq On : 10 Mar 2016 5:56 pm
 Sample : SEQ-SCV1
 Misc : QBV5031016A
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 11 9:46 2016

Vial: 15
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Quant Results File: V5C00149.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 2016
 Response via : Initial Calibration
 DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) Cyclohexane	5.20	56	405468	56.71	ppb	98
33) Carbon Tetrachloride	5.33	117	328523	53.49	ppb	100
34) 1,2-Dichloroethane	5.60	62	247939	52.41	ppb	100
35) Benzene	5.54	78	675317	50.35	ppb	99
37) Trichloroethylene	6.15	95	212728	49.32	ppb	100
38) Methyl Cyclohexane	6.28	83	347449	52.78	ppb	# 1
39) Dibromomethane	6.52	93	115003	48.35	ppb	# 1
40) Methyl Methacrylate	6.46	69	111896	50.31	ppb	100
41) Bromodichloromethane	6.66	83	257874	46.84	ppb	100
42) 1,2-Dichloropropane	6.39	63	184989	48.58	ppb	99
43) 1,4-Dioxane	6.53	88	31955	1082.23	ppb	99
44) 2-Chloroethylvinyl ether	6.92	63	106895	48.60	ppb	100
45) cis-1,3-Dichloropropene	7.08	75	290966	45.86	ppb	100
46) 2-Hexanone	8.06	43	146976	48.70	ppb	100
48) Toluene	7.39	91	672332	47.61	ppb	100
49) trans-1,3-Dichloropropene	7.65	75	251395	44.19	ppb	100
50) 1,1,2-Trichloroethane	7.84	83	117191	48.99	ppb	99
51) 1,3-Dichloropropane	8.01	76	249017	49.01	ppb	# 100
52) Tetrachloroethylene	7.93	166	237909	49.11	ppb	99
53) 4-Methyl-2-Pentanone	7.22	43	212713	51.17	ppb	100
54) Dibromochloromethane	8.26	129	202691	47.38	ppb	100
55) 1,2-Dibromoethane	8.38	107	157505	49.84	ppb	99
56) Chlorobenzene	8.86	112	480618	49.23	ppb	100
57) Ethyl Benzene	8.93	91	799766	48.35	ppb	100
58) p- & m-Xylenes	9.06	91	1165687	95.85	ppb	99
59) o-Xylene	9.49	91	573616	47.69	ppb	100
60) Styrene	9.52	104	437180	46.30	ppb	100
61) 1,1,1,2-Tetrachloroethane	8.94	131	197674	48.55	ppb	98
63) Bromoform	9.78	173	118339	47.67	ppb	# 100
65) p-Ethyltoluene	10.45	105	742742	50.94	ppb	98
66) p-Diethylbenzene	11.71	119	389102	50.52	ppb	97
67) 1,1,2,2-Tetrachloroethane	10.28	83	171070	47.81	ppb	# 100
68) 1,2,3-Trichloropropane	10.33	110	57293	48.55	ppb	98
69) Isopropylbenzene	9.87	105	785649	49.10	ppb	# 100
70) 1,2-Dibromo-3-Chloropropan	12.73	75	28948	49.07	ppb	99
71) Bromobenzene	10.26	77	257728	47.15	ppb	99
72) trans-1,4-Dichloro-2-buten	10.33	75	192274m	48.51	ppb	
73) n-Propylbenzene	10.33	91	950659	49.29	ppb	100
74) 2-Chlorotoluene	10.45	91	579479	49.00	ppb	100
75) 4-Chlorotoluene	10.58	91	565103	50.68	ppb	100
76) tert-Butylbenzene	10.88	119	569719	50.20	ppb	# 86

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

V5384119.D V5C00149.M

Fri Mar 11 09:47:14 2016

Page 2

Data File : C:\HPCHEM\1\DATA\V5031016\V5384119.D
Acq On : 10 Mar 2016 5:56 pm
Sample : SEQ-SCV1
Misc : QBV5031016A
MS Integration Params: RTEINT1.P
Quant Time: Mar 11 9:46 2016

Vial: 15
Operator: SS
Inst : VOA No. 5
Multiplr: 1.00

Quant Results File: V5C00149.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
Title : VOCs BY GC/MS EPA SW846-8260
Last Update : Fri Mar 11 09:44:58 2016
Response via : Initial Calibration
DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,3,5-trimethylbenzene	10.52	105	583336	47.56	ppb	# 96
78) 1,2,4-trimethylbenzene	10.94	105	569232	46.94	ppb	100
79) sec-Butylbenzene	11.12	105	800713	47.76	ppb	# 100
80) 1,3-Dichlorobenzene	11.29	146	349485	48.23	ppb	# 100
81) 1,4-Dichlorobenzene	11.40	146	341053	47.28	ppb	# 100
82) 1,2-Dichlorobenzene	11.82	146	306712	48.22	ppb	# 100
83) p-Isopropyltoluene	11.28	119	712290	49.08	ppb	# 100
84) n-Butylbenzene	11.74	91	747063	48.08	ppb	100
85) 1,2,4,5-Tetramethylbenzene	12.60	119	585008	49.54	ppb	100
86) 1,2,4-Trichlorobenzene	13.64	180	195842	46.49	ppb	100
87) Naphthalene	13.92	128	434151	47.93	ppb	# 100
88) Hexachloro-1,3-Butadiene	13.78	225	132531	51.01	ppb	# 100
89) 1,2,3-Trichlorobenzene	14.20	182	167854	46.92	ppb	100

(#) = qualifier out of range (m) = manual integration
V5384119.D V5C00149.M Fri Mar 11 09:47:14 2016

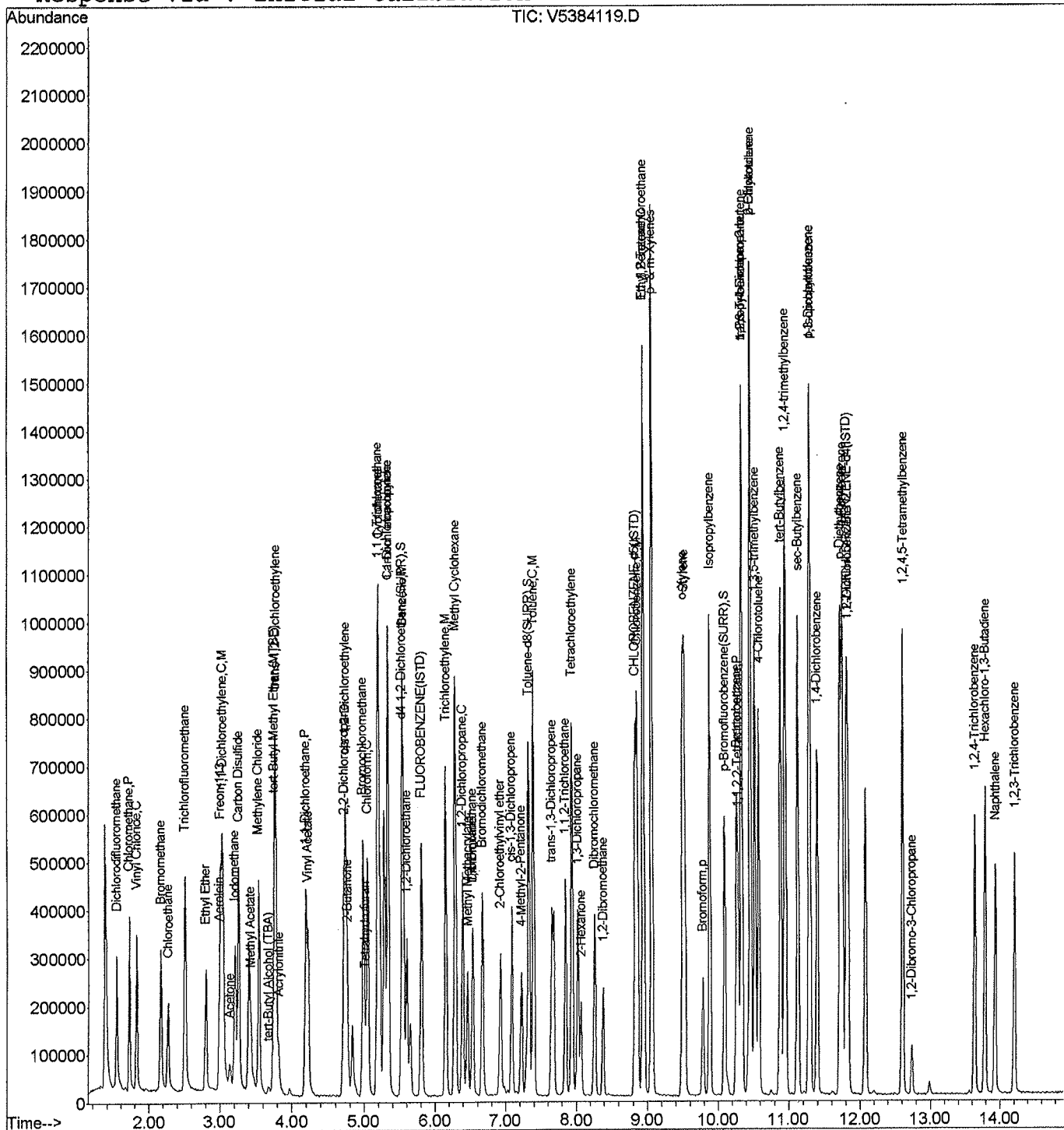
Quantitation Report

Data File : C:\HPCHEM\1\DATA\V5031016\V5384119.D
 Acq On : 10 Mar 2016 5:56 pm
 Sample : SEQ-SCV1
 Misc : QBV5031016A
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 11 9:46 2016

Vial: 15
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Quant Results File: V5C00149.RES

Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 2016
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\V5031216\V5384184.D
 Acq On : 12 Mar 2016 11:39 am
 Sample : SEQ-CCV1
 Misc : QBV5031216A Y16A033
 MS Integration Params: RTEINT1.P

Vial: 1
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 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	118	-0.02
2	Dichlorodifluoromethane	2.235	1.889	15.5	95	-0.01
3 P	Chloromethane	2.736	2.693	1.6	113	-0.01
4 C	Vinyl Chloride	2.363	2.428	-2.8	118	-0.02
5	Bromomethane	1.453	1.448	0.3	115	-0.02
6	Chloroethane	1.441	1.449	-0.6	117	-0.02
7	Trichlorofluoromethane	3.516	3.427	2.5	112	-0.02
8	Ethyl Ether	1.353	1.397	-3.3	119	-0.02
9	Freon-113	2.116	2.043	3.4	111	-0.03
10 C,M	1,1-Dichloroethylene	3.431	3.271	4.7	109	-0.03
11	Acrolein	0.131	0.117	10.7	93	-0.02
12	Iodomethane	2.838	3.015	-6.2	122	-0.03
13	Methyl Acetate	1.496	1.252	16.3	101	-0.02
14	tert-Butyl Alcohol (TBA)	0.199	0.212	-6.5	101	-0.01
15	trans-1,2-Dichloroethylene	3.069	2.896	5.6	109	-0.03
16	Carbon Disulfide	6.045	5.748	4.9	109	-0.03
17	Methylene Chloride	2.944	2.782	5.5	116	-0.03
18	Acrylonitrile	0.592	0.531	10.3	93	-0.02
19	tert-Butyl Methyl Ether (MT)	4.363	4.215	3.4	109	-0.02
20	Acetone	0.713	0.819	-14.9	105	-0.02
21 P	1,1-Dichloroethane	3.749	3.676	1.9	115	-0.03
22	Vinyl Acetate	3.967	4.012	-1.1	112	-0.03
23	cis-1,2-Dichloroethylene	2.176	2.045	6.0	111	-0.03
24	2-Butanone	0.205	0.169	17.6	92	-0.03
25	2,2-Dichloropropane	3.185	3.059	4.0	113	-0.03
26	Bromochloromethane	2.086	1.893	9.3	116	-0.03
27 C	Chloroform	3.441	3.348	2.7	116	-0.03
28	Tetrahydrofuran	0.208	0.192	7.7	106	-0.02
29	1,1-Dichloropropylene	2.844	2.701	5.0	108	-0.03
30	1,1,1-Trichloroethane	3.203	3.057	4.6	112	-0.03
31	Cyclohexane	3.600	3.386	5.9	106	-0.03
32 S	d4-1,2-Dichloroethane (SURR)	1.488	1.477	0.7	114	-0.03
33	Carbon Tetrachloride	3.093	2.993	3.2	111	-0.03
34	1,2-Dichloroethane	2.382	2.315	2.8	115	-0.03
35 M	Benzene	6.754	6.436	4.7	113	-0.03
36	CHLOROBENZENE-d5 (ISTD)	1.000	1.000	0.0	117	-0.03
37 M	Trichloroethylene	0.465	0.440	5.4	110	-0.02
38	Methyl Cyclohexane	0.710	0.666	6.2	110	-0.03
39	Dibromomethane	0.257	0.248	3.5	111	-0.03
40	Methyl Methacrylate	0.240	0.234	2.5	106	-0.02

(#) = Out of Range

V5384184.D V5C00149.M

Mon Mar 14 10:08:44 2016

Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\V5031216\V5384184.D
 Acq On : 12 Mar 2016 11:39 am
 Sample : SEQ-CCV1
 Misc : QBV5031216A Y16A033
 MS Integration Params: RTEINT1.P

Vial: 1
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 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	0.594	0.563	5.2	110	-0.03
42 C	1,2-Dichloropropane	0.411	0.393	4.4	112	-0.03
43	1,4-Dioxane	0.003	0.004#	-33.3#	108	-0.03
44	2-Chloroethylvinyl ether	0.237	0.228	3.8	106	-0.03
45	cis-1,3-Dichloropropene	0.684	0.674	1.5	120	-0.03
46	2-Hexanone	0.326	0.297	8.9	90	-0.02
47 S	Toluene-d8 (SURR)	1.046	1.049	-0.3	121	-0.03
48 C,M	Toluene	1.524	1.419	6.9	111	-0.03
49	trans-1,3-Dichloropropene	0.614	0.605	1.5	112	-0.03
50	1,1,2-Trichloroethane	0.258	0.247	4.3	109	-0.03
51	1,3-Dichloropropane	0.548	0.542	1.1	110	-0.03
52	Tetrachloroethylene	0.523	0.499	4.6	112	-0.03
53	4-Methyl-2-Pentanone	0.448	0.422	5.8	96	-0.02
54	Dibromochloromethane	0.462	0.445	3.7	106	-0.03
55	1,2-Dibromoethane	0.341	0.340	0.3	110	-0.02
56 P,M	Chlorobenzene	1.053	1.034	1.8	111	-0.03
57 C	Ethyl Benzene	1.785	1.676	6.1	110	-0.03
58	p- & m-Xylenes	1.312	1.273	3.0	115	-0.03
59	o-Xylene	1.298	1.247	3.9	109	-0.03
60	Styrene	1.019	0.967	5.1	109	-0.03
61	1,1,1,2-Tetrachloroethane	0.439	0.419	4.6	109	-0.03
62	1,2-DICHLOROBENZENE-d4 (ISTD	1.000	1.000	0.0	122	-0.03
63 p	Bromoform	0.624	0.565	9.5	96	-0.03
64 S	p-Bromofluorobenzene (SURR)	0.891	0.882	1.0	122	-0.03
65	p-Ethyltoluene	3.668	3.459	5.7	111	-0.03
66	p-Diethylbenzene	1.937	1.862	3.9	110	-0.03
67 P	1,1,2,2-Tetrachloroethane	0.900	0.800	11.1	94	-0.03
68	1,2,3-Trichloropropane	0.297	0.252	15.2	89	-0.03
69	Isopropylbenzene	4.025	3.619	10.1	105	-0.03
70	1,2-Dibromo-3-Chloropropane	0.148	0.135	8.8	94	-0.03
71	Bromobenzene	1.375	1.288	6.3	105	-0.03
72	trans-1,4-Dichloro-2-butene	0.997	0.881	11.6	93	-0.03
73	n-Propylbenzene	4.851	4.289	11.6	102	-0.03
74	2-Chlorotoluene	2.975	2.718	8.6	107	-0.03
75	4-Chlorotoluene	2.805	2.781	0.9	111	-0.03
76	tert-Butylbenzene	2.855	2.702	5.4	108	-0.03
77	1,3,5-trimethylbenzene	3.085	2.863	7.2	106	-0.03
78	1,2,4-trimethylbenzene	3.051	2.890	5.3	111	-0.03
79	sec-Butylbenzene	4.217	3.927	6.9	109	-0.03
80	1,3-Dichlorobenzene	1.823	1.732	5.0	110	-0.03

(#) = Out of Range

V5384184.D V5C00149.M

Mon Mar 14 10:08:45 2016

Page 2

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\V5031216\V5384184.D

Vial: 1

Acq On : 12 Mar 2016 11:39 am

Operator: SS

Sample : SEQ-CCV1

Inst : VOA No. 5

Misc : QBV5031216A Y16A033

Multiplr: 1.00

MS Integration Params: RTEINT1.P

Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)

Title : VOCs BY GC/MS EPA SW846-8260

Last Update : Fri Mar 11 09:44:58 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	1,4-Dichlorobenzene	1.814	1.758	3.1	110	-0.03
82	1,2-Dichlorobenzene	1.600	1.552	3.0	111	-0.03
83	p-Isopropyltoluene	3.651	3.422	6.3	109	-0.03
84	n-Butylbenzene	3.909	3.633	7.1	107	-0.03
85	1,2,4,5-Tetramethylbenzene	2.970	2.928	1.4	112	-0.02
86	1,2,4-Trichlorobenzene	1.060	1.040	1.9	110	-0.03
87	Naphthalene	2.278	2.168	4.8	102	-0.03
88	Hexachloro-1,3-Butadiene	0.654	0.621	5.0	108	-0.03
89	1,2,3-Trichlorobenzene	0.900	0.852	5.3	105	-0.03

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

V5384184.D V5C00149.M

Mon Mar 14 10:08:45 2016

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Data File : C:\HPCHEM\1\DATA\V5031216\V5384184.D
 Acq On : 12 Mar 2016 11:39 am
 Sample : SEQ-CCV1
 Misc : QBV5031216A Y16A033
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:07 2016

Vial: 1
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Quant Results File: V5C00149.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 2016
 Response via : Initial Calibration
 DataAcq Meth : V5C0001A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE (ISTD)	5.78	70	121665	50.00	ppb	-0.02
36) CHLOROBENZENE-d5 (ISTD)	8.80	117	528833	50.00	ppb	-0.03
62) 1,2-DICHLOROBENZENE-d4 (IST)	11.77	152	237145	50.00	ppb	-0.03

System Monitoring Compounds

32) d4-1,2-Dichloroethane (SURR)	5.50	65	179701	49.62	ppb	-0.03
Spiked Amount	50.000	Range	64 - 122	Recovery	=	99.24%
47) Toluene-d8 (SURR)	7.30	98	554634	50.15	ppb	-0.03
Spiked Amount	50.000	Range	83 - 114	Recovery	=	100.30%
64) p-Bromofluorobenzene (SURR)	10.06	174	209241	49.51	ppb	-0.03
Spiked Amount	50.000	Range	71 - 126	Recovery	=	99.02%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.51	85	229864	42.26	ppb	100
3) Chloromethane	1.70	50	327612	49.21	ppb	100
4) Vinyl Chloride	1.80	62	295372	51.38	ppb	100
5) Bromomethane	2.15	94	176207	49.85	ppb	100
6) Chloroethane	2.25	64	176250	50.26	ppb	100
7) Trichlorofluoromethane	2.49	101	416926	48.73	ppb	100
8) Ethyl Ether	2.78	59	170016	51.64	ppb	# 60
9) Freon-113	2.98	101	248546	48.28	ppb	98
10) 1,1-Dichloroethylene	3.01	61	397907	47.66	ppb	99
11) Acrolein	2.96	56	14181	44.49	ppb	97
12) Iodomethane	3.18	142	366816	53.11	ppb	99
13) Methyl Acetate	3.41	43	152293	41.84	ppb	# 99
14) tert-Butyl Alcohol (TBA)	3.66	59	25835	53.40	ppb	1
15) trans-1,2-Dichloroethylene	3.75	61	352288	47.17	ppb	99
16) Carbon Disulfide	3.23	76	699337	47.55	ppb	100
17) Methylene Chloride	3.51	49	338418	47.25	ppb	100
18) Acrylonitrile	3.80	53	64596	44.81	ppb	99
19) tert-Butyl Methyl Ether (M)	3.73	73	512772	48.30	ppb	# 100
20) Acetone	3.12	43	99600	57.38	ppb	# 1
21) 1,1-Dichloroethane	4.17	63	447209	49.02	ppb	100
22) Vinyl Acetate	4.20	43	488124	50.56	ppb	100
23) cis-1,2-Dichloroethylene	4.72	96	248751	46.98	ppb	# 100
24) 2-Butanone	4.74	72	20527	41.14	ppb	87
25) 2,2-Dichloropropane	4.69	77	372150	48.02	ppb	100
26) Bromochloromethane	4.96	49	230265	45.36	ppb	100
27) Chloroform	5.02	83	407333	48.65	ppb	100
28) Tetrahydrofuran	4.99	71	23380	46.09	ppb	# 1
29) 1,1-Dichloropropylene	5.30	75	328579	47.48	ppb	100
30) 1,1,1-Trichloroethane	5.16	97	371964	47.73	ppb	100

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

V5384184.D V5C00149.M

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Page 1

Data File : C:\HPCHEM\1\DATA\V5031216\V5384184.D
 Acq On : 12 Mar 2016 11:39 am
 Sample : SEQ-CCV1
 Misc : QBV5031216A Y16A033
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:07 2016

Vial: 1
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Quant Results File: V5C00149.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 2016
 Response via : Initial Calibration
 DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) Cyclohexane	5.17	56	411922	47.02	ppb	99
33) Carbon Tetrachloride	5.30	117	364153	48.39	ppb	100
34) 1,2-Dichloroethane	5.57	62	281682	48.60	ppb	99
35) Benzene	5.52	78	783033	47.65	ppb	100
37) Trichloroethylene	6.12	95	232516	47.25	ppb	99
38) Methyl Cyclohexane	6.25	83	352434	46.92	ppb	# 1
39) Dibromomethane	6.50	93	131062	48.30	ppb	# 1
40) Methyl Methacrylate	6.43	69	123574	48.69	ppb	100
41) Bromodichloromethane	6.64	83	297975	47.43	ppb	100
42) 1,2-Dichloropropane	6.36	63	207848	47.84	ppb	# 80
43) 1,4-Dioxane	6.50	88	37434	1111.17	ppb	99
44) 2-Chloroethylvinyl ether	6.90	63	120649	48.07	ppb	100
45) cis-1,3-Dichloropropene	7.06	75	356666	49.27	ppb	100
46) 2-Hexanone	8.04	43	157307	45.69	ppb	100
48) Toluene	7.37	91	750236	46.56	ppb	100
49) trans-1,3-Dichloropropene	7.62	75	319929	49.29	ppb	100
50) 1,1,2-Trichloroethane	7.82	83	130495	47.82	ppb	100
51) 1,3-Dichloropropane	7.99	76	286854	49.48	ppb	# 86
52) Tetrachloroethylene	7.91	166	263943	47.76	ppb	99
53) 4-Methyl-2-Pentanone	7.20	43	222945	47.00	ppb	100
54) Dibromochloromethane	8.23	129	235524	48.25	ppb	100
55) 1,2-Dibromoethane	8.36	107	179819	49.87	ppb	100
56) Chlorobenzene	8.83	112	546982	49.11	ppb	99
57) Ethyl Benzene	8.92	91	886407	46.96	ppb	100
58) p- & m-Xylenes	9.03	91	1346725	97.05	ppb	100
59) o-Xylene	9.47	91	659222	48.04	ppb	99
60) Styrene	9.49	104	511345	47.46	ppb	100
61) 1,1,1,2-Tetrachloroethane	8.92	131	221463	47.68	ppb	99
63) Bromoform	9.75	173	133894	45.21	ppb	# 100
65) p-Ethyltoluene	10.42	105	820318	47.16	ppb	98
66) p-Diethylbenzene	11.69	119	441451	48.04	ppb	98
67) 1,1,2,2-Tetrachloroethane	10.26	83	189832	44.47	ppb	# 100
68) 1,2,3-Trichloropropane	10.31	110	59864	42.52	ppb	96
69) Isopropylbenzene	9.85	105	858174	44.95	ppb	# 100
70) 1,2-Dibromo-3-Chloropropan	12.71	75	32012	45.49	ppb	99
71) Bromobenzene	10.24	77	305356	46.83	ppb	100
72) trans-1,4-Dichloro-2-buten	10.31	75	208943m	44.19	ppb	
73) n-Propylbenzene	10.31	91	1017139	44.20	ppb	100
74) 2-Chlorotoluene	10.43	91	644505	45.68	ppb	100
75) 4-Chlorotoluene	10.55	91	659615	49.59	ppb	100
76) tert-Butylbenzene	10.85	119	640817	47.33	ppb	# 86

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

V5384184.D V5C00149.M

Mon Mar 14 10:08:57 2016

Page 2

Data File : C:\HPCHEM\1\DATA\V5031216\V5384184.D

Vial: 1

Acq On : 12 Mar 2016 11:39 am

Operator: SS

Sample : SEQ-CCV1

Inst : VOA No. 5

Misc : QBV5031216A Y16A033

Multiplr: 1.00

MS Integration Params: RTEINT1.P

Quant Time: Mar 14 10:07 2016

Quant Results File: V5C00149.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)

Title : VOCs BY GC/MS EPA SW846-8260

Last Update : Fri Mar 11 09:44:58 2016

Response via : Initial Calibration

DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,3,5-trimethylbenzene	10.49	105	678942	46.40	ppb	99
78) 1,2,4-trimethylbenzene	10.91	105	685385	47.37	ppb	100
79) sec-Butylbenzene	11.10	105	931159	46.55	ppb	# 100
80) 1,3-Dichlorobenzene	11.27	146	410743	47.51	ppb	# 100
81) 1,4-Dichlorobenzene	11.37	146	416847	48.44	ppb	# 69
82) 1,2-Dichlorobenzene	11.80	146	368003	48.49	ppb	# 100
83) p-Isopropyltoluene	11.26	119	811418	46.86	ppb	# 100
84) n-Butylbenzene	11.72	91	861455	46.47	ppb	# 84
85) 1,2,4,5-Tetramethylbenzene	12.58	119	694308	49.29	ppb	100
86) 1,2,4-Trichlorobenzene	13.61	180	246615	49.07	ppb	100
87) Naphthalene	13.90	128	514241	47.59	ppb	# 100
88) Hexachloro-1,3-Butadiene	13.75	225	147255	47.51	ppb	# 99
89) 1,2,3-Trichlorobenzene	14.18	182	202064	47.35	ppb	99

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

V5384184.D V5C00149.M

Mon Mar 14 10:08:57 2016

Page 3

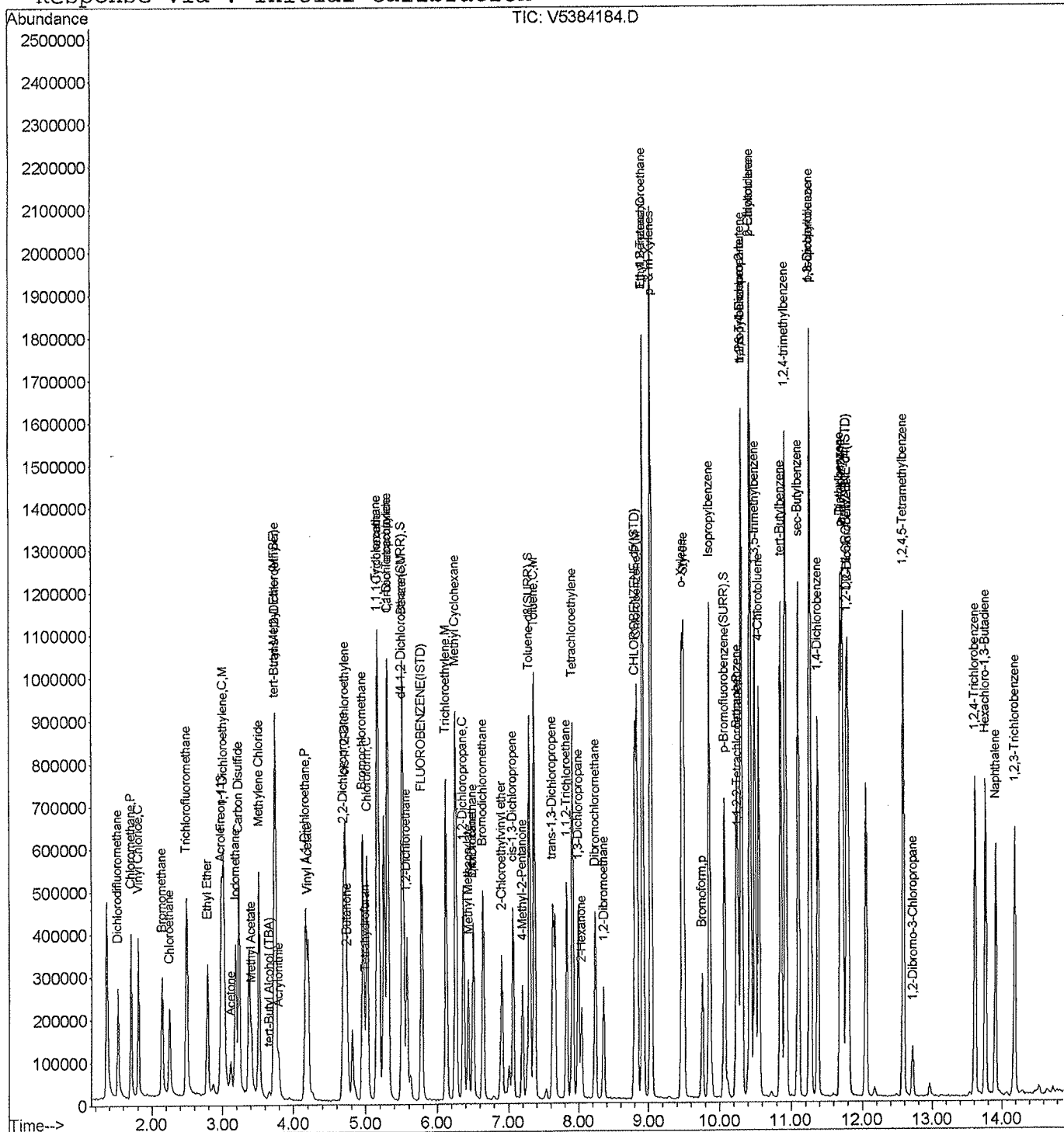
Quantitation Report

Data File : C:\HPCHEM\1\DATA\V5031216\V5384184.D
 Acq On : 12 Mar 2016 11:39 am
 Sample : SEQ-CCV1
 Misc : QBV5031216A Y16A033
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:07 2016

Vial: 1
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00

Quant Results File: V5C00149.RES

Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 2016
 Response via : Initial Calibration



FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 8260C**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202

Sequence:

Instrument:

Calibration:

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
06/TB-1	16C0235-06	V706931.D	03/11/16 12:18
LCS	BC60676-BS1	V5384185.D	03/12/16 12:15
LCS Dup	BC60676-BSD1	V5384186.D	03/12/16 12:49
Blank	BC60676-BLK1	V5384187.D	03/12/16 13:23
01/LSB-1	16C0235-01	V5384190.D	03/12/16 15:06
02/LSB-1	16C0235-02	V5384191.D	03/12/16 15:40
03/LSB-2	16C0235-03	V5384192.D	03/12/16 16:14
04/LSB-2	16C0235-04	V5384193.D	03/12/16 16:48

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 8260C**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Sequence: Y6C1426Instrument: MSVOA7Calibration: UNASSIGNED

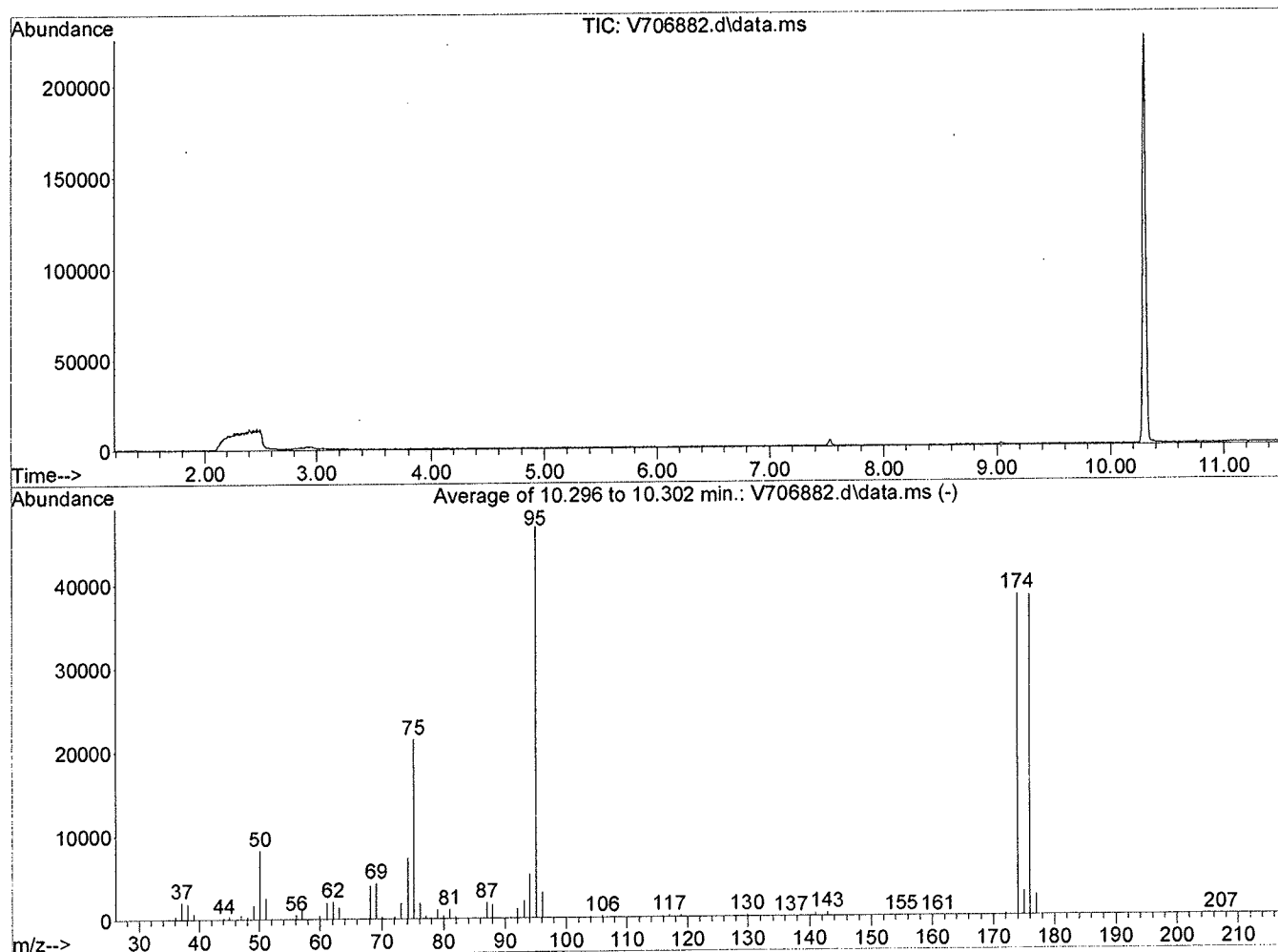
Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
LCS	BC60625-BS1	V706925.D	03/11/16 09:43
LCS Dup	BC60625-BSD1	V706926.D	03/11/16 10:09
Blank	BC60625-BLK1	V706928.D	03/11/16 11:00

Data Path : C:\msdchem\1\data\V7031016\Snapshot\
Data File : V706882.d
Acq On : 10 Mar 2016 7:48 am
Operator : SS
Sample : SEQ-TUN1
Sample : SEQ-TUN1
Misc : QBV7031016A
ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA7

Integration File: rteint.p

Method : C:\msdchem\1\methods\V7LO0048.M
Title : Volatile Organics EPA 8260C
Last Update : Thu Mar 10 15:02:36 2016



Spectrum Information: Average of 10.296 to 10.302 min.

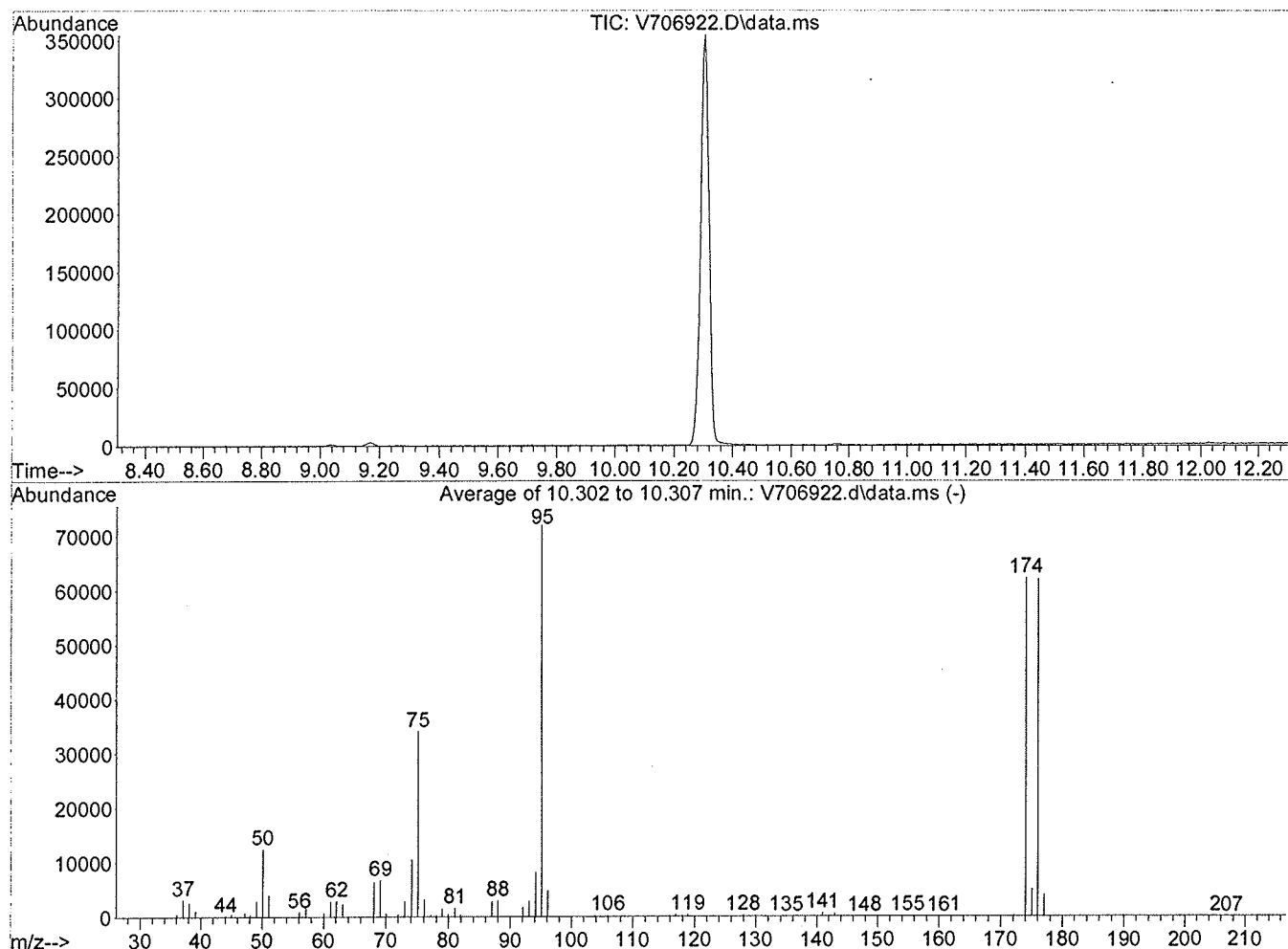
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	8326	PASS
75	95	30	60	45.8	21499	PASS
95	95	100	100	100.0	46912	PASS
96	95	5	9	6.7	3165	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	82.0	38469	PASS
175	174	5	9	7.8	2983	PASS
176	174	95	101	99.6	38304	PASS
177	176	5	9	6.7	2549	PASS

Data Path : C:\msdchem\1\data\V7031116\
Data File : V706922.D
Acq On : 11 Mar 2016 8:03 am
Operator : SS
Sample : SEQ-TUN1
Sample : SEQ-TUN1
Misc : QBV7031116A
ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA7

Integration File: rteint.p

Method : C:\msdchem\1\methods\V7L00049.M
Title : Volatile Organics EPA 8260C
Last Update : Thu Mar 10 15:13:37 2016



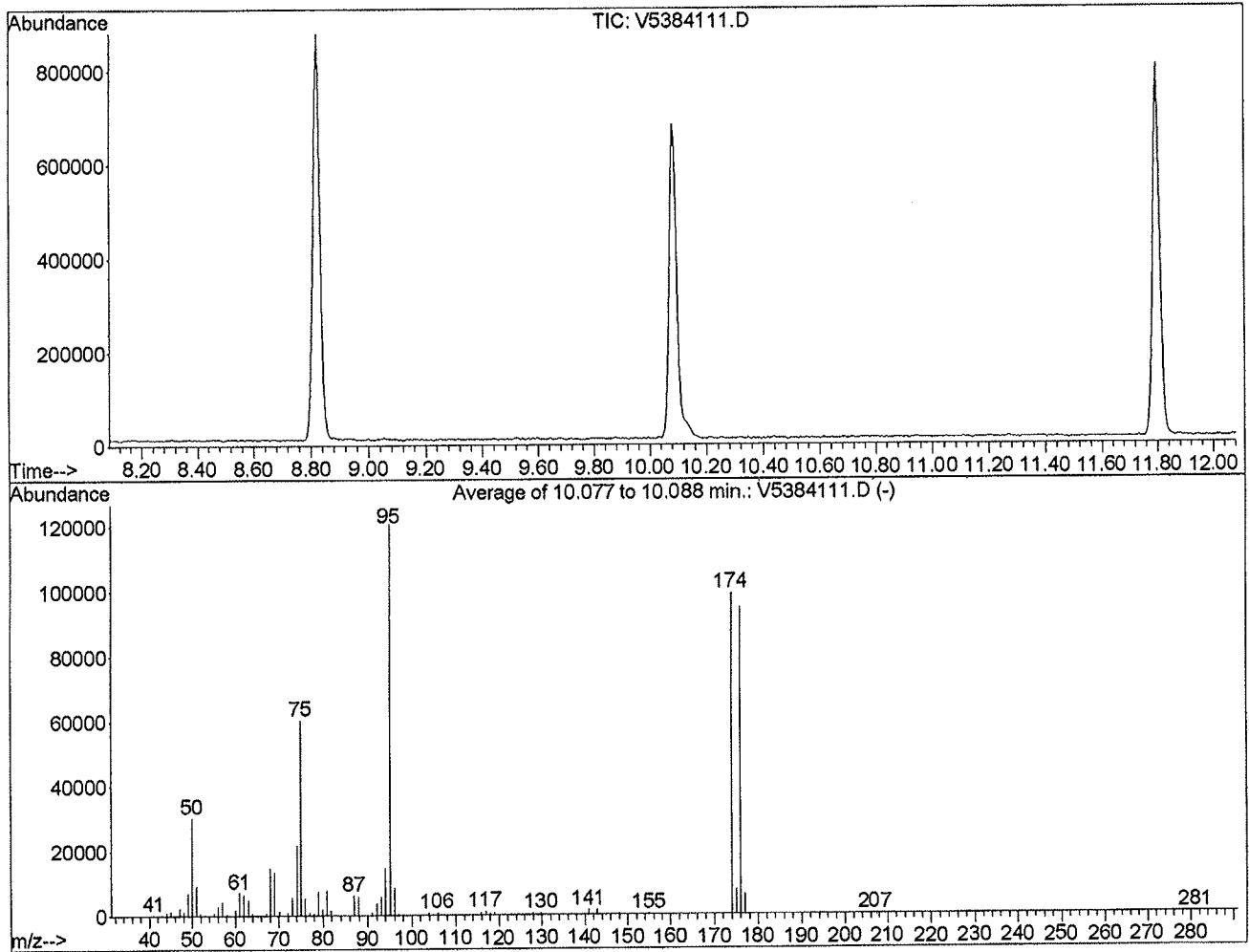
Spectrum Information: Average of 10.302 to 10.307 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	12499	PASS
75	95	30	60	47.2	34056	PASS
95	95	100	100	100.0	72117	PASS
96	95	5	9	6.6	4749	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	86.6	62424	PASS
175	174	5	9	8.0	4998	PASS
176	174	95	101	99.6	62205	PASS
177	176	5	9	6.4	4004	PASS

BFB

Data File : C:\HPCHEM\1\DATA\V5031016\V5384111.D
 Acq On : 10 Mar 2016 1:22 pm
 Sample : MBLK
 Misc : QBV5031016A
 MS Integration Params: RTEINT1.P
 Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260

Vial: 7
 Operator: SS
 Inst : VOA No. 5
 Multiplr: 1.00



Spectrum Information: Average of 10.077 to 10.088 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.2	30427	PASS
75	95	30	60	50.0	60459	PASS
95	95	100	100	100.0	120920	PASS
96	95	5	9	6.9	8287	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	82.1	99272	PASS
175	174	5	9	7.7	7680	PASS
176	174	95	101	95.5	94837	PASS
177	176	5	9	6.6	6288	PASS

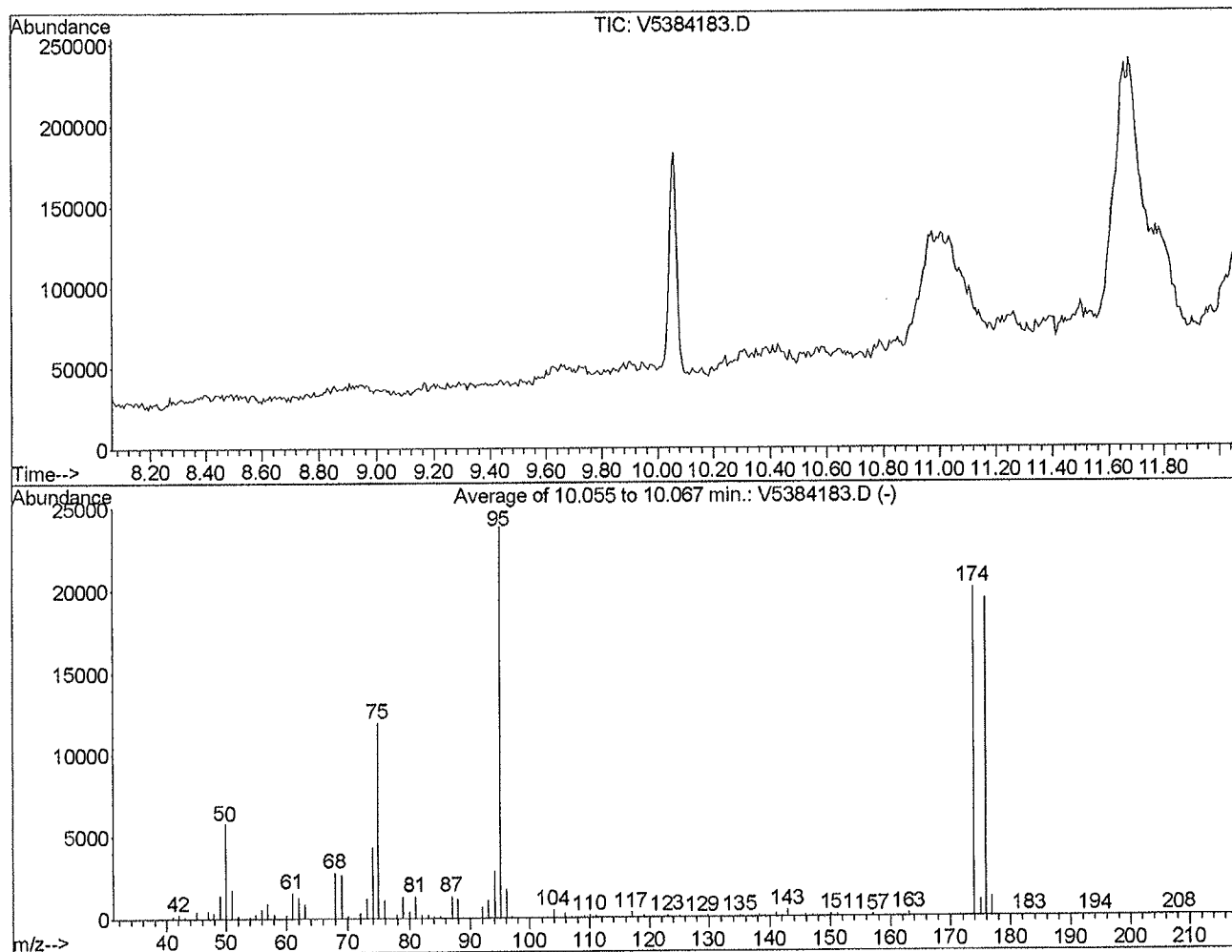
V5384111.D V5C00149.M

Fri Mar 11 09:48:03 2016

BFB

Data File : C:\HPCHEM\1\DATA\V5031216\V5384183.D
Acq On : 12 Mar 2016 11:08 am
Sample : SEQ-TUN1
Misc : QBV5031216A
MS Integration Params: RTEINT1.P
Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
Title : VOCs BY GC/MS EPA SW846-8260

Vial: 1
Operator: SS
Inst : VOA No. 5
Multiplr: 1.00



Spectrum Information: Average of 10.055 to 10.067 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.3	5789	PASS
75	95	30	60	50.2	11977	PASS
95	95	100	100	100.0	23850	PASS
96	95	5	9	7.4	1757	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	84.4	20120	PASS
175	174	5	9	5.0	1007	PASS
176	174	95	101	96.8	19477	PASS
177	176	5	9	6.2	1208	PASS

FORM I

METHOD BLANK DATA SHEET
EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60625-BLK1 File ID: V706928.D
 Prepared: 03/11/16 08:42 Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Analyzed: 03/11/16 11:00 Instrument: MSVOA7
 Batch: BC60625 Sequence: Y6C1426 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	0.50	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	40	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	0.50	U
106-43-4	4-Chlorotoluene	0.50	U
108-10-1	4-Methyl-2-pentanone	0.50	U
67-64-1	Acetone	2.0	U
107-02-8	Acrolein	0.50	U

FORM I

METHOD BLANK DATA SHEET
EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60625-BLK1 File ID: V706928.D
 Prepared: 03/11/16 08:42 Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Analyzed: 03/11/16 11:00 Instrument: MSVOA7
 Batch: BC60625 Sequence: Y6C1426 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (ug/L)	Q
107-13-1	Acrylonitrile	0.50	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: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60625-BLK1 File ID: V706928.D
 Prepared: 03/11/16 08:42 Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Analyzed: 03/11/16 11:00 Instrument: MSVOA7
 Batch: BC60625 Sequence: Y6C1426 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)	1.0	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	9.91	99.1	69 - 130	
Toluene-d8	10.0	9.94	99.4	81 - 117	
p-Bromofluorobenzene	10.0	10.4	104	79 - 122	

Data Path : C:\msdchem\1\data\V7031116\
 Data File : V706928.D
 Acq On : 11 Mar 2016 11:00 am
 InstName : MSVOA7
 Operator : SS
 Sample : BC60625-BLK1
 Misc : QBV7031116A <2 OW
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 11 16:08:10 2016
 Quant Method : C:\msdchem\1\methods\V7L00049.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 15:13:37 2016
 Response via : Initial Calibration

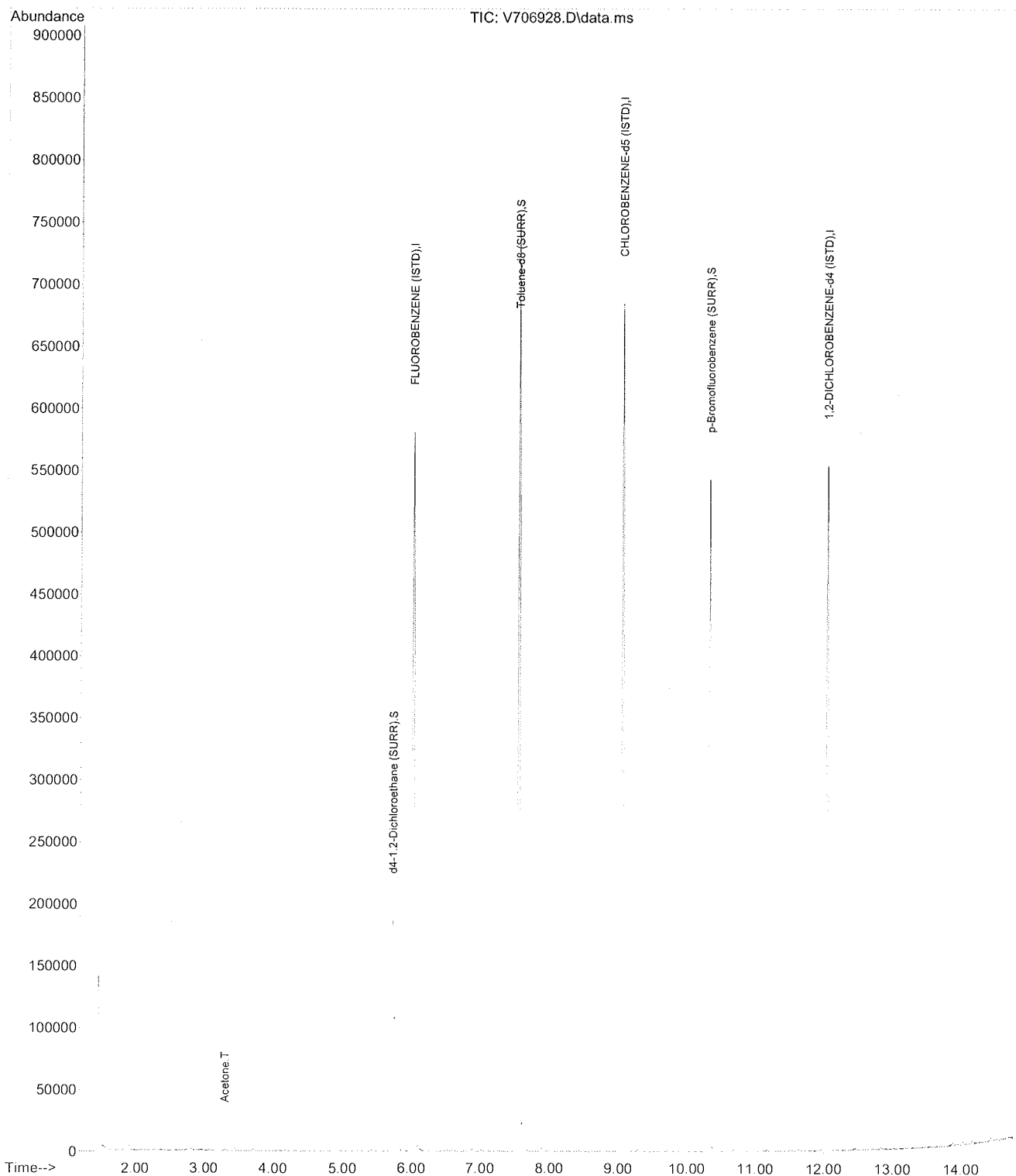
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

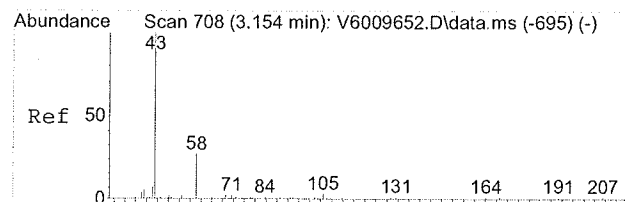
Internal Standards						
1) FLUOROBENZENE (ISTD)	6.009	70	113600	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	9.044	117	474322	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	12.032	152	178245	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.720	65	128797	9.91	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	99.10%	
51) Toluene-d8 (SURR)	7.539	98	587459	9.94	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	99.40%	
70) p-Bromofluorobenzene (...)	10.310	95	215388	10.44	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	104.40%	
Target Compounds						
12) Acetone	3.302	43	1634	0.69	ppb	Qvalue # 91

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

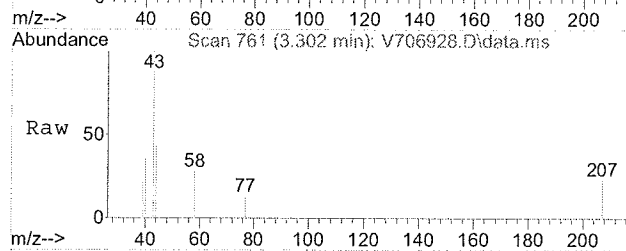
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Data File : V706928.D
Acq On : 11 Mar 2016 11:00 am
InstName : MSVOA7
Operator : SS
Sample : BC60625-BLK1
Misc : QBV7031116A <2 OW
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 11 16:08:10 2016
Quant Method : C:\msdchem\1\methods\V7L00049.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Thu Mar 10 15:13:37 2016
Response via : Initial Calibration



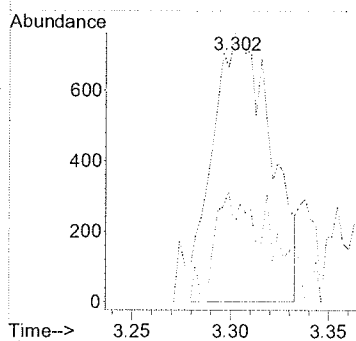
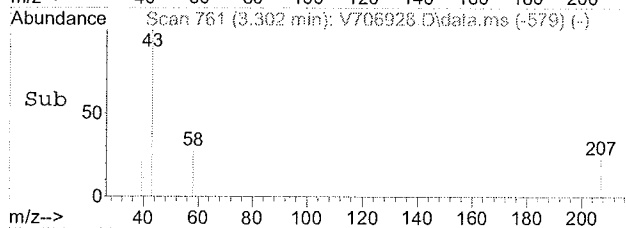


#12
 Acetone
 Concen: 0.69 ppb
 RT: 3.302 min Scan# 761
 Delta R.T. 0.006 min
 Lab File: V706928.D
 Acq: 11 Mar 2016 11:00 am



Tgt Ion: 43 Resp: 1634

Ion	Ratio	Lower	Upper
43	100		
43	100.0	80.0	120.0
58	12.2	16.0	47.9#



FORM I

METHOD BLANK DATA SHEET
EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60676-BLK1 File ID: V5384187.D
 Prepared: 03/12/16 13:23 Preparation: EPA 5035A Initial/Final: 5 g / 5 ml
 Analyzed: 03/12/16 13:23 Instrument: VOA No. 5
 Batch: BC60676 Sequence: Calibration:

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: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60676-BLK1 File ID: V5384187.D
 Prepared: 03/12/16 13:23 Preparation: EPA 5035A Initial/Final: 5 g / 5 ml
 Analyzed: 03/12/16 13:23 Instrument: VOA No. 5
 Batch: BC60676 Sequence: Calibration:

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	Methyleyclohexane	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: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60676-BLK1 File ID: V5384187.D
 Prepared: 03/12/16 13:23 Preparation: EPA 5035A Initial/Final: 5 g / 5 ml
 Analyzed: 03/12/16 13:23 Instrument: VOA No. 5
 Batch: BC60676 Sequence: Calibration:

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	49.2	98.4	77 - 125	
Toluene-d8	50.0	48.8	97.5	85 - 120	
p-Bromofluorobenzene	50.0	48.6	97.2	76 - 130	

Quantitation Report (QT Reviewed)

Data File : G:\MSVOA5 V5\AILYDAT\V5031216\V5384187.D Vial: 4
 Acq On : 12 Mar 2016 1:23 pm Operator: SS
 Sample : BC60676-BLK1 Inst : VOA No. 5
 Misc : QBV5031216A Multiplr: 1.00
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:10 2016 Quant Results File: V5C00149.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 2016
 Response via : Initial Calibration
 DataAcq Meth : V5C0001A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE (ISTD)	5.79	70	116502	50.00	ppb	-0.01
36) CHLOROBENZENE-d5 (ISTD)	8.81	117	512944	50.00	ppb	-0.01
62) 1,2-DICHLOROBENZENE-d4 (IST)	11.79	152	227541	50.00	ppb	-0.01

System Monitoring Compounds

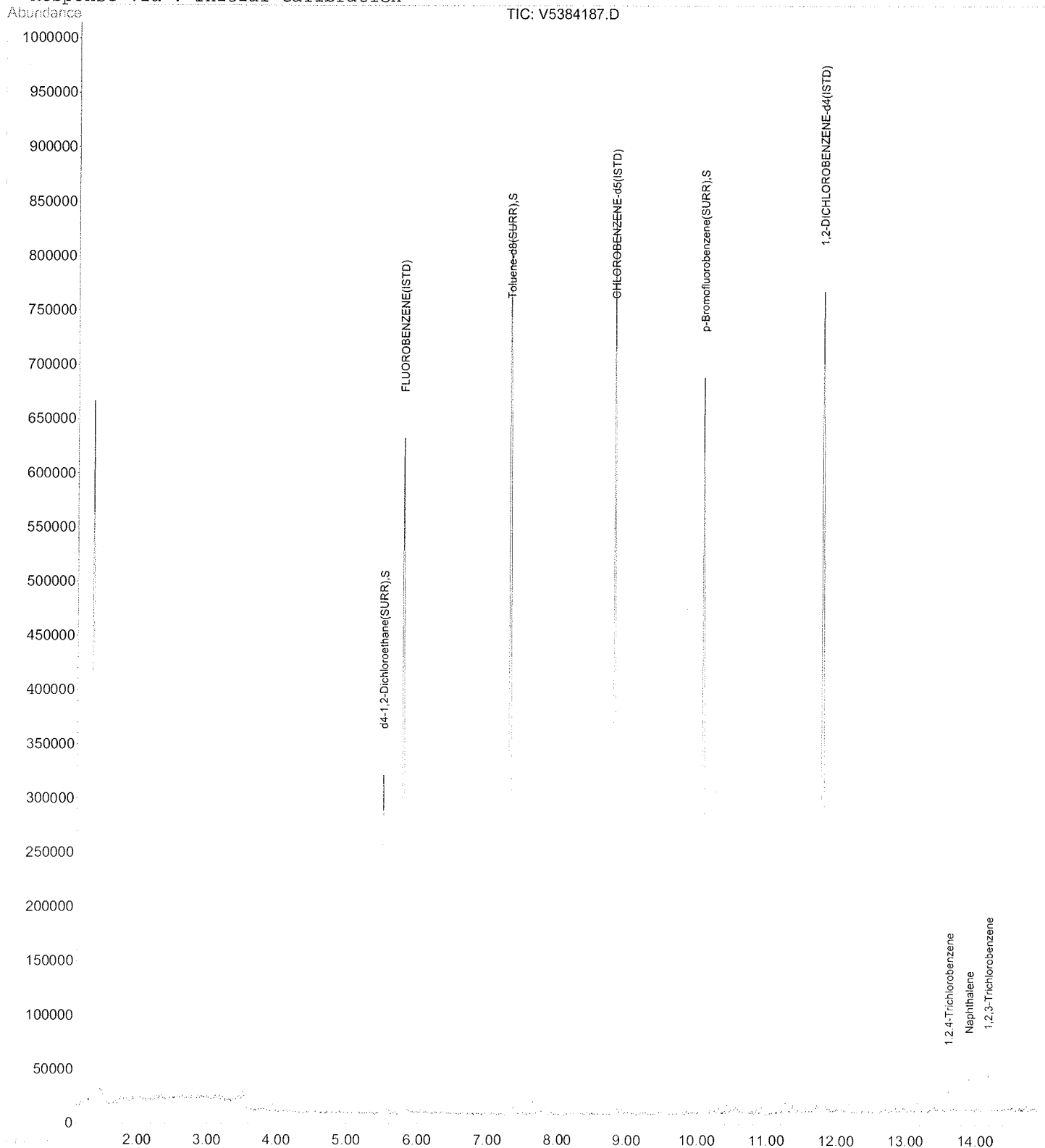
32) d4-1,2-Dichloroethane (SURR)	5.50	65	170669	49.22	ppb	-0.02
Spiked Amount	50.000	Range	64 - 122	Recovery	=	98.44%
47) Toluene-d8 (SURR)	7.31	98	522917	48.75	ppb	-0.02
Spiked Amount	50.000	Range	83 - 114	Recovery	=	97.50%
64) p-Bromofluorobenzene (SURR)	10.07	174	197028	48.58	ppb	-0.02
Spiked Amount	50.000	Range	71 - 126	Recovery	=	97.16%

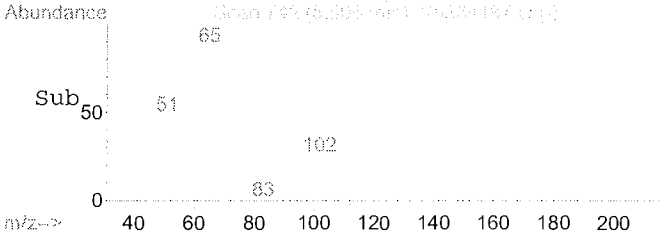
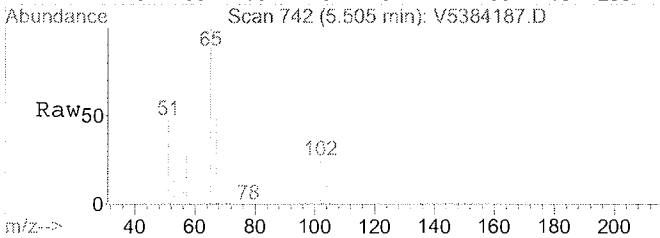
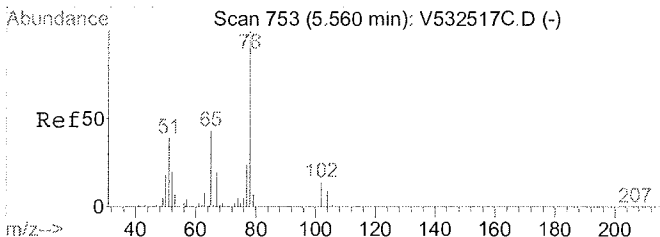
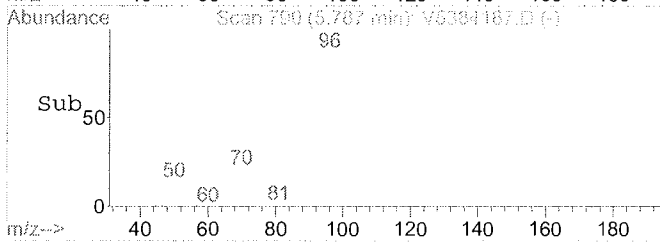
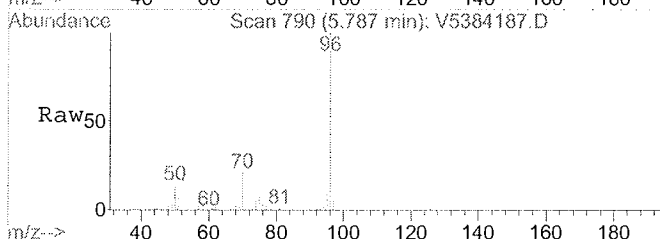
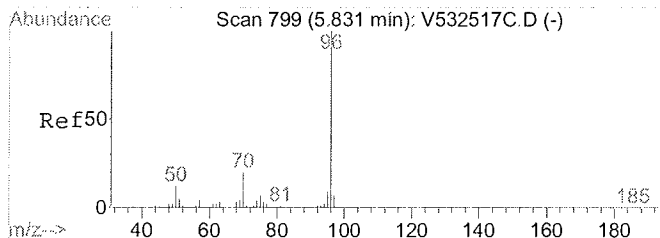
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
86) 1,2,4-Trichlorobenzene	13.62	180	5549	1.15	ppb	97
87) Naphthalene	13.91	128	27923	2.69	ppb	# 100
89) 1,2,3-Trichlorobenzene	14.18	182	10042	2.45	ppb	# 50

Quantitation Report

Data File : G:\MSVOA5 V5\DAI\LYDAT\V5031216\V5384187.D Vial: 4
 Acq On : 12 Mar 2016 1:23 pm Operator: SS
 Sample : BC60676-BLK1 Inst : VOA No. 5
 Misc : QBV5031216A Multiplr: 1.00
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:10 2016 Quant Results File: V5C00149.RES

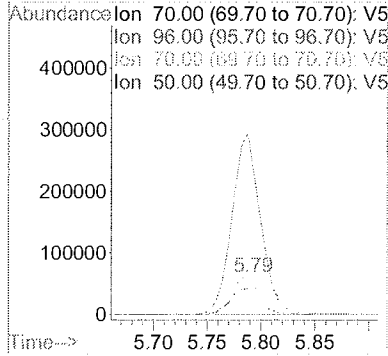
Method : G:\MSVOA METHODS\V5C00148.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Thu Feb 25 10:10:34 2016
 Response via : Initial Calibration





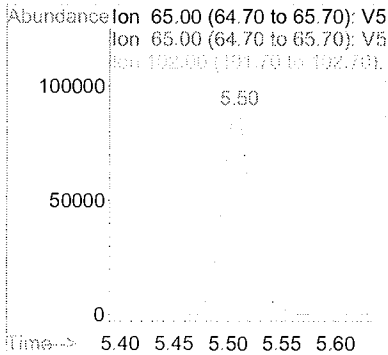
#1
FLUOROBENZENE (ISTD)
Concen: 50.00 ppb
RT: 5.79 min Scan# 790
Delta R.T. -0.01 min
Lab File: V5384187.D
Acq: 12 Mar 2016 1:23 pm

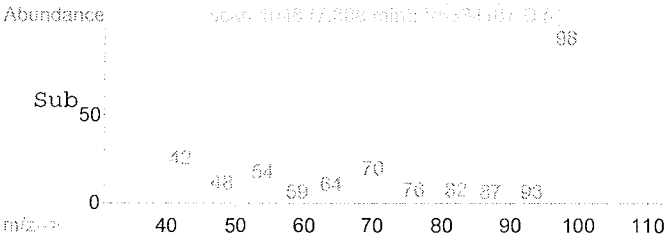
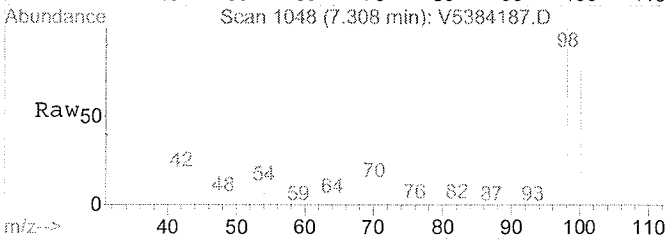
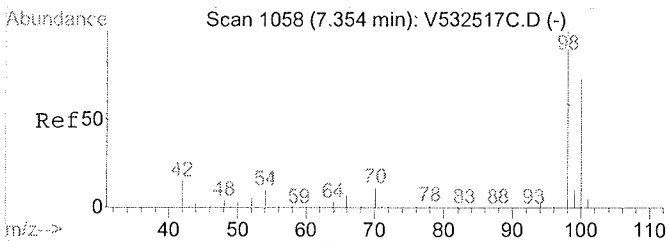
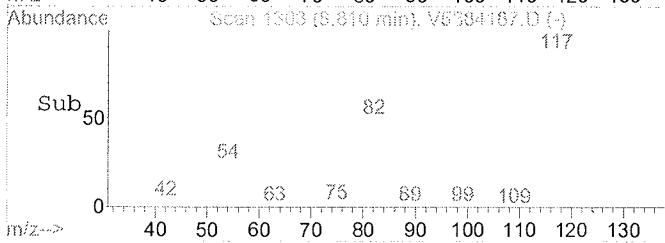
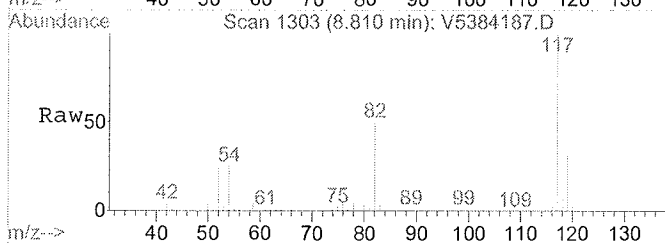
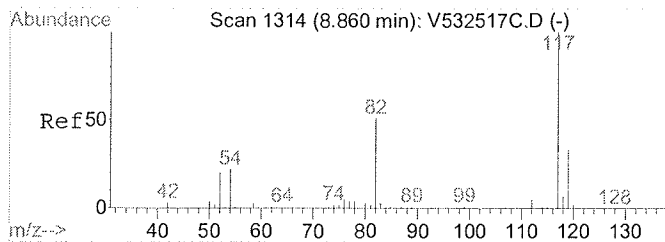
Tgt Ion: 70 Resp: 116502
Ion Ratio Lower Upper
70 100
96 467.2 0.0 0.0#
70 100.0 0.4 0.6#
50 1.3 0.0 0.0#



#32
d4-1,2-Dichloroethane (Surr)
Concen: Below ppb
RT: 5.50 min Scan# 742
Delta R.T. -0.02 min
Lab File: V5384187.D
Acq: 12 Mar 2016 1:23 pm

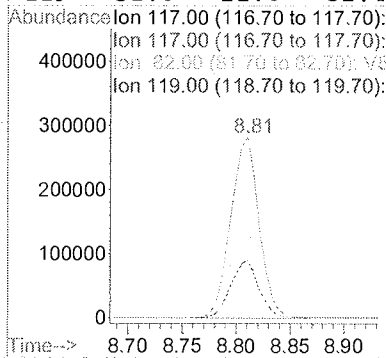
Tgt Ion: 65 Resp: 170669
Ion Ratio Lower Upper
65 100
65 100.0 80.0 120.0
102 24.5 20.4 30.6





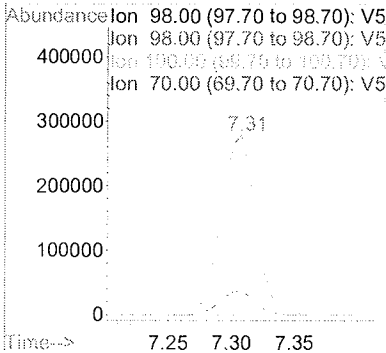
#36
CHLOROBENZENE-d5 (ISTD)
Concen: 50.00 ppb
RT: 8.81 min Scan# 1303
Delta R.T. -0.01 min
Lab File: V5384187.D
Acq: 12 Mar 2016 1:23 pm

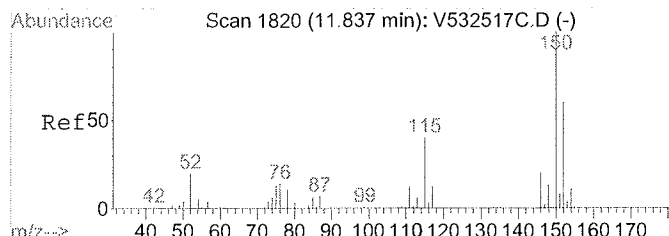
Tgt Ion: 117 Resp: 512944
Ion Ratio Lower Upper
117 100
117 100.0 22.6 33.8#
82 0.0 0.0 0.0
119 31.6 21.6 32.4



#47
Toluene-d8 (SURR)
Concen: Below ppb
RT: 7.31 min Scan# 1048
Delta R.T. -0.02 min
Lab File: V5384187.D
Acq: 12 Mar 2016 1:23 pm

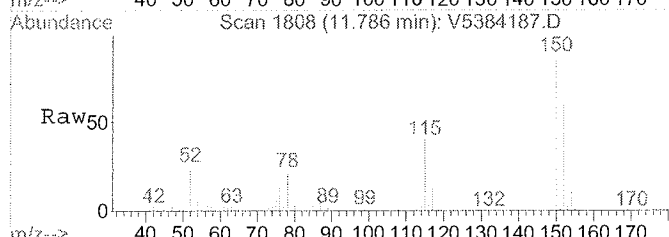
Tgt Ion: 98 Resp: 522917
Ion Ratio Lower Upper
98 100
98 100.0 80.0 120.0
100 76.3 38.0 113.9
70 0.0 0.0 0.0





#62
1,2-DICHLOROBENZENE-d4 (ISTD)
Concen: 50.00 ppb
RT: 11.79 min Scan# 1808
Delta R.T. -0.01 min
Lab File: V5384187.D
Acq: 12 Mar 2016 1:23 pm

Tgt Ion:152 Resp: 227541
Ion Ratio Lower Upper
152 100
152 100.0 80.0 120.0
152 100.0 80.0 120.0
115 64.6 49.3 73.9



Abundance

Ion 152.00 (151.70 to 152.70):

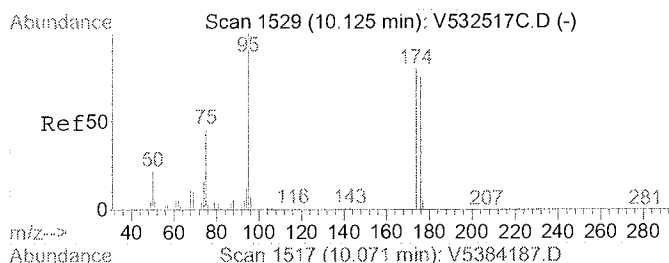
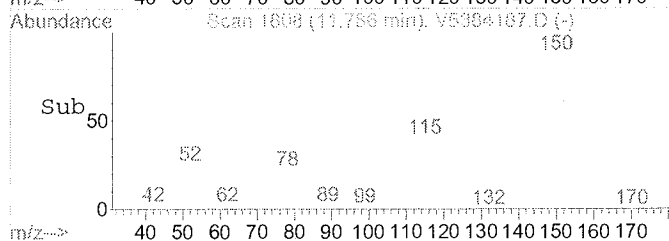
Ion 152.00 (151.70 to 152.70):

Ion 152.00 (151.70 to 152.70):

Ion 115.00 (114.70 to 115.70):

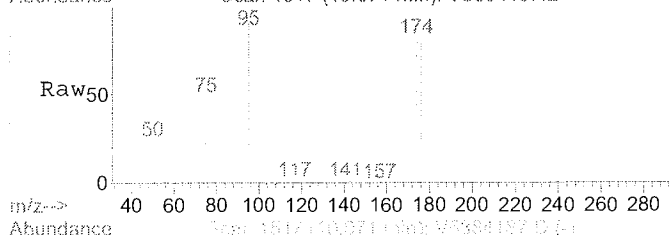
11.79

Time--> 11.70 11.80



#64
p-Bromofluorobenzene (SURR)
Concen: N.D. ppb
RT: 10.07 min Scan# 1517
Delta R.T. -0.02 min
Lab File: V5384187.D
Acq: 12 Mar 2016 1:23 pm

Tgt Ion:174 Resp: 197028
Ion Ratio Lower Upper
174 100
176 96.3 77.8 116.6



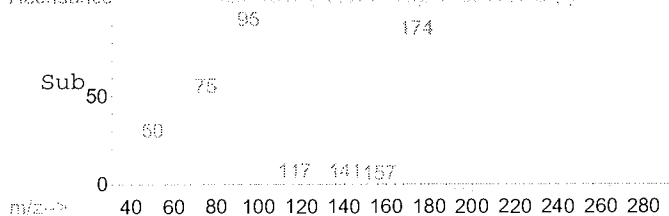
Abundance

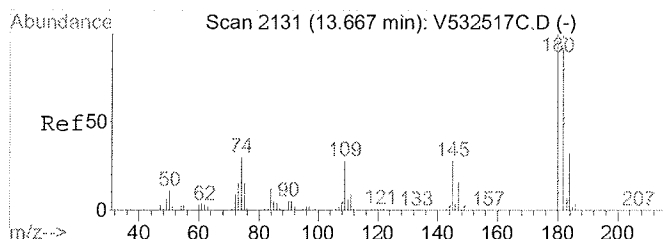
Ion 174.00 (173.70 to 174.70):

Ion 176.00 (175.70 to 176.70):

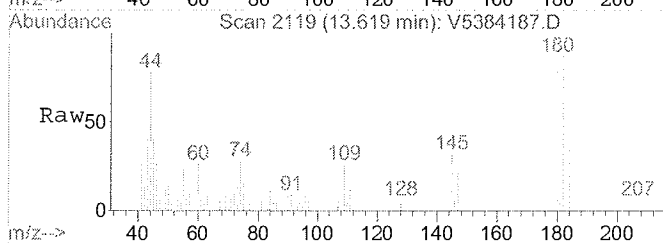
10.07

Time--> 10.00 10.05 10.10 10.15

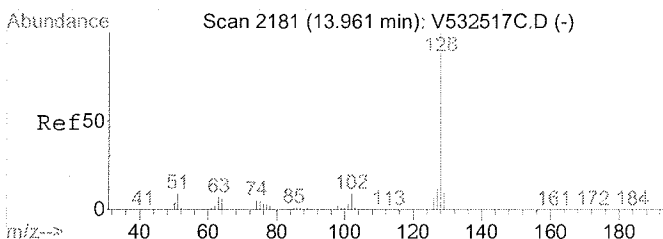
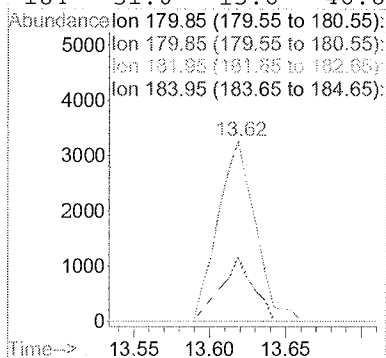
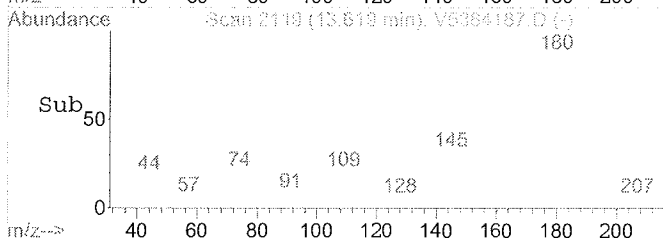




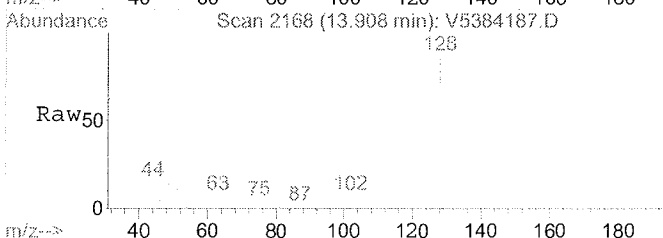
#86
1,2,4-Trichlorobenzene
Concen: 1.15 ppb
RT: 13.62 min Scan# 2119
Delta R.T. -0.01 min
Lab File: V5384187.D
Acq: 12 Mar 2016 1:23 pm



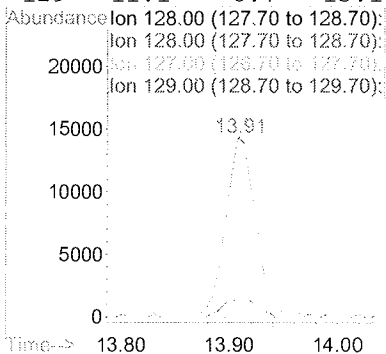
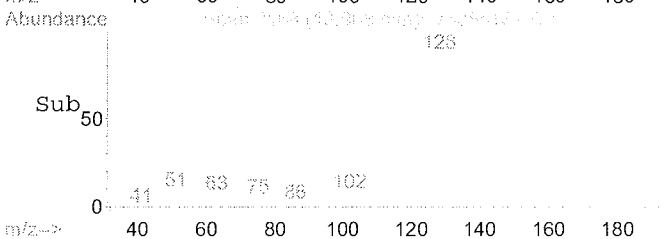
Tgt Ion:180 Resp: 5549
Ion Ratio Lower Upper
180 100
180 100.0 50.0 150.0
182 105.0 49.4 148.0
184 31.0 15.6 46.8

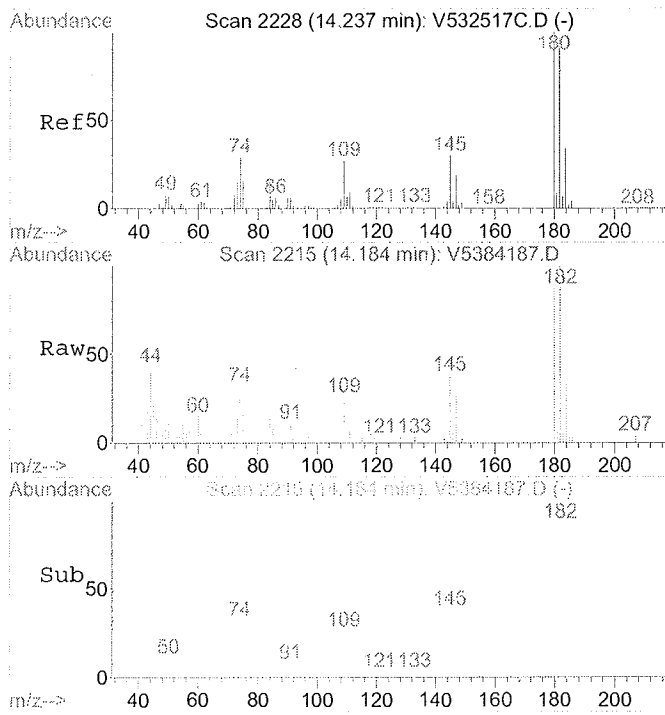


#87
Naphthalene
Concen: 2.69 ppb
RT: 13.91 min Scan# 2168
Delta R.T. -0.02 min
Lab File: V5384187.D
Acq: 12 Mar 2016 1:23 pm



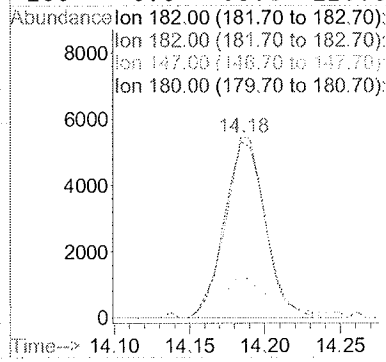
Tgt Ion:128 Resp: 27923
Ion Ratio Lower Upper
128 100
128 100.0 80.0 120.0
127 0.0 0.0 0.0
129 11.1 8.7 13.1





#89
 1,2,3-Trichlorobenzene
 Concen: 2.45 ppb
 RT: 14.18 min Scan# 2215
 Delta R.T. -0.02 min
 Lab File: V5384187.D
 Acq: 12 Mar 2016 1:23 pm

Tgt Ion:182 Resp: 10042
 Ion Ratio Lower Upper
 182 100
 182 100.0 80.0 120.0
 147 0.0 17.3 25.9#
 180 0.0 80.4 120.6#



FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60625Laboratory ID: BC60625-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	107	82 - 126
1,1,1-Trichloroethane	10.0	11	108	78 - 136
1,1,2,2-Tetrachloroethane	10.0	10	104	76 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.0	11	108	54 - 165
1,1,2-Trichloroethane	10.0	10	103	82 - 123
1,1-Dichloroethane	10.0	11	108	82 - 129
1,1-Dichloroethylene	10.0	11	112	68 - 138
1,1-Dichloropropylene	10.0	11	111	83 - 133
1,2,3-Trichlorobenzene	10.0	10	103	76 - 136
1,2,3-Trichloropropane	10.0	10	105	77 - 128
1,2,4-Trichlorobenzene	10.0	10	104	76 - 137
1,2,4-Trimethylbenzene	10.0	11	112	82 - 132
1,2-Dibromo-3-chloropropane	10.0	9.5	95.3	45 - 147
1,2-Dibromoethane	10.0	10	103	83 - 124
1,2-Dichlorobenzene	10.0	11	114	79 - 123
1,2-Dichloroethane	10.0	10	105	73 - 132
1,2-Dichloropropane	10.0	11	105	78 - 126
1,3,5-Trimethylbenzene	10.0	11	113	80 - 131
1,3-Dichlorobenzene	10.0	12	117	86 - 122
1,3-Dichloropropane	10.0	10	103	81 - 125
1,4-Dichlorobenzene	10.0	12	117	85 - 124
1,4-Dioxane	200	200	100	10 - 349
2,2-Dichloropropane	10.0	11	109	56 - 150
2-Butanone	10.0	8.9	89.4	49 - 152
2-Chlorotoluene	10.0	12	117	79 - 130
2-Hexanone	10.0	9.2	92.2	51 - 146
4-Chlorotoluene	10.0	12	120	79 - 128
4-Methyl-2-pentanone	10.0	9.5	95.3	57 - 145
Acetone	10.0	7.5	75.1	14 - 150
Acrolein	10.0	11	111	10 - 153

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60625Laboratory ID: BC60625-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	10	104	51 - 150
Benzene	10.0	11	108	85 - 126
Bromobenzene	10.0	11	106	78 - 129
Bromochloromethane	10.0	11	111	77 - 128
Bromodichloromethane	10.0	10	102	79 - 128
Bromoform	10.0	9.7	97.2	78 - 133
Bromomethane	10.0	11	112	43 - 168
Carbon disulfide	10.0	11	107	68 - 146
Carbon tetrachloride	10.0	11	109	77 - 141
Chlorobenzene	10.0	11	112	88 - 120
Chloroethane	10.0	12	117	65 - 136
Chloroform	10.0	11	106	82 - 128
Chloromethane	10.0	11	113	43 - 155
cis-1,2-Dichloroethylene	10.0	11	108	83 - 129
cis-1,3-Dichloropropylene	10.0	11	106	80 - 131
Cyclohexane	10.0	11	110	63 - 149
Dibromochloromethane	10.0	10	104	80 - 130
Dibromomethane	10.0	10	101	72 - 134
Dichlorodifluoromethane	10.0	13	134	44 - 144
Ethyl Benzene	10.0	11	111	80 - 131
Hexachlorobutadiene	10.0	11	114	67 - 146
Isopropylbenzene	10.0	12	122	76 - 140
Methyl acetate	10.0	10	102	51 - 139
Methyl tert-butyl ether (MTBE)	10.0	10	103	76 - 135
Methyleyclohexane	10.0	11	110	72 - 143
Methylene chloride	10.0	10	103	55 - 137
n-Butylbenzene	10.0	12	115	79 - 132
n-Propylbenzene	10.0	12	121	78 - 133
o-Xylene	10.0	12	117	78 - 130
p- & m- Xylenes	20.0	23	115	77 - 133

FORM III
LCS / LCS DUPLICATE RECOVERY
EPA 8260C

 Laboratory: York Analytical Laboratories, Inc.

 SDG: 16C0235

 Client: Langan Engineering & Environmental Services (NJ)

 Project: 100433202

 Matrix: Water

 Batch: BC60625

 Laboratory ID: BC60625-BS1

 Preparation: EPA 5030B

 Initial/Final: 25 mL / 25 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
p-Isopropyltoluene	10.0	11	115	81 - 136
sec-Butylbenzene	10.0	12	124	79 - 137
Styrene	10.0	10	105	67 - 132
tert-Butyl alcohol (TBA)	10.0	9.4	93.7	25 - 162
tert-Butylbenzene	10.0	12	120	77 - 138
Tetrachloroethylene	10.0	11	106	82 - 131
Toluene	10.0	10	104	80 - 127
trans-1,2-Dichloroethylene	10.0	11	112	80 - 132
trans-1,3-Dichloropropylene	10.0	10	105	78 - 131
Trichloroethylene	10.0	11	110	82 - 128
Trichlorofluoromethane	10.0	12	119	67 - 139
Vinyl acetate	10.0	11	106 *	21 - 90
Vinyl Chloride	10.0	12	121	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: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60625Laboratory ID: BC60625-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	11	108	0.651	30	82 - 126
1,1,1-Trichloroethane	10.0	10	100	7.76	30	78 - 136
1,1,2,2-Tetrachloroethane	10.0	11	105	1.82	30	76 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.7	97.2	10.2	30	54 - 165
1,1,2-Trichloroethane	10.0	11	107	3.52	30	82 - 123
1,1-Dichloroethane	10.0	10	104	3.79	30	82 - 129
1,1-Dichloroethylene	10.0	10	103	8.10	30	68 - 138
1,1-Dichloropropylene	10.0	10	102	8.26	30	83 - 133
1,2,3-Trichlorobenzene	10.0	11	108	4.76	30	76 - 136
1,2,3-Trichloropropane	10.0	11	108	3.19	30	77 - 128
1,2,4-Trichlorobenzene	10.0	11	106	1.90	30	76 - 137
1,2,4-Trimethylbenzene	10.0	11	107	4.47	30	82 - 132
1,2-Dibromo-3-chloropropane	10.0	9.9	99.3	4.11	30	45 - 147
1,2-Dibromoethane	10.0	10	105	1.93	30	83 - 124
1,2-Dichlorobenzene	10.0	11	112	2.03	30	79 - 123
1,2-Dichloroethane	10.0	11	107	1.89	30	73 - 132
1,2-Dichloropropane	10.0	11	105	0.285	30	78 - 126
1,3,5-Trimethylbenzene	10.0	11	108	4.98	30	80 - 131
1,3-Dichlorobenzene	10.0	11	114	2.59	30	86 - 122
1,3-Dichloropropane	10.0	11	106	2.86	30	81 - 125
1,4-Dichlorobenzene	10.0	11	113	3.14	30	85 - 124
1,4-Dioxane	200	180	92.1	8.51	30	10 - 349
2,2-Dichloropropane	10.0	10	102	7.10	30	56 - 150
2-Butanone	10.0	9.6	96.5	7.64	30	49 - 152
2-Chlorotoluene	10.0	11	112	4.27	30	79 - 130
2-Hexanone	10.0	9.9	99.2	7.31	30	51 - 146
4-Chlorotoluene	10.0	11	114	4.27	30	79 - 128
4-Methyl-2-pentanone	10.0	10	101	5.71	30	57 - 145
Acetone	10.0	7.9	78.6	4.55	30	14 - 150
Acrolein	10.0	11	111	0.180	30	10 - 153

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60625Laboratory ID: BC60625-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	10	104	0.289	30	51 - 150
Benzene	10.0	10	104	3.76	30	85 - 126
Bromobenzene	10.0	10	105	1.33	30	78 - 129
Bromochloromethane	10.0	11	107	3.12	30	77 - 128
Bromodichloromethane	10.0	10	102	0.588	30	79 - 128
Bromoform	10.0	10	102	5.31	30	78 - 133
Bromomethane	10.0	10	103	7.99	30	43 - 168
Carbon disulfide	10.0	10	100	6.76	30	68 - 146
Carbon tetrachloride	10.0	10	101	7.55	30	77 - 141
Chlorobenzene	10.0	11	110	1.80	30	88 - 120
Chloroethane	10.0	11	108	7.64	30	65 - 136
Chloroform	10.0	10	103	2.49	30	82 - 128
Chloromethane	10.0	11	111	1.43	30	43 - 155
cis-1,2-Dichloroethylene	10.0	11	106	2.15	30	83 - 129
cis-1,3-Dichloropropylene	10.0	11	107	0.468	30	80 - 131
Cyclohexane	10.0	10	99.7	9.46	30	63 - 149
Dibromochloromethane	10.0	11	106	2.38	30	80 - 130
Dibromomethane	10.0	10	104	2.63	30	72 - 134
Dichlorodifluoromethane	10.0	12	120	11.2	30	44 - 144
Ethyl Benzene	10.0	11	108	3.56	30	80 - 131
Hexachlorobutadiene	10.0	11	110	3.38	30	67 - 146
Isopropylbenzene	10.0	11	114	6.45	30	76 - 140
Methyl acetate	10.0	11	106	3.46	30	51 - 139
Methyl tert-butyl ether (MTBE)	10.0	11	106	2.11	30	76 - 135
Methyleyclohexane	10.0	10	104	5.82	30	72 - 143
Methylene chloride	10.0	10	102	0.879	30	55 - 137
n-Butylbenzene	10.0	11	109	5.61	30	79 - 132
n-Propylbenzene	10.0	11	114	5.69	30	78 - 133
o-Xylene	10.0	11	115	2.07	30	78 - 130
p- & m- Xylenes	20.0	22	112	2.72	30	77 - 133

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60625Laboratory ID: BC60625-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	108	6.56	30	81 - 136
sec-Butylbenzene	10.0	12	116	6.50	30	79 - 137
Styrene	10.0	10	105	0.0954	30	67 - 132
tert-Butyl alcohol (TBA)	10.0	8.9	89.2	4.92	30	25 - 162
tert-Butylbenzene	10.0	11	114	5.29	30	77 - 138
Tetrachloroethylene	10.0	10	101	4.82	30	82 - 131
Toluene	10.0	10	101	2.54	30	80 - 127
trans-1,2-Dichloroethylene	10.0	10	104	7.04	30	80 - 132
trans-1,3-Dichloropropylene	10.0	11	106	1.52	30	78 - 131
Trichloroethylene	10.0	10	105	4.47	30	82 - 128
Trichlorofluoromethane	10.0	11	106	11.4	30	67 - 139
Vinyl acetate	10.0	11	106 *	0.00	30	21 - 90
Vinyl Chloride	10.0	11	112	7.45	30	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: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60676Laboratory ID: BC60676-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	47	94.9	75 - 129
1,1,1-Trichloroethane	50.0	49	97.3	71 - 137
1,1,2,2-Tetrachloroethane	50.0	45	89.3	79 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	50.0	49	98.8	58 - 146
1,1,2-Trichloroethane	50.0	47	93.6	83 - 123
1,1-Dichloroethane	50.0	50	101	75 - 130
1,1-Dichloroethylene	50.0	46	92.0	64 - 137
1,1-Dichloropropylene	50.0	49	98.0	77 - 127
1,2,3-Trichlorobenzene	50.0	47	93.4	81 - 140
1,2,3-Trichloropropane	50.0	44	89.0	81 - 126
1,2,4-Trichlorobenzene	50.0	47	94.9	80 - 141
1,2,4-Trimethylbenzene	50.0	45	89.9	84 - 125
1,2-Dibromo-3-chloropropane	50.0	49	98.1	74 - 142
1,2-Dibromoethane	50.0	49	98.9	86 - 123
1,2-Dichlorobenzene	50.0	49	97.1	85 - 122
1,2-Dichloroethane	50.0	51	101	71 - 133
1,2-Dichloropropane	50.0	46	91.8	81 - 122
1,3,5-Trimethylbenzene	50.0	44	87.3	82 - 126
1,3-Dichlorobenzene	50.0	47	94.7	84 - 124
1,3-Dichloropropane	50.0	48	95.8	83 - 123
1,4-Dichlorobenzene	50.0	47	93.2	84 - 124
1,4-Dioxane	1000	1200	116	10 - 228
2,2-Dichloropropane	50.0	48	95.4	67 - 136
2-Butanone	50.0	47	93.1	58 - 147
2-Chlorotoluene	50.0	47	93.0	78 - 127
2-Hexanone	50.0	48	96.8	70 - 139
4-Chlorotoluene	50.0	47	93.6	79 - 125
4-Methyl-2-pentanone	50.0	48	96.2	72 - 132
Acetone	50.0	50	100	36 - 155
Acrolein	50.0	32	64.1	10 - 238

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60676Laboratory ID: BC60676-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	49	97.3	66 - 141
Benzene	50.0	49	98.0	77 - 127
Bromobenzene	50.0	45	90.6	77 - 129
Bromochloromethane	50.0	46	91.0	74 - 129
Bromodichloromethane	50.0	47	93.6	81 - 124
Bromoform	50.0	45	89.2	80 - 136
Bromomethane	50.0	53	107	32 - 177
Carbon disulfide	50.0	47	94.5	10 - 136
Carbon tetrachloride	50.0	48	95.9	66 - 143
Chlorobenzene	50.0	46	91.5	86 - 120
Chloroethane	50.0	52	104	51 - 142
Chloroform	50.0	49	97.6	76 - 131
Chloromethane	50.0	53	106	49 - 132
cis-1,2-Dichloroethylene	50.0	47	94.4	74 - 132
cis-1,3-Dichloropropylene	50.0	46	91.9	81 - 129
Cyclohexane	50.0	51	102	70 - 130
Dibromochloromethane	50.0	49	97.1	10 - 200
Dibromomethane	50.0	47	94.3	83 - 124
Dichlorodifluoromethane	50.0	46	91.2	28 - 158
Ethyl Benzene	50.0	46	92.8	84 - 125
Hexachlorobutadiene	50.0	46	92.9	83 - 133
Isopropylbenzene	50.0	45	89.4	81 - 127
Methyl acetate	50.0	55	110	41 - 143
Methyl tert-butyl ether (MTBE)	50.0	51	102	74 - 131
Methyleyclohexane	50.0	47	93.5	70 - 130
Methylene chloride	50.0	48	95.6	57 - 141
n-Butylbenzene	50.0	46	91.5	80 - 130
n-Propylbenzene	50.0	45	89.4	74 - 136
o-Xylene	50.0	48	95.7	83 - 123
p- & m- Xylenes	100	91	91.3	82 - 128

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60676Laboratory ID: BC60676-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	45	90.6	85 - 125
sec-Butylbenzene	50.0	45	89.4	83 - 125
Styrene	50.0	48	95.0	86 - 126
tert-Butyl alcohol (TBA)	50.0	57	115	70 - 130
tert-Butylbenzene	50.0	46	91.2	80 - 127
Tetrachloroethylene	50.0	44	88.6	80 - 129
Toluene	50.0	45	91.0	85 - 121
trans-1,2-Dichloroethylene	50.0	49	98.4	72 - 132
trans-1,3-Dichloropropylene	50.0	44	87.6	78 - 132
Trichloroethylene	50.0	46	92.2	84 - 123
Trichlorofluoromethane	50.0	51	102	62 - 140
Vinyl acetate	50.0	56	111	67 - 136
Vinyl Chloride	50.0	53	107	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: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60676Laboratory ID: BC60676-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	49	98.8	3.96	30	75 - 129
1,1,1-Trichloroethane	50.0	48	96.7	0.619	30	71 - 137
1,1,2,2-Tetrachloroethane	50.0	47	94.1	5.23	30	79 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	49	97.1	1.74	30	58 - 146
1,1,2-Trichloroethane	50.0	48	95.8	2.26	30	83 - 123
1,1-Dichloroethane	50.0	49	98.0	2.86	30	75 - 130
1,1-Dichloroethylene	50.0	47	94.2	2.39	30	64 - 137
1,1-Dichloropropylene	50.0	50	99.8	1.82	30	77 - 127
1,2,3-Trichlorobenzene	50.0	49	97.3	4.15	30	81 - 140
1,2,3-Trichloropropane	50.0	47	93.5	4.91	30	81 - 126
1,2,4-Trichlorobenzene	50.0	50	99.3	4.51	30	80 - 141
1,2,4-Trimethylbenzene	50.0	48	95.0	5.49	30	84 - 125
1,2-Dibromo-3-chloropropane	50.0	49	99.0	0.914	30	74 - 142
1,2-Dibromoethane	50.0	49	98.7	0.142	30	86 - 123
1,2-Dichlorobenzene	50.0	50	99.7	2.62	30	85 - 122
1,2-Dichloroethane	50.0	49	98.1	3.17	30	71 - 133
1,2-Dichloropropane	50.0	48	95.6	4.05	30	81 - 122
1,3,5-Trimethylbenzene	50.0	49	97.7	11.3	30	82 - 126
1,3-Dichlorobenzene	50.0	50	101	6.18	30	84 - 124
1,3-Dichloropropane	50.0	49	98.7	3.00	30	83 - 123
1,4-Dichlorobenzene	50.0	50	101	7.97	30	84 - 124
1,4-Dioxane	1000	1000	100	14.5	30	10 - 228
2,2-Dichloropropane	50.0	48	95.2	0.168	30	67 - 136
2-Butanone	50.0	44	87.5	6.11	30	58 - 147
2-Chlorotoluene	50.0	50	100	7.37	30	78 - 127
2-Hexanone	50.0	48	95.0	1.90	30	70 - 139
4-Chlorotoluene	50.0	51	101	7.68	30	79 - 125
4-Methyl-2-pentanone	50.0	47	94.0	2.29	30	72 - 132
Acetone	50.0	44	87.0	13.9	30	36 - 155
Acrolein	50.0	34	67.3	4.81	30	10 - 238

FORM III
LCS / LCS DUPLICATE RECOVERY
EPA 8260C

 Laboratory: York Analytical Laboratories, Inc.

 SDG: 16C0235

 Client: Langan Engineering & Environmental Services (NJ)

 Project: 100433202

 Matrix: Soil

 Batch: BC60676

 Laboratory ID: BC60676-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	49	98.8	1.59	30	66 - 141
Benzene	50.0	47	93.2	4.98	30	77 - 127
Bromobenzene	50.0	47	95.0	4.68	30	77 - 129
Bromochloromethane	50.0	53	106	15.1	30	74 - 129
Bromodichloromethane	50.0	47	94.2	0.639	30	81 - 124
Bromoform	50.0	47	93.8	4.98	30	80 - 136
Bromomethane	50.0	53	107	0.0562	30	32 - 177
Carbon disulfide	50.0	47	94.1	0.466	30	10 - 136
Carbon tetrachloride	50.0	48	96.5	0.582	30	66 - 143
Chlorobenzene	50.0	50	99.9	8.74	30	86 - 120
Chloroethane	50.0	53	107	2.49	30	51 - 142
Chloroform	50.0	48	95.2	2.55	30	76 - 131
Chloromethane	50.0	53	105	0.247	30	49 - 132
cis-1,2-Dichloroethylene	50.0	48	96.9	2.59	30	74 - 132
cis-1,3-Dichloropropylene	50.0	47	93.1	1.32	30	81 - 129
Cyclohexane	50.0	50	101	0.928	30	70 - 130
Dibromochloromethane	50.0	49	97.7	0.534	30	10 - 200
Dibromomethane	50.0	46	92.2	2.21	30	83 - 124
Dichlorodifluoromethane	50.0	47	93.6	2.62	30	28 - 158
Ethyl Benzene	50.0	49	98.8	6.24	30	84 - 125
Hexachlorobutadiene	50.0	50	101	8.18	30	83 - 133
Isopropylbenzene	50.0	49	97.8	8.95	30	81 - 127
Methyl acetate	50.0	45	89.0	21.4	30	41 - 143
Methyl tert-butyl ether (MTBE)	50.0	49	97.5	4.96	30	74 - 131
Methyleyclohexane	50.0	51	101	8.04	30	70 - 130
Methylene chloride	50.0	46	92.0	3.84	30	57 - 141
n-Butylbenzene	50.0	49	97.8	6.70	30	80 - 130
n-Propylbenzene	50.0	49	98.1	9.28	30	74 - 136
o-Xylene	50.0	49	98.5	2.88	30	83 - 123
p- & m- Xylenes	100	98	97.5	6.55	30	82 - 128

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60676Laboratory ID: BC60676-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	48	96.3	6.08	30	85 - 125
sec-Butylbenzene	50.0	49	97.1	8.26	30	83 - 125
Styrene	50.0	48	96.1	1.17	30	86 - 126
tert-Butyl alcohol (TBA)	50.0	53	107	7.37	30	70 - 130
tert-Butylbenzene	50.0	49	97.2	6.37	30	80 - 127
Tetrachloroethylene	50.0	47	93.3	5.21	30	80 - 129
Toluene	50.0	47	94.2	3.50	30	85 - 121
trans-1,2-Dichloroethylene	50.0	49	98.6	0.203	30	72 - 132
trans-1,3-Dichloropropylene	50.0	46	91.2	3.98	30	78 - 132
Trichloroethylene	50.0	48	96.5	4.49	30	84 - 123
Trichlorofluoromethane	50.0	51	102	0.255	30	62 - 140
Vinyl acetate	50.0	53	107	4.00	30	67 - 136
Vinyl Chloride	50.0	54	107	0.655	30	52 - 130

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

* Values outside of QC limits

Data Path : C:\msdchem\1\data\V7031116\
 Data File : V706925.D
 Acq On : 11 Mar 2016 9:43 am
 InstName : MSVOA7
 Operator : SS
 Sample : BC60625-BS1
 Misc : QBV7031116A <2 OW Y16A039
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 11 16:05:39 2016
 Quant Method : C:\msdchem\1\methods\V7L00049.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 15:13:37 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) FLUOROBENZENE (ISTD)	6.009	70	114038	10.00	ppb	0.00
40) CHLOROENZENE-d5 (ISTD)	9.044	117	480852	10.00	ppb	0.00
67) 1,2-DICHLOROENZENE-d4...	12.032	152	191123	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.714	65	127788	9.79	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.90%		
51) Toluene-d8 (SURR)	7.539	98	604556	10.09	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.90%		
70) p-Bromofluorobenzene (...)	10.310	95	223123	10.08	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.80%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.635	85	133718	13.39	ppb	# 86
3) Chloromethane	1.841	50	132257	11.30	ppb	100
4) Vinyl Chloride	1.955	62	160468	12.11	ppb	100
5) Bromomethane	2.320	94	67913	11.20	ppb	99
6) Chloroethane	2.425	64	99395	11.69	ppb	99
7) Trichlorofluoromethane	2.679	101	210102	11.89	ppb	100
8) Ethanol	2.926	45	12877	370.00	ppb	100
9) Freon-113	3.190	101	126873	10.77	ppb	100
10) 1,1-Dichloroethylene	3.215	61	198163	11.18	ppb	96
11) Acrolein	3.149	56	7208	11.10	ppb	100
12) Acetone	3.305	43	17801	7.51	ppb	99
13) Iodomethane	3.388	142	126101	12.69	ppb	100
14) Methyl Acetate	3.608	43	48564	10.21	ppb	100
15) Carbon disulfide	3.444	76	401059	10.71	ppb	100
16) tert-Butyl Alcohol (TBA)	3.825	59	6857m	9.37	ppb	
17) Methylene Chloride	3.719	49	166119	10.28	ppb	98
18) Acrylonitrile	3.981	53	24938	10.39	ppb	95
19) trans-1,2-Dichloroethy...	3.967	61	200467	11.18	ppb	# 90
20) tert-Butyl Methyl Ethe...	3.944	73	315209	10.33	ppb	# 94
21) 1,1-Dichloroethane	4.381	63	255608	10.76	ppb	100
22) Vinyl Acetate	4.398	43	372931	10.59	ppb	100
23) Diisopropyl ether (DIPE)	4.387	45	447668	11.10	ppb	# 97
24) Ethyl-tert-Butyl ether...	4.729	59	411811	10.84	ppb	# 80
25) cis-1,2-Dichloroethylene	4.935	61	225625	10.81	ppb	# 85
26) 2-Butanone	4.952	72	8564	8.94	ppb	97
27) 2,2-Dichloropropane	4.918	77	220475	10.94	ppb	# 100
28) Tetrahydrofuran	5.210	71	7783	9.86	ppb	73
29) Bromochloromethane	5.174	49	98990	11.08	ppb	# 78
30) Chloroform	5.235	83	249169	10.59	ppb	# 100
31) 1,1,1-Trichloroethane	5.388	97	223994	10.84	ppb	99
32) Cyclohexane	5.422	56	228916	10.96	ppb	100
33) 1,1-Dichloropropylene	5.541	75	198919	11.10	ppb	97
35) Carbon Tetrachloride	5.539	117	194790	10.86	ppb	100
36) tert-Amyl alcohol (TAA)	5.745	59	55625	90.17	ppb	96
37) 1,2-Dichloroethane	5.792	62	151463	10.50	ppb	100
38) Benzene	5.750	78	595779	10.83	ppb	# 93
39) tert-Amyl methyl ether...	5.811	73	353697	10.24	ppb	# 100
41) Trichloroethylene	6.354	95	154750	10.97	ppb	99
42) Methyl Cyclohexane	6.507	83	235165	10.97	ppb	89
43) Methyl Methacrylate	6.663	69	58903	9.92	ppb	# 82
44) Dibromomethane	6.729	93	66023	10.13	ppb	# 62
45) Bromodichloromethane	6.863	83	178352	10.18	ppb	99
46) 1,2-Dichloropropane	6.593	63	142018	10.51	ppb	100
47) 1,4-Dioxane	6.741	88	11604m	200.63	ppb	
49) cis-1,3-Dichloropropene	7.289	75	217332	10.65	ppb	97
50) 4-Methyl-2-Pentanone	7.422	43	118119	9.53	ppb	97
52) Toluene	7.606	91	650501	10.38	ppb	99
53) trans-1,3-Dichloropropene	7.848	75	177780	10.48	ppb	# 100

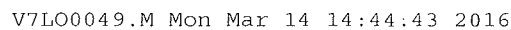
Data Path : C:\msdchem\1\data\V7031116\
 Data File : V706925.D
 Acq On : 11 Mar 2016 9:43 am
 InstName : MSVOA7
 Operator : SS
 Sample : BC60625-BS1
 Misc : QBV7031116A <2 OW Y16A039
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 11 16:05:39 2016
 Quant Method : C:\msdchem\1\methods\V7LO0049.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 15:13:37 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
54) 1,1,2-Trichloroethane	8.048	97	95260	10.32	ppb	99
55) 1,3-Dichloropropane	8.218	76	164683	10.33	ppb	# 98
56) Tetrachloroethylene	8.157	166	167851	10.63	ppb	# 100
57) 2-Hexanone	8.265	43	42706	9.22	ppb	74
58) Dibromochloromethane	8.466	129	116752	10.39	ppb	99
59) 1,2-Dibromoethane	8.591	107	88779	10.26	ppb	100
60) Chlorobenzene	9.075	112	407272	11.23	ppb	98
61) 1,1,1,2-tetrachloroethane	9.161	131	143743	10.71	ppb	100
62) Ethyl Benzene	9.161	91	698760	11.14	ppb	98
63) p- & m-Xylenes	9.281	91	1074294	23.09	ppb	97
64) o-Xylene	9.718	91	537437	11.73	ppb	100
65) Styrene	9.740	104	410885	10.48	ppb	# 100
66) Bromoform	9.990	173	59269	9.72	ppb	# 100
68) p-Ethyltoluene	10.747	105	524179	11.32	ppb	# 100
69) Isopropylbenzene	10.104	105	649550	12.17	ppb	98
71) 1,1,2,2-Tetrachloroethane	10.485	83	93383	10.35	ppb	# 99
72) Bromobenzene	10.485	77	229357	10.63	ppb	99
73) trans-1,4-Dichloro-2-b...	10.541	75	96254	10.02	ppb	94
74) 1,2,3-Trichloropropane	10.538	110	27409	10.50	ppb	84
75) n-Propylbenzene	10.558	91	765098	12.10	ppb	98
76) 2-Chlorotoluene	10.680	91	514507	11.71	ppb	100
77) 4-Chlorotoluene	10.800	91	476522	11.95	ppb	100
78) 1,3,5-Trimethylbenzene	10.747	105	524179	11.32	ppb	99
79) tert-Butylbenzene	11.114	119	434277	12.02	ppb	100
80) 1,2,4-Trimethylbenzene	11.173	105	530383	11.21	ppb	99
81) sec-Butylbenzene	11.359	105	624549	12.39	ppb	98
82) 1,3-Dichlorobenzene	11.523	146	303544	11.73	ppb	99
83) p-Isopropyltoluene	11.512	119	552983	11.49	ppb	98
84) 1,4-Dichlorobenzene	11.623	146	303257	11.66	ppb	99
85) 1,2,3-Trimethylbenzene	11.515	105	19712	0.42	ppb	93
86) p-Diethylbenzene	11.954	105	305992	12.08	ppb	97
87) 1,2-Dichlorobenzene	12.055	146	257714	11.44	ppb	# 68
88) n-Butylbenzene	11.980	91	581309	11.54	ppb	99
89) 1,2-Dibromo-3-chloropr...	12.959	75	12092	9.53	ppb	97
90) 1,2,4,5-Tetramethylben...	12.842	119	473350	11.36	ppb	99
91) 1,2,4-Trichlorobenzene	13.874	180	139451	10.44	ppb	99
92) Hexachloro-1,3-Butadiene	14.036	225	77569	11.43	ppb	99
93) Naphthalene	14.166	128	195939	9.98	ppb	100
94) 1,2,3-Trichlorobenzene	14.445	180	94897	10.26	ppb	100

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

Quant Time: Mar 11 16:05:39 2016
Quant Method : C:\msdchem\1\methods\V7L00049.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Thu Mar 10 15:13:37 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\V7031116\
 Data File : V706926.D
 Acq On : 11 Mar 2016 10:09 am
 InstName : MSVOA7
 Operator : SS
 Sample : BC60625-BSD1
 Misc : QBV7031116A <2 OW Y16A039
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 11 16:06:52 2016
 Quant Method : C:\msdchem\1\methods\V7L00049.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 15:13:37 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) FLUOROBENZENE (ISTD)	6.009	70	118116	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	9.044	117	493234	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	12.033	152	201429	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.717	65	132149	9.78	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.80%		
51) Toluene-d8 (SURR)	7.539	98	615378	10.02	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.20%		
70) p-Bromofluorobenzene (...)	10.310	95	232509	9.97	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.70%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.633	85	123804	11.97	ppb	100
3) Chloromethane	1.844	50	135084	11.14	ppb	98
4) Vinyl Chloride	1.955	62	154359	11.24	ppb	100
5) Bromomethane	2.317	94	64980	10.34	ppb	98
6) Chloroethane	2.425	64	95372	10.83	ppb	100
7) Trichlorofluoromethane	2.676	101	194186	10.61	ppb	99
8) Ethanol	2.921	45	14992	415.89	ppb	100
9) Freon-113	3.193	101	118630	9.72	ppb	# 68
10) 1,1-Dichloroethylene	3.213	61	189417	10.31	ppb	95
11) Acrolein	3.138	56	7482	11.12	ppb	97
12) Acetone	3.299	43	19297	7.86	ppb	100
13) Iodomethane	3.388	142	126604	12.30	ppb	99
14) Methyl Acetate	3.605	43	52059	10.57	ppb	100
15) Carbon disulfide	3.447	76	388307	10.01	ppb	100
16) tert-Butyl Alcohol (TBA)	3.964	59	6758	8.92	ppb	93
17) Methylene Chloride	3.719	49	170407	10.19	ppb	99
18) Acrylonitrile	3.981	53	25756	10.36	ppb	98
19) trans-1,2-Dichloroethy...	3.967	61	193481	10.42	ppb	# 69
20) tert-Butyl Methyl Ethe...	3.942	73	333461	10.55	ppb	100
21) 1,1-Dichloroethane	4.381	63	255018	10.36	ppb	# 87
22) Vinyl Acetate	4.401	43	386200	10.59	ppb	100
23) Diisopropyl ether (DIPE)	4.387	45	458286	10.98	ppb	# 89
24) Ethyl-tert-Butyl ether...	4.729	59	429116	10.91	ppb	# 80
25) cis-1,2-Dichloroethylene	4.935	61	228720	10.58	ppb	100
26) 2-Butanone	4.949	72	9576	9.65	ppb	97
27) 2,2-Dichloropropane	4.918	77	212804	10.19	ppb	# 100
28) Tetrahydrofuran	5.213	71	8090	9.89	ppb	97
29) Bromochloromethane	5.174	49	99370	10.74	ppb	99
30) Chloroform	5.236	83	251682	10.33	ppb	# 100
31) 1,1,1-Trichloroethane	5.391	97	214729	10.03	ppb	100
32) Cyclohexane	5.419	56	215668	9.97	ppb	100
33) 1,1-Dichloropropylene	5.542	75	189766	10.22	ppb	98
35) Carbon Tetrachloride	5.539	117	187130	10.07	ppb	100
36) tert-Amyl alcohol (TAA)	5.745	59	61057	95.56	ppb	# 87
37) 1,2-Dichloroethane	5.792	62	159886	10.70	ppb	99
38) Benzene	5.750	78	594044	10.43	ppb	# 92
39) tert-Amyl methyl ether...	5.809	73	384499	10.75	ppb	# 100
41) Trichloroethylene	6.354	95	151780	10.49	ppb	99
42) Methyl Cyclohexane	6.510	83	227501	10.35	ppb	90
43) Methyl Methacrylate	6.660	69	64072	10.52	ppb	# 100
44) Dibromomethane	6.724	93	69513	10.40	ppb	99
45) Bromodichloromethane	6.866	83	183872	10.24	ppb	99
46) 1,2-Dichloropropane	6.596	63	146113	10.54	ppb	100
47) 1,4-Dioxane	6.730	88	10931m	184.25	ppb	
49) cis-1,3-Dichloropropene	7.289	75	223993	10.70	ppb	98
50) 4-Methyl-2-Pentanone	7.422	43	128364	10.09	ppb	97
52) Toluene	7.606	91	650448	10.12	ppb	100
53) trans-1,3-Dichloropropene	7.851	75	185257	10.64	ppb	# 86

Data Path : C:\msdchem\1\data\V7031116\
 Data File : V706926.D
 Acq On : 11 Mar 2016 10:09 am
 InstName : MSVOA7
 Operator : SS
 Sample : BC60625-BSD1
 Misc : QBV7031116A <2 OW Y16A039
 ALS Vial : 4 Sample Multiplier: 1

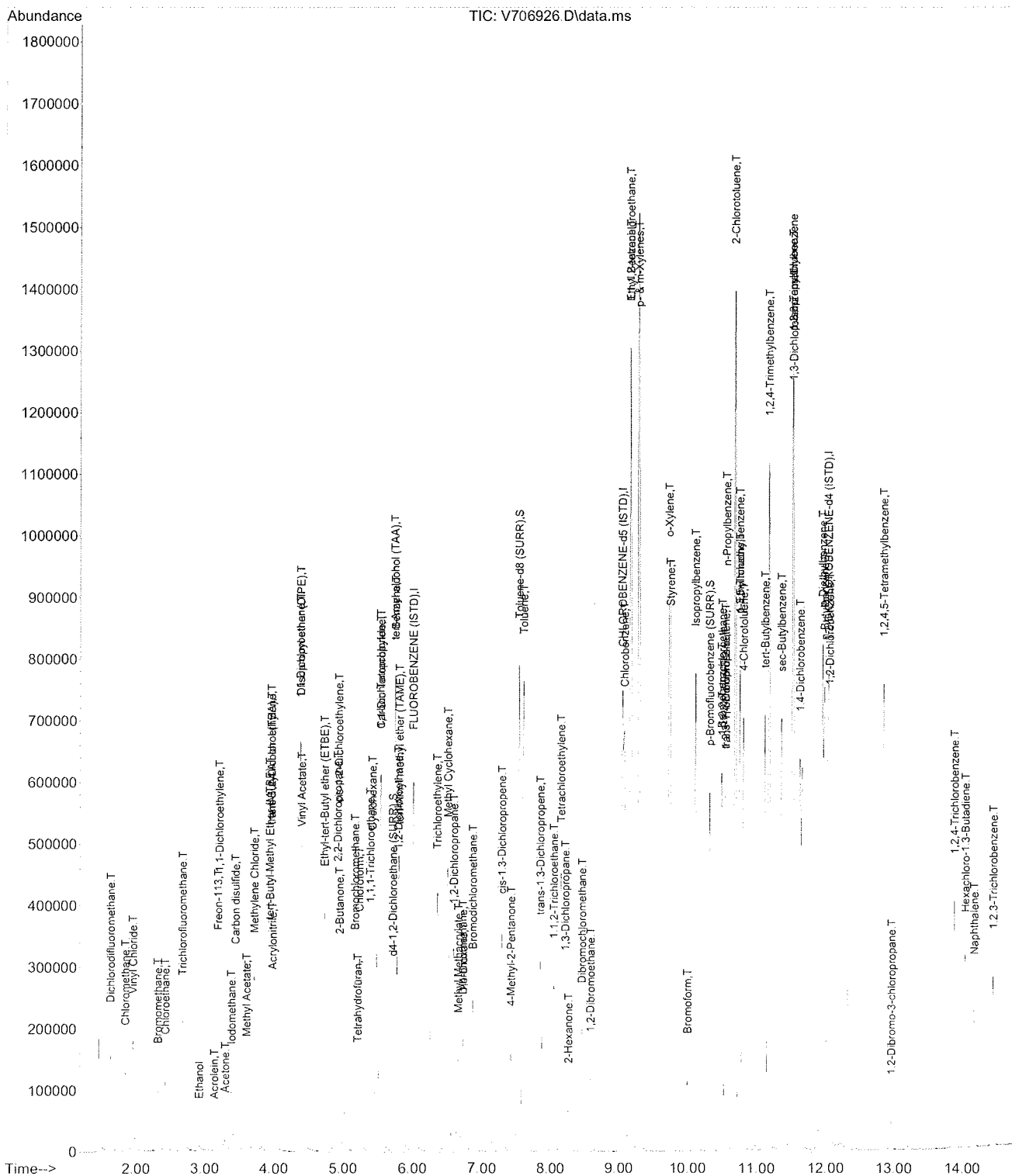
Quant Time: Mar 11 16:06:52 2016
 Quant Method : C:\msdchem\1\methods\V7L00049.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Thu Mar 10 15:13:37 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
54) 1,1,2-Trichloroethane	8.048	97	101242	10.69	ppb	99
55) 1,3-Dichloropropane	8.221	76	173696	10.63	ppb	# 70
56) Tetrachloroethylene	8.157	166	164110	10.13	ppb	# 77
57) 2-Hexanone	8.268	43	47134	9.92	ppb	87
58) Dibromochloromethane	8.463	129	122664	10.64	ppb	98
59) 1,2-Dibromoethane	8.588	107	92909	10.46	ppb	98
60) Chlorobenzene	9.075	112	410332	11.03	ppb	99
61) 1,1,1,2-tetrachloroethane	9.161	131	148493	10.78	ppb	100
62) Ethyl Benzene	9.161	91	691591	10.75	ppb	99
63) p- & m-Xylenes	9.281	91	1072607	22.47	ppb	97
64) o-Xylene	9.720	91	540035	11.49	ppb	100
65) Styrene	9.743	104	421974	10.49	ppb	# 100
66) Bromoform	9.993	173	64057	10.25	ppb	# 100
68) p-Ethyltoluene	10.747	105	525384	10.77	ppb	# 100
69) Isopropylbenzene	10.104	105	642170	11.41	ppb	99
71) 1,1,2,2-Tetrachloroethane	10.488	83	100295	10.54	ppb	# 99
72) Bromobenzene	10.483	77	238751	10.49	ppb	99
73) trans-1,4-Dichloro-2-b...	10.541	75	104182	10.29	ppb	96
74) 1,2,3-Trichloropropane	10.541	110	29811	10.84	ppb	84
75) n-Propylbenzene	10.558	91	761635	11.43	ppb	98
76) 2-Chlorotoluene	10.680	91	519523	11.22	ppb	100
77) 4-Chlorotoluene	10.800	91	481118	11.45	ppb	100
78) 1,3,5-Trimethylbenzene	10.747	105	525384	10.77	ppb	99
79) tert-Butylbenzene	11.112	119	434092	11.40	ppb	99
80) 1,2,4-Trimethylbenzene	11.173	105	534426	10.72	ppb	100
81) sec-Butylbenzene	11.356	105	617005	11.61	ppb	98
82) 1,3-Dichlorobenzene	11.523	146	311787	11.43	ppb	98
83) p-Isopropyltoluene	11.515	119	545691	10.76	ppb	99
84) 1,4-Dichlorobenzene	11.624	146	309774	11.30	ppb	99
85) 1,2,3-Trimethylbenzene	11.515	105	19861	0.40	ppb	96
86) p-Diethylbenzene	11.949	105	302985	11.35	ppb	98
87) 1,2-Dichlorobenzene	12.052	146	266114	11.21	ppb	# 100
88) n-Butylbenzene	11.980	91	578891	10.91	ppb	99
89) 1,2-Dibromo-3-chloropr...	12.962	75	13280	9.93	ppb	97
90) 1,2,4,5-Tetramethylben...	12.842	119	481996	10.97	ppb	99
91) 1,2,4-Trichlorobenzene	13.874	180	149836	10.64	ppb	99
92) Hexachloro-1,3-Butadiene	14.036	225	79031	11.05	ppb	99
93) Naphthalene	14.169	128	219968	10.63	ppb	100
94) 1,2,3-Trichlorobenzene	14.448	180	104859	10.76	ppb	98

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

Data Path : C:\msdchem\1\data\V7031116\
Data File : V706926.D
Acq On : 11 Mar 2016 10:09 am
InstName : MSVOA7
Operator : SS
Sample : BC60625-BSD1
Misc : QBV7031116A <2 OW Y16A039
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 11 16:06:52 2016
Quant Method : C:\msdchem\1\methods\V7L00049.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Thu Mar 10 15:13:37 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : G:\MSVOA5 V5\AILYDAT\V5031216\V5384185.D Vial: 2
 Acq On : 12 Mar 2016 12:15 pm Operator: SS
 Sample : BC60676-BS1 Inst : VOA No. 5
 Misc : QBV5031216A Y16A037 Multiplr: 1.00
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:09 2016 Quant Results File: V5C00149.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 2016
 Response via : Initial Calibration
 DataAcq Meth : V5C0001A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE (ISTD)	5.78	70	114193	50.00	ppb	-0.02
36) CHLOROBENZENE-d5 (ISTD)	8.80	117	519481	50.00	ppb	-0.02
62) 1,2-DICHLOROBENZENE-d4 (IST)	11.78	152	232215	50.00	ppb	-0.02

System Monitoring Compounds

32) d4-1,2-Dichloroethane (SURR)	5.50	65	180047	52.97	ppb	-0.03
Spiked Amount	50.000	Range	64 - 122	Recovery	=	105.94%
47) Toluene-d8 (SURR)	7.30	98	526749	48.49	ppb	-0.03
Spiked Amount	50.000	Range	83 - 114	Recovery	=	96.98%
64) p-Bromofluorobenzene (SURR)	10.07	174	199545	48.21	ppb	-0.02
Spiked Amount	50.000	Range	71 - 126	Recovery	=	96.42%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.52	85	232746	45.59	ppb	100
3) Chloromethane	1.70	50	329877	52.79	ppb	100
4) Vinyl Chloride	1.81	62	287608	53.30	ppb	100
5) Bromomethane	2.15	94	177185	53.41	ppb	99
6) Chloroethane	2.25	64	170969	51.95	ppb	100
7) Trichlorofluoromethane	2.49	101	408601	50.88	ppb	100
8) Ethyl Ether	2.78	59	154666	50.05	ppb	98
9) Freon-113	2.98	101	238691	49.40	ppb	100
10) 1,1-Dichloroethylene	3.01	61	360299	45.98	ppb	100
11) Acrolein	2.96	56	9589	32.05	ppb	100
12) Iodomethane	3.18	142	329475	50.82	ppb	100
13) Methyl Acetate	3.41	43	188531m	55.18	ppb	
14) tert-Butyl Alcohol (TBA)	3.65	59	26060	57.39	ppb	1
15) trans-1,2-Dichloroethylene	3.75	61	344806	49.19	ppb	99
16) Carbon Disulfide	3.24	76	652595	47.27	ppb	100
17) Methylene Chloride	3.51	49	321395	47.81	ppb	99
18) Acrylonitrile	3.79	53	65805	48.63	ppb	98
19) tert-Butyl Methyl Ether (M	3.73	73	510707	51.25	ppb	# 100
20) Acetone	3.12	43	81436	49.99	ppb	# 1
21) 1,1-Dichloroethane	4.17	63	431658	50.41	ppb	100
22) Vinyl Acetate	4.20	43	504179	55.64	ppb	100
23) cis-1,2-Dichloroethylene	4.72	96	234655	47.21	ppb	# 100
24) 2-Butanone	4.75	72	21791	46.53	ppb	94
25) 2,2-Dichloropropane	4.69	77	346875	47.69	ppb	100
26) Bromochloromethane	4.96	49	216876	45.52	ppb	100
27) Chloroform	5.03	83	383553	48.81	ppb	100
28) Tetrahydrofuran	4.99	71	21570	45.30	ppb	# 1
29) 1,1-Dichloropropylene	5.31	75	318321	49.00	ppb	100
30) 1,1,1-Trichloroethane	5.16	97	355828	48.64	ppb	100
31) Cyclohexane	5.18	56	418274	50.87	ppb	99
33) Carbon Tetrachloride	5.30	117	338798	47.97	ppb	100
34) 1,2-Dichloroethane	5.57	62	275380	50.62	ppb	100
35) Benzene	5.52	78	755814	49.00	ppb	100
37) Trichloroethylene	6.12	95	222922	46.12	ppb	99
38) Methyl Cyclohexane	6.26	83	345122	46.77	ppb	# 1
39) Dibromomethane	6.51	93	125659	47.14	ppb	# 1
40) Methyl Methacrylate	6.43	69	118254	47.44	ppb	99
41) Bromodichloromethane	6.65	83	288735	46.79	ppb	# 98
42) 1,2-Dichloropropane	6.36	63	195922	45.91	ppb	100
43) 1,4-Dioxane	6.51	88	38409	1160.64	ppb	99
44) 2-Chloroethylvinyl ether	6.91	63	114458	46.43	ppb	100
45) cis-1,3-Dichloropropene	7.07	75	326681	45.94	ppb	100
46) 2-Hexanone	8.04	43	163767	48.42	ppb	100
48) Toluene	7.37	91	719963	45.48	ppb	100
49) trans-1,3-Dichloropropene	7.63	75	279242	43.80	ppb	100

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

Quantitation Report (QT Reviewed)

Data File : G:\MSVOA5 V5\AILYDAT\V5031216\V5384185.D Vial: 2
 Acq On : 12 Mar 2016 12:15 pm Operator: SS
 Sample : BC60676-BS1 Inst : VOA No. 5
 Misc : QBV5031216A Y16A037 Multiplr: 1.00
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:09 2016 Quant Results File: V5C00149.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 2016
 Response via : Initial Calibration
 DataAcq Meth : V5C0001A

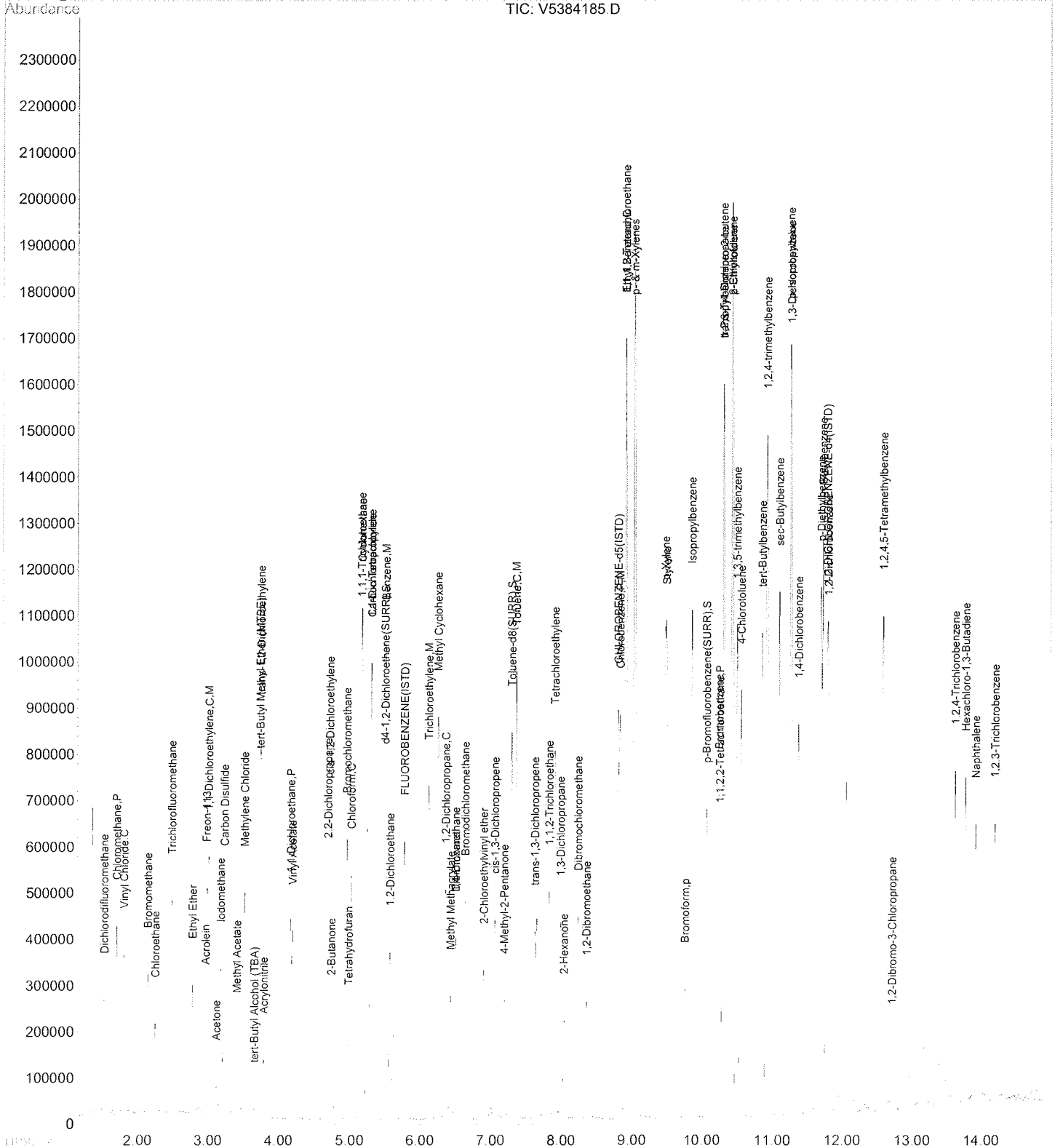
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
50) 1,1,2-Trichloroethane	7.83	83	125527	46.82	ppb	99
51) 1,3-Dichloropropane	7.99	76	272719	47.89	ppb	# 100
52) Tetrachloroethylene	7.91	166	240478	44.29	ppb	99
53) 4-Methyl-2-Pentanone	7.19	43	224008	48.08	ppb	100
54) Dibromochloromethane	8.24	129	232900	48.57	ppb	100
55) 1,2-Dibromoethane	8.36	107	175094	49.43	ppb	99
56) Chlorobenzene	8.83	112	500689	45.76	ppb	99
57) Ethyl Benzene	8.92	91	860468	46.41	ppb	100
58) p- & m-Xylenes	9.03	91	1244835	91.33	ppb	100
59) o-Xylene	9.47	91	644790	47.83	ppb	100
60) Styrene	9.50	104	502708	47.50	ppb	100
61) 1,1,1,2-Tetrachloroethane	8.92	131	216593	47.47	ppb	99
63) Bromoform	9.76	173	129334	44.60	ppb	# 100
65) p-Ethyltoluene	10.43	105	812176	47.68	ppb	99
66) p-Diethylbenzene	11.69	119	432686	48.09	ppb	96
67) 1,1,2,2-Tetrachloroethane	10.26	83	186729	44.67	ppb	# 99
68) 1,2,3-Trichloropropane	10.31	110	61356	44.50	ppb	96
69) Isopropylbenzene	9.85	105	835918	44.72	ppb	# 100
70) 1,2-Dibromo-3-Chloropropan	12.71	75	33789	49.03	ppb	98
71) Bromobenzene	10.24	77	289394	45.32	ppb	100
72) trans-1,4-Dichloro-2-buten	10.31	75	213119m	46.02	ppb	
73) n-Propylbenzene	10.31	91	1007003	44.69	ppb	100
74) 2-Chlorotoluene	10.43	91	642559	46.51	ppb	100
75) 4-Chlorotoluene	10.55	91	609760	46.81	ppb	100
76) tert-Butylbenzene	10.86	119	604278	45.58	ppb	# 86
77) 1,3,5-trimethylbenzene	10.49	105	625472	43.65	ppb	99
78) 1,2,4-trimethylbenzene	10.92	105	636930	44.96	ppb	99
79) sec-Butylbenzene	11.10	105	875417	44.70	ppb	# 100
80) 1,3-Dichlorobenzene	11.27	146	400787	47.35	ppb	# 100
81) 1,4-Dichlorobenzene	11.37	146	392877	46.62	ppb	# 100
82) 1,2-Dichlorobenzene	11.80	146	360955	48.57	ppb	# 100
83) p-Isopropyltoluene	11.25	119	768094	45.30	ppb	# 100
84) n-Butylbenzene	11.72	91	830185	45.73	ppb	100
85) 1,2,4,5-Tetramethylbenzene	12.58	119	663816	48.12	ppb	99
86) 1,2,4-Trichlorobenzene	13.61	180	233529	47.46	ppb	100
87) Naphthalene	13.91	128	502045	47.45	ppb	# 100
88) Hexachloro-1,3-Butadiene	13.76	225	140943	46.44	ppb	# 100
89) 1,2,3-Trichlorobenzene	14.18	182	195077	46.68	ppb	99

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

Quantitation Report

Data File : G:\MSVOA5 V5\DAI\DAT\5031216\5384185.D Vial: 2
Acq On : 12 Mar 2016 12:15 pm Operator: SS
Sample : BC60676-BS1 Inst : VOA No. 5
Misc : QBV5031216A Y16A037 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 14 10:09 2016 Quant Results File: V5C00149.RES

Method : G:\MSVOA METHODS\V5C00148.M (RTE Integrator)
Title : VOCs BY GC/MS EPA SW846-8260
Last Update : Thu Feb 25 10:10:34 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : G:\MSVOA5 V5\AILYDAT\V5031216\V5384186.D Vial: 3
 Acq On : 12 Mar 2016 12:49 pm Operator: SS
 Sample : BC60676-BSD1 Inst : VOA No. 5
 Misc : QBV5031216A Y16A037 Multiplr: 1.00
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:09 2016 Quant Results File: V5C00149.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 2016
 Response via : Initial Calibration
 DataAcq Meth : V5C0001A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.78	70	120035	50.00	ppb	-0.02
36) CHLOROBENZENE-d5(ISTD)	8.80	117	521187	50.00	ppb	-0.02
62) 1,2-DICHLOROBENZENE-d4(IST)	11.78	152	225303	50.00	ppb	-0.01

System Monitoring Compounds

32) d4-1,2-Dichloroethane(SURR)	5.50	65	170299	47.66	ppb	-0.02
Spiked Amount	50.000	Range	64 - 122	Recovery	=	95.32%
47) Toluene-d8(SURR)	7.30	98	527958	48.44	ppb	-0.03
Spiked Amount	50.000	Range	83 - 114	Recovery	=	96.88%
64) p-Bromofluorobenzene(SURR)	10.07	174	200529	49.94	ppb	-0.02
Spiked Amount	50.000	Range	71 - 126	Recovery	=	99.88%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.52	85	251128	46.80	ppb	100
3) Chloromethane	1.71	50	345877	52.66	ppb	100
4) Vinyl Chloride	1.81	62	304308	53.65	ppb	100
5) Bromomethane	2.15	94	186131	53.38	ppb	99
6) Chloroethane	2.26	64	184245	53.26	ppb	100
7) Trichlorofluoromethane	2.49	101	430565	51.01	ppb	100
8) Ethyl Ether	2.78	59	159940	49.24	ppb	99
9) Freon-113	2.99	101	246617	48.55	ppb	99
10) 1,1-Dichloroethylene	3.02	61	387887	47.09	ppb	99
11) Acrolein	2.96	56	10576	33.63	ppb	91
12) Iodomethane	3.19	142	338741	49.71	ppb	100
13) Methyl Acetate	3.41	43	159839	44.51	ppb	100
14) tert-Butyl Alcohol (TBA)	3.66	59	25443	53.31	ppb	1
15) trans-1,2-Dichloroethylene	3.75	61	363218	49.29	ppb	99
16) Carbon Disulfide	3.24	76	682813	47.05	ppb	100
17) Methylene Chloride	3.52	49	325121	46.01	ppb	100
18) Acrylonitrile	3.79	53	70267	49.41	ppb	98
19) tert-Butyl Methyl Ether (M	3.74	73	510884	48.77	ppb	# 100
20) Acetone	3.12	43	74495	43.50	ppb	# 1
21) 1,1-Dichloroethane	4.17	63	440976	48.99	ppb	100
22) Vinyl Acetate	4.21	43	509192	53.46	ppb	100
23) cis-1,2-Dichloroethylene	4.73	96	253094	48.45	ppb	# 100
24) 2-Butanone	4.76	72	21548	43.77	ppb	97
25) 2,2-Dichloropropane	4.70	77	363993	47.61	ppb	100
26) Bromochloromethane	4.96	49	265232	52.96	ppb	93
27) Chloroform	5.03	83	393071	47.58	ppb	100
28) Tetrahydrofuran	5.00	71	20021	40.00	ppb	# 1
29) 1,1-Dichloropropylene	5.31	75	340740	49.90	ppb	99
30) 1,1,1-Trichloroethane	5.16	97	371726	48.34	ppb	100
31) Cyclohexane	5.18	56	435636	50.40	ppb	98
33) Carbon Tetrachloride	5.31	117	358260	48.25	ppb	100
34) 1,2-Dichloroethane	5.57	62	280445	49.04	ppb	100
35) Benzene	5.52	78	755911	46.62	ppb	98
37) Trichloroethylene	6.13	95	233948	48.24	ppb	100
38) Methyl Cyclohexane	6.26	83	375209	50.69	ppb	# 1
39) Dibromomethane	6.51	93	123326	46.11	ppb	# 1
40) Methyl Methacrylate	6.43	69	125513	50.18	ppb	99
41) Bromodichloromethane	6.65	83	291544	47.09	ppb	100
42) 1,2-Dichloropropane	6.37	63	204715	47.81	ppb	99
43) 1,4-Dioxane	6.51	88	33311	1003.29	ppb	100
44) 2-Chloroethylvinyl ether	6.91	63	117570	47.53	ppb	100
45) cis-1,3-Dichloropropene	7.07	75	332092	46.55	ppb	100
46) 2-Hexanone	8.04	43	161204	47.51	ppb	100
48) Toluene	7.37	91	747913	47.10	ppb	99
49) trans-1,3-Dichloropropene	7.63	75	291562	45.58	ppb	99

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

Data File : G:\MSVOA5 V5\AILYDAT\V5031216\V5384186.D Vial: 3
 Acq On : 12 Mar 2016 12:49 pm Operator: SS
 Sample : BC60676-BSD1 Inst : VOA No. 5
 Misc : QBV5031216A Y16A037 Multiplr: 1.00
 MS Integration Params: RTEINT1.P
 Quant Time: Mar 14 10:09 2016 Quant Results File: V5C00149.RES

Quant Method : C:\HPCHEM\1\METHODS\V5C00149.M (RTE Integrator)
 Title : VOCs BY GC/MS EPA SW846-8260
 Last Update : Fri Mar 11 09:44:58 2016
 Response via : Initial Calibration
 DataAcq Meth : V5C0001A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
50) 1,1,2-Trichloroethane	7.83	83	128815	47.89	ppb	99
51) 1,3-Dichloropropane	8.00	76	281928	49.35	ppb #	100
52) Tetrachloroethylene	7.91	166	254174	46.66	ppb	99
53) 4-Methyl-2-Pentanone	7.20	43	219658	46.99	ppb	100
54) Dibromochloromethane	8.24	129	234913	48.83	ppb	100
55) 1,2-Dibromoethane	8.36	107	175402	49.36	ppb	99
56) Chlorobenzene	8.84	112	548221	49.94	ppb	100
57) Ethyl Benzene	8.92	91	919013	49.40	ppb	100
58) p- & m-Xylenes	9.04	91	1333440	97.51	ppb	100
59) o-Xylene	9.48	91	665806	49.23	ppb	99
60) Styrene	9.50	104	510368	48.06	ppb	100
61) 1,1,1,2-Tetrachloroethane	8.93	131	226091	49.39	ppb	99
63) Bromoform	9.76	173	131903	46.88	ppb #	100
65) p-Ethyltoluene	10.44	105	833372	50.42	ppb	99
66) p-Diethylbenzene	11.70	119	441488	50.57	ppb	97
67) 1,1,2,2-Tetrachloroethane	10.26	83	190914	47.07	ppb #	100
68) 1,2,3-Trichloropropane	10.31	110	62514	46.74	ppb	95
69) Isopropylbenzene	9.86	105	887019	48.91	ppb #	100
70) 1,2-Dibromo-3-Chloropropan	12.72	75	33085	49.48	ppb	97
71) Bromobenzene	10.24	77	294227	47.49	ppb	99
72) trans-1,4-Dichloro-2-buten	10.31	75	217283m	48.36	ppb	
73) n-Propylbenzene	10.31	91	1071955	49.04	ppb	100
74) 2-Chlorotoluene	10.44	91	671116	50.07	ppb	100
75) 4-Chlorotoluene	10.56	91	638795	50.55	ppb	100
76) tert-Butylbenzene	10.86	119	624893	48.58	ppb #	86
77) 1,3,5-trimethylbenzene	10.50	105	679414	48.87	ppb	99
78) 1,2,4-trimethylbenzene	10.92	105	652944	47.50	ppb	100
79) sec-Butylbenzene	11.10	105	922535	48.55	ppb #	100
80) 1,3-Dichlorobenzene	11.28	146	413662	50.37	ppb #	100
81) 1,4-Dichlorobenzene	11.38	146	412828	50.49	ppb	99
82) 1,2-Dichlorobenzene	11.80	146	359471	49.86	ppb #	100
83) p-Isopropyltoluene	11.26	119	791884	48.14	ppb #	100
84) n-Butylbenzene	11.73	91	861242	48.90	ppb	100
85) 1,2,4,5-Tetramethylbenzene	12.59	119	691010	51.63	ppb	100
86) 1,2,4-Trichlorobenzene	13.62	180	237032	49.65	ppb	100
87) Naphthalene	13.91	128	508605	49.54	ppb #	100
88) Hexachloro-1,3-Butadiene	13.76	225	148412	50.40	ppb #	100
89) 1,2,3-Trichlorobenzene	14.18	182	197307	48.66	ppb	100

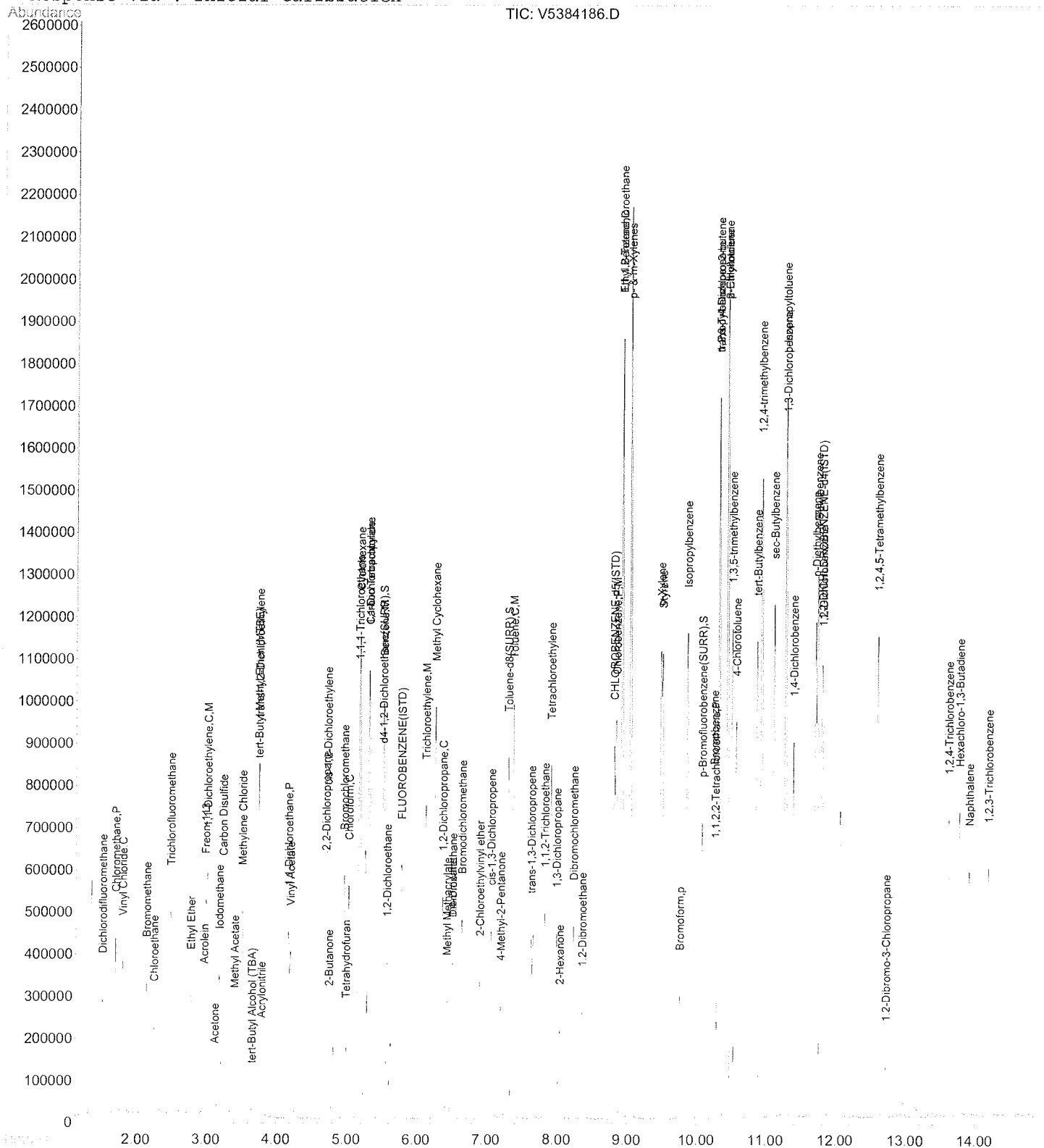
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\MSVOA5 V5\DAI\DAT\5031216\5384186.D Vial: 3
Acq On : 12 Mar 2016 12:49 pm Operator: SS
Sample : BC60676-BSD1 Inst : VOA No. 5
Misc : QBV5031216A Y16A037 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 14 10:09 2016 Quant Results File: V5C00149.

Method : G:\MSVOA METHODS\V5C00148.M (RTE Integrator)
Title : VOCs BY GC/MS EPA SW846-8260
Last Update : Thu Feb 25 10:10:34 2016
Response via : Initial Calibration

Quant Results File: V5C00149.RES



PREPARATION BENCH SHEET

BC60625

York Analytical Laboratories, Inc.

Printed: 3/11/2016 3:17:33PM

Matrix: Water		Preparation			EPA 5030B		Surrogate used: Y15L025				Surrogate, uL	
Lab Number	Analysis	Prepared	By	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	pH	Residual Chlorine	Sample Comments	
16C0107-06RE1	Volatile Organics, Oxygenate	03/11/2016 08:4	OW	25	25				<2	NA	From BC60548 by OW on 03/11/2	
16C0216-27	Volatile Organics, Chem Tar	03/11/2016 08:4	OW	25	25				<2	NA	From BC60548 by OW on 03/11/2	
16C0235-06	Volatile Organics, NYSDEC	03/11/2016 08:4	OW	25	25				<2	NA		
16C0253-01	Volatile Organics, CP-51 (S)	03/11/2016 08:4	OW	25	25				<2	NA		
16C0253-02	Volatile Organics, CP-51 (S)	03/11/2016 08:4	OW	25	25				<2	NA		
16C0253-03	Volatile Organics, CP-51 (S)	03/11/2016 08:4	OW	25	25				<2	NA		
16C0253-04	Volatile Organics, CP-51 (S)	03/11/2016 08:4	OW	25	25				<2	NA		
16C0253-05	Volatile Organics, CP-51 (S)	03/11/2016 08:4	OW	25	25				<2	NA		
16C0253-06	Volatile Organics, CP-51 (S)	03/11/2016 08:4	OW	25	25				<2	NA		
16C0265-05	Volatile Organics, NIDEPT	03/11/2016 08:4	OW	25	25				<2	NA		
16C0265-06	Volatile Organics, NIDEPT	03/11/2016 08:4	OW	25	25				<2	NA		
16C0268-20	Volatile Organics, NIDEPT	03/11/2016 08:4	OW	25	25				<2	NA		
BC60625-BLK1	QC	03/11/2016 08:4	OW	25	25				<2	NA		
BC60625-BS1	QC	03/11/2016 08:4	OW	25	25	Y16A039		5	<2	NA		
BC60625-BSD1	QC	03/11/2016 08:4	OW	25	25	Y16A039		5	<2	NA		

Batch Comments:

PREPARATION BENCH SHEET

BC60676

York Analytical Laboratories, Inc.

Printed: 3/14/2016 11:24:56AM

Matrix: Soil		Preparation			EPA 503.5A			Surrogate used: Y15L023			Surrogate, uL	
Lab Number	Analysis	Prepared	By	Initial (g)	Final (ml)	Spike ID	Source ID	ul Spike	pH	Residual Chlorine	Sample Comments	
16C0191-02	Volatile Organics, CP-51 (fo	03/12/2016 14:3	OW	5.22	5						From BC60671 by OW on 03/12/2	
16C0235-01	Volatile Organics, NYSDEC	03/12/2016 14:3	OW	4.26	5						From BC60670 by OW on 03/12/2	
16C0235-02	Volatile Organics, NYSDEC	03/12/2016 14:3	OW	6.41	5						From BC60670 by OW on 03/12/2	
16C0235-03	Volatile Organics, NYSDEC	03/12/2016 14:3	OW	5.62	5						From BC60670 by OW on 03/12/2	
16C0235-04	Volatile Organics, NYSDEC	03/12/2016 14:3	OW	6.44	5						From BC60670 by OW on 03/12/2	
16C0241-01	Volatile Organics, 8260 List	03/12/2016 14:3	OW	4.63	5						From BC60623 by OW on 03/12/2	
16C0265-01	Volatile Organics, NIDEP/TR	03/12/2016 14:3	OW	5.77	5						From BC60670 by OW on 03/12/2	
16C0265-02	Volatile Organics, NIDEP/TR	03/12/2016 14:3	OW	6.57	5						From BC60670 by OW on 03/12/2	
16C0265-03	Volatile Organics, NIDEP/TR	03/12/2016 14:3	OW	5.62	5						From BC60670 by OW on 03/12/2	
16C0265-04	Volatile Organics, NIDEP/TR	03/12/2016 14:3	OW	6.11	5						From BC60670 by OW on 03/12/2	
16C0272-01	Volatile Organics, NYSDEC	03/12/2016 14:3	OW	4.35	5						From BC60670 by OW on 03/12/2	
16C0272-02	Volatile Organics, NYSDEC	03/12/2016 14:3	OW	4.61	5						From BC60670 by OW on 03/12/2	
16C0272-03	Volatile Organics, NYSDEC	03/12/2016 14:3	OW	5.92	5						From BC60670 by OW on 03/12/2	
16C0338-01	Volatile Organics, NYSDEC	03/12/2016 14:3	OW	5.8	5							
16C0338-02	Volatile Organics, NYSDEC	03/12/2016 14:3	OW	5.3	5							
BC60676-BLK1	QC	03/12/2016 14:3	OW	5	5							
BC60676-BS1	QC	03/12/2016 14:3	OW	5	5	Y16A037					5	
BC60676-BS1	QC	03/12/2016 14:3	OW	5	5	Y16A037					5	

Batch Comments:

Injection Log

Directory: g:\msvoa7~1\dailyd~1\v7031116

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	v706921.d	1.	SEQ-TUN1	QBV7031116A	11 Mar 16 07:37
2	1	v706922.d	1.	SEQ-TUN1	QBV7031116A	11 Mar 16 08:03
3	1	v706923.d	1.	SEQ-CCV1	QBV7031116A <2 OW Y16A035	11 Mar 16 08:31
4	2	v706924.d	1.	SEQ-CCV1	QBV7031116A <2 OW Y16A035	11 Mar 16 09:09
5	3	v706925.d	1.	BC60625-BS1	QBV7031116A <2 OW Y16A039	11 Mar 16 09:43
6	4	v706926.d	1.	BC60625-BSD1	QBV7031116A <2 OW Y16A039	11 Mar 16 10:09
7	5	v706927.d	1.	BLK	QBV7031116A <2 OW	11 Mar 16 10:35
8	6	v706928.d	1.	BC60625-BLK1	QBV7031116A <2 OW	11 Mar 16 11:00
9	7	v706929.d	1.	16C0216-27	QBV7031116A CHEM TARGET B	11 Mar 16 11:26
10	8	v706930.d	25.	16C0107-06RE1	QBV7031116A CT RCP AROMATICS+OXY 2ML	11 Mar 16 11:52
11	9	v706931.d	1.	16C0235-06	QBV7031116A NYSDEC 375 A	11 Mar 16 12:18
12	10	v706932.d	1.	16C0268-20	QBV7031116A NJDEP/TCL/375 A	11 Mar 16 12:43
13	11	v706933.d	1.	16C0265-05	QBV7031116A NJDEP/TCL/375 A	11 Mar 16 13:09
14	12	v706934.d	1.	16C0265-06	QBV7031116A NJDEP/TCL/375 A	11 Mar 16 13:35
15	13	v706935.d	1.	16C0253-01	QBV7031116A CP51 LOW AF A	11 Mar 16 14:00
16	14	v706936.d	1.	16C0253-02	QBV7031116A CP51 LOW AF A	11 Mar 16 14:26
17	15	v706937.d	1.	16C0253-03	QBV7031116A CP51 LOW AF A	11 Mar 16 14:52
18	16	v706938.d	1.	16C0253-04	QBV7031116A CP51 LOW AF A	11 Mar 16 15:18
19	17	v706939.d	20.	16C0253-05	QBV7031116A CP51 LOW 2.5ML/50ML A	11 Mar 16 15:43
20	18	v706940.d	1.	16C0253-06	QBV7031116A CP51 LOW AF A	11 Mar 16 16:09

Injection Log

Directory: g:\msvoa5~1\dailydat\w5031216

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	v5384183.d	1.	SEQ-TUN1	QBV5031216A	12 Mar 16 11:08
2	1	v5384184.d	1.	SEQ-CCV1	QBV5031216A Y16A033	12 Mar 16 11:39
3	2	v5384185.d	1.	BC60676-BS1	QBV5031216A Y16A037	12 Mar 16 12:15
4	3	v5384186.d	1.	BC60676-BSD1	QBV5031216A Y16A037	12 Mar 16 12:49
5	4	v5384187.d	1.	BC60676-BLK1	QBV5031216A	12 Mar 16 13:23
6	5	v5384188.d	1.	16C0191-02	QBV5031216A RE CP51 5.22g C	12 Mar 16 13:58
7	6	v5384189.d	100.	16C0241-01	QBV5031216A RE 8260 4.63g 100UL/5ML D	12 Mar 16 14:32
8	7	v5384190.d	1.	16C0235-01	QBV5031216A NYSDEC 375 4.26g B	12 Mar 16 15:06
9	8	v5384191.d	1.	16C0235-02	QBV5031216A NYSDEC 375 6.41g B	12 Mar 16 15:40
10	9	v5384192.d	1.	16C0235-03	QBV5031216A NYSDEC 375 5.62g B	12 Mar 16 16:14
11	10	v5384193.d	1.	16C0235-04	QBV5031216A NYSDEC 375 6.44g B	12 Mar 16 16:48
12	11	v5384194.d	1.	16C0265-01	QBV5031216A NJDEP/TCL/375 5.77g C	12 Mar 16 17:22
13	12	v5384195.d	1.	16C0265-02	QBV5031216A NJDEP/TCL/375 6.57g C	12 Mar 16 17:56
14	13	v5384196.d	1.	16C0265-03	QBV5031216A NJDEP/TCL/375 5.62g C	12 Mar 16 18:30
15	14	v5384197.d	1.	16C0265-04	QBV5031216A NJDEP/TCL/375 6.11g C	12 Mar 16 19:04
16	15	v5384198.d	1.	16C0272-01	QBV5031216A NYSDEC 375 4.35g C	12 Mar 16 19:38
17	16	v5384199.d	1.	16C0272-02	QBV5031216A NYSDEC 375 4.61g C	12 Mar 16 20:13
18	17	v5384200.d	1.	16C0272-03	QBV5031216A NYSDEC 375 5.92g C	12 Mar 16 20:47
19	18	v5384201.d	1.	16C0338-01	QBV5031216A NYSDEC 375 5.80g B	12 Mar 16 21:21
20	19	v5384202.d	1.	16C0338-02	QBV5031216A NYSDEC 375 5.30g B	12 Mar 16 21:55

York Analytical Laboratories, Inc.

SDG: 16C0235

CLASS: SVOA

METHOD: EPA 8270D

DATA PACKAGE COVER PAGE

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-1

02/LSB-1

03/LSB-2

04/LSB-2

Lab Sample Id:

16C0235-01

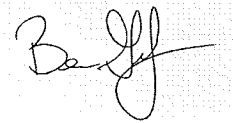
16C0235-02

16C0235-03

16C0235-04

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:

3/25/2016

Title:

Laboratory Director

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: 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/LSB-1 (16C0235-02)		Lab File ID: E101050.D			Analyzed: 03/11/16 17:14			
2-Fluorophenol	2.84	52.7	20 - 108	6.61				
Phenol-d5	2.83	57.3	23 - 114	7.75				
Nitrobenzene-d5	1.90	58.6	22 - 108	8.86				
2-Fluorobiphenyl	1.89	55.6	21 - 113	11.21				
2,4,6-Tribromophenol	2.83	90.3	19 - 110	13.3				
Terphenyl-d14	1.89	65.8	24 - 116	16.52				
01/LSB-1 (16C0235-01)		Lab File ID: E101051.D			Analyzed: 03/11/16 17:45			
2-Fluorophenol	2.82	70.3	20 - 108	6.61				
Phenol-d5	2.81	76.6	23 - 114	7.76				
Nitrobenzene-d5	1.88	74.9	22 - 108	8.86				
2-Fluorobiphenyl	1.88	76.0	21 - 113	11.22				
2,4,6-Tribromophenol	2.81	125	19 - 110	13.3				*
Terphenyl-d14	1.88	92.8	24 - 116	16.53				
04/LSB-2 (16C0235-04)		Lab File ID: E101052.D			Analyzed: 03/11/16 18:16			
2-Fluorophenol	3.58	52.5	20 - 108	6.61				
Phenol-d5	3.57	55.5	23 - 114	7.75				
Nitrobenzene-d5	2.39	59.7	22 - 108	8.86				
2-Fluorobiphenyl	2.38	59.5	21 - 113	11.22				
2,4,6-Tribromophenol	3.57	76.6	19 - 110	13.3				
Terphenyl-d14	2.38	60.2	24 - 116	16.52				
03/LSB-2 (16C0235-03)		Lab File ID: E101053.D			Analyzed: 03/11/16 18:48			
2-Fluorophenol	2.95	59.8	20 - 108	6.6				
Phenol-d5	2.94	65.1	23 - 114	7.75				
Nitrobenzene-d5	1.97	65.9	22 - 108	8.86				
2-Fluorobiphenyl	1.96	61.5	21 - 113	11.22				
2,4,6-Tribromophenol	2.94	97.2	19 - 110	13.3				
Terphenyl-d14	1.96	75.0	24 - 116	16.53				

FORM IV

PREPARATION BATCH SUMMARY
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60616 Batch Matrix: Soil Preparation: EPA 3550C

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-1	16C0235-01	E101051.D	03/11/16 06:56	
02/LSB-1	16C0235-02	E101050.D	03/11/16 06:56	
03/LSB-2	16C0235-03	E101053.D	03/11/16 06:56	
04/LSB-2	16C0235-04	E101052.D	03/11/16 06:56	

Form 5B
Semivolatile Organic Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)

Lab Name: York Analytical Laboratories, Inc.
 Client: Langan Engineering & Environmental Services (NJ)
 Lab File ID: E192028.D
 Instrument ID: BNA 1
 Calibration: TCBNA211

SDG: 16C0235
 Project: 100433202
 DFTPP Injection Date: 11/05/15
 DFTPP Injection Time: 15:29
 Sequence: QBSV1110515A

m/e	Ion Abundance Criteria	% Relative Abundance
51	10.0-80.0 percent of mass 198	43.4
68	Less than 2.0 percent of mass 69	0.4
70	Less than 2.0 percent of mass 69	0.4
127	10.0-80.0 percent of mass 198	44.5
197	Less than 2.0 percent of mass 198	0.2
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	26.8
365	Greater than 1.0 percent of mass 198	3.4
441	0.01-24.0 percent of mass 443	16.7
442	50.0-100.0 percent of mass 198	85.6
443	15.0-24.0 percent of mass 442	20.2

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	E192029.D	11/05/15	16:00
2		2.5 ppm BNA CAL STD	E192031.D	11/05/15	17:03
3		5 ppm BNA CAL STD	E192032.D	11/05/15	17:35
4		10 ppm BNA CAL STD	E192033.D	11/05/15	18:06
5		15 ppm BNA CAL STD	E192034.D	11/05/15	18:38
6		20 ppm BNA CAL STD	E192035.D	11/05/15	19:09
7		30 ppm BNA CAL STD	E192036.D	11/05/15	19:40
8		40 ppm BNA CAL STD	E192037.D	11/05/15	20:12
9		50 ppm BNA ICV STD	E192038.D	11/05/15	20:43
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: E101044.D
 Instrument ID: BNA 1
 Calibration: TCBNA211

SDG: 16C0235
 Project: 100433202
 DFTPP Injection Date: 03/11/16
 DFTPP Injection Time: 13:44
 Sequence: QBSV1031116A

m/e	Ion Abundance Criteria	% Relative Abundance
51	10.0-80.0 percent of mass 198	66.1
68	Less than 2.0 percent of mass 69	0.0
70	Less than 2.0 percent of mass 69	0.8
127	10.0-80.0 percent of mass 198	47.8
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	7.5
275	10.0-60.0 percent of mass 198	22.0
365	Greater than 1.0 percent of mass 198	2.2
441	0.01-24.0 percent of mass 443	15.3
442	50.0-100.0 percent of mass 198	62.6
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		CCV - 30ppm	E101045.D	3/11/2016	14:15
2	02/LSB-1 (2x)	16C0235-02 (2x)	E101050.D	3/11/2016	17:14
3	01/LSB-1 (2x)	16C0235-01 (2x)	E101051.D	3/11/2016	17:45
4	04/LSB-2 (2x)	16C0235-04 (2x)	E101052.D	3/11/2016	18:16
5	03/LSB-2 (2x)	16C0235-03 (2x)	E101053.D	3/11/2016	18:48
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Form 8A

Lab Name: York Analytical Laboratories, Inc

Client: Langan Engineering & Environmental Services (NJ)

Sequence: QBSV1031116A

Calibration: TCBNA211

Lab File ID: E101045.D

SDG: 16C0235

Project: 100433202

Instrument ID: BNA 1

Date Analyzed: 03/11/16

Time Analyzed: 14:15

[illegible]

IS 1 (DCB) = 1,4-Dichlorobenzene

IS 2 (NPT) = Naphthalene-d8

IS 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: 16C0235
Project: 100433202
Instrument ID: BNA 1
Date Analyzed: 03/11/16
Time Analyzed: 14:15

[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

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument:

Analyte	LOD	LOQ	Units
1,1'-Biphenyl	0.0209	0.0417	mg/kg
1,2,4,5-Tetrachlorobenzene	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
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
2,4,5-Trichlorophenol	0.0209	0.0417	mg/kg
2,4,6-Trichlorophenol	0.0209	0.0417	mg/kg
2,4-Dichlorophenol	0.0209	0.0417	mg/kg
2,4-Dimethylphenol	0.0209	0.0417	mg/kg
2,4-Dinitrophenol	0.0417	0.0833	mg/kg
2,4-Dinitrotoluene	0.0209	0.0417	mg/kg
2,6-Dinitrotoluene	0.0209	0.0417	mg/kg
2-Chloronaphthalene	0.0209	0.0417	mg/kg
2-Chlorophenol	0.0209	0.0417	mg/kg
2-Methylnaphthalene	0.0209	0.0417	mg/kg
2-Methylphenol	0.0209	0.0417	mg/kg
2-Nitroaniline	0.0417	0.0833	mg/kg
2-Nitrophenol	0.0209	0.0417	mg/kg
3- & 4-Methylphenols	0.0209	0.0417	mg/kg
3,3'-Dichlorobenzidine	0.0209	0.0417	mg/kg
3-Nitroaniline	0.0417	0.0833	mg/kg
4,6-Dinitro-2-methylphenol	0.0417	0.0833	mg/kg
4-Bromophenyl phenyl ether	0.0209	0.0417	mg/kg
4-Chloro-3-methylphenol	0.0209	0.0417	mg/kg
4-Chloroaniline	0.0209	0.0417	mg/kg
4-Chlorophenyl phenyl ether	0.0209	0.0417	mg/kg
4-Nitroaniline	0.0417	0.0833	mg/kg
4-Nitrophenol	0.0417	0.0833	mg/kg
Acenaphthene	0.0209	0.0417	mg/kg
Acenaphthylene	0.0209	0.0417	mg/kg
Acetophenone	0.0209	0.0417	mg/kg
Aniline	0.0835	0.167	mg/kg
Anthracene	0.0209	0.0417	mg/kg
Atrazine	0.0209	0.0417	mg/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument:

Analyte	LOD	LOQ	Units
Benzaldehyde	0.0209	0.0417	mg/kg
Benzidine	0.0835	0.167	mg/kg
Benzo(a)anthracene	0.0209	0.0417	mg/kg
Benzo(a)pyrene	0.0209	0.0417	mg/kg
Benzo(b)fluoranthene	0.0209	0.0417	mg/kg
Benzo(g,h,i)perylene	0.0209	0.0417	mg/kg
Benzo(k)fluoranthene	0.0209	0.0417	mg/kg
Benzoic acid	0.0209	0.0417	mg/kg
Benzyl alcohol	0.0209	0.0417	mg/kg
Benzyl butyl phthalate	0.0209	0.0417	mg/kg
Bis(2-chloroethoxy)methane	0.0209	0.0417	mg/kg
Bis(2-chloroethyl)ether	0.0209	0.0417	mg/kg
Bis(2-chloroisopropyl)ether	0.0209	0.0417	mg/kg
Bis(2-ethylhexyl)phthalate	0.0209	0.0417	mg/kg
Caprolactam	0.0417	0.0833	mg/kg
Carbazole	0.0209	0.0417	mg/kg
Chrysene	0.0209	0.0417	mg/kg
Dibenzo(a,h)anthracene	0.0209	0.0417	mg/kg
Dibenzofuran	0.0209	0.0417	mg/kg
Diethyl phthalate	0.0209	0.0417	mg/kg
Dimethyl phthalate	0.0209	0.0417	mg/kg
Di-n-butyl phthalate	0.0209	0.0417	mg/kg
Di-n-octyl phthalate	0.0209	0.0417	mg/kg
Fluoranthene	0.0209	0.0417	mg/kg
Fluorene	0.0209	0.0417	mg/kg
Hexachlorobenzene	0.0209	0.0417	mg/kg
Hexachlorobutadiene	0.0209	0.0417	mg/kg
Hexachlorocyclopentadiene	0.0209	0.0417	mg/kg
Hexachloroethane	0.0209	0.0417	mg/kg
Indeno(1,2,3-cd)pyrene	0.0209	0.0417	mg/kg
Isophorone	0.0209	0.0417	mg/kg
Naphthalene	0.0209	0.0417	mg/kg
Nitrobenzene	0.0209	0.0417	mg/kg
N-Nitrosodimethylamine	0.0209	0.0417	mg/kg
N-nitroso-di-n-propylamine	0.0209	0.0417	mg/kg
N-Nitrosodiphenylamine	0.0209	0.0417	mg/kg
Pentachlorophenol	0.0209	0.0417	mg/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument:

Analyte	LOD	LOQ	Units
Phenanthrene	0.0209	0.0417	mg/kg
Phenol	0.0209	0.0417	mg/kg
Pyrene	0.0209	0.0417	mg/kg
Pyridine	0.0835	0.167	mg/kg

HOLDING TIME SUMMARY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

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-1	03/04/16 11:45	03/07/16 17:45	03/11/16 06:56	6.80	14.00	03/11/16 17:45	0.45	40.00	
02/LSB-1	03/04/16 12:20	03/07/16 17:45	03/11/16 06:56	6.78	14.00	03/11/16 17:14	0.43	40.00	
03/LSB-2	03/04/16 13:15	03/07/16 17:45	03/11/16 06:56	6.74	14.00	03/11/16 18:48	0.49	40.00	
04/LSB-2	03/04/16 13:30	03/07/16 17:45	03/11/16 06:56	6.73	14.00	03/11/16 18:16	0.47	40.00	

FORM I

ORGANIC ANALYSIS DATA SHEET

01/LSB-1

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-01 File ID: E101051.D
 Sampled: 03/04/16 11:45 Prepared: 03/11/16 06:56 Analyzed: 03/11/16 17:45
 Solids: 88.84 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Batch: BC60616 Sequence: Calibration: Instrument: BNA #1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
92-52-4	1,1'-Biphenyl	2	0.0939	U
95-94-3	1,2,4,5-Tetrachlorobenzene	2	0.188	U
120-82-1	1,2,4-Trichlorobenzene	2	0.0939	U
95-50-1	1,2-Dichlorobenzene	2	0.0939	U
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	2	0.0939	U
541-73-1	1,3-Dichlorobenzene	2	0.0939	U
106-46-7	1,4-Dichlorobenzene	2	0.0939	U
58-90-2	2,3,4,6-Tetrachlorophenol	2	0.188	U
95-95-4	2,4,5-Trichlorophenol	2	0.0939	U
88-06-2	2,4,6-Trichlorophenol	2	0.0939	U
120-83-2	2,4-Dichlorophenol	2	0.0939	U
105-67-9	2,4-Dimethylphenol	2	0.0939	U
51-28-5	2,4-Dinitrophenol	2	0.188	U
121-14-2	2,4-Dinitrotoluene	2	0.0939	U
606-20-2	2,6-Dinitrotoluene	2	0.0939	U
91-58-7	2-Chloronaphthalene	2	0.0939	U
95-57-8	2-Chlorophenol	2	0.0939	U
91-57-6	2-Methylnaphthalene	2	0.0939	U
95-48-7	2-Methylphenol	2	0.0939	U
88-74-4	2-Nitroaniline	2	0.188	U
88-75-5	2-Nitrophenol	2	0.0939	U
65794-96-9	3- & 4-Methylphenols	2	0.0939	U
91-94-1	3,3'-Dichlorobenzidine	2	0.0939	U
99-09-2	3-Nitroaniline	2	0.188	U
534-52-1	4,6-Dinitro-2-methylphenol	2	0.188	U
101-55-3	4-Bromophenyl phenyl ether	2	0.0939	U
59-50-7	4-Chloro-3-methylphenol	2	0.0939	U
106-47-8	4-Chloroaniline	2	0.0939	U
7005-72-3	4-Chlorophenyl phenyl ether	2	0.0939	U
100-01-6	4-Nitroaniline	2	0.188	U
100-02-7	4-Nitrophenol	2	0.188	U
83-32-9	Acenaphthene	2	0.0675	JD
208-96-8	Acenaphthylene	2	0.0939	U
98-86-2	Acetophenone	2	0.0939	U
62-53-3	Aniline	2	0.376	U
120-12-7	Anthracene	2	0.137	D
1912-24-9	Atrazine	2	0.0939	U
100-52-7	Benzaldehyde	2	0.0939	U
92-87-5	Benzidine	2	0.376	U
56-55-3	Benzo(a)anthracene	2	0.472	D

FORM I

ORGANIC ANALYSIS DATA SHEET

01/LSB-1

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-01 File ID: E101051.D
 Sampled: 03/04/16 11:45 Prepared: 03/11/16 06:56 Analyzed: 03/11/16 17:45
 Solids: 88.84 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Batch: BC60616 Sequence: Calibration: Instrument: BNA #1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
50-32-8	Benzo(a)pyrene	2	0.394	D
205-99-2	Benzo(b)fluoranthene	2	0.330	D
191-24-2	Benzo(g,h,i)perylene	2	0.170	D
207-08-9	Benzo(k)fluoranthene	2	0.388	D
65-85-0	Benzoic acid	2	0.0939	U
100-51-6	Benzyl alcohol	2	0.0939	U
85-68-7	Benzyl butyl phthalate	2	0.790	D
111-91-1	Bis(2-chloroethoxy)methane	2	0.0939	U
111-44-4	Bis(2-chloroethyl)ether	2	0.0939	U
108-60-1	Bis(2-chloroisopropyl)ether	2	0.0939	U
117-81-7	Bis(2-ethylhexyl)phthalate	2	0.595	D
105-60-2	Caprolactam	2	0.188	U
86-74-8	Carbazole	2	0.0780	JD
218-01-9	Chrysene	2	0.492	D
53-70-3	Dibenzo(a,h)anthracene	2	0.0916	JD
132-64-9	Dibenzofuran	2	0.0939	U
84-66-2	Diethyl phthalate	2	0.0939	U
131-11-3	Dimethyl phthalate	2	0.0939	U
84-74-2	Di-n-butyl phthalate	2	0.144	D
117-84-0	Di-n-octyl phthalate	2	0.0939	U
206-44-0	Fluoranthene	2	0.896	D
86-73-7	Fluorene	2	0.0630	JD
118-74-1	Hexachlorobenzene	2	0.0939	U
87-68-3	Hexachlorobutadiene	2	0.0939	U
77-47-4	Hexachlorocyclopentadiene	2	0.0939	U
67-72-1	Hexachloroethane	2	0.0939	U
193-39-5	Indeno(1,2,3-cd)pyrene	2	0.172	D
78-59-1	Isophorone	2	0.0939	U
91-20-3	Naphthalene	2	0.0939	U
98-95-3	Nitrobenzene	2	0.0939	U
62-75-9	N-Nitrosodimethylamine	2	0.0939	U
621-64-7	N-nitroso-di-n-propylamine	2	0.0939	U
86-30-6	N-Nitrosodiphenylamine	2	0.0939	U
87-86-5	Pentachlorophenol	2	0.0939	U
85-01-8	Phenanthrene	2	0.695	D
108-95-2	Phenol	2	0.0939	U
129-00-0	Pyrene	2	0.814	D
110-86-1	Pyridine	2	0.376	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q

FORM I

ORGANIC ANALYSIS DATA SHEET

01/LSB-1

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil Laboratory ID: 16C0235-01 File ID: E101051.D
Sampled: 03/04/16 11:45 Prepared: 03/11/16 06:56 Analyzed: 03/11/16 17:45
Solids: 88.84 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
Batch: BC60616 Sequence: Calibration: Instrument: BNA #1

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	2.82	1.98	70.3	20 - 108	
Phenol-d5	2.81	2.15	76.6	23 - 114	
Nitrobenzene-d5	1.88	1.41	74.9	22 - 108	
2-Fluorobiphenyl	1.88	1.43	76.0	21 - 113	
2,4,6-Tribromophenol	2.81	3.52	125	19 - 110	*
Terphenyl-d14	1.88	1.74	92.8	24 - 116	

* Values outside of QC limits

Data File : C:\HPCHEM\1\DATA\E1031116\E101051.D Vial: 15
 Acq On : 11 Mar 2016 5:45 pm Operator: SR
 Sample : 16C0235-01 Inst : BNA #1
 Misc : QBSV1031116B 2X NYSEDEC 375 ASPB Multiplr: 2.00
 MS Integration Params: RTEINT.P
 Quant Time: Mar 14 7:55 2016 Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
 Title : Semivolatiles by GC/MS - EPA Method 625/8270
 Last Update : Sun Mar 06 04:11:30 2016
 Response via : Initial Calibration
 DataAcq Meth : TCBNA211

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.12	152	1544799	40.00	ug/mL	-0.02
21) Naphthalene-d8	9.76	136	5195137	40.00	ug/mL	0.36
39) Acenaphthene-d10	12.17	164	2838987	40.00	ug/mL	0.36
63) Phenanthrene-d10	14.25	188	4978664	40.00	ug/mL	0.36
79) Chrysene-d12	18.05	240	4306771	40.00	ug/mL	0.35
91) Perylene-d12	20.05	264	4003866	40.00	ug/mL	0.39

System Monitoring Compounds

4) 2-Fluorophenol	6.61	112	1778268	26.45	ug/mL	0.25
Spiked Amount 75.000	Range 14	- 77	Recovery	=	35.27%	
5) Phenol-d5	7.76	99	2463724	28.71	ug/mL	0.31
Spiked Amount 75.000	Range 10	- 100	Recovery	=	38.28%	
22) Nitrobenzene-d5	8.86	82	1400579	18.80	ug/mL	0.34
Spiked Amount 50.000	Range 31	- 97	Recovery	=	37.60%	
45) 2-Fluorobiphenyl	11.22	172	2321563	19.00	ug/mL	0.36
Spiked Amount 50.000	Range 43	- 116	Recovery	=	38.00%#	
68) 2,4,6-Tribromophenol	13.30	330	882944	46.90	ug/mL	0.36
Spiked Amount 75.000	Range 10	- 123	Recovery	=	62.53%	
81) Terphenyl-d14	16.53	244	2275525	23.19	ug/mL	0.37
Spiked Amount 50.000	Range 33	- 141	Recovery	=	46.38%	

Target Compounds

					Qvalue	
52) Acenaphthene	12.21	154	84435	0.90	ug/mL	92
59) Fluorene	12.91	166	91733	0.84	ug/mL	96
73) Phenanthrene	14.29	178	1409936	9.26	ug/mL	99
74) Anthracene	14.34	178	318937	1.82	ug/mL#	93
75) Carbazole	14.58	167	161473	1.04	ug/mL#	100
76) Di-n-butyl phthalate	15.11	149	430573	1.92	ug/mL#	97
77) Fluoranthene	15.98	202	2069567	11.94	ug/mL	99
80) Pyrene	16.31	202	1883662	10.85	ug/mL	97
82) Benzyl butyl phthalate	17.25	149	1105354	10.53	ug/mL	95
83) Bis(2-ethylhexyl)phthalate	18.05	149	987785	7.93	ug/mL#	95
84) Benz(a)anthracene	18.01	228	1013310	6.29	ug/mL#	93
86) Chrysene	18.08	228	996987	6.55	ug/mL	94
88) Benzo(b)fluoranthene	19.48	252	838424	4.40	ug/mL#	80
89) Benzo(k)fluoranthene	19.51	252	722164m	5.17	ug/mL	
90) Benz(a)pyrene	19.96	252	824447	5.25	ug/mL#	97
92) Indeno(1,2,3-c,d)pyrene	21.78	276	385043	2.29	ug/mL	99
93) Dibenz(a,h)anthracene	21.79	278	165034	1.22	ug/mL#	90
94) Benzo(g,h,i)perylene	22.29	276	307439	2.26	ug/mL#	95

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E1031116\E101051.D

Vial: 15

Acq On : 11 Mar 2016 5:45 pm

Operator: SR

Sample : 16C0235-01

Inst : BNA #1

Misc : QBSV1031116B 2X NYSDEC 375 ASPB

Multiplr: 2.00

MS Integration Params: RTEINT.P

Quant Time: Mar 14 7:55 2016

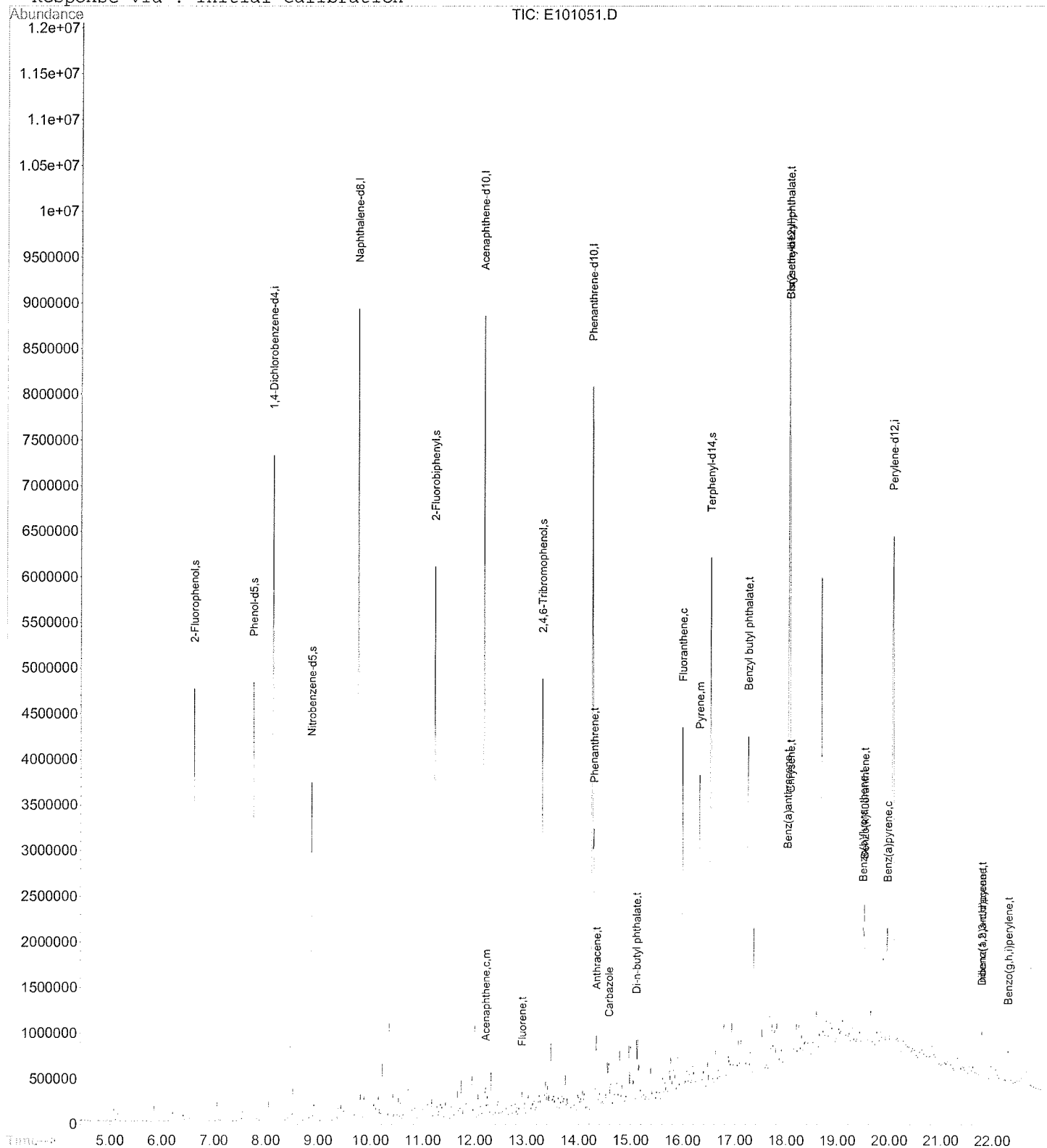
Quant Results File: TCBNA211.RES

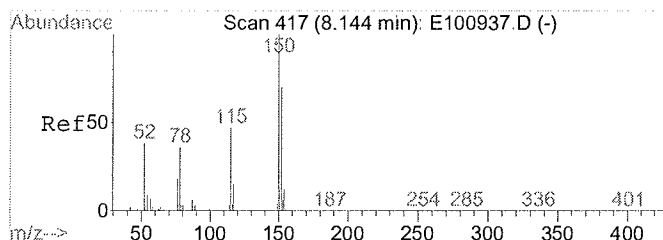
Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

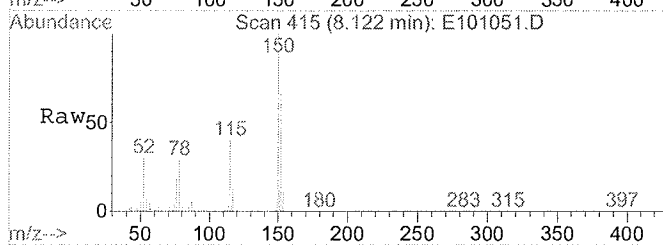
Last Update : Sun Mar 06 04:11:30 2016

Response via : Initial Calibration

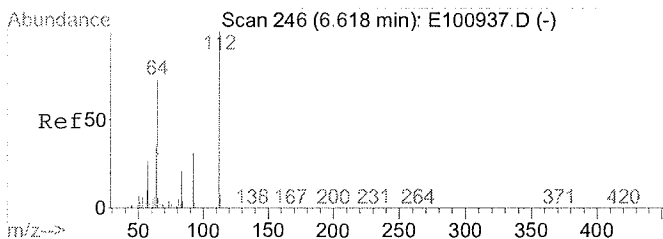
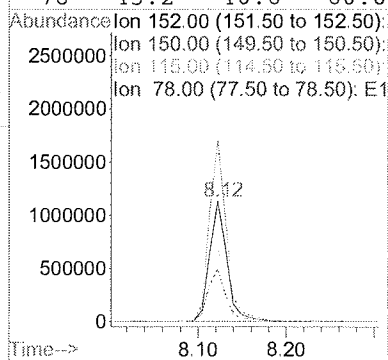
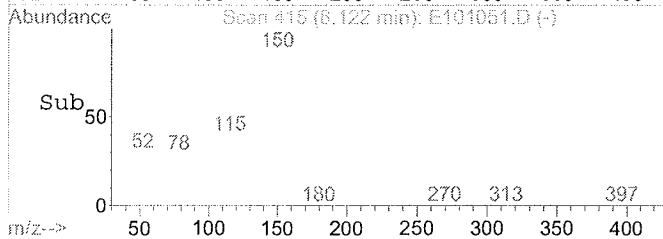




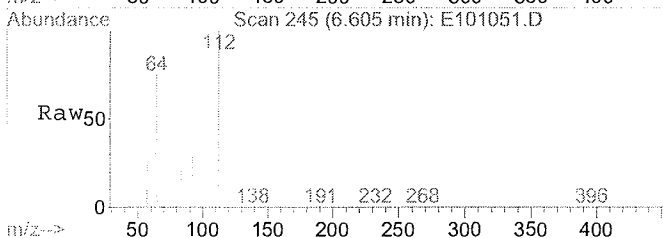
#1
1,4-Dichlorobenzene-d4
Concen: 40.00 ug/mL
RT: 8.12 min Scan# 415
Delta R.T. -0.02 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm



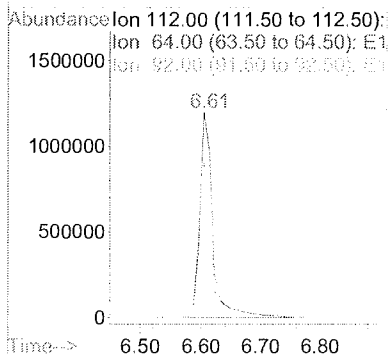
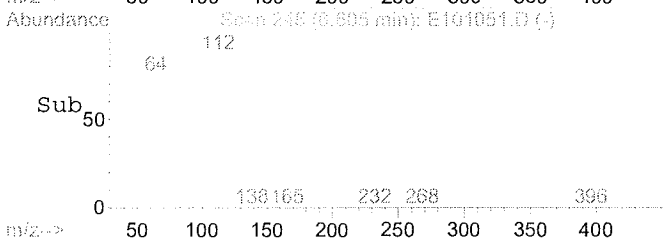
Tgt Ion:152 Resp: 1544799
Ion Ratio Lower Upper
152 100
150 150.1 115.0 172.4
115 60.6 52.2 78.4
78 43.2 40.6 60.8

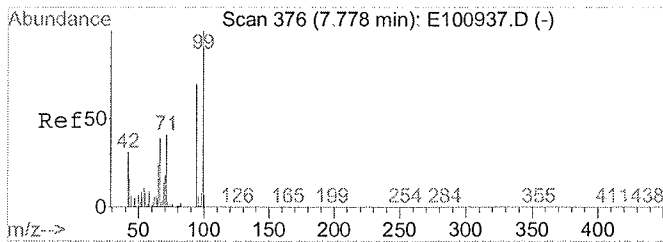


#4
2-Fluorophenol
Concen: Below ug/mL
RT: 6.61 min Scan# 245
Delta R.T. 0.25 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm



Tgt Ion:112 Resp: 1778268
Ion Ratio Lower Upper
112 100
64 73.0 59.8 89.6
92 30.7 25.3 37.9

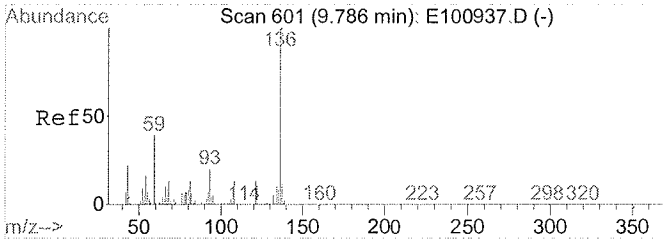
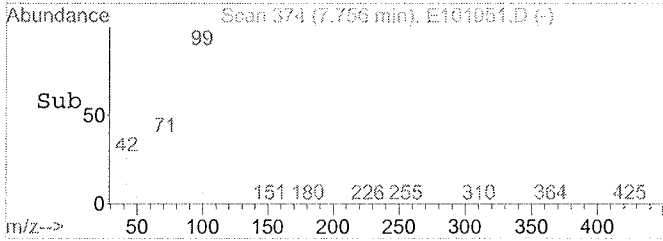
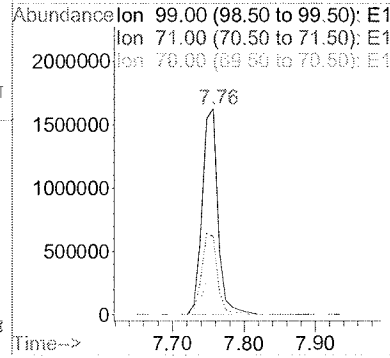
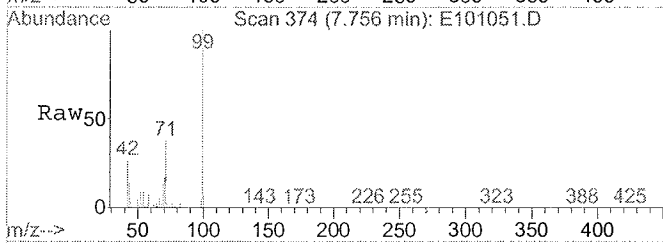




#5
Phenol-d5
Concen: Below ug/mL
RT: 7.76 min Scan# 374
Delta R.T. 0.31 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

Tgt Ion: 99 Resp: 2463724

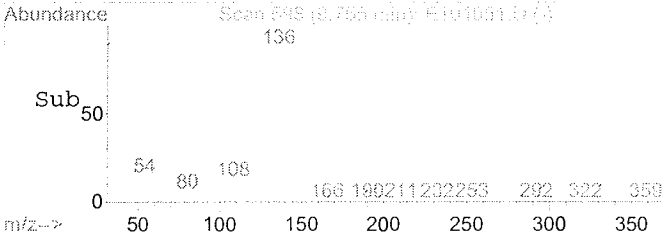
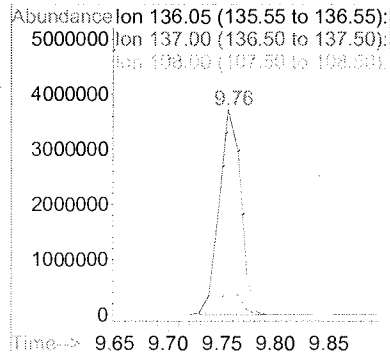
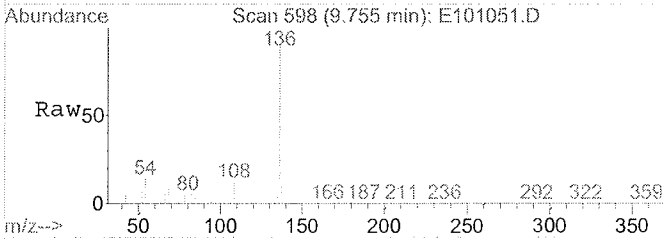
Ion	Ratio	Lower	Upper
99	100		
71	39.4	36.0	54.0
70	17.3	14.7	22.1

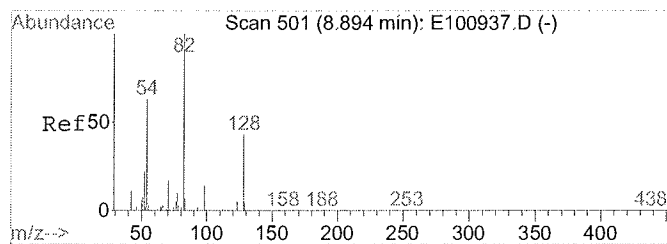


#21
Naphthalene-d8
Concen: 40.00 ug/mL
RT: 9.76 min Scan# 598
Delta R.T. 0.36 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

Tgt Ion: 136 Resp: 5195137

Ion	Ratio	Lower	Upper
136	100		
137	11.9	9.7	14.5
108	12.0	10.4	15.6

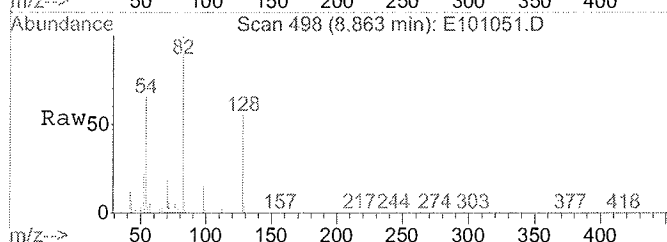




#22
Nitrobenzene-d5
Concen: 40.00 ug/mL
RT: 8.86 min Scan# 498
Delta R.T. 0.34 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

Tgt Ion: 82 Resp: 1400579

Ion	Ratio	Lower	Upper
82	100		
54	66.0	55.0	82.6
128	51.4	38.0	57.0

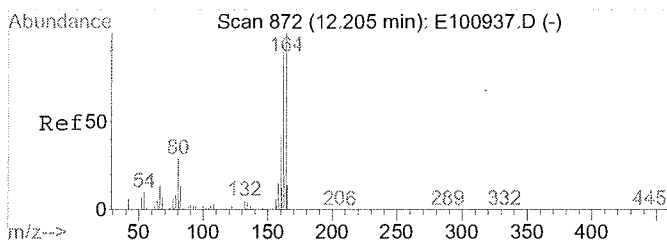
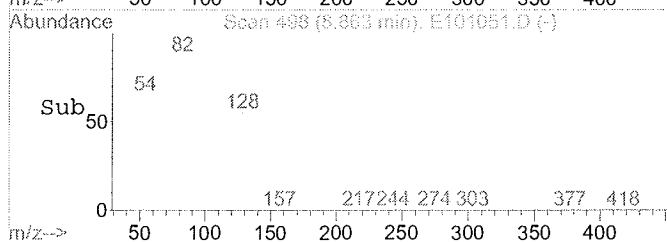
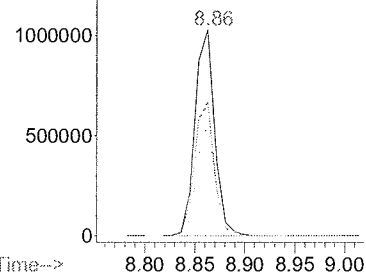


Abundance

Ion 82.00 (81.50 to 82.50): E1

Ion 54.00 (53.50 to 54.50): E1

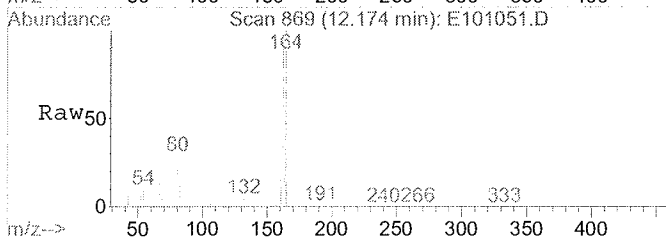
Ion 128.00 (127.50 to 128.50): E1



#39
Acenaphthene-d10
Concen: 40.00 ug/mL
RT: 12.17 min Scan# 869
Delta R.T. 0.36 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

Tgt Ion: 164 Resp: 2838987

Ion	Ratio	Lower	Upper
164	100		
162	93.1	73.4	110.0
160	41.8	32.4	48.6

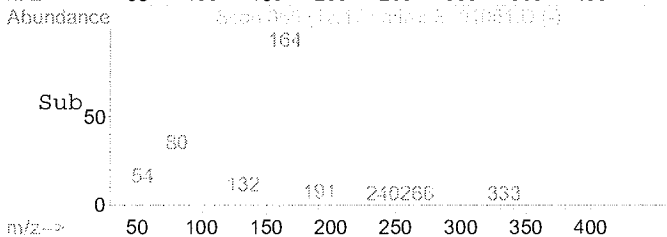
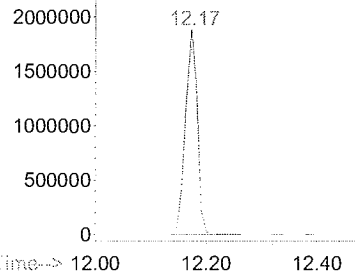


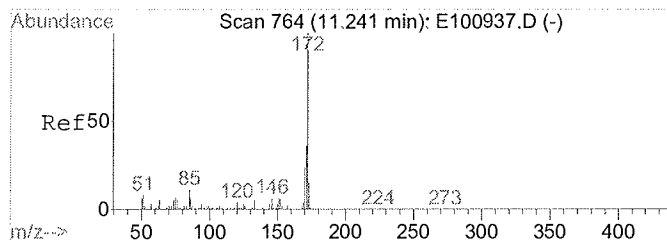
Abundance

Ion 164.00 (163.50 to 164.50): E1

Ion 162.00 (161.50 to 162.50): E1

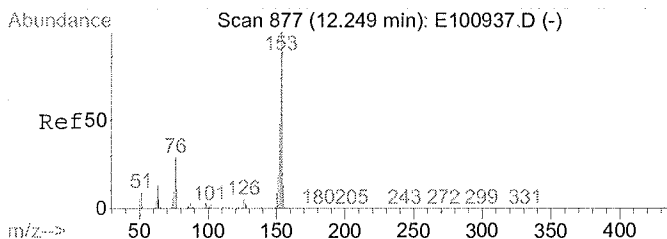
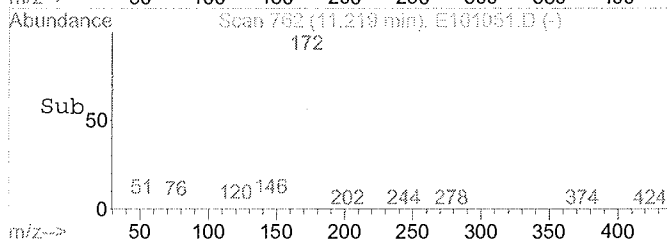
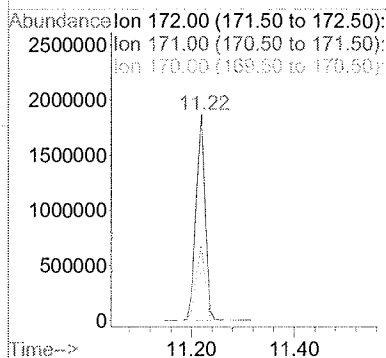
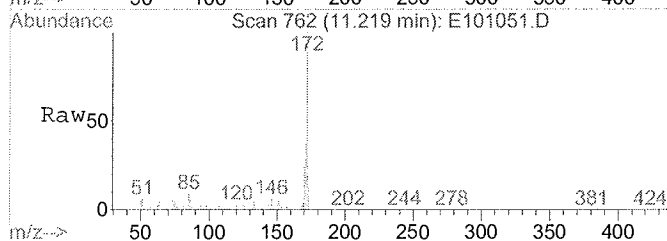
Ion 160.00 (159.50 to 160.50): E1





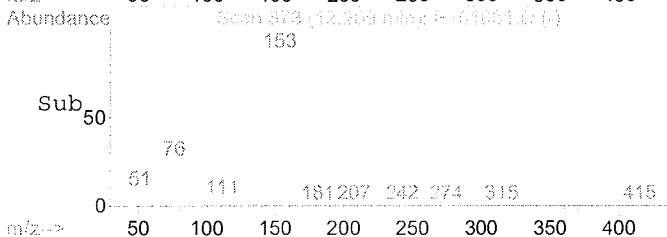
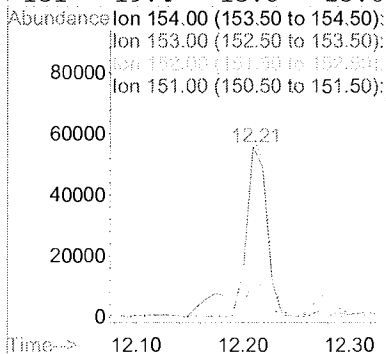
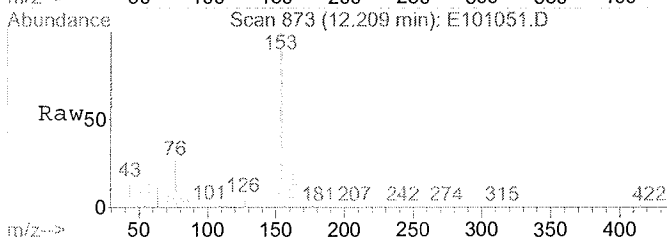
#45
2-Fluorobiphenyl
Concen: Below ug/mL
RT: 11.22 min Scan# 762
Delta R.T. 0.36 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

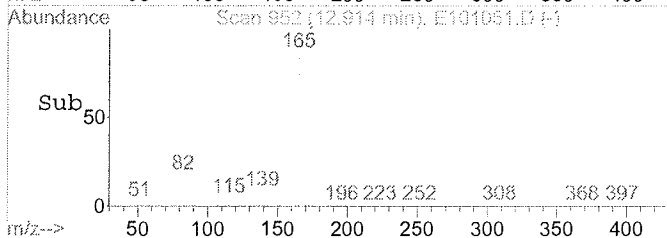
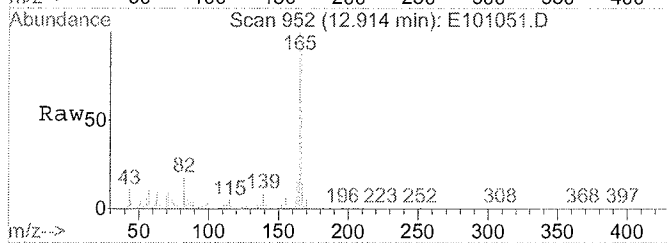
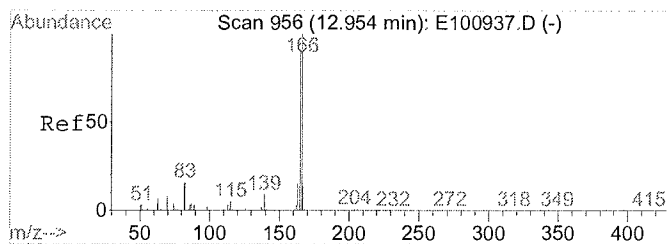
Tgt Ion:172 Resp: 2321563
Ion Ratio Lower Upper
172 100
171 36.5 29.5 44.3
170 23.5 19.7 29.5



#52
Acenaphthene
Concen: 0.90 ug/mL
RT: 12.21 min Scan# 873
Delta R.T. 0.35 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

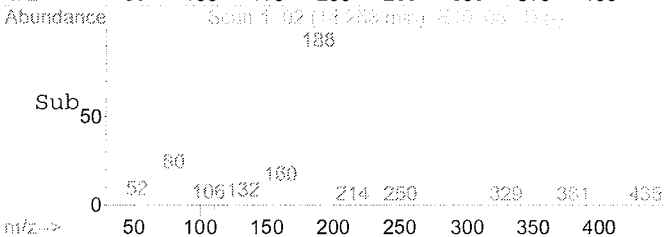
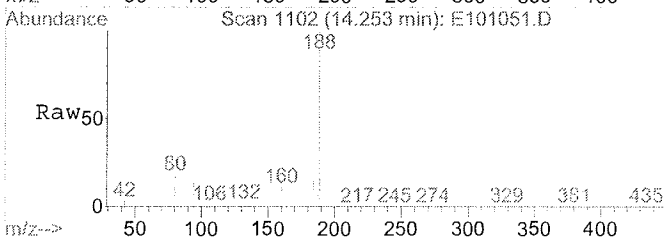
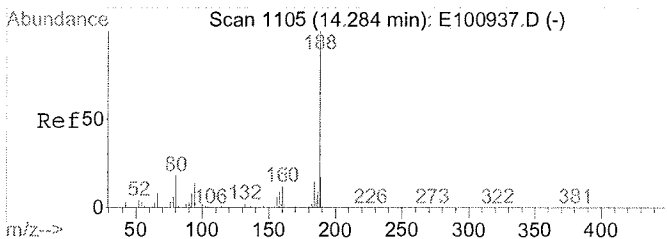
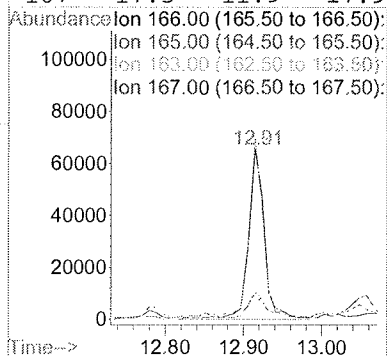
Tgt Ion:154 Resp: 84435
Ion Ratio Lower Upper
154 100
153 94.2 83.4 125.2
152 45.5 39.8 59.8
151 19.4 15.8 23.6





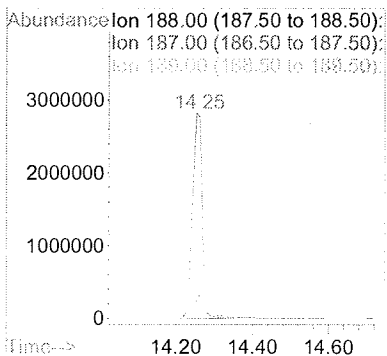
#59
Fluorene
Concen: 0.84 ug/mL
RT: 12.91 min Scan# 952
Delta R.T. 0.35 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

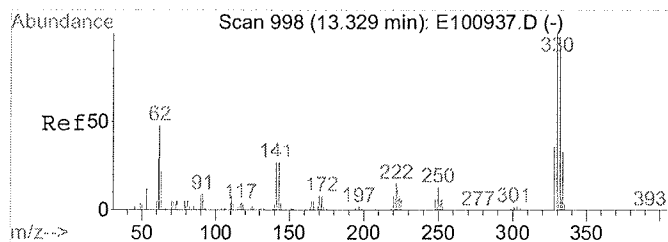
Tgt Ion	Ratio	Lower	Upper
166	100		
165	95.9	74.1	111.1
163	19.5	13.4	20.2
167	17.5	11.9	17.9



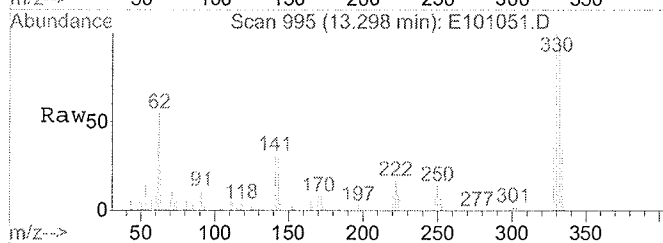
#63
Phenanthrene-d10
Concen: 40.00 ug/mL
RT: 14.25 min Scan# 1102
Delta R.T. 0.36 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

Tgt Ion	Ratio	Lower	Upper
188	100		
187	9.3	7.7	11.3
189	16.1	13.7	18.7

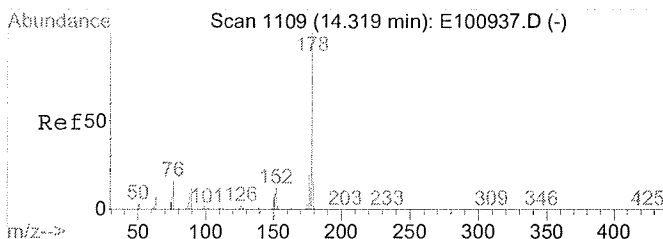
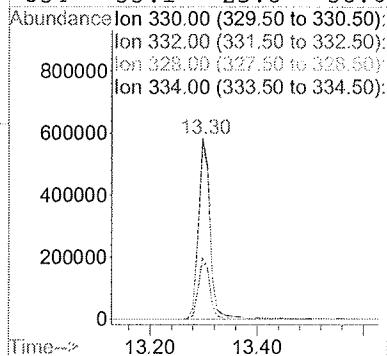
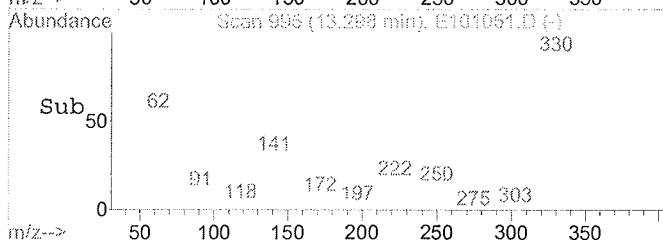




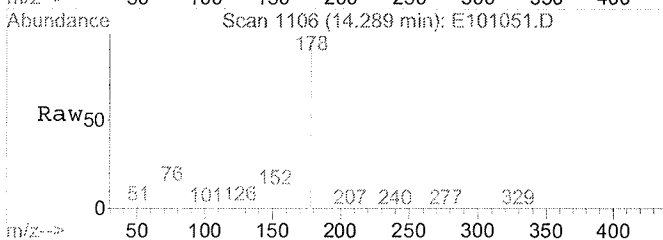
#68
2,4,6-Tribromophenol
Concen: Below ug/mL
RT: 13.30 min Scan# 995
Delta R.T. 0.36 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm



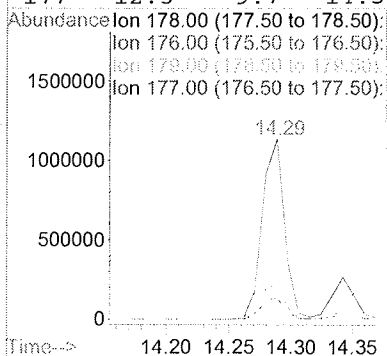
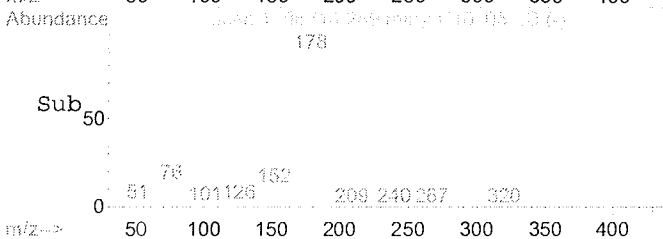
Tgt Ion: 330 Resp: 882944
Ion Ratio Lower Upper
330 100
332 97.3 77.8 116.8
328 36.1 28.2 42.2
334 33.1 25.8 38.6

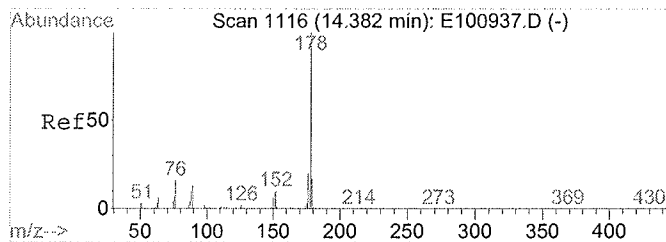


#73
Phenanthrene
Concen: 9.26 ug/mL
RT: 14.29 min Scan# 1106
Delta R.T. 0.36 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm



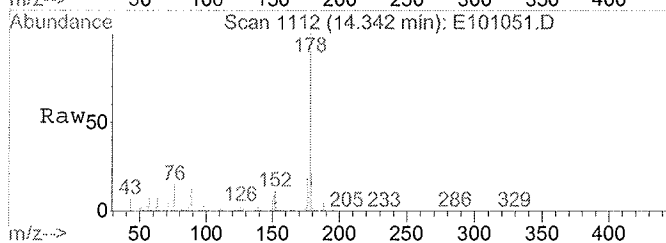
Tgt Ion: 178 Resp: 1409936
Ion Ratio Lower Upper
178 100
176 20.3 16.1 24.1
179 17.0 13.0 19.6
177 12.3 9.7 14.5





#74
 Anthracene
 Concen: 1.82 ug/mL
 RT: 14.34 min Scan# 1112
 Delta R.T. 0.35 min
 Lab File: E101051.D
 Acq: 11 Mar 2016 5:45 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
176	19.6	15.6	23.4
179	23.7	12.9	19.3#
177	10.7	8.3	12.5



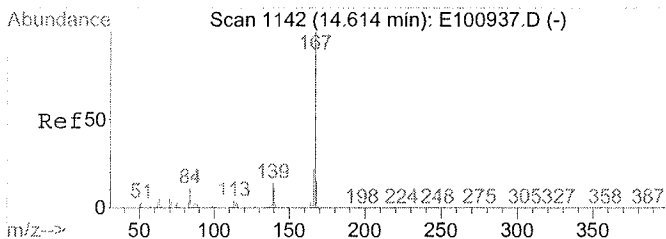
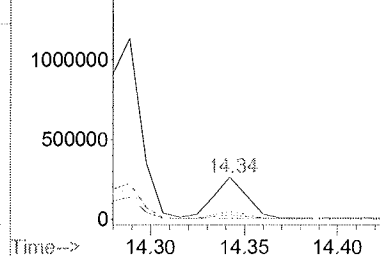
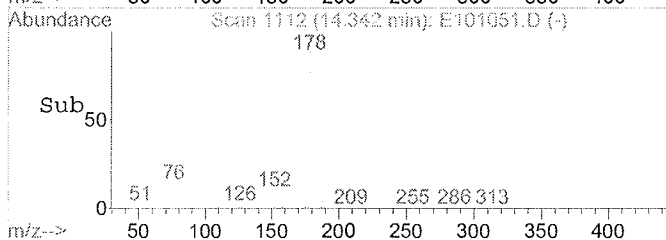
Abundance

Ion 178.00 (177.50 to 178.50):

Ion 176.00 (175.50 to 176.50):

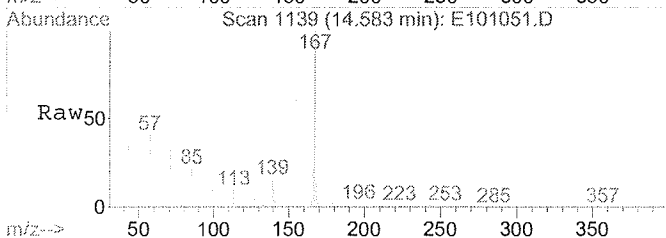
Ion 179.00 (178.50 to 179.50):

Ion 177.00 (176.50 to 177.50):



#75
 Carbazole
 Concen: 1.04 ug/mL
 RT: 14.58 min Scan# 1139
 Delta R.T. 0.35 min
 Lab File: E101051.D
 Acq: 11 Mar 2016 5:45 pm

Tgt Ion	Ratio	Lower	Upper
167	100		
167	100.0	80.0	120.0
168	14.5	7.2	21.7
166	0.0	0.0	0.0



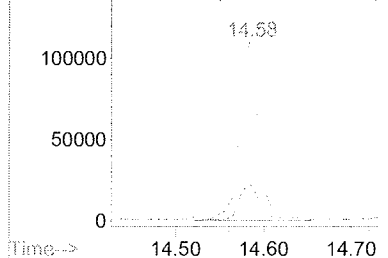
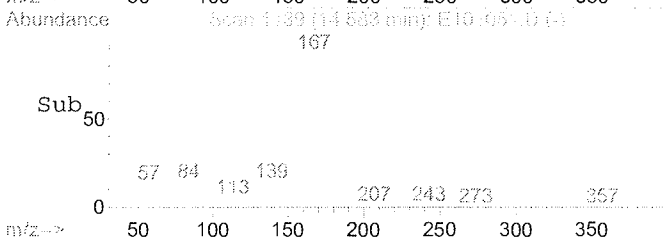
Abundance

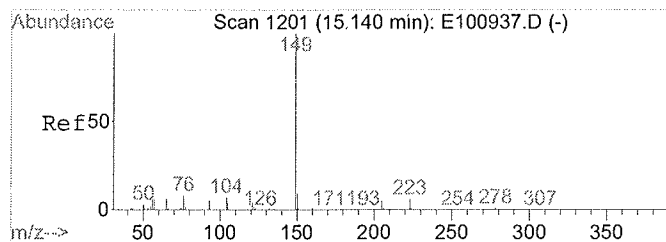
Ion 167.00 (166.50 to 167.50):

Ion 167.00 (166.50 to 167.50):

Ion 168.00 (167.50 to 168.50):

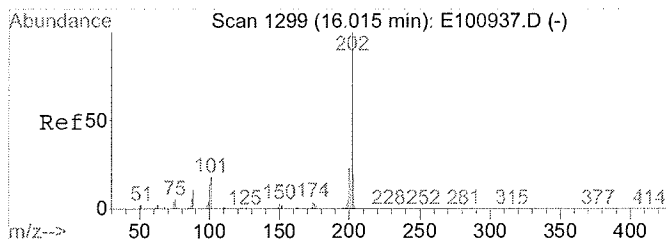
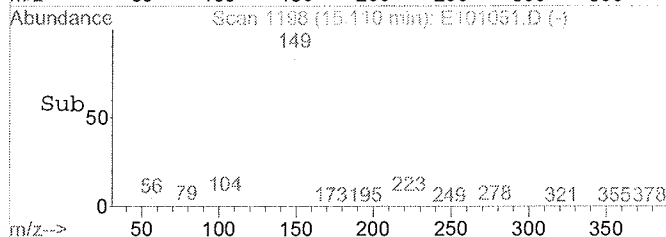
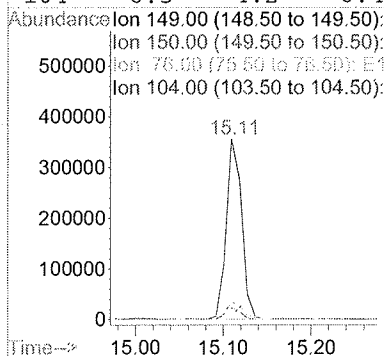
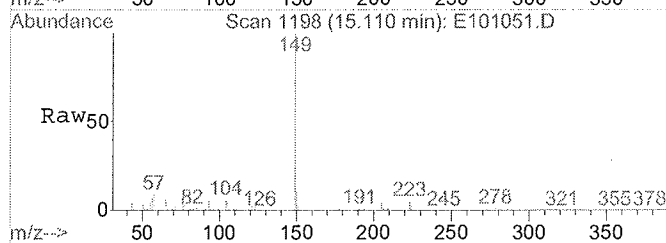
Ion 166.00 (165.50 to 166.50):





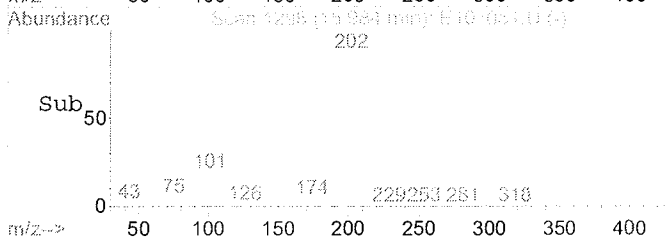
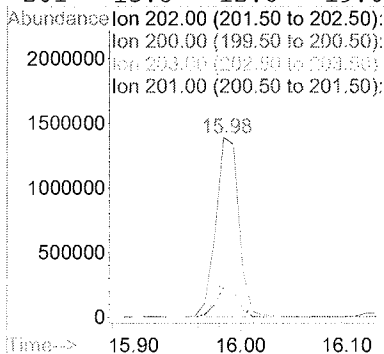
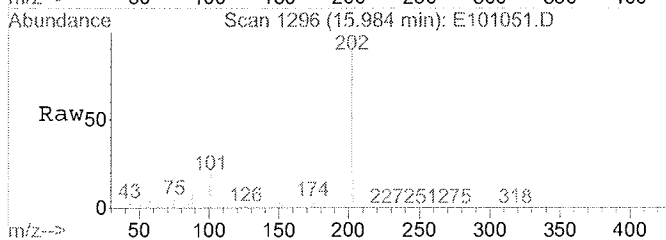
#76
Di-n-butyl phthalate
Concen: 1.92 ug/mL
RT: 15.11 min Scan# 1198
Delta R.T. 0.34 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

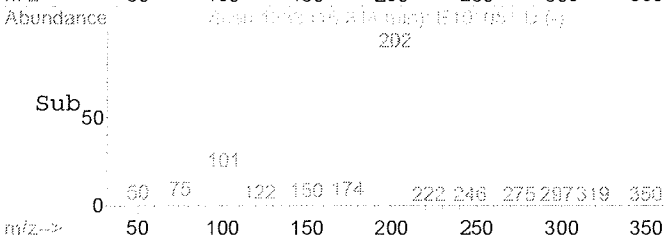
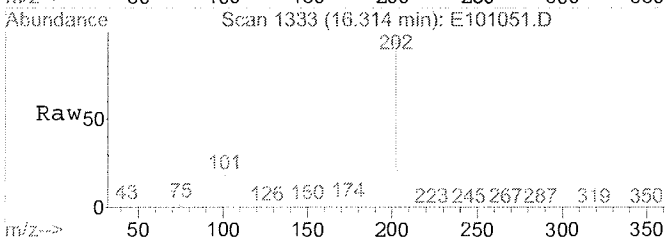
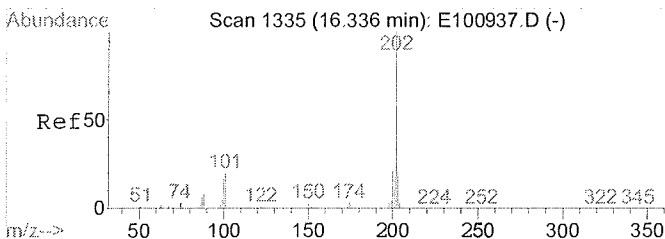
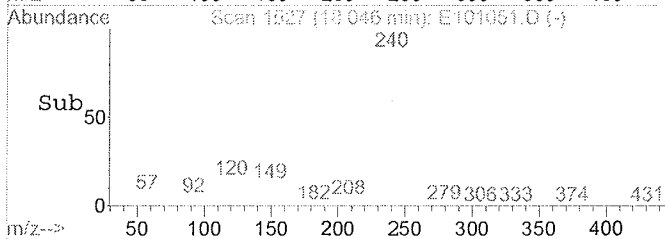
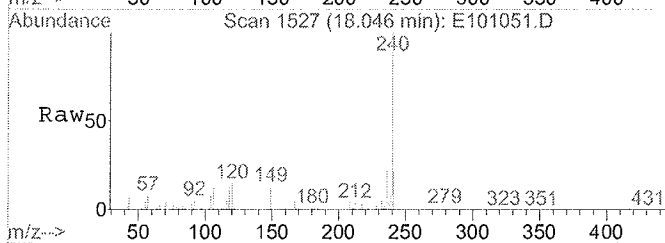
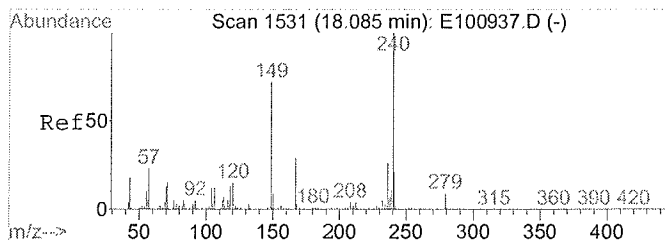
Tgt Ion: 149 Resp: 430573
Ion Ratio Lower Upper
149 100
150 10.4 7.8 11.8
76 7.0 4.8 7.2
104 6.5 4.2 6.4#



#77
Fluoranthene
Concen: 11.94 ug/mL
RT: 15.98 min Scan# 1296
Delta R.T. 0.36 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

Tgt Ion: 202 Resp: 2069567
Ion Ratio Lower Upper
202 100
200 21.9 16.6 24.8
203 18.3 15.0 22.6
201 15.8 12.6 19.0





#79

Chrysene-d12

Concen: 40.00 ug/mL

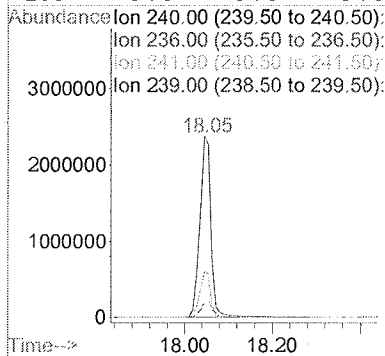
RT: 18.05 min Scan# 1527

Delta R.T. 0.35 min

Lab File: E101051.D

Acq: 11 Mar 2016 5:45 pm

Tgt Ion:	240	Resp:	4306771
Ion Ratio	Lower	Upper	
240	100		
236	25.2	20.4	30.6
241	21.2	16.5	24.7
239	9.6	9.6	9.6#



#80

Pyrene

Concen: 10.85 ug/mL

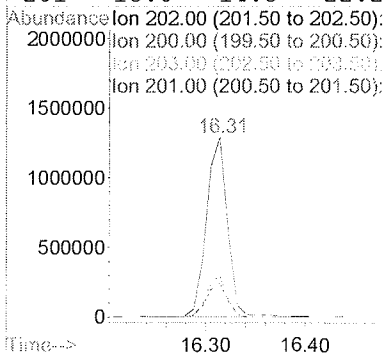
RT: 16.31 min Scan# 1333

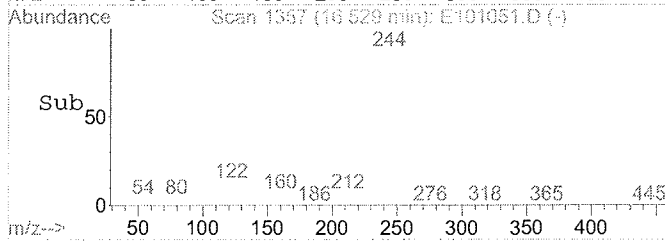
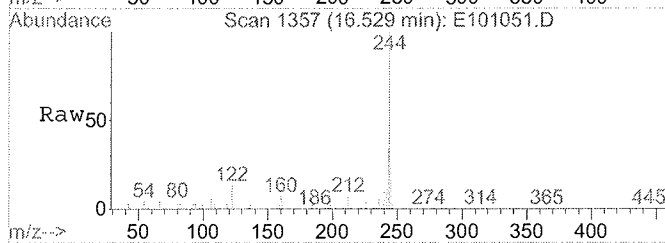
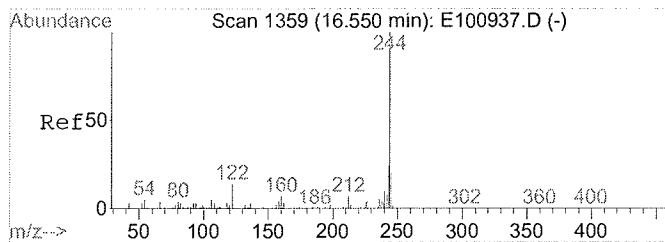
Delta R.T. 0.37 min

Lab File: E101051.D

Acq: 11 Mar 2016 5:45 pm

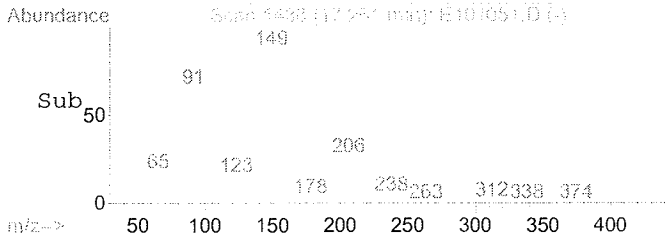
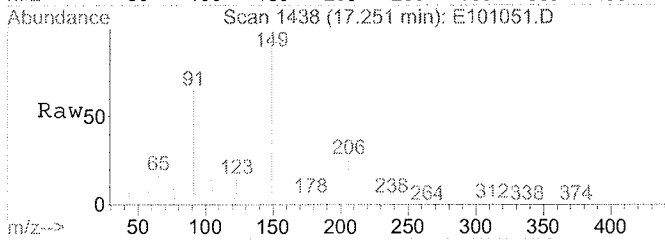
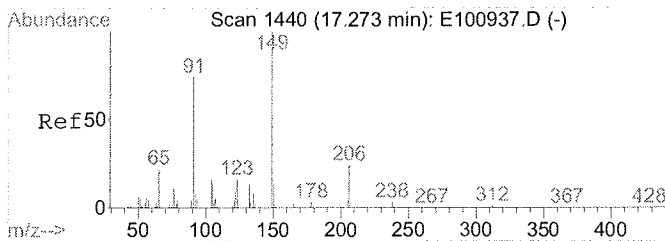
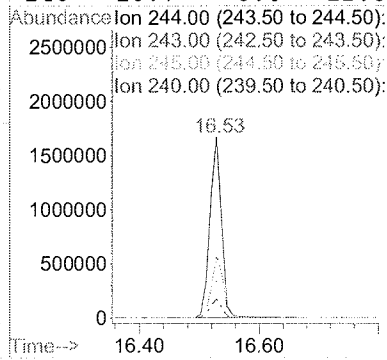
Tgt Ion:	202	Resp:	1883662
Ion Ratio	Lower	Upper	
202	100		
200	22.6	17.1	25.7
203	22.0	15.2	22.8
201	18.6	14.8	22.2





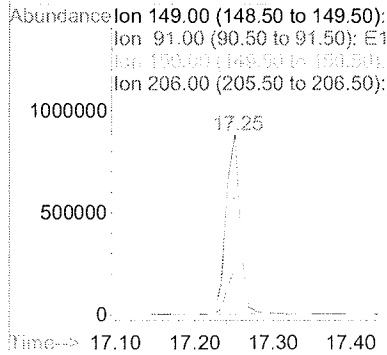
#81
Terphenyl-d14
Concen: 10.85 ug/mL
RT: 16.53 min Scan# 1357
Delta R.T. 0.37 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

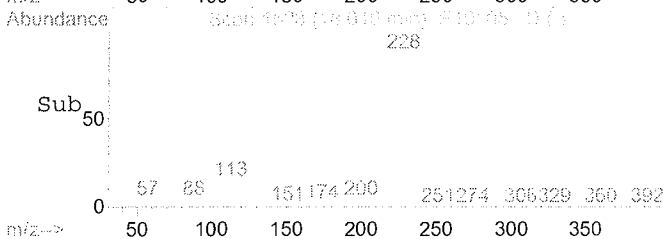
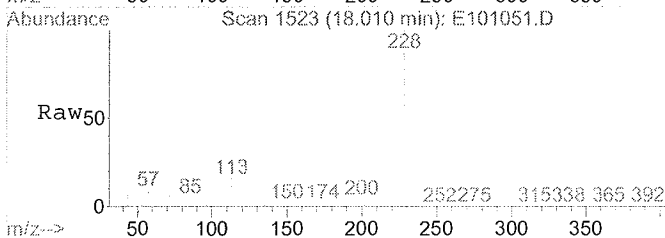
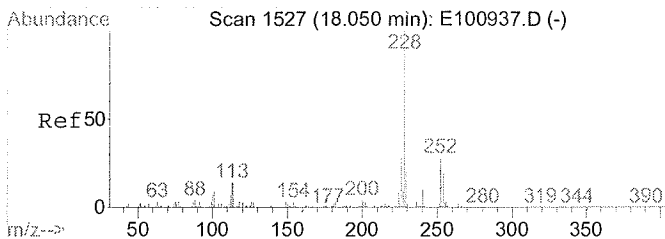
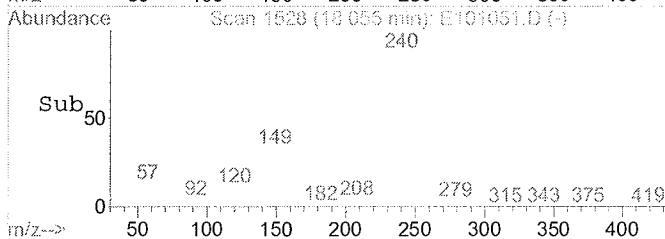
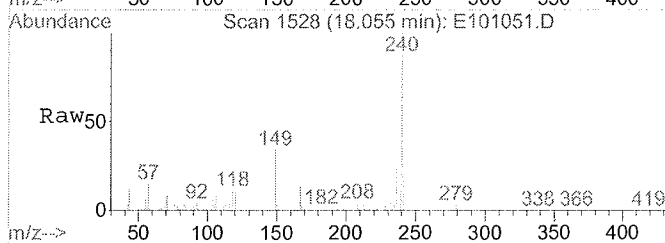
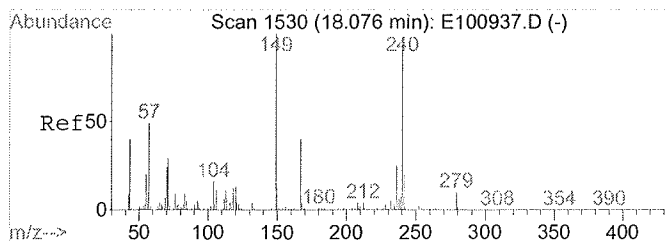
Tgt Ion:244 Resp: 2275525
Ion Ratio Lower Upper
244 100
243 34.1 26.8 40.2
245 20.5 16.2 24.2
240 10.7 8.6 12.8



#82
Benzyl butyl phthalate
Concen: 10.53 ug/mL
RT: 17.25 min Scan# 1438
Delta R.T. 0.35 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

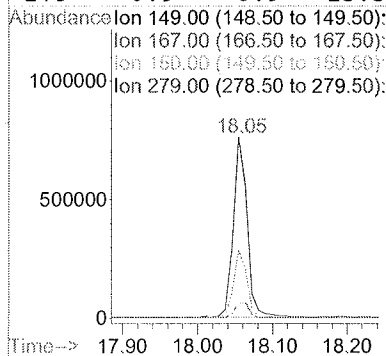
Tgt Ion:149 Resp: 1105354
Ion Ratio Lower Upper
149 100
91 70.7 53.7 80.5
150 13.1 10.1 15.1
206 23.7 21.6 32.4





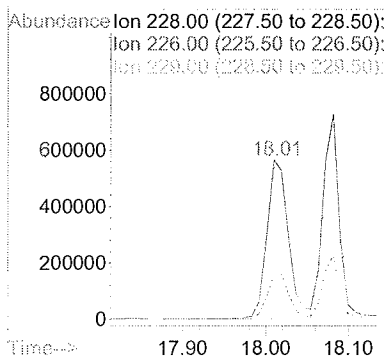
#83
Bis(2-ethylhexyl)phthalate
Concen: 7.93 ug/mL
RT: 18.05 min Scan# 1528
Delta R.T. 0.34 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

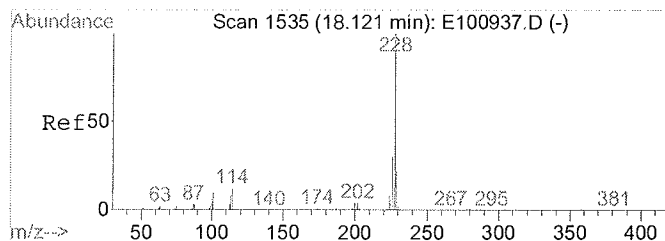
Tgt Ion	Ratio	Lower	Upper
149	100		
167	36.5	32.6	49.0
150	13.9	11.3	16.9
279	8.9	8.9	13.3#



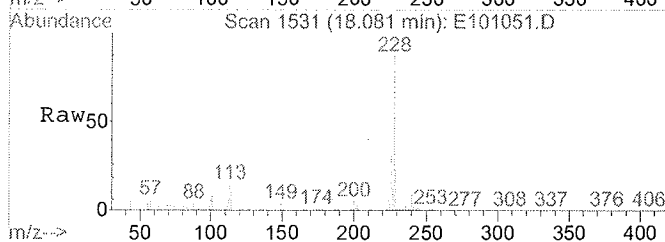
#84
Benz(a)anthracene
Concen: 6.29 ug/mL
RT: 18.01 min Scan# 1523
Delta R.T. 0.36 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

Tgt Ion	Ratio	Lower	Upper
228	100		
226	28.7	22.5	33.7
229	27.5	16.8	25.2#

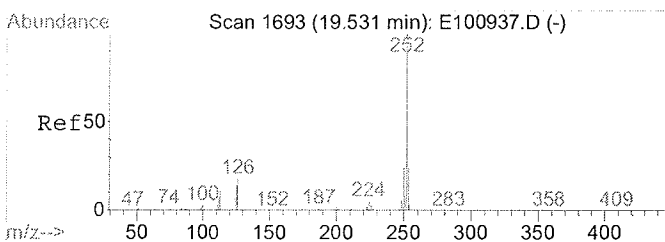
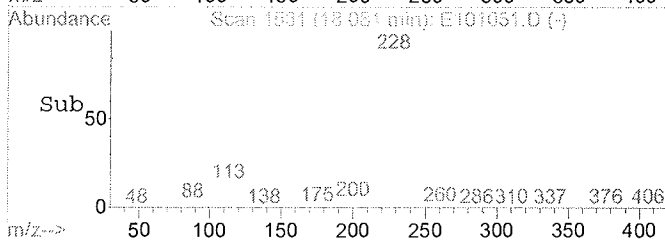
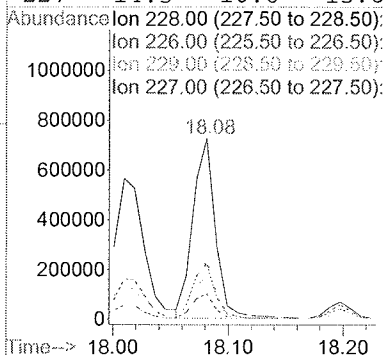




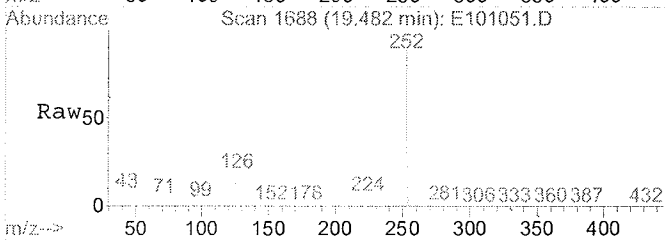
#86
Chrysene
Concen: 6.55 ug/mL
RT: 18.08 min Scan# 1531
Delta R.T. 0.34 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm



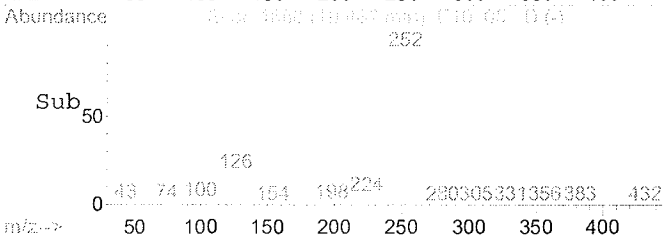
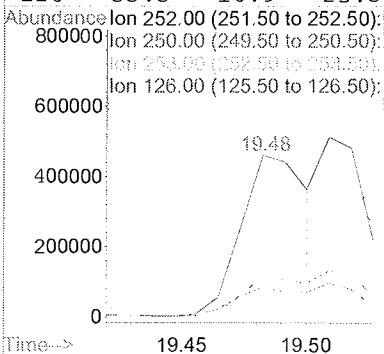
Tgt Ion	Ratio	Lower	Upper
228	100		
226	31.7	23.1	34.7
229	25.3	17.0	25.4
227	14.3	10.6	15.8

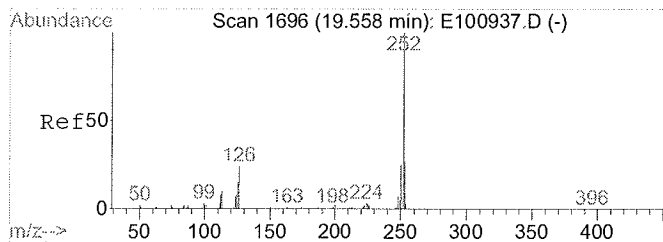


#88
Benzo(b)fluoranthene
Concen: 4.40 ug/mL
RT: 19.48 min Scan# 1688
Delta R.T. 0.34 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm



Tgt Ion	Ratio	Lower	Upper
252	100		
250	47.1	28.3	42.5#
253	44.3	28.2	42.4#
126	33.3	16.9	25.3#





#89

Benzo(k)fluoranthene

Concen: 5.17 ug/mL m

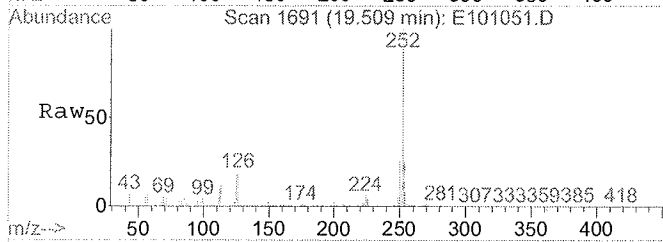
RT: 19.51 min Scan# 1691

Delta R.T. 0.34 min

Lab File: E101051.D

Acq: 11 Mar 2016 5:45 pm

Tgt Ion:	252	Resp:	722164
Ion Ratio	Lower	Upper	
252	100		
250	54.6	55.5	83.3#
253	52.9	55.3	82.9#
126	38.6	33.1	49.7



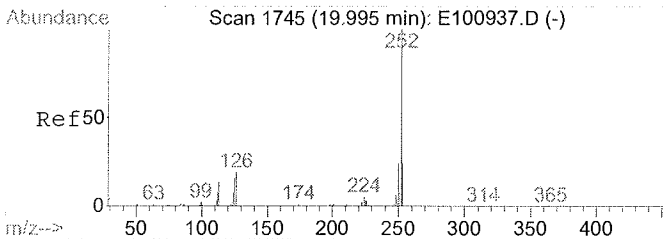
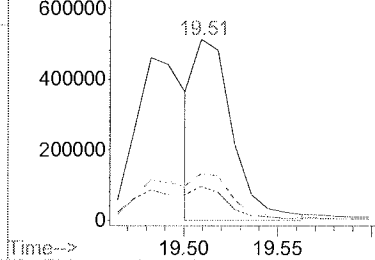
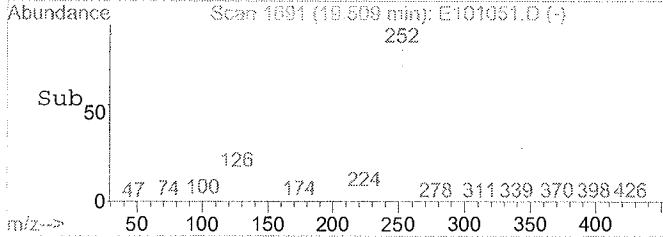
Abundance

Ion 252.00 (251.50 to 252.50):

Ion 250.00 (249.50 to 250.50):

Ion 253.00 (252.50 to 253.50):

Ion 126.00 (125.50 to 126.50):



#90

Benz(a)pyrene

Concen: 5.25 ug/mL

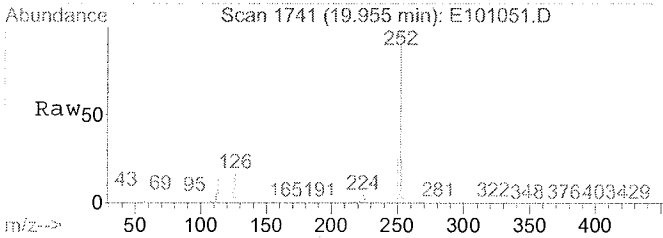
RT: 19.96 min Scan# 1741

Delta R.T. 0.38 min

Lab File: E101051.D

Acq: 11 Mar 2016 5:45 pm

Tgt Ion:	252	Resp:	824447
Ion Ratio	Lower	Upper	
252	100		
250	24.9	19.3	28.9
253	23.5	18.5	27.7
126	18.8	11.5	17.3#



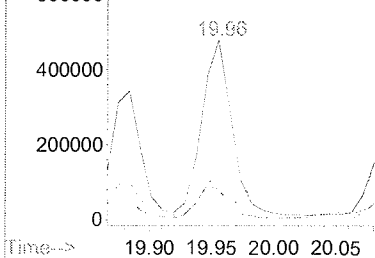
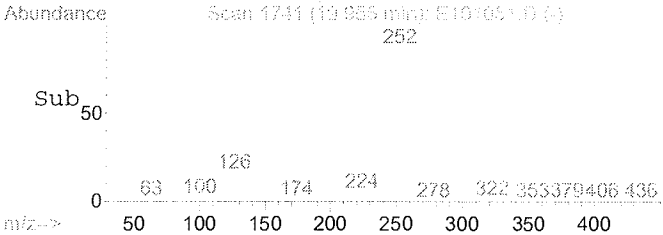
Abundance

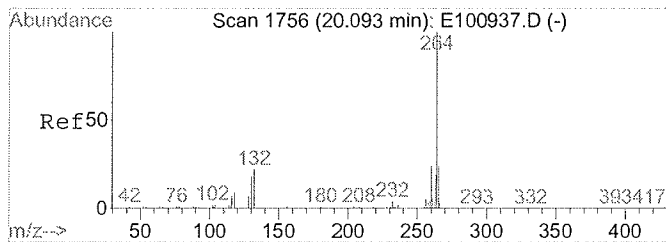
Ion 252.00 (251.50 to 252.50):

Ion 250.00 (249.50 to 250.50):

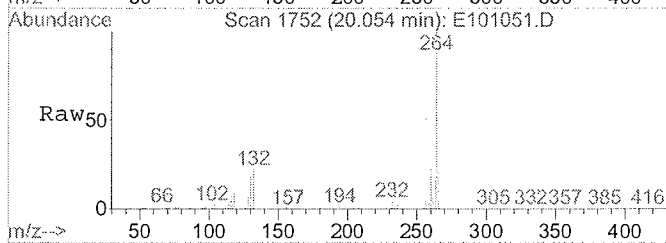
Ion 253.00 (252.50 to 253.50):

Ion 126.00 (125.50 to 126.50):



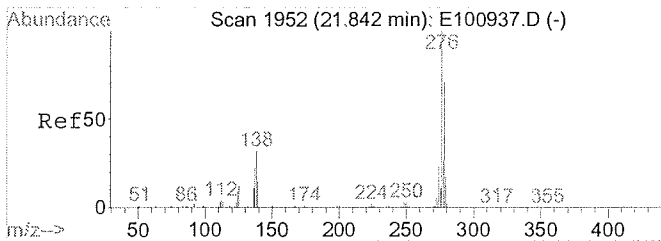
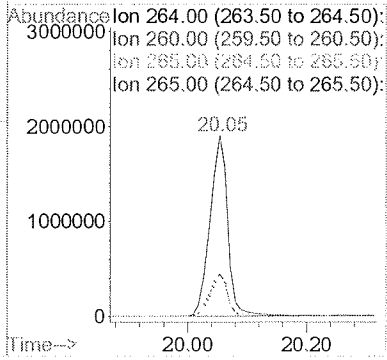
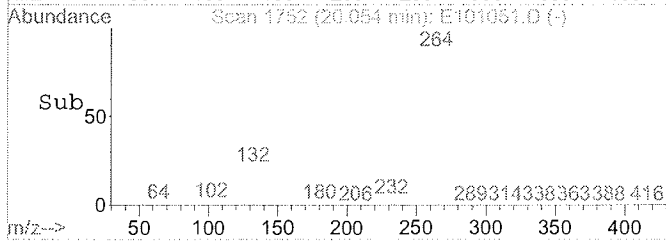


#91
Perylene-d12
Concen: 40.00 ug/mL
RT: 20.05 min Scan# 1752
Delta R.T. 0.39 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

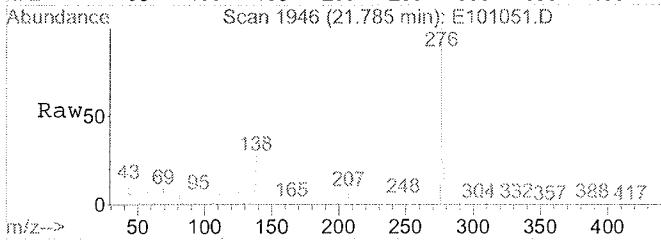


Tgt Ion: 264 Resp: 4003866

Ion	Ratio	Lower	Upper
264	100		
260	23.4	19.0	28.4
265	23.0	17.8	26.8
265	23.0	17.8	26.8

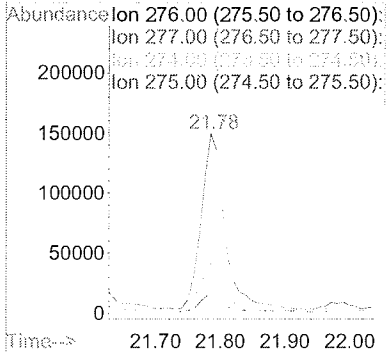
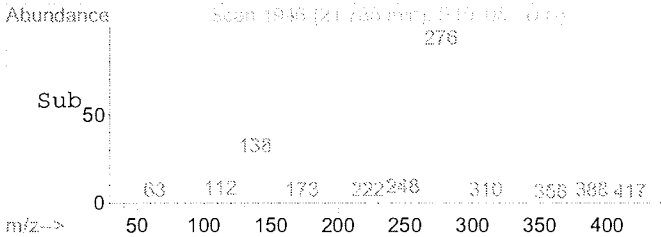


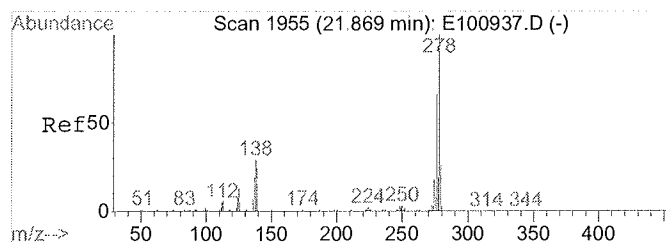
#92
Indeno(1,2,3-c,d)pyrene
Concen: 2.29 ug/mL
RT: 21.78 min Scan# 1946
Delta R.T. 0.46 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm



Tgt Ion: 276 Resp: 385043

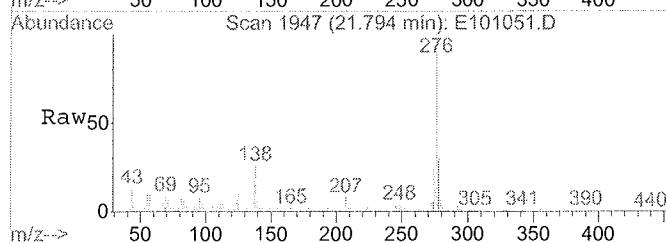
Ion	Ratio	Lower	Upper
276	100		
277	27.5	21.6	32.4
274	23.3	18.9	28.3
275	11.1	9.7	14.5





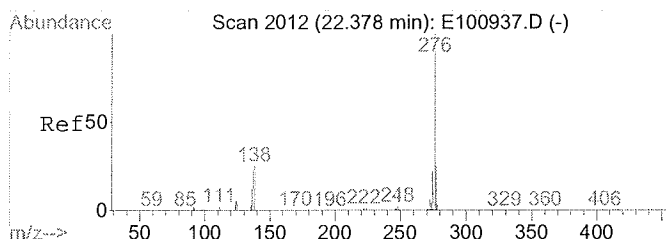
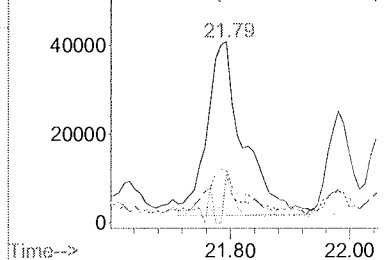
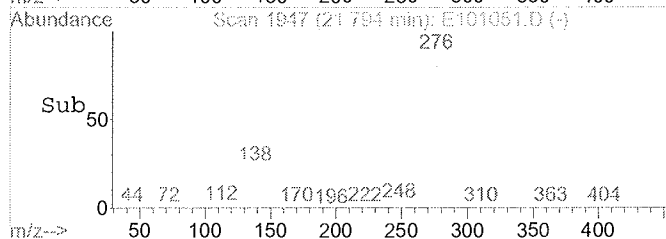
#93
Dibenz(a,h)anthracene
Concen: 1.22 ug/mL
RT: 21.79 min Scan# 1947
Delta R.T. 0.48 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

Tgt Ion: 278 Resp: 165034
Ion Ratio Lower Upper
278 100
279 27.6 19.6 29.4
280 5.4 2.6 3.8#
139 21.8 12.2 18.2#



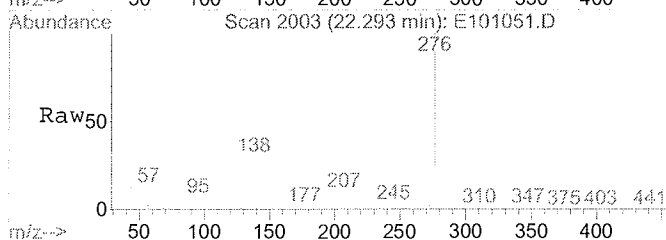
Abundance

Ion 278.00 (277.50 to 278.50):
Ion 279.00 (278.50 to 279.50):
Ion 280.00 (279.50 to 280.50):
Ion 139.00 (138.50 to 139.50):



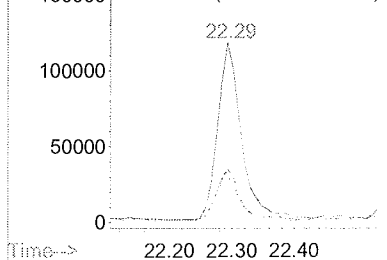
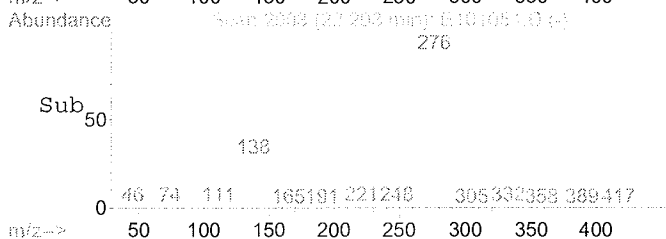
#94
Benzo(g,h,i)perylene
Concen: 2.26 ug/mL
RT: 22.29 min Scan# 2003
Delta R.T. 0.51 min
Lab File: E101051.D
Acq: 11 Mar 2016 5:45 pm

Tgt Ion: 276 Resp: 307439
Ion Ratio Lower Upper
276 100
277 27.0 19.9 29.9
274 22.0 18.0 27.0
138 27.8 17.9 26.9#



Abundance

Ion 276.00 (275.50 to 276.50):
Ion 277.00 (276.50 to 277.50):
Ion 274.00 (273.50 to 274.50):
Ion 138.00 (137.50 to 138.50):



FORM I

ORGANIC ANALYSIS DATA SHEET

02/LSB-1

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-02 File ID: E101050.D
 Sampled: 03/04/16 12:20 Prepared: 03/11/16 06:56 Analyzed: 03/11/16 17:14
 Solids: 88.27 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Batch: BC60616 Sequence: Calibration: Instrument: BNA #1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
92-52-4	1,1'-Biphenyl	2	0.0945	U
95-94-3	1,2,4,5-Tetrachlorobenzene	2	0.189	U
120-82-1	1,2,4-Trichlorobenzene	2	0.0945	U
95-50-1	1,2-Dichlorobenzene	2	0.0945	U
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	2	0.0945	U
541-73-1	1,3-Dichlorobenzene	2	0.0945	U
106-46-7	1,4-Dichlorobenzene	2	0.0945	U
58-90-2	2,3,4,6-Tetrachlorophenol	2	0.189	U
95-95-4	2,4,5-Trichlorophenol	2	0.0945	U
88-06-2	2,4,6-Trichlorophenol	2	0.0945	U
120-83-2	2,4-Dichlorophenol	2	0.0945	U
105-67-9	2,4-Dimethylphenol	2	0.0945	U
51-28-5	2,4-Dinitrophenol	2	0.189	U
121-14-2	2,4-Dinitrotoluene	2	0.0945	U
606-20-2	2,6-Dinitrotoluene	2	0.0945	U
91-58-7	2-Chloronaphthalene	2	0.0945	U
95-57-8	2-Chlorophenol	2	0.0945	U
91-57-6	2-Methylnaphthalene	2	0.0945	U
95-48-7	2-Methylphenol	2	0.0945	U
88-74-4	2-Nitroaniline	2	0.189	U
88-75-5	2-Nitrophenol	2	0.0945	U
65794-96-9	3- & 4-Methylphenols	2	0.0945	U
91-94-1	3,3'-Dichlorobenzidine	2	0.0945	U
99-09-2	3-Nitroaniline	2	0.189	U
534-52-1	4,6-Dinitro-2-methylphenol	2	0.189	U
101-55-3	4-Bromophenyl phenyl ether	2	0.0945	U
59-50-7	4-Chloro-3-methylphenol	2	0.0945	U
106-47-8	4-Chloroaniline	2	0.0945	U
7005-72-3	4-Chlorophenyl phenyl ether	2	0.0945	U
100-01-6	4-Nitroaniline	2	0.189	U
100-02-7	4-Nitrophenol	2	0.189	U
83-32-9	Acenaphthene	2	0.0945	U
208-96-8	Acenaphthylene	2	0.0945	U
98-86-2	Acetophenone	2	0.0945	U
62-53-3	Aniline	2	0.378	U
120-12-7	Anthracene	2	0.0945	U
1912-24-9	Atrazine	2	0.0945	U
100-52-7	Benzaldehyde	2	0.0945	U
92-87-5	Benzidine	2	0.378	U
56-55-3	Benzo(a)anthracene	2	0.0945	U

FORM I

ORGANIC ANALYSIS DATA SHEET

02/LSB-1

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-02 File ID: E101050.D
 Sampled: 03/04/16 12:20 Prepared: 03/11/16 06:56 Analyzed: 03/11/16 17:14
 Solids: 88.27 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Batch: BC60616 Sequence: Calibration: Instrument: BNA #1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
50-32-8	Benzo(a)pyrene	2	0.0945	U
205-99-2	Benzo(b)fluoranthene	2	0.0945	U
191-24-2	Benzo(g,h,i)perylene	2	0.0945	U
207-08-9	Benzo(k)fluoranthene	2	0.0945	U
65-85-0	Benzoic acid	2	0.0945	U
100-51-6	Benzyl alcohol	2	0.0945	U
85-68-7	Benzyl butyl phthalate	2	0.0945	U
111-91-1	Bis(2-chloroethoxy)methane	2	0.0945	U
111-44-4	Bis(2-chloroethyl)ether	2	0.0945	U
108-60-1	Bis(2-chloroisopropyl)ether	2	0.0945	U
117-81-7	Bis(2-ethylhexyl)phthalate	2	0.0945	U
105-60-2	Caprolactam	2	0.189	U
86-74-8	Carbazole	2	0.0945	U
218-01-9	Chrysene	2	0.0945	U
53-70-3	Dibenzo(a,h)anthracene	2	0.0945	U
132-64-9	Dibenzofuran	2	0.0945	U
84-66-2	Diethyl phthalate	2	0.0945	U
131-11-3	Dimethyl phthalate	2	0.0945	U
84-74-2	Di-n-butyl phthalate	2	0.0945	U
117-84-0	Di-n-octyl phthalate	2	0.0945	U
206-44-0	Fluoranthene	2	0.0945	U
86-73-7	Fluorene	2	0.0945	U
118-74-1	Hexachlorobenzene	2	0.0945	U
87-68-3	Hexachlorobutadiene	2	0.0945	U
77-47-4	Hexachlorocyclopentadiene	2	0.0945	U
67-72-1	Hexachloroethane	2	0.0945	U
193-39-5	Indeno(1,2,3-cd)pyrene	2	0.0945	U
78-59-1	Isophorone	2	0.0945	U
91-20-3	Naphthalene	2	0.0945	U
98-95-3	Nitrobenzene	2	0.0945	U
62-75-9	N-Nitrosodimethylamine	2	0.0945	U
621-64-7	N-nitroso-di-n-propylamine	2	0.0945	U
86-30-6	N-Nitrosodiphenylamine	2	0.0945	U
87-86-5	Pentachlorophenol	2	0.0945	U
85-01-8	Phenanthrene	2	0.0945	U
108-95-2	Phenol	2	0.0945	U
129-00-0	Pyrene	2	0.0945	U
110-86-1	Pyridine	2	0.378	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q

FORM I

ORGANIC ANALYSIS DATA SHEET

02/LSB-1

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil Laboratory ID: 16C0235-02 File ID: E101050.D
Sampled: 03/04/16 12:20 Prepared: 03/11/16 06:56 Analyzed: 03/11/16 17:14
Solids: 88.27 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
Batch: BC60616 Sequence: Calibration: Instrument: BNA #1

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	2.84	1.50	52.7	20 - 108	
Phenol-d5	2.83	1.62	57.3	23 - 114	
Nitrobenzene-d5	1.90	1.11	58.6	22 - 108	
2-Fluorobiphenyl	1.89	1.05	55.6	21 - 113	
2,4,6-Tribromophenol	2.83	2.56	90.3	19 - 110	
Terphenyl-d14	1.89	1.24	65.8	24 - 116	

* Values outside of QC limits

Data File : C:\HPCHEM\1\DATA\E1031116\E101050.D Vial: 14
 Acq On : 11 Mar 2016 5:14 pm Operator: SR
 Sample : 16C0235-02 Inst : BNA #1
 Misc : QBSV1031116B 2X NYSDEC 375 ASPB Multiplr: 2.00
 MS Integration Params: RTEINT.P
 Quant Time: Mar 14 7:54 2016 Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
 Title : Semivolatiles by GC/MS - EPA Method 625/8270
 Last Update : Sun Mar 06 04:11:30 2016
 Response via : Initial Calibration
 DataAcq Meth : TCBNA211

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.13	152	1566249	40.00	ug/mL	-0.01
21) Naphthalene-d8	9.76	136	5401217	40.00	ug/mL	0.36
39) Acenaphthene-d10	12.18	164	3022412	40.00	ug/mL	0.36
63) Phenanthrene-d10	14.26	188	5308629	40.00	ug/mL	0.36
79) Chrysene-d12	18.05	240	5349442	40.00	ug/mL	0.35
91) Perylene-d12	20.06	264	4794953	40.00	ug/mL	0.39

System Monitoring Compounds

4) 2-Fluorophenol	6.61	112	1351403	19.83	ug/mL	0.26
Spiked Amount	75.000	Range	14 - 77	Recovery	=	26.44%
5) Phenol-d5	7.75	99	1868706	21.48	ug/mL	0.30
Spiked Amount	75.000	Range	10 - 100	Recovery	=	28.64%
22) Nitrobenzene-d5	8.86	82	1138276	14.70	ug/mL	0.34
Spiked Amount	50.000	Range	31 - 97	Recovery	=	29.40%#
45) 2-Fluorobiphenyl	11.21	172	1806383	13.89	ug/mL	0.35
Spiked Amount	50.000	Range	43 - 116	Recovery	=	27.78%#
68) 2,4,6-Tribromophenol	13.30	330	679395	33.85	ug/mL	0.36
Spiked Amount	75.000	Range	10 - 123	Recovery	=	45.13%
81) Terphenyl-d14	16.52	244	2005162	16.45	ug/mL	0.36
Spiked Amount	50.000	Range	33 - 141	Recovery	=	32.90%#

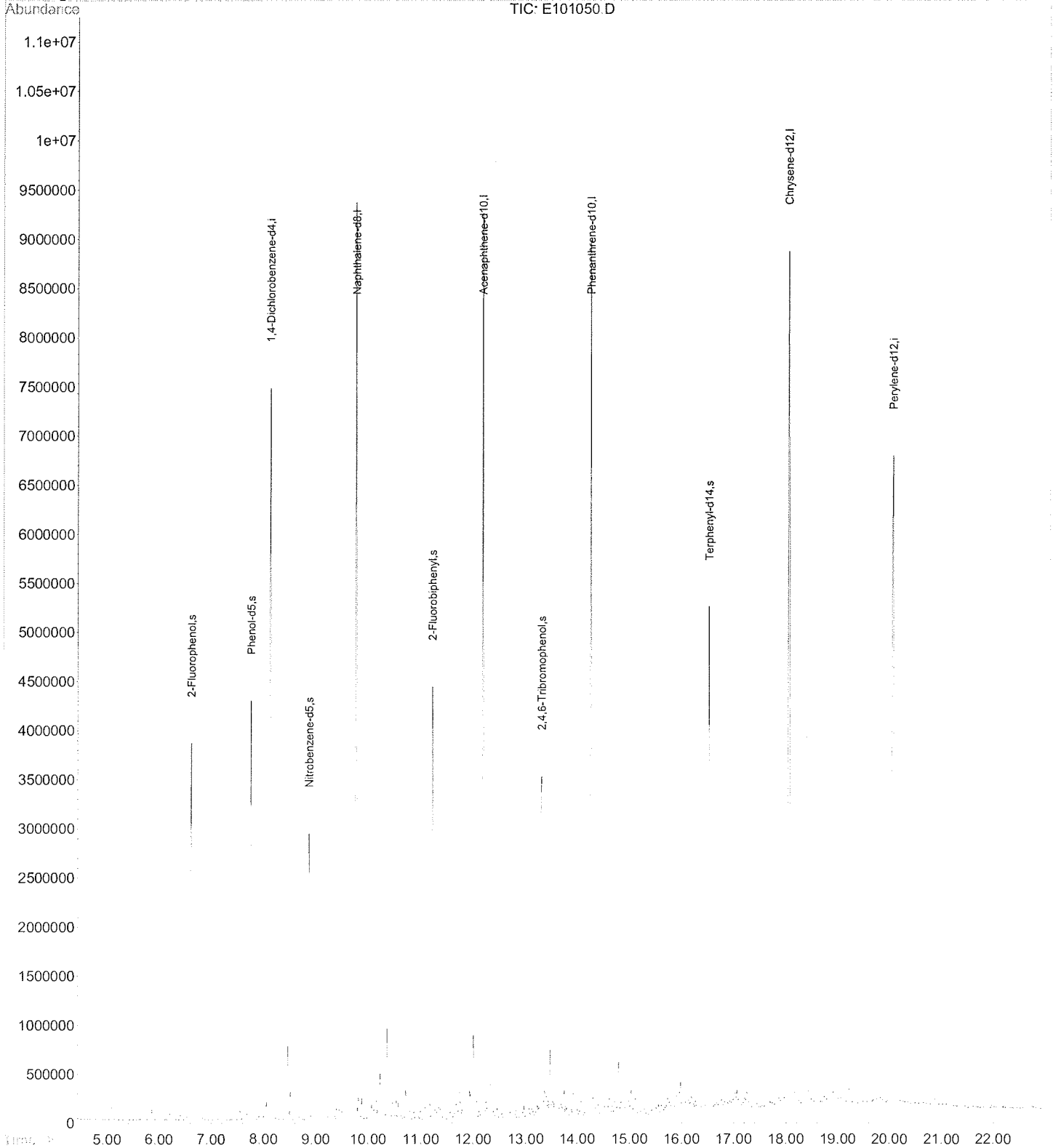
Target Compounds

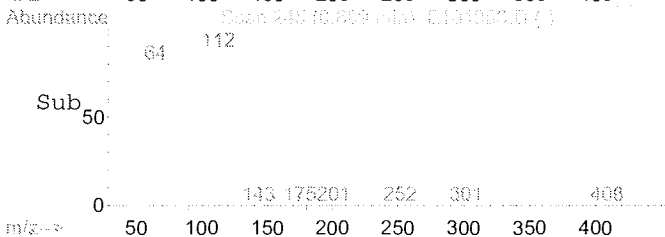
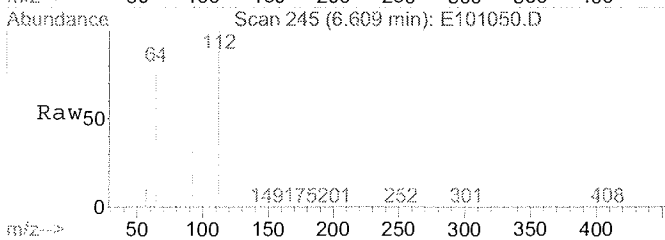
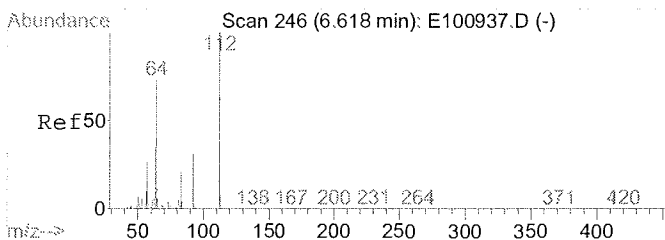
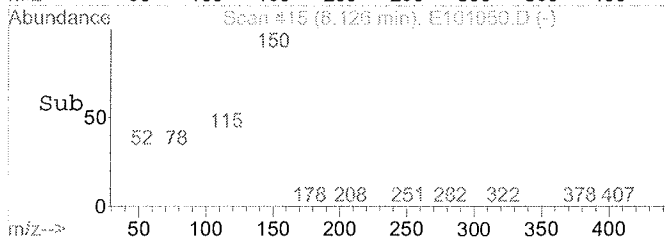
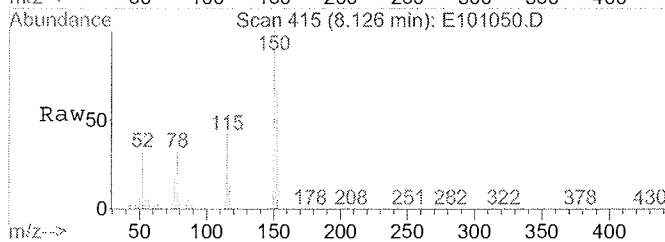
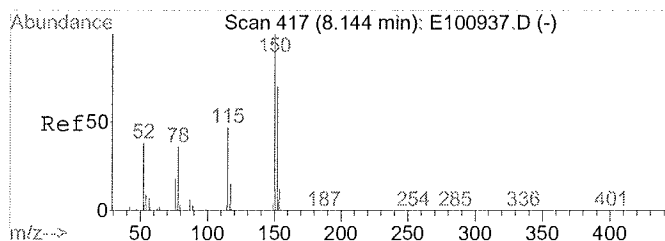
Qvalue

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E1031116\E101050.D Vial: 14
 Acq On : 11 Mar 2016 5:14 pm Operator: SR
 Sample : 16C0235-02 Inst : BNA #1
 Misc : QBSV1031116B 2X NYSDEC 375 ASPB Multiplr: 2.00
 MS Integration Params: RTEINT.P
 Quant Time: Mar 14 7:54 2016 Quant Results File: TCBNA211.RES

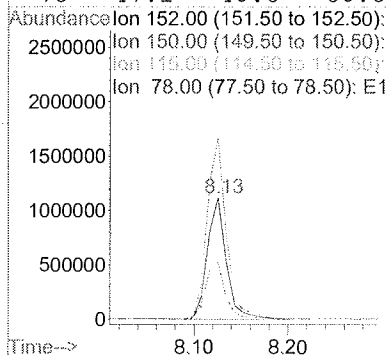
Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
 Title : Semivolatiles by GC/MS - EPA Method 625/8270
 Last Update : Sun Mar 06 04:11:30 2016
 Response via : Initial Calibration





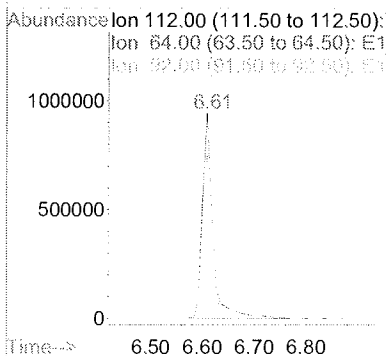
#1
1,4-Dichlorobenzene-d4
Concen: 40.00 ug/mL
RT: 8.13 min Scan# 415
Delta R.T. -0.01 min
Lab File: E101050.D
Acq: 11 Mar 2016 5:14 pm

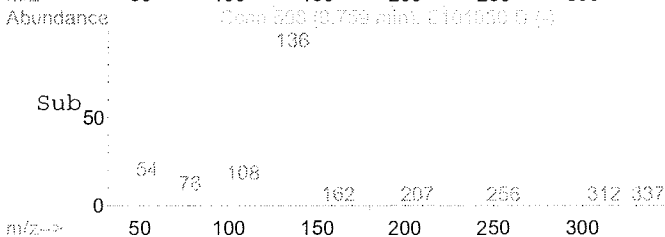
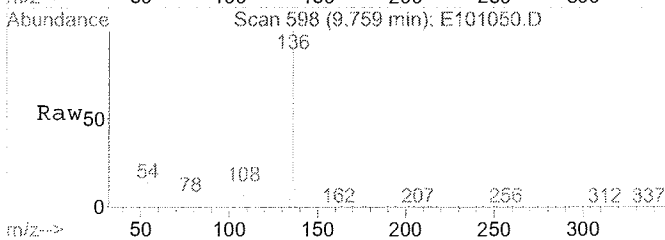
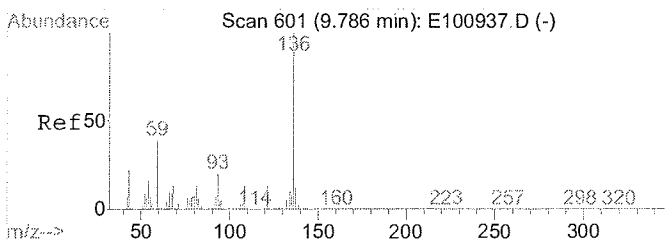
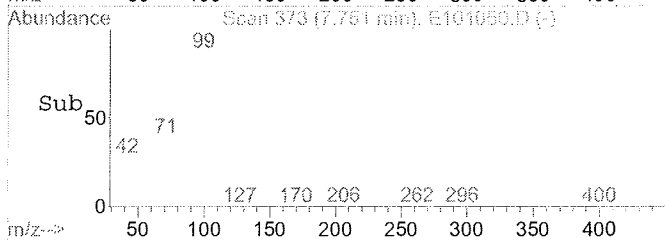
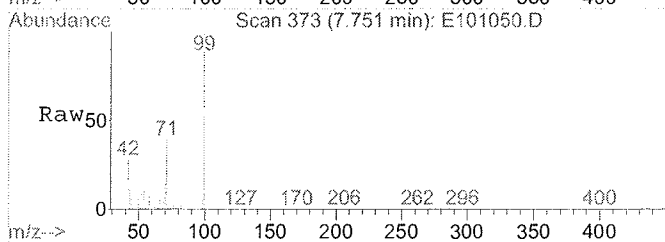
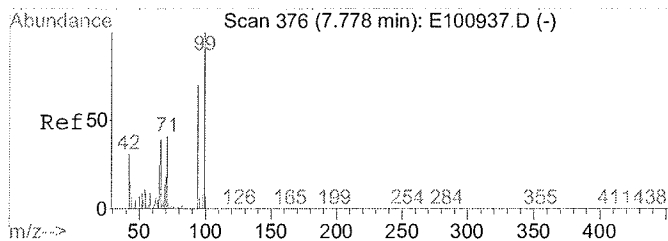
Tgt Ion:152 Resp: 1566249
Ion Ratio Lower Upper
152 100
150 148.6 115.0 172.4
115 62.1 52.2 78.4
78 47.1 40.6 60.8



#4
2-Fluorophenol
Concen: Below ug/mL
RT: 6.61 min Scan# 245
Delta R.T. 0.26 min
Lab File: E101050.D
Acq: 11 Mar 2016 5:14 pm

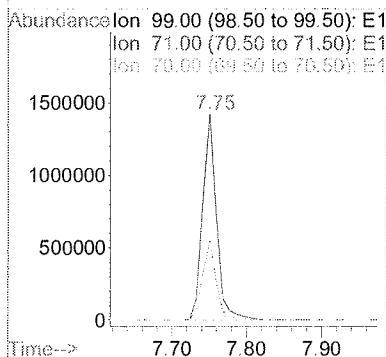
Tgt Ion:112 Resp: 1351403
Ion Ratio Lower Upper
112 100
64 78.6 59.8 89.6
92 33.6 25.3 37.9





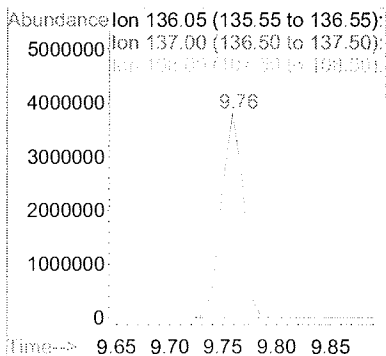
#5
Phenol-d5
Concen: Below ug/mL
RT: 7.75 min Scan# 373
Delta R.T. 0.30 min
Lab File: E101050.D
Acq: 11 Mar 2016 5:14 pm

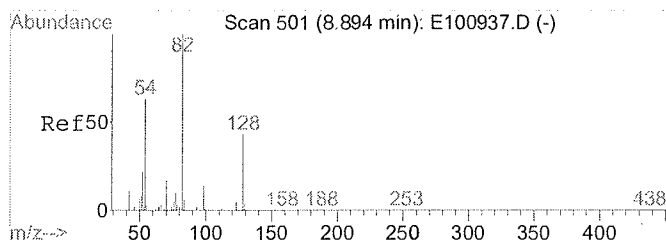
Tgt Ion: 99 Resp: 1868706
Ion Ratio Lower Upper
99 100
71 38.6 36.0 54.0
70 16.9 14.7 22.1



#21
Naphthalene-d8
Concen: 40.00 ug/mL
RT: 9.76 min Scan# 598
Delta R.T. 0.36 min
Lab File: E101050.D
Acq: 11 Mar 2016 5:14 pm

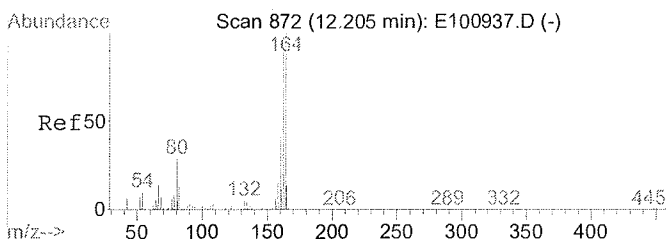
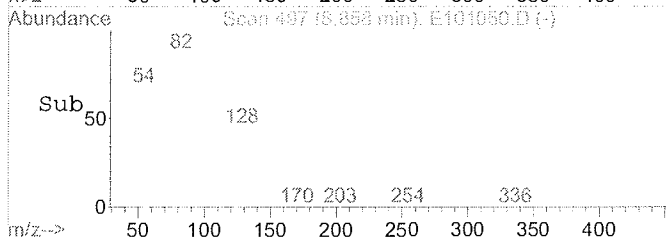
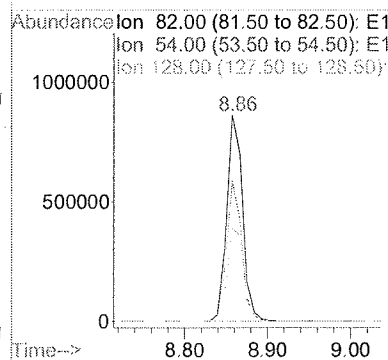
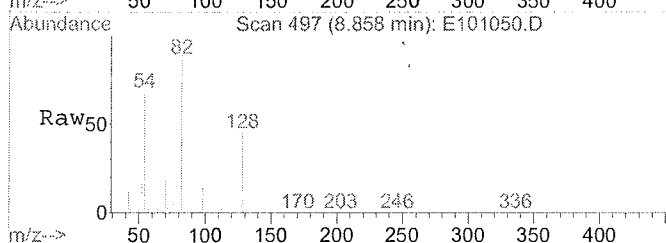
Tgt Ion: 136 Resp: 5401217
Ion Ratio Lower Upper
136 100
137 12.1 9.7 14.5
108 11.9 10.4 15.6





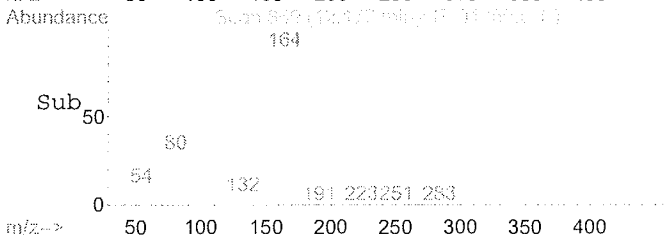
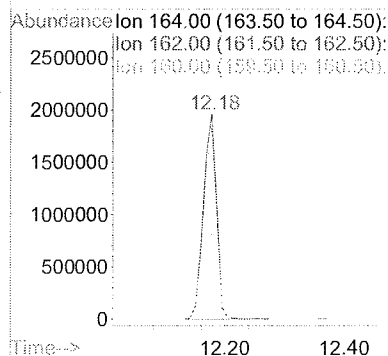
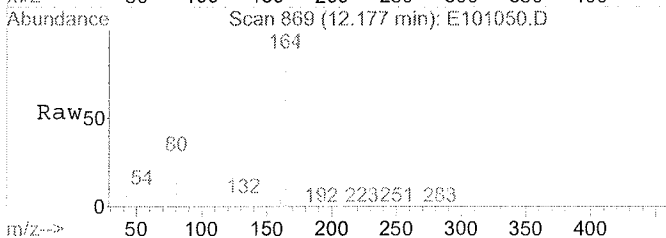
#22
Nitrobenzene-d5
Concen: 40.00 ug/mL
RT: 8.86 min Scan# 497
Delta R.T. 0.34 min
Lab File: E101050.D
Acq: 11 Mar 2016 5:14 pm

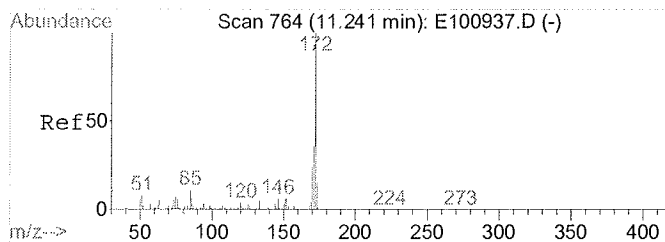
Tgt Ion: 82 Resp: 1138276
Ion Ratio Lower Upper
82 100
54 65.8 55.0 82.6
128 47.2 38.0 57.0



#39
Acenaphthene-d10
Concen: 40.00 ug/mL
RT: 12.18 min Scan# 869
Delta R.T. 0.36 min
Lab File: E101050.D
Acq: 11 Mar 2016 5:14 pm

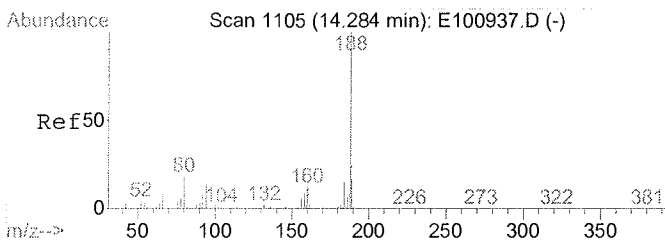
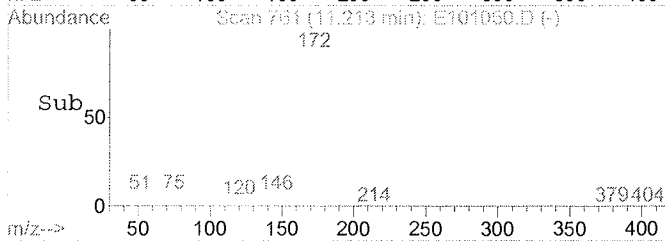
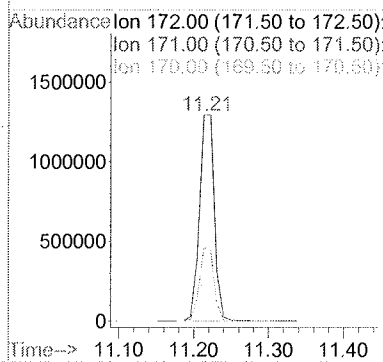
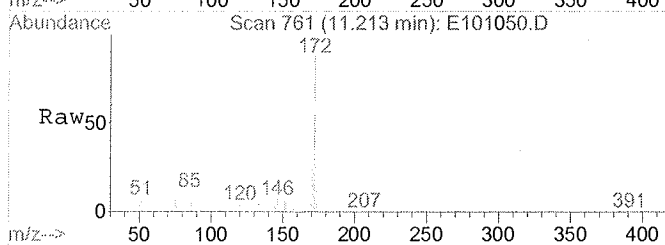
Tgt Ion: 164 Resp: 3022412
Ion Ratio Lower Upper
164 100
162 92.8 73.4 110.0
160 42.0 32.4 48.6





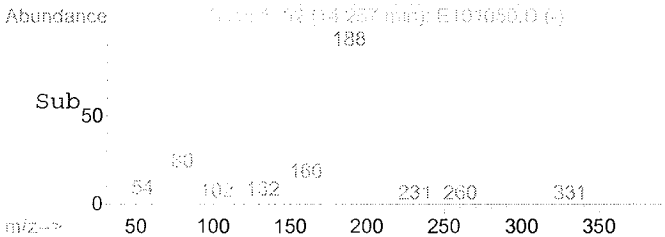
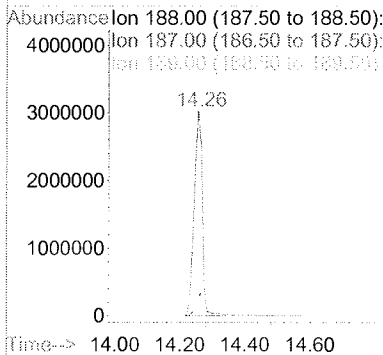
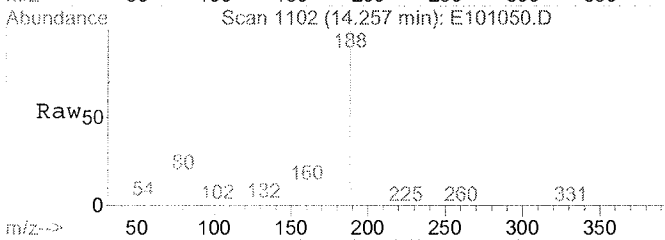
#45
2-Fluorobiphenyl
Concen: Below ug/mL
RT: 11.21 min Scan# 761
Delta R.T. 0.35 min
Lab File: E101050.D
Acq: 11 Mar 2016 5:14 pm

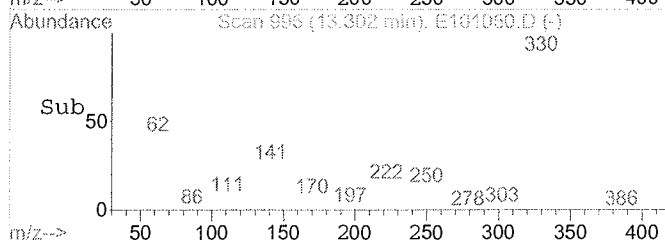
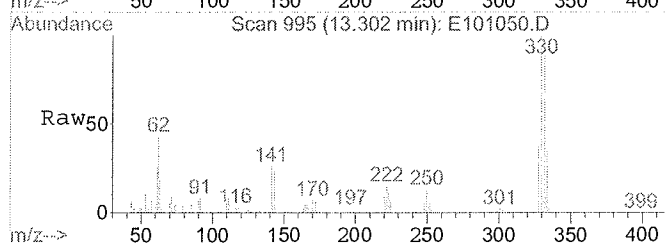
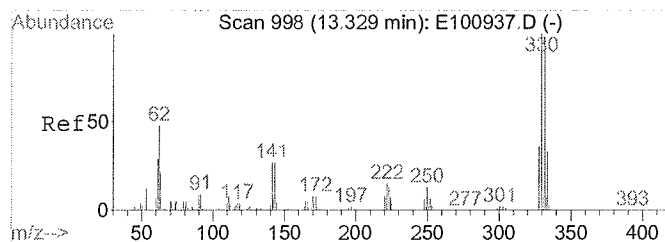
Tgt Ion:172 Resp: 1806383
Ion Ratio Lower Upper
172 100
171 35.8 29.5 44.3
170 23.8 19.7 29.5



#63
Phenanthrene-d10
Concen: 40.00 ug/mL
RT: 14.26 min Scan# 1102
Delta R.T. 0.36 min
Lab File: E101050.D
Acq: 11 Mar 2016 5:14 pm

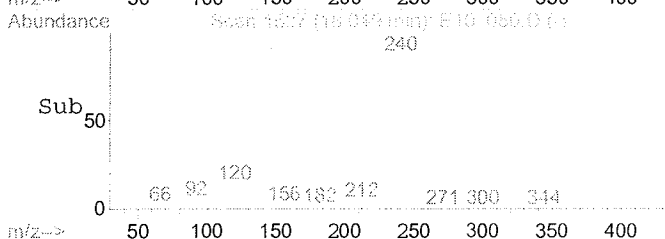
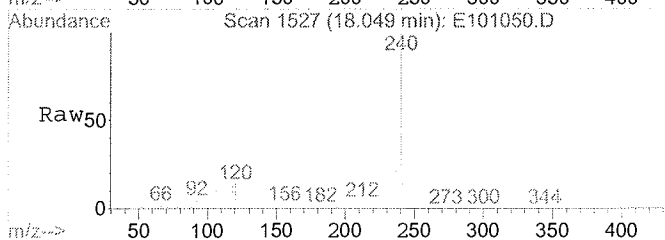
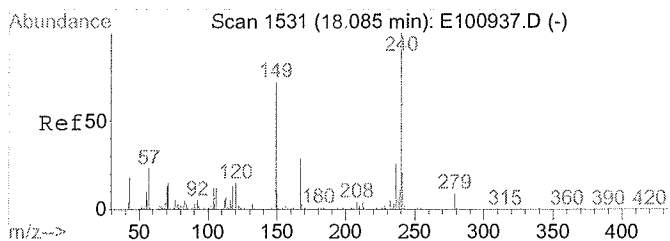
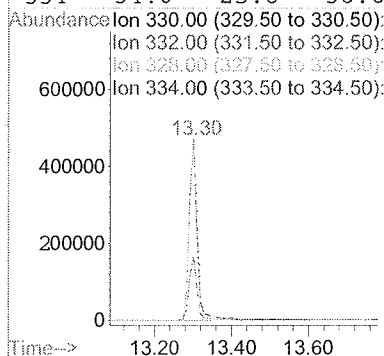
Tgt Ion:188 Resp: 5308629
Ion Ratio Lower Upper
188 100
187 9.7 7.7 11.3
189 16.3 13.7 18.7





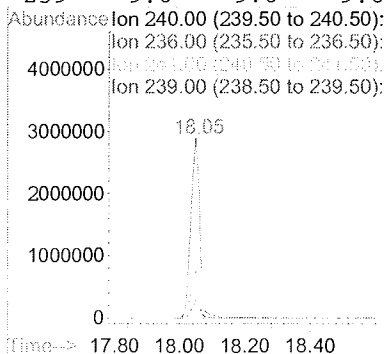
#68
2,4,6-Tribromophenol
Concen: Below ug/mL
RT: 13.30 min Scan# 995
Delta R.T. 0.36 min
Lab File: E101050.D
Acq: 11 Mar 2016 5:14 pm

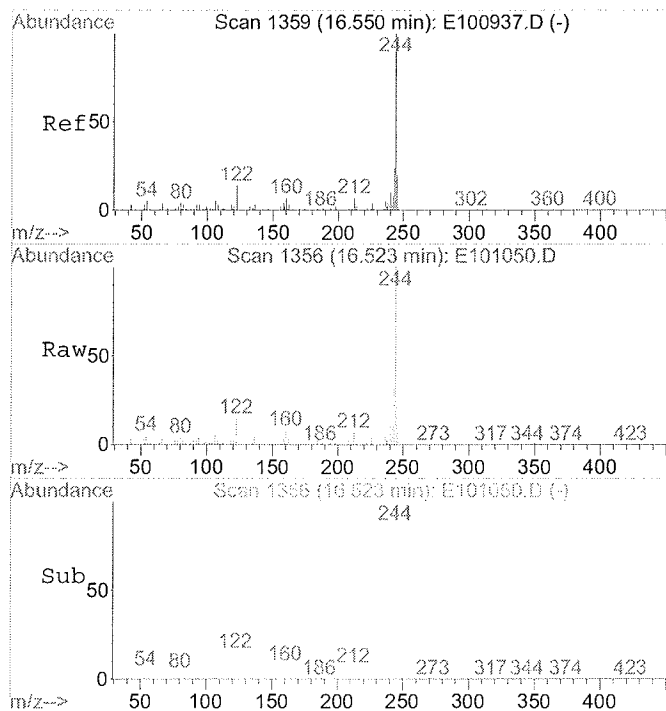
Tgt Ion:330 Resp: 679395
Ion Ratio Lower Upper
330 100
332 97.3 77.8 116.8
328 36.5 28.2 42.2
334 34.0 25.8 38.6



#79
Chrysene-d12
Concen: 40.00 ug/mL
RT: 18.05 min Scan# 1527
Delta R.T. 0.35 min
Lab File: E101050.D
Acq: 11 Mar 2016 5:14 pm

Tgt Ion:240 Resp: 5349442
Ion Ratio Lower Upper
240 100
236 25.5 20.4 30.6
241 21.2 16.5 24.7
239 9.6 9.6 9.6#

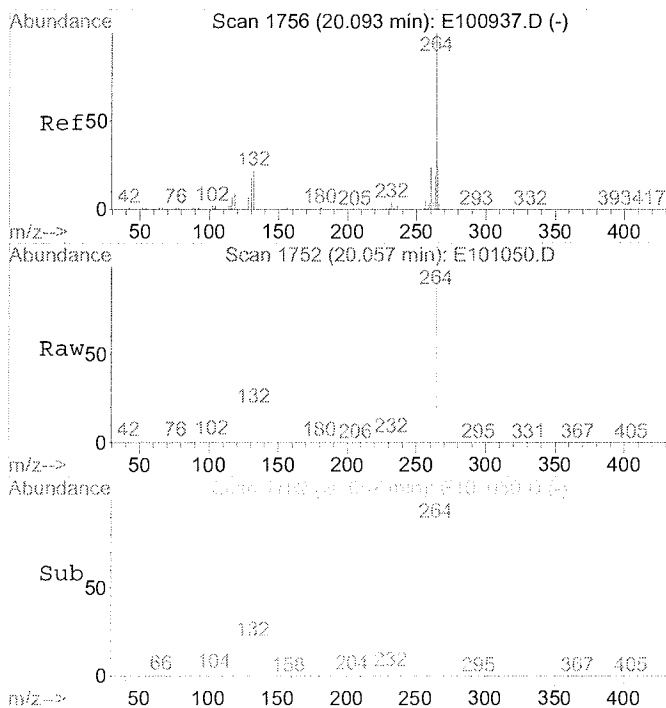
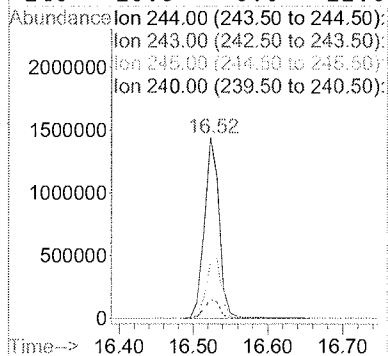




#81
 Terphenyl-d14
 Concen: Below ug/mL
 RT: 16.52 min Scan# 1356
 Delta R.T. 0.36 min
 Lab File: E101050.D
 Acq: 11 Mar 2016 5:14 pm

Tgt Ion: 244 Resp: 2005162

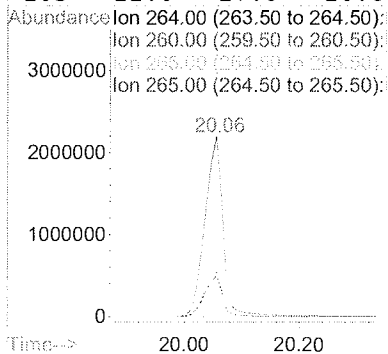
Ion	Ratio	Lower	Upper
244	100		
243	34.3	26.8	40.2
245	20.6	16.2	24.2
240	10.8	8.6	12.8



#91
 Perylene-d12
 Concen: 40.00 ug/mL
 RT: 20.06 min Scan# 1752
 Delta R.T. 0.39 min
 Lab File: E101050.D
 Acq: 11 Mar 2016 5:14 pm

Tgt Ion: 264 Resp: 4794953

Ion	Ratio	Lower	Upper
264	100		
260	24.5	19.0	28.4
265	22.6	17.8	26.8
265	22.6	17.8	26.8



FORM I

ORGANIC ANALYSIS DATA SHEET

03/LSB-2

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-03 File ID: E101053.D
 Sampled: 03/04/16 13:15 Prepared: 03/11/16 06:56 Analyzed: 03/11/16 18:48
 Solids: 84.92 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Batch: BC60616 Sequence: Calibration: Instrument: BNA #1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
92-52-4	1,1'-Biphenyl	2	0.0982	U
95-94-3	1,2,4,5-Tetrachlorobenzene	2	0.196	U
120-82-1	1,2,4-Trichlorobenzene	2	0.0982	U
95-50-1	1,2-Dichlorobenzene	2	0.0982	U
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	2	0.0982	U
541-73-1	1,3-Dichlorobenzene	2	0.0982	U
106-46-7	1,4-Dichlorobenzene	2	0.0982	U
58-90-2	2,3,4,6-Tetrachlorophenol	2	0.196	U
95-95-4	2,4,5-Trichlorophenol	2	0.0982	U
88-06-2	2,4,6-Trichlorophenol	2	0.0982	U
120-83-2	2,4-Dichlorophenol	2	0.0982	U
105-67-9	2,4-Dimethylphenol	2	0.0982	U
51-28-5	2,4-Dinitrophenol	2	0.196	U
121-14-2	2,4-Dinitrotoluene	2	0.0982	U
606-20-2	2,6-Dinitrotoluene	2	0.0982	U
91-58-7	2-Chloronaphthalene	2	0.0982	U
95-57-8	2-Chlorophenol	2	0.0982	U
91-57-6	2-Methylnaphthalene	2	0.0982	U
95-48-7	2-Methylphenol	2	0.0982	U
88-74-4	2-Nitroaniline	2	0.196	U
88-75-5	2-Nitrophenol	2	0.0982	U
65794-96-9	3- & 4-Methylphenols	2	0.0982	U
91-94-1	3,3'-Dichlorobenzidine	2	0.0982	U
99-09-2	3-Nitroaniline	2	0.196	U
534-52-1	4,6-Dinitro-2-methylphenol	2	0.196	U
101-55-3	4-Bromophenyl phenyl ether	2	0.0982	U
59-50-7	4-Chloro-3-methylphenol	2	0.0982	U
106-47-8	4-Chloroaniline	2	0.0982	U
7005-72-3	4-Chlorophenyl phenyl ether	2	0.0982	U
100-01-6	4-Nitroaniline	2	0.196	U
100-02-7	4-Nitrophenol	2	0.196	U
83-32-9	Acenaphthene	2	0.0707	JD
208-96-8	Acenaphthylene	2	0.0557	JD
98-86-2	Acetophenone	2	0.0982	U
62-53-3	Aniline	2	0.393	U
120-12-7	Anthracene	2	0.148	D
1912-24-9	Atrazine	2	0.0982	U
100-52-7	Benzaldehyde	2	0.0982	U
92-87-5	Benzidine	2	0.393	U
56-55-3	Benzo(a)anthracene	2	0.535	D

FORM I

ORGANIC ANALYSIS DATA SHEET

03/LSB-2

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-03 File ID: E101053.D
 Sampled: 03/04/16 13:15 Prepared: 03/11/16 06:56 Analyzed: 03/11/16 18:48
 Solids: 84.92 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Batch: BC60616 Sequence: Calibration: Instrument: BNA #1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
50-32-8	Benzo(a)pyrene	2	0.634	D
205-99-2	Benzo(b)fluoranthene	2	0.424	D
191-24-2	Benzo(g,h,i)perylene	2	0.141	D
207-08-9	Benzo(k)fluoranthene	2	0.376	D
65-85-0	Benzoic acid	2	0.0982	U
100-51-6	Benzyl alcohol	2	0.0982	U
85-68-7	Benzyl butyl phthalate	2	0.0982	U
111-91-1	Bis(2-chloroethoxy)methane	2	0.0982	U
111-44-4	Bis(2-chloroethyl)ether	2	0.0982	U
108-60-1	Bis(2-chloroisopropyl)ether	2	0.0982	U
117-81-7	Bis(2-ethylhexyl)phthalate	2	0.0636	JD
105-60-2	Caprolactam	2	0.196	U
86-74-8	Carbazole	2	0.0597	JD
218-01-9	Chrysene	2	0.535	D
53-70-3	Dibenzo(a,h)anthracene	2	0.0730	JD
132-64-9	Dibenzofuran	2	0.0982	U
84-66-2	Diethyl phthalate	2	0.0982	U
131-11-3	Dimethyl phthalate	2	0.0982	U
84-74-2	Di-n-butyl phthalate	2	0.0982	U
117-84-0	Di-n-octyl phthalate	2	0.0982	U
206-44-0	Fluoranthene	2	1.09	D
86-73-7	Fluorene	2	0.0604	JD
118-74-1	Hexachlorobenzene	2	0.0982	U
87-68-3	Hexachlorobutadiene	2	0.0982	U
77-47-4	Hexachlorocyclopentadiene	2	0.0982	U
67-72-1	Hexachloroethane	2	0.0982	U
193-39-5	Indeno(1,2,3-cd)pyrene	2	0.150	D
78-59-1	Isophorone	2	0.0982	U
91-20-3	Naphthalene	2	0.0982	U
98-95-3	Nitrobenzene	2	0.0982	U
62-75-9	N-Nitrosodimethylamine	2	0.0982	U
621-64-7	N-nitroso-di-n-propylamine	2	0.0982	U
86-30-6	N-Nitrosodiphenylamine	2	0.0982	U
87-86-5	Pentaachlorophenol	2	0.0982	U
85-01-8	Phenanthrene	2	0.670	D
108-95-2	Phenol	2	0.0982	U
129-00-0	Pyrene	2	0.972	D
110-86-1	Pyridine	2	0.393	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q

FORM I

ORGANIC ANALYSIS DATA SHEET

03/LSB-2

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil Laboratory ID: 16C0235-03 File ID: E101053.D
Sampled: 03/04/16 13:15 Prepared: 03/11/16 06:56 Analyzed: 03/11/16 18:48
Solids: 84.92 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
Batch: BC60616 Sequence: Calibration: Instrument: BNA #1

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	2.95	1.76	59.8	20 - 108	
Phenol-d5	2.94	1.92	65.1	23 - 114	
Nitrobenzene-d5	1.97	1.30	65.9	22 - 108	
2-Fluorobiphenyl	1.96	1.21	61.5	21 - 113	
2,4,6-Tribromophenol	2.94	2.86	97.2	19 - 110	
Terphenyl-d14	1.96	1.47	75.0	24 - 116	

* Values outside of QC limits

Data File : C:\HPCHEM\1\DATA\E1031116\E101053.D Vial: 17
 Acq On : 11 Mar 2016 6:48 pm Operator: SR
 Sample : 16C0235-03 Inst : BNA #1
 Misc : QBSV1031116B 2X NYSDEC 375 ASPB Multiplr: 2.00
 MS Integration Params: RTEINT.P
 Quant Time: Mar 14 7:58 2016 Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
 Title : Semivolatiles by GC/MS - EPA Method 625/8270
 Last Update : Sun Mar 06 04:11:30 2016
 Response via : Initial Calibration
 DataAcq Meth : TCBNA211

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.12	152	1550159	40.00	ug/mL	-0.02
21) Naphthalene-d8	9.76	136	5323751	40.00	ug/mL	0.37
39) Acenaphthene-d10	12.17	164	3105744	40.00	ug/mL	0.36
63) Phenanthrene-d10	14.26	188	5069974	40.00	ug/mL	0.36
79) Chrysene-d12	18.05	240	4355387	40.00	ug/mL	0.35
91) Perylene-d12	20.05	264	2903291	40.00	ug/mL	0.39

System Monitoring Compounds

4) 2-Fluorophenol	6.60	112	1515527	22.47	ug/mL	0.25
Spiked Amount	75.000	Range	14 - 77	Recovery	=	29.96%
5) Phenol-d5	7.75	99	2102406	24.41	ug/mL	0.30
Spiked Amount	75.000	Range	10 - 100	Recovery	=	32.55%
22) Nitrobenzene-d5	8.86	82	1263385	16.55	ug/mL	0.34
Spiked Amount	50.000	Range	31 - 97	Recovery	=	33.10%
45) 2-Fluorobiphenyl	11.22	172	2056018	15.38	ug/mL	0.36
Spiked Amount	50.000	Range	43 - 116	Recovery	=	30.76%#
68) 2,4,6-Tribromophenol	13.30	330	698539	36.44	ug/mL	0.36
Spiked Amount	75.000	Range	10 - 123	Recovery	=	48.59%
81) Terphenyl-d14	16.53	244	1860660	18.75	ug/mL	0.36
Spiked Amount	50.000	Range	33 - 141	Recovery	=	37.50%

Target Compounds

					Qvalue	
50) Acenaphthylene	11.96	152	126478	0.71	ug/mL	97
52) Acenaphthene	12.22	154	92193	0.90	ug/mL	91
59) Fluorene	12.91	166	91747	0.77	ug/mL#	98
73) Phenanthrene	14.29	178	1322628	8.53	ug/mL	99
74) Anthracene	14.34	178	334400	1.88	ug/mL#	96
75) Carbazole	14.58	167	120612	0.76	ug/mL#	99
77) Fluoranthene	15.99	202	2444464	13.85	ug/mL	100
80) Pyrene	16.31	202	2174065	12.38	ug/mL	97
83) Bis(2-ethylhexyl)phthalate	18.05	149	102312	0.81	ug/mL#	82
84) Benz(a)anthracene	18.02	228	1108944	6.81	ug/mL#	92
86) Chrysene	18.08	228	1047413	6.81	ug/mL#	94
88) Benzo(b)fluoranthene	19.51	252	1039613m	5.40	ug/mL	
89) Benzo(k)fluoranthene	19.51	252	675882m	4.79	ug/mL	
90) Benz(a)pyrene	19.51	252	1282358	8.07	ug/mL	98
92) Indeno(1,2,3-c,d)pyrene	21.78	276	232184	1.91	ug/mL	98
93) Dibenz(a,h)anthracene	21.78	278	90773	0.93	ug/mL#	88
94) Benzo(g,h,i)perylene	22.29	276	176916	1.79	ug/mL	95

(#) = qualifier out of range (m) = manual integration
 E101053.D TCBNA211.M Mon Mar 14 08:01:49 2016

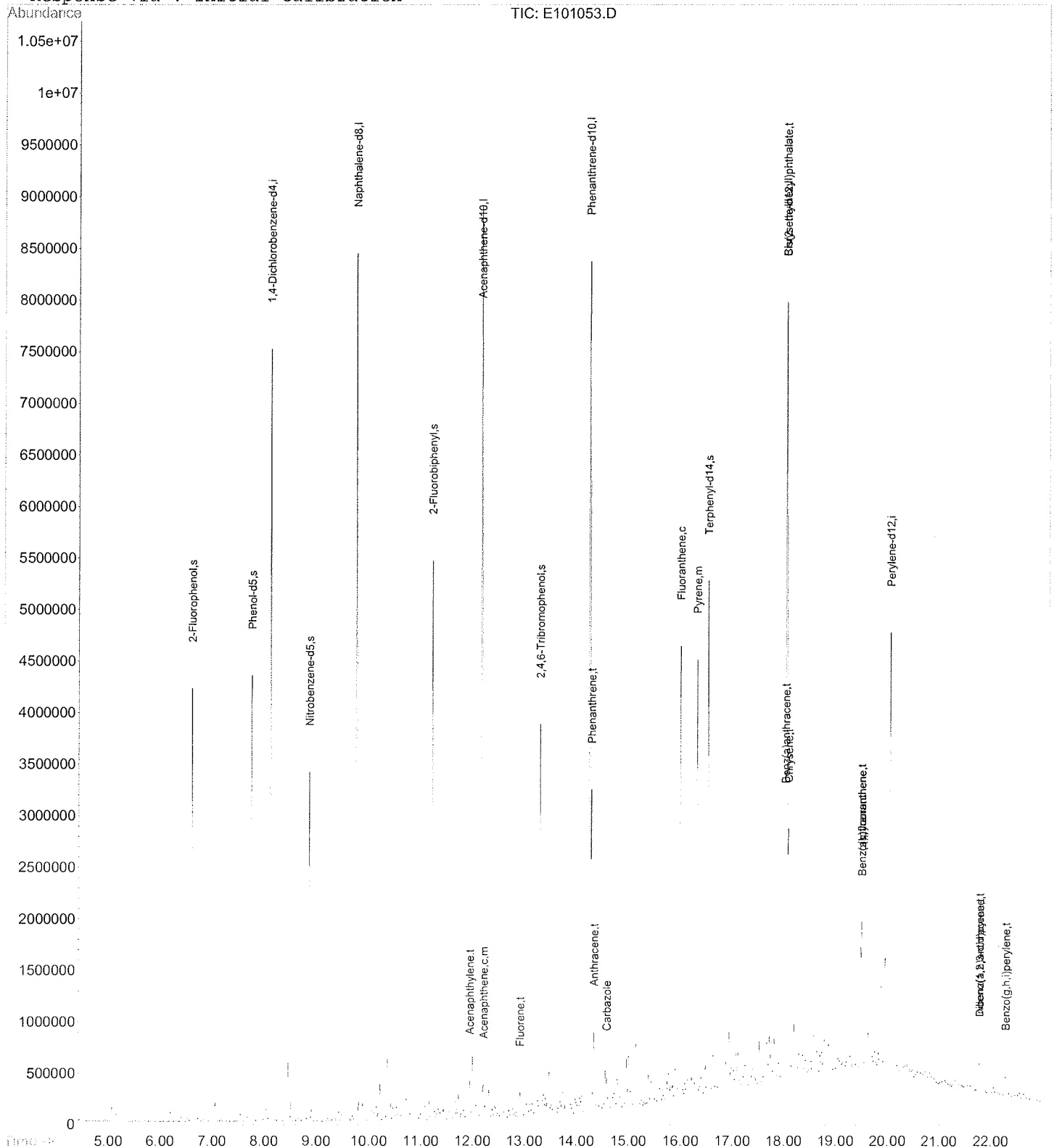
Quantitation Report

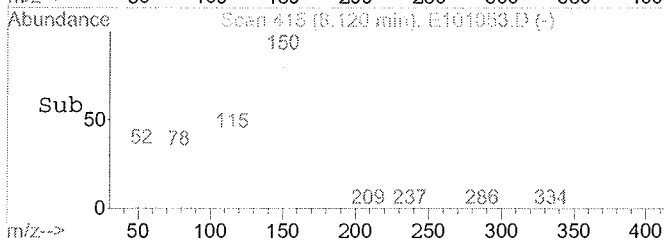
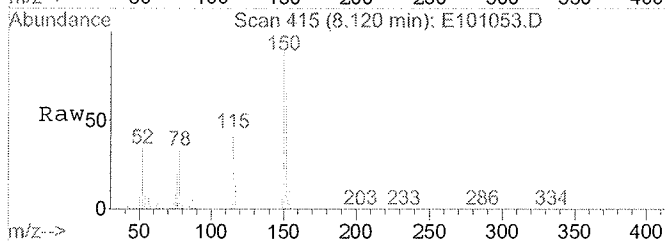
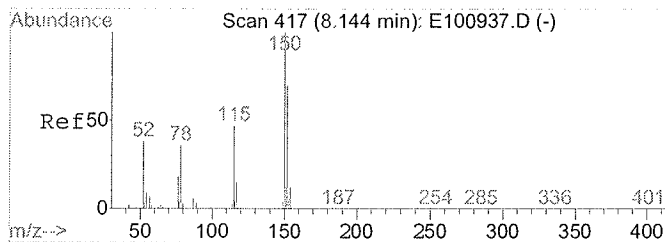
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Acq On : 11 Mar 2016 6:48 pm
Sample : 16C0235-03
Misc : QBSV1031116B 2X NYSDEC 375 ASPB
MS Integration Params: RTEINT.P
Quant Time: Mar 14 7:58 2016

Vial: 17
Operator: SR
Inst : BNA #1
Multiplr: 2.00

Quant Results File: TCBNA211.RES

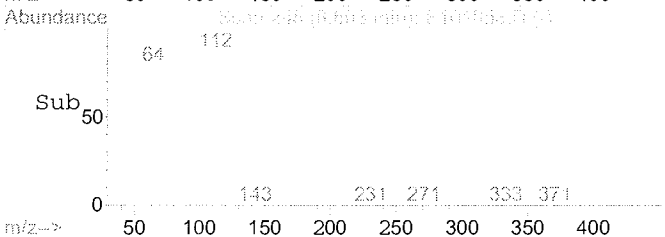
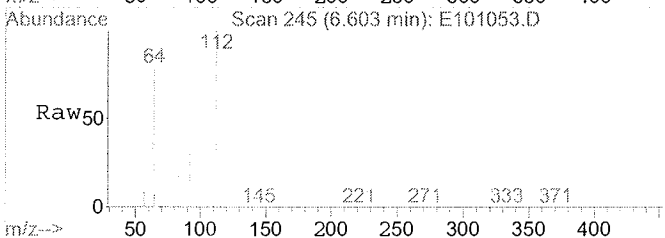
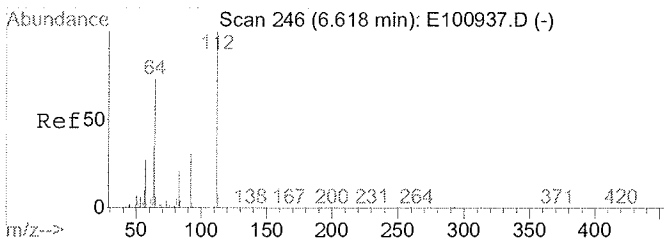
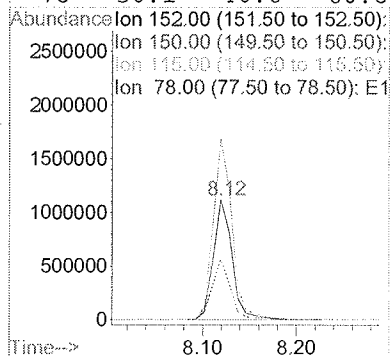
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Method       : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
Title        : Semivolatiles by GC/MS - EPA Method 625/8270
Last Update   : Sun Mar 06 04:11:30 2016
Response via  : Initial Calibration
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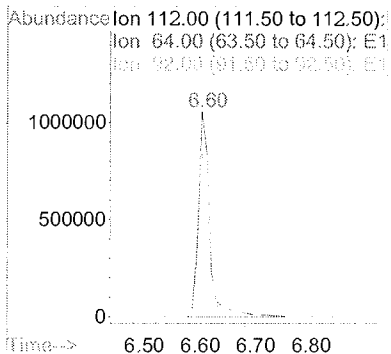
#1
1,4-Dichlorobenzene-d4
Concen: 40.00 ug/mL
RT: 8.12 min Scan# 415
Delta R.T. -0.02 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

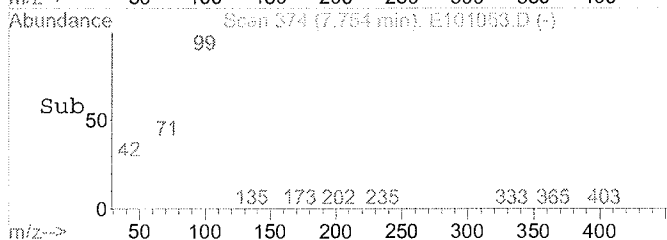
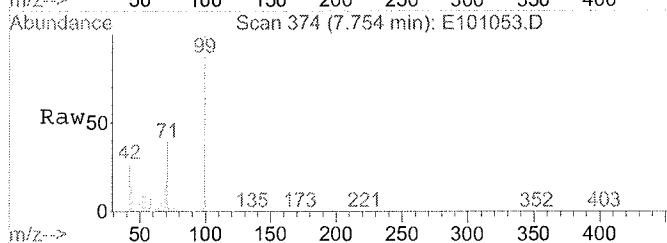
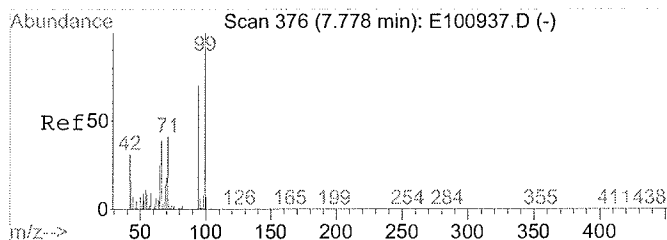
Tgt Ion	Ratio	Lower	Upper
152	100		
150	150.9	115.0	172.4
115	64.8	52.2	78.4
78	50.1	40.6	60.8



#4
2-Fluorophenol
Concen: Below ug/mL
RT: 6.60 min Scan# 245
Delta R.T. 0.25 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

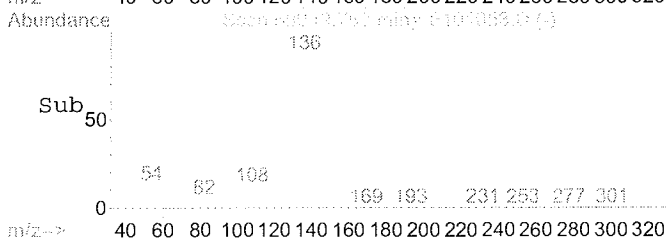
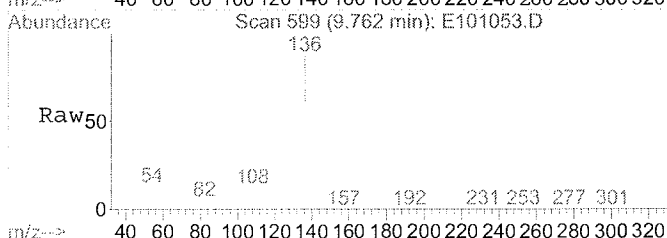
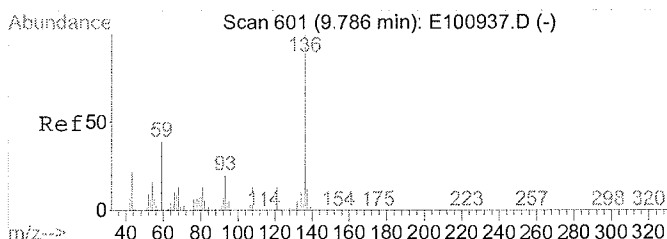
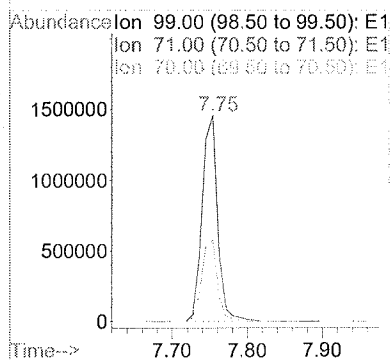
Tgt Ion	Ratio	Lower	Upper
112	100		
64	76.4	59.8	89.6
92	31.3	25.3	37.9





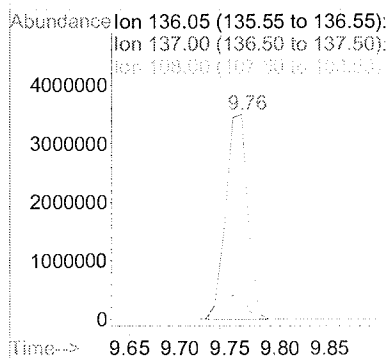
#5
Phenol-d5
Concen: Below ug/mL
RT: 7.75 min Scan# 374
Delta R.T. 0.30 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

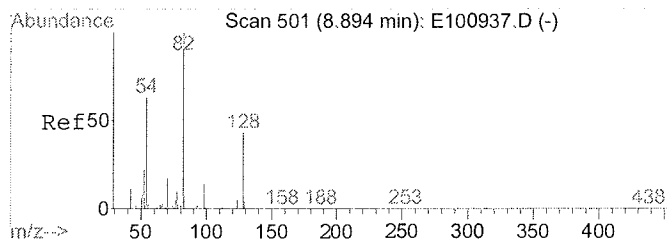
Tgt Ion: 99 Resp: 2102406
Ion Ratio Lower Upper
99 100
71 40.0 36.0 54.0
70 17.3 14.7 22.1



#21
Naphthalene-d8
Concen: 40.00 ug/mL
RT: 9.76 min Scan# 599
Delta R.T. 0.37 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

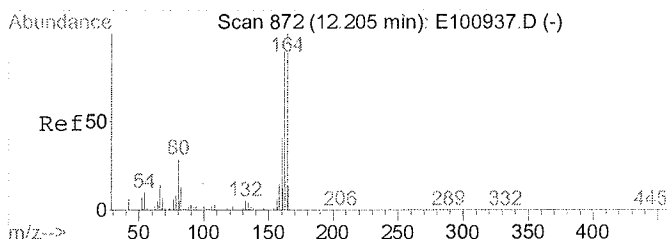
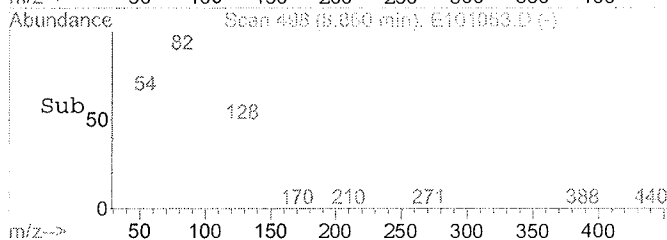
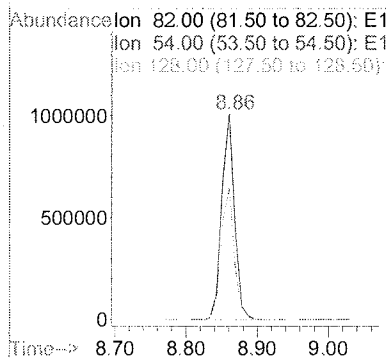
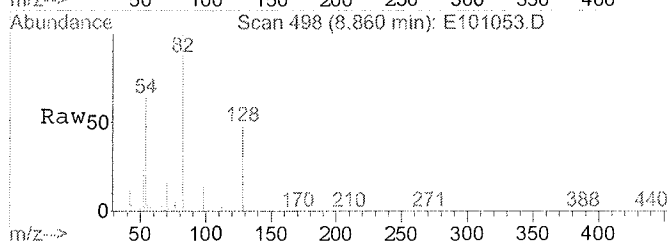
Tgt Ion: 136 Resp: 5323751
Ion Ratio Lower Upper
136 100
137 12.1 9.7 14.5
108 12.0 10.4 15.6





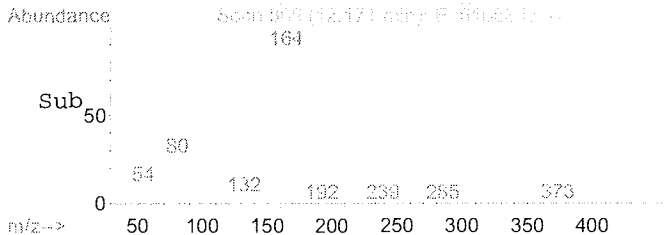
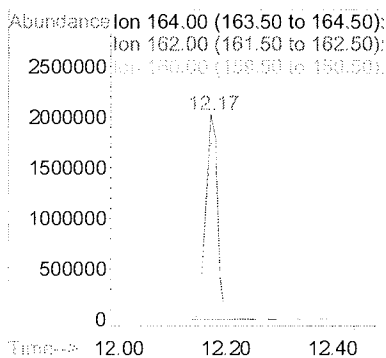
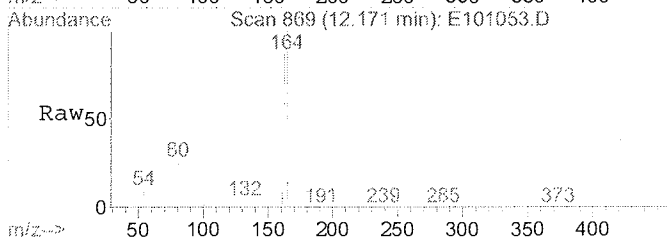
#22
Nitrobenzene-d5
Concen: 40.00 ug/mL
RT: 8.86 min Scan# 498
Delta R.T. 0.34 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

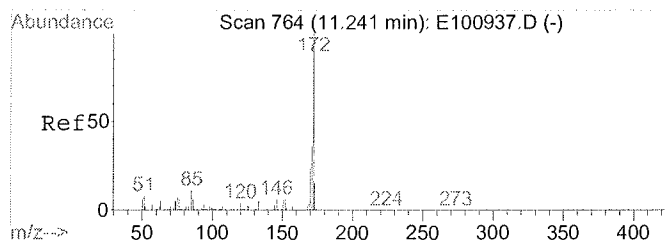
Tgt Ion: 82 Resp: 1263385
Ion Ratio Lower Upper
82 100
54 65.1 55.0 82.6
128 47.2 38.0 57.0



#39
Acenaphthene-d10
Concen: 40.00 ug/mL
RT: 12.17 min Scan# 869
Delta R.T. 0.36 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

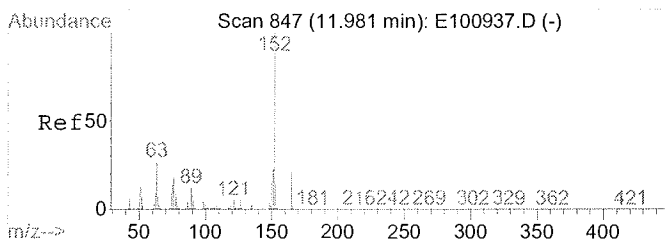
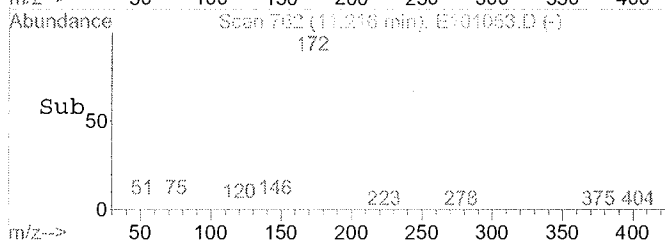
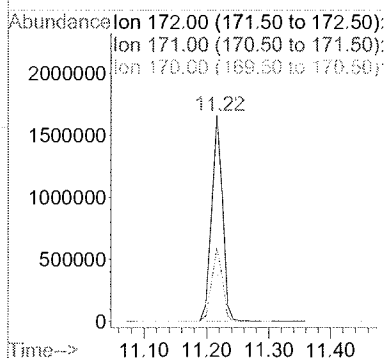
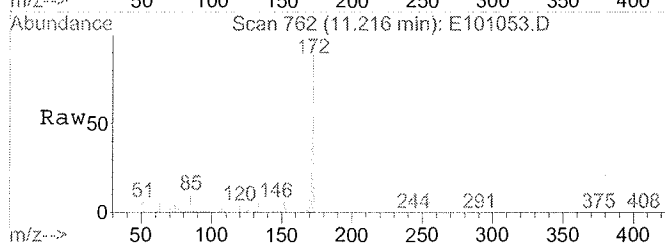
Tgt Ion: 164 Resp: 3105744
Ion Ratio Lower Upper
164 100
162 89.3 73.4 110.0
160 38.5 32.4 48.6





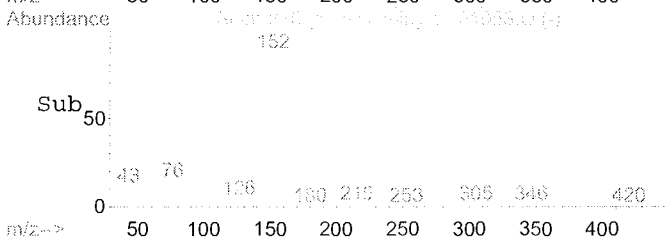
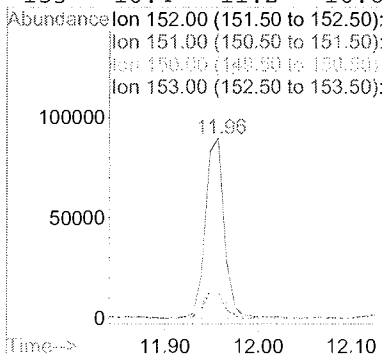
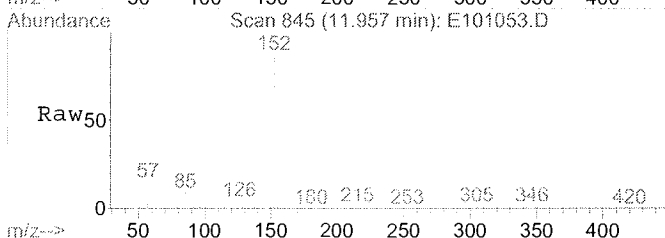
#45
2-Fluorobiphenyl
Concen: Below ug/mL
RT: 11.22 min Scan# 762
Delta R.T. 0.36 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

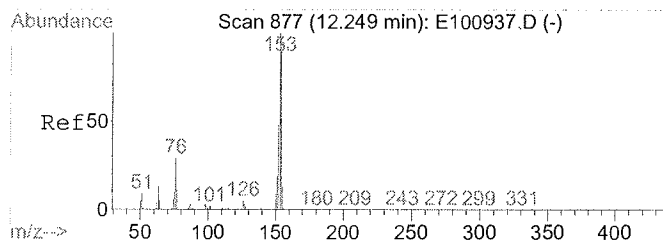
Tgt Ion:172 Resp: 2056018
Ion Ratio Lower Upper
172 100
171 35.6 29.5 44.3
170 23.3 19.7 29.5



#50
Acenaphthylene
Concen: 0.71 ug/mL
RT: 11.96 min Scan# 845
Delta R.T. 0.36 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

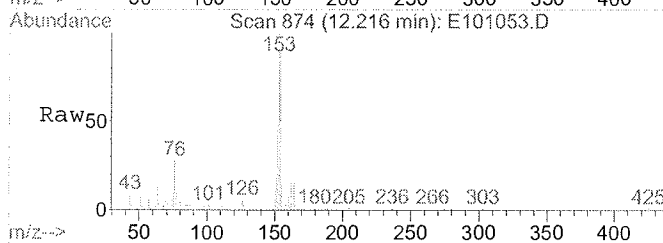
Tgt Ion:152 Resp: 126478
Ion Ratio Lower Upper
152 100
151 20.6 17.0 25.4
150 16.6 12.2 18.4
153 16.4 11.2 16.8





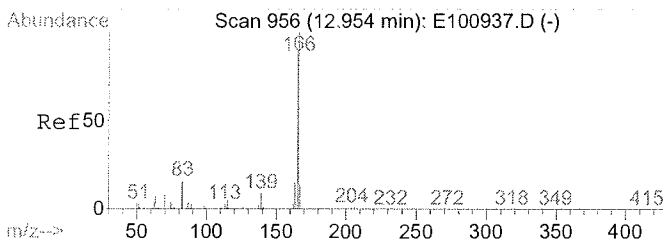
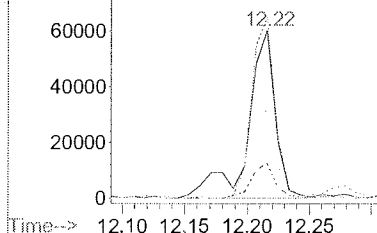
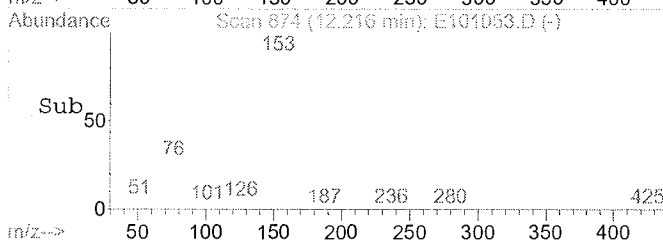
#52
Acenaphthene
Concen: 0.90 ug/mL
RT: 12.22 min Scan# 874
Delta R.T. 0.36 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

Tgt Ion:154 Resp: 92193
Ion Ratio Lower Upper
154 100
153 92.7 83.4 125.2
152 46.1 39.8 59.8
151 18.9 15.8 23.6



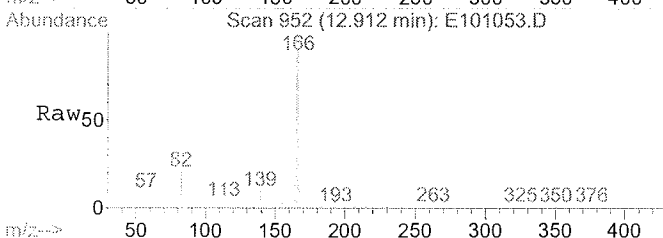
Abundance

Ion 154.00 (153.50 to 154.50):
100000
Ion 153.00 (152.50 to 153.50):
80000
Ion 152.00 (151.50 to 152.50):
60000
Ion 151.00 (150.50 to 151.50):
40000



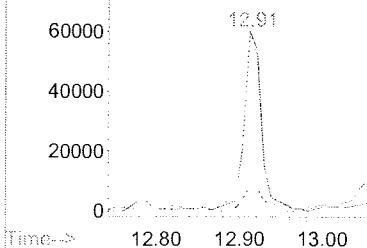
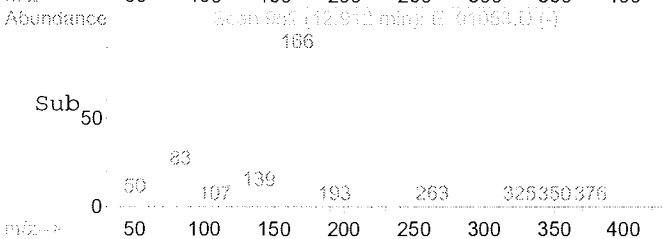
#59
Fluorene
Concen: 0.77 ug/mL
RT: 12.91 min Scan# 952
Delta R.T. 0.35 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

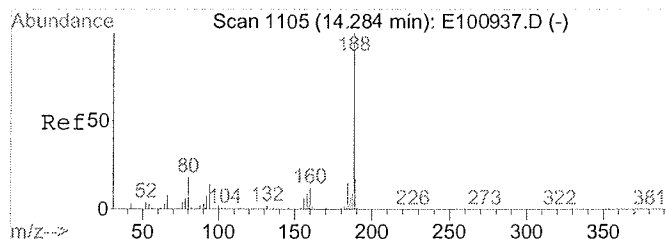
Tgt Ion:166 Resp: 91747
Ion Ratio Lower Upper
166 100
165 91.9 74.1 111.1
163 17.3 13.4 20.2
167 19.0 11.9 17.9#



Abundance

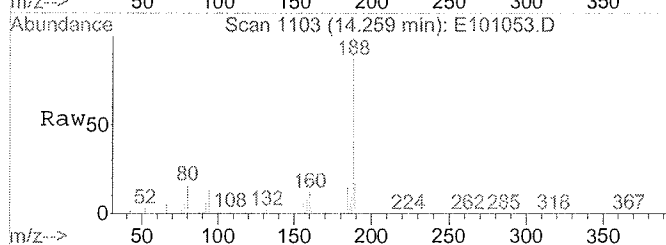
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80000
Ion 165.00 (164.50 to 165.50):
60000
Ion 164.00 (163.50 to 164.50):
40000
Ion 167.00 (166.50 to 167.50):
20000



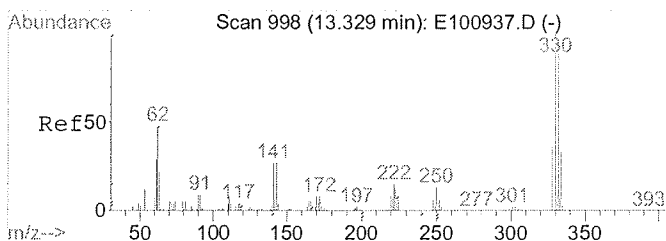
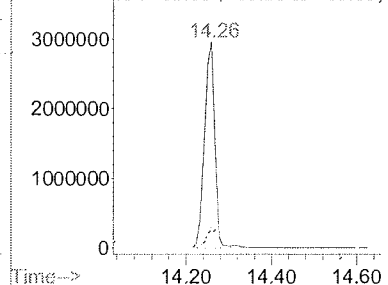
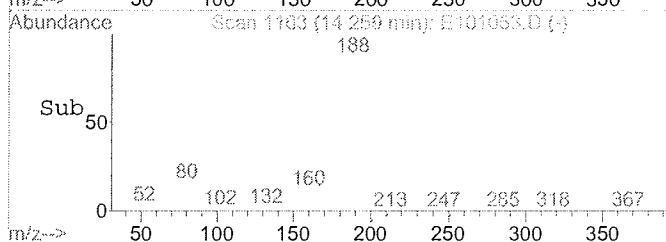


#63
Phenanthrene-d10
Concen: 40.00 ug/mL
RT: 14.26 min Scan# 1103
Delta R.T. 0.36 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

Tgt Ion:188 Resp: 5069974
Ion Ratio Lower Upper
188 100
187 9.4 7.7 11.3
189 16.5 13.7 18.7

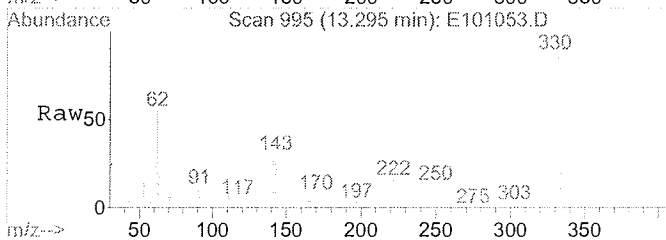


Abundance Ion 188.00 (187.50 to 188.50):
4000000 Ion 187.00 (186.50 to 187.50):
Ion 189.00 (188.50 to 189.50):

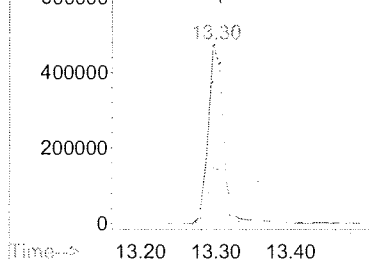
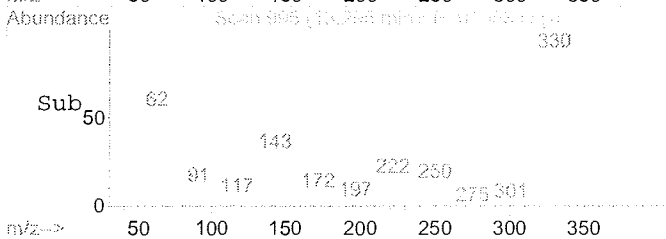


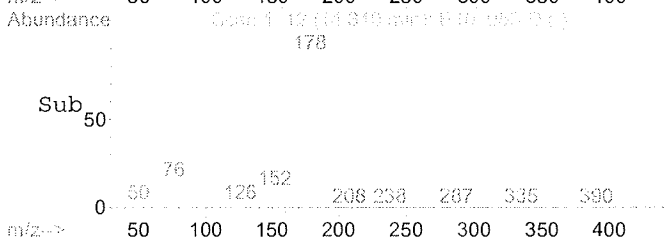
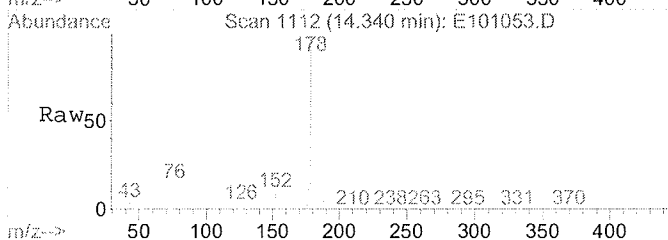
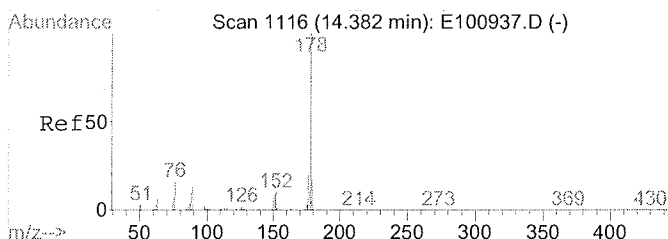
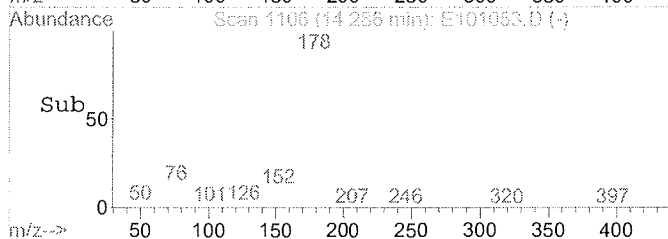
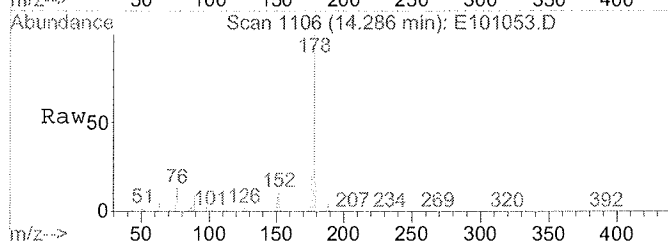
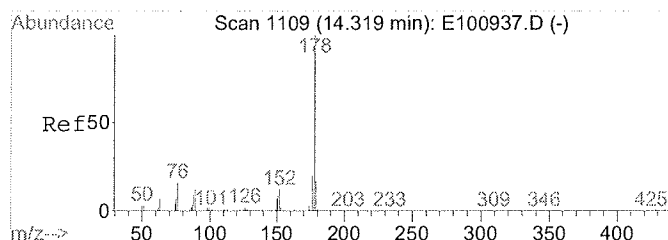
#68
2,4,6-Tribromophenol
Concen: Below ug/mL
RT: 13.30 min Scan# 995
Delta R.T. 0.36 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

Tgt Ion:330 Resp: 698539
Ion Ratio Lower Upper
330 100
332 100.5 77.8 116.8
328 34.4 28.2 42.2
334 32.5 25.8 38.6



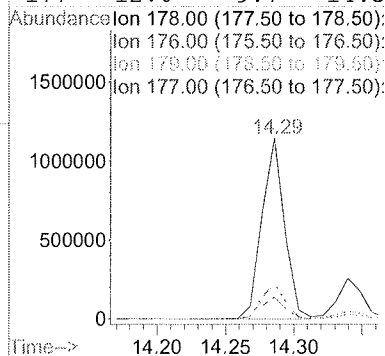
Abundance Ion 330.00 (329.50 to 330.50):
600000 Ion 332.00 (331.50 to 332.50):
Ion 328.00 (327.50 to 328.50):
Ion 334.00 (333.50 to 334.50):





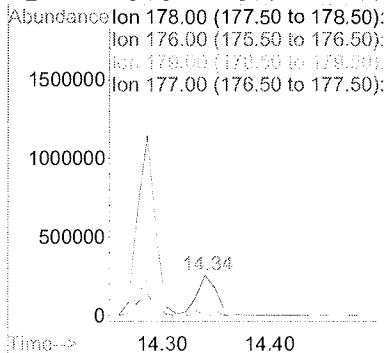
#73
Phenanthrene
Concen: 8.53 ug/mL
RT: 14.29 min Scan# 1106
Delta R.T. 0.35 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

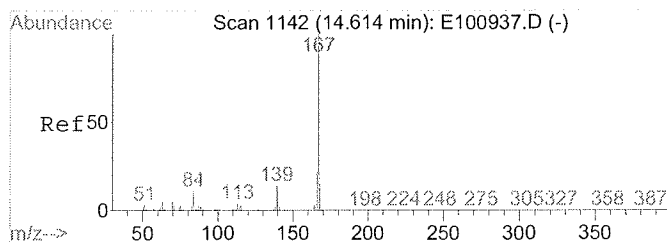
Tgt Ion:178 Resp: 1322628
Ion Ratio Lower Upper
178 100
176 19.8 16.1 24.1
179 17.2 13.0 19.6
177 12.0 9.7 14.5



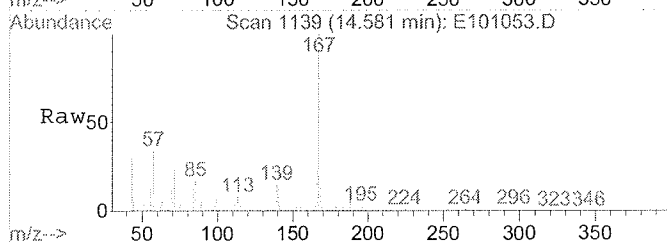
#74
Anthracene
Concen: 1.88 ug/mL
RT: 14.34 min Scan# 1112
Delta R.T. 0.35 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

Tgt Ion:178 Resp: 334400
Ion Ratio Lower Upper
178 100
176 19.6 15.6 23.4
179 20.3 12.9 19.3#
177 9.8 8.3 12.5



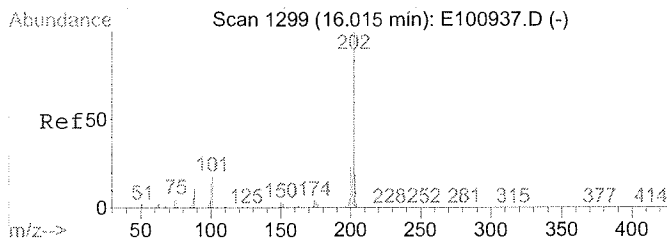
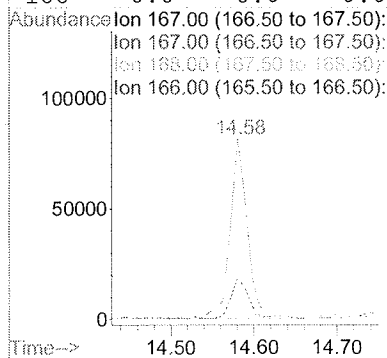
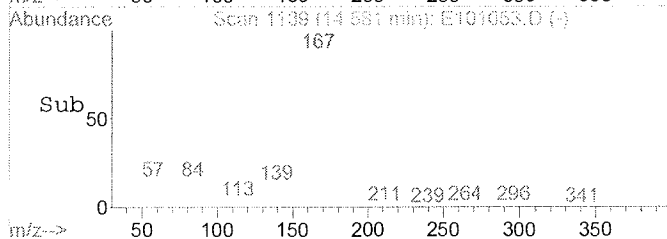


#75
 Carbazole
 Concen: 0.76 ug/mL
 RT: 14.58 min Scan# 1139
 Delta R.T. 0.35 min
 Lab File: E101053.D
 Acq: 11 Mar 2016 6:48 pm

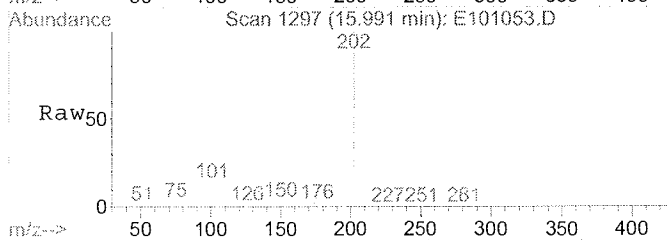


Tgt Ion: 167 Resp: 120612

Ion	Ratio	Lower	Upper
167	100		
167	100.0	80.0	120.0
168	17.3	7.2	21.7
166	0.0	0.0	0.0

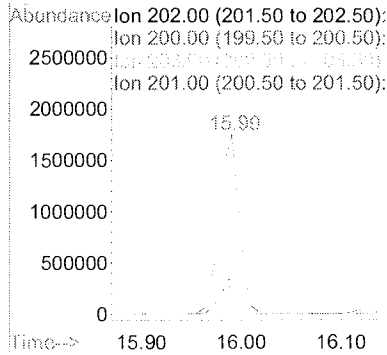
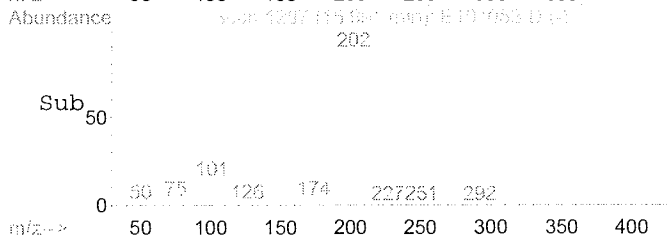


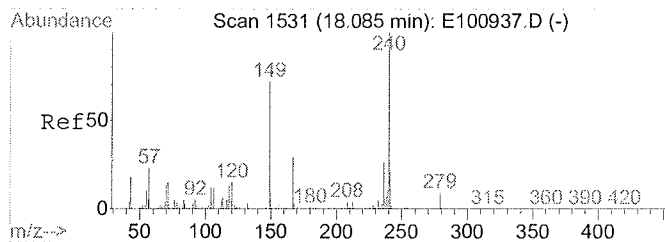
#77
 Fluoranthene
 Concen: 13.85 ug/mL
 RT: 15.99 min Scan# 1297
 Delta R.T. 0.36 min
 Lab File: E101053.D
 Acq: 11 Mar 2016 6:48 pm



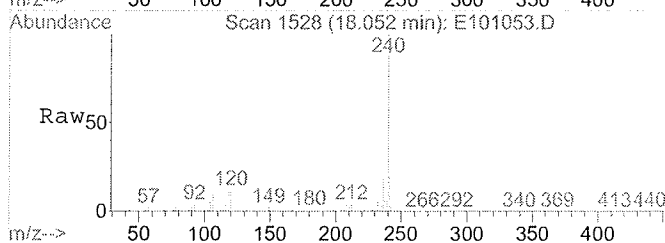
Tgt Ion: 202 Resp: 2444464

Ion	Ratio	Lower	Upper
202	100		
200	20.8	16.6	24.8
203	18.7	15.0	22.6
201	15.9	12.6	19.0

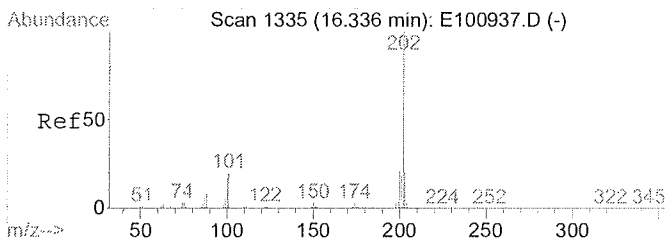
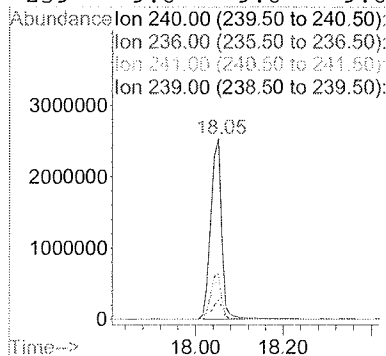
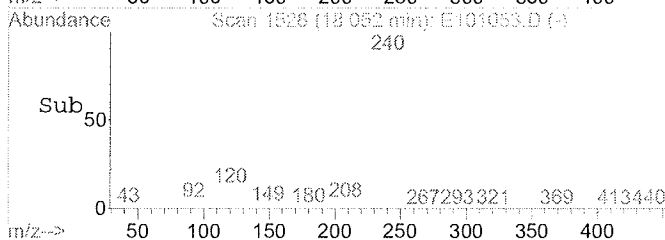




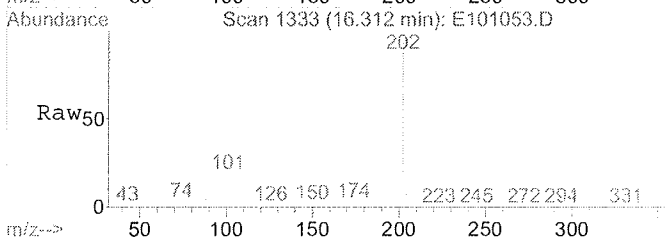
#79
Chrysene-d12
Concen: 40.00 ug/mL
RT: 18.05 min Scan# 1528
Delta R.T. 0.35 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm



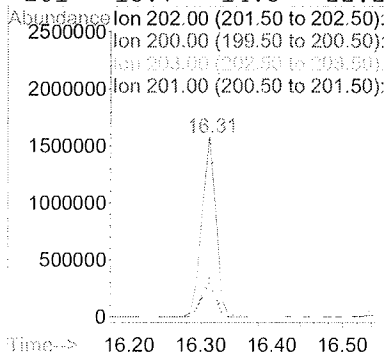
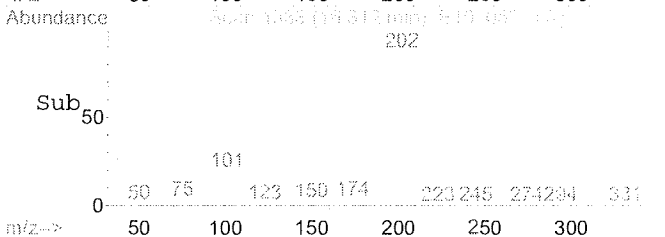
Tgt Ion:240 Resp: 4355387
Ion Ratio Lower Upper
240 100
236 25.5 20.4 30.6
241 21.1 16.5 24.7
239 9.6 9.6 9.6#

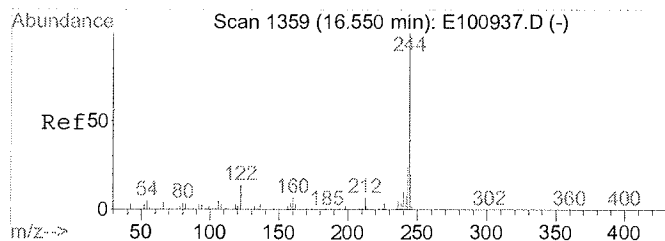


#80
Pyrene
Concen: 12.38 ug/mL
RT: 16.31 min Scan# 1333
Delta R.T. 0.36 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

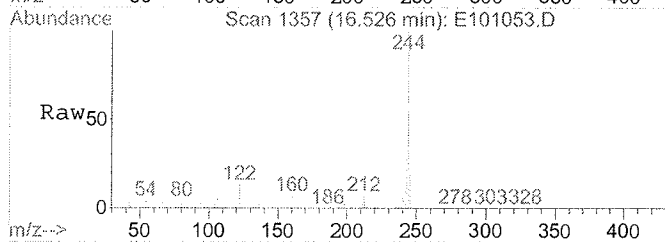


Tgt Ion:202 Resp: 2174065
Ion Ratio Lower Upper
202 100
200 21.9 17.1 25.7
203 22.7 15.2 22.8
201 18.7 14.8 22.2



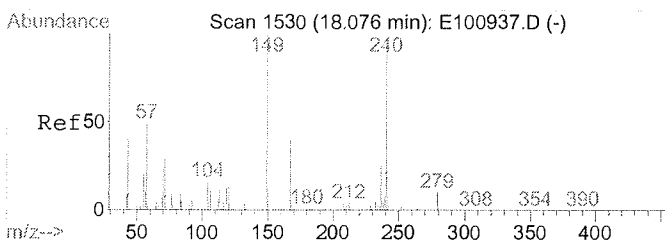
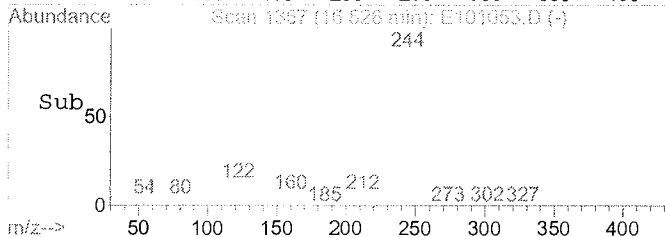
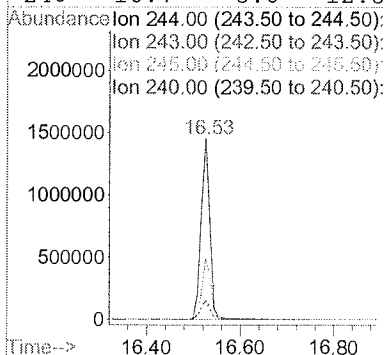


#81
 Terphenyl-d14
 Concen: 12.38 ug/mL
 RT: 16.53 min Scan# 1357
 Delta R.T. 0.36 min
 Lab File: E101053.D
 Acq: 11 Mar 2016 6:48 pm

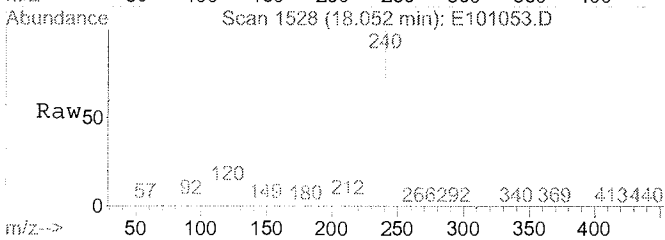


Tgt Ion: 244 Resp: 1860660

Ion	Ratio	Lower	Upper
244	100		
243	33.8	26.8	40.2
245	20.4	16.2	24.2
240	10.7	8.6	12.8

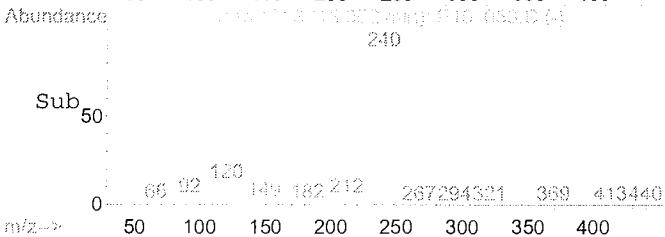
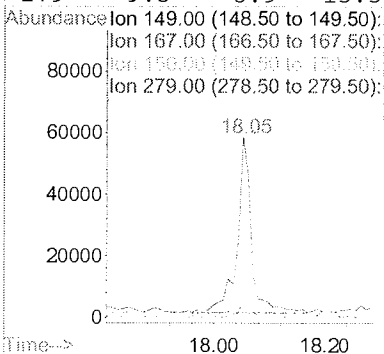


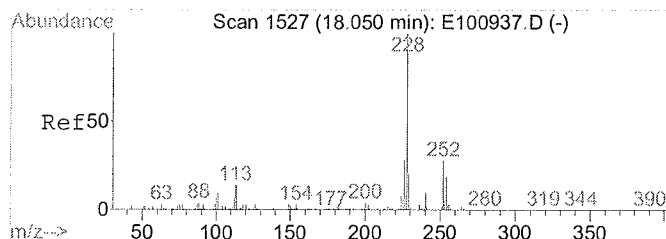
#83
 Bis(2-ethylhexyl)phthalate
 Concen: 0.81 ug/mL
 RT: 18.05 min Scan# 1528
 Delta R.T. 0.34 min
 Lab File: E101053.D
 Acq: 11 Mar 2016 6:48 pm



Tgt Ion: 149 Resp: 102312

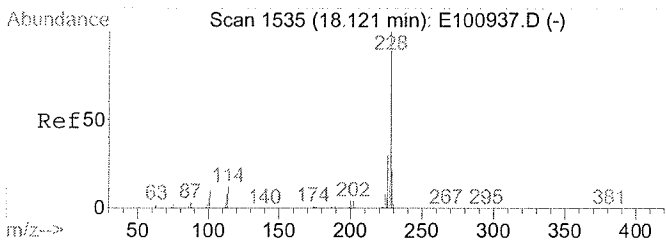
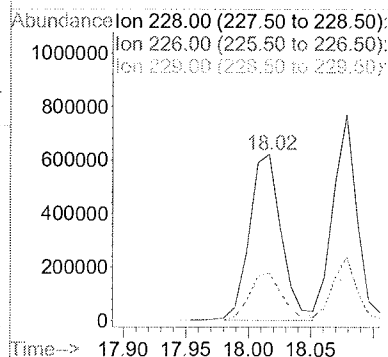
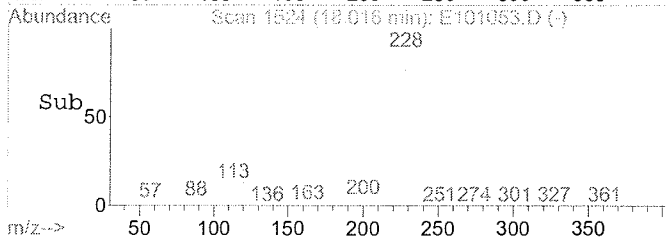
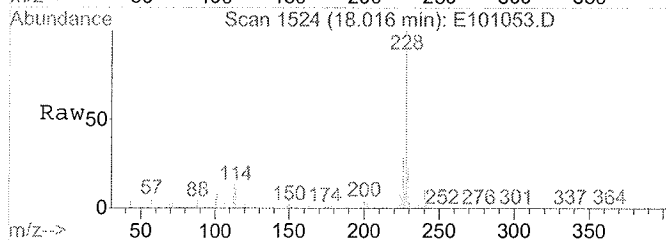
Ion	Ratio	Lower	Upper
149	100		
167	32.0	32.6	49.0#
150	30.8	11.3	16.9#
279	9.3	8.9	13.3





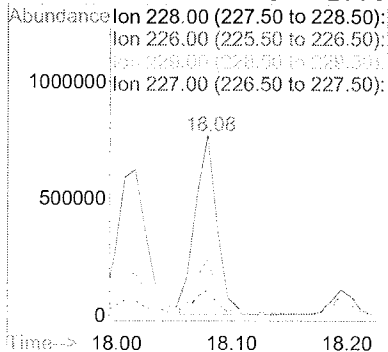
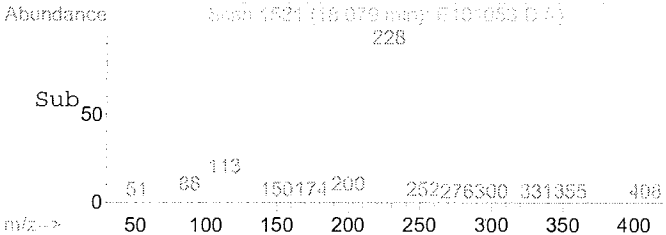
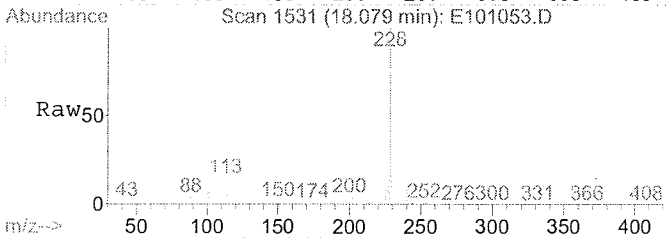
#84
Benz(a)anthracene
Concen: 6.81 ug/mL
RT: 18.02 min Scan# 1524
Delta R.T. 0.36 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

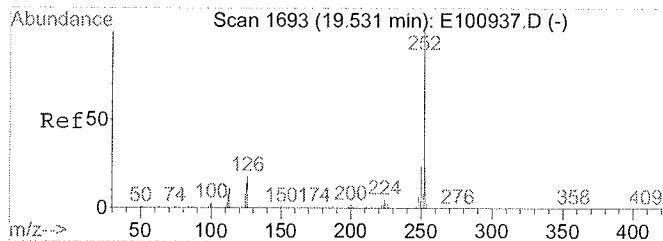
Tgt Ion:228 Resp: 1108944
Ion Ratio Lower Upper
228 100
226 29.3 22.5 33.7
229 28.3 16.8 25.2#



#86
Chrysene
Concen: 6.81 ug/mL
RT: 18.08 min Scan# 1531
Delta R.T. 0.34 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

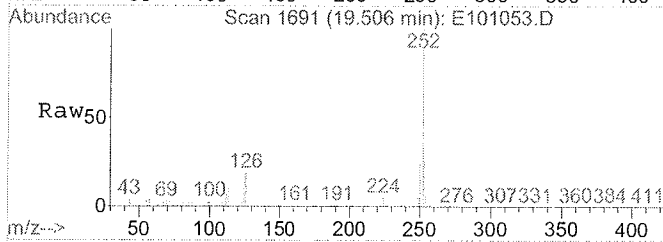
Tgt Ion:228 Resp: 1047413
Ion Ratio Lower Upper
228 100
226 31.1 23.1 34.7
229 25.6 17.0 25.4#
227 14.9 10.6 15.8





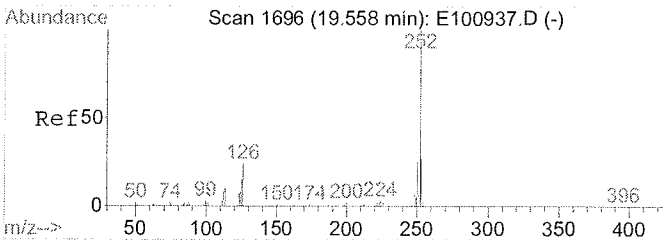
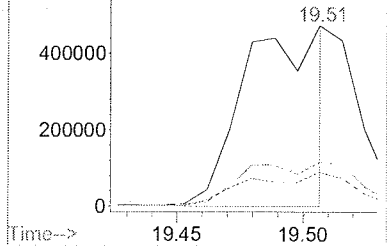
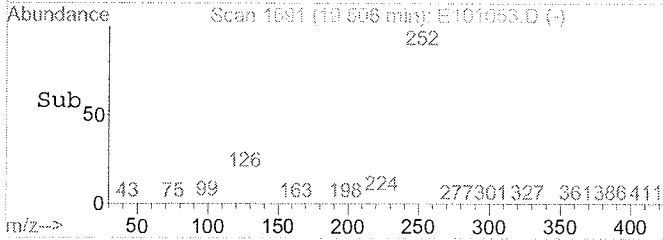
#88
Benzo(b)fluoranthene
Concen: 5.40 ug/mL m
RT: 19.51 min Scan# 1691
Delta R.T. 0.36 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

Tgt Ion:252 Resp: 1039613
Ion Ratio Lower Upper
252 100
250 34.7 28.3 42.5
253 34.1 28.2 42.4
126 24.0 16.9 25.3



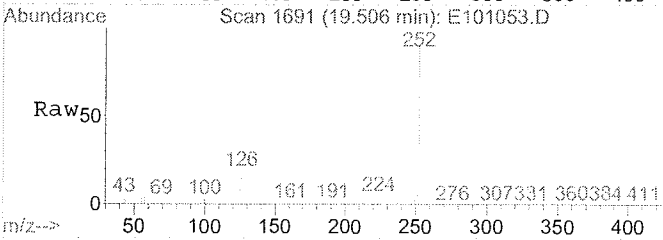
Abundance

Ion 252.00 (251.50 to 252.50):
Ion 250.00 (249.50 to 250.50):
Ion 253.00 (252.50 to 253.50):
Ion 126.00 (125.50 to 126.50):



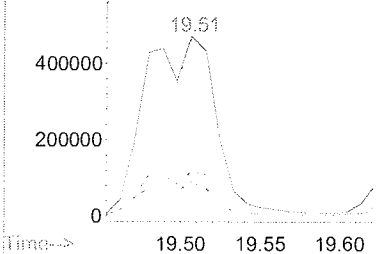
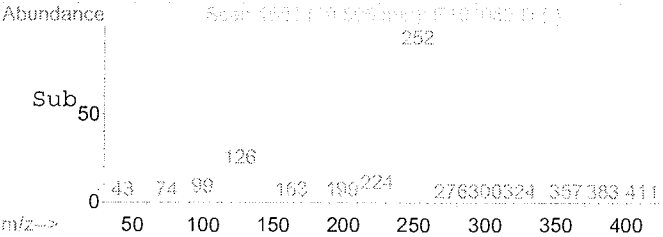
#89
Benzo(k)fluoranthene
Concen: 4.79 ug/mL m
RT: 19.51 min Scan# 1691
Delta R.T. 0.33 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

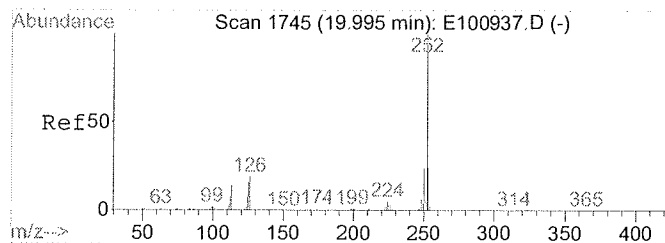
Tgt Ion:252 Resp: 675882
Ion Ratio Lower Upper
252 100
250 53.4 55.5 83.3#
253 53.2 55.3 82.9#
126 36.8 33.1 49.7



Abundance

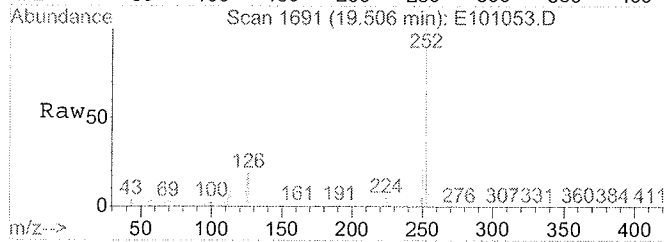
Ion 252.00 (251.50 to 252.50):
Ion 250.00 (249.50 to 250.50):
Ion 253.00 (252.50 to 253.50):
Ion 126.00 (125.50 to 126.50):





#90
Benz(a)pyrene
Concen: 8.07 ug/mL
RT: 19.51 min Scan# 1691
Delta R.T. -0.07 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

Tgt Ion: 252 Resp: 1282358
Ion Ratio Lower Upper
252 100
250 24.5 19.3 28.9
253 23.9 18.5 27.7
126 16.4 11.5 17.3



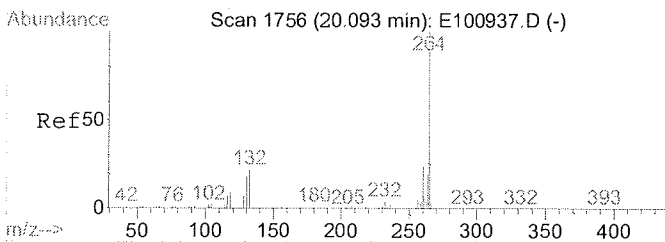
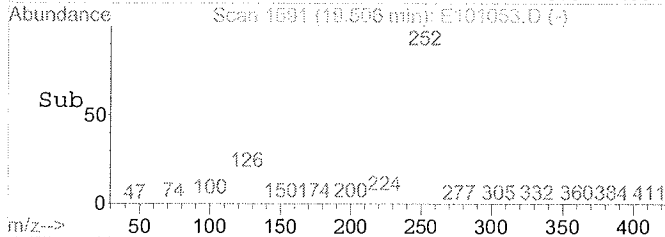
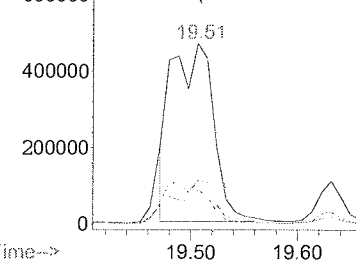
Abundance

Ion 252.00 (251.50 to 252.50):

Ion 250.00 (249.50 to 250.50):

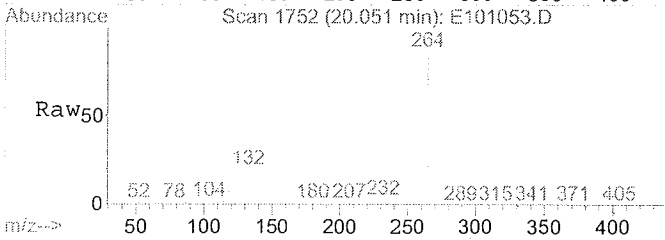
Ion 253.00 (252.50 to 253.50):

Ion 126.00 (125.50 to 126.50):



#91
Perylene-d12
Concen: 40.00 ug/mL
RT: 20.05 min Scan# 1752
Delta R.T. 0.39 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

Tgt Ion: 264 Resp: 2903291
Ion Ratio Lower Upper
264 100
260 25.4 19.0 28.4
265 22.5 17.8 26.8
265 22.5 17.8 26.8



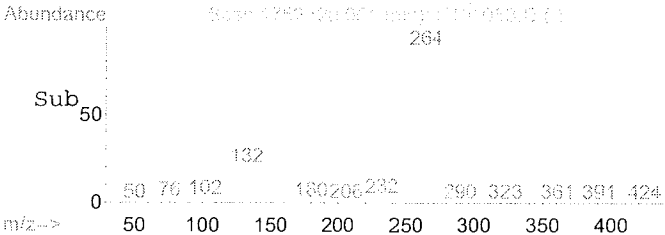
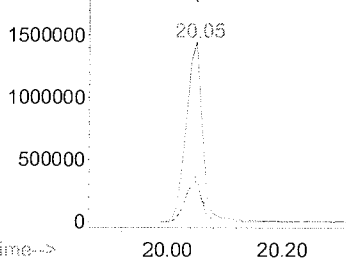
Abundance

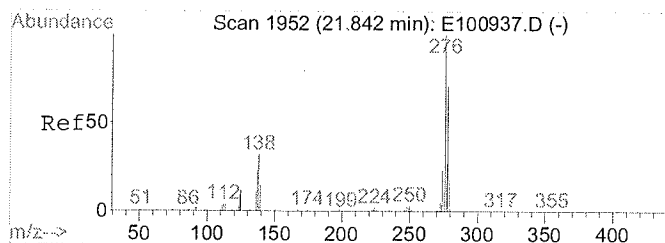
Ion 264.00 (263.50 to 264.50):

Ion 260.00 (259.50 to 260.50):

Ion 265.00 (264.50 to 265.50):

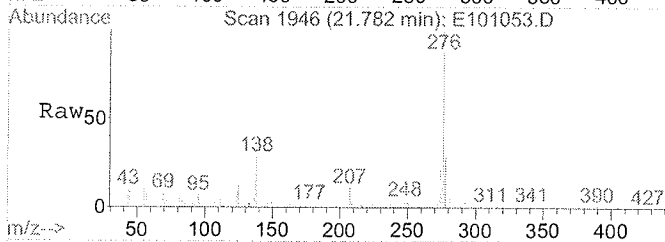
Ion 265.00 (264.50 to 265.50):



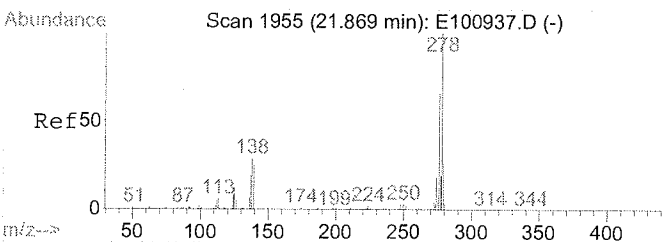
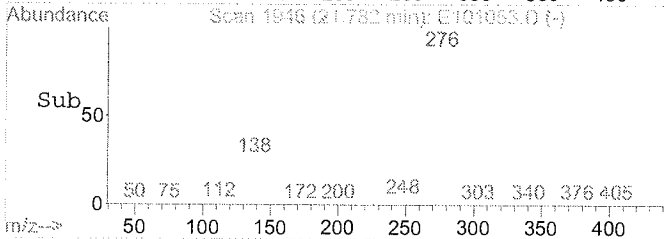
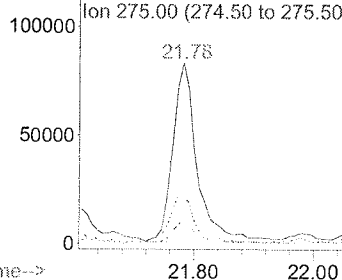


#92
Indeno(1,2,3-c,d)pyrene
Concen: 1.91 ug/mL
RT: 21.78 min Scan# 1946
Delta R.T. 0.46 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

Tgt Ion: 276 Resp: 232184
Ion Ratio Lower Upper
276 100
277 26.1 21.6 32.4
274 22.8 18.9 28.3
275 11.7 9.7 14.5

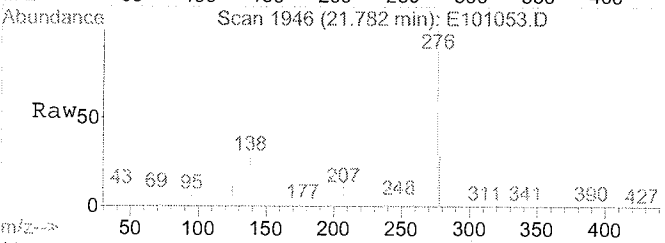


Abundance Ion 276.00 (275.50 to 276.50):
Ion 277.00 (276.50 to 277.50):
Ion 274.00 (273.50 to 274.50):
Ion 275.00 (274.50 to 275.50):

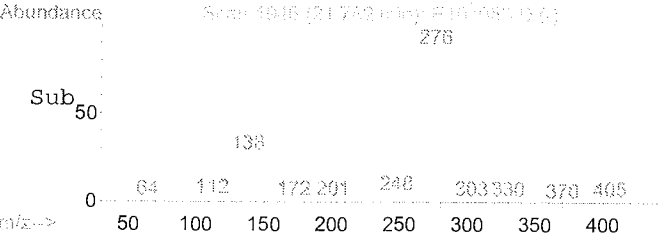
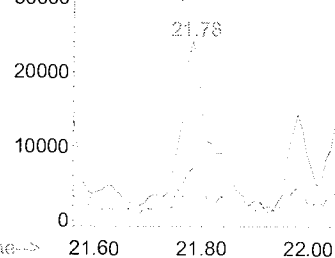


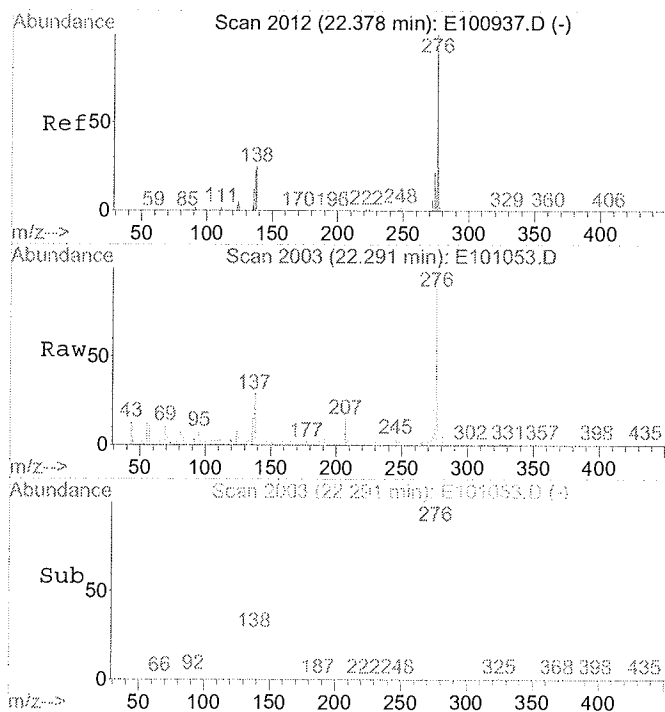
#93
Dibenz(a,h)anthracene
Concen: 0.93 ug/mL
RT: 21.78 min Scan# 1946
Delta R.T. 0.47 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

Tgt Ion: 278 Resp: 90773
Ion Ratio Lower Upper
278 100
279 32.6 19.6 29.4#
280 6.9 2.6 3.8#
139 17.3 12.2 18.2



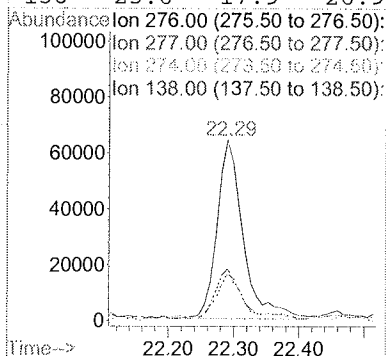
Abundance Ion 278.00 (277.50 to 278.50):
Ion 279.00 (278.50 to 279.50):
Ion 139.00 (138.50 to 139.50):





#94
Benzo(g,h,i)perylene
Concen: 1.79 ug/mL
RT: 22.29 min Scan# 2003
Delta R.T. 0.51 min
Lab File: E101053.D
Acq: 11 Mar 2016 6:48 pm

Tgt Ion: 276 Resp: 176916
Ion Ratio Lower Upper
276 100
277 26.9 19.9 29.9
274 24.8 18.0 27.0
138 25.6 17.9 26.9



FORM I

ORGANIC ANALYSIS DATA SHEET

04/LSB-2

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-04 File ID: E101052.D
 Sampled: 03/04/16 13:30 Prepared: 03/11/16 06:56 Analyzed: 03/11/16 18:16
 Solids: 70.08 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Batch: BC60616 Sequence: Calibration: Instrument: BNA #1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
92-52-4	1,1'-Biphenyl	2	0.119	U
95-94-3	1,2,4,5-Tetrachlorobenzene	2	0.238	U
120-82-1	1,2,4-Trichlorobenzene	2	0.119	U
95-50-1	1,2-Dichlorobenzene	2	0.119	U
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	2	0.119	U
541-73-1	1,3-Dichlorobenzene	2	0.119	U
106-46-7	1,4-Dichlorobenzene	2	0.119	U
58-90-2	2,3,4,6-Tetrachlorophenol	2	0.238	U
95-95-4	2,4,5-Trichlorophenol	2	0.119	U
88-06-2	2,4,6-Trichlorophenol	2	0.119	U
120-83-2	2,4-Dichlorophenol	2	0.119	U
105-67-9	2,4-Dimethylphenol	2	0.119	U
51-28-5	2,4-Dinitrophenol	2	0.238	U
121-14-2	2,4-Dinitrotoluene	2	0.119	U
606-20-2	2,6-Dinitrotoluene	2	0.119	U
91-58-7	2-Chloronaphthalene	2	0.119	U
95-57-8	2-Chlorophenol	2	0.119	U
91-57-6	2-Methylnaphthalene	2	0.119	U
95-48-7	2-Methylphenol	2	0.119	U
88-74-4	2-Nitroaniline	2	0.238	U
88-75-5	2-Nitrophenol	2	0.119	U
65794-96-9	3- & 4-Methylphenols	2	0.119	U
91-94-1	3,3'-Dichlorobenzidine	2	0.119	U
99-09-2	3-Nitroaniline	2	0.238	U
534-52-1	4,6-Dinitro-2-methylphenol	2	0.238	U
101-55-3	4-Bromophenyl phenyl ether	2	0.119	U
59-50-7	4-Chloro-3-methylphenol	2	0.119	U
106-47-8	4-Chloroaniline	2	0.119	U
7005-72-3	4-Chlorophenyl phenyl ether	2	0.119	U
100-01-6	4-Nitroaniline	2	0.238	U
100-02-7	4-Nitrophenol	2	0.238	U
83-32-9	Acenaphthene	2	0.119	U
208-96-8	Acenaphthylene	2	0.119	U
98-86-2	Acetophenone	2	0.119	U
62-53-3	Aniline	2	0.477	U
120-12-7	Anthracene	2	0.0685	JD
1912-24-9	Atrazine	2	0.119	U
100-52-7	Benzaldehyde	2	0.119	U
92-87-5	Benzidine	2	0.477	U
56-55-3	Benzo(a)anthracene	2	0.243	D

FORM I

ORGANIC ANALYSIS DATA SHEET

04/LSB-2

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-04 File ID: E101052.D
 Sampled: 03/04/16 13:30 Prepared: 03/11/16 06:56 Analyzed: 03/11/16 18:16
 Solids: 70.08 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Batch: BC60616 Sequence: Calibration: Instrument: BNA #1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
50-32-8	Benzo(a)pyrene	2	0.185	D
205-99-2	Benzo(b)fluoranthene	2	0.159	D
191-24-2	Benzo(g,h,i)perylene	2	0.0780	JD
207-08-9	Benzo(k)fluoranthene	2	0.211	D
65-85-0	Benzoic acid	2	0.119	U
100-51-6	Benzyl alcohol	2	0.119	U
85-68-7	Benzyl butyl phthalate	2	0.119	U
111-91-1	Bis(2-chloroethoxy)methane	2	0.119	U
111-44-4	Bis(2-chloroethyl)ether	2	0.119	U
108-60-1	Bis(2-chloroisopropyl)ether	2	0.119	U
117-81-7	Bis(2-ethylhexyl)phthalate	2	0.179	D
105-60-2	Caprolactam	2	0.238	U
86-74-8	Carbazole	2	0.119	U
218-01-9	Chrysene	2	0.257	D
53-70-3	Dibenzo(a,h)anthracene	2	0.119	U
132-64-9	Dibenzofuran	2	0.119	U
84-66-2	Diethyl phthalate	2	0.119	U
131-11-3	Dimethyl phthalate	2	0.119	U
84-74-2	Di-n-butyl phthalate	2	0.119	U
117-84-0	Di-n-octyl phthalate	2	0.179	D
206-44-0	Fluoranthene	2	0.558	D
86-73-7	Fluorene	2	0.119	U
118-74-1	Hexachlorobenzene	2	0.119	U
87-68-3	Hexachlorobutadiene	2	0.119	U
77-47-4	Hexachlorocyclopentadiene	2	0.119	U
67-72-1	Hexachlorocyclohexane	2	0.119	U
193-39-5	Indeno(1,2,3-cd)pyrene	2	0.0809	JD
78-59-1	Isophorone	2	0.119	U
91-20-3	Naphthalene	2	0.119	U
98-95-3	Nitrobenzene	2	0.119	U
62-75-9	N-Nitrosodimethylamine	2	0.119	U
621-64-7	N-nitroso-di-n-propylamine	2	0.119	U
86-30-6	N-Nitrosodiphenylamine	2	0.119	U
87-86-5	Pentachlorophenol	2	0.119	U
85-01-8	Phenanthrene	2	0.342	D
108-95-2	Phenol	2	0.119	U
129-00-0	Pyrene	2	0.487	D
110-86-1	Pyridine	2	0.477	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q

FORM I

ORGANIC ANALYSIS DATA SHEET

04/LSB-2

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil Laboratory ID: 16C0235-04 File ID: E101052.D
Sampled: 03/04/16 13:30 Prepared: 03/11/16 06:56 Analyzed: 03/11/16 18:16
Solids: 70.08 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
Batch: BC60616 Sequence: Calibration: Instrument: BNA #1

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	3.58	1.88	52.5	20 - 108	
Phenol-d5	3.57	1.98	55.5	23 - 114	
Nitrobenzene-d5	2.39	1.42	59.7	22 - 108	
2-Fluorobiphenyl	2.38	1.41	59.5	21 - 113	
2,4,6-Tribromophenol	3.57	2.73	76.6	19 - 110	
Terphenyl-d14	2.38	1.43	60.2	24 - 116	

* Values outside of QC limits

Data File : C:\HPCHEM\1\DATA\E1031116\E101052.D Vial: 16
 Acq On : 11 Mar 2016 6:16 pm Operator: SR
 Sample : 16C0235-04 Inst : BNA #1
 Misc : QBSV1031116B 2X NYSDEC 375 ASPB Multiplr: 2.00
 MS Integration Params: RTEINT.P
 Quant Time: Mar 14 7:57 2016 Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
 Title : Semivolatiles by GC/MS - EPA Method 625/8270
 Last Update : Sun Mar 06 04:11:30 2016
 Response via : Initial Calibration
 DataAcq Meth : TCBNA211

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.12	152	1549145	40.00	ug/mL	-0.02
21) Naphthalene-d8	9.76	136	5330513	40.00	ug/mL	0.36
39) Acenaphthene-d10	12.18	164	2965774	40.00	ug/mL	0.36
63) Phenanthrene-d10	14.26	188	5258435	40.00	ug/mL	0.36
79) Chrysene-d12	18.05	240	4741159	40.00	ug/mL	0.35
91) Perylene-d12	20.05	264	3585463	40.00	ug/mL	0.38

System Monitoring Compounds

4) 2-Fluorophenol	6.61	112	1331255	19.75	ug/mL	0.26
Spiked Amount	75.000	Range	14 - 77	Recovery	=	26.33%
5) Phenol-d5	7.75	99	1791697	20.82	ug/mL	0.30
Spiked Amount	75.000	Range	10 - 100	Recovery	=	27.76%
22) Nitrobenzene-d5	8.86	82	1145296	14.98	ug/mL	0.34
Spiked Amount	50.000	Range	31 - 97	Recovery	=	29.96%#
45) 2-Fluorobiphenyl	11.22	172	1897766	14.87	ug/mL	0.36
Spiked Amount	50.000	Range	43 - 116	Recovery	=	29.74%#
68) 2,4,6-Tribromophenol	13.30	330	571149	28.72	ug/mL	0.36
Spiked Amount	75.000	Range	10 - 123	Recovery	=	38.29%
81) Terphenyl-d14	16.52	244	1624505	15.04	ug/mL	0.36
Spiked Amount	50.000	Range	33 - 141	Recovery	=	30.08%#

Target Compounds

					Qvalue	
73) Phenanthrene	14.28	178	579596	3.60	ug/mL	99
74) Anthracene	14.34	178	132028	0.72	ug/mL#	92
77) Fluoranthene	15.99	202	1073600	5.87	ug/mL	99
80) Pyrene	16.31	202	977685	5.12	ug/mL	97
83) Bis(2-ethylhexyl)phthalate	18.06	149	257470	1.88	ug/mL#	81
84) Benz(a)anthracene	18.01	228	452257	2.55	ug/mL#	93
86) Chrysene	18.07	228	451382	2.70	ug/mL#	95
87) Di-n-octylphthalate	18.87	149	486756	1.88	ug/mL#	97
88) Benzo(b)fluoranthene	19.48	252	350345m	1.67	ug/mL	
89) Benzo(k)fluoranthene	19.51	252	340694m	2.22	ug/mL	
90) Benz(a)pyrene	19.95	252	336572m	1.95	ug/mL	
92) Indeno(1,2,3-c,d)pyrene	21.78	276	127221	0.85	ug/mL	97
94) Benzo(g,h,i)perylene	22.29	276	100448	0.82	ug/mL#	91

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

E101052.D TCBNA211.M Mon Mar 14 08:01:43 2016

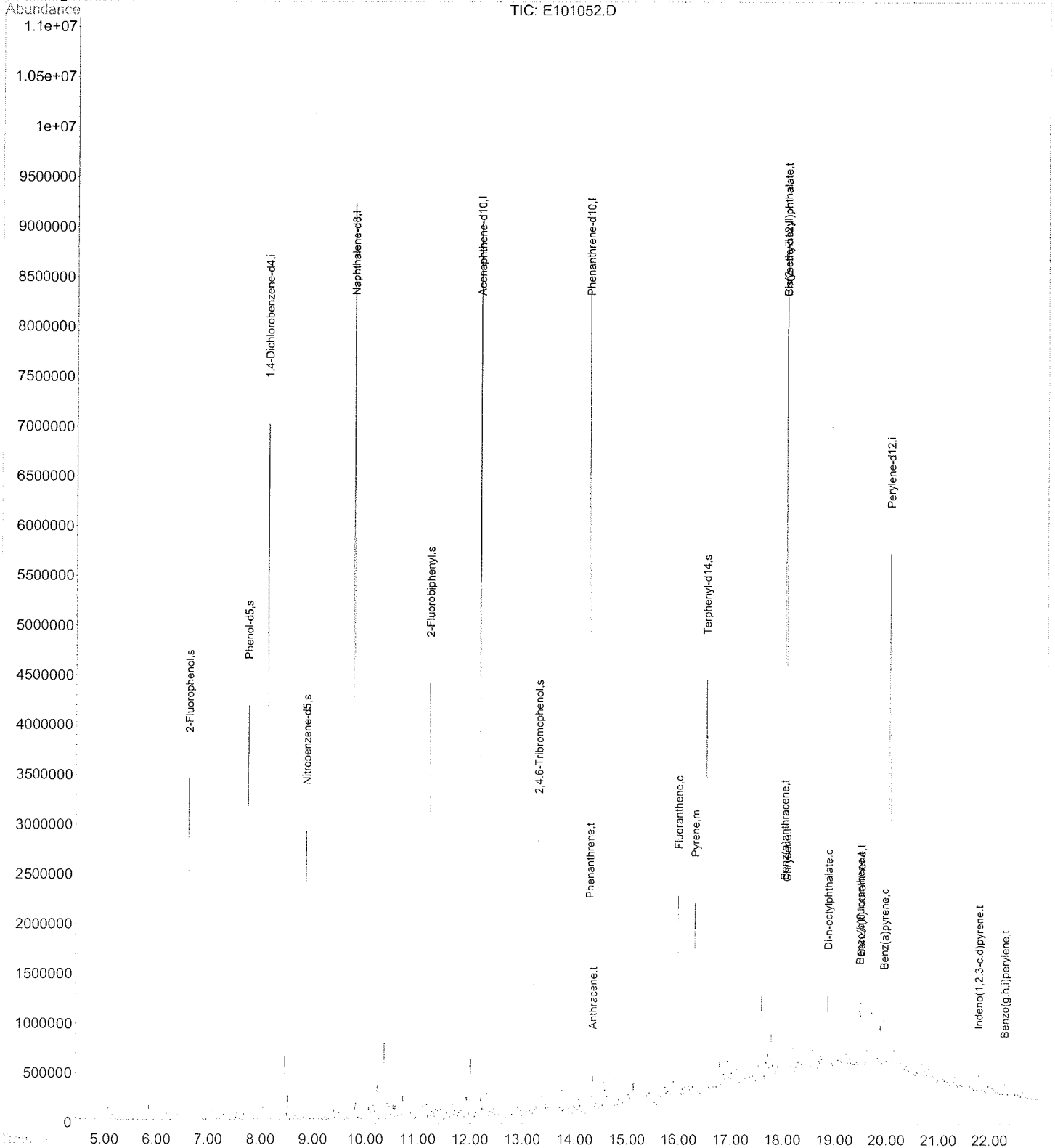
Quantitation Report

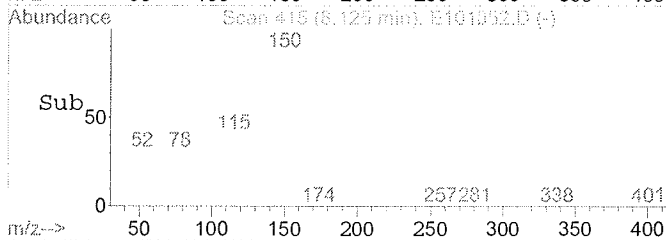
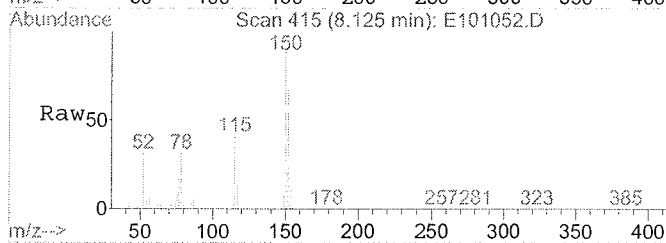
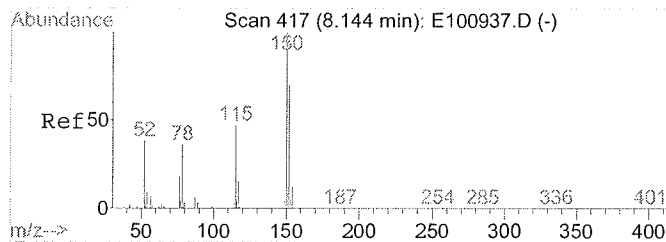
Data File : C:\HPCHEM\1\DATA\E1031116\E101052.D
 Acq On : 11 Mar 2016 6:16 pm
 Sample : 16C0235-04
 Misc : QBSV1031116B 2X NYSDEC 375 ASPB
 MS Integration Params: RTEINT.P
 Quant Time: Mar 14 7:57 2016

Vial: 16
 Operator: SR
 Inst : BNA #1
 Multiplr: 2.00

Quant Results File: TCBNA211.RES

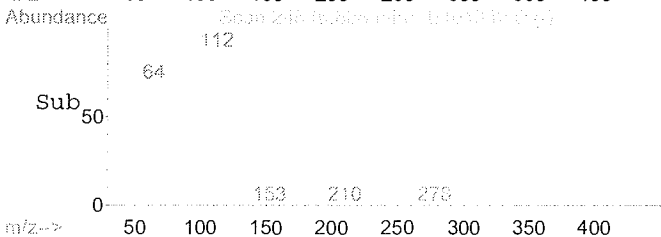
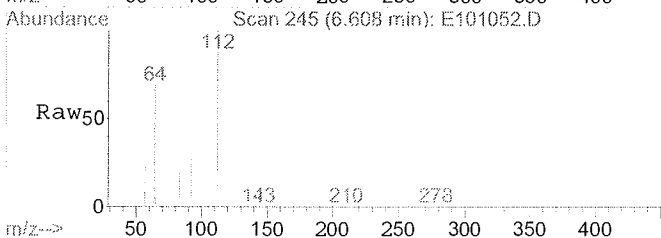
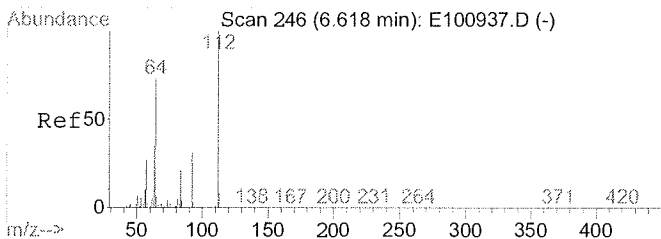
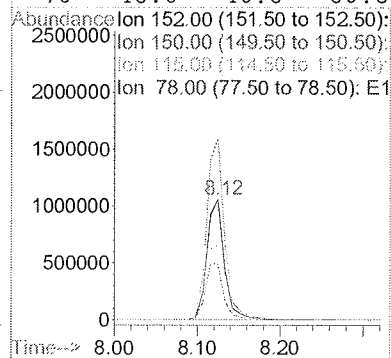
Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
 Title : Semivolatiles by GC/MS - EPA Method 625/8270
 Last Update : Sun Mar 06 04:11:30 2016
 Response via : Initial Calibration





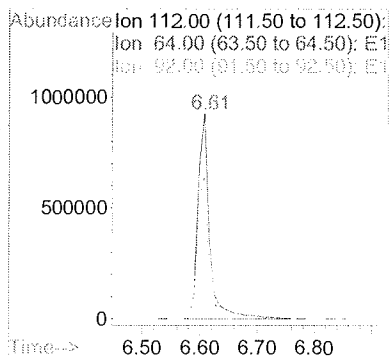
#1
1,4-Dichlorobenzene-d4
Concen: 40.00 ug/mL
RT: 8.12 min Scan# 415
Delta R.T. -0.02 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

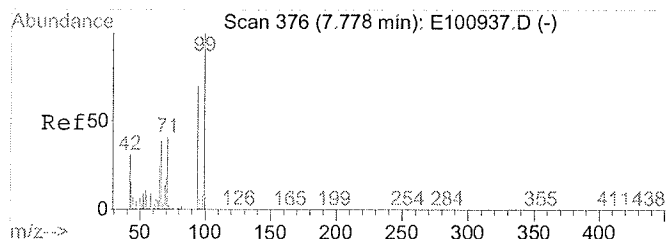
Tgt Ion:152 Resp: 1549145
Ion Ratio Lower Upper
152 100
150 149.5 115.0 172.4
115 61.9 52.2 78.4
78 46.0 40.6 60.8



#4
2-Fluorophenol
Concen: Below ug/mL
RT: 6.61 min Scan# 245
Delta R.T. 0.26 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

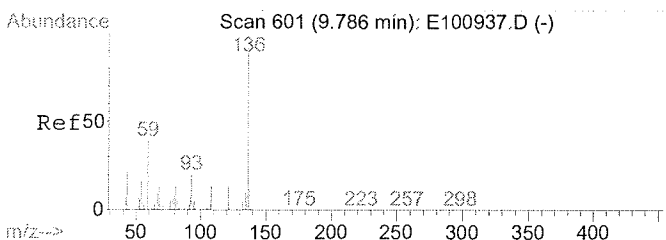
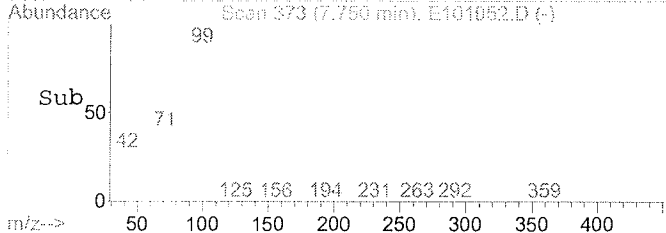
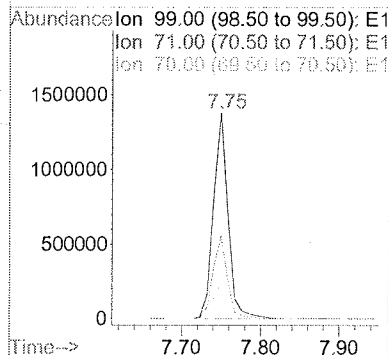
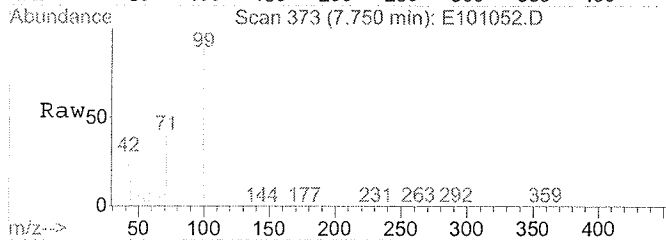
Tgt Ion:112 Resp: 1331255
Ion Ratio Lower Upper
112 100
64 73.0 59.8 89.6
92 30.3 25.3 37.9





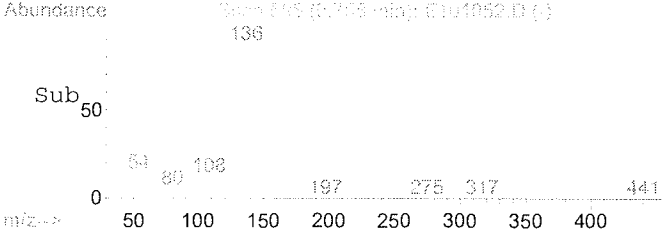
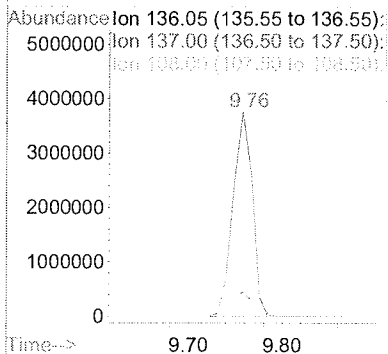
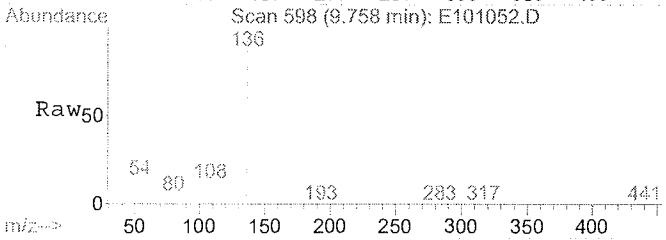
#5
Phenol-d5
Concen: Below ug/mL
RT: 7.75 min Scan# 373
Delta R.T. 0.30 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

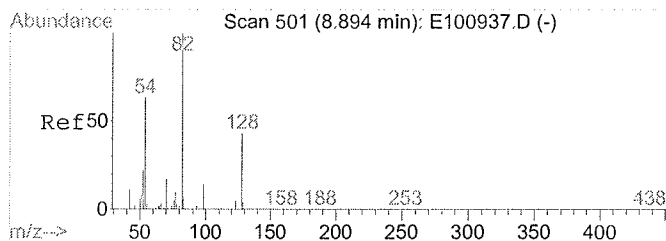
Tgt Ion: 99 Resp: 1791697
Ion Ratio Lower Upper
99 100
71 39.9 36.0 54.0
70 17.4 14.7 22.1



#21
Naphthalene-d8
Concen: 40.00 ug/mL
RT: 9.76 min Scan# 598
Delta R.T. 0.36 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

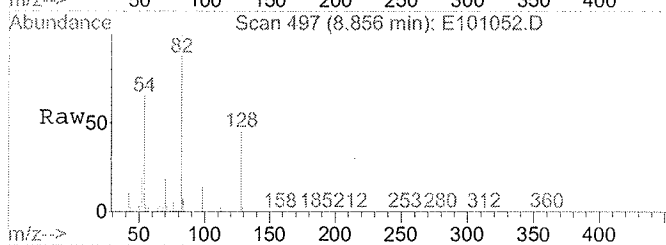
Tgt Ion: 136 Resp: 5330513
Ion Ratio Lower Upper
136 100
137 12.1 9.7 14.5
108 12.0 10.4 15.6





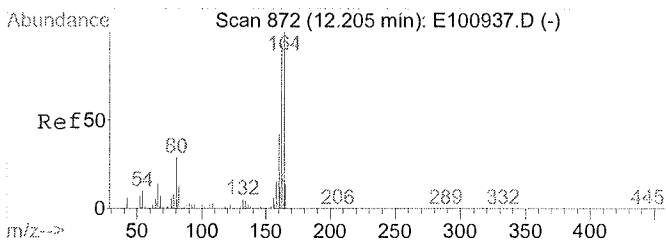
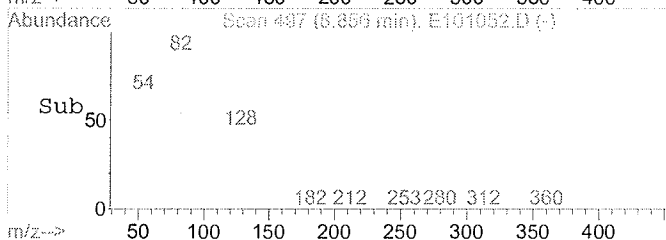
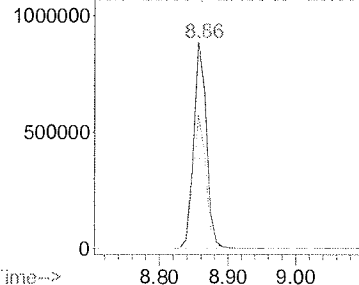
#22
Nitrobenzene-d5
Concen: 40.00 ug/mL
RT: 8.86 min Scan# 497
Delta R.T. 0.34 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

Tgt Ion: 82 Resp: 1145296
Ion Ratio Lower Upper
82 100
54 64.7 55.0 82.6
128 46.8 38.0 57.0



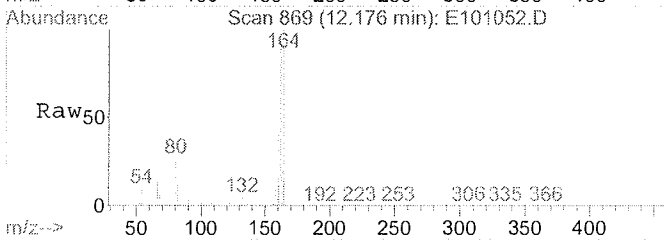
Abundance

Ion 82.00 (81.50 to 82.50): E1



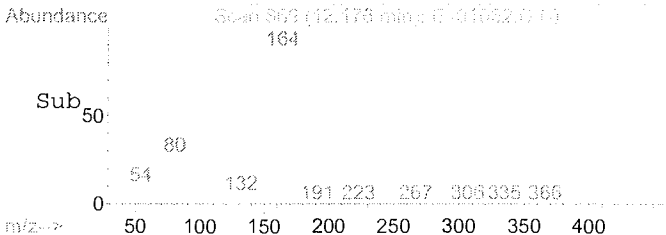
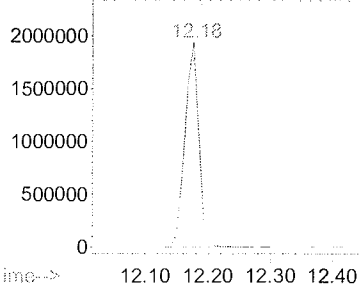
#39
Acenaphthene-d10
Concen: 40.00 ug/mL
RT: 12.18 min Scan# 869
Delta R.T. 0.36 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

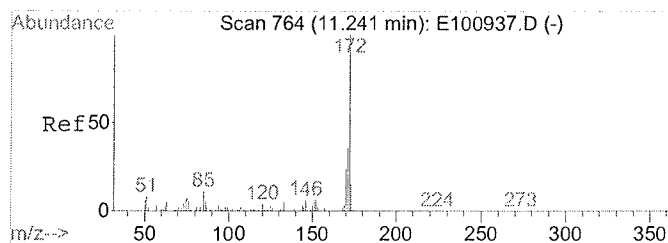
Tgt Ion: 164 Resp: 2965774
Ion Ratio Lower Upper
164 100
162 93.1 73.4 110.0
160 42.1 32.4 48.6



Abundance

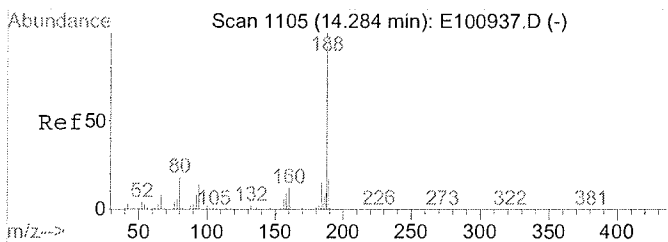
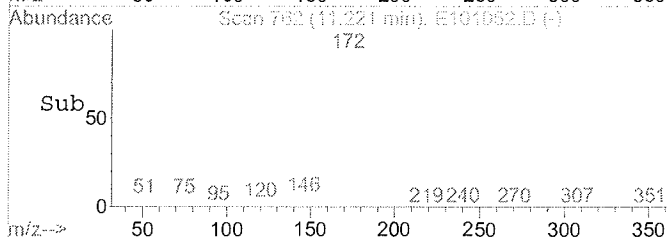
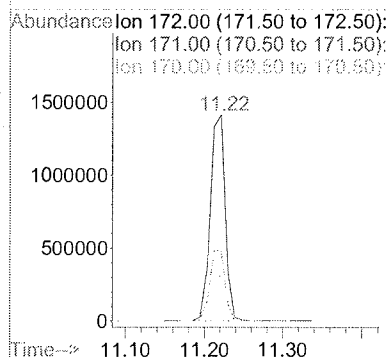
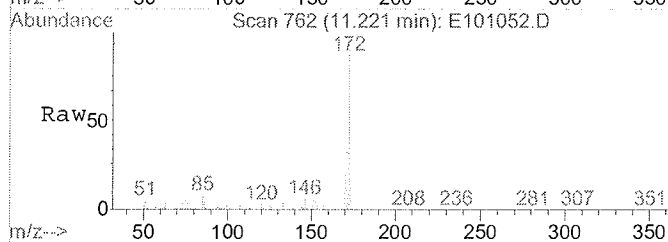
Ion 164.00 (163.50 to 164.50): E1





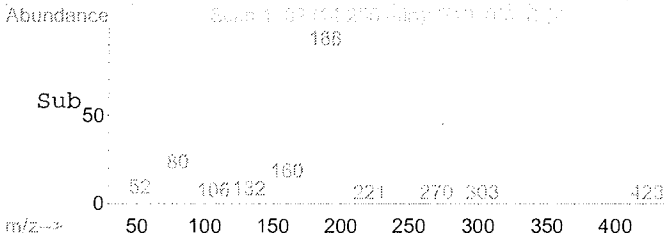
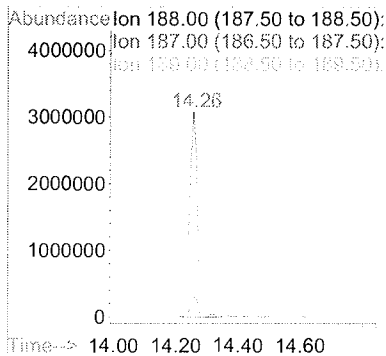
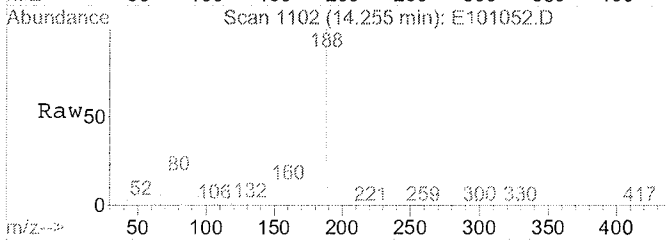
#45
2-Fluorobiphenyl
Concen: Below ug/mL
RT: 11.22 min Scan# 762
Delta R.T. 0.36 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

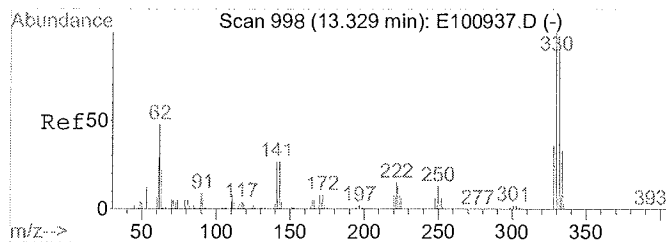
Tgt Ion:172 Resp: 1897766
Ion Ratio Lower Upper
172 100
171 35.6 29.5 44.3
170 23.0 19.7 29.5



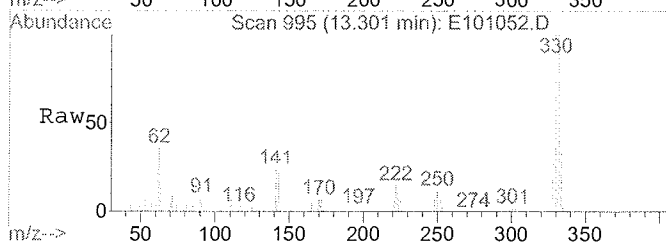
#63
Phenanthrene-d10
Concen: 40.00 ug/mL
RT: 14.26 min Scan# 1102
Delta R.T. 0.36 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

Tgt Ion:188 Resp: 5258435
Ion Ratio Lower Upper
188 100
187 9.2 7.7 11.3
189 16.5 13.7 18.7

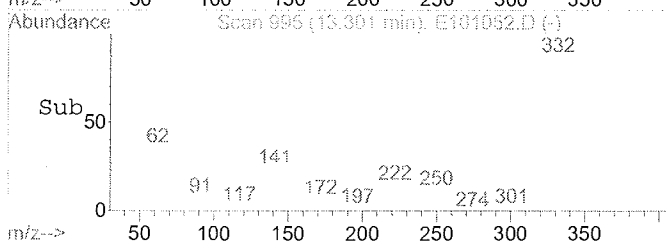




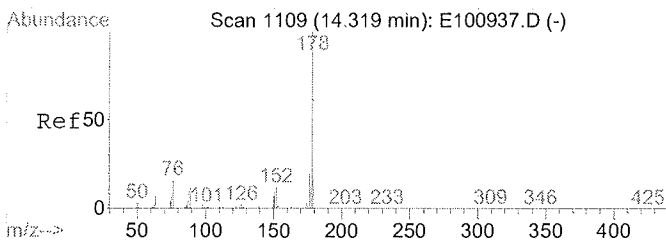
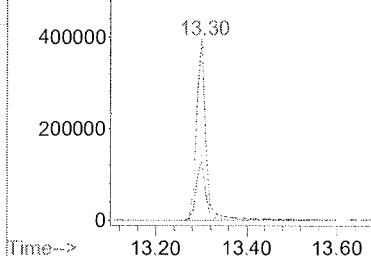
#68
2,4,6-Tribromophenol
Concen: Below ug/mL
RT: 13.30 min Scan# 995
Delta R.T. 0.36 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm



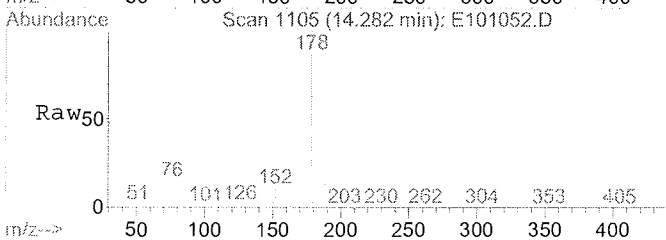
Tgt Ion:330 Resp: 571149
Ion Ratio Lower Upper
330 100
332 96.6 77.8 116.8
328 35.7 28.2 42.2
334 32.8 25.8 38.6



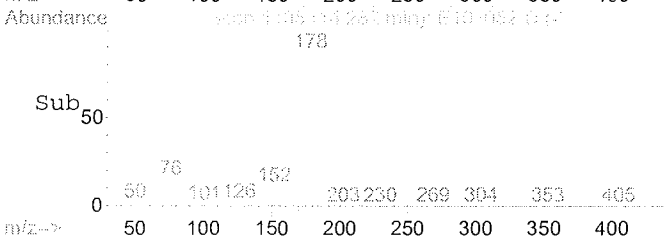
Abundance Ion 330.00 (329.50 to 330.50):
600000 Ion 332.00 (331.50 to 332.50):
Ion 328.00 (327.50 to 328.50):
Ion 334.00 (333.50 to 334.50):



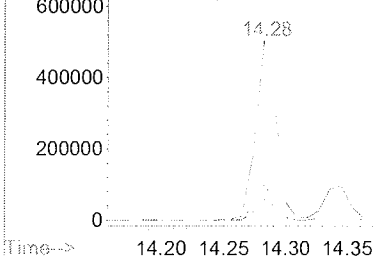
#73
Phenanthrene
Concen: 3.60 ug/mL
RT: 14.28 min Scan# 1105
Delta R.T. 0.35 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

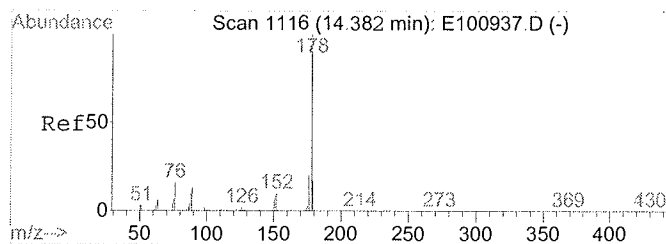


Tgt Ion:178 Resp: 579596
Ion Ratio Lower Upper
178 100
176 20.0 16.1 24.1
179 17.8 13.0 19.6
177 12.2 9.7 14.5

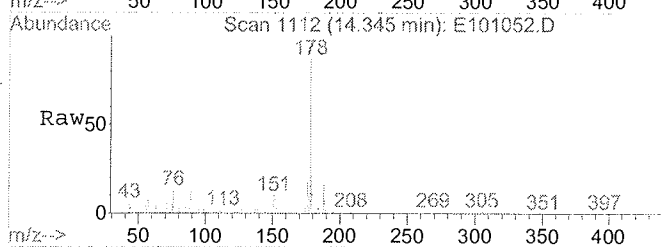


Abundance Ion 178.00 (177.50 to 178.50):
800000 Ion 176.00 (175.50 to 176.50):
Ion 179.00 (178.50 to 179.50):
Ion 177.00 (176.50 to 177.50):

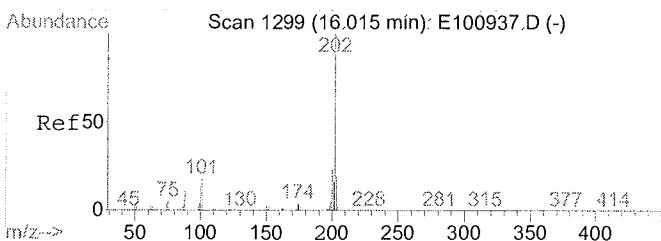
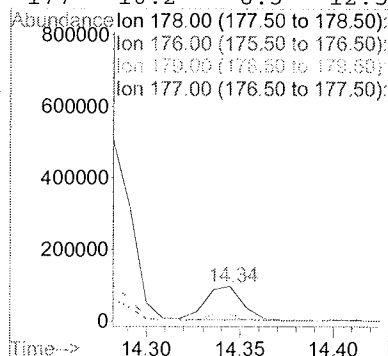
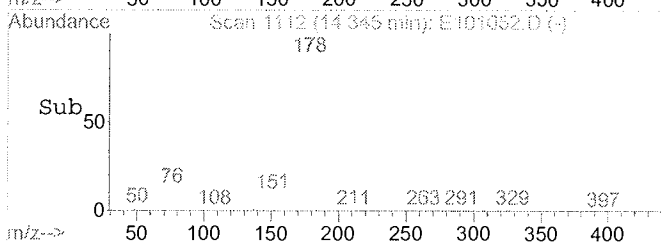




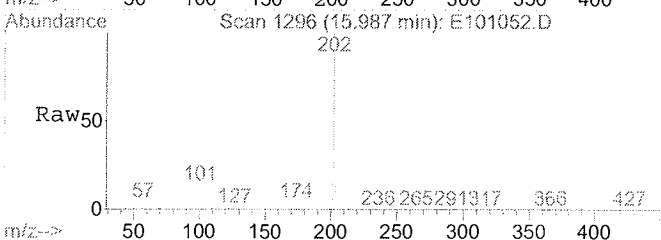
#74
 Anthracene
 Concen: 0.72 ug/mL
 RT: 14.34 min Scan# 1112
 Delta R.T. 0.35 min
 Lab File: E101052.D
 Acq: 11 Mar 2016 6:16 pm



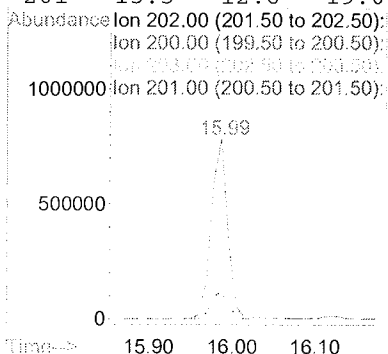
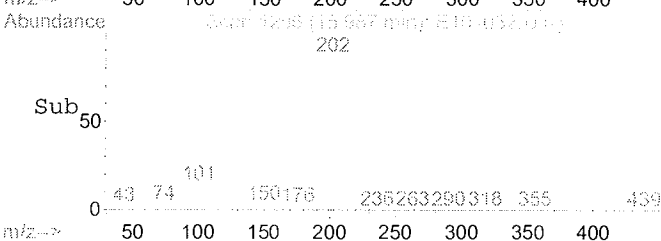
Tgt Ion:178 Resp: 132028
 Ion Ratio Lower Upper
 178 100
 176 20.8 15.6 23.4
 179 24.3 12.9 19.3#
 177 10.2 8.3 12.5

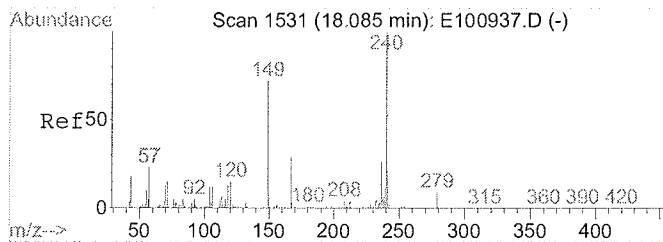


#77
 Fluoranthene
 Concen: 5.87 ug/mL
 RT: 15.99 min Scan# 1296
 Delta R.T. 0.36 min
 Lab File: E101052.D
 Acq: 11 Mar 2016 6:16 pm



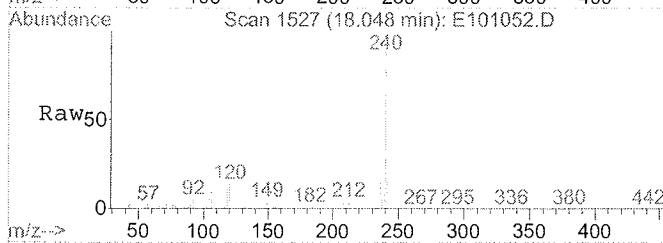
Tgt Ion:202 Resp: 1073600
 Ion Ratio Lower Upper
 202 100
 200 20.9 16.6 24.8
 203 18.0 15.0 22.6
 201 15.5 12.6 19.0





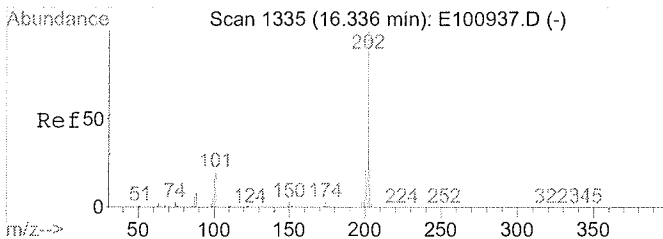
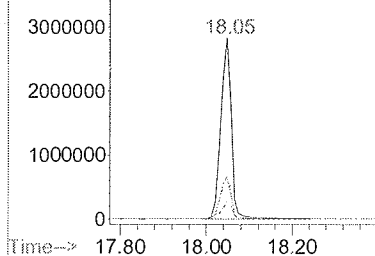
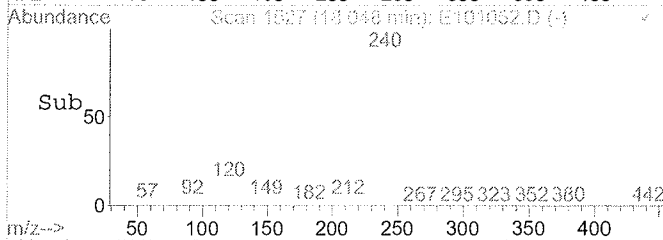
#79
Chrysene-d12
Concen: 40.00 ug/mL
RT: 18.05 min Scan# 1527
Delta R.T. 0.35 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

Tgt Ion: 240 Resp: 4741159
Ion Ratio Lower Upper
240 100
236 24.3 20.4 30.6
241 21.0 16.5 24.7
239 9.4 9.6 9.6#



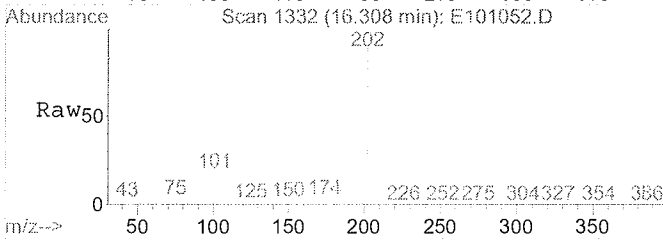
Abundance

Ion 240.00 (239.50 to 240.50):
Ion 236.00 (235.50 to 236.50):
Ion 241.00 (240.50 to 241.50):
Ion 239.00 (238.50 to 239.50):



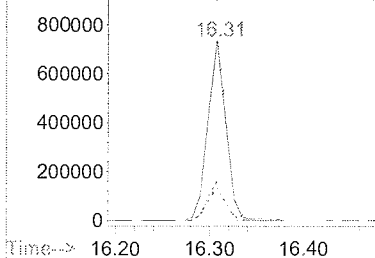
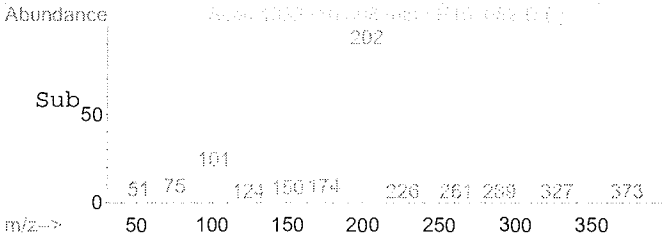
#80
Pyrene
Concen: 5.12 ug/mL
RT: 16.31 min Scan# 1332
Delta R.T. 0.36 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

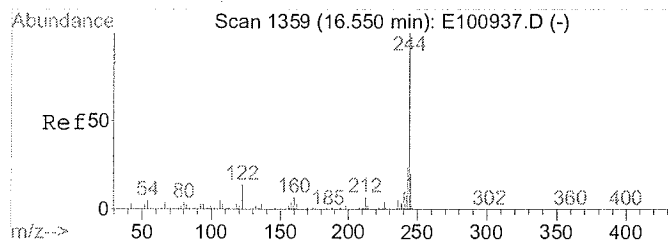
Tgt Ion: 202 Resp: 977685
Ion Ratio Lower Upper
202 100
200 21.6 17.1 25.7
203 22.2 15.2 22.8
201 18.3 14.8 22.2



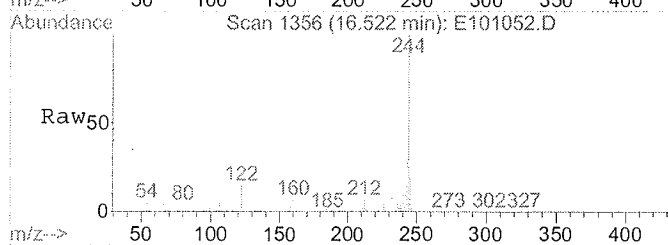
Abundance

Ion 202.00 (201.50 to 202.50):
Ion 200.00 (199.50 to 200.50):
Ion 203.00 (202.50 to 203.50):
Ion 201.00 (200.50 to 201.50):



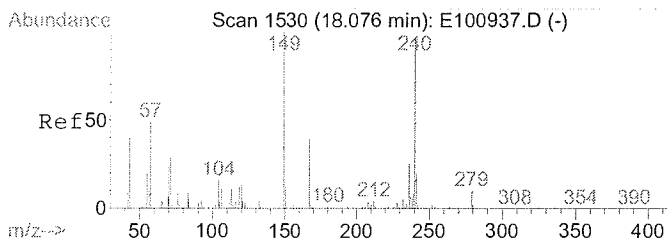
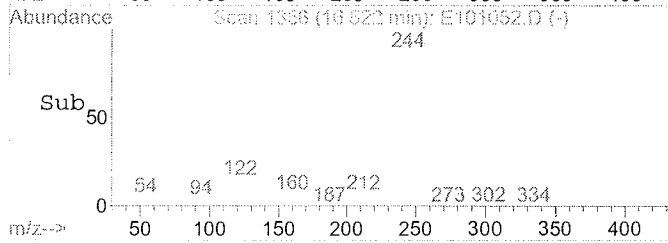
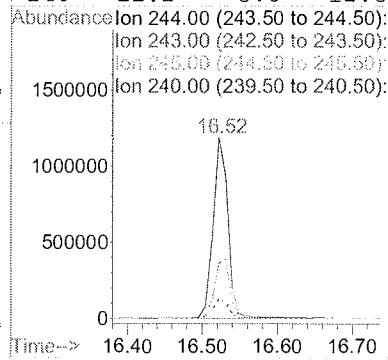


#81
 Terphenyl-d14
 Concen: 5.12 ug/mL
 RT: 16.52 min Scan# 1356
 Delta R.T. 0.36 min
 Lab File: E101052.D
 Acq: 11 Mar 2016 6:16 pm

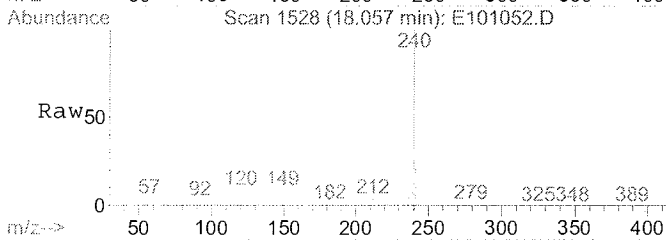


Tgt Ion: 244 Resp: 1624505

Ion	Ratio	Lower	Upper
244	100		
243	34.5	26.8	40.2
245	20.1	16.2	24.2
240	11.2	8.6	12.8

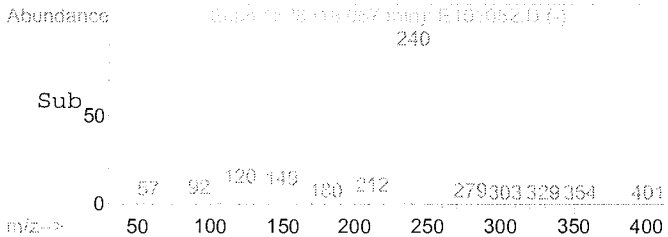
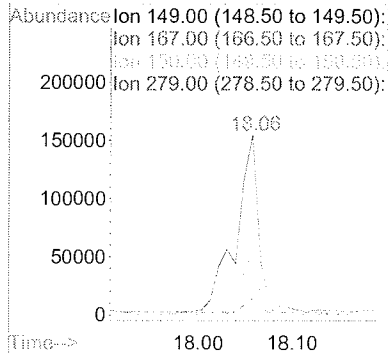


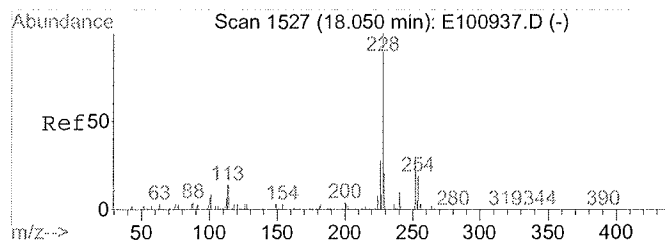
#83
 Bis(2-ethylhexyl)phthalate
 Concen: 1.88 ug/mL
 RT: 18.06 min Scan# 1528
 Delta R.T. 0.34 min
 Lab File: E101052.D
 Acq: 11 Mar 2016 6:16 pm



Tgt Ion: 149 Resp: 257470

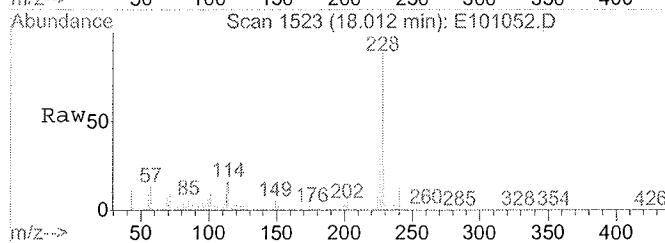
Ion	Ratio	Lower	Upper
149	100		
167	25.2	32.6	49.0#
150	18.8	11.3	16.9#
279	8.2	8.9	13.3#





#84
Benz(a)anthracene
Concen: 2.55 ug/mL
RT: 18.01 min Scan# 1523
Delta R.T. 0.36 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

Tgt Ion: 228 Resp: 452257
Ion Ratio Lower Upper
228 100
226 29.1 22.5 33.7
229 27.5 16.8 25.2#

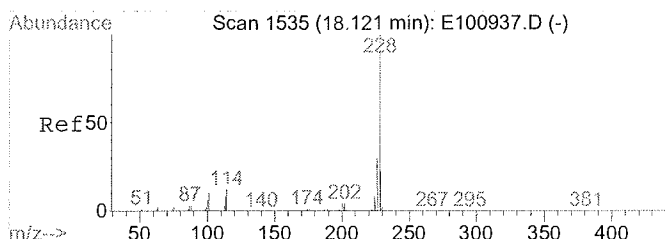
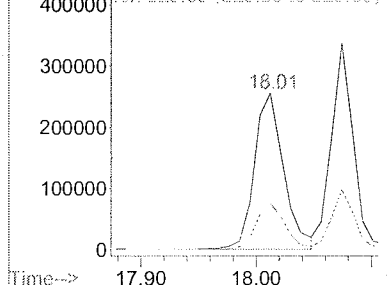
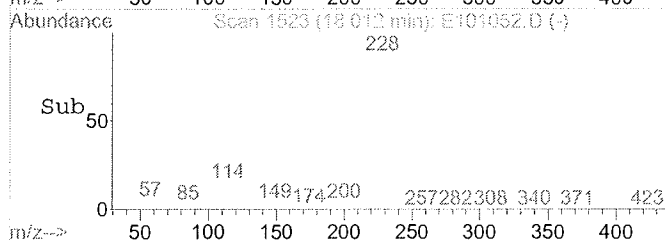


Abundance

Ion 228.00 (227.50 to 228.50):

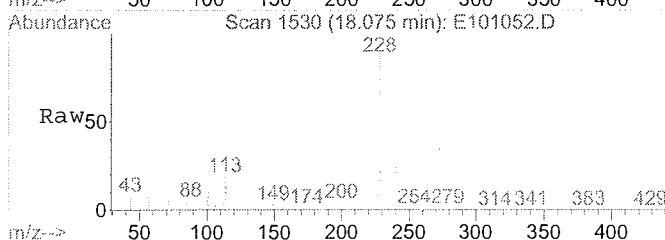
Ion 226.00 (225.50 to 226.50):

Ion 229.00 (228.50 to 229.50):



#86
Chrysene
Concen: 2.70 ug/mL
RT: 18.07 min Scan# 1530
Delta R.T. 0.33 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

Tgt Ion: 228 Resp: 451382
Ion Ratio Lower Upper
228 100
226 30.6 23.1 34.7
229 26.0 17.0 25.4#
227 13.8 10.6 15.8



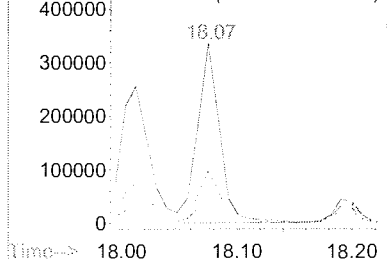
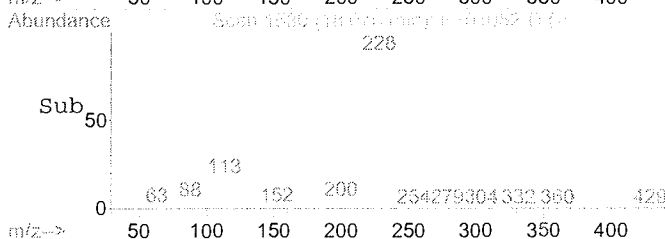
Abundance

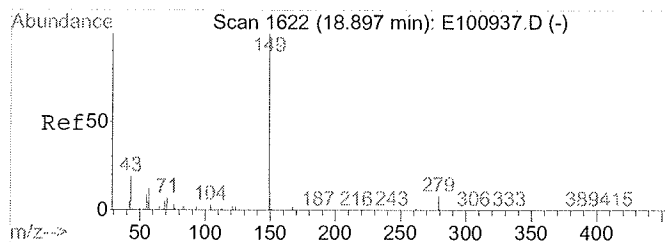
Ion 228.00 (227.50 to 228.50):

Ion 226.00 (225.50 to 226.50):

Ion 229.00 (228.50 to 229.50):

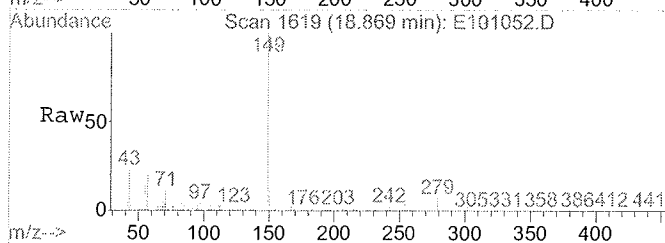
Ion 227.00 (226.50 to 227.50):





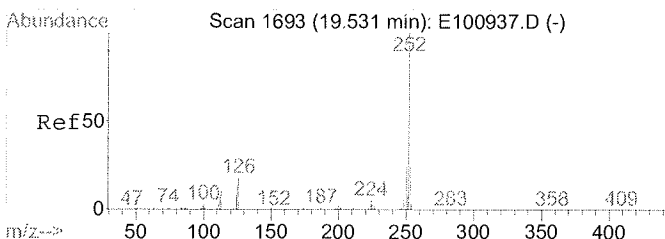
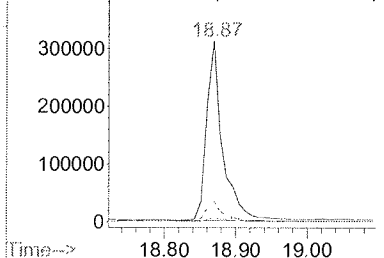
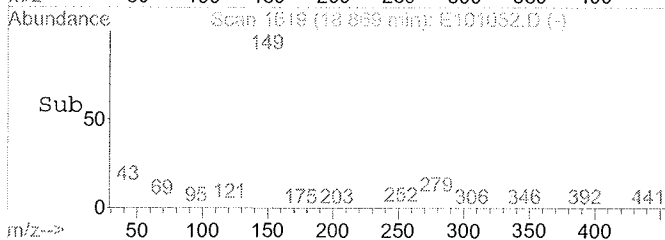
#87
Di-n-octylphthalate
Concen: 1.88 ug/mL
RT: 18.87 min Scan# 1619
Delta R.T. 0.33 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

Tgt Ion:149 Resp: 486756
Ion Ratio Lower Upper
149 100
150 11.5 8.5 12.7
279 7.0 6.3 9.5
167 3.7 1.6 2.4#



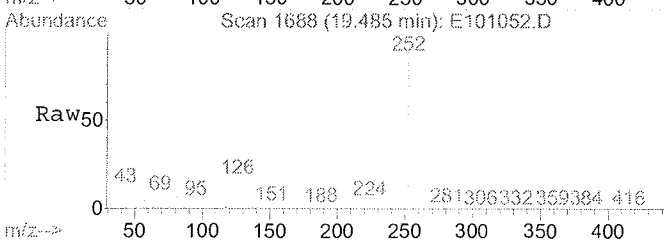
Abundance

Ion 149.00 (148.50 to 149.50):
Ion 150.00 (149.50 to 150.50):
Ion 279.00 (278.50 to 279.50):
Ion 167.00 (166.50 to 167.50):



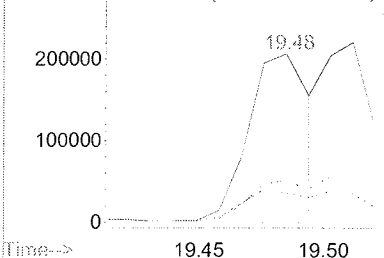
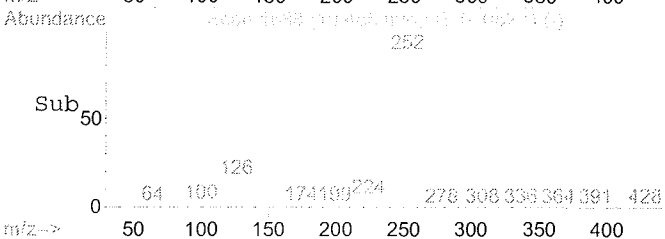
#88
Benzo(b)fluoranthene
Concen: 1.67 ug/mL m
RT: 19.48 min Scan# 1688
Delta R.T. 0.34 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

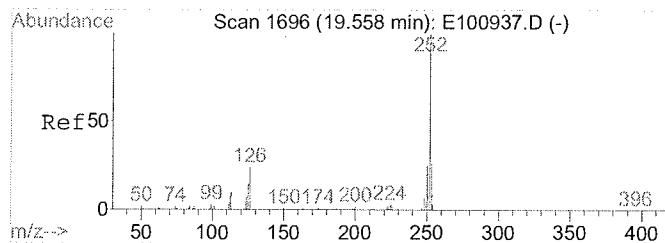
Tgt Ion:252 Resp: 350345
Ion Ratio Lower Upper
252 100
250 48.9 28.3 42.5#
253 47.6 28.2 42.4#
126 35.9 16.9 25.3#



Abundance

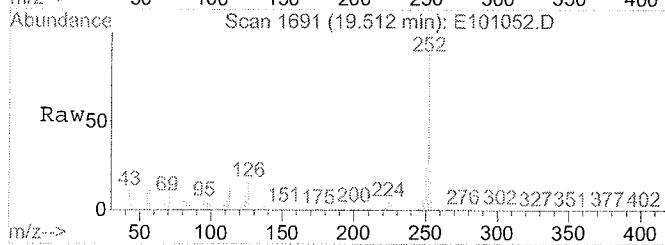
Ion 252.00 (251.50 to 252.50):
Ion 250.00 (249.50 to 250.50):
Ion 253.00 (252.50 to 253.50):
Ion 126.00 (125.50 to 126.50):





#89
Benzo(k)fluoranthene
Concen: 2.22 ug/mL m
RT: 19.51 min Scan# 1691
Delta R.T. 0.34 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

Tgt Ion	Ratio	Lower	Upper
252	100		
250	50.3	55.5	83.3#
253	49.0	55.3	82.9#
126	36.9	33.1	49.7



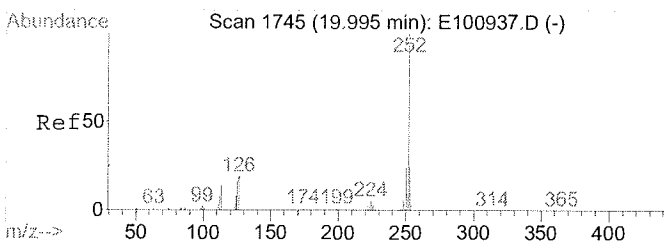
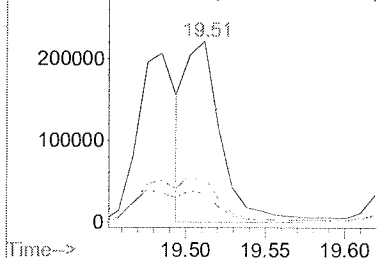
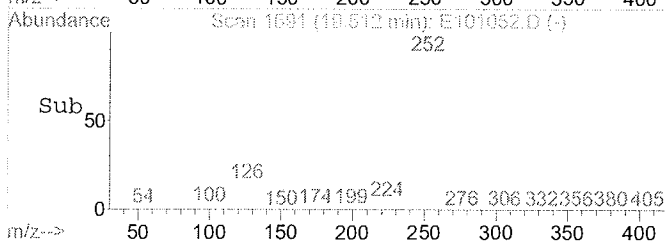
Abundance

Ion 252.00 (251.50 to 252.50):

Ion 250.00 (249.50 to 250.50):

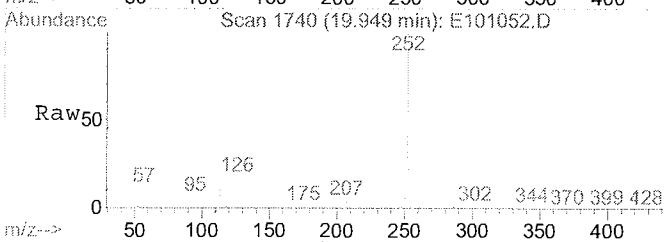
Ion 253.00 (252.50 to 253.50):

Ion 126.00 (125.50 to 126.50):



#90
Benz(a)pyrene
Concen: 1.95 ug/mL m
RT: 19.95 min Scan# 1740
Delta R.T. 0.37 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

Tgt Ion	Ratio	Lower	Upper
252	100		
250	46.2	19.3	28.9#
253	43.3	18.5	27.7#
126	30.7	11.5	17.3#



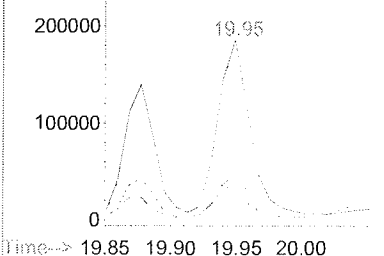
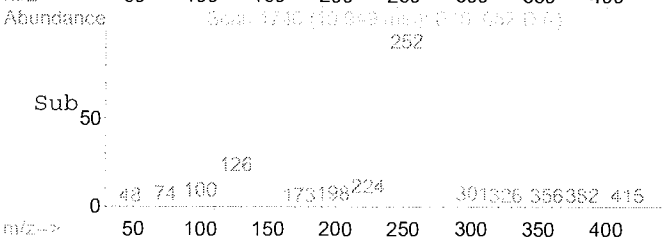
Abundance

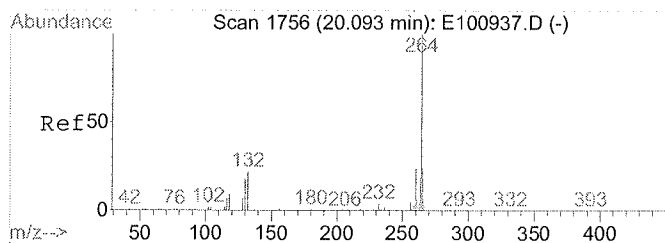
Ion 252.00 (251.50 to 252.50):

Ion 250.00 (249.50 to 250.50):

Ion 253.00 (252.50 to 253.50):

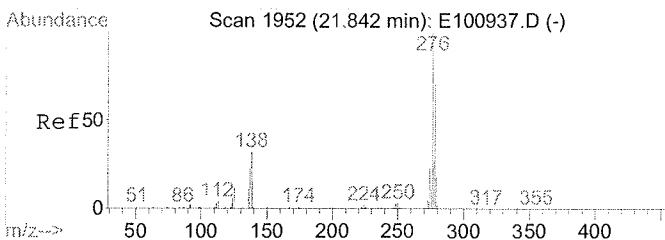
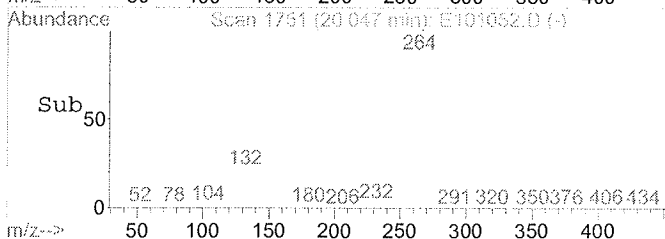
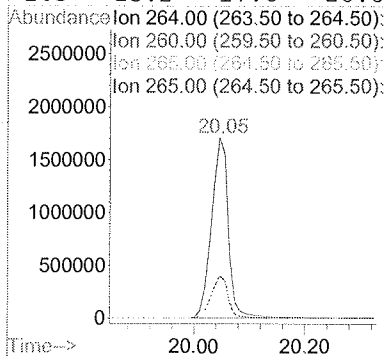
Ion 126.00 (125.50 to 126.50):





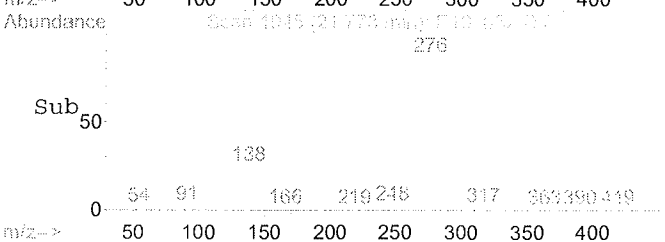
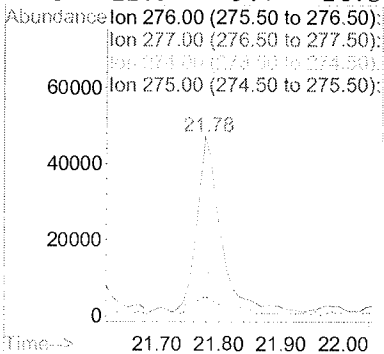
#91
Perylene-d12
Concen: 40.00 ug/mL
RT: 20.05 min Scan# 1751
Delta R.T. 0.38 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

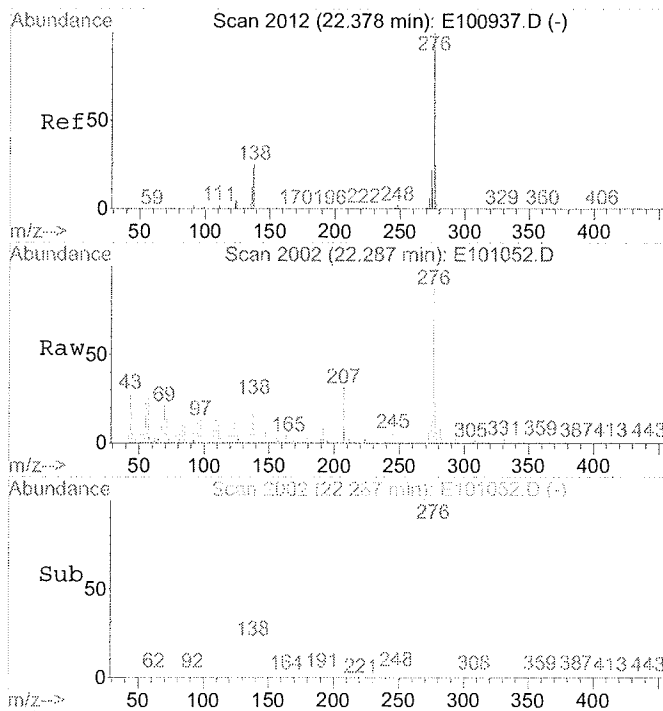
Tgt Ion: 264 Resp: 3585463
Ion Ratio Lower Upper
264 100
260 23.5 19.0 28.4
265 23.2 17.8 26.8
265 23.2 17.8 26.8



#92
Indeno(1,2,3-c,d)pyrene
Concen: 0.85 ug/mL
RT: 21.78 min Scan# 1945
Delta R.T. 0.45 min
Lab File: E101052.D
Acq: 11 Mar 2016 6:16 pm

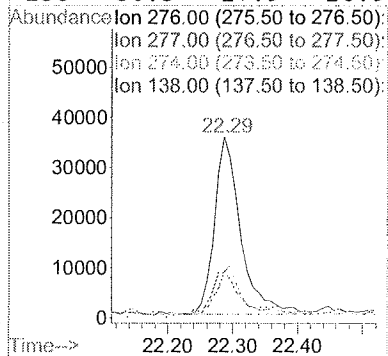
Tgt Ion: 276 Resp: 127221
Ion Ratio Lower Upper
276 100
277 26.1 21.6 32.4
274 26.4 18.9 28.3
275 12.9 9.7 14.5





#94
 Benzo(g,h,i)perylene
 Concen: 0.82 ug/mL
 RT: 22.29 min Scan# 2002
 Delta R.T. 0.51 min
 Lab File: E101052.D
 Acq: 11 Mar 2016 6:16 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
277	28.2	19.9	29.9
274	24.9	18.0	27.0
138	30.5	17.9	26.9



Response Factor Report BNA #1

Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
 Title : Semivolatiles by GC/MS - EPA Method 625/8270
 Last Update : Fri Nov 06 08:53:36 2015
 Response via : Initial Calibration

8 out

Calibration Files

5 =E190056.D 10 =E190057.D 15 =E192034.D
 20 =E192035.D 30 =E192036.D 40 =E192037.D

Compound	5	10	15	20	30	40	Avg	%RSD
1) i 1,4-Dichlorobenzene-d	-----ISTD-----							
2) t N-Nitrosodimethylam	1.107	1.125	1.279	1.302	1.328	1.282	1.185	11.84
3) t Pyridine	2.547	2.616	2.087	1.953	1.902	1.919	2.171	14.99
4) s 2-Fluorophenol	1.821	1.735	1.760	1.687	1.734	1.706	1.741	2.69
5) s Phenol-d5	2.453	2.296	2.166	2.147	2.167	2.106	2.222	5.84
6) t Benaldehyde	1.941	1.688	1.476	1.420	1.341	1.292	1.526	16.09
7) t Aniline	2.260	2.338	2.278	2.385	2.420	2.346	2.338	2.61
8) c,m Phenol	2.446	2.234	2.372	2.294	2.287	2.235	2.309	3.18#
9) t Bis(2-chloroethyl)e	2.172	1.952	1.998	2.009	2.002	2.032	2.028	3.56
10) m 2-Chlorophenol	1.844	1.746	1.742	1.687	1.711	1.686	1.745	3.20
11) t 1,3-Dichlorobenzene	1.931	1.853	1.750	1.711	1.756	1.723	1.787	4.84
12) c,m 1,4-Dichlorobenzene	1.981	1.778	1.772	1.752	1.724	1.671	1.780	5.96#
13) t Acetophenone	3.260	2.804	2.279	2.174	2.106	2.064	2.448	19.63
14) t Benzyl Alcohol	1.171	1.098	1.143	1.130	1.141	1.130	1.136	2.09
15) t 1,2-Dichlorobenzene	1.993	1.833	1.688	1.653	1.659	1.612	1.740	8.36
16) t 2-Methylphenol	1.656	1.503	1.458	1.451	1.451	1.408	1.482	5.85
17) t Bis(2-chloroisoprop	3.699	3.523	2.941	2.941	2.883	2.824	3.135	11.97
18) p,m N-Nitrosodi-n-propy	1.475	1.412	1.464	1.423	1.477	1.428	1.430	2.87
19) t 4-Methylphenol	2.063	1.906	1.918	1.873	1.842	1.792	1.899	4.87
20) t Hexachloroethane	0.974	0.872	0.814	0.785	0.783	0.763	0.852	9.33
21) I Naphthalene-d8	-----ISTD-----							
22) s Nitrobenzene-d5	0.688	0.679	0.542	0.520	0.522	0.490	0.574	15.12
23) t Nitrobenzene	0.624	0.586	0.531	0.512	0.500	0.473	0.550	9.68
24) t Isophorone	1.215	1.213	1.066	1.002	1.009	0.959	1.106	9.81
25) c 2-Nitrophenol	0.273	0.281	0.280	0.272	0.268	0.247	0.270	4.63#
26) t 2,4-Dimethylphenol	0.476	0.454	0.399	0.387	0.384	0.360	0.425	11.52
27) t Bis(2-chloroethoxy)	0.738	0.693	0.604	0.576	0.565	0.525	0.617	13.22
28) t Benzoic Acid	0.238	0.295	0.362	0.362	0.372	0.368	0.333	16.40
29) c Alpha-Terpineol	0.366	0.400	0.427	0.408	0.390	0.379	0.395	5.54#
30) c 2,4-Dichlorophenol	0.502	0.487	0.364	0.343	0.335	0.316	0.407	18.44#
31) m 1,2,4-Trichlorobenz	0.555	0.521	0.375	0.355	0.348	0.321	0.442	22.72#
32) t Naphthalene	1.396	1.337	1.144	1.075	1.034	0.932	1.153	15.64
33) t 4-Chloroaniline	0.621	0.625	0.384	0.458	0.457	0.415	0.493	21.17
34) c Hexachlorobutadiene	0.320	0.314	0.184	0.175	0.167	0.155	0.244	32.57#
35) t Caprolactam	0.417	0.388	0.328	0.308	0.306	0.286	0.339	15.34
36) c,m 4-Chloro-3-methylph	0.527	0.524	0.436	0.415	0.405	0.378	0.447	14.11#
37) t 1-Methylnaphthalene	1.098	0.991	0.676	0.632	0.589	0.560	0.758	30.09
38) t 2-Methylnaphthalene	0.942	0.884	0.747	0.713	0.693	0.634	0.769	15.48
39) I Acenaphthene-d10	-----ISTD-----							
40) 1,2,4,5-tetrchlorob	0.845		0.607	0.592	0.551	0.547	0.628	19.69
41) p Biphenyl	2.657	2.332	1.718	1.646	1.551	1.510	1.902	25.00

(#) = Out of Range ### Number of calibration levels exceeded format ###
 TCBNA211.M Fri Nov 06 08:56:55 2015 Page 1

Response Factor Report BNA #1

Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
 Title : Semivolatiles by GC/MS - EPA Method 625/8270
 Last Update : Fri Nov 06 08:53:36 2015
 Response via : Initial Calibration

Calibration Files

5 =E190056.D 10 =E190057.D 15 =E192034.D
 20 =E192035.D 30 =E192036.D 40 =E192037.D

	Compound	5	10	15	20	30	40	Avg	%RSD
42) t	Hexachlorocyclopent	0.570	0.548	0.318	0.321	0.332	0.323	0.402	30.27
43) c	2,4,6-Trichlorophen	0.602	0.600	0.484	0.478	0.459	0.461	0.526	11.78#
44) t	2,4,5-Trichlorophen	0.671	0.704	0.510	0.507	0.511	0.492	0.566	16.77
45) s	2-Fluorobiphenyl	2.186	2.141	1.540	1.504	1.492	1.467	1.722	19.95
46) t	2-Chloronaphthalene	1.648	1.540	1.323	1.289	1.253	1.216	1.378	12.65
47) t	2-Nitroaniline	0.596	0.629	0.620	0.605	0.614	0.594	0.610	2.26
48) t	Dimethylphthalate	2.088	2.022	1.630	1.584	1.568	1.524	1.736	14.42
49) t	2,6-Dinitrotoluene	0.439	0.438	0.417	0.404	0.404	0.397	0.417	3.75
50) t	Acenaphthylene	2.747	2.510	2.193	2.139	2.083	2.014	2.281	12.53
51) t	3-Nitroaniline	0.448	0.427	0.406	0.431	0.439	0.437	0.431	3.34
52) c,m	Acenaphthene	1.596	1.484	1.244	1.233	1.223	1.169	1.325	13.02#
53) p	2,4-Dinitrophenol	0.138	0.174	0.282	0.291	0.321	0.315	0.232	39.15
54) t	Dibenzofuran	2.505	2.381	1.817	1.802	1.737	1.705	1.991	17.80
55) m	2,3,4,6-Tetrachloro	0.232	0.240	0.214	0.215	0.219	0.212	0.222	5.07
56) m	2,4-Dinitrotoluene	0.620	0.632	0.585	0.572	0.568	0.556	0.575	6.56
57) p,m	4-Nitrophenol	0.425	0.457	0.518	0.503	0.514	0.491	0.485	7.54
58) t	Diethyl phthalate	2.114	2.028	1.660	1.641	1.622	1.560	1.771	13.35
59) t	Fluorene	1.910	1.730	1.433	1.398	1.404	1.320	1.532	15.21
60) t	4-Chlorophenyl phen	0.992	0.888	0.681	0.668	0.646	0.617	0.749	20.49
61) t	Atrazine	0.850	0.756	0.422	0.402	0.397	0.391	0.566	32.70
62) t	4-Nitroaniline	0.531	0.538	0.505	0.504	0.513	0.493	0.514	3.32
63) I	Phenanthrene-d10	-----ISTD-----							
64) t	4,6-Dinitro-2-methy	0.134	0.156	0.220	0.216	0.209	0.210	0.179	25.25
65) c	Diphenylamine	0.836	0.750	0.681	0.666	0.629	0.615	0.696	11.94#
66) t	N-Nitrosodiphenylam	0.309	0.266	0.239	0.234	0.220	0.217	0.260	14.46
67) t	Azobenzene	1.427	1.345	1.443	1.425	1.364	1.344	1.392	2.82
68) s	2,4,6-Tribromopheno	0.231	0.239	0.114	0.112	0.106	0.106	0.151	42.96
69) t	4-Bromophenyl pheny	0.380	0.354	0.242	0.237	0.223	0.215	0.292	27.37
70) t	Hexachlorobenzene	0.152	0.129	0.125	0.122	0.114	0.116	0.131	10.81
71) c,m	Pentachlorophenol	0.244	0.246	0.173	0.175	0.167	0.171	0.198	17.83#
72) t	Pentachloronitroben	0.155	0.154	0.084	0.085	0.076	0.082	0.106	35.59
73) t	Phenanthrene	1.473	1.381	1.169	1.137	1.111	1.071	1.224	13.35
74) t	Anthracene	1.642	1.495	1.288	1.244	1.174	1.148	1.405	15.17
75) t	Carbazole	1.483	1.354	1.220	1.187	1.141	1.124	1.252	11.17
76) t	Di-n-butyl phthalat	2.079	1.883	1.751	1.728	1.594	1.501	1.797	10.60
77) c	Fluoranthene	1.795	1.665	1.272	1.273	1.178	1.172	1.392	19.27#
78) t	Benzidine	0.593	0.580	0.460	0.522	0.505	0.487	0.505	14.05
79) I	Chrysene-d12	-----ISTD-----							
80) m	Pyrene	1.799	1.765	1.520	1.546	1.524	1.521	1.612	8.20
81) s	Terphenyl-d14	1.143	1.173	0.791	0.793	0.783	0.786	0.911	20.97
82) t	Benzyl butyl phthal	0.933	0.954	0.992	0.999	0.987	0.986	0.975	2.65
83) t	Bis(2-ethylhexyl)ph	1.155	1.064	1.192	1.203	1.175	1.155	1.157	4.29

(#) = Out of Range ### Number of calibration levels exceeded format ###
 TCBNA211.M Fri Nov 06 08:56:55 2015

Page 2

Response Factor Report BNA #1

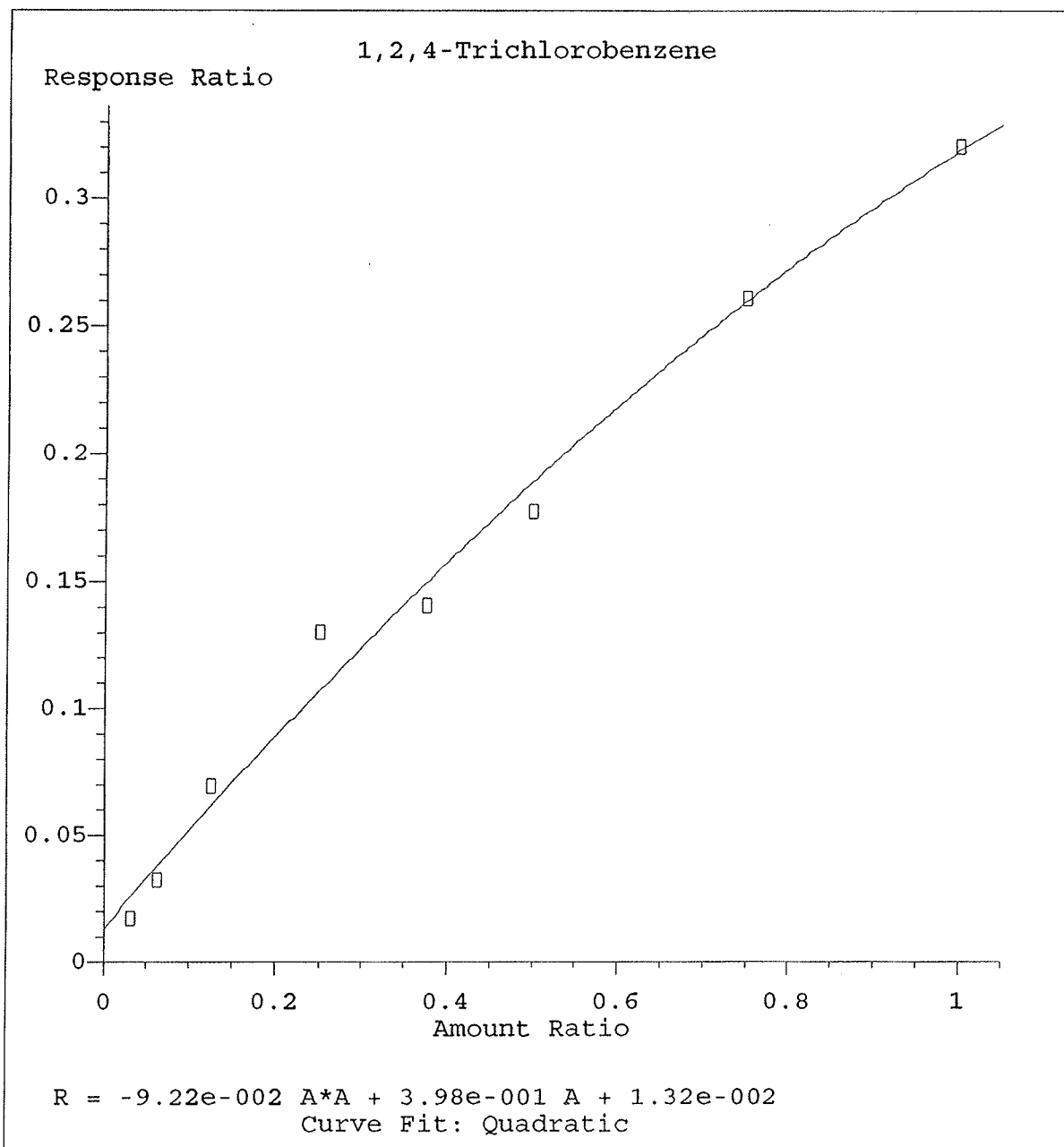
Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
 Title : Semivolatiles by GC/MS - EPA Method 625/8270
 Last Update : Fri Nov 06 08:53:36 2015
 Response via : Initial Calibration

Calibration Files

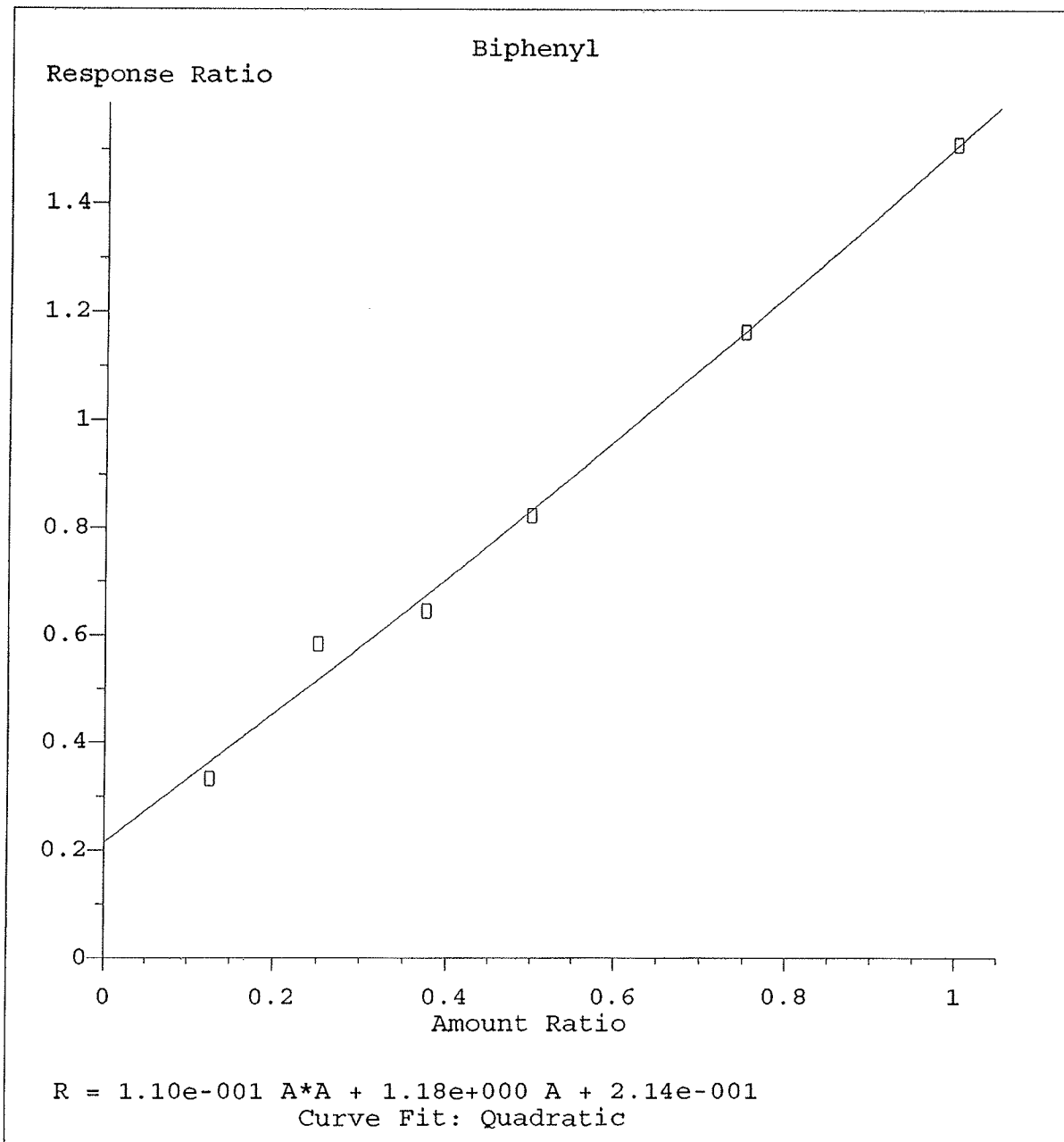
5 =E190056.D 10 =E190057.D 15 =E192034.D
 20 =E192035.D 30 =E192036.D 40 =E192037.D

	Compound	5	10	15	20	30	40	Avg	%RSD
84) t	Benz(a)anthracene	1.704	1.515	1.336	1.306	1.275	1.264	1.495	15.50
85) t	3,3'-Dichlorobenzid	0.555	0.534	0.371	0.413	0.421	0.430	0.442	14.92
86) t	Chrysene	1.590	1.451	1.222	1.242	1.240	1.183	1.413	15.47
87) c	Di-n-octylphthalate	2.316	2.300	2.257	2.288	2.202	2.043	2.187	5.73#
88) t	Benzo(b)fluoranthene	1.871	1.959	1.385	1.566	1.772	1.512	1.769	14.43
89) t	Benzo(k)fluoranthene	1.783	1.559	1.095	0.915	1.036	0.989	1.296	25.09
90) c	Benz(a)pyrene	1.707	1.739	1.182	1.200	1.241	1.196	1.459	18.69#
91) i	Perylene-d12	-----ISTD-----							
92) t	Indeno(1,2,3-c,d)py	1.724	1.659	1.616	1.578	1.706	1.716	1.677	3.73
93) t	Dibenz(a,h)anthracene	1.400	1.339	1.291	1.277	1.397	1.391	1.349	3.50
94) t	Benzo(g,h,i)perylene	1.470	1.427	1.310	1.245	1.360	1.355	1.361	5.90

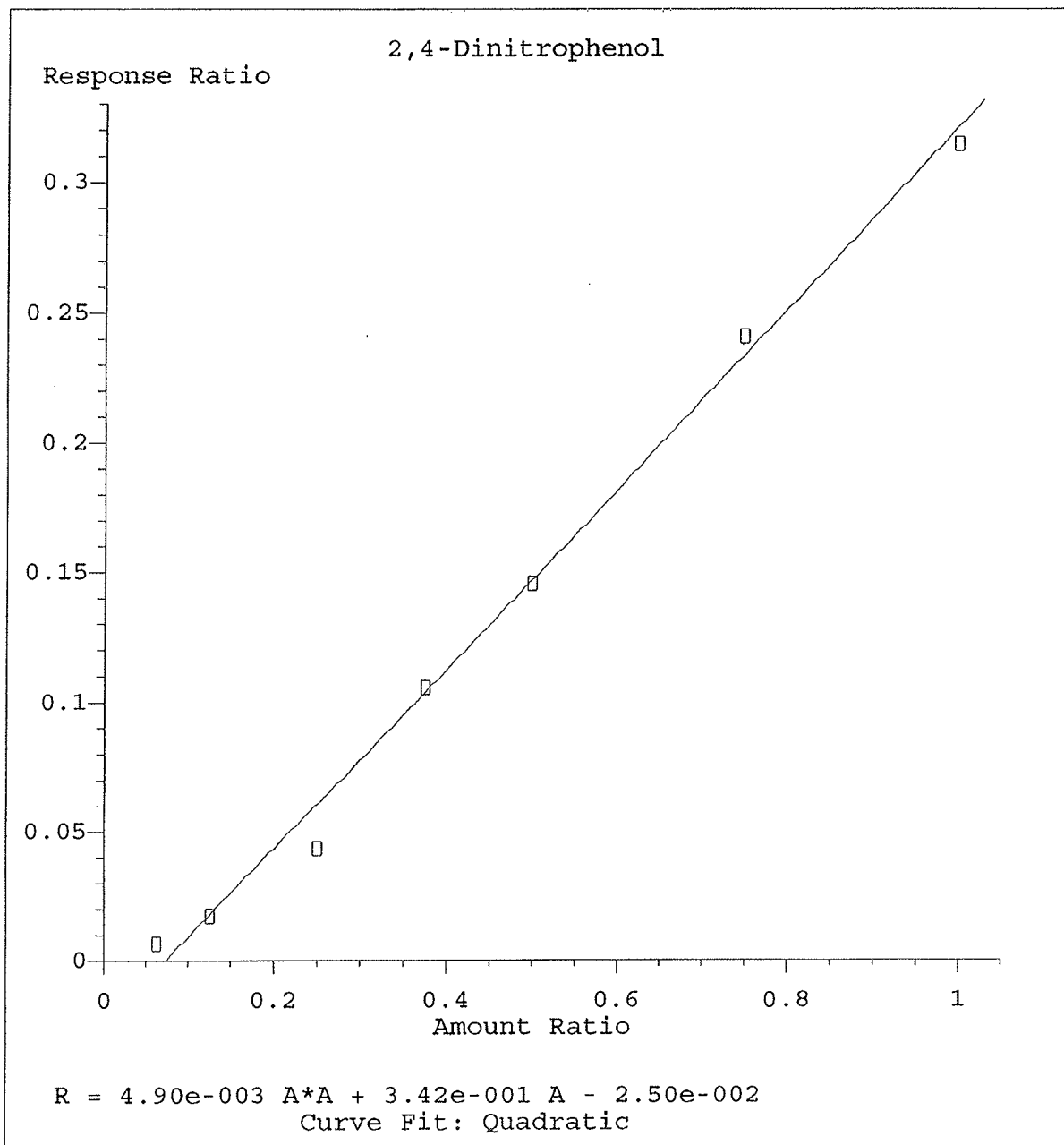
(#) = Out of Range ### Number of calibration levels exceeded format ###
 TCBNA211.M Fri Nov 06 08:56:56 2015 Page 3



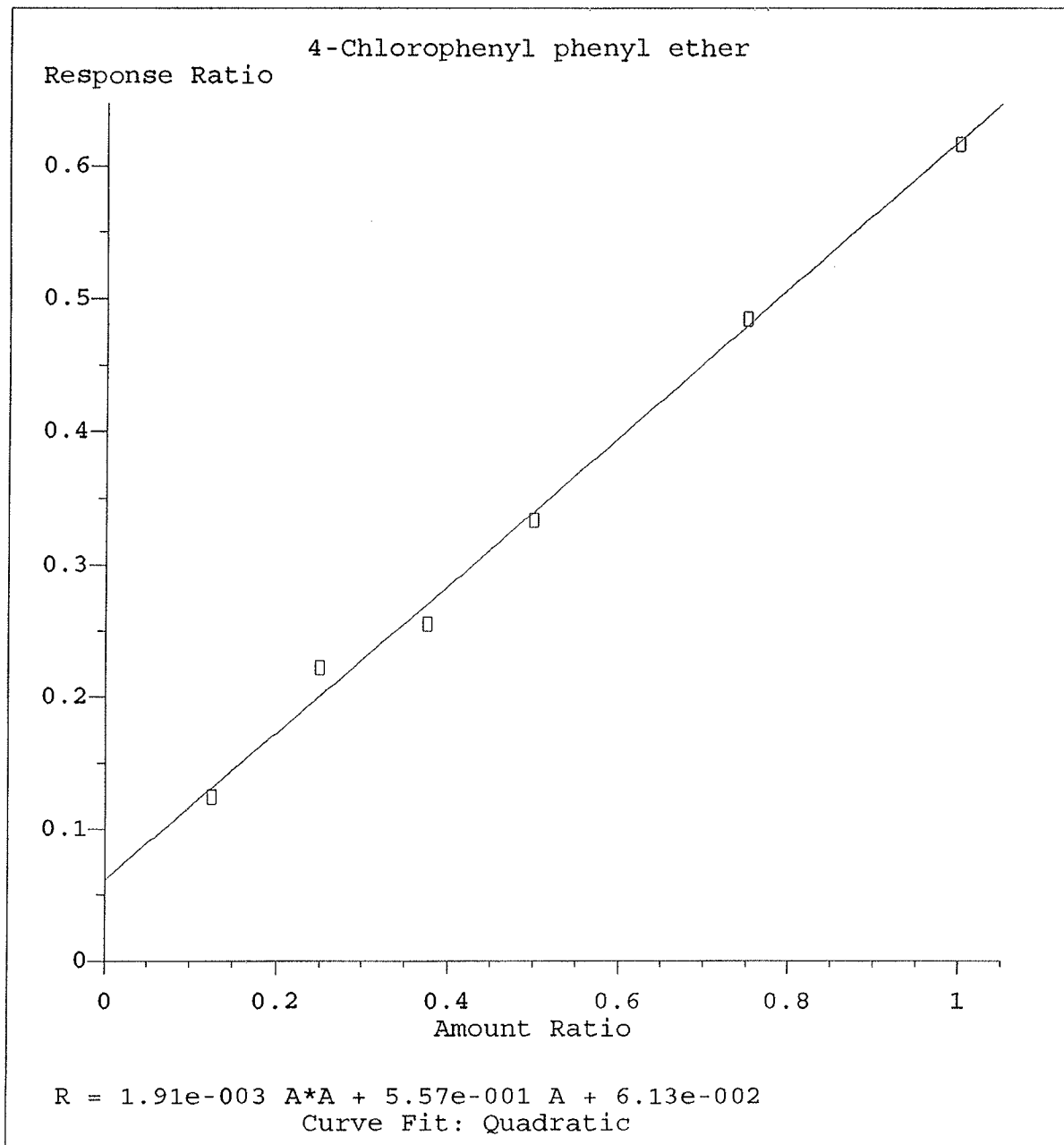
Method Name: C:\HPCHEM\1\METHODS\TCBNA211.M
Calibration Table Last Updated: Fri Nov 06 08:36:40 2015



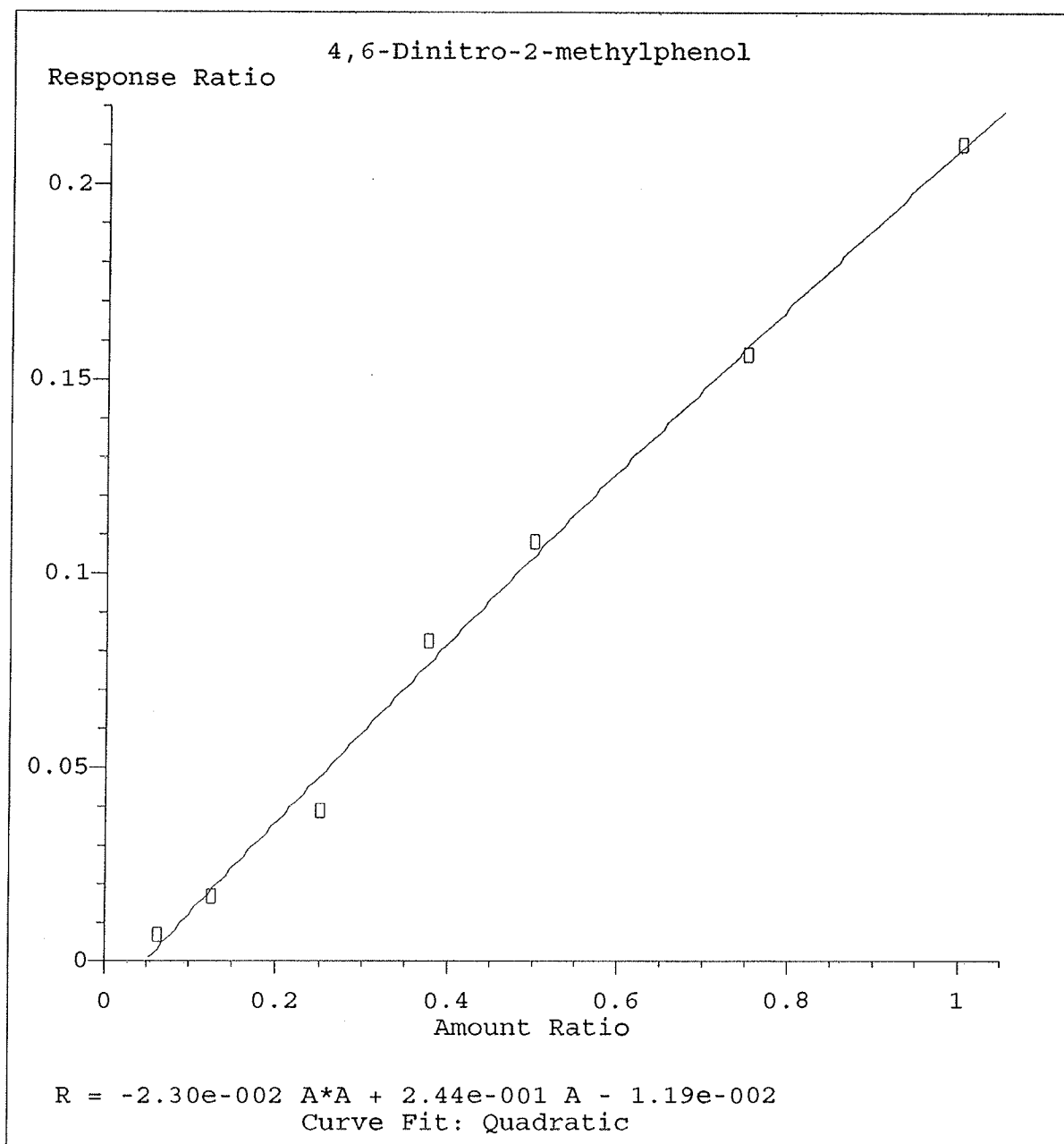
Method Name: C:\HPCHEM\1\METHODS\TCBNA211.M
Calibration Table Last Updated: Fri Nov 06 08:49:46 2015



Method Name: C:\HPCHEM\1\METHODS\TCBNA211.M
Calibration Table Last Updated: Fri Nov 06 08:50:39 2015



Method Name: C:\HPCHEM\1\METHODS\TCBNA211.M
Calibration Table Last Updated: Fri Nov 06 08:51:24 2015



Method Name: C:\HPCHEM\1\METHODS\TCBNA211.M
Calibration Table Last Updated: Fri Nov 06 08:52:50 2015

Data File : C:\HPCHEM\1\DATA\E1110515\E192029.D

Vial: 14

Acq On : 5 Nov 2015 4:00 pm

Operator: KH

Sample : 1.25 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 7:42 2015

Quant Results File: TCBNA210.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA210.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Tue Aug 25 09:01:16 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	7.84	152	1746938	40.00	ug/mL	0.05
21) Naphthalene-d8	9.44	136	6325182	40.00	ug/mL	0.05
39) Acenaphthene-d10	11.86	164	3422797	40.00	ug/mL	0.04
63) Phenanthrene-d10	13.94	188	5726458	40.00	ug/mL	0.04
79) Chrysene-d12	17.74	240	4875587	40.00	ug/mL	0.04
91) Perylene-d12	19.71	264	3788647m	40.00	ug/mL	0.05

System Monitoring Compounds

4) 2-Fluorophenol	6.38	112	74241	0.97	ug/mL	0.03
Spiked Amount 75.000	Range 14 - 77		Recovery =	1.29%#		
5) Phenol-d5	7.48	99	88878	0.92	ug/mL	0.03
Spiked Amount 75.000	Range 10 - 100		Recovery =	1.23%#		
22) Nitrobenzene-d5	8.56	82	51855	0.52	ug/mL	0.04
Spiked Amount 50.000	Range 31 - 97		Recovery =	1.04%#		
45) 2-Fluorobiphenyl	10.90	172	86558	0.51	ug/mL	0.04
Spiked Amount 50.000	Range 43 - 116		Recovery =	1.02%#		
68) 2,4,6-Tribromophenol	12.98	330	13736	0.44	ug/mL	0.04
Spiked Amount 75.000	Range 10 - 123		Recovery =	0.59%#		
81) Terphenyl-d14	16.20	244	60670	0.45	ug/mL	0.04
Spiked Amount 50.000	Range 33 - 141		Recovery =	0.90%#		

Target Compounds

					Qvalue
2) N-Nitrosodimethylamine	4.61	74	64442	1.36	ug/mL 88
8) Phenol	7.49	94	133903	1.42	ug/mL# 66
9) Bis(2-chloroethyl) ether	7.58	93	112932	1.33	ug/mL 96
10) 2-Chlorophenol	7.63	128	96279	1.28	ug/mL 96
11) 1,3-Dichlorobenzene	7.79	146	101910	1.32	ug/mL 98
12) 1,4-Dichlorobenzene	7.86	146	103736m	1.37	ug/mL
14) Benzyl Alcohol	8.04	108	59765	1.27	ug/mL 94
15) 1,2-Dichlorobenzene	8.09	146	101984	1.33	ug/mL 99
16) 2-Methylphenol	8.18	107	78989	1.24	ug/mL 93
17) Bis(2-chloroisopropyl) ethe	8.21	45	174313	1.17	ug/mL# 93
18) N-Nitrosodi-n-propylamine	8.39	70	76850	1.28	ug/mL 86
19) 4-Methylphenol	8.35	107	108220	1.45	ug/mL# 42
20) Hexachloroethane	8.45	117	44310	1.19	ug/mL# 84
23) Nitrobenzene	8.58	77	108784	1.23	ug/mL 95
24) Isophorone	8.86	82	212712	1.16	ug/mL 99
25) 2-Nitrophenol	8.98	139	50147	1.21	ug/mL# 80
26) 2,4-Dimethylphenol	9.01	122	85025	1.24	ug/mL 96
27) Bis(2-chloroethoxy) methane	9.14	93	130161	1.29	ug/mL 95
30) 2,4-Dichlorophenol	9.27	162	75110	1.06	ug/mL 96
31) 1,2,4-Trichlorobenzene	9.38	180	82423	1.04	ug/mL 98

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

E192029.D TCBNA211.M

Fri Nov 06 09:10:33 2015

Page 1

Data File : C:\HPCHEM\1\DATA\E1110515\E192029.D

Vial: 14

Acq On : 5 Nov 2015 4:00 pm

Operator: KH

Sample : 1.25 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 7:42 2015

Quant Results File: TCBNA210.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA210.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Tue Aug 25 09:01:16 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
32) Naphthalene	9.47	128	249538	1.33	ug/mL#	91
34) Hexachlorobutadiene	9.68	225	39460	0.85	ug/mL	93
36) 4-Chloro-3-methylphenol	10.20	107	81282	1.03	ug/mL	93
38) 2-Methylnaphthalene	10.37	142	162032	1.26	ug/mL	97
43) 2,4,6-Trichlorophenol	10.81	196	51140	1.06	ug/mL	91
44) 2,4,5-Trichlorophenol	10.86	196	53618	0.97	ug/mL#	94
46) 2-Chloronaphthalene	11.04	162	148156	1.26	ug/mL	94
47) 2-Nitroaniline	11.25	138	54762	1.09	ug/mL#	91
48) Dimethylphthalate	11.52	163	176520	1.11	ug/mL#	82
49) 2,6-Dinitrotoluene	11.64	165	35747	1.02	ug/mL#	78
50) Acenaphthylene	11.64	152	240092	1.22	ug/mL	99
51) 3-Nitroaniline	11.83	138	38967	1.19	ug/mL#	27
52) Acenaphthene	11.90	154	152877	1.33	ug/mL	99
54) Dibenzofuran	12.11	168	218567	1.19	ug/mL	92
55) 2,3,4,6-Tetrachlorophenol	12.35	131	20802	1.10	ug/mL#	72
56) 2,4-Dinitrotoluene	12.19	165	49814	0.97	ug/mL#	85
57) 4-Nitrophenol	12.06	65	43235	1.09	ug/mL#	86
58) Diethyl phthalate	12.50	149	189824	1.18	ug/mL	97
59) Fluorene	12.59	166	175999	1.37	ug/mL	97
60) 4-Chlorophenyl phenyl ethe	12.59	204	79713	1.20	ug/mL	99
61) Atrazine	13.57	200	43678	0.75	ug/mL	99
62) 4-Nitroaniline	12.71	138	47147	1.08	ug/mL	88
64) 4,6-Dinitro-2-methylphenol	12.75	198	20604m	1.07	ug/mL	
65) Diphenylamine	12.77	169	133744	1.44	ug/mL	96
66) N-Nitrosodiphenylamine	12.77	167	46312	1.29	ug/mL	93
67) Azobenzene	12.81	77	277183	1.56	ug/mL#	78
69) 4-Bromophenyl phenyl ether	13.28	248	43690	0.95	ug/mL#	84
70) Hexachlorobenzene	13.49	142	24264	1.37	ug/mL#	48
73) Phenanthrene	13.97	178	233109	1.37	ug/mL	97
74) Anthracene	14.02	178	246744	1.25	ug/mL	99
75) Carbazole	14.27	167	239135	1.41	ug/mL#	100
76) Di-n-butyl phthalate	14.80	149	316496	1.29	ug/mL#	98
77) Fluoranthene	15.66	202	234306	1.14	ug/mL	99
80) Pyrene	15.98	202	246473	1.25	ug/mL	98
82) Benzyl butyl phthalate	16.95	149	143838	1.37	ug/mL#	83
83) Bis(2-ethylhexyl)phthalate	17.76	149	191083	1.70	ug/mL#	91
84) Benz(a)anthracene	17.69	228	220251	1.24	ug/mL	98
85) 3,3'-Dichlorobenzidine	17.69	252	54795	1.03	ug/mL#	95
86) Chrysene	17.77	228	208814	1.21	ug/mL	99
87) Di-n-octylphthalate	18.58	149	323822m	1.27	ug/mL	
88) Benzo(b)fluoranthene	19.16	252	216983m	0.93	ug/mL	

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

E192029.D TCBNA211.M

Fri Nov 06 09:10:34 2015

Page 2

Data File : C:\HPCHEM\1\DATA\E1110515\E192029.D

Vial: 14

Acq On : 5 Nov 2015 4:00 pm

Operator: KH

Sample : 1.25 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 7:42 2015

Quant Results File: TCBNA210.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA210.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Tue Aug 25 09:01:16 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
89) Benzo(k)fluoranthene	19.18	252	160163m	0.92	ug/mL	
90) Benz(a)pyrene	19.59	252	180119m	0.89	ug/mL	
92) Indeno(1,2,3-c,d)pyrene	21.33	276	173008m	1.14	ug/mL	
93) Dibenz(a,h)anthracene	21.33	278	131831m	1.09	ug/mL	
94) Benzo(g,h,i)perylene	21.80	276	144094m	1.10	ug/mL	

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

E192029.D TCBNA211.M

Fri Nov 06 09:10:34 2015

Page 3

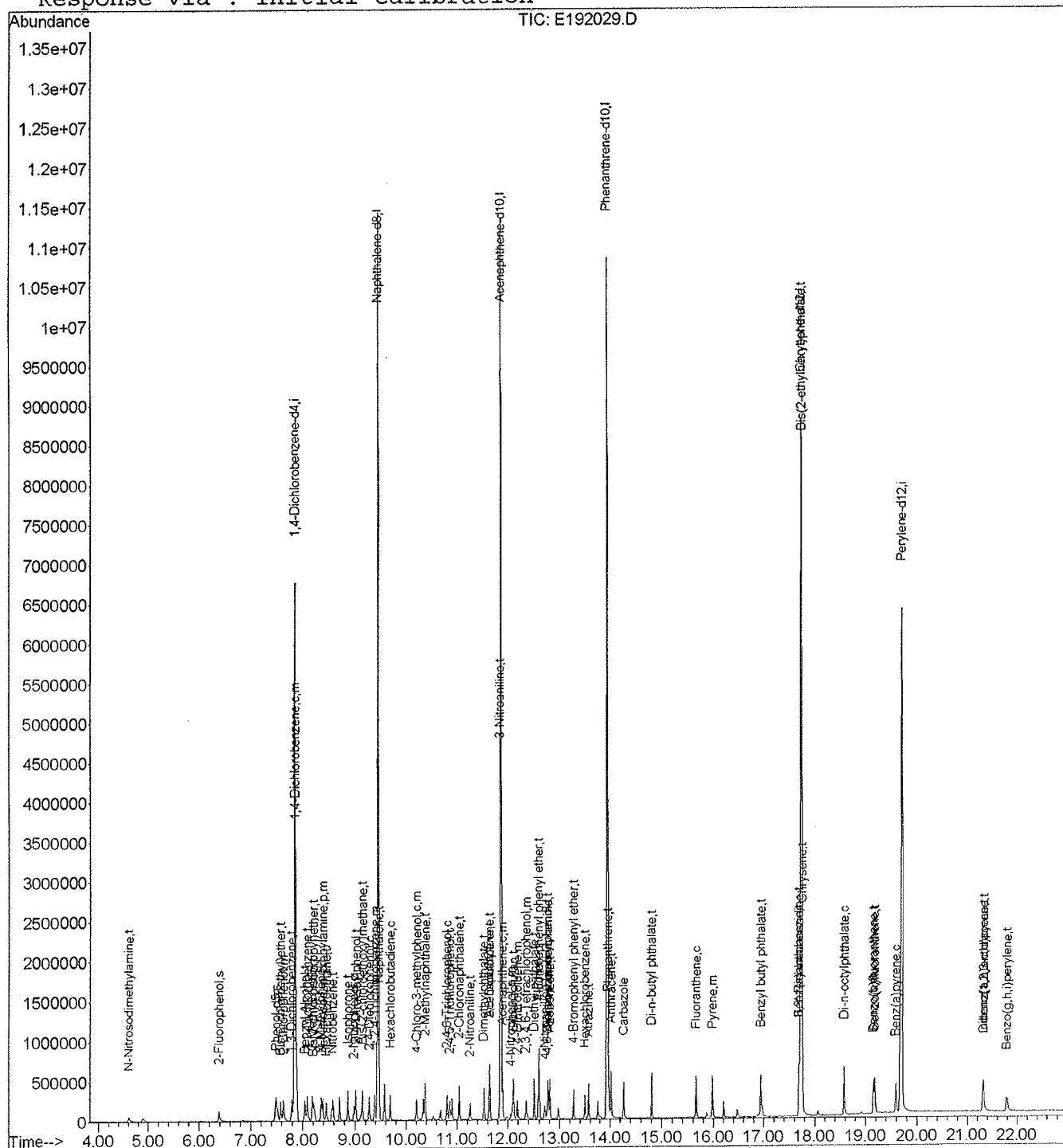
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E1110515\E192029.D
 Acq On : 5 Nov 2015 4:00 pm
 Sample : 1.25 ppm - ICAL
 Misc : QBSV1110515A
 MS Integration Params: RTEINT.P
 Quant Time: Nov 6 7:42 2015

Vial: 14
 Operator: KH
 Inst : BNA #1
 Multiplr: 1.00

Quant Results File: TCBNA210.RES

Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
 Title : Semivolatiles by GC/MS - EPA Method 625/8270
 Last Update : Fri Nov 06 08:53:36 2015
 Response via : Initial Calibration



Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E1110515\E192031.D

Vial: 16

Acq On : 5 Nov 2015 5:03 pm

Operator: KH

Sample : 2.5 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 7:44 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 07:43:13 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	7.85	152	1710475	40.00	ug/mL	0.05
21) Naphthalene-d8	9.44	136	6273814	40.00	ug/mL	0.05
39) Acenaphthene-d10	11.86	164	3375582	40.00	ug/mL	0.05
63) Phenanthrene-d10	13.94	188	5653601	40.00	ug/mL	0.04
79) Chrysene-d12	17.75	240	4926853	40.00	ug/mL	0.05
91) Perylene-d12	19.71	264	3787865	40.00	ug/mL	0.05

System Monitoring Compounds

4) 2-Fluorophenol	6.38	112	144236	1.93	ug/mL	0.03
Spiked Amount	75.000	Range	14 - 77	Recovery	=	2.57%#
5) Phenol-d5	7.48	99	190017	2.01	ug/mL	0.03
Spiked Amount	75.000	Range	10 - 100	Recovery	=	2.68%#
22) Nitrobenzene-d5	8.56	82	103989	1.05	ug/mL	0.04
Spiked Amount	50.000	Range	31 - 97	Recovery	=	2.10%#
45) 2-Fluorobiphenyl	10.90	172	175493	1.05	ug/mL	0.04
Spiked Amount	50.000	Range	43 - 116	Recovery	=	2.10%#
68) 2,4,6-Tribromophenol	12.98	330	27622	0.90	ug/mL	0.04
Spiked Amount	75.000	Range	10 - 123	Recovery	=	1.20%#
81) Terphenyl-d14	16.21	244	116312	0.85	ug/mL	0.04
Spiked Amount	50.000	Range	33 - 141	Recovery	=	1.70%#

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.61	74	146914	3.16	ug/mL#	89
7) Aniline	7.52	93	141677	1.50	ug/mL#	60
8) Phenol	7.49	94	268954	2.89	ug/mL#	70
9) Bis(2-chloroethyl)ether	7.58	93	226252	2.70	ug/mL	96
10) 2-Chlorophenol	7.63	128	197278	2.67	ug/mL	98
11) 1,3-Dichlorobenzene	7.79	146	203617	2.69	ug/mL	97
12) 1,4-Dichlorobenzene	7.86	146	208918m	2.83	ug/mL	
14) Benzyl Alcohol	8.04	108	120576	2.61	ug/mL	96
15) 1,2-Dichlorobenzene	8.09	146	200823	2.68	ug/mL	100
16) 2-Methylphenol	8.18	107	166574	2.66	ug/mL	97
17) Bis(2-chloroisopropyl)ethe	8.22	45	338137	2.32	ug/mL#	91
18) N-Nitrosodi-n-propylamine	8.39	70	161624	2.74	ug/mL#	80
19) 4-Methylphenol	8.36	107	226144	3.09	ug/mL#	41
20) Hexachloroethane	8.45	117	85962	2.40	ug/mL#	86
23) Nitrobenzene	8.58	77	217155	2.49	ug/mL	97
24) Isophorone	8.86	82	431718	2.42	ug/mL	97
25) 2-Nitrophenol	8.98	139	109723	2.66	ug/mL#	82
26) 2,4-Dimethylphenol	9.01	122	176999	2.65	ug/mL	93
27) Bis(2-chloroethoxy)methane	9.14	93	256540	2.56	ug/mL	97
28) Benzoic Acid	9.12	105	64179	1.44	ug/mL	94

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

E192031.D TCBNA211.M

Fri Nov 06 09:10:41 2015

Page 1

Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E1110515\E192031.D

Vial: 16

Acq On : 5 Nov 2015 5:03 pm

Operator: KH

Sample : 2.5 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 7:44 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 07:43:13 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) 2,4-Dichlorophenol	9.27	162	148996	2.17	ug/mL	95
31) 1,2,4-Trichlorobenzene	9.38	180	163291	2.15	ug/mL	98
32) Naphthalene	9.47	128	470727	2.54	ug/mL#	96
33) 4-Chloroaniline	9.57	127	123035	1.45	ug/mL	95
34) Hexachlorobutadiene	9.68	225	77588	1.78	ug/mL	96
36) 4-Chloro-3-methylphenol	10.19	107	169714	2.18	ug/mL	99
38) 2-Methylnaphthalene	10.37	142	317511	2.50	ug/mL	96
42) Hexachlorocyclopentadiene	10.68	237	45412	1.07	ug/mL	99
43) 2,4,6-Trichlorophenol	10.81	196	101346	2.17	ug/mL#	93
44) 2,4,5-Trichlorophenol	10.86	196	106925	1.96	ug/mL#	94
46) 2-Chloronaphthalene	11.04	162	300200	2.59	ug/mL	94
47) 2-Nitroaniline	11.25	138	118182	2.38	ug/mL#	93
48) Dimethylphthalate	11.52	163	361647	2.30	ug/mL#	82
49) 2,6-Dinitrotoluene	11.64	165	83607	2.48	ug/mL	89
50) Acenaphthylene	11.64	152	497727	2.56	ug/mL	100
51) 3-Nitroaniline	11.83	138	71160	2.20	ug/mL#	75
52) Acenaphthene	11.90	154	303626	2.68	ug/mL	97
53) 2,4-Dinitrophenol	11.99	184	25317	1.69	ug/mL#	66
54) Dibenzofuran	12.11	168	428996	2.38	ug/mL#	80
55) 2,3,4,6-Tetrachlorophenol	12.35	131	45812	2.45	ug/mL#	67
56) 2,4-Dinitrotoluene	12.19	165	117373	2.34	ug/mL	91
57) 4-Nitrophenol	12.07	65	103390	2.65	ug/mL#	17
58) Diethyl phthalate	12.50	149	385504	2.42	ug/mL	95
59) Fluorene	12.60	166	351202	2.77	ug/mL	98
60) 4-Chlorophenyl phenyl ethe	12.59	204	165727	2.53	ug/mL	98
61) Atrazine	13.57	200	87731	1.61	ug/mL	99
62) 4-Nitroaniline	12.71	138	99140	2.29	ug/mL	90
64) 4,6-Dinitro-2-methylphenol	12.76	198	54848	2.90	ug/mL#	98
65) Diphenylamine	12.78	169	262046	2.85	ug/mL	95
66) N-Nitrosodiphenylamine	12.78	167	91316	2.63	ug/mL	94
67) Azobenzene	12.81	77	541187	3.03	ug/mL#	80
69) 4-Bromophenyl phenyl ether	13.28	248	85192	2.00	ug/mL#	81
70) Hexachlorobenzene	13.49	142	49174	2.83	ug/mL#	48
71) Pentachlorophenol	13.76	266	48605	1.53	ug/mL	97
73) Phenanthrene	13.97	178	447502	2.66	ug/mL	99
74) Anthracene	14.02	178	479916	2.51	ug/mL	100
75) Carbazole	14.27	167	470015	2.81	ug/mL#	100
76) Di-n-butyl phthalate	14.80	149	656035	2.73	ug/mL	99
77) Fluoranthene	15.66	202	459141	2.25	ug/mL	99
78) Benzidine	15.88	184	72914	1.10	ug/mL#	97
80) Pyrene	15.98	202	498927	2.51	ug/mL	99

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

E192031.D TCBNA211.M

Fri Nov 06 09:10:42 2015

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Data File : C:\HPCHEM\1\DATA\E1110515\E192031.D

Vial: 16

Acq On : 5 Nov 2015 5:03 pm

Operator: KH

Sample : 2.5 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 7:44 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 07:43:13 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
82) Benzyl butyl phthalate	16.95	149	318124	3.00	ug/mL#	90
83) Bis(2-ethylhexyl)phthalate	17.76	149	392995	3.46	ug/mL#	90
84) Benz(a)anthracene	17.70	228	437550	2.52	ug/mL	99
85) 3,3'-Dichlorobenzidine	17.70	252	107047	2.01	ug/mL#	96
86) Chrysene	17.77	228	405028	2.41	ug/mL	97
87) Di-n-octylphthalate	18.58	149	674683	2.60	ug/mL#	96
88) Benzo(b)fluoranthene	19.16	252	422013m	1.86	ug/mL	
89) Benzo(k)fluoranthene	19.19	252	364834	2.14	ug/mL#	53
90) Benz(a)pyrene	19.60	252	377127m	1.92	ug/mL	
92) Indeno(1,2,3-c,d)pyrene	21.33	276	350642	2.38	ug/mL	100
93) Dibenz(a,h)anthracene	21.34	278	282835	2.40	ug/mL#	86
94) Benzo(g,h,i)perylene	21.80	276	302061	2.31	ug/mL#	86

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

E192031.D TCBNA211.M

Fri Nov 06 09:10:42 2015

Page 3

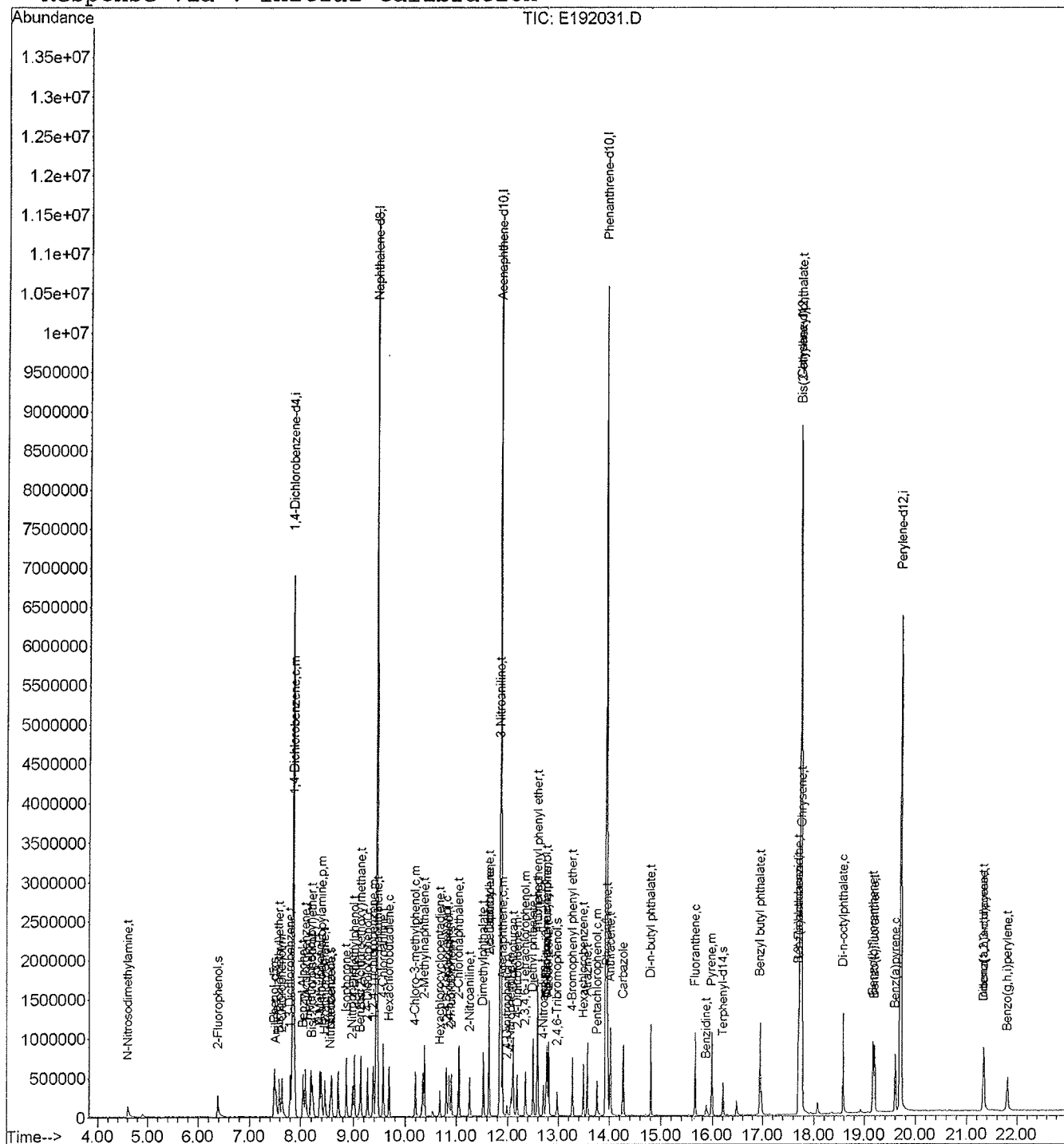
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E1110515\E192031.D
Acq On : 5 Nov 2015 5:03 pm
Sample : 2.5 ppm - ICAL
Misc : QBSV1110515A
MS Integration Params: RTEINT.P
Quant Time: Nov 6 7:44 2015 Quan

Vial: 16
Operator: KH
Inst : BNA #1
Multiplr: 1.00

Quant Results File: TCBNA211.RES

Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
Title : Semivolatiles by GC/MS - EPA Method 625/8270
Last Update : Fri Nov 06 08:53:36 2015
Response via : Initial Calibration



Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E1110515\E192032.D

Vial: 17

Acq On : 5 Nov 2015 5:35 pm

Operator: KH

Sample : 5 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 7:45 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 07:44:43 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.84	152	1806007	40.00	ug/mL	0.04
21) Naphthalene-d8	9.45	136	6430628	40.00	ug/mL	0.05
39) Acenaphthene-d10	11.86	164	3481035	40.00	ug/mL	0.04
63) Phenanthrene-d10	13.94	188	5883431	40.00	ug/mL	0.05
79) Chrysene-d12	17.75	240	4980391	40.00	ug/mL	0.05
91) Perylene-d12	19.72	264	3887025	40.00	ug/mL	0.05

System Monitoring Compounds

4) 2-Fluorophenol	6.38	112	325250	4.12	ug/mL	0.03
Spiked Amount 75.000	Range 14 - 77		Recovery	=	5.49%#	
5) Phenol-d5	7.48	99	417483	4.18	ug/mL	0.03
Spiked Amount 75.000	Range 10 - 100		Recovery	=	5.57%#	
22) Nitrobenzene-d5	8.56	82	231503	2.28	ug/mL	0.04
Spiked Amount 50.000	Range 31 - 97		Recovery	=	4.56%#	
45) 2-Fluorobiphenyl	10.90	172	382218	2.22	ug/mL	0.04
Spiked Amount 50.000	Range 43 - 116		Recovery	=	4.44%#	
68) 2,4,6-Tribromophenol	12.98	330	68390	2.13	ug/mL	0.04
Spiked Amount 75.000	Range 10 - 123		Recovery	=	2.84%#	
81) Terphenyl-d14	16.21	244	266860	1.93	ug/mL	0.05
Spiked Amount 50.000	Range 33 - 141		Recovery	=	3.86%#	

Target Compounds

Qvalue

2) N-Nitrosodimethylamine	4.59	74	311771	6.03	ug/mL	91
3) Pyridine	4.52	79	513884m	4.63	ug/mL	
6) Benaldehyde	7.35	106	378452	5.49	ug/mL	99
7) Aniline	7.52	93	446475	4.47	ug/mL#	86
8) Phenol	7.49	94	594339	5.96	ug/mL#	79
9) Bis(2-chloroethyl) ether	7.58	93	516296	5.83	ug/mL	98
10) 2-Chlorophenol	7.64	128	438605	5.61	ug/mL	97
11) 1,3-Dichlorobenzene	7.80	146	458309	5.73	ug/mL	95
12) 1,4-Dichlorobenzene	7.86	146	444439	5.69	ug/mL	95
13) Acetophenone	8.37	105	581725	5.16	ug/mL	100
14) Benzyl Alcohol	8.04	108	275352	5.65	ug/mL	95
15) 1,2-Dichlorobenzene	8.08	146	433695	5.47	ug/mL	98
16) 2-Methylphenol	8.19	107	377158	5.69	ug/mL	97
17) Bis(2-chloroisopropyl) ethe	8.22	45	780990	5.08	ug/mL#	93
18) N-Nitrosodi-n-propylamine	8.40	70	363694	5.79	ug/mL	97
19) 4-Methylphenol	8.36	107	506782	6.56	ug/mL	86
20) Hexachloroethane	8.46	117	197142	5.27	ug/mL#	87
23) Nitrobenzene	8.58	77	485703	5.46	ug/mL	99
24) Isophorone	8.87	82	979450	5.39	ug/mL	96
25) 2-Nitrophenol	8.98	139	249573	5.91	ug/mL#	93

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

E192032.D TCBNA211.M

Fri Nov 06 09:10:48 2015

Page 1

Data File : C:\HPCHEM\1\DATA\E1110515\E192032.D

Vial: 17

Acq On : 5 Nov 2015 5:35 pm

Operator: KH

Sample : 5 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 7:45 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 07:44:43 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dimethylphenol	9.02	122	376059	5.49	ug/mL	94
27) Bis(2-chloroethoxy)methane	9.14	93	559283	5.44	ug/mL	96
28) Benzoic Acid	9.14	105	239662m	5.24	ug/mL	
29) Alpha-Terpineol	9.44	59	430773	7.30	ug/mL#	1
30) 2,4-Dichlorophenol	9.27	162	341088	4.94	ug/mL	95
31) 1,2,4-Trichlorobenzene	9.39	180	353707	4.65	ug/mL	99
32) Naphthalene	9.47	128	1051374	5.53	ug/mL	99
33) 4-Chloroaniline	9.56	127	321636	3.71	ug/mL	97
34) Hexachlorobutadiene	9.69	225	173796	4.09	ug/mL	98
35) Caprolactam	10.03	55	283972	4.61	ug/mL	100
36) 4-Chloro-3-methylphenol	10.21	107	395598	4.95	ug/mL	99
37) 1-Methylnaphthalene	10.53	141	609907	4.35	ug/mL	96
38) 2-Methylnaphthalene	10.38	142	690800	5.30	ug/mL	97
40) 1,2,4,5-tetrchlorobenzene	10.66	216	331495	5.36	ug/mL#	97
41) Biphenyl	11.03	154	873552	5.05	ug/mL	98
42) Hexachlorocyclopentadiene	10.68	237	131046	3.01	ug/mL	99
43) 2,4,6-Trichlorophenol	10.80	196	231159	4.90	ug/mL	93
44) 2,4,5-Trichlorophenol	10.87	196	256806	4.55	ug/mL	95
46) 2-Chloronaphthalene	11.05	162	657926	5.50	ug/mL	99
47) 2-Nitroaniline	11.26	138	285390	5.56	ug/mL#	95
48) Dimethylphthalate	11.53	163	786548	4.86	ug/mL#	82
49) 2,6-Dinitrotoluene	11.64	165	196595	5.70	ug/mL	93
50) Acenaphthylene	11.63	152	1105381	5.52	ug/mL	99
51) 3-Nitroaniline	11.84	138	174256	5.22	ug/mL#	88
52) Acenaphthene	11.89	154	649904	5.57	ug/mL	99
53) 2,4-Dinitrophenol	11.98	184	100774	6.46	ug/mL#	87
54) Dibenzofuran	12.12	168	936935	5.03	ug/mL#	76
55) 2,3,4,6-Tetrachlorophenol	12.36	131	109209	5.66	ug/mL#	72
56) 2,4-Dinitrotoluene	12.19	165	271663	5.24	ug/mL	91
57) 4-Nitrophenol	12.06	65	239679	5.97	ug/mL#	25
58) Diethyl phthalate	12.51	149	840332	5.12	ug/mL	97
59) Fluorene	12.60	166	753501	5.75	ug/mL	99
60) 4-Chlorophenyl phenyl ethe	12.59	204	357304	5.28	ug/mL	97
61) Atrazine	13.58	200	209965	3.92	ug/mL	99
62) 4-Nitroaniline	12.71	138	247070	5.55	ug/mL	88
64) 4,6-Dinitro-2-methylphenol	12.76	198	152412	7.38	ug/mL#	97
65) Diphenylamine	12.78	169	576464	6.02	ug/mL	97
66) N-Nitrosodiphenylamine	12.78	167	202357	5.69	ug/mL	95
67) Azobenzene	12.81	77	1210678	6.44	ug/mL#	78
69) 4-Bromophenyl phenyl ether	13.28	248	199493	4.50	ug/mL#	86
70) Hexachlorobenzene	13.50	142	102627	5.70	ug/mL#	55

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

E192032.D TCBNA211.M

Fri Nov 06 09:10:48 2015

Page 2

Data File : C:\HPCHEM\1\DATA\E1110515\E192032.D

Vial: 17

Acq On : 5 Nov 2015 5:35 pm

Operator: KH

Sample : 5 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 7:45 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 07:44:43 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachlorophenol	13.77	266	136478	4.34	ug/mL	96
72) Pentachloronitrobenzene	13.88	237	68821	3.44	ug/mL#	78
73) Phenanthrene	13.97	178	984131	5.61	ug/mL	99
74) Anthracene	14.03	178	1046210	5.39	ug/mL	100
75) Carbazole	14.27	167	1040211	5.98	ug/mL#	100
76) Di-n-butyl phthalate	14.81	149	1458117	5.86	ug/mL	99
77) Fluoranthene	15.67	202	1040042	4.91	ug/mL	99
78) Benzydine	15.87	184	329629	5.04	ug/mL	98
80) Pyrene	15.99	202	1109776	5.52	ug/mL	99
82) Benzyl butyl phthalate	16.94	149	687521	6.41	ug/mL#	87
83) Bis(2-ethylhexyl)phthalate	17.76	149	872943	7.61	ug/mL#	89
84) Benz(a)anthracene	17.70	228	970630	5.69	ug/mL	99
85) 3,3'-Dichlorobenzidine	17.70	252	539081	10.23	ug/mL#	93
86) Chrysene	17.77	228	887231	5.38	ug/mL	98
87) Di-n-octylphthalate	18.58	149	1571438	5.95	ug/mL#	96
88) Benzo(b)fluoranthene	19.16	252	920300m	4.19	ug/mL	
89) Benzo(k)fluoranthene	19.20	252	794694	4.77	ug/mL#	51
90) Benz(a)pyrene	19.61	252	813008	4.25	ug/mL#	91
92) Indeno(1,2,3-c,d)pyrene	21.34	276	862547	5.77	ug/mL	99
93) Dibenz(a,h)anthracene	21.34	278	682469	5.73	ug/mL#	87
94) Benzo(g,h,i)perylene	21.81	276	666632	4.98	ug/mL#	84

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

E192032.D TCBNA211.M

Fri Nov 06 09:10:48 2015

Page 3

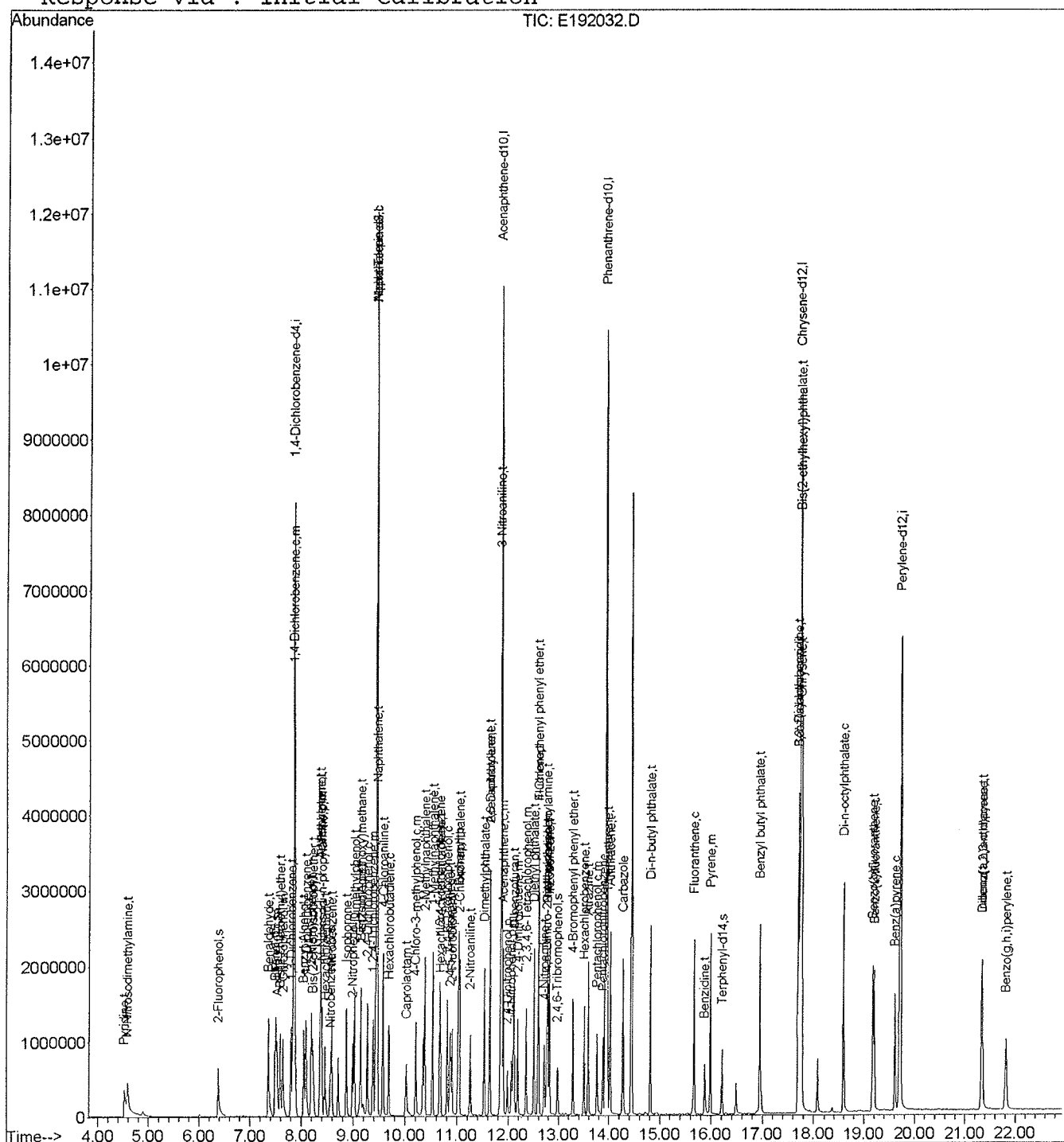
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E1110515\E192032.D
 Acq On : 5 Nov 2015 5:35 pm
 Sample : 5 ppm - ICAL
 Misc : QBSV1110515A
 MS Integration Params: RTEINT.P
 Quant Time: Nov 6 7:45 2015

Vial: 17
 Operator: KH
 Inst : BNA #1
 Multiplr: 1.00

Quant Results File: TCBNA211.RES

Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
 Title : Semivolatiles by GC/MS - EPA Method 625/8270
 Last Update : Fri Nov 06 08:53:36 2015
 Response via : Initial Calibration



Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E1110515\E192033.D

Vial: 18

Acq On : 5 Nov 2015 6:06 pm

Operator: KH

Sample : 10 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 7:48 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 07:46:32 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.85	152	1880036	40.00	ug/mL	0.05
21) Naphthalene-d8	9.45	136	6815012	40.00	ug/mL	0.05
39) Acenaphthene-d10	11.86	164	3706369	40.00	ug/mL	0.05
63) Phenanthrene-d10	13.94	188	6267235	40.00	ug/mL	0.05
79) Chrysene-d12	17.75	240	5187387	40.00	ug/mL	0.05
91) Perylene-d12	19.72	264	4063522	40.00	ug/mL	0.05

System Monitoring Compounds

4) 2-Fluorophenol	6.39	112	644113	7.77	ug/mL	0.04
Spiked Amount 75.000	Range 14 - 77		Recovery =	10.36%#		
5) Phenol-d5	7.48	99	824260	7.93	ug/mL	0.03
Spiked Amount 75.000	Range 10 - 100		Recovery =	10.57%		
22) Nitrobenzene-d5	8.56	82	474217	4.54	ug/mL	0.04
Spiked Amount 50.000	Range 31 - 97		Recovery =	9.08%#		
45) 2-Fluorobiphenyl	10.90	172	743966	4.21	ug/mL	0.04
Spiked Amount 50.000	Range 43 - 116		Recovery =	8.42%#		
68) 2,4,6-Tribromophenol	12.98	330	138859	4.43	ug/mL	0.04
Spiked Amount 75.000	Range 10 - 123		Recovery =	5.91%#		
81) Terphenyl-d14	16.21	244	528575	3.83	ug/mL	0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	7.66%#		

Target Compounds

					Qvalue
2) N-Nitrosodimethylamine	4.60	74	634484	11.44	ug/mL 93
3) Pyridine	4.52	79	1058722m	9.32	ug/mL
6) Benaldehyde	7.36	106	758304	10.89	ug/mL 100
7) Aniline	7.52	93	1009698	9.93	ug/mL 96
8) Phenol	7.50	94	1156183	11.02	ug/mL# 83
9) Bis(2-chloroethyl)ether	7.59	93	983717	10.59	ug/mL 98
10) 2-Chlorophenol	7.64	128	849323	10.36	ug/mL 99
11) 1,3-Dichlorobenzene	7.80	146	869446	10.34	ug/mL 98
12) 1,4-Dichlorobenzene	7.87	146	899241	11.08	ug/mL 99
13) Acetophenone	8.38	105	1154539	10.31	ug/mL 96
14) Benzyl Alcohol	8.05	108	566398	11.08	ug/mL 90
15) 1,2-Dichlorobenzene	8.09	146	860397	10.50	ug/mL 98
16) 2-Methylphenol	8.20	107	731316	10.59	ug/mL 96
17) Bis(2-chloroisopropyl)ethe	8.22	45	1508206	9.54	ug/mL# 93
18) N-Nitrosodi-n-propylamine	8.40	70	715273	10.81	ug/mL 95
19) 4-Methylphenol	8.37	107	976143	11.93	ug/mL 86
20) Hexachloroethane	8.46	117	389470	10.16	ug/mL# 88
23) Nitrobenzene	8.59	77	973984	10.38	ug/mL 98
24) Isophorone	8.87	82	1908118	9.90	ug/mL 97
25) 2-Nitrophenol	8.98	139	498554	10.88	ug/mL 97

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

E192033.D TCBNA211.M

Fri Nov 06 09:10:55 2015

Page 1

Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E1110515\E192033.D

Vial: 18

Acq On : 5 Nov 2015 6:06 pm

Operator: KH

Sample : 10 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 7:48 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 07:46:32 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dimethylphenol	9.03	122	724474	10.00	ug/mL	96
27) Bis(2-chloroethoxy)methane	9.14	93	1122395	10.42	ug/mL	96
28) Benzoic Acid	9.19	105	597689m	11.91	ug/mL	
29) Alpha-Terpineol	9.45	59	775783	11.52	ug/mL#	1
30) 2,4-Dichlorophenol	9.28	162	642330	8.98	ug/mL	94
31) 1,2,4-Trichlorobenzene	9.38	180	688590	8.82	ug/mL	99
32) Naphthalene	9.47	128	2011414	10.10	ug/mL	99
33) 4-Chloroaniline	9.57	127	609030	7.12	ug/mL	97
34) Hexachlorobutadiene	9.69	225	323351	7.54	ug/mL	97
35) Caprolactam	10.05	55	600376m	9.46	ug/mL	
36) 4-Chloro-3-methylphenol	10.21	107	780161	9.32	ug/mL	99
37) 1-Methylnaphthalene	10.53	141	1228960	8.84	ug/mL	96
38) 2-Methylnaphthalene	10.37	142	1336270	9.84	ug/mL	97
40) 1,2,4,5-tetrchlorobenzene	10.67	216	626500	9.70	ug/mL#	97
41) Biphenyl	11.03	154	1699359	9.76	ug/mL	97
42) Hexachlorocyclopentadiene	10.68	237	293878	6.95	ug/mL	98
43) 2,4,6-Trichlorophenol	10.81	196	466849	9.44	ug/mL#	94
44) 2,4,5-Trichlorophenol	10.87	196	487112	8.28	ug/mL#	94
46) 2-Chloronaphthalene	11.04	162	1264109	10.08	ug/mL	98
47) 2-Nitroaniline	11.26	138	588150	10.59	ug/mL#	96
48) Dimethylphthalate	11.53	163	1565499	9.32	ug/mL#	82
49) 2,6-Dinitrotoluene	11.65	165	399470	10.83	ug/mL	93
50) Acenaphthylene	11.64	152	2164936	10.31	ug/mL	100
51) 3-Nitroaniline	11.85	138	362567	10.41	ug/mL#	97
52) Acenaphthene	11.90	154	1233399	10.06	ug/mL	99
53) 2,4-Dinitrophenol	11.99	184	248655	13.93	ug/mL#	86
54) Dibenzofuran	12.11	168	1786483	9.26	ug/mL#	75
55) 2,3,4,6-Tetrachlorophenol	12.36	131	209226	10.05	ug/mL#	71
56) 2,4-Dinitrotoluene	12.19	165	539581	9.77	ug/mL	89
57) 4-Nitrophenol	12.07	65	507182	11.35	ug/mL#	27
58) Diethyl phthalate	12.52	149	1637656	9.53	ug/mL	97
59) Fluorene	12.60	166	1425571	10.43	ug/mL	99
60) 4-Chlorophenyl phenyl ethe	12.60	204	682040	9.83	ug/mL	97
61) Atrazine	13.59	200	437489	8.28	ug/mL	100
62) 4-Nitroaniline	12.72	138	496035	10.33	ug/mL	88
64) 4,6-Dinitro-2-methylphenol	12.77	198	343263	14.52	ug/mL#	99
65) Diphenylamine	12.78	169	1121582	11.15	ug/mL	95
66) N-Nitrosodiphenylamine	12.78	167	388329	10.43	ug/mL	94
67) Azobenzene	12.82	77	2389057	11.67	ug/mL#	79
69) 4-Bromophenyl phenyl ether	13.28	248	389967	8.71	ug/mL#	85
70) Hexachlorobenzene	13.50	142	211962	11.19	ug/mL#	49

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

E192033.D TCBNA211.M

Fri Nov 06 09:10:56 2015

Page 2

Data File : C:\HPCHEM\1\DATA\E1110515\E192033.D

Vial: 18

Acq On : 5 Nov 2015 6:06 pm

Operator: KH

Sample : 10 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 7:48 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 07:46:32 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachlorophenol	13.76	266	283715	8.82	ug/mL	96
72) Pentachloronitrobenzene	13.89	237	140675	7.14	ug/mL#	81
73) Phenanthrene	13.97	178	1908674	10.41	ug/mL	99
74) Anthracene	14.03	178	2093702	10.34	ug/mL	99
75) Carbazole	14.27	167	2041205	11.13	ug/mL#	100
76) Di-n-butyl phthalate	14.81	149	2906408	11.04	ug/mL	99
77) Fluoranthene	15.66	202	2081917	9.65	ug/mL	100
78) Benzidine	15.88	184	672536	10.11	ug/mL#	96
80) Pyrene	16.00	202	2156591	10.32	ug/mL	100
82) Benzyl butyl phthalate	16.95	149	1366629	11.84	ug/mL#	88
83) Bis(2-ethylhexyl)phthalate	17.76	149	1624079	13.01	ug/mL#	90
84) Benz(a)anthracene	17.70	228	1871118	10.66	ug/mL	100
85) 3,3'-Dichlorobenzidine	17.71	252	946463	17.88	ug/mL#	94
86) Chrysene	17.78	228	1688498	9.99	ug/mL	99
87) Di-n-octylphthalate	18.59	149	3112536	11.18	ug/mL#	96
88) Benzo(b)fluoranthene	19.17	252	1840183m	8.28	ug/mL	
89) Benzo(k)fluoranthene	19.21	252	1543066	9.33	ug/mL#	51
90) Benz(a)pyrene	19.62	252	1627525	8.45	ug/mL#	93
92) Indeno(1,2,3-c,d)pyrene	21.36	276	1713880	10.93	ug/mL	100
93) Dibenz(a,h)anthracene	21.36	278	1386057	11.13	ug/mL#	88
94) Benzo(g,h,i)perylene	21.83	276	1356362	9.81	ug/mL#	86

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

E192033.D TCBNA211.M

Fri Nov 06 09:10:56 2015

Page 3

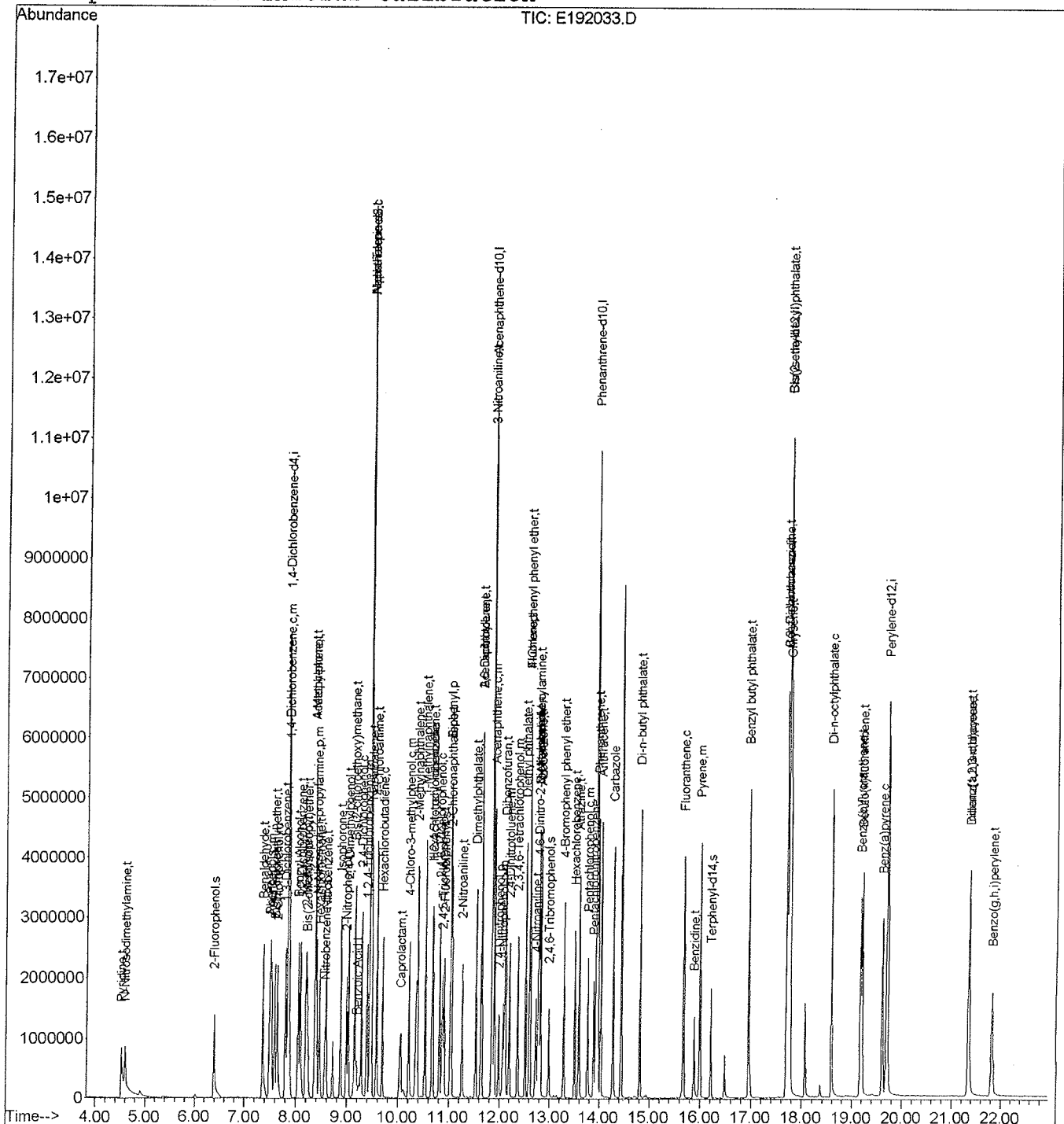
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E1110515\E192033.D
Acq On : 5 Nov 2015 6:06 pm
Sample : 10 ppm - ICAL
Misc : QBSV1110515A
MS Integration Params: RTEINT.P
Quant Time: Nov 6 7:48 2015

Vial: 18
Operator: KH
Inst : BNA #1
Multiplr: 1.00

Quant Results File: TCBNA211.RES

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Method       : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
Title        : Semivolatiles by GC/MS - EPA Method 625/8270
Last Update   : Fri Nov 06 08:53:36 2015
Response via  : Initial Calibration
```



Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E1110515\E192034.D

Vial: 19

Acq On : 5 Nov 2015 6:38 pm

Operator: KH

Sample : 15 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 8:15 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 07:48:45 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	7.85	152	1906058	40.00	ug/mL	0.05
21) Naphthalene-d8	9.45	136	6948152	40.00	ug/mL	0.05
39) Acenaphthene-d10	11.86	164	3791045	40.00	ug/mL	0.05
63) Phenanthrene-d10	13.95	188	6279451	40.00	ug/mL	0.06
79) Chrysene-d12	17.75	240	5275130	40.00	ug/mL	0.05
91) Perylene-d12	19.72	264	4052984	40.00	ug/mL	0.06

System Monitoring Compounds

4) 2-Fluorophenol	6.39	112	943339	11.12	ug/mL	0.03
Spiked Amount 75.000	Range 14	- 77	Recovery	=	14.83%	
5) Phenol-d5	7.49	99	1160984	10.98	ug/mL	0.04
Spiked Amount 75.000	Range 10	- 100	Recovery	=	14.64%	
22) Nitrobenzene-d5	8.56	82	706289	6.86	ug/mL	0.04
Spiked Amount 50.000	Range 31	- 97	Recovery	=	13.72%#	
45) 2-Fluorobiphenyl	10.91	172	1094716	6.35	ug/mL	0.05
Spiked Amount 50.000	Range 43	- 116	Recovery	=	12.70%#	
68) 2,4,6-Tribromophenol	12.99	330	200973	7.11	ug/mL	0.05
Spiked Amount 75.000	Range 10	- 123	Recovery	=	9.48%#	
81) Terphenyl-d14	16.21	244	782632	5.91	ug/mL	0.05
Spiked Amount 50.000	Range 33	- 141	Recovery	=	11.82%#	

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.60	74	914408	15.89	ug/mL	88
3) Pyridine	4.51	79	1492016m	13.30	ug/mL	
6) Benaldehyde	7.36	106	1054678	15.07	ug/mL	97
7) Aniline	7.53	93	1627984	16.03	ug/mL	94
8) Phenol	7.51	94	1695497	15.74	ug/mL	84
9) Bis(2-chloroethyl)ether	7.59	93	1427866	15.02	ug/mL	99
10) 2-Chlorophenol	7.64	128	1244780	14.91	ug/mL	99
11) 1,3-Dichlorobenzene	7.80	146	1251005	14.68	ug/mL	99
12) 1,4-Dichlorobenzene	7.87	146	1266913	15.20	ug/mL	98
13) Acetophenone	8.38	105	1629098	14.70	ug/mL	98
14) Benzyl Alcohol	8.05	108	816888	15.51	ug/mL	94
15) 1,2-Dichlorobenzene	8.09	146	1206489	14.53	ug/mL	100
16) 2-Methylphenol	8.20	107	1042352	14.82	ug/mL	97
17) Bis(2-chloroisopropyl)ethe	8.22	45	2102411	13.33	ug/mL#	92
18) N-Nitrosodi-n-propylamine	8.41	70	1046511	15.46	ug/mL	96
19) 4-Methylphenol	8.38	107	1371028	16.26	ug/mL	87
20) Hexachloroethane	8.46	117	581997	15.07	ug/mL#	84
23) Nitrobenzene	8.59	77	1383393	14.51	ug/mL	98
24) Isophorone	8.87	82	2776942	14.27	ug/mL	97
25) 2-Nitrophenol	8.99	139	728510	15.49	ug/mL	98

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

E192034.D TCBNA211.M

Fri Nov 06 09:13:37 2015

Page 1

Data File : C:\HPCHEM\1\DATA\E1110515\E192034.D

Vial: 19

Acq On : 5 Nov 2015 6:38 pm

Operator: KH

Sample : 15 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 8:15 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 07:48:45 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dimethylphenol	9.03	122	1038339	14.17	ug/mL	94
27) Bis(2-chloroethoxy)methane	9.15	93	1574938	14.47	ug/mL	97
28) Benzoic Acid	9.21	105	943715	17.87	ug/mL	99
29) Alpha-Terpineol	9.45	59	1113116	15.84	ug/mL#	17
30) 2,4-Dichlorophenol	9.28	162	948962	13.45	ug/mL	96
31) 1,2,4-Trichlorobenzene	9.38	180	977879	12.69	ug/mL	99
32) Naphthalene	9.47	128	2980593	15.01	ug/mL	98
33) 4-Chloroaniline	9.57	127	999264	12.57	ug/mL	97
34) Hexachlorobutadiene	9.69	225	478418	11.66	ug/mL	97
35) Caprolactam	10.07	55	854158m	13.42	ug/mL	
36) 4-Chloro-3-methylphenol	10.21	107	1135415	13.61	ug/mL	97
37) 1-Methylnaphthalene	10.53	141	1762406	13.15	ug/mL	97
38) 2-Methylnaphthalene	10.38	142	1945554	14.35	ug/mL	98
40) 1,2,4,5-tetrchlorobenzene	10.67	216	862730	13.49	ug/mL#	97
41) Biphenyl	11.03	154	2442094	14.34	ug/mL	98
42) Hexachlorocyclopentadiene	10.69	237	451949	11.42	ug/mL	99
43) 2,4,6-Trichlorophenol	10.81	196	687844	13.91	ug/mL	94
44) 2,4,5-Trichlorophenol	10.86	196	724534	12.64	ug/mL	95
46) 2-Chloronaphthalene	11.05	162	1881521	15.00	ug/mL	98
47) 2-Nitroaniline	11.27	138	881852	15.50	ug/mL#	96
48) Dimethylphthalate	11.53	163	2316949	13.90	ug/mL	99
49) 2,6-Dinitrotoluene	11.65	165	593464	15.76	ug/mL	96
50) Acenaphthylene	11.64	152	3118218	14.71	ug/mL	100
51) 3-Nitroaniline	11.85	138	577052	16.46	ug/mL	99
52) Acenaphthene	11.90	154	1769039	14.38	ug/mL	99
53) 2,4-Dinitrophenol	12.00	184	400447	20.49	ug/mL#	86
54) Dibenzofuran	12.12	168	2583557	13.59	ug/mL#	75
55) 2,3,4,6-Tetrachlorophenol	12.36	131	303990	14.42	ug/mL#	73
56) 2,4-Dinitrotoluene	12.20	165	831495	14.87	ug/mL	91
57) 4-Nitrophenol	12.08	65	737031	15.63	ug/mL#	28
58) Diethyl phthalate	12.52	149	2360046	13.75	ug/mL	96
59) Fluorene	12.60	166	2037896	14.90	ug/mL	98
60) 4-Chlorophenyl phenyl ethe	12.60	204	968234	14.12	ug/mL	97
61) Atrazine	13.59	200	599460	11.83	ug/mL	99
62) 4-Nitroaniline	12.74	138	717687	14.63	ug/mL	94
64) 4,6-Dinitro-2-methylphenol	12.77	198	518354	20.65	ug/mL#	99
65) Diphenylamine	12.79	169	1602491	16.04	ug/mL	97
66) N-Nitrosodiphenylamine	12.79	167	562765	15.23	ug/mL	95
67) Azobenzene	12.82	77	3397148	16.29	ug/mL#	79
69) 4-Bromophenyl phenyl ether	13.28	248	569830	13.41	ug/mL#	86
70) Hexachlorobenzene	13.51	142	293975	15.40	ug/mL#	48

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

E192034.D TCBNA211.M

Fri Nov 06 09:13:38 2015

Page 2

Data File : C:\HPCHEM\1\DATA\E1110515\E192034.D

Vial: 19

Acq On : 5 Nov 2015 6:38 pm

Operator: KH

Sample : 15 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 8:15 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 07:48:45 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachlorophenol	13.77	266	407463	13.24	ug/mL	97
72) Pentachloronitrobenzene	13.89	237	196873	10.91	ug/mL#	81
73) Phenanthrene	13.98	178	2753731	15.35	ug/mL	99
74) Anthracene	14.03	178	3033143	15.19	ug/mL	99
75) Carbazole	14.28	167	2873621	15.75	ug/mL#	100
76) Di-n-butyl phthalate	14.82	149	4122136	15.67	ug/mL	99
77) Fluoranthene	15.67	202	2994245	14.44	ug/mL	100
78) Benzidine	15.88	184	1082682	17.12	ug/mL#	96
80) Pyrene	15.99	202	3006206	14.29	ug/mL	100
82) Benzyl butyl phthalate	16.95	149	1961501	16.41	ug/mL#	88
83) Bis(2-ethylhexyl)phthalate	17.77	149	2357024	17.98	ug/mL#	90
84) Benz(a)anthracene	17.71	228	2641958	14.91	ug/mL	100
85) 3,3'-Dichlorobenzidine	17.72	252	1466972	28.75	ug/mL#	94
86) Chrysene	17.79	228	2417398	14.27	ug/mL	99
87) Di-n-octylphthalate	18.59	149	4464741	15.67	ug/mL#	96
88) Benzo(b)fluoranthene	19.18	252	2739556m	12.62	ug/mL	
89) Benzo(k)fluoranthene	19.22	252	2165295	13.36	ug/mL#	50
90) Benz(a)pyrene	19.63	252	2337403	12.45	ug/mL#	93
92) Indeno(1,2,3-c,d)pyrene	21.37	276	2456823	15.67	ug/mL	100
93) Dibenzo(a,h)anthracene	21.37	278	1962523	15.76	ug/mL#	87
94) Benzo(g,h,i)perylene	21.85	276	1990952	14.59	ug/mL#	86

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

E192034.D TCBNA211.M

Fri Nov 06 09:13:38 2015

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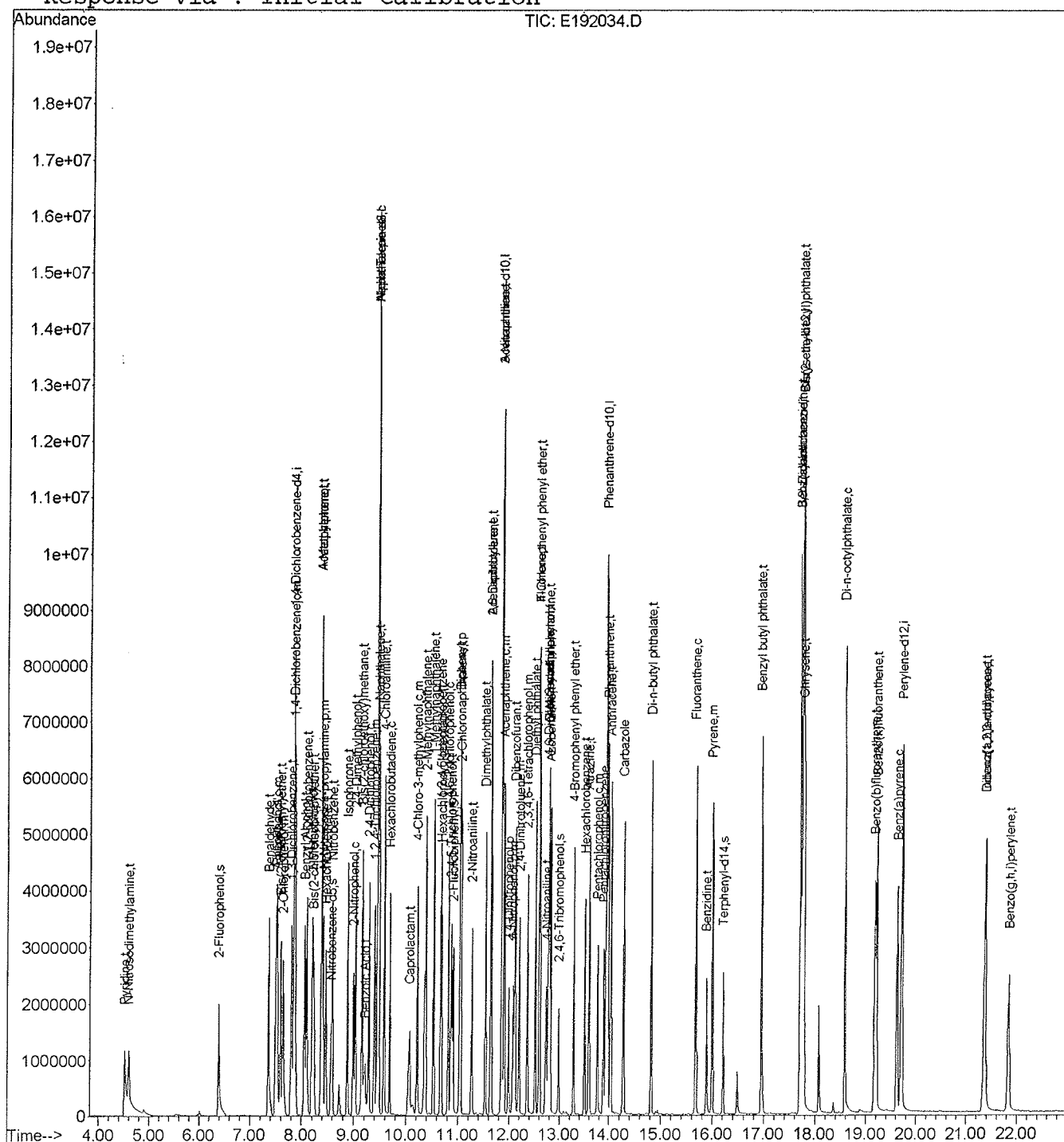
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E1110515\E192034.D
Acq On : 5 Nov 2015 6:38 pm
Sample : 15 ppm - ICAL
Misc : QBSV1110515A
MS Integration Params: RTEINT.P
Quant Time: Nov 6 8:15 2015 Quan

Vial: 19
Operator: KH
Inst : BNA #1
Multiplr: 1.00

Quant Results File: TCBNA211.RES

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Method       : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
Title        : Semivolatiles by GC/MS - EPA Method 625/8270
Last Update   : Fri Nov 06 08:53:36 2015
Response via  : Initial Calibration
```



Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E1110515\E192035.D

Vial: 20

Acq On : 5 Nov 2015 7:09 pm

Operator: KH

Sample : 20 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 8:16 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 08:15:48 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	7.85	152	1850401	40.00	ug/mL	0.05
21) Naphthalene-d8	9.45	136	6943894	40.00	ug/mL	0.05
39) Acenaphthene-d10	11.86	164	3674919	40.00	ug/mL	0.05
63) Phenanthrene-d10	13.95	188	6055878	40.00	ug/mL	0.06
79) Chrysene-d12	17.75	240	4918303	40.00	ug/mL	0.05
91) Perylene-d12	19.72	264	3917226	40.00	ug/mL	0.06

System Monitoring Compounds

4) 2-Fluorophenol	6.39	112	1170875	14.47	ug/mL	0.03
Spiked Amount 75.000	Range 14 - 77		Recovery =	19.29%		
5) Phenol-d5	7.50	99	1489501	14.68	ug/mL	0.05
Spiked Amount 75.000	Range 10 - 100		Recovery =	19.57%		
22) Nitrobenzene-d5	8.57	82	903067	8.44	ug/mL	0.05
Spiked Amount 50.000	Range 31 - 97		Recovery =	16.88%#		
45) 2-Fluorobiphenyl	10.91	172	1381972	7.91	ug/mL	0.05
Spiked Amount 50.000	Range 43 - 116		Recovery =	15.82%#		
68) 2,4,6-Tribromophenol	12.99	330	253508	8.36	ug/mL	0.05
Spiked Amount 75.000	Range 10 - 123		Recovery =	11.15%		
81) Terphenyl-d14	16.22	244	974555	7.45	ug/mL	0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	14.90%#		

Target Compounds

Qvalue

2) N-Nitrosodimethylamine	4.59	74	1204914	23.53	ug/mL	93
3) Pyridine	4.50	79	1807036m	16.32	ug/mL	
6) Benaldehyde	7.36	106	1313408	18.80	ug/mL	97
7) Aniline	7.53	93	2206684	21.61	ug/mL	94
8) Phenol	7.52	94	2122155	20.95	ug/mL	88
9) Bis(2-chloroethyl) ether	7.60	93	1858745	20.56	ug/mL	98
10) 2-Chlorophenol	7.64	128	1560364	19.53	ug/mL	99
11) 1,3-Dichlorobenzene	7.80	146	1582664	19.38	ug/mL	98
12) 1,4-Dichlorobenzene	7.87	146	1620559	20.27	ug/mL	98
13) Acetophenone	8.38	105	2011062	17.62	ug/mL	98
14) Benzyl Alcohol	8.05	108	1045753	20.81	ug/mL	94
15) 1,2-Dichlorobenzene	8.09	146	1529481	18.97	ug/mL	100
16) 2-Methylphenol	8.20	107	1342285	19.93	ug/mL	95
17) Bis(2-chloroisopropyl) ethe	8.22	45	2721211	17.76	ug/mL#	94
18) N-Nitrosodi-n-propylamine	8.41	70	1316407	20.57	ug/mL	95
19) 4-Methylphenol	8.38	107	1733260	21.64	ug/mL	85
20) Hexachloroethane	8.46	117	726738	18.51	ug/mL#	87
23) Nitrobenzene	8.59	77	1779166	18.36	ug/mL	99
24) Isophorone	8.88	82	3480261	17.51	ug/mL	97
25) 2-Nitrophenol	8.99	139	942865	20.56	ug/mL	97

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

E192035.D TCBNA211.M

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Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E1110515\E192035.D

Vial: 20

Acq On : 5 Nov 2015 7:09 pm

Operator: KH

Sample : 20 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 8:16 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 08:15:48 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dimethylphenol	9.03	122	1342903	17.99	ug/mL	94
27) Bis(2-chloroethoxy)methane	9.15	93	2001436	18.26	ug/mL	96
28) Benzoic Acid	9.24	105	1258446	24.33	ug/mL	99
29) Alpha-Terpineol	9.45	59	1416197	21.95	ug/mL#	63
30) 2,4-Dichlorophenol	9.28	162	1191823	15.75	ug/mL	95
31) 1,2,4-Trichlorobenzene	9.38	180	1232039	14.67	ug/mL	99
32) Naphthalene	9.47	128	3731018	18.41	ug/mL	98
33) 4-Chloroaniline	9.58	127	1589348	18.09	ug/mL	96
34) Hexachlorobutadiene	9.69	225	607316	12.44	ug/mL	98
35) Caprolactam	10.09	55	1069846m	16.37	ug/mL	
36) 4-Chloro-3-methylphenol	10.22	107	1440247	17.05	ug/mL	99
37) 1-Methylnaphthalene	10.53	141	2193451	15.03	ug/mL	97
38) 2-Methylnaphthalene	10.38	142	2473998	17.90	ug/mL	97
40) 1,2,4,5-tetrchlorobenzene	10.67	216	1088048	17.15	ug/mL#	98
41) Biphenyl	11.03	154	3024946	16.99	ug/mL	97
42) Hexachlorocyclopentadiene	10.69	237	590010	13.69	ug/mL	99
43) 2,4,6-Trichlorophenol	10.82	196	878720	17.33	ug/mL	94
44) 2,4,5-Trichlorophenol	10.87	196	931867	16.31	ug/mL#	95
46) 2-Chloronaphthalene	11.05	162	2368942	18.97	ug/mL	97
47) 2-Nitroaniline	11.27	138	1112250	20.37	ug/mL#	96
48) Dimethylphthalate	11.54	163	2911332	17.45	ug/mL	99
49) 2,6-Dinitrotoluene	11.66	165	742979	19.70	ug/mL	94
50) Acenaphthylene	11.64	152	3930710	18.76	ug/mL	99
51) 3-Nitroaniline	11.85	138	791065	22.17	ug/mL	99
52) Acenaphthene	11.91	154	2264909	18.66	ug/mL	100
53) 2,4-Dinitrophenol	12.00	184	535568	30.53	ug/mL#	87
54) Dibenzofuran	12.12	168	3311873	17.35	ug/mL#	74
55) 2,3,4,6-Tetrachlorophenol	12.36	131	394522	19.49	ug/mL#	72
56) 2,4-Dinitrotoluene	12.21	165	1051652	19.19	ug/mL	90
57) 4-Nitrophenol	12.09	65	924699	21.37	ug/mL#	31
58) Diethyl phthalate	12.52	149	3014425	17.86	ug/mL	96
59) Fluorene	12.61	166	2568436	18.79	ug/mL	98
60) 4-Chlorophenyl phenyl ethe	12.60	204	1227145	17.67	ug/mL	97
61) Atrazine	13.60	200	737818	12.43	ug/mL	100
62) 4-Nitroaniline	12.75	138	926172	19.67	ug/mL	94
64) 4,6-Dinitro-2-methylphenol	12.78	198	655402	29.89	ug/mL#	99
65) Diphenylamine	12.80	169	2015943	20.45	ug/mL	97
66) N-Nitrosodiphenylamine	12.80	167	707190	18.67	ug/mL	95
67) Azobenzene	12.83	77	4315726	22.50	ug/mL#	76
69) 4-Bromophenyl phenyl ether	13.29	248	717073	15.22	ug/mL#	86
70) Hexachlorobenzene	13.50	142	368402	19.48	ug/mL#	51

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

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Data File : C:\HPCHEM\1\DATA\E1110515\E192035.D

Vial: 20

Acq On : 5 Nov 2015 7:09 pm

Operator: KH

Sample : 20 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 8:16 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 08:15:48 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachlorophenol	13.77	266	530556	16.24	ug/mL	98
72) Pentachloronitrobenzene	13.90	237	257652	13.43	ug/mL#	83
73) Phenanthrene	13.98	178	3442806	19.17	ug/mL	99
74) Anthracene	14.04	178	3766580	18.09	ug/mL	99
75) Carbazole	14.28	167	3593914	19.98	ug/mL#	100
76) Di-n-butyl phthalate	14.82	149	5231004	20.02	ug/mL	99
77) Fluoranthene	15.68	202	3854577	18.13	ug/mL	99
78) Benzidine	15.89	184	1582092	22.53	ug/mL#	96
80) Pyrene	16.00	202	3801840	19.30	ug/mL	99
82) Benzyl butyl phthalate	16.96	149	2456948	22.57	ug/mL#	88
83) Bis(2-ethylhexyl)phthalate	17.77	149	2959102	24.79	ug/mL#	90
84) Benz(a)anthracene	17.71	228	3210432	17.88	ug/mL	100
85) 3,3'-Dichlorobenzidine	17.72	252	2030087	38.86	ug/mL#	97
86) Chrysene	17.79	228	3055222	17.75	ug/mL	99
87) Di-n-octylphthalate	18.59	149	5626625	21.63	ug/mL#	96
88) Benzo(b)fluoranthene	19.19	252	3851585	16.72	ug/mL#	74
89) Benzo(k)fluoranthene	19.22	252	2249744	13.18	ug/mL#	35
90) Benz(a)pyrene	19.63	252	2951048	14.95	ug/mL#	91
92) Indeno(1,2,3-c,d)pyrene	21.37	276	3089935	19.68	ug/mL	99
93) Dibenzo(a,h)anthracene	21.38	278	2500902	19.95	ug/mL#	87
94) Benzo(g,h,i)perylene	21.86	276	2439024	18.36	ug/mL#	85

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

E192035.D TCBNA211.M

Fri Nov 06 09:13:43 2015

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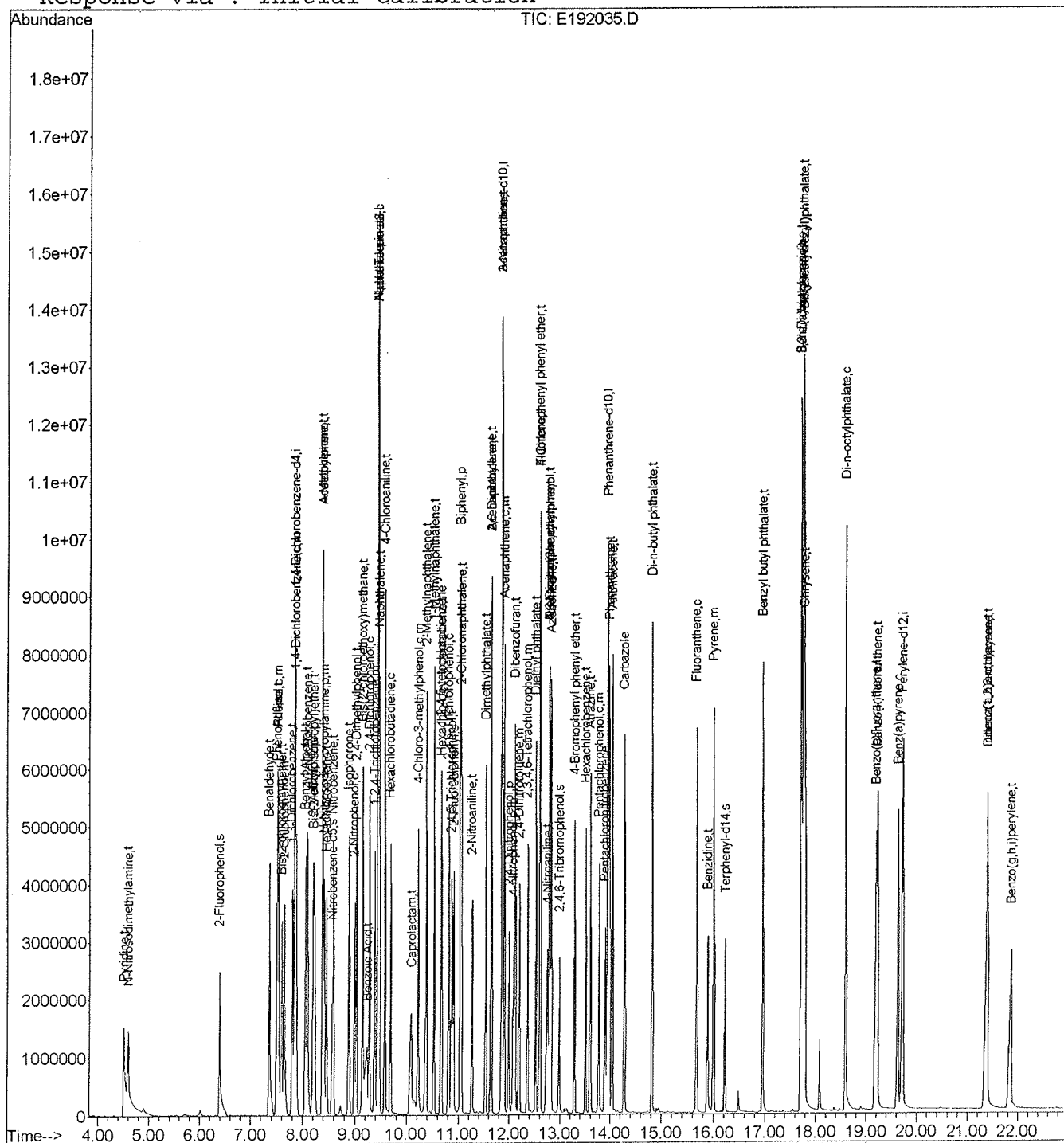
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E1110515\E192035.D
 Acq On : 5 Nov 2015 7:09 pm
 Sample : 20 ppm - ICAL
 Misc : QBSV1110515A
 MS Integration Params: RTEINT.P
 Quant Time: Nov 6 8:16 2015

Vial: 20
 Operator: KH
 Inst : BNA #1
 Multiplr: 1.00

Quant Results File: TCBNA211.RES

Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
 Title : Semivolatiles by GC/MS - EPA Method 625/8270
 Last Update : Fri Nov 06 08:53:36 2015
 Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\E1110515\E192036.D

Vial: 21

Acq On : 5 Nov 2015 7:40 pm

Operator: KH

Sample : 30 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 8:17 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 08:16:59 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	7.85	152	1846447	40.00	ug/mL	0.05
21) Naphthalene-d8	9.45	136	7148297	40.00	ug/mL	0.06
39) Acenaphthene-d10	11.86	164	3697601	40.00	ug/mL	0.05
63) Phenanthrene-d10	13.95	188	6354713	40.00	ug/mL	0.06
79) Chrysene-d12	17.76	240	4975174	40.00	ug/mL	0.06
91) Perylene-d12	19.72	264	3692207	40.00	ug/mL	0.06

System Monitoring Compounds

4) 2-Fluorophenol	6.39	112	1801168	22.46	ug/mL	0.04
Spiked Amount 75.000	Range 14 - 77		Recovery =	29.95%		
5) Phenol-d5	7.51	99	2250568	22.28	ug/mL	0.06
Spiked Amount 75.000	Range 10 - 100		Recovery =	29.71%		
22) Nitrobenzene-d5	8.57	82	1400496	13.05	ug/mL	0.05
Spiked Amount 50.000	Range 31 - 97		Recovery =	26.10%#		
45) 2-Fluorobiphenyl	10.91	172	2068583	12.29	ug/mL	0.05
Spiked Amount 50.000	Range 43 - 116		Recovery =	24.58%#		
68) 2,4,6-Tribromophenol	13.00	330	380639	13.10	ug/mL	0.06
Spiked Amount 75.000	Range 10 - 123		Recovery =	17.47%		
81) Terphenyl-d14	16.22	244	1460743	11.62	ug/mL	0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	23.24%#		

Target Compounds

Qvalue

2) N-Nitrosodimethylamine	4.61	74	1839358	35.26	ug/mL	91
3) Pyridine	4.50	79	2634218m	24.75	ug/mL	
6) Benaldehyde	7.36	106	1857025	26.92	ug/mL	97
7) Aniline	7.54	93	3351468	32.57	ug/mL	92
8) Phenol	7.53	94	3167100	31.04	ug/mL	88
9) Bis(2-chloroethyl) ether	7.60	93	2772289	30.49	ug/mL	99
10) 2-Chlorophenol	7.64	128	2369372	29.76	ug/mL	98
11) 1,3-Dichlorobenzene	7.80	146	2432245	30.04	ug/mL	98
12) 1,4-Dichlorobenzene	7.87	146	2387896	29.78	ug/mL	98
13) Acetophenone	8.39	105	2915791	26.03	ug/mL	99
14) Benzyl Alcohol	8.06	108	1580206	31.28	ug/mL	93
15) 1,2-Dichlorobenzene	8.10	146	2297757	28.86	ug/mL	100
16) 2-Methylphenol	8.21	107	2010005	29.94	ug/mL	95
17) Bis(2-chloroisopropyl) ethe	8.22	45	3992655	26.77	ug/mL#	92
18) N-Nitrosodi-n-propylamine	8.43	70	2045409	31.93	ug/mL	94
19) 4-Methylphenol	8.39	107	2550475	31.30	ug/mL	85
20) Hexachloroethane	8.46	117	1084769	27.80	ug/mL#	87
23) Nitrobenzene	8.60	77	2682001	27.11	ug/mL	99
24) Isophorone	8.89	82	5408536	26.85	ug/mL	97
25) 2-Nitrophenol	8.99	139	1439110	30.36	ug/mL	98

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

E192036.D TCBNA211.M

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Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E1110515\E192036.D

Vial: 21

Acq On : 5 Nov 2015 7:40 pm

Operator: KH

Sample : 30 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 8:17 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 08:16:59 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dimethylphenol	9.04	122	2058671	27.05	ug/mL	94
27) Bis(2-chloroethoxy)methane	9.16	93	3029208	27.39	ug/mL	96
28) Benzoic Acid	9.29	105	1995910	36.12	ug/mL	98
29) Alpha-Terpineol	9.46	59	2090920	30.91	ug/mL	84
30) 2,4-Dichlorophenol	9.29	162	1797811	23.82	ug/mL	96
31) 1,2,4-Trichlorobenzene	9.39	180	1864165	22.28	ug/mL	98
32) Naphthalene	9.48	128	5541736	27.01	ug/mL	98
33) 4-Chloroaniline	9.59	127	2449588	27.77	ug/mL	95
34) Hexachlorobutadiene	9.70	225	894138	18.71	ug/mL	97
35) Caprolactam	10.11	55	1639748m	25.21	ug/mL	
36) 4-Chloro-3-methylphenol	10.23	107	2173121	25.78	ug/mL	99
37) 1-Methylnaphthalene	10.53	141	3158503	21.90	ug/mL	97
38) 2-Methylnaphthalene	10.38	142	3717382	26.62	ug/mL	96
40) 1,2,4,5-tetrchlorobenzene	10.68	216	1527093	24.57	ug/mL#	98
41) Biphenyl	11.04	154	4301578	24.52	ug/mL	97
42) Hexachlorocyclopentadiene	10.69	237	921419	22.70	ug/mL	99
43) 2,4,6-Trichlorophenol	10.82	196	1271896	25.40	ug/mL	95
44) 2,4,5-Trichlorophenol	10.88	196	1417685	25.57	ug/mL	94
46) 2-Chloronaphthalene	11.06	162	3475170	27.93	ug/mL	98
47) 2-Nitroaniline	11.28	138	1702873	30.94	ug/mL#	97
48) Dimethylphthalate	11.55	163	4349540	26.55	ug/mL	99
49) 2,6-Dinitrotoluene	11.67	165	1121521	29.53	ug/mL	93
50) Acenaphthylene	11.65	152	5777370	27.66	ug/mL	100
51) 3-Nitroaniline	11.87	138	1216153	32.78	ug/mL#	96
52) Acenaphthene	11.92	154	3392935	28.06	ug/mL	100
53) 2,4-Dinitrophenol	12.01	184	891257	47.23	ug/mL#	86
54) Dibenzofuran	12.13	168	4818297	25.66	ug/mL	98
55) 2,3,4,6-Tetrachlorophenol	12.37	131	606608	30.06	ug/mL#	72
56) 2,4-Dinitrotoluene	12.22	165	1574674	28.98	ug/mL	89
57) 4-Nitrophenol	12.10	65	1424803	32.56	ug/mL#	82
58) Diethyl phthalate	12.54	149	4498166	27.04	ug/mL	96
59) Fluorene	12.62	166	3892960	28.41	ug/mL	97
60) 4-Chlorophenyl phenyl ethe	12.60	204	1791668	26.02	ug/mL	98
61) Atrazine	13.61	200	1100495	19.38	ug/mL	99
62) 4-Nitroaniline	12.77	138	1421346	30.19	ug/mL	93
64) 4,6-Dinitro-2-methylphenol	12.80	198	995340	40.37	ug/mL#	92
65) Diphenylamine	12.81	169	2998875	28.69	ug/mL	97
66) N-Nitrosodiphenylamine	12.81	167	1047090	26.23	ug/mL	94
67) Azobenzene	12.84	77	6501753	31.52	ug/mL#	92
69) 4-Bromophenyl phenyl ether	13.29	248	1061030	22.08	ug/mL#	85
70) Hexachlorobenzene	13.51	142	544812	27.26	ug/mL#	54

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

E192036.D TCBNA211.M

Fri Nov 06 09:13:50 2015

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Data File : C:\HPCHEM\1\DATA\E1110515\E192036.D

Vial: 21

Acq On : 5 Nov 2015 7:40 pm

Operator: KH

Sample : 30 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 8:17 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 08:16:59 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachlorophenol	13.78	266	794957	23.94	ug/mL	99
72) Pentachloronitrobenzene	13.91	237	363774	19.36	ug/mL#	81
73) Phenanthrene	13.99	178	5297411	28.06	ug/mL	99
74) Anthracene	14.05	178	5595465	25.60	ug/mL	99
75) Carbazole	14.29	167	5438820	28.54	ug/mL#	100
76) Di-n-butyl phthalate	14.83	149	7595327	27.48	ug/mL#	98
77) Fluoranthene	15.68	202	5613004	25.45	ug/mL	100
78) Benzidine	15.89	184	2408480	32.28	ug/mL#	96
80) Pyrene	16.01	202	5685897	28.55	ug/mL	99
82) Benzyl butyl phthalate	16.96	149	3682350	32.45	ug/mL#	87
83) Bis(2-ethylhexyl)phthalate	17.78	149	4384020	34.26	ug/mL#	91
84) Benz(a)anthracene	17.72	228	4757053	26.06	ug/mL	100
85) 3,3'-Dichlorobenzidine	17.73	252	3140644	59.51	ug/mL#	96
86) Chrysene	17.80	228	4628510	26.54	ug/mL	99
87) Di-n-octylphthalate	18.60	149	8215992	30.84	ug/mL#	96
88) Benzo(b)fluoranthene	19.21	252	6612250m	28.63	ug/mL	
89) Benzo(k)fluoranthene	19.23	252	3866857m	23.64	ug/mL	
90) Benz(a)pyrene	19.64	252	4629773	24.00	ug/mL#	93
92) Indeno(1,2,3-c,d)pyrene	21.42	276	4722841	31.86	ug/mL	99
93) Dibenz(a,h)anthracene	21.41	278	3868985	32.58	ug/mL#	87
94) Benzo(g,h,i)perylene	21.88	276	3765647	30.58	ug/mL#	86

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

E192036.D TCBNA211.M

Fri Nov 06 09:13:50 2015

Page 3

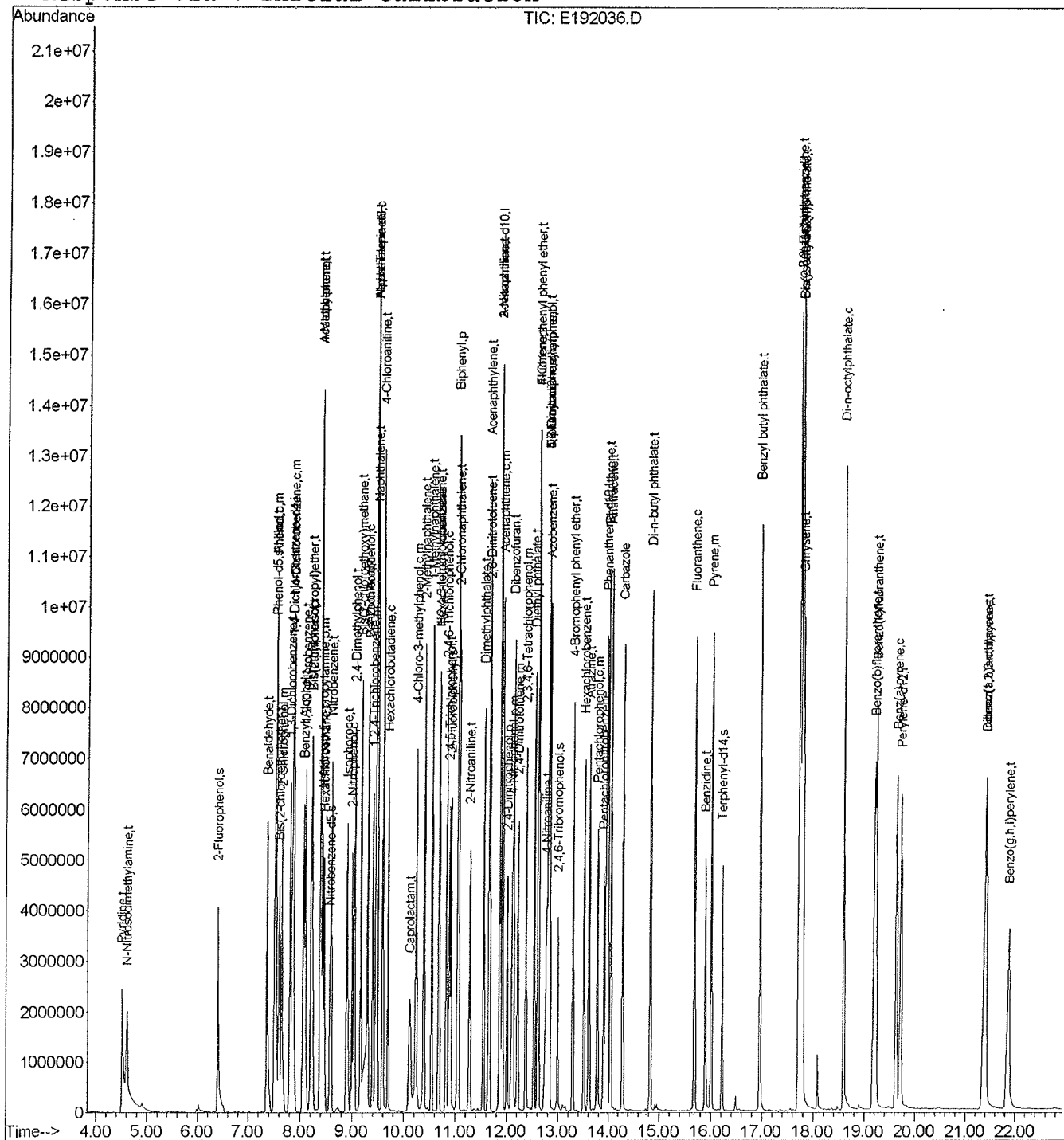
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E1110515\E192036.D
Acq On : 5 Nov 2015 7:40 pm
Sample : 30 ppm - ICAL
Misc : QBSV1110515A
MS Integration Params: RTEINT.P
Quant Time: Nov 6 8:17 2015

Vial: 21
Operator: KH
Inst : BNA #1
Multiplr: 1.00

Quant Results File: TCBNA211.RES

Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
Title : Semivolatiles by GC/MS - EPA Method 625/8270
Last Update : Fri Nov 06 08:53:36 2015
Response via : Initial Calibration



Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E1110515\E192037.D

Vial: 22

Acq On : 5 Nov 2015 8:12 pm

Operator: KH

Sample : 40 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 8:19 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 08:18:13 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.85	152	1756071	40.00	ug/mL	0.05
21) Naphthalene-d8	9.46	136	7028718	40.00	ug/mL	0.06
39) Acenaphthene-d10	11.86	164	3461899	40.00	ug/mL	0.05
63) Phenanthrene-d10	13.96	188	5867861	40.00	ug/mL	0.07
79) Chrysene-d12	17.76	240	4611921	40.00	ug/mL	0.06
91) Perylene-d12	19.72	264	3326539	40.00	ug/mL	0.06

System Monitoring Compounds

4) 2-Fluorophenol	6.40	112	2246283	29.23	ug/mL	0.04
Spiked Amount 75.000	Range 14 - 77		Recovery =	38.97%		
5) Phenol-d5	7.51	99	2773229	28.54	ug/mL	0.06
Spiked Amount 75.000	Range 10 - 100		Recovery =	38.05%		
22) Nitrobenzene-d5	8.58	82	1721406	16.56	ug/mL	0.06
Spiked Amount 50.000	Range 31 - 97		Recovery =	33.12%		
45) 2-Fluorobiphenyl	10.92	172	2538545	16.62	ug/mL	0.06
Spiked Amount 50.000	Range 43 - 116		Recovery =	33.24%#		
68) 2,4,6-Tribromophenol	13.00	330	464872	18.99	ug/mL	0.06
Spiked Amount 75.000	Range 10 - 123		Recovery =	25.32%		
81) Terphenyl-d14	16.22	244	1812893	16.25	ug/mL	0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	32.50%#		

Target Compounds

Qvalue

2) N-Nitrosodimethylamine	4.60	74	2252011	44.11	ug/mL	94
3) Pyridine	4.49	79	3369628m	34.12	ug/mL	
6) Benaldehyde	7.36	106	2268962	34.22	ug/mL	97
7) Aniline	7.54	93	4119877	41.11	ug/mL	93
8) Phenol	7.53	94	3925676	39.58	ug/mL	88
9) Bis(2-chloroethyl) ether	7.60	93	3568416	40.60	ug/mL	99
10) 2-Chlorophenol	7.65	128	2961271	38.78	ug/mL	99
11) 1,3-Dichlorobenzene	7.80	146	3025931	38.84	ug/mL	99
12) 1,4-Dichlorobenzene	7.87	146	2934258	37.90	ug/mL	97
13) Acetophenone	8.39	105	3625288	33.87	ug/mL	100
14) Benzyl Alcohol	8.06	108	1985189	40.40	ug/mL	92
15) 1,2-Dichlorobenzene	8.10	146	2831254	37.16	ug/mL	99
16) 2-Methylphenol	8.22	107	2472071	38.23	ug/mL	96
17) Bis(2-chloroisopropyl) ethe	8.22	45	4959586	35.37	ug/mL#	92
18) N-Nitrosodi-n-propylamine	8.44	70	2508433	40.38	ug/mL	96
19) 4-Methylphenol	8.39	107	3147352	39.18	ug/mL	85
20) Hexachloroethane	8.46	117	1340199	35.89	ug/mL#	86
23) Nitrobenzene	8.61	77	3326335	34.27	ug/mL	99
24) Isophorone	8.90	82	6739788	34.22	ug/mL	97
25) 2-Nitrophenol	9.00	139	1733943	36.54	ug/mL	98

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

E192037.D TCBNA211.M

Fri Nov 06 09:13:57 2015

Page 1

Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E1110515\E192037.D

Vial: 22

Acq On : 5 Nov 2015 8:12 pm

Operator: KH

Sample : 40 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 8:19 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 08:18:13 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dimethylphenol	9.05	122	2533509	33.77	ug/mL	94
27) Bis(2-chloroethoxy)methane	9.16	93	3693336	33.91	ug/mL	95
28) Benzoic Acid	9.31	105	2587114	45.54	ug/mL	98
29) Alpha-Terpineol	9.46	59	2660404	39.22	ug/mL#	57
30) 2,4-Dichlorophenol	9.29	162	2223068	30.56	ug/mL	96
31) 1,2,4-Trichlorobenzene	9.39	180	2253620	28.17	ug/mL	99
32) Naphthalene	9.48	128	6548214	32.42	ug/mL	98
33) 4-Chloroaniline	9.59	127	2914377	33.66	ug/mL	96
34) Hexachlorobutadiene	9.70	225	1091179	24.28	ug/mL	98
35) Caprolactam	10.12	55	2012174m	32.28	ug/mL	
36) 4-Chloro-3-methylphenol	10.24	107	2656017	32.74	ug/mL	99
37) 1-Methylnaphthalene	10.54	141	3935494	28.72	ug/mL	97
38) 2-Methylnaphthalene	10.39	142	4455225	32.72	ug/mL	97
40) 1,2,4,5-tetrchlorobenzene	10.68	216	1894755	33.06	ug/mL#	98
41) Biphenyl	11.04	154	5226651	32.00	ug/mL	97
42) Hexachlorocyclopentadiene	10.69	237	1119738	30.78	ug/mL	99
43) 2,4,6-Trichlorophenol	10.83	196	1596509	34.52	ug/mL#	94
44) 2,4,5-Trichlorophenol	10.88	196	1702896	33.69	ug/mL#	95
46) 2-Chloronaphthalene	11.06	162	4208914	35.82	ug/mL	98
47) 2-Nitroaniline	11.28	138	2055442	39.19	ug/mL#	96
48) Dimethylphthalate	11.55	163	5276659	34.71	ug/mL	99
49) 2,6-Dinitrotoluene	11.67	165	1374970	38.26	ug/mL	93
50) Acenaphthylene	11.65	152	6972102	35.49	ug/mL	100
51) 3-Nitroaniline	11.88	138	1512107	41.79	ug/mL#	97
52) Acenaphthene	11.92	154	4045706	35.54	ug/mL	99
53) 2,4-Dinitrophenol	12.02	184	1090063	57.01	ug/mL#	85
54) Dibenzofuran	12.13	168	5901332	33.99	ug/mL	99
55) 2,3,4,6-Tetrachlorophenol	12.38	131	734138	38.39	ug/mL#	71
56) 2,4-Dinitrotoluene	12.23	165	1923783	38.10	ug/mL#	87
57) 4-Nitrophenol	12.11	65	1698109	40.76	ug/mL	83
58) Diethyl phthalate	12.54	149	5399827	34.81	ug/mL	97
59) Fluorene	12.62	166	4568242	34.94	ug/mL	98
60) 4-Chlorophenyl phenyl ethe	12.61	204	2135709	33.13	ug/mL	98
61) Atrazine	13.62	200	1354492	26.53	ug/mL	99
62) 4-Nitroaniline	12.78	138	1708258	38.35	ug/mL#	78
64) 4,6-Dinitro-2-methylphenol	12.81	198	1235039	50.58	ug/mL#	93
65) Diphenylamine	12.82	169	3611097	36.49	ug/mL	97
66) N-Nitrosodiphenylamine	12.82	167	1270921	34.06	ug/mL	95
67) Azobenzene	12.84	77	7887986	40.10	ug/mL#	92
69) 4-Bromophenyl phenyl ether	13.30	248	1260849	29.05	ug/mL#	84
70) Hexachlorobenzene	13.51	142	682591	36.40	ug/mL#	49

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

E192037.D TCBNA211.M

Fri Nov 06 09:13:57 2015

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Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E1110515\E192037.D

Vial: 22

Acq On : 5 Nov 2015 8:12 pm

Operator: KH

Sample : 40 ppm - ICAL

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 8:19 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 08:18:13 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachlorophenol	13.78	266	1001342	33.59	ug/mL	99
72) Pentachloronitrobenzene	13.91	237	483185	29.77	ug/mL#	84
73) Phenanthrene	14.00	178	6283056	35.65	ug/mL	99
74) Anthracene	14.06	178	6737974	33.15	ug/mL	99
75) Carbazole	14.30	167	6593819	36.81	ug/mL#	100
76) Di-n-butyl phthalate	14.83	149	8809673	34.05	ug/mL#	97
77) Fluoranthene	15.69	202	6875168	33.91	ug/mL	100
78) Benzidine	15.90	184	2858540	40.08	ug/mL#	96
80) Pyrene	16.01	202	7015251	37.72	ug/mL	99
82) Benzyl butyl phthalate	16.96	149	4546633	41.64	ug/mL#	88
83) Bis(2-ethylhexyl)phthalate	17.78	149	5325246	42.25	ug/mL#	90
84) Benz(a)anthracene	17.73	228	5830285	34.04	ug/mL	99
85) 3,3'-Dichlorobenzidine	17.73	252	3970144	79.83	ug/mL#	97
86) Chrysene	17.81	228	5455619	33.43	ug/mL	99
87) Di-n-octylphthalate	18.60	149	9421243	37.48	ug/mL#	96
88) Benzo(b)fluoranthene	19.22	252	6972269m	33.01	ug/mL	
89) Benzo(k)fluoranthene	19.24	252	4562660m	30.00	ug/mL	
90) Benz(a)pyrene	19.64	252	5518127	31.54	ug/mL#	93
92) Indeno(1,2,3-c,d)pyrene	21.43	276	5706966	41.79	ug/mL	99
93) Dibenz(a,h)anthracene	21.43	278	4626790	42.13	ug/mL#	87
94) Benzo(g,h,i)perylene	21.89	276	4508161	40.12	ug/mL#	86

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

E192037.D TCBNA211.M

Fri Nov 06 09:13:57 2015

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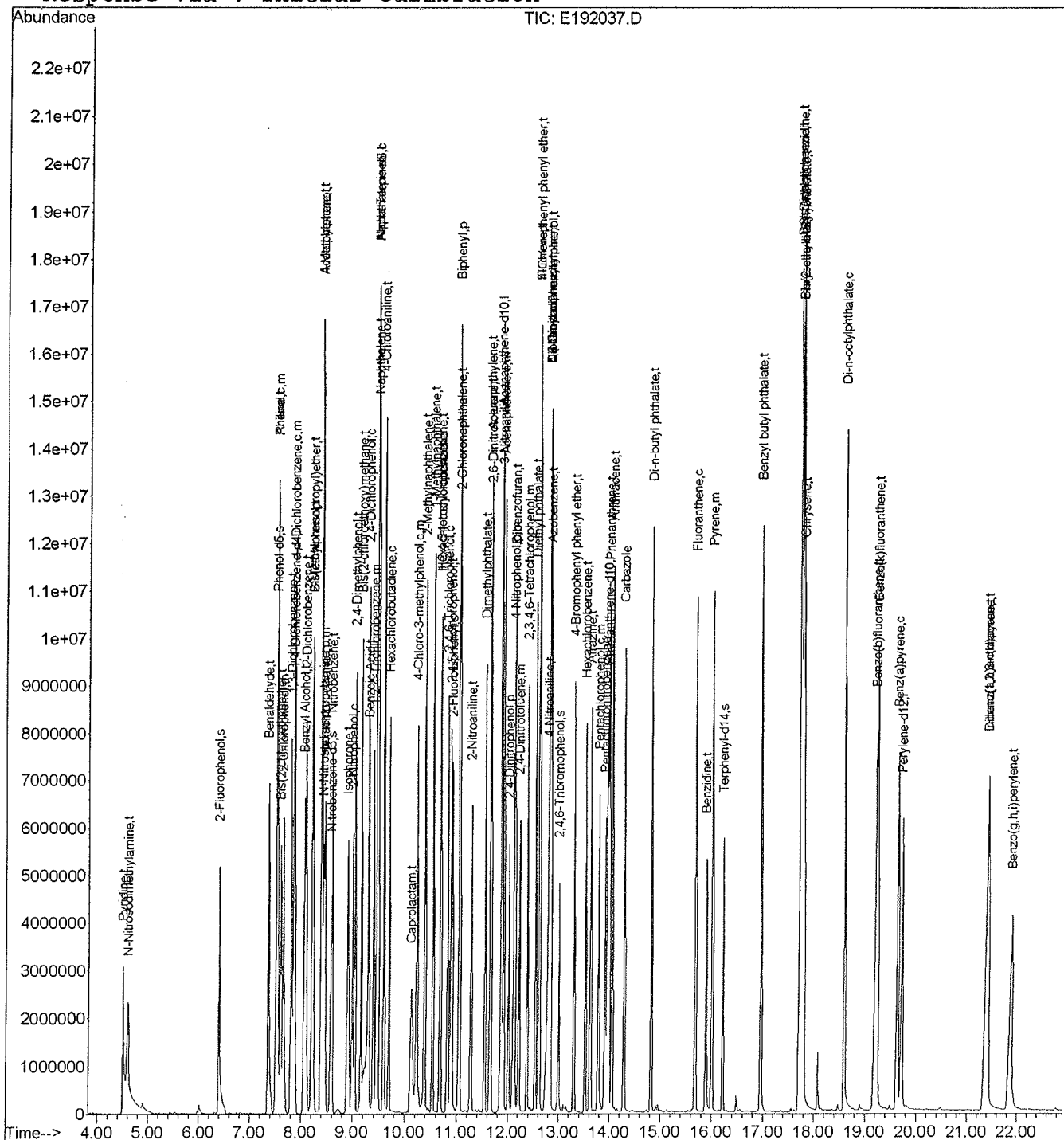
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E1110515\E192037.D
Acq On : 5 Nov 2015 8:12 pm
Sample : 40 ppm - ICAL
Misc : QBSV1110515A
MS Integration Params: RTEINT.P
Quant Time: Nov 6 8:19 2015 Quan

Vial: 22
Operator: KH
Inst : BNA #1
Multiplr: 1.00

Quant Results File: TCBNA211.RES

Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
Title : Semivolatiles by GC/MS - EPA Method 625/8270
Last Update : Fri Nov 06 08:53:36 2015
Response via : Initial Calibration



Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E1110515\E192038.D
 Acq On : 5 Nov 2015 8:43 pm
 Sample : ICV - 50ppm
 Misc : QBSV1110515A

Vial: 23
 Operator: KH
 Inst : BNA #1
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 9:06 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

35 → 65 (70-130%)

Last Update : Fri Nov 06 08:53:36 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.85	152	1532113	40.00	ug/mL	0.05
21) Naphthalene-d8	9.45	136	5724282	40.00	ug/mL	0.05
39) Acenaphthene-d10	11.87	164	3059729	40.00	ug/mL	0.05
63) Phenanthrene-d10	13.95	188	5029615	40.00	ug/mL	0.06
79) Chrysene-d12	17.76	240	4079160	40.00	ug/mL	0.06
91) Perylene-d12	19.73	264	3170604	40.00	ug/mL	0.06

System Monitoring Compounds

4) 2-Fluorophenol	6.12	112	1414	0.02	ug/mL	-0.23
Spiked Amount 75.000	Range 14	- 77	Recovery	=	0.03%#	
5) Phenol-d5	7.65	99	194748	2.29	ug/mL	0.20
Spiked Amount 75.000	Range 10	- 100	Recovery	=	3.05%#	
22) Nitrobenzene-d5	8.46	82	360863	4.40	ug/mL	-0.06
Spiked Amount 50.000	Range 31	- 97	Recovery	=	8.80%#	
45) 2-Fluorobiphenyl	10.93	172	410	0.00	ug/mL	0.07
Spiked Amount 50.000	Range 43	- 116	Recovery	=	0.00%#	
68) 2,4,6-Tribromophenol	12.99	330	205	0.01	ug/mL	0.05
Spiked Amount 75.000	Range 10	- 123	Recovery	=	0.01%#	
81) Terphenyl-d14	16.22	244	446	0.00	ug/mL	0.06
Spiked Amount 50.000	Range 33	- 141	Recovery	=	0.00%#	

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.61	74	2477580	54.57	ug/mL	91
3) Pyridine	4.50	79	3923780m	47.19	ug/mL	
7) Aniline	7.54	93	4745050	52.99	ug/mL	89
8) Phenol	7.52	94	4421259	49.98	ug/mL	86
9) Bis(2-chloroethyl)ether	7.60	93	3649851	46.98	ug/mL	96
10) 2-Chlorophenol	7.65	128	3161162	47.29	ug/mL	96
11) 1,3-Dichlorobenzene	7.81	146	3208907	46.87	ug/mL	99
12) 1,4-Dichlorobenzene	7.87	146	3268672	47.95	ug/mL	98
14) Benzyl Alcohol	8.06	108	2151007	49.45	ug/mL	93
15) 1,2-Dichlorobenzene	8.09	146	3074319	46.13	ug/mL	100
16) 2-Methylphenol	8.21	107	2481922	43.72	ug/mL	94
17) Bis(2-chloroisopropyl)ethe	8.23	45	6052148	50.40	ug/mL#	95
18) N-Nitrosodi-n-propylamine	8.44	70	2629864	48.01	ug/mL#	81
19) 4-Methylphenol	8.39	107	3260691	44.83	ug/mL#	38
20) Hexachloroethane	8.46	117	1435854	44.02	ug/mL#	87
23) Nitrobenzene	8.60	77	3620688	46.02	ug/mL	99
24) Isophorone	8.89	82	6914492	43.70	ug/mL	97
25) 2-Nitrophenol	9.00	139	1811809	46.86	ug/mL	98
26) 2,4-Dimethylphenol	9.05	122	2644843	43.46	ug/mL	95
27) Bis(2-chloroethoxy)methane	9.16	93	3934011	44.55	ug/mL	96

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

E192038.D TCBNA211.M

Fri Nov 06 09:06:36 2015

Page 1

Data File : C:\HPCHEM\1\DATA\E1110515\E192038.D

Vial: 23

Acq On : 5 Nov 2015 8:43 pm

Operator: KH

Sample : ICV - 50ppm

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 9:06 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 08:53:36 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) 2,4-Dichlorophenol	9.30	162	2379888	40.82 ug/mL	96
31) 1,2,4-Trichlorobenzene	9.39	180	2464810	71.49 ug/mL	98
32) Naphthalene	9.48	128	7295029	44.22 ug/mL	98
33) 4-Chloroaniline	9.58	127	3783739	53.61 ug/mL	96
34) Hexachlorobutadiene	9.70	225	1220186	34.95 ug/mL	99
36) 4-Chloro-3-methylphenol	10.21	107	2720266	42.49 ug/mL	99
37) 1-Methylnaphthalene	10.54	141	4015568	37.04 ug/mL	97
38) 2-Methylnaphthalene	10.39	142	5179601	47.08 ug/mL	96
41) Biphenyl	11.04	154	1178	Below Cal #	1
42) Hexachlorocyclopentadiene	10.69	237	1198538	38.97 ug/mL	99
43) 2,4,6-Trichlorophenol	10.82	196	1583534	39.33 ug/mL	95
44) 2,4,5-Trichlorophenol	10.87	196	1649595	38.12 ug/mL	96
46) 2-Chloronaphthalene	11.06	162	4425345	41.97 ug/mL	94
47) 2-Nitroaniline	11.29	138	2136451	45.80 ug/mL#	95
48) Dimethylphthalate	11.58	163	5521034	41.57 ug/mL	99
49) 2,6-Dinitrotoluene	11.68	165	1422370	44.61 ug/mL#	70
50) Acenaphthylene	11.65	152	6893242	39.50 ug/mL	99
51) 3-Nitroaniline	11.89	138	1731570	52.49 ug/mL#	94
52) Acenaphthene	11.92	154	4297922	42.41 ug/mL	99
53) 2,4-Dinitrophenol	12.02	184	1095923	44.30 ug/mL#	84
54) Dibenzofuran	12.13	168	6050802	39.72 ug/mL	98
55) 2,3,4,6-Tetrachlorophenol	12.31	131	661444	38.99 ug/mL	84
56) 2,4-Dinitrotoluene	12.23	165	2029586	46.15 ug/mL	91
57) 4-Nitrophenol	12.12	65	1760515	47.49 ug/mL	83
58) Diethyl phthalate	12.55	149	5519315	40.75 ug/mL	97
59) Fluorene	12.62	166	4792934	40.89 ug/mL	98
60) 4-Chlorophenyl phenyl ethe	12.61	204	2189271	46.83 ug/mL	99
62) 4-Nitroaniline	12.78	138	1648593	41.94 ug/mL#	75
64) 4,6-Dinitro-2-methylphenol	12.81	198	1182294	45.15 ug/mL#	91
65) Diphenylamine	12.82	169	4106744	46.92 ug/mL	96
66) N-Nitrosodiphenylamine	12.82	167	1447941	44.34 ug/mL	96
67) Azobenzene	12.84	77	8058363	46.04 ug/mL#	91
69) 4-Bromophenyl phenyl ether	13.30	248	1302441	35.47 ug/mL#	84
70) Hexachlorobenzene	13.52	142	676672	41.14 ug/mL#	50
71) Pentachlorophenol	13.77	266	979345	39.25 ug/mL	98
72) Pentachloronitrobenzene	13.91	237	537074	40.24 ug/mL#	83
73) Phenanthrene	14.00	178	6711338	43.61 ug/mL	99
74) Anthracene	14.06	178	6935773	39.27 ug/mL	99
75) Carbazole	14.29	167	6544195	41.59 ug/mL#	100
76) Di-n-butyl phthalate	14.83	149	9008403	39.86 ug/mL#	97
77) Fluoranthene	15.69	202	7059510	40.32 ug/mL	100

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

E192038.D TCBNA211.M

Fri Nov 06 09:06:36 2015

Page 2

Data File : C:\HPCHEM\1\DATA\E1110515\E192038.D

Vial: 23

Acq On : 5 Nov 2015 8:43 pm

Operator: KH

Sample : ICV - 50ppm

Inst : BNA #1

Misc : QBSV1110515A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Nov 6 9:06 2015

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Fri Nov 06 08:53:36 2015

Response via : Initial Calibration

DataAcq Meth : TCBNA210

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) Pyrene	16.01	202	7325256	44.55	ug/mL	99
82) Benzyl butyl phthalate	16.96	149	4592243	46.18	ug/mL#	88
83) Bis(2-ethylhexyl)phthalate	17.78	149	5484032	46.47	ug/mL#	90
84) Benz(a)anthracene	17.73	228	6465681	42.40	ug/mL	99
86) Chrysene	17.81	228	5555303	38.56	ug/mL	99
87) Di-n-octylphthalate	18.60	149	9357396	41.96	ug/mL#	95
88) Benzo(b)fluoranthene	19.21	252	7306834	40.49	ug/mL#	43
89) Benzo(k)fluoranthene	19.24	252	4317386	32.66	ug/mL#	84
90) Benz(a)pyrene	19.65	252	5913266m	39.74	ug/mL	
92) Indeno(1,2,3-c,d)pyrene	21.44	276	5685408	42.76	ug/mL	99
93) Dibenz(a,h)anthracene	21.43	278	4670361	43.69	ug/mL#	86
94) Benzo(g,h,i)perylene	21.90	276	4654743	43.14	ug/mL#	86

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

E192038.D TCBNA211.M

Fri Nov 06 09:06:36 2015

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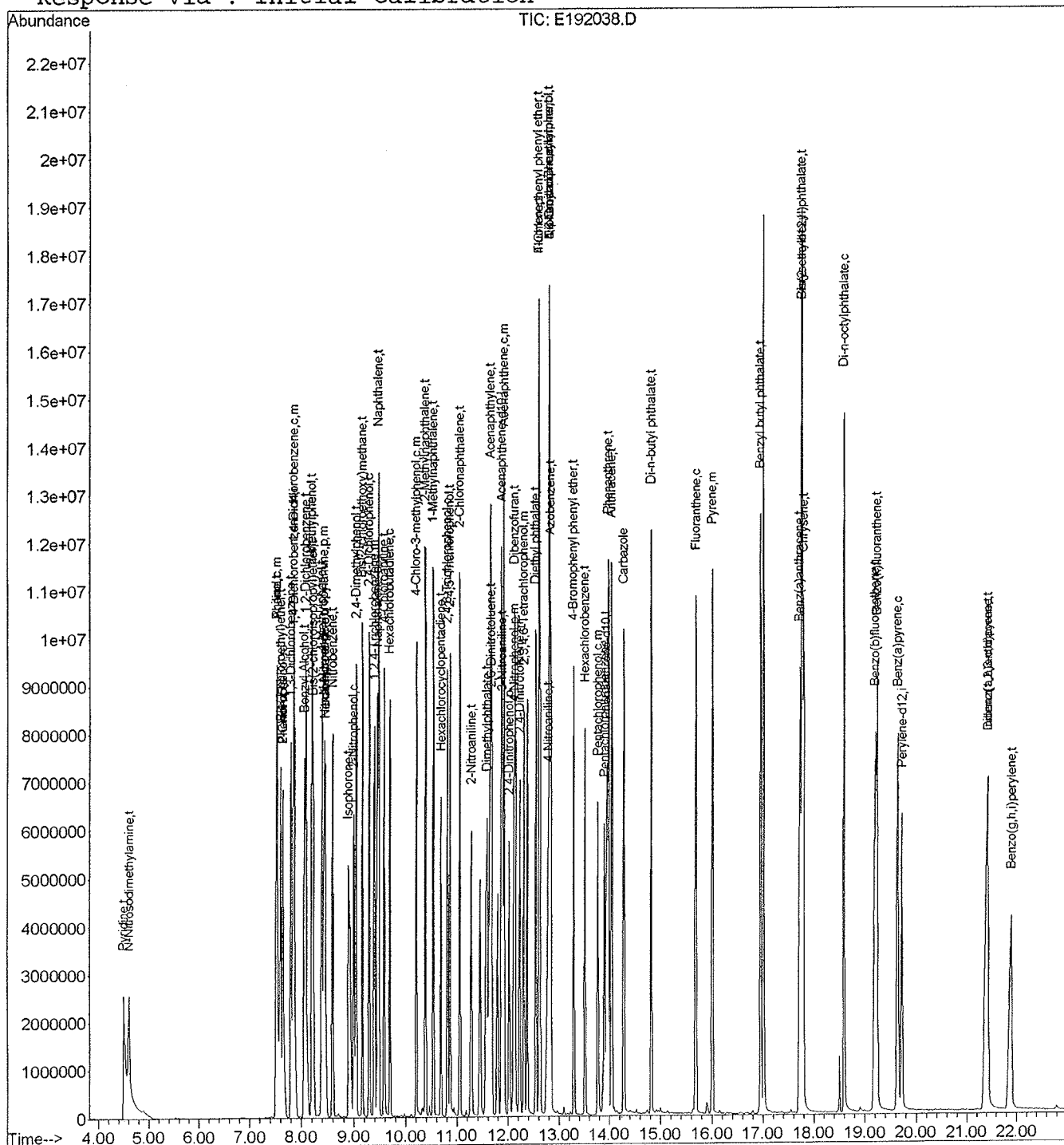
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E1110515\E192038.D
Acq On : 5 Nov 2015 8:43 pm
Sample : ICV - 50ppm
Misc : QBSV1110515A
MS Integration Params: RTEINT.P
Quant Time: Nov 6 9:06 2015 Quan

Vial: 23
Operator: KH
Inst : BNA #1
Multiplr: 1.00

Quant Results File: TCBNA211.RES

```
Method      : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
Title       : Semivolatiles by GC/MS - EPA Method 625/8270
Last Update : Fri Nov 06 08:53:36 2015
Response via : Initial Calibration
```



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\E1031116\E101045.D

Vial: 9

Acq On : 11 Mar 2016 2:15 pm

Operator: SR

Sample : SEQ-CCV1

Inst : BNA #1

Misc : QBSV1031116B Y16B033

Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Sun Mar 06 04:11:30 2016

Response via : Multiple Level Calibration

Min. RRF : 0.049 Min. Rel. Area : 25% Max. R.T. Dev 0.50min

Max. RRF Dev : 50% Max. Rel. Area : 250%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	80	-0.01
2 t	N-Nitrosodimethylamine	1.185	1.381	-16.5	83	0.19
3 t	Pyridine	2.171	1.971	9.2	83	0.21
4 s	2-Fluorophenol	1.741	2.190	-25.8	101	0.26
5 s	Phenol-d5	2.222	2.664	-19.9	99	0.32
6 t	Benaldehyde	1.526	1.042	31.7	62	0.31
7 t	Aniline	2.338	2.339	-0.0	78	0.31
8 c,m	Phenol	2.309	2.005	13.2#	70	0.32
9 t	Bis(2-chloroethyl)ether	2.028	1.920	5.3	77	0.31
10 m	2-Chlorophenol	1.745	1.703	2.4	80	0.31
11 t	1,3-Dichlorobenzene	1.787	1.734	3.0	79	0.33
12 c,m	1,4-Dichlorobenzene	1.780	1.734	2.6#	81	0.26
13 t	Acetophenone	2.448	1.998	18.4	76	0.34
14 t	Benzyl Alcohol	1.136	1.103	2.9	78	0.33
15 t	1,2-Dichlorobenzene	1.740	1.734	0.3	84	0.04
16 t	2-Methylphenol	1.482	1.347	9.1	74	0.34
17 t	Bis(2-chloroisopropyl)ether	3.135	2.997	4.4	83	0.33
18 p,m	N-Nitrosodi-n-propylamine	1.430	1.528	-6.9	83	0.33
19 t	4-Methylphenol	1.899	1.625	14.4	71	0.35
20 t	Hexachloroethane	0.852	0.763	10.4	78	0.35
21 I	Naphthalene-d8	1.000	1.000	0.0	67	0.38
22 s	Nitrobenzene-d5	0.574	1.107	-92.9#	143	0.35
23 t	Nitrobenzene	0.550	0.583	-6.0	79	0.35
24 t	Isophorone	1.106	1.078	2.5	72	0.35
25 c	2-Nitrophenol	0.270	0.305	-13.0#	77	0.37
26 t	2,4-Dimethylphenol	0.425	0.402	5.4	71	0.36
27 t	Bis(2-chloroethoxy)methane	0.617	0.618	-0.2	74	0.36
28 t	Benzoic Acid	0.333	0.050	85.0#	9#	0.38
29 c	Alpha-Terpineol	0.395	0.399	-1.0#	69	0.37
30 c	2,4-Dichlorophenol	0.407	0.404	0.7#	81	0.37
31 m	1,2,4-Trichlorobenzene	0.442	0.420	5.0	81	0.37
32 t	Naphthalene	1.153	1.119	2.9	73	0.37
33 t	4-Chloroaniline	0.493	0.529	-7.3	78	0.37
34 c	Hexachlorobutadiene	0.244	0.238	2.5#	96	0.37
35 t	Caprolactam	0.339	0.355	-4.7	78	0.33
36 c,m	4-Chloro-3-methylphenol	0.447	0.469	-4.9#	78	0.37
37 t	1-Methylnaphthalene	0.758	0.706	6.9	81	0.38
38 t	2-Methylnaphthalene	0.769	0.754	2.0	73	0.38
39 I	Acenaphthene-d10	1.000	1.000	0.0	73	0.37

(#)= Out of Range

E101045.D TCBNA211.M

Mon Mar 14 07:47:41 2016

Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\E1031116\E101045.D

Vial: 9

Acq On : 11 Mar 2016 2:15 pm

Operator: SR

Sample : SEQ-CCV1

Inst : BNA #1

Misc : QBSV1031116B Y16B033

Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Sun Mar 06 04:11:30 2016

Response via : Multiple Level Calibration

Min. RRF : 0.049 Min. Rel. Area : 25% Max. R.T. Dev 0.50min

Max. RRF Dev : 50% Max. Rel. Area : 250%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	1,2,4,5-tetrchlorobenzene	0.628	0.694	-10.5	91	0.38
41 p	Biphenyl	1.902	1.622	14.7	76	0.37
42 t	Hexachlorocyclopentadiene	0.402	0.372	7.5	81	0.38
43 c	2,4,6-Trichlorophenol	0.526	0.539	-2.5#	85	0.38
44 t	2,4,5-Trichlorophenol	0.566	0.568	-0.4	81	0.37
45 s	2-Fluorobiphenyl	1.722	2.932	-70.3#	143	0.37
46 t	2-Chloronaphthalene	1.378	1.305	5.3	76	0.37
47 t	2-Nitroaniline	0.610	0.642	-5.2	76	0.36
48 t	Dimethylphthalate	1.736	1.651	4.9	76	0.36
49 t	2,6-Dinitrotoluene	0.417	0.375	10.1	67	0.36
50 t	Acenaphthylene	2.281	1.916	16.0	67	0.37
51 t	3-Nitroaniline	0.431	0.471	-9.3	78	0.35
52 c,m	Acenaphthene	1.325	1.173	11.5#	70	0.37
53 p	2,4-Dinitrophenol	0.232	0.311	-34.1	70	0.35
54 t	Dibenzofuran	1.991	1.817	8.7	76	0.37
55 m	2,3,4,6-Tetrachlorophenol	0.222	0.217	2.3	72	0.37
56 m	2,4-Dinitrotoluene	0.575	0.621	-8.0	79	0.35
57 p,m	4-Nitrophenol	0.485	0.471	2.9	67	0.36
58 t	Diethyl phthalate	1.771	1.634	7.7	73	0.36
59 t	Fluorene	1.532	1.306	14.8	68	0.37
60 t	4-Chlorophenyl phenyl ether	0.749	0.689	8.0	77	0.37
61 t	Atrazine	0.566	0.453	20.0	83	0.35
62 t	4-Nitroaniline	0.514	0.538	-4.7	76	0.35
63 I	Phenanthrene-d10	1.000	1.000	0.0	79	0.37
64 t	4,6-Dinitro-2-methylphenol	0.179	0.213	-19.0	81	0.36
65 c	Diphenylamine	0.696	0.576	17.2#	72	0.37
66 t	N-Nitrosodiphenylamine	0.260	0.202	22.3	73	0.37
67 t	Azobenzene	1.392	1.180	15.2	68	0.37
68 s	2,4,6-Tribromophenol	0.151	0.259	-71.5#	192	0.37
69 t	4-Bromophenyl phenyl ether	0.292	0.266	8.9	94	0.36
70 t	Hexachlorobenzene	0.131	0.105	19.8	73	0.37
71 c,m	Pentachlorophenol	0.198	0.208	-5.1#	99	0.37
72	Pentachloronitrobenzene	0.106	0.094	11.3	97	0.36
73 t	Phenanthrene	1.224	1.011	17.4	72	0.37
74 t	Anthracene	1.405	1.140	18.9	77	0.37
75	Carbazole	1.252	1.112	11.2	77	0.36
76 t	Di-n-butyl phthalate	1.797	1.522	15.3	75	0.36
77 c	Fluoranthene	1.392	1.136	18.4#	76	0.37
78 t	Benzidine	0.505	0.291	42.4	46	0.36

(#)= Out of Range

E101045.D TCBNA211.M

Mon Mar 14 07:47:42 2016

Page 2

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\E1031116\E101045.D
 Acq On : 11 Mar 2016 2:15 pm
 Sample : SEQ-CCV1
 Misc : QBSV1031116B Y16B033
 MS Integration Params: RTEINT.P

Vial: 9
 Operator: SR
 Inst : BNA #1
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
 Title : Semivolatiles by GC/MS - EPA Method 625/8270
 Last Update : Sun Mar 06 04:11:30 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.049 Min. Rel. Area : 25% Max. R.T. Dev 0.50min
 Max. RRF Dev : 50% Max. Rel. Area : 250%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

80 m	Pyrene	1.612	1.541	4.4	78	0.38
81 s	Terphenyl-d14	0.911	2.265	-148.6#	224	0.37
82 t	Benzyl butyl phthalate	0.975	0.922	5.4	72	0.35
83 t	Bis(2-ethylhexyl)phthalate	1.157	0.890	23.1	59	0.35
84 t	Benz(a)anthracene	1.495	1.156	22.7	70	0.38
85 t	3,3'-Dichlorobenzidine	0.442	0.415	6.1	76	0.35
86 t	Chrysene	1.413	1.392	1.5	87	0.35
87 c	Di-n-octylphthalate	2.187	2.130	2.6#	75	0.34
88 t	Benzo(b)fluoranthene	1.769	1.294	26.9	57	0.40
89 t	Benzo(k)fluoranthene	1.296	1.294	0.2	97	0.37
90 c	Benz(a)pyrene	1.459	1.043	28.5#	65	-0.07
91 i	Perylene-d12	1.000	1.000	0.0	123	0.41
92 t	Indeno(1,2,3-c,d)pyrene	1.677	1.355	19.2	98	0.50#
93 t	Dibenz(a,h)anthracene	1.349	1.108	17.9	98	0.52#
94 t	Benzo(g,h,i)perylene	1.361	1.150	15.5	104	0.57#

(#) = Out of Range

SPCC's out = 0 CCC's out = 14

E101045.D TCBNA211.M

Mon Mar 14 07:47:42 2016

Page 3

Data File : C:\HPCHEM\1\DATA\E1031116\E101045.D

Vial: 9

Acq On : 11 Mar 2016 2:15 pm

Operator: SR

Sample : SEQ-CCV1

Inst : BNA #1

Misc : QBSV1031116B Y16B033

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Results File: TCBNA211.RES

Quant Time: Mar 11 14:49 2016

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Sun Mar 06 04:11:30 2016

Response via : Initial Calibration

DataAcq Meth : TCBNA211

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.13	152	1482047	40.00	ug/mL	-0.01
21) Naphthalene-d8	9.77	136	4817551	40.00	ug/mL	0.38
39) Acenaphthene-d10	12.19	164	2684497	40.00	ug/mL	0.37
63) Phenanthrene-d10	14.27	188	5018596	40.00	ug/mL	0.37
79) Chrysene-d12	18.06	240	3852466	40.00	ug/mL	0.36
91) Perylene-d12	20.07	264	4556425	40.00	ug/mL	0.41

System Monitoring Compounds

4) 2-Fluorophenol	6.61	112	1825457	28.31	ug/mL	0.26
Spiked Amount	75.000	Range	14 - 77	Recovery	=	37.75%
5) Phenol-d5	7.77	99	2221014	26.97	ug/mL	0.32
Spiked Amount	75.000	Range	10 - 100	Recovery	=	35.96%
22) Nitrobenzene-d5	8.87	82	1999863	28.95	ug/mL	0.35
Spiked Amount	50.000	Range	31 - 97	Recovery	=	57.90%
45) 2-Fluorobiphenyl	11.23	172	2951714	25.55	ug/mL	0.37
Spiked Amount	50.000	Range	43 - 116	Recovery	=	51.10%
68) 2,4,6-Tribromophenol	13.31	330	730681	38.50	ug/mL	0.37
Spiked Amount	75.000	Range	10 - 123	Recovery	=	51.33%
81) Terphenyl-d14	16.54	244	3271904	37.27	ug/mL	0.37
Spiked Amount	50.000	Range	33 - 141	Recovery	=	74.54%

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.74	74	1535397	34.96	ug/mL	97
3) Pyridine	4.67	79	2190933	27.24	ug/mL	94
6) Benaldehyde	7.62	106	1157730	20.47	ug/mL	98
7) Aniline	7.80	93	2599878	30.01	ug/mL	95
8) Phenol	7.79	94	2228647	26.05	ug/mL	97
9) Bis(2-chloroethyl) ether	7.87	93	2134025	28.40	ug/mL	97
10) 2-Chlorophenol	7.92	128	1893489	29.28	ug/mL	98
11) 1,3-Dichlorobenzene	8.08	146	1927259	29.10	ug/mL	96
12) 1,4-Dichlorobenzene	8.08	146	1927259	29.23	ug/mL	95
13) Acetophenone	8.68	105	2221159	24.49	ug/mL	99
14) Benzyl Alcohol	8.34	108	1226424	29.14	ug/mL	91
15) 1,2-Dichlorobenzene	8.08	146	1927259	29.90	ug/mL	96
16) 2-Methylphenol	8.50	107	1497180	27.26	ug/mL	97
17) Bis(2-chloroisopropyl) ethe	8.51	45	3331705	28.68	ug/mL#	97
18) N-Nitrosodi-n-propylamine	8.71	70	1698175	32.05	ug/mL	90
19) 4-Methylphenol	8.68	107	1806048	25.67	ug/mL	90
20) Hexachloroethane	8.76	117	848192	26.88	ug/mL	94
23) Nitrobenzene	8.90	77	2105666	31.80	ug/mL	98
24) Isophorone	9.19	82	3894983	29.25	ug/mL	99
25) 2-Nitrophenol	9.31	139	1103798	33.92	ug/mL	99

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

E101045.D TCBNA211.M

Mon Mar 14 07:47:39 2016

Page 1

Data File : C:\HPCHEM\1\DATA\E1031116\E101045.D

Vial: 9

Acq On : 11 Mar 2016 2:15 pm

Operator: SR

Sample : SEQ-CCV1

Inst : BNA #1

Misc : QBSV1031116B Y16B033

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Results File: TCBNA211.RES

Quant Time: Mar 11 14:49 2016

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Sun Mar 06 04:11:30 2016

Response via : Initial Calibration

DataAcq Meth : TCBNA211

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dimethylphenol	9.34	122	1451385	28.34	ug/mL	97
27) Bis(2-chloroethoxy)methane	9.47	93	2233328	30.05	ug/mL	97
28) Benzoic Acid	9.59	105	182242	4.54	ug/mL	89
29) Alpha-Terpineol	9.77	59	1442646	30.33	ug/mL	81
30) 2,4-Dichlorophenol	9.60	162	1457939	29.71	ug/mL	97
31) 1,2,4-Trichlorobenzene	9.71	180	1518213	28.54	ug/mL	99
32) Naphthalene	9.80	128	4043999	29.13	ug/mL	98
33) 4-Chloroaniline	9.90	127	1912258	32.19	ug/mL	99
34) Hexachlorobutadiene	10.01	225	860206	29.28	ug/mL	99
35) Caprolactam	10.39	55	1281283	31.39	ug/mL	99
36) 4-Chloro-3-methylphenol	10.54	107	1694080	31.44	ug/mL	97
37) 1-Methylnaphthalene	10.86	141	2550665	27.95	ug/mL	99
38) 2-Methylnaphthalene	10.71	142	2723773	29.42	ug/mL	99
40) 1,2,4,5-tetrchlorobenzene	10.99	216	1396497	33.11	ug/mL	99
41) Biphenyl	11.36	154	3266273	25.59	ug/mL	97
42) Hexachlorocyclopentadiene	11.01	237	748662	27.75	ug/mL	99
43) 2,4,6-Trichlorophenol	11.14	196	1084767	30.70	ug/mL	97
44) 2,4,5-Trichlorophenol	11.19	196	1143133	30.11	ug/mL	98
46) 2-Chloronaphthalene	11.38	162	2626833	28.40	ug/mL	100
47) 2-Nitroaniline	11.58	138	1292427	31.58	ug/mL	97
48) Dimethylphthalate	11.85	163	3324560	28.53	ug/mL	99
49) 2,6-Dinitrotoluene	11.97	165	754720	26.98	ug/mL	98
50) Acenaphthylene	11.97	152	3858072	25.20	ug/mL	99
51) 3-Nitroaniline	12.16	138	948442	32.77	ug/mL#	97
52) Acenaphthene	12.23	154	2361708	26.56	ug/mL	100
53) 2,4-Dinitrophenol	12.31	184	626941	40.25	ug/mL	95
54) Dibenzofuran	12.45	168	3658045	27.37	ug/mL#	77
55) 2,3,4,6-Tetrachlorophenol	12.68	131	436855	29.35	ug/mL	93
56) 2,4-Dinitrotoluene	12.51	165	1250057	32.39	ug/mL	97
57) 4-Nitrophenol	12.40	65	948550	29.16	ug/mL#	34
58) Diethyl phthalate	12.84	149	3290104	27.69	ug/mL	98
59) Fluorene	12.94	166	2628996	25.56	ug/mL	98
60) 4-Chlorophenyl phenyl ethe	12.92	204	1386650	27.60	ug/mL	99
61) Atrazine	13.91	200	911534	24.00	ug/mL	96
62) 4-Nitroaniline	13.06	138	1083749	31.42	ug/mL	93
64) 4,6-Dinitro-2-methylphenol	13.10	198	801804	35.62	ug/mL#	97
65) Diphenylamine	13.12	169	2166877	24.81	ug/mL	97
66) N-Nitrosodiphenylamine	13.12	167	759487	23.31	ug/mL	94
67) Azobenzene	13.14	77	4441139	25.43	ug/mL#	78
69) 4-Bromophenyl phenyl ether	13.61	248	999772	27.29	ug/mL	96
70) Hexachlorobenzene	13.83	142	396990	24.19	ug/mL	95

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

E101045.D TCBNA211.M Mon Mar 14 07:47:39 2016

Page 2

Data File : C:\HPCHEM\1\DATA\E1031116\E101045.D

Vial: 9

Acq On : 11 Mar 2016 2:15 pm

Operator: SR

Sample : SEQ-CCV1

Inst : BNA #1

Misc : QBSV1031116B Y16B033

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Mar 11 14:49 2016

Quant Results File: TCBNA211.RES

Quant Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270

Last Update : Sun Mar 06 04:11:30 2016

Response via : Initial Calibration

DataAcq Meth : TCBNA211

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachlorophenol	14.09	266	784169	31.50	ug/mL	98
72) Pentachloronitrobenzene	14.22	237	352856	26.50	ug/mL	92
73) Phenanthrene	14.30	178	3806580	24.79	ug/mL	98
74) Anthracene	14.37	178	4292510	24.36	ug/mL	99
75) Carbazole	14.60	167	4184032	26.65	ug/mL#	100
76) Di-n-butyl phthalate	15.13	149	5730080	25.41	ug/mL	99
77) Fluoranthene	16.00	202	4277035	24.48	ug/mL	99
78) Benzidine	16.20	184	1097152	17.32	ug/mL	98
80) Pyrene	16.33	202	4453473	28.68	ug/mL	99
82) Benzyl butyl phthalate	17.26	149	2663034	28.36	ug/mL	95
83) Bis(2-ethylhexyl)phthalate	18.07	149	2570615	23.07	ug/mL#	95
84) Benz(a)anthracene	18.04	228	3339317	23.19	ug/mL	98
85) 3,3'-Dichlorobenzidine	18.03	252	2396606	56.33	ug/mL	98
86) Chrysene	18.10	228	4020963	29.55	ug/mL	99
87) Di-n-octylphthalate	18.88	149	6154777	29.23	ug/mL	99
88) Benzo(b)fluoranthene	19.54	252	3739991	21.95	ug/mL#	84
89) Benzo(k)fluoranthene	19.54	252	3739991	29.95	ug/mL#	50
90) Benz(a)pyrene	19.51	252	3013674	21.44	ug/mL	98
92) Indeno(1,2,3-c,d)pyrene	21.83	276	4629457	24.23	ug/mL	100
93) Dibenzo(a,h)anthracene	21.84	278	3785448	24.64	ug/mL	98
94) Benzo(g,h,i)perylene	22.35	276	3930637	25.35	ug/mL#	96

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

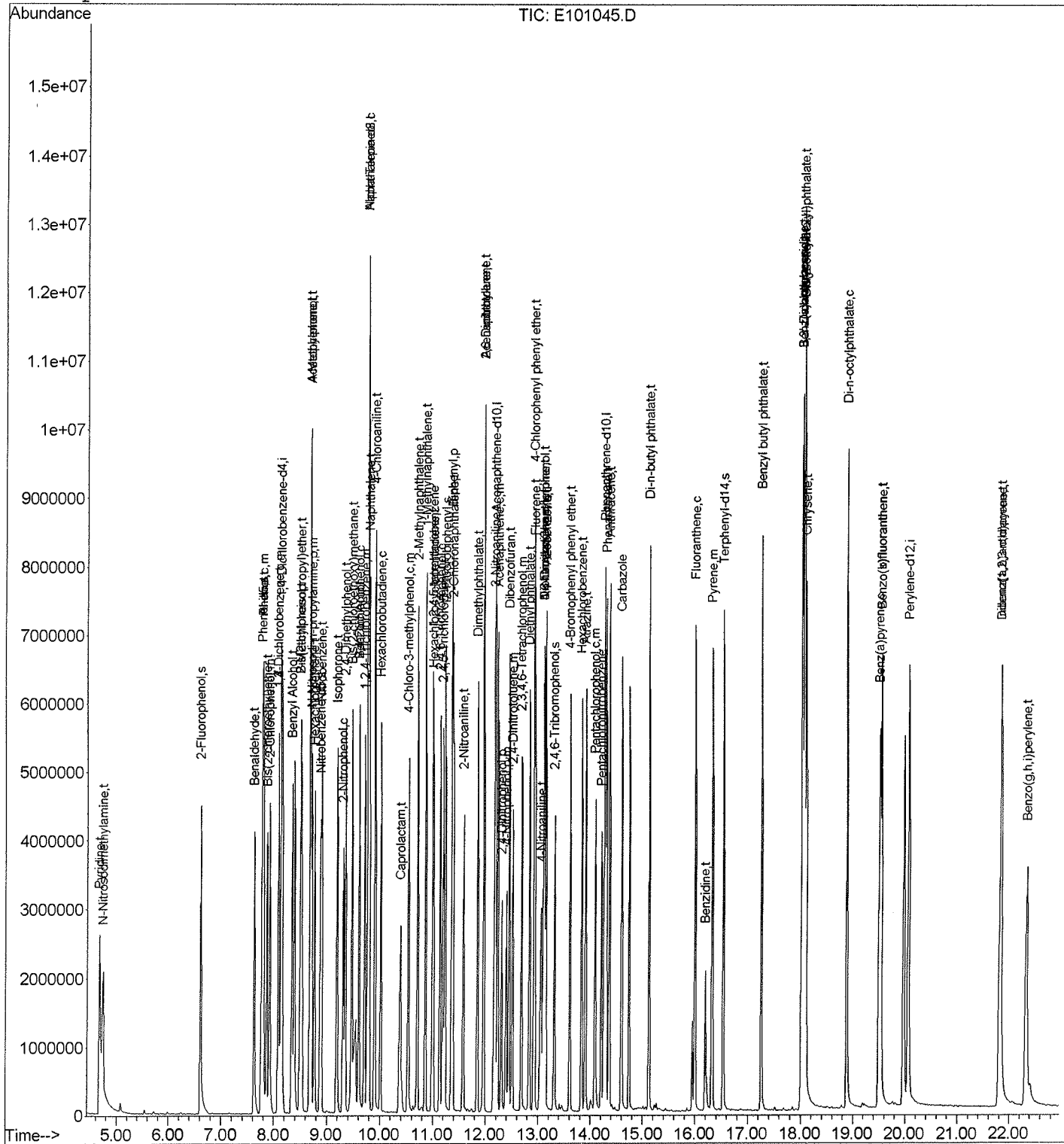
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E1031116\E101045.D
Acq On : 11 Mar 2016 2:15 pm
Sample : SEQ-CCV1
Misc : QBSV1031116B Y16B033
MS Integration Params: RTEINT.P
Quant Time: Mar 11 14:49 2016 Quan

Vial: 9
Operator: SR
Inst : BNA #1
Multiplr: 1.00

Quant Results File: TCBNA211.RES

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Method       : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
Title        : Semivolatiles by GC/MS - EPA Method 625/8270
Last Update   : Sun Mar 06 04:11:30 2016
Response via  : Initial Calibration
```



FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 8270D**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202

Sequence:

Instrument:

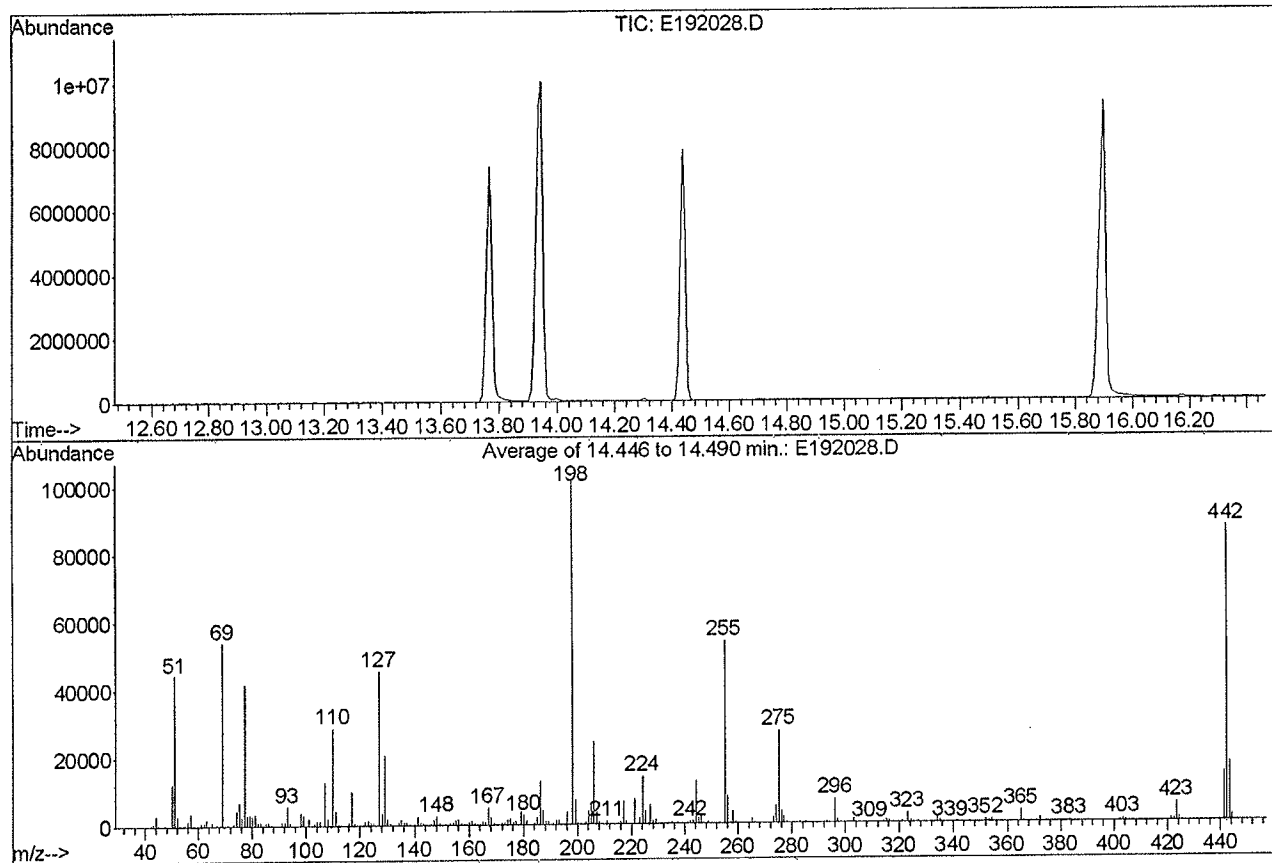
Calibration:

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
02/LSB-1	16C0235-02	E101050.D	03/11/16 17:14
01/LSB-1	16C0235-01	E101051.D	03/11/16 17:45
04/LSB-2	16C0235-04	E101052.D	03/11/16 18:16
03/LSB-2	16C0235-03	E101053.D	03/11/16 18:48

DFTPP

Data File : C:\HPCHEM\1\DATA\E1110515\E192028.D
Acq On : 5 Nov 2015 3:29 pm
Sample : TUNE CHECK
Misc : QBSV1110515A
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)
Title : Semivolatiles by GC/MS - EPA Method 625/8270

Vial: 13
Operator: KH
Inst : BNA #1
Multiplr: 1.00



Spectrum Information: Average of 14.446 to 14.490 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	43.4	44269	PASS
68	69	0.00	2	0.4	201	PASS
70	69	0.00	2	0.4	201	PASS
127	198	10	80	44.5	45401	PASS
197	198	0.00	2	0.2	154	PASS
198	198	100	100	100.0	102079	PASS
199	198	5	9	7.3	7445	PASS
275	198	10	60	26.8	27348	PASS
365	198	1	100	3.4	3503	PASS
441	442	0.01	24	16.7	14611	PASS
442	198	50	100	85.6	87430	PASS
443	442	15	24	20.2	17647	PASS

DFTPP

Data File : C:\HPCHEM\1\DATA\E1031116\E101044.D

Vial: 8

Acq On : 11 Mar 2016 1:44 pm

Operator: SR

Sample : SEQ-TUN1

Inst : BNA #1

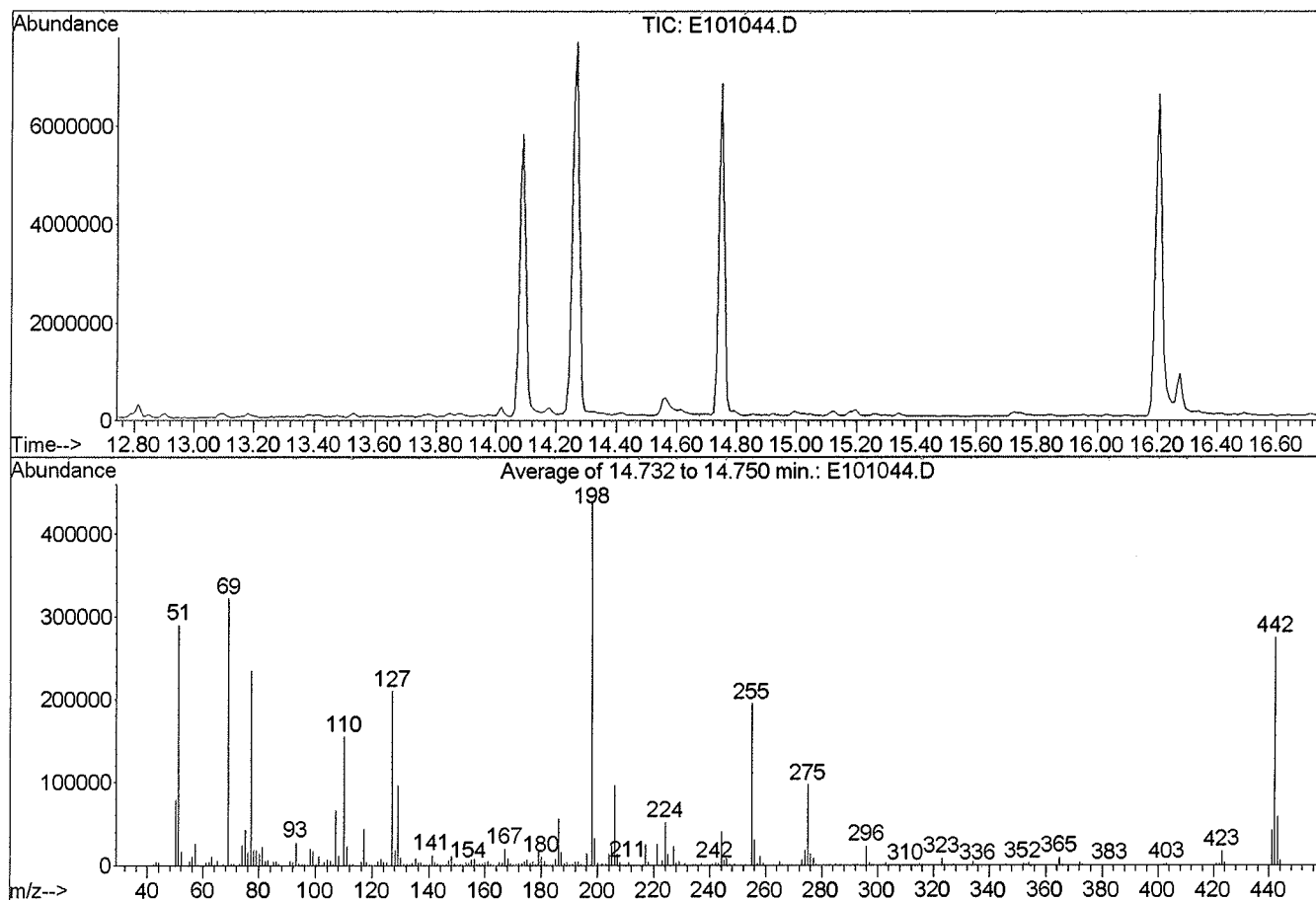
Misc : QBSV1031116A

Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\TCBNA211.M (RTE Integrator)

Title : Semivolatiles by GC/MS - EPA Method 625/8270



Spectrum Information: Average of 14.732 to 14.750 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	66.1	290448	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.8	2635	PASS
127	198	10	80	47.8	210027	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	439608	PASS
199	198	5	9	7.5	33099	PASS
275	198	10	60	22.0	96711	PASS
365	198	1	100	2.2	9465	PASS
441	442	0.01	24	15.3	42203	PASS
442	198	50	100	62.6	275310	PASS
443	442	15	24	21.2	58440	PASS

PREPARATION BENCH SHEET

BC60616

York Analytical Laboratories, Inc.

Printed: 3/25/2016 2:29:12PM

Matrix: Soil

Surrogate used: Y16B022

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0235-01	Semi-Volatiles, CP-51 (form	03/11/2016 06:5	TB	30	1				100	EPA 3550C	Added for BatchQC in: BC60616
16C0235-01	Semi-Volatiles, NJDEP/TCL	03/11/2016 06:5	TB	30	1				100	EPA 3550C	Added for BatchQC in: BC60616
16C0235-01	Semi-Volatiles, NYSDEC P ₄	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0235-01	Semi-Volatiles, PAH Target	03/11/2016 06:5	TB	30	1				100	EPA 3550C	Added for BatchQC in: BC60616
16C0235-01	Semi-Volatiles, 8270 - Comq	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0235-02	Semi-Volatiles, 8270 - Comq	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0235-02	Semi-Volatiles, NYSDEC P ₄	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0235-03	Semi-Volatiles, 8270 - Comq	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0235-03	Semi-Volatiles, NYSDEC P ₄	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0235-04	Semi-Volatiles, 8270 - Comq	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0235-04	Semi-Volatiles, NYSDEC P ₄	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0237-01	Semi-Volatiles, CP-51 (form	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0240-02	Semi-Volatiles, CP-51 (form	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0247-01	Semi-Volatiles, PAH Target	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0268-28	Semi-Volatiles, NJDEP/TCL	03/11/2016 06:5	TB	30	1				100	EPA 3550C	Exclude TCLP VOC's
16C0268-29	Semi-Volatiles, NJDEP/TCL	03/11/2016 06:5	TB	30	1				100	EPA 3550C	Exclude TCLP VOC's
16C0268-32	Semi-Volatiles, NJDEP/TCL	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0268-35	Semi-Volatiles, NJDEP/TCL	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0268-37	Semi-Volatiles, NJDEP/TCL	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0268-40	Semi-Volatiles, NJDEP/TCL	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0268-42	Semi-Volatiles, NJDEP/TCL	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0268-43	Semi-Volatiles, NJDEP/TCL	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0268-44	Semi-Volatiles, NJDEP/TCL	03/11/2016 06:5	TB	30	1				100	EPA 3550C	

PREPARATION BENCH SHEET

BC60616

York Analytical Laboratories, Inc.

Printed: 3/25/2016 2:29:12PM

Surrogate used: Y16B022

Matrix: Soil

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0268-48	Semi-Volatiles, NJDEP/TCL	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0268-51	Semi-Volatiles, NJDEP/TCL	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
16C0268-52	Semi-Volatiles, NJDEP/TCL	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
BC60616-BLK1	QC	03/11/2016 06:5	TB	30	1				100	EPA 3550C	
BC60616-BS1	QC	03/11/2016 06:5	TB	30	1	Y16B018		500	100	EPA 3550C	
BC60616-BSDI	QC	03/11/2016 06:5	TB	30	1	Y16B018		500	100	EPA 3550C	
BC60616-MS1	QC	03/11/2016 06:5	TB	30	1	Y16B018	16C0235-01	500	100	EPA 3550C	

Batch Comments:

Injection Log

Directory: C:\HPCHEM\1\DATA\E1031116

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	E101037.D	1.	SEQ-TUN1	QBSV1031116A	11 Mar 2016 08:0
2	2	E101038.D	1.	SEQ-CCV1	QBSV1031116A Y16B033	11 Mar 2016 08:3
3	3	E101039.D	2.	16C0213-13	QBSV1031116A 2X NJDEP/TCL/375	11 Mar 2016 09:4
4	4	E101040.D	2.	16C0213-12	QBSV1031116A 2X NJDEP/TCL/375	11 Mar 2016 10:1
5	5	E101041.D	1.	16C0326-01	QBSV1031116A 1X 8270 B/N SIM	11 Mar 2016 10:4
6	6	E101042.D	1.	16C0294-01	QBSV1031116A 1X CT RCP PAH SIM	11 Mar 2016 11:1
7	7	E101043.D	1.	16C0382-04	QBSV1031116A 1X 8270 COMP SIM	11 Mar 2016 11:4
8	8	E101044.D	1.	SEQ-TUN1	QBSV1031116A	11 Mar 2016 13:4
9	9	E101045.D	1.	SEQ-CCV1	QBSV1031116B Y16B033	11 Mar 2016 14:1
10	10	E101046.D	1.	BC60616-BLK1	QBSV1031116B	11 Mar 2016 15:0
11	11	E101047.D	1.	BC60616-BS1	QBSV1031116B	11 Mar 2016 15:3
12	12	E101048.D	1.	BC60616-BSD1	QBSV1031116B	11 Mar 2016 16:1
13	13	E101049.D	2.	16C0237-01	QBSV1031116B 2X CP51	11 Mar 2016 16:4
14	14	E101050.D	2.	16C0235-02	QBSV1031116B 2X NYSDEC 375 ASPB	11 Mar 2016 17:1
15	15	E101051.D	2.	16C0235-01	QBSV1031116B 2X NYSDEC 375 ASPB	11 Mar 2016 17:4
16	16	E101052.D	2.	16C0235-04	QBSV1031116B 2X NYSDEC 375 ASPB	11 Mar 2016 18:1
17	17	E101053.D	2.	16C0235-03	QBSV1031116B 2X NYSDEC 375 ASPB	11 Mar 2016 18:4
18	18	E101054.D	2.	BC60616-MS1	QBSV1031116B 2X 16C0235-01	11 Mar 2016 19:1

York Analytical Laboratories, Inc.

SDG: 16C0235

CLASS: PEST

METHOD: EPA 8081B

DATA PACKAGE COVER PAGE

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-1

02/LSB-1

03/LSB-2

04/LSB-2

Lab Sample Id:

16C0235-01

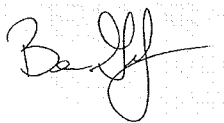
16C0235-02

16C0235-03

16C0235-04

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:

3/25/2016

Title:

Laboratory Director

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: 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
01/LSB-1 (16C0235-01) Lab File ID: P5014203.D Analyzed: 03/11/16 17:25								
Tetrachloro-m-xylene	0.0754	88.9	30 - 140	2.54				
Decachlorobiphenyl	0.0777	82.0	30 - 140	6.44				
02/LSB-1 (16C0235-02) Lab File ID: P5014204.D Analyzed: 03/11/16 17:40								
Tetrachloro-m-xylene	0.0759	87.0	30 - 140	2.54				
Decachlorobiphenyl	0.0782	67.8	30 - 140	6.45				
03/LSB-2 (16C0235-03) Lab File ID: P5014205.D Analyzed: 03/11/16 17:55								
Tetrachloro-m-xylene	0.0789	83.0	30 - 140	2.54				
Decachlorobiphenyl	0.0813	68.1	30 - 140	6.44				
04/LSB-2 (16C0235-04) Lab File ID: P5014206.D Analyzed: 03/11/16 18:11								
Tetrachloro-m-xylene	0.0956	83.6	30 - 140	2.54				
Decachlorobiphenyl	0.0985	76.5	30 - 140	6.44				

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Sequence: Y6C1427Instrument: 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 (BC60572-BLK1)		Lab File ID: P5014172.D			Analyzed: 03/11/16 10:44			
Tetrachloro-m-xylene	0.0670	89.1	30 - 140	2.54				
Decachlorobiphenyl	0.0690	67.4	30 - 140	6.44				
LCS (BC60572-BS1)		Lab File ID: P5014173.D			Analyzed: 03/11/16 10:59			
Tetrachloro-m-xylene	0.0670	98.7	30 - 140	2.54				
Decachlorobiphenyl	0.0690	76.7	30 - 140	6.44				
LCS Dup (BC60572-BSD1)		Lab File ID: P5014174.D			Analyzed: 03/11/16 11:14			
Tetrachloro-m-xylene	0.0670	84.1	30 - 140	2.54				
Decachlorobiphenyl	0.0690	76.7	30 - 140	6.44				

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Batch: BC60572

Laboratory ID: BC60572-BS1

Preparation: EPA 3550C

Initial/Final: 30 g / 10 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
4,4'-DDD	0.0333	0.0356	107	40 - 140
4,4'-DDE	0.0333	0.0353	106	40 - 140
4,4'-DDT	0.0333	0.0344	103	40 - 140
Aldrin	0.0333	0.0347	104	40 - 140
alpha-BHC	0.0333	0.0363	109	40 - 140
alpha-Chlordane	0.0333	0.0351	105	40 - 140
beta-BHC	0.0333	0.0358	107	40 - 140
delta-BHC	0.0333	0.0348	104	40 - 140
Dieldrin	0.0333	0.0369	111	40 - 140
Endosulfan I	0.0333	0.0374	112	40 - 140
Endosulfan II	0.0333	0.0380	114	40 - 140
Endosulfan sulfate	0.0333	0.0352	106	40 - 140
Endrin	0.0333	0.0361	108	40 - 140
Endrin aldehyde	0.0333	0.0308	92.3	40 - 140
Endrin ketone	0.0333	0.0389	117	40 - 140
gamma-BHC (Lindane)	0.0333	0.0368	110	40 - 140
gamma-Chlordane	0.0333	0.0357	107	40 - 140
Heptachlor	0.0333	0.0341	102	40 - 140
Heptachlor epoxide	0.0333	0.0354	106	40 - 140
Methoxychlor	0.0333	0.0337	101	40 - 140

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: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60572Laboratory ID: BC60572-BSD1Preparation: EPA 3550CInitial/Final: 30 g / 10 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCSD CONCENTRATION (mg/kg wet)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
4,4'-DDD	0.0333	0.0324	97.2	9.56	30	40 - 140
4,4'-DDE	0.0333	0.0301	90.4	15.8	30	40 - 140
4,4'-DDT	0.0333	0.0259	77.6	28.3	30	40 - 140
Aldrin	0.0333	0.0277	83.2	22.2	30	40 - 140
alpha-BHC	0.0333	0.0280	84.1	25.5	30	40 - 140
alpha-Chlordane	0.0333	0.0295	88.4	17.4	30	40 - 140
beta-BHC	0.0333	0.0286	85.9	22.2	30	40 - 140
delta-BHC	0.0333	0.0274	82.3	23.5	30	40 - 140
Dieldrin	0.0333	0.0280	84.1	27.3	30	40 - 140
Endosulfan I	0.0333	0.0293	87.9	24.4	30	40 - 140
Endosulfan II	0.0333	0.0291	87.3	26.6	30	40 - 140
Endosulfan sulfate	0.0333	0.0275	82.6	24.6	30	40 - 140
Endrin	0.0333	0.0290	86.9	22.0	30	40 - 140
Endrin aldehyde	0.0333	0.0264	79.1	15.4	30	40 - 140
Endrin ketone	0.0333	0.0303	90.9	24.8	30	40 - 140
gamma-BHC (Lindane)	0.0333	0.0278	83.5	27.8	30	40 - 140
gamma-Chlordane	0.0333	0.0280	84.1	24.1	30	40 - 140
Heptachlor	0.0333	0.0272	81.7	22.4	30	40 - 140
Heptachlor epoxide	0.0333	0.0268	80.5	27.4	30	40 - 140
Methoxychlor	0.0333	0.0334	100	0.681	30	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: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60572-BLK1 File ID: P5014172.D
 Prepared: 03/10/16 13:40 Preparation: EPA 3550C Initial/Final: 30 g / 10 mL
 Analyzed: 03/11/16 10:44 Instrument: GC Dual E
 Batch: BC60572 Sequence: Y6C1427 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
72-54-8	4,4'-DDD	0.000330	U
72-55-9	4,4'-DDE	0.000330	U
50-29-3	4,4'-DDT	0.000330	U
309-00-2	Aldrin	0.000330	U
319-84-6	alpha-BHC	0.000330	U
5103-71-9	alpha-Chlordane	0.000330	U
319-85-7	beta-BHC	0.000330	U
57-74-9	Chlordane, total	0.0132	U
319-86-8	delta-BHC	0.000330	U
60-57-1	Dieldrin	0.000330	U
959-98-8	Endosulfan I	0.000330	U
33213-65-9	Endosulfan II	0.000330	U
1031-07-8	Endosulfan sulfate	0.000330	U
72-20-8	Endrin	0.000330	U
7421-93-4	Endrin aldehyde	0.000330	U
53494-70-5	Endrin ketone	0.000330	U
58-89-9	gamma-BHC (Lindane)	0.000330	U
5566-34-7	gamma-Chlordane	0.000330	U
76-44-8	Heptachlor	0.000330	U
1024-57-3	Heptachlor epoxide	0.000330	U
72-43-5	Methoxychlor	0.00165	U
8001-35-2	Toxaphene	0.0167	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg wet)	CONC (mg/kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.0670	0.0597	89.1	30 - 140	
Decachlorobiphenyl	0.0690	0.0465	67.4	30 - 140	

FORM IV**PREPARATION BATCH SUMMARY****EPA 8081B**

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60572 Batch Matrix: Soil Preparation: EPA 3550C

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-1	16C0235-01	P5014203.D	03/10/16 13:40	
02/LSB-1	16C0235-02	P5014204.D	03/10/16 13:40	
03/LSB-2	16C0235-03	P5014205.D	03/10/16 13:40	
04/LSB-2	16C0235-04	P5014206.D	03/10/16 13:40	
Blank	BC60572-BLK1	P5014172.D	03/10/16 13:40	
LCS	BC60572-BS1	P5014173.D	03/10/16 13:40	
LCS Dup	BC60572-BSD1	P5014174.D	03/10/16 13:40	

METHOD DETECTION AND REPORTING LIMITS

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument:

Analyte	LOD	LOQ	Units
4,4'-DDD	0.000330	0.000330	mg/kg
4,4'-DDE	0.000330	0.000330	mg/kg
4,4'-DDT	0.000330	0.000330	mg/kg
Aldrin	0.000330	0.000330	mg/kg
alpha-BHC	0.000330	0.000330	mg/kg
alpha-Chlordane	0.000330	0.000330	mg/kg
beta-BHC	0.000330	0.000330	mg/kg
Chlordane, total	0.0132	0.0132	mg/kg
delta-BHC	0.000330	0.000330	mg/kg
Dieldrin	0.000330	0.000330	mg/kg
Endosulfan I	0.000330	0.000330	mg/kg
Endosulfan II	0.000330	0.000330	mg/kg
Endosulfan sulfate	0.000330	0.000330	mg/kg
Endrin	0.000330	0.000330	mg/kg
Endrin aldehyde	0.000330	0.000330	mg/kg
Endrin ketone	0.000330	0.000330	mg/kg
gamma-BHC (Lindane)	0.000330	0.000330	mg/kg
gamma-Chlordane	0.000330	0.000330	mg/kg
Heptachlor	0.000330	0.000330	mg/kg
Heptachlor epoxide	0.000330	0.000330	mg/kg
Methoxychlor	0.00165	0.00165	mg/kg
Toxaphene	0.0167	0.0167	mg/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

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
	100	100	ug/kg
4,4'-DDE	0.000330	0.000330	mg/kg
	100	100	ug/kg
4,4'-DDT	0.000330	0.000330	mg/kg
	100	100	ug/kg
Aldrin	100	100	ug/kg
	0.000330	0.000330	mg/kg
alpha-BHC	100	100	ug/kg
	0.000330	0.000330	mg/kg
alpha-Chlordane	100	100	ug/kg
	0.000330	0.000330	mg/kg
beta-BHC	0.000330	0.000330	mg/kg
	100	100	ug/kg
Chlordane, total	0.0132	0.0132	mg/kg
delta-BHC	0.000330	0.000330	mg/kg
	100	100	ug/kg
Dieldrin	100	100	ug/kg
	0.000330	0.000330	mg/kg
Endosulfan I	100	100	ug/kg
	0.000330	0.000330	mg/kg
Endosulfan II	0.000330	0.000330	mg/kg
	100	100	ug/kg
Endosulfan sulfate	100	100	ug/kg
	0.000330	0.000330	mg/kg
Endrin	0.000330	0.000330	mg/kg
	100	100	ug/kg
Endrin aldehyde	0.000330	0.000330	mg/kg
	100	100	ug/kg
Endrin ketone	100	100	ug/kg
	0.000330	0.000330	mg/kg
gamma-BHC (Lindane)	0.000330	0.000330	mg/kg
	100	100	ug/kg
gamma-Chlordane	100	100	ug/kg
	0.000330	0.000330	mg/kg
Heptachlor	100	100	ug/kg
	0.000330	0.000330	mg/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Oil

Instrument: GC Dual E

Analyte	LOD	LOQ	Units
Heptachlor epoxide	100	100	ug/kg
	0.000330	0.000330	mg/kg
Methoxychlor	0.00165	0.00165	mg/kg
	500	500	ug/kg
Toxaphene	0.0167	0.0167	mg/kg

HOLDING TIME SUMMARY

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

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-1	03/04/16 11:45	03/07/16 17:45	03/10/16 13:40	6.08	14.00	03/11/16 17:25	1.16	40.00	
02/LSB-1	03/04/16 12:20	03/07/16 17:45	03/10/16 13:40	6.06	14.00	03/11/16 17:40	1.17	40.00	
03/LSB-2	03/04/16 13:15	03/07/16 17:45	03/10/16 13:40	6.02	14.00	03/11/16 17:55	1.18	40.00	
04/LSB-2	03/04/16 13:30	03/07/16 17:45	03/10/16 13:40	6.01	14.00	03/11/16 18:11	1.19	40.00	

FORM I

ORGANIC ANALYSIS DATA SHEET

01/LSB-1

EPA 8081B

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-01 File ID: P5014203.D
 Sampled: 03/04/16 11:45 Prepared: 03/10/16 13:40 Analyzed: 03/11/16 17:25
 Solids: 88.84 Preparation: EPA 3550C Initial/Final: 30 g / 10 mL
 Batch: BC60572 Sequence: Calibration: Instrument: GC DUAL E

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
72-54-8	4,4'-DDD	5	0.00186	U
72-55-9	4,4'-DDE	5	0.0110	D
50-29-3	4,4'-DDT	5	0.0350	D
309-00-2	Aldrin	5	0.00186	U
319-84-6	alpha-BHC	5	0.00186	U
5103-71-9	alpha-Chlordane	5	0.00842	D
319-85-7	beta-BHC	5	0.00186	U
57-74-9	Chlordane, total	5	0.0743	U
319-86-8	delta-BHC	5	0.00186	U
60-57-1	Dieldrin	5	0.00186	U
959-98-8	Endosulfan I	5	0.00186	U
33213-65-9	Endosulfan II	5	0.00186	U
1031-07-8	Endosulfan sulfate	5	0.00186	U
72-20-8	Endrin	5	0.00186	U
7421-93-4	Endrin aldehyde	5	0.00186	U
53494-70-5	Endrin ketone	5	0.00186	U
58-89-9	gamma-BHC (Lindane)	5	0.00186	U
5566-34-7	gamma-Chlordane	5	0.00867	D
76-44-8	Heptachlor	5	0.00186	U
1024-57-3	Heptachlor epoxide	5	0.00186	U
72-43-5	Methoxyehlor	5	0.00929	U
8001-35-2	Toxaphene	5	0.0940	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.0754	0.0671	88.9	30 - 140	
Decachlorobiphenyl	0.0777	0.0637	82.0	30 - 140	

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031116\P5014203.D\ECD1A.CH Vial: 35
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014203.D\ECD2B.CH
 Acq On : 11 Mar 2016 5:25 pm Operator: AMC
 Sample : 16C0235-01 Inst : GC DUAL E
 Misc : QBPEST5-031116A Multiplr: 5.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 12:12 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	439718	365431	35.750	35.235
Spiked Amount	200.000	Range	30 - 150	Recovery	=	17.88%# 17.62%#
24) SA Decachlorobiphen	6.44	7.12	367509	287937	33.963m	29.340m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	16.98%# 14.67%#
Target Compounds						
2) M alpha-BHC	0.00	0.00	0	0	N.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.	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. d
10) M gamma-Chlordane	4.29	4.81	53222	47241	4.619m	4.320m
11) M alpha-Chlordane	4.39	4.92	50086	47418	4.488m	4.900m
12) M Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
13) M 4,4'-DDE	4.45	5.03	45666	58428	5.869m	5.676m
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	0.00	0.00	0	0	N.D. d	N.D.
17) M Endosulfan II	0.00	0.00	0	0	N.D.	N.D. d
18) M 4,4'-DDT	5.09	5.66	141472	118049	18.683m	18.778m
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.	N.D. d
23) M Endrin Ketone	0.00	0.00	0	0	N.D.	N.D. d

 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report

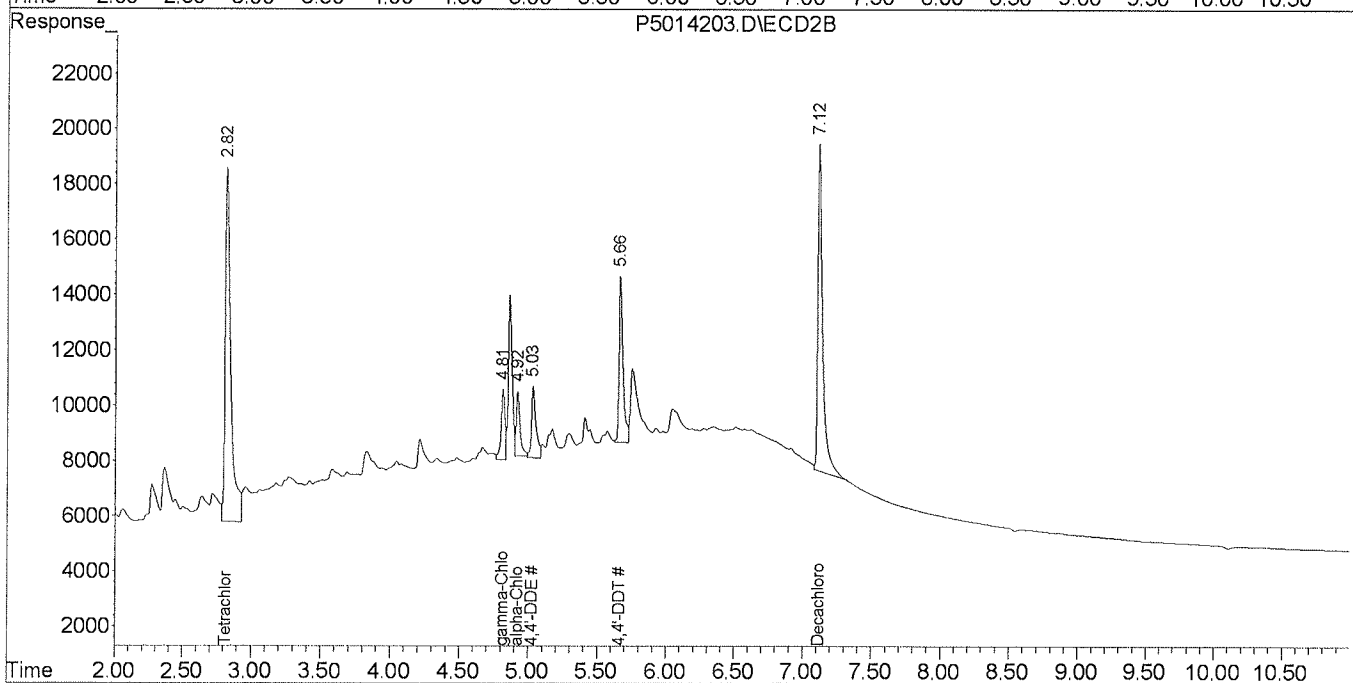
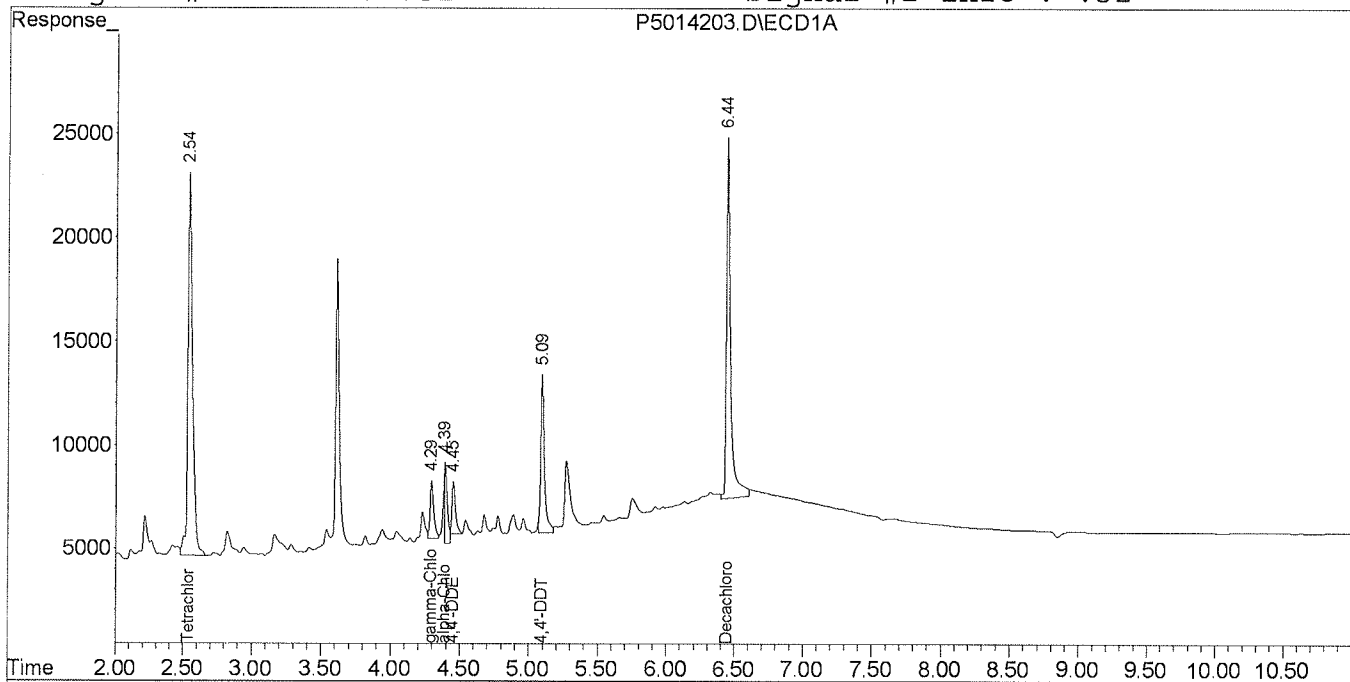
Signal #1 : C:\HPCHEM\1\DATA\031116\P5014203.D\ECD1A.CH Vial: 35
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014203.D\ECD2B.CH
 Acq On : 11 Mar 2016 5:25 pm Operator: AMC
 Sample : 16C0235-01 Inst : GC DUAL E
 Misc : QBPEST5-031116A Multiplr: 5.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 12:12 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



FORM I

ORGANIC ANALYSIS DATA SHEET

02/LSB-1

EPA 8081B

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-02 File ID: P5014204.D
 Sampled: 03/04/16 12:20 Prepared: 03/10/16 13:40 Analyzed: 03/11/16 17:40
 Solids: 88.27 Preparation: EPA 3550C Initial/Final: 30 g / 10 mL
 Batch: BC60572 Sequence: Calibration: Instrument: GC DUAL E

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
72-54-8	4,4'-DDD	5	0.00187	U
72-55-9	4,4'-DDE	5	0.00187	U
50-29-3	4,4'-DDT	5	0.00187	U
309-00-2	Aldrin	5	0.00187	U
319-84-6	alpha-BHC	5	0.00187	U
5103-71-9	alpha-Chlordane	5	0.00187	U
319-85-7	beta-BHC	5	0.00187	U
57-74-9	Chlordane, total	5	0.0748	U
319-86-8	delta-BHC	5	0.00187	U
60-57-1	Dieldrin	5	0.00187	U
959-98-8	Endosulfan I	5	0.00187	U
33213-65-9	Endosulfan II	5	0.00187	U
1031-07-8	Endosulfan sulfate	5	0.00187	U
72-20-8	Endrin	5	0.00187	U
7421-93-4	Endrin aldehyde	5	0.00187	U
53494-70-5	Endrin ketone	5	0.00187	U
58-89-9	gamma-BHC (Lindane)	5	0.00187	U
5566-34-7	gamma-Chlordane	5	0.00187	U
76-44-8	Heptachlor	5	0.00187	U
1024-57-3	Heptachlor epoxide	5	0.00187	U
72-43-5	Methoxychlor	5	0.00935	U
8001-35-2	Toxaphene	5	0.0946	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.0759	0.0660	87.0	30 - 140	
Decachlorobiphenyl	0.0782	0.0530	67.8	30 - 140	

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031116\P5014204.D\ECD1A.CH Vial: 36
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014204.D\ECD2B.CH
 Acq On : 11 Mar 2016 5:40 pm Operator: AMC
 Sample : 16C0235-02 Inst : GC DUAL E
 Misc : QBPEST5-031116A Multiplr: 5.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 12:13 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	430123	340121	34.970	32.795
Spiked Amount	200.000	Range	30 - 150	Recovery	=	17.48%# 16.40%#
24) SA Decachlorobiphen	6.45	7.12	303736	243659	28.069m	24.828m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	14.03%# 12.41%#
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. 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.	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. 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.
19) M Endrin Aldehyde	0.00	0.00	0	0	N.D. d	N.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.	N.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.

 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

P5014204.D P5020116.M Wed Mar 23 10:21:08 2016

Page 1

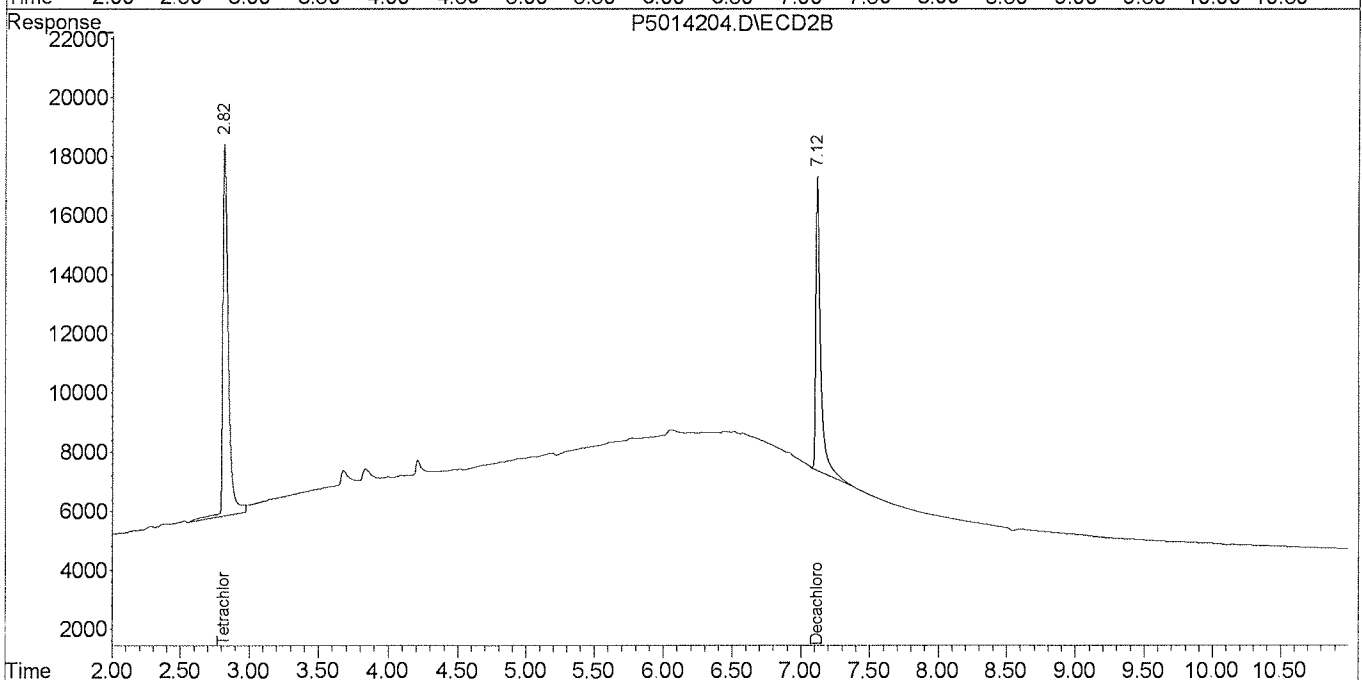
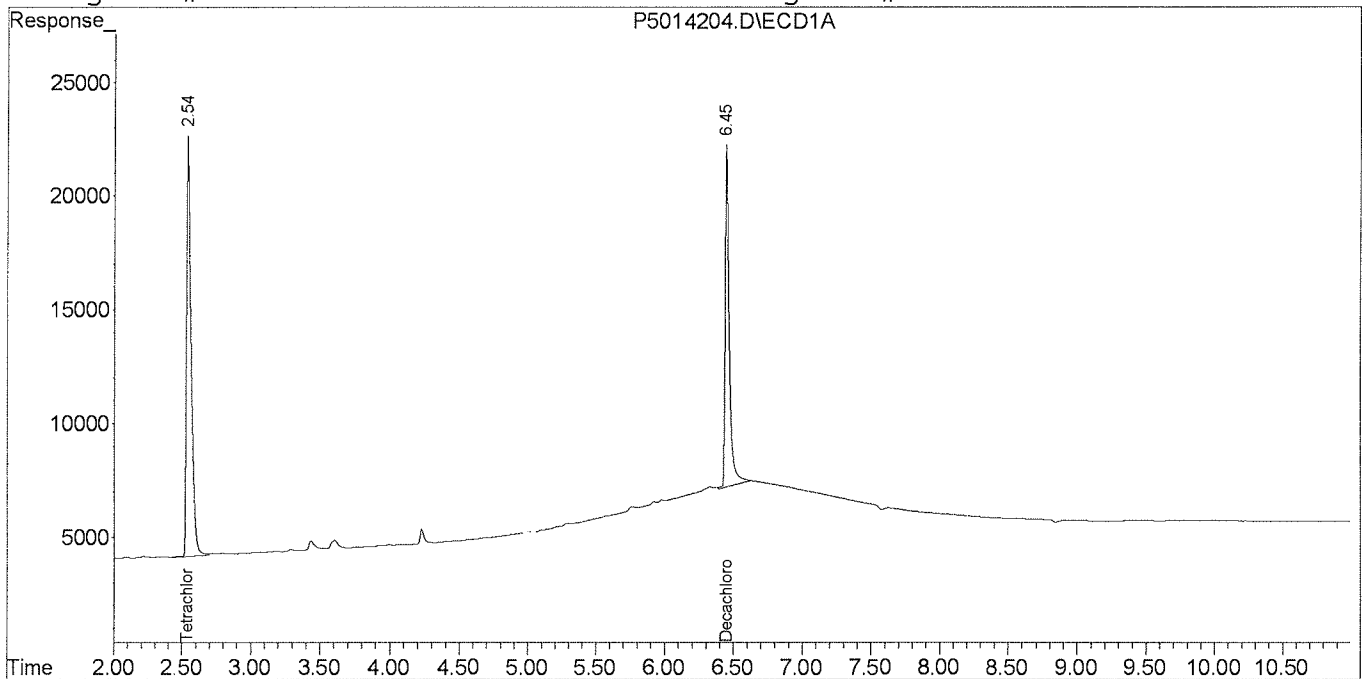
440 of 746

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P5014204.D\ECD1A.CH Vial: 36
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014204.D\ECD2B.CH
 Acq On : 11 Mar 2016 5:40 pm Operator: AMC
 Sample : 16C0235-02 Inst : GC DUAL E
 Misc : QBPEST5-031116A Multiplr: 5.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 12:13 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



FORM I

ORGANIC ANALYSIS DATA SHEET

03/LSB-2

EPA 8081B

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-03 File ID: P5014205.D
 Sampled: 03/04/16 13:15 Prepared: 03/10/16 13:40 Analyzed: 03/11/16 17:55
 Solids: 84.92 Preparation: EPA 3550C Initial/Final: 30 g / 10 mL
 Batch: BC60572 Sequence: Calibration: Instrument: GC DUAL E

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
72-54-8	4,4'-DDD	5	0.00194	U
72-55-9	4,4'-DDE	5	0.0259	D
50-29-3	4,4'-DDT	5	0.0841	D
309-00-2	Aldrin	5	0.00194	U
319-84-6	alpha-BHC	5	0.00194	U
5103-71-9	alpha-Chlordane	5	0.0140	D
319-85-7	beta-BHC	5	0.00194	U
57-74-9	Chlordane, total	5	0.132	D
319-86-8	delta-BHC	5	0.00194	U
60-57-1	Dieldrin	5	0.0245	D
959-98-8	Endosulfan I	5	0.00194	U
33213-65-9	Endosulfan II	5	0.00194	U
1031-07-8	Endosulfan sulfate	5	0.00194	U
72-20-8	Endrin	5	0.00194	U
7421-93-4	Endrin aldehyde	5	0.00194	U
53494-70-5	Endrin ketone	5	0.00194	U
58-89-9	gamma-BHC (Lindane)	5	0.00194	U
5566-34-7	gamma-Chlordane	5	0.0141	D
76-44-8	Heptachlor	5	0.00194	U
1024-57-3	Heptachlor epoxide	5	0.00194	U
72-43-5	Methoxychlor	5	0.00972	U
8001-35-2	Toxaphene	5	0.0983	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.0789	0.0655	83.0	30 - 140	
Decachlorobiphenyl	0.0813	0.0554	68.1	30 - 140	

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031116\P5014205.D\ECD1A.CH Vial: 37
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014205.D\ECD2B.CH
 Acq On : 11 Mar 2016 5:55 pm Operator: AMC
 Sample : 16C0235-03 Inst : GC DUAL E
 Misc : QBPEST5-031116A Multiplr: 5.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 12:15 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 : 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	410518	340962	33.376	32.876m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	16.69%# 16.44%#
24) SA Decachlorobiphen	6.44	7.11	305200	293384	28.205m	29.895m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	14.10%# 14.95%#
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. 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. 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	82564	76882	7.166m	7.031m
11) M alpha-Chlordane	4.39	4.92	79696	72637	7.141m	7.506m
12) M Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
13) M 4,4'-DDE	4.45	5.03	102768	133750	13.207m	12.993m
14) M Dieldrin	4.67	5.17	141108	136193	12.489m	12.386m
15) M Endrin	0.00	0.00	0	0	N.D.	N.D. d
16) M 4,4'-DDD	0.00	0.00	0	0	N.D. d	N.D.
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	324536	272079	42.859	43.279m
19) M Endrin Aldehyde	0.00	0.00	0	0	N.D. d	N.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.	N.D. d
23) M Endrin Ketone	0.00	0.00	0	0	N.D.	N.D. d

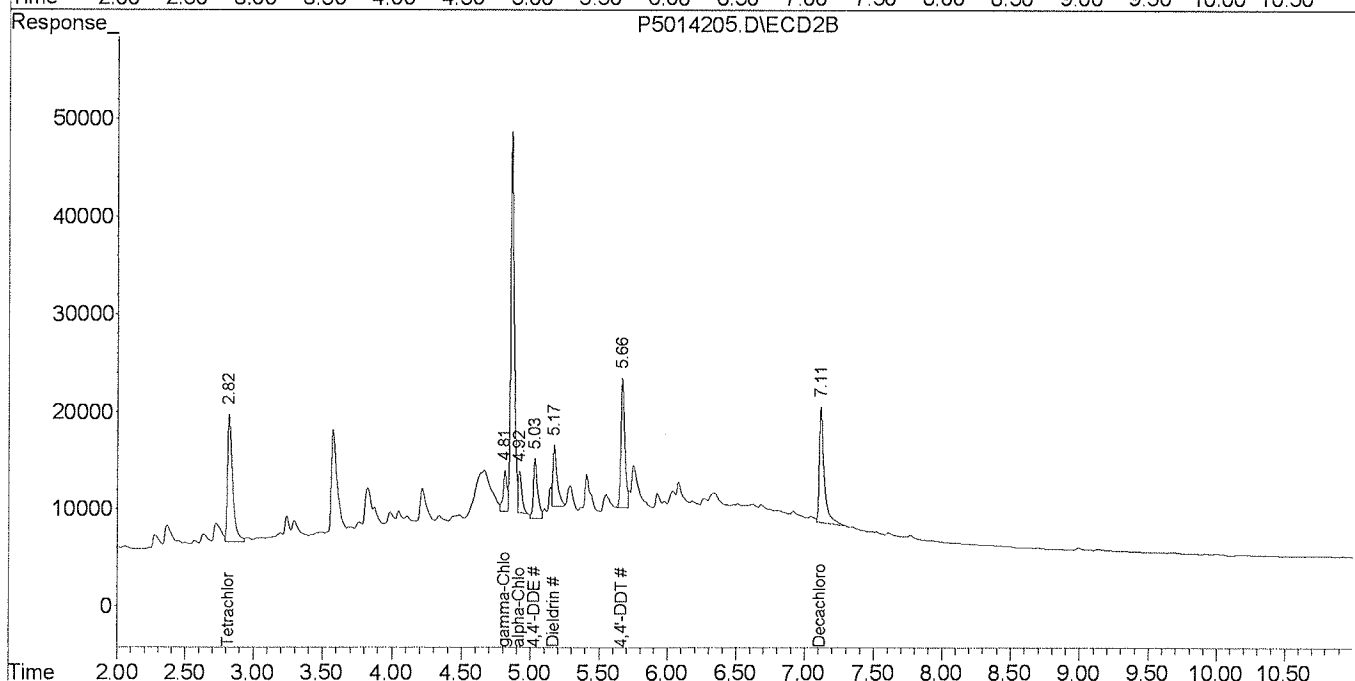
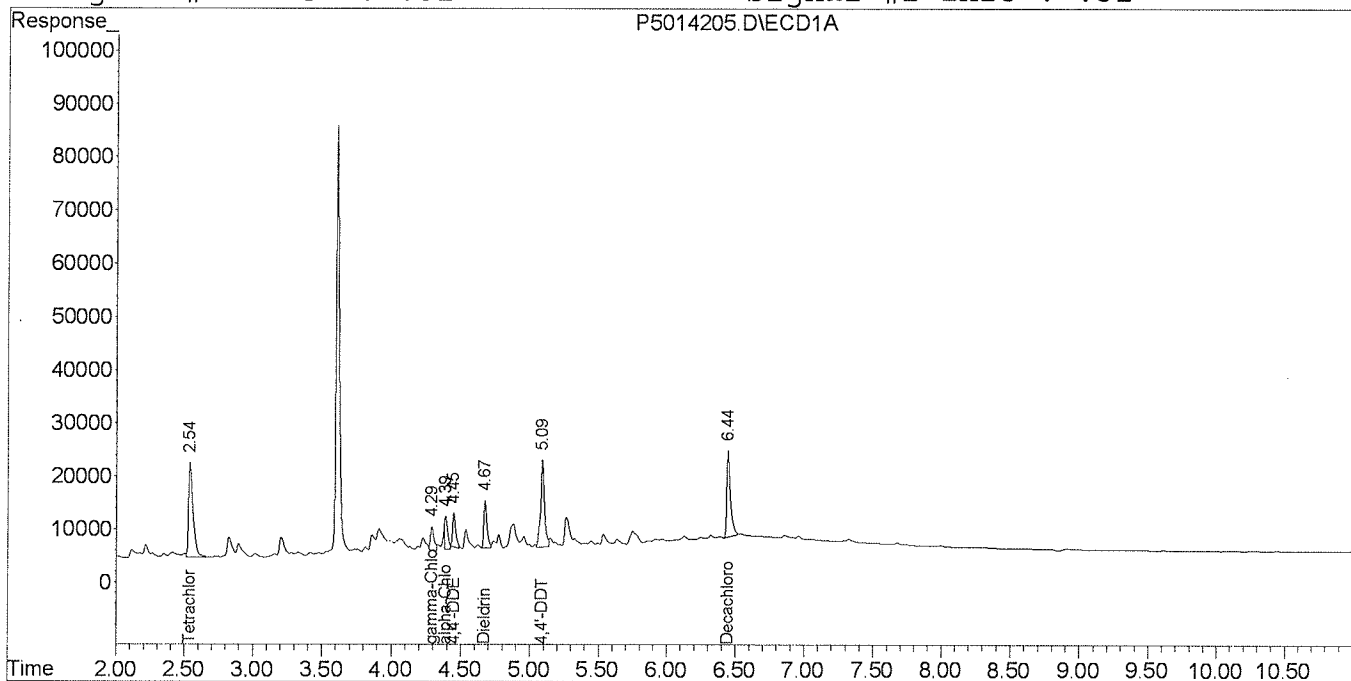
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P5014205.D\ECD1A.CH Vial: 37
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014205.D\ECD2B.CH
 Acq On : 11 Mar 2016 5:55 pm Operator: AMC
 Sample : 16C0235-03 Inst : GC DUAL E
 Misc : QBPEST5-031116A Multiplr: 5.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 12:15 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 : 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



FORM I

ORGANIC ANALYSIS DATA SHEET

04/LSB-2

EPA 8081B

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-04 File ID: P5014206.D
 Sampled: 03/04/16 13:30 Prepared: 03/10/16 13:40 Analyzed: 03/11/16 18:11
 Solids: 70.08 Preparation: EPA 3550C Initial/Final: 30 g / 10 mL
 Batch: BC60572 Sequence: Calibration: Instrument: GC DUAL E

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
72-54-8	4,4'-DDD	5	0.00235	U
72-55-9	4,4'-DDE	5	0.116	D
50-29-3	4,4'-DDT	5	0.324	D
309-00-2	Aldrin	5	0.00235	U
319-84-6	alpha-BHC	5	0.00235	U
5103-71-9	alpha-Chlordane	5	0.0133	D
319-85-7	beta-BHC	5	0.00235	U
57-74-9	Chlordane, total	5	0.124	D
319-86-8	delta-BHC	5	0.00235	U
60-57-1	Dieldrin	5	0.0381	D
959-98-8	Endosulfan I	5	0.00235	U
33213-65-9	Endosulfan II	5	0.00235	U
1031-07-8	Endosulfan sulfate	5	0.00235	U
72-20-8	Endrin	5	0.00235	U
7421-93-4	Endrin aldehyde	5	0.00235	U
53494-70-5	Endrin ketone	5	0.00235	U
58-89-9	gamma-BHC (Lindane)	5	0.00235	U
5566-34-7	gamma-Chlordane	5	0.0118	D
76-44-8	Heptachlor	5	0.00235	U
1024-57-3	Heptachlor epoxide	5	0.00235	U
72-43-5	Methoxychlor	5	0.0118	U
8001-35-2	Toxaphene	5	0.119	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.0956	0.0799	83.6	30 - 140	
Decachlorobiphenyl	0.0985	0.0753	76.5	30 - 140	

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031116\P5014206.D\ECD1A.CH Vial: 38
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014206.D\ECD2B.CH
 Acq On : 11 Mar 2016 6:11 pm Operator: AMC
 Sample : 16C0235-04 Inst : GC DUAL E
 Misc : QBPEST5-031116A Multiplr: 5.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 12:17 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 : 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	413268	370295	33.599	35.704
Spiked Amount	200.000	Range	30 - 150	Recovery	=	16.80%# 17.85%#
24) SA Decachlorobiphen	6.44	7.11	342734	328157	31.673m	33.438m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	15.84%# 16.72%#

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. 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. 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	57296	58904	4.973m	5.387m
11) M alpha-Chlordane	4.39	4.91f	62601	52193	5.609m	5.394m
12) M Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
13) M 4,4'-DDE	4.45	5.03	378668	460701	48.662	44.756m
14) M Dieldrin	4.68	5.17	180913	174545	16.012	15.874m
15) M Endrin	0.00	0.00	0	0	N.D.	N.D. d
16) M 4,4'-DDD	0.00	0.00	0	0	N.D. d	N.D.
17) M Endosulfan II	0.00	0.00	0	0	N.D.	N.D. d
18) M 4,4'-DDT	5.09	5.66	1031791	882318	136.260	140.349m
19) M Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.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.
23) M Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

Quantitation Report

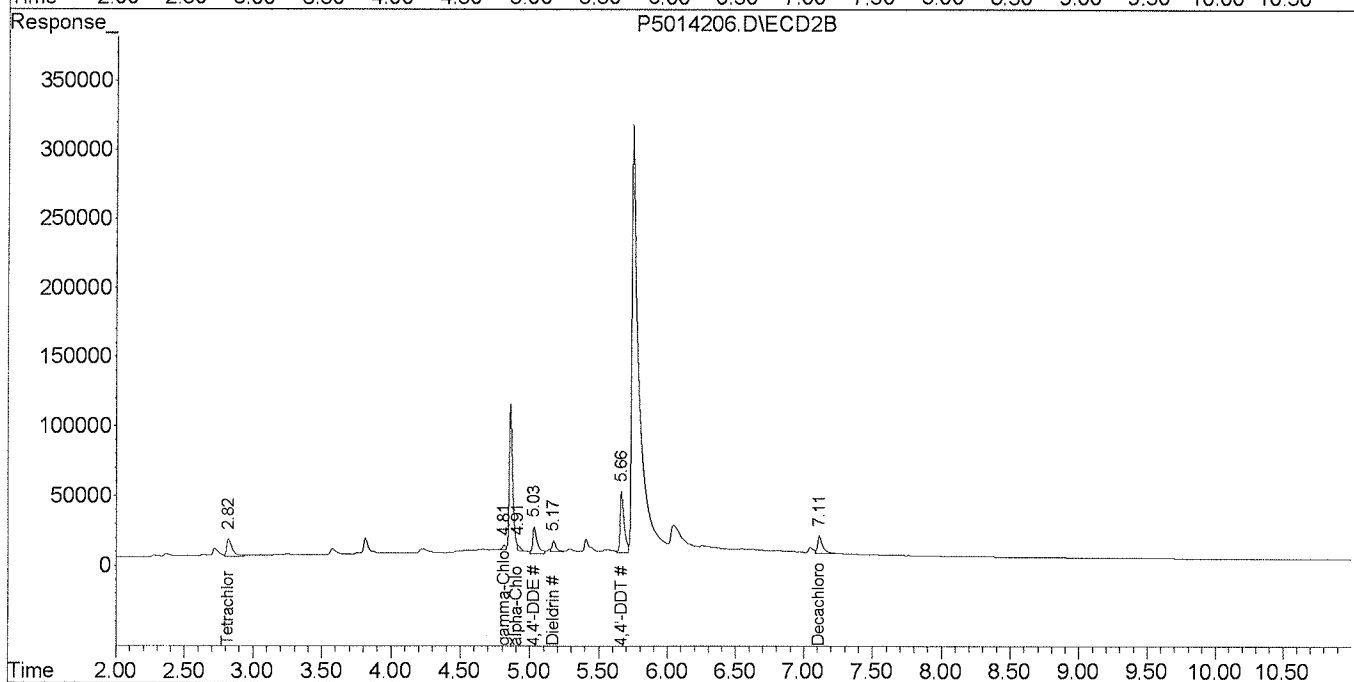
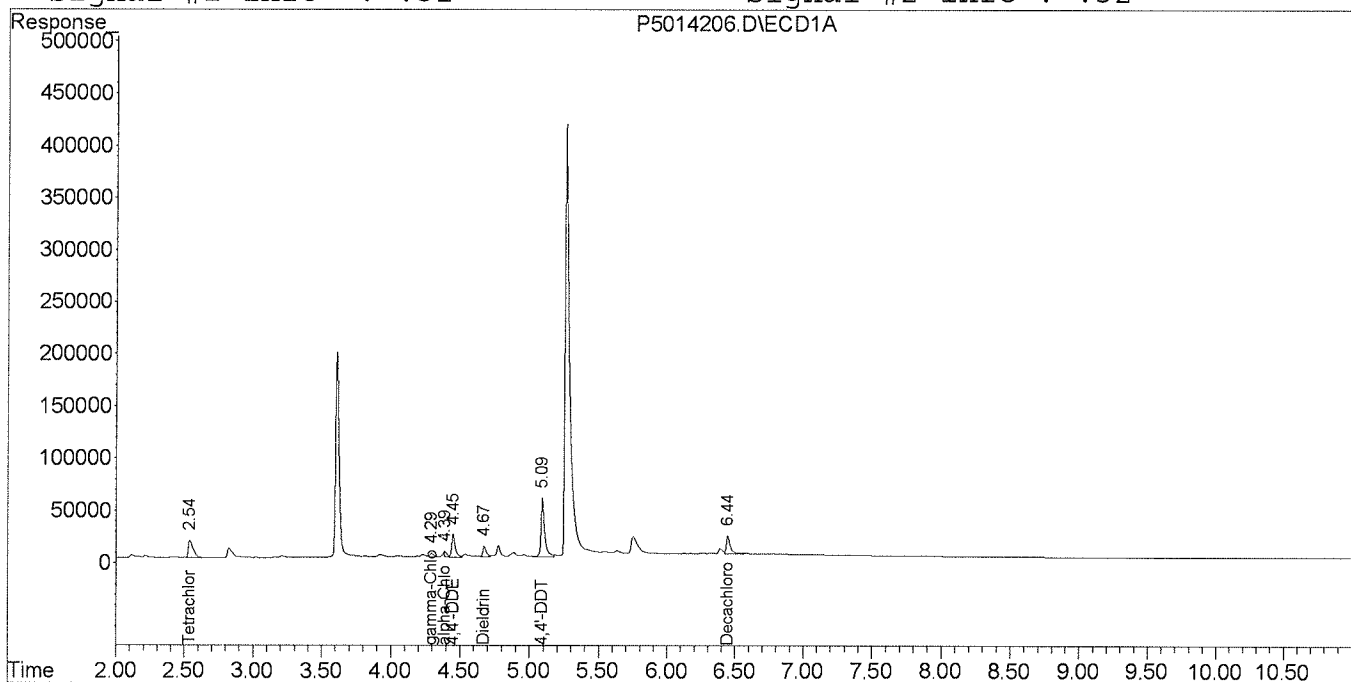
Signal #1 : C:\HPCHEM\1\DATA\031116\P5014206.D\ECD1A.CH Vial: 38
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014206.D\ECD2B.CH
 Acq On : 11 Mar 2016 6:11 pm Operator: AMC
 Sample : 16C0235-04 Inst : GC DUAL E
 Misc : QBPEST5-031116A Multiplr: 5.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 12:17 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 : 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



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-xylene	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-xylene	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

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

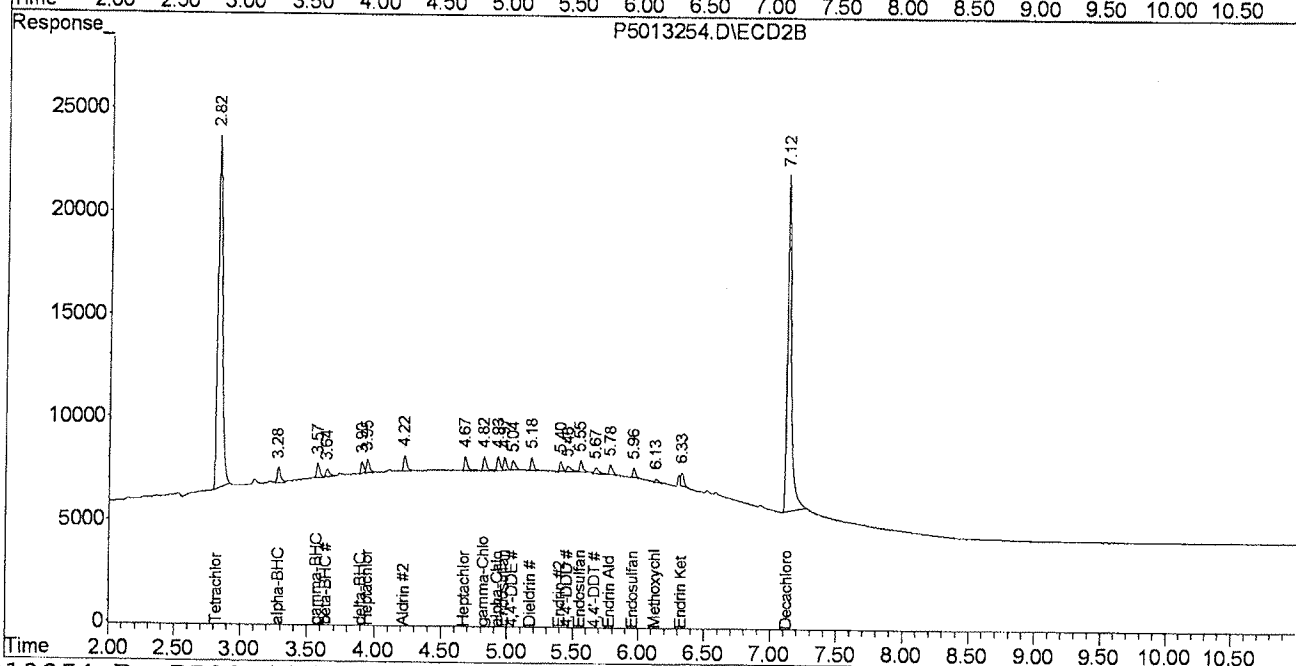
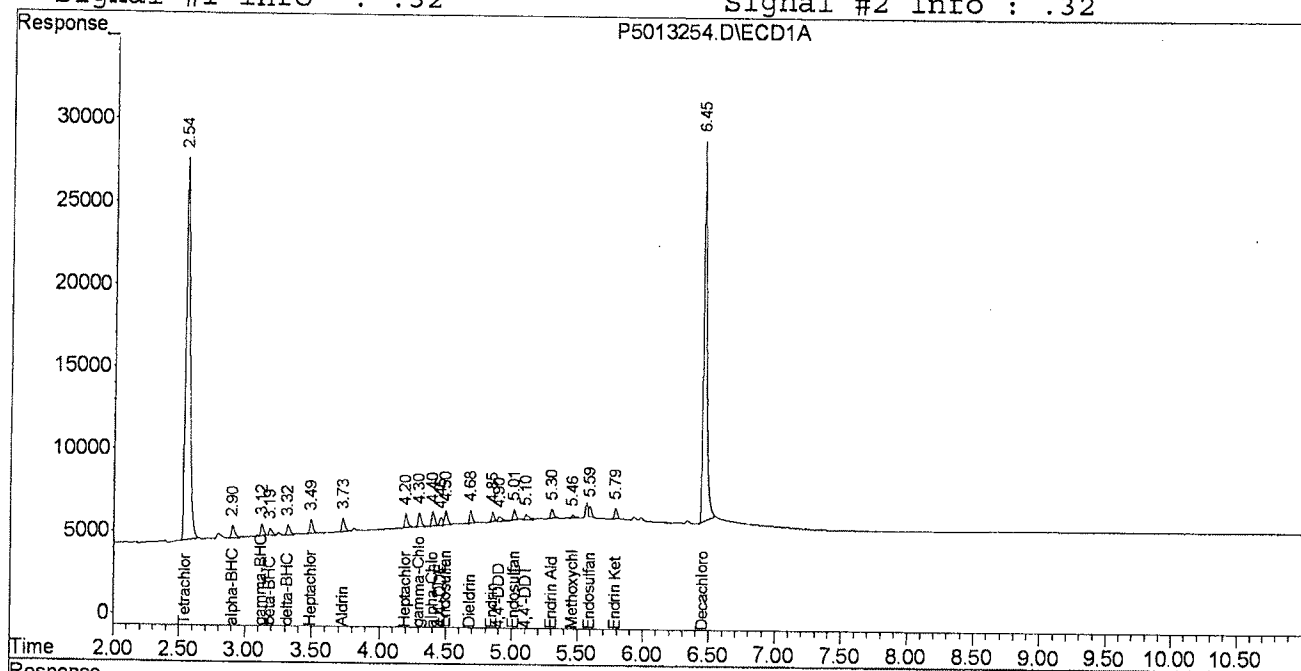
Quantitation Report

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%# 22.88%#
24) SA Decachlorobiphen	6.45	7.12	726310	652613	44.676m	47.677m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	22.34%# 23.84%#
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#

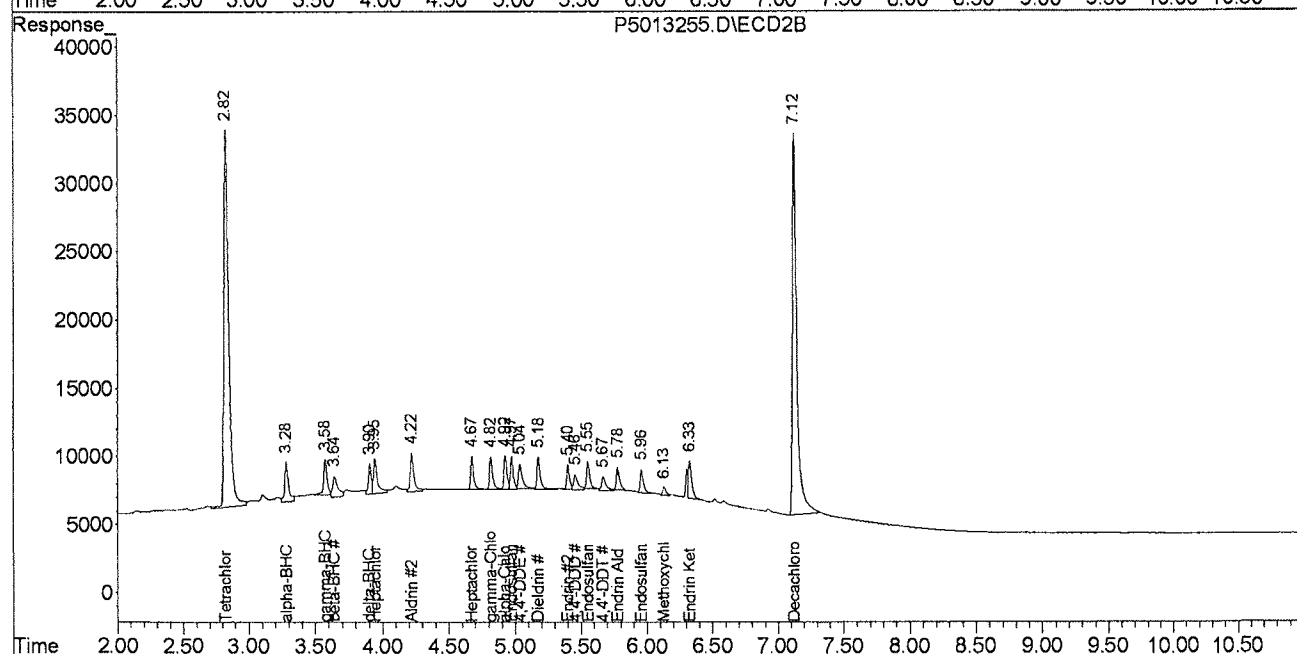
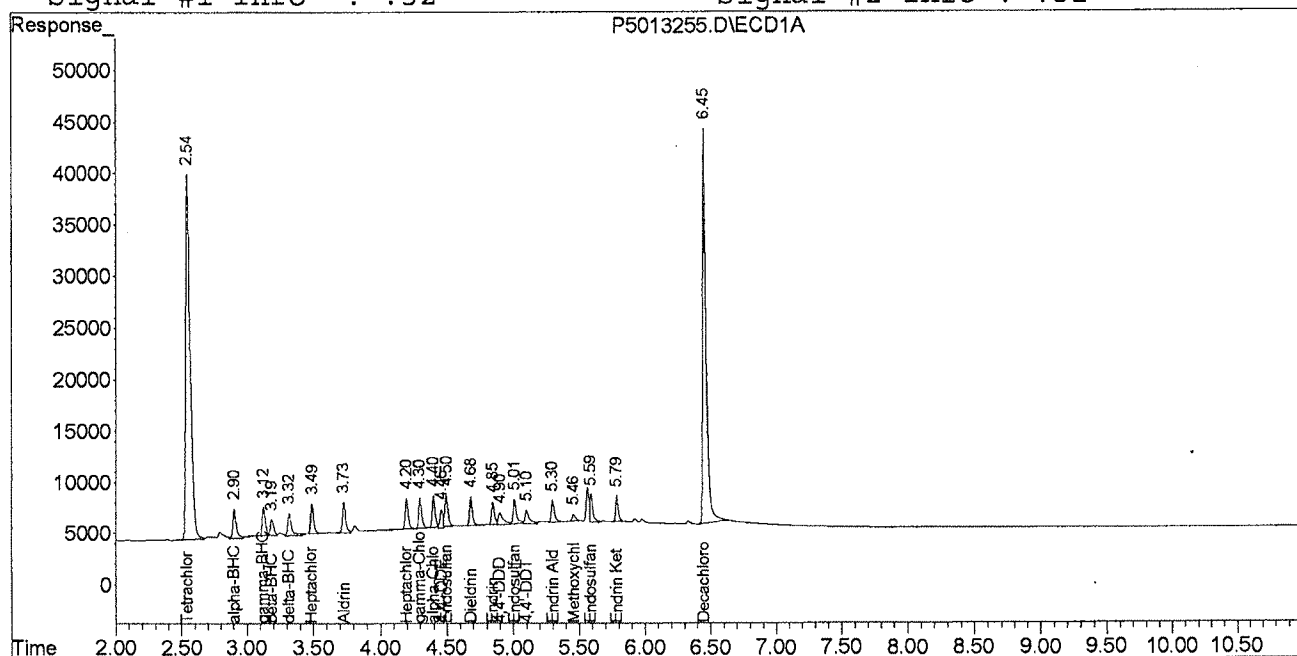
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 P5013255.D P5020116.M Thu Feb 18 09:53:35 2016

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



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

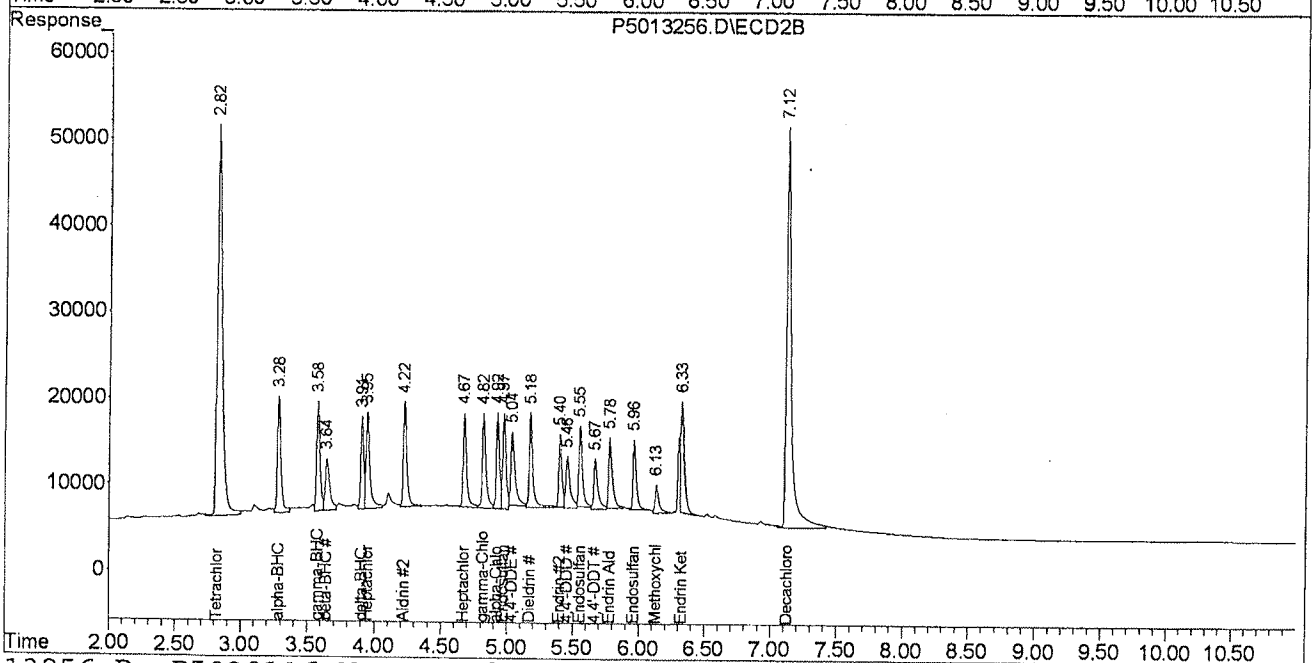
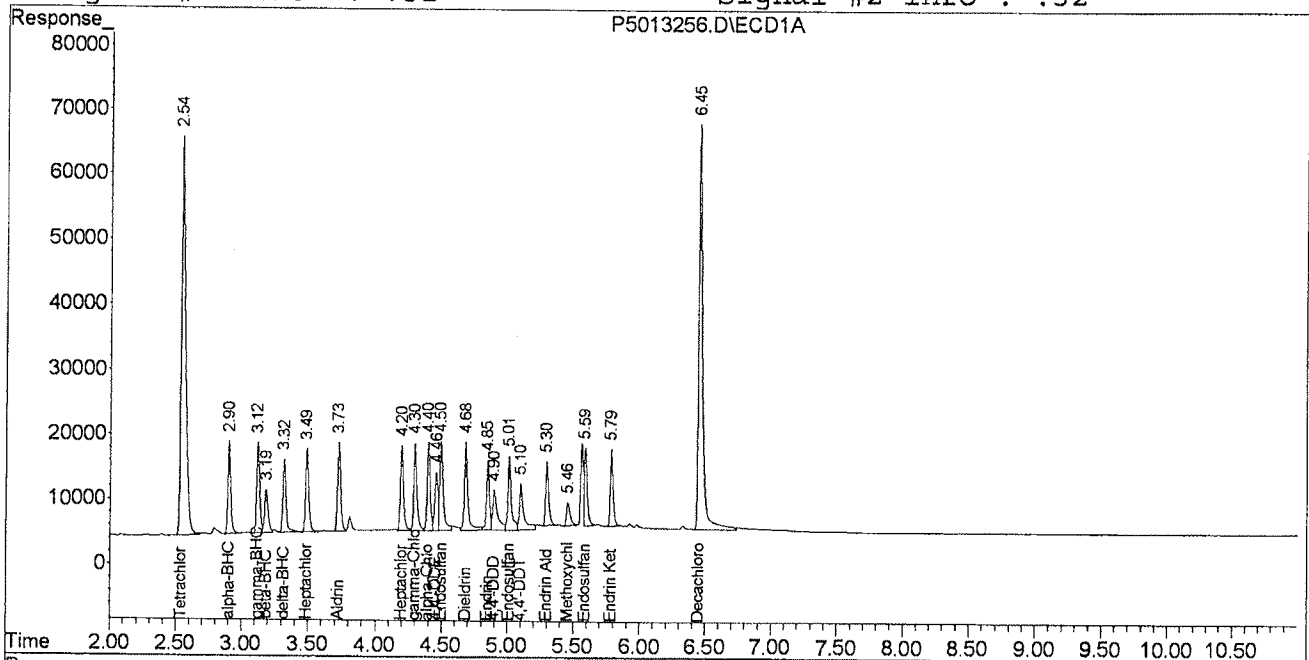
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	1431665	1196425	63.163	75.200
Spiked Amount	200.000	Range	30 - 150	Recovery =	31.58%	37.60%
24) SA Decachlorobiphen	6.45	7.12	1289110	1184344	79.295m	86.524m
Spiked Amount	200.000	Range	30 - 150	Recovery =	39.65%	43.26%
Target Compounds						
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

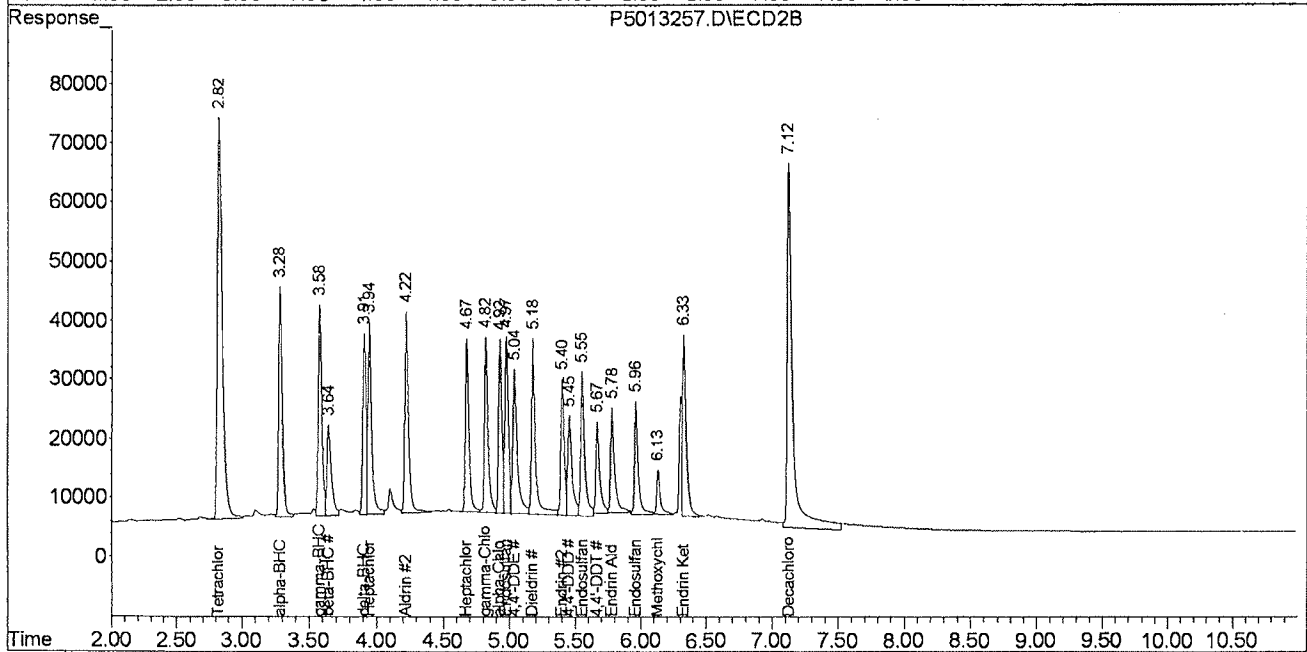
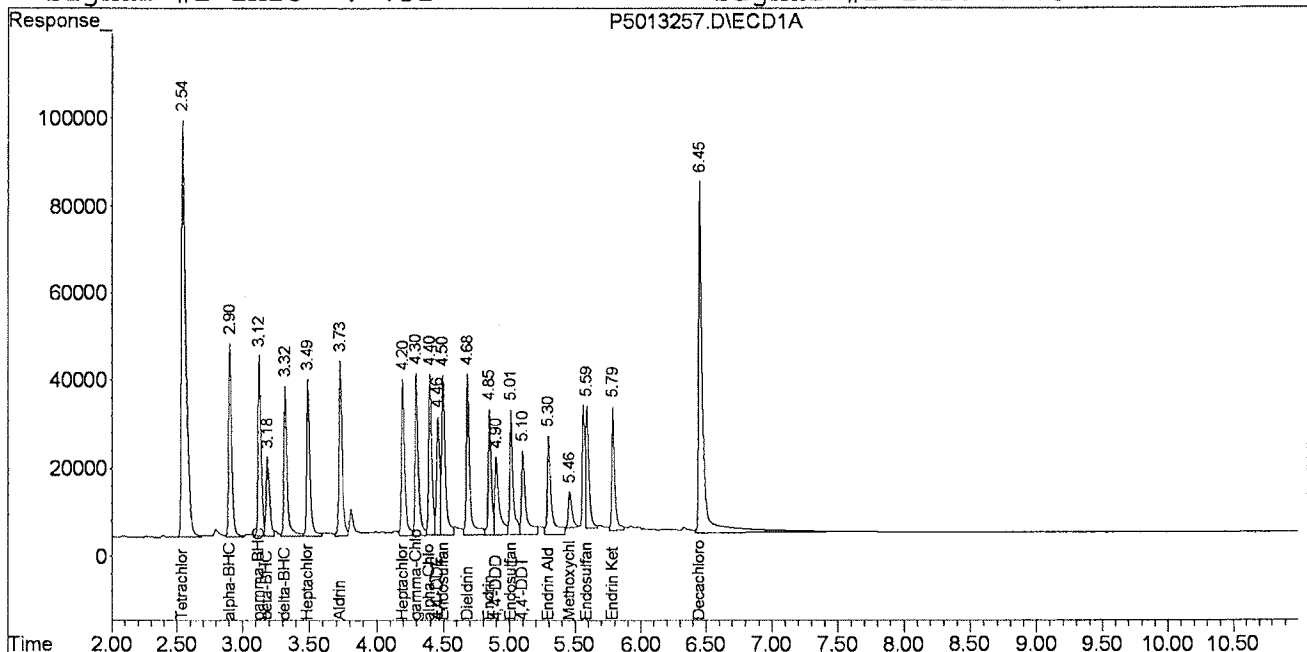
Page 1

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

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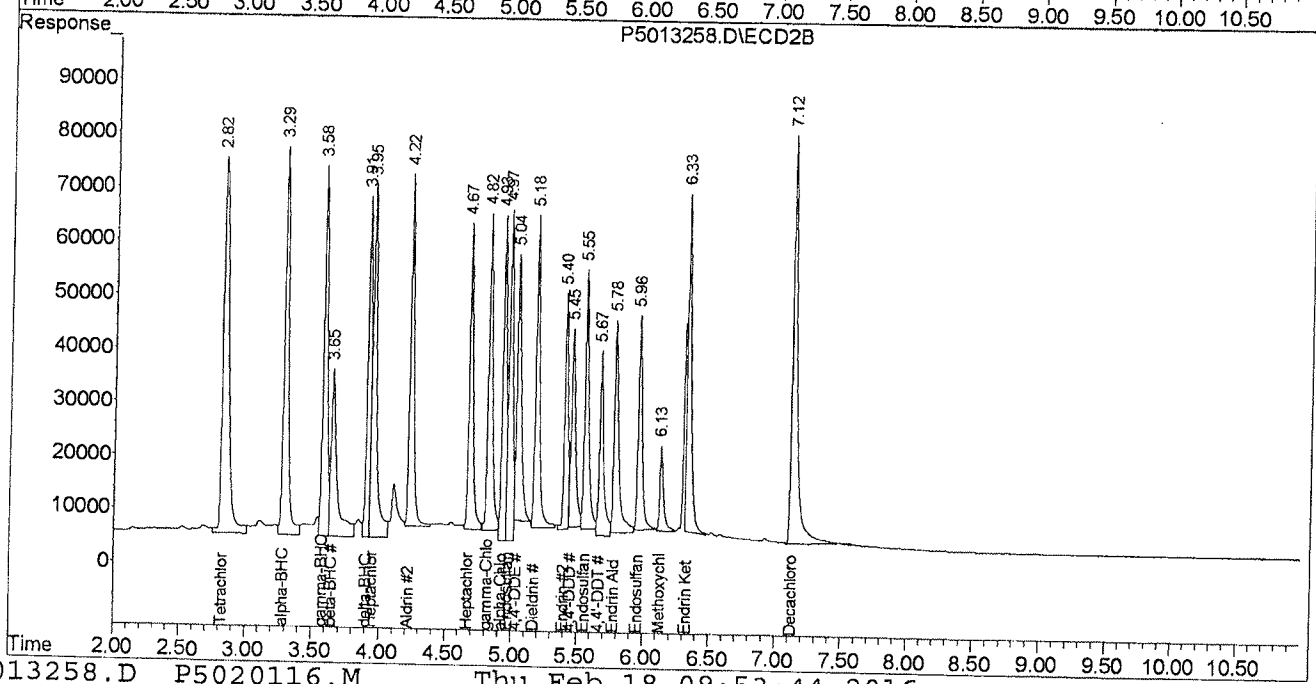
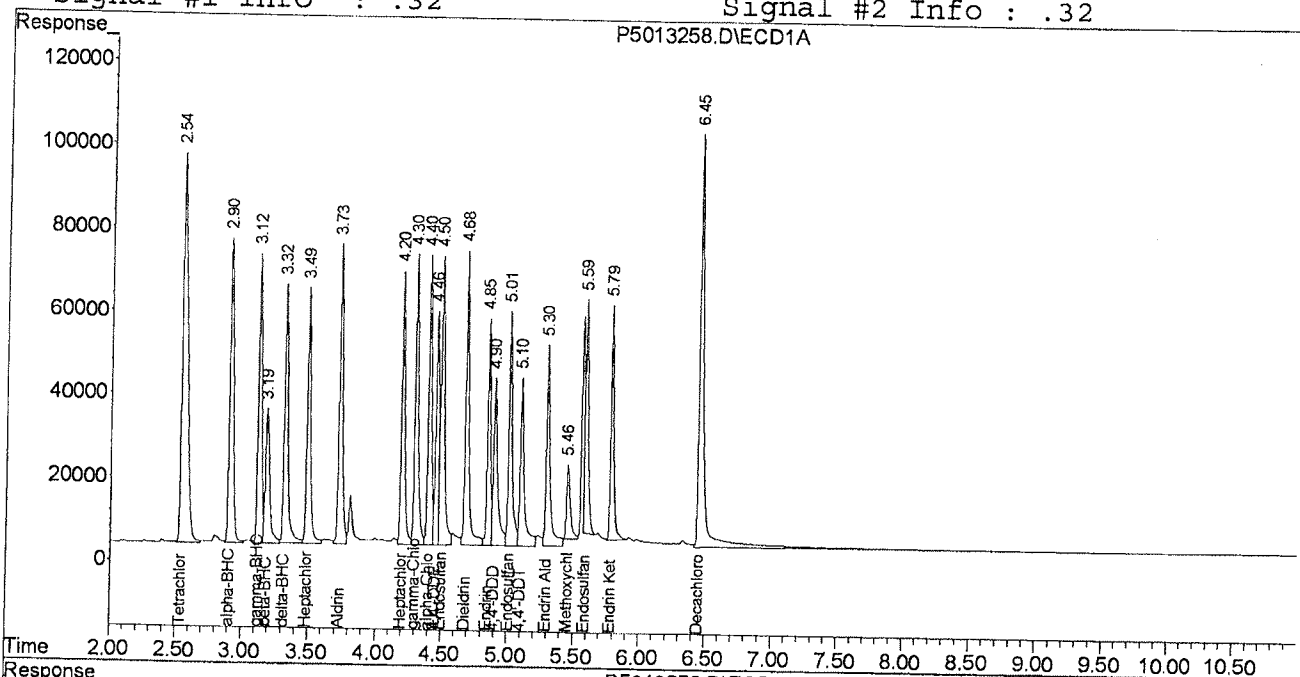
Quantitation Report

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#

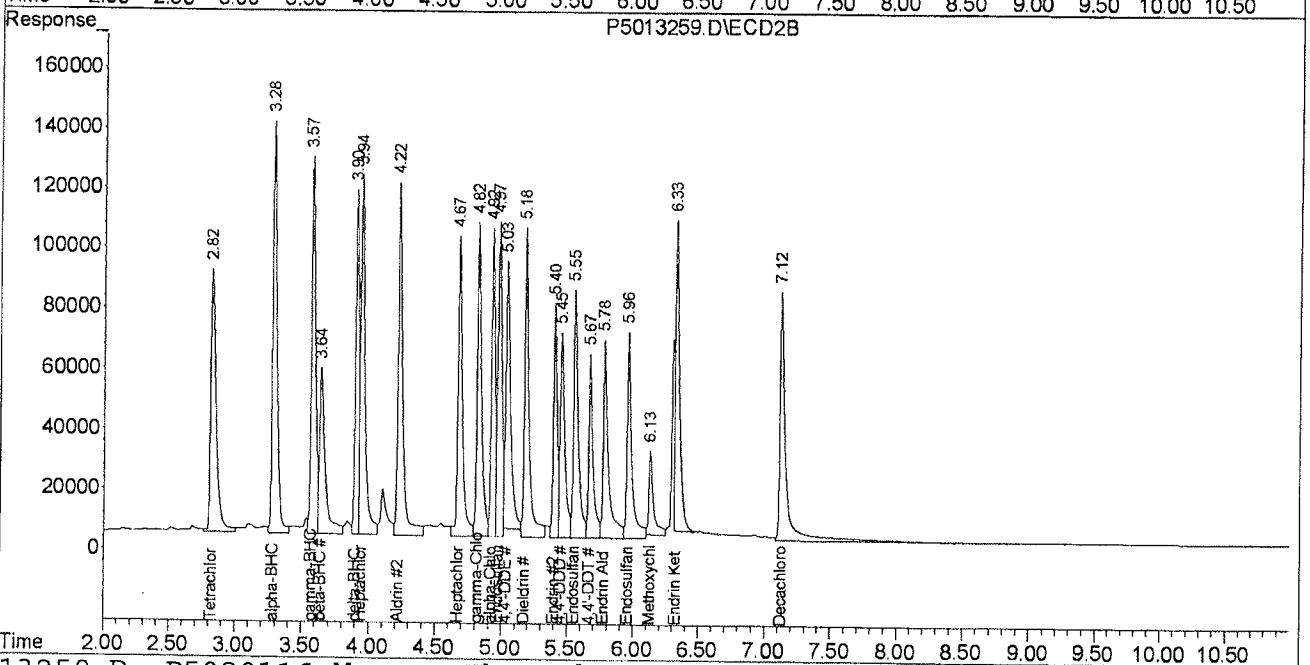
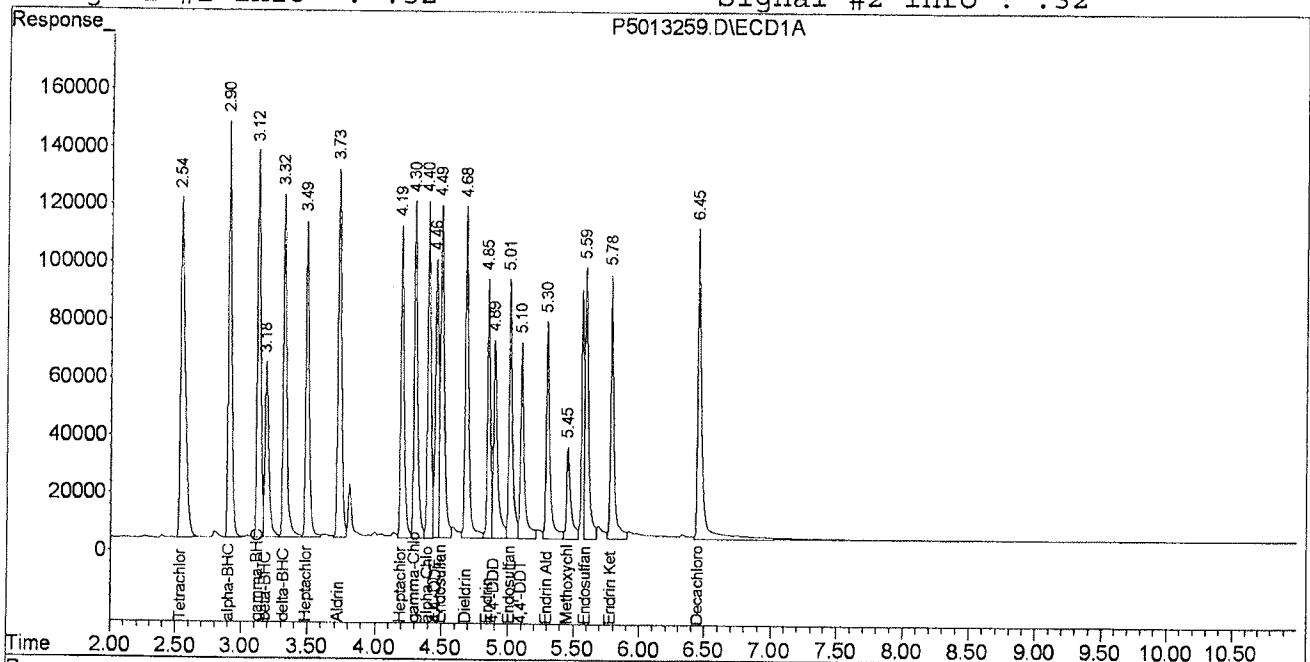
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 P5013259.D P5020116.M Thu Feb 18 09:53:46 2016

Quantitation Report

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 : 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\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

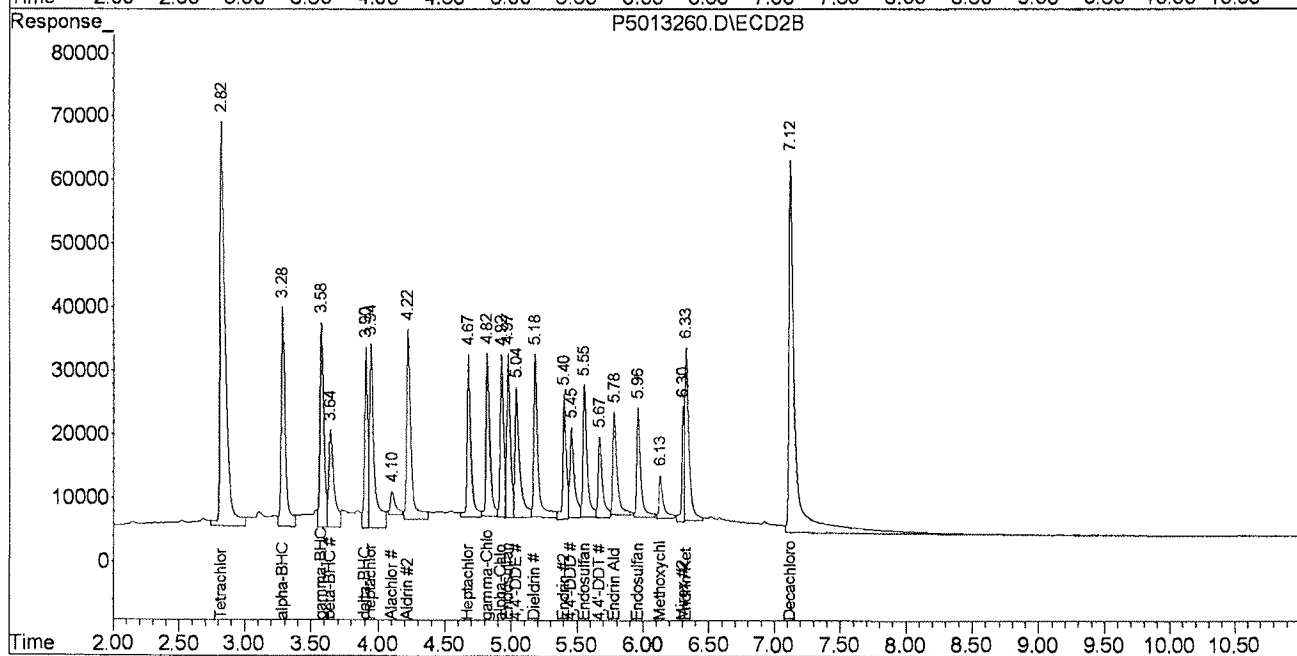
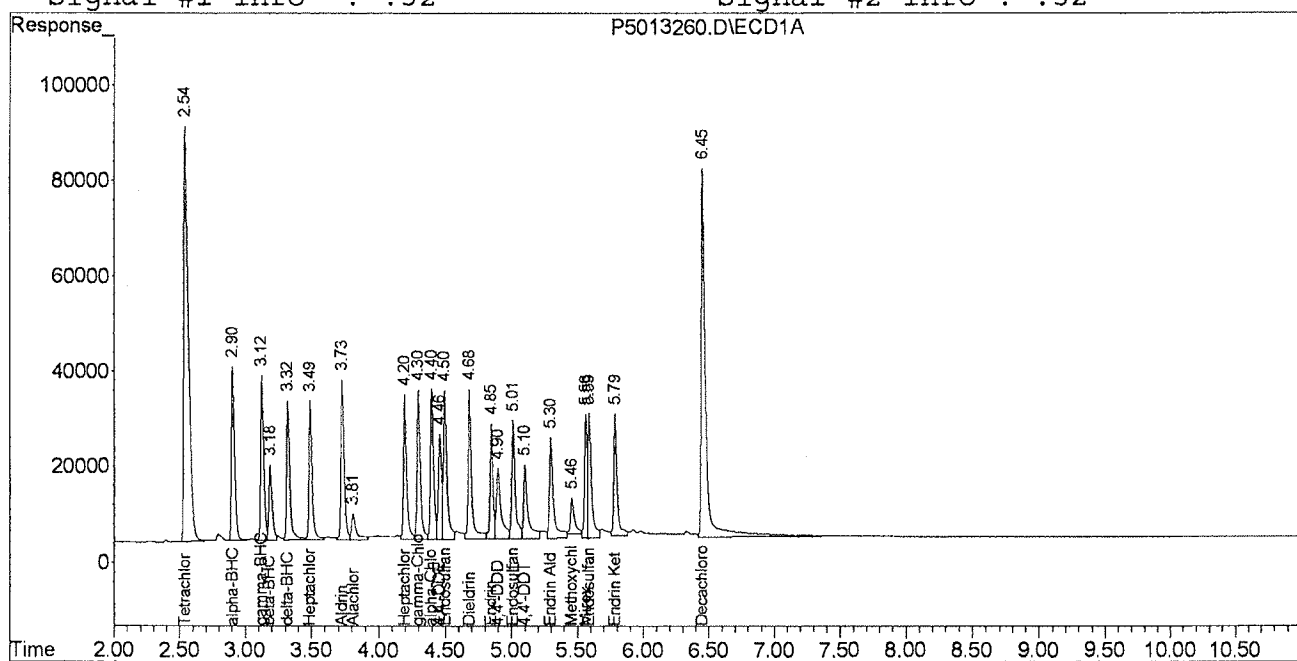
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 P5013260.D P5020116.M Thu Feb 18 09:53:50 2016

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: 3/11/2016

TIME: 9:44 AM

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>ENDRIN</u>
1008160	6032	28660	1042852	3.3

<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>DDT</u>
1192678	7398	5335	1205411	1.1

% BREAKDOWN of ENDRIN and DDT

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>ENDRIN</u>
1006502	1925	32381	1040808	3.3

<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>DDT</u>
1208090	9497	4956	1222543	1.2

Signal #1 : C:\HPCHEM\1\DATA\031116\P5014168.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014168.D\ECD2B.CH
 Acq On : 11 Mar 2016 9:44 am Operator: AMC
 Sample : SEQ-BKD1 Inst : GC DUAL E
 Misc : QBPEST5-031116A Y14J138 DDT/ENDRIN Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 12:52 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	3066961	2434047	249.349	234.692
Spiked Amount	200.000	Range	30 - 150	Recovery	=	124.67% 117.35%
24) SA Decachlorobiphen	6.45	7.12	1951132	1743206	180.311m	177.629m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	90.16% 88.81%

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. 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. 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.
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.
13) M 4,4'-DDE	4.47	5.04	7398	9497	0.951m	0.923m
14) M Dieldrin	0.00	0.00	0	0	N.D.	N.D. d
15) M Endrin	4.85	5.40	1008160	1006502	130.545	146.324
16) M 4,4'-DDD	4.91	5.45	5335	4956	0.710m	0.674m
17) M Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
18) M 4,4'-DDT	5.11	5.67	1192678	1208090	157.507	192.170
19) M Endrin Aldehyde	5.30	5.78	6032	1925	0.728m	0.240m#
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	5.79	6.33	28660	32381	3.378m	2.891m

Quantitation Report

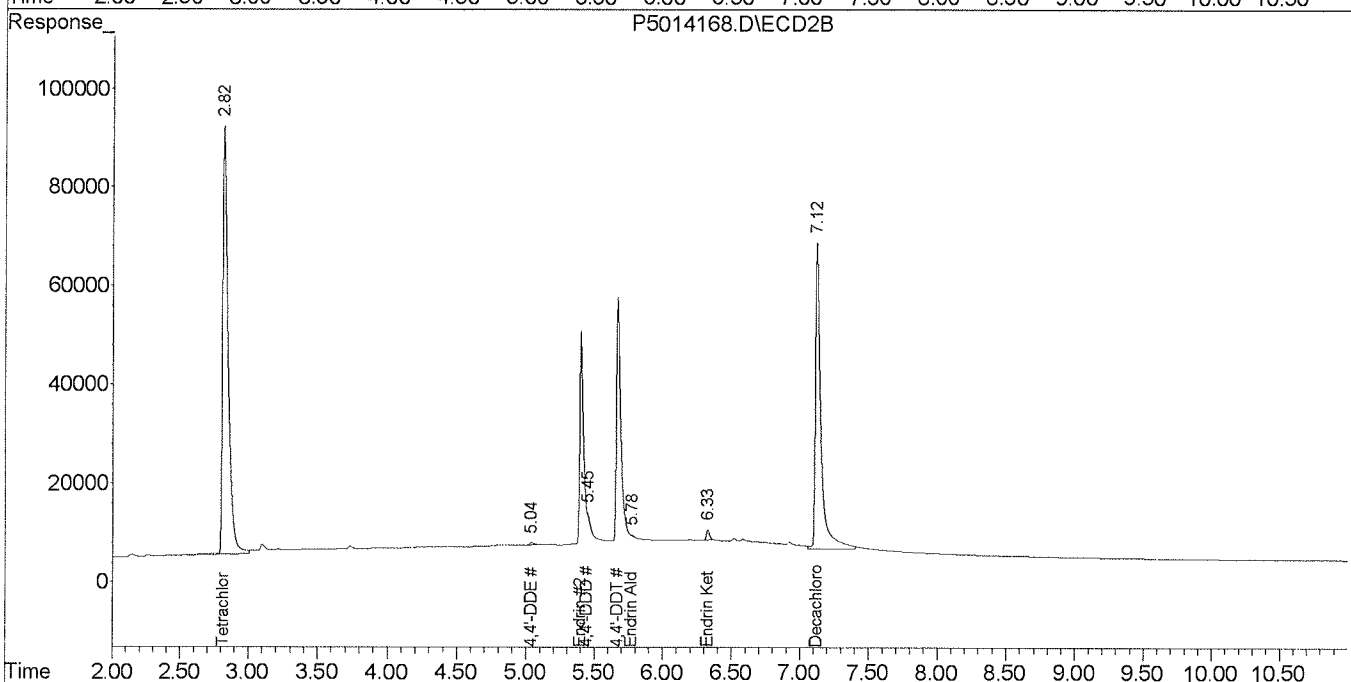
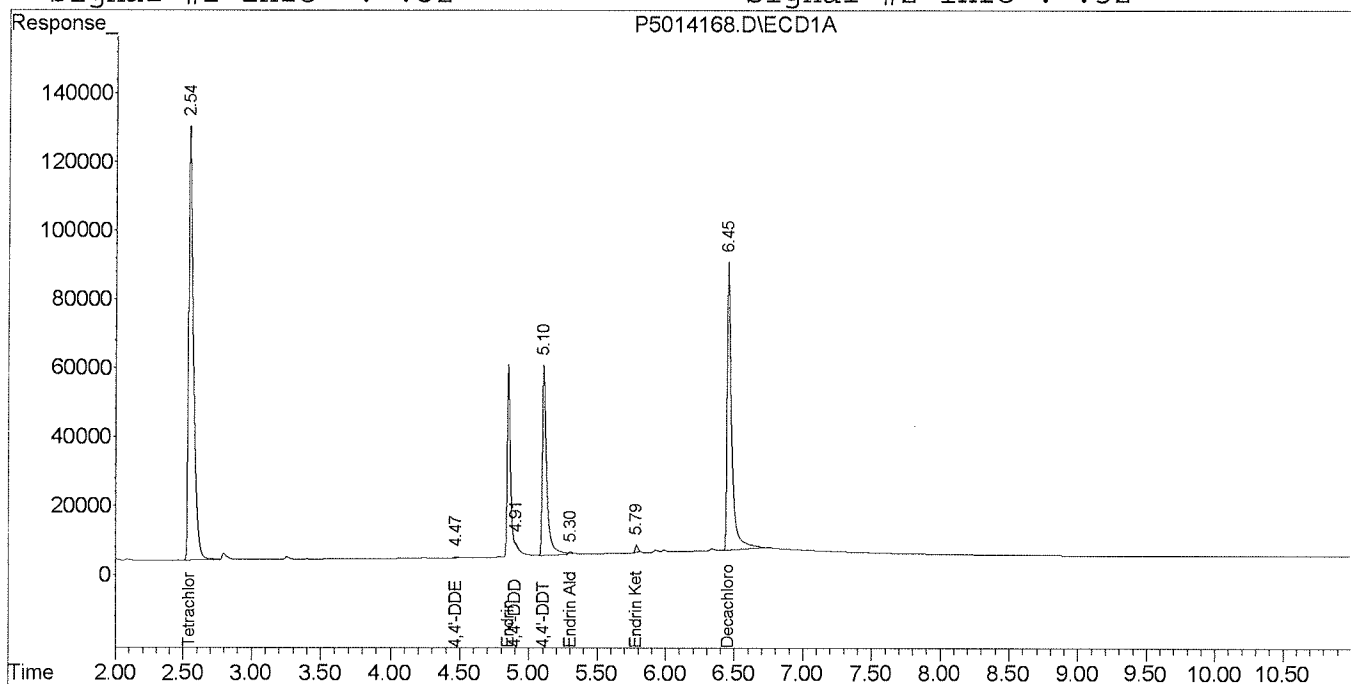
Signal #1 : C:\HPCHEM\1\DATA\031116\P5014168.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014168.D\ECD2B.CH
 Acq On : 11 Mar 2016 9:44 am Operator: AMC
 Sample : SEQ-BKD1 Inst : GC DUAL E
 Misc : QBPEST5-031116A Y14J138 DDT/ENDRIN Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 12:52 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



Signal #1 : C:\HPCHEM\1\DATA\031116\P5014169.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014169.D\ECD2B.CH
 Acq On : 11 Mar 2016 9:59 am Operator: AMC
 Sample : SEQ-CCV1 Inst : GC DUAL E
 Misc : QBPEST5-031116A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 10:26 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	1779143	1446434	144.648	139.466
Spiked Amount	200.000	Range	30 - 150	Recovery	= 72.32%	69.73%
24) SA Decachlorobiphen	6.44	7.11	1586733	1250202	146.636m	127.393m
Spiked Amount	200.000	Range	30 - 150	Recovery	= 73.32%	63.70%
Target Compounds						
2) M alpha-BHC	2.90	3.28	597753	618145	46.101	44.251m
3) M gamma-BHC (Linda	3.12	3.57	565980	547898	50.223	44.804
4) M beta-BHC	3.18	3.64	326862	357552	50.893	46.112m
5) M delta-BHC	3.32	3.90	538599	405114	50.696	45.994
6) M Heptachlor	3.49	3.94	573048	616165	52.657	49.500
7) M Aldrin	3.72	4.22	582052	554629	48.942	43.911
8) M Alachlor	3.80	4.10	113912	84005	45.124	43.559
9) M Heptachlor Epoxi	4.19	4.67	571464	527784	52.630	50.660
10) M gamma-Chlordane	4.29	4.82	602519	566052	52.296	51.765
11) M alpha-Chlordane	4.39	4.92	574077	506878	51.436	52.380
12) M Endosulfan I	4.49	4.97	718668	572278	56.833	53.671
13) M 4,4'-DDE	4.45	5.03	372469	560736	47.866	54.474m
14) M Dieldrin	4.67	5.17	620306	582920	54.902	53.015m
15) M Endrin	4.84	5.39	436458	379357	56.516m	55.150m
16) M 4,4'-DDD	4.89	5.45	419041	378087	55.774	51.424m
17) M Endosulfan II	5.00	5.55	521188	489634	55.710	54.149m
18) M 4,4'-DDT	5.10	5.66	406723	333752	53.713	53.090m
19) M Endrin Aldehyde	5.29	5.77	448554	426364	54.135m	53.071m
20) M Methoxychlor	5.45	6.13	166795	155742	53.048m	51.966m
21) M Mirex	5.56	6.30	362178	231868	45.227	44.660m
22) M Endosulfan sulfa	5.58	5.95	518359	381382	56.510m	52.541m
23) M Endrin Ketone	5.78	6.32	489613	642747	57.717m	57.391m

Quantitation Report

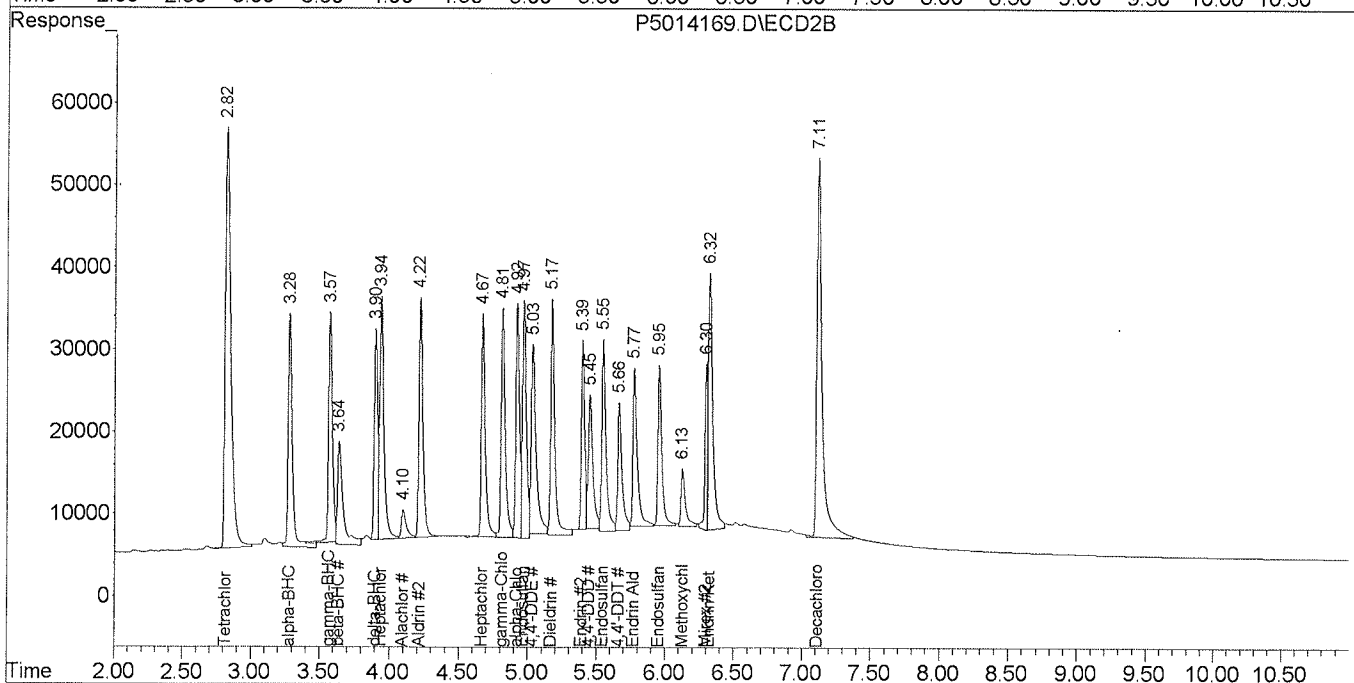
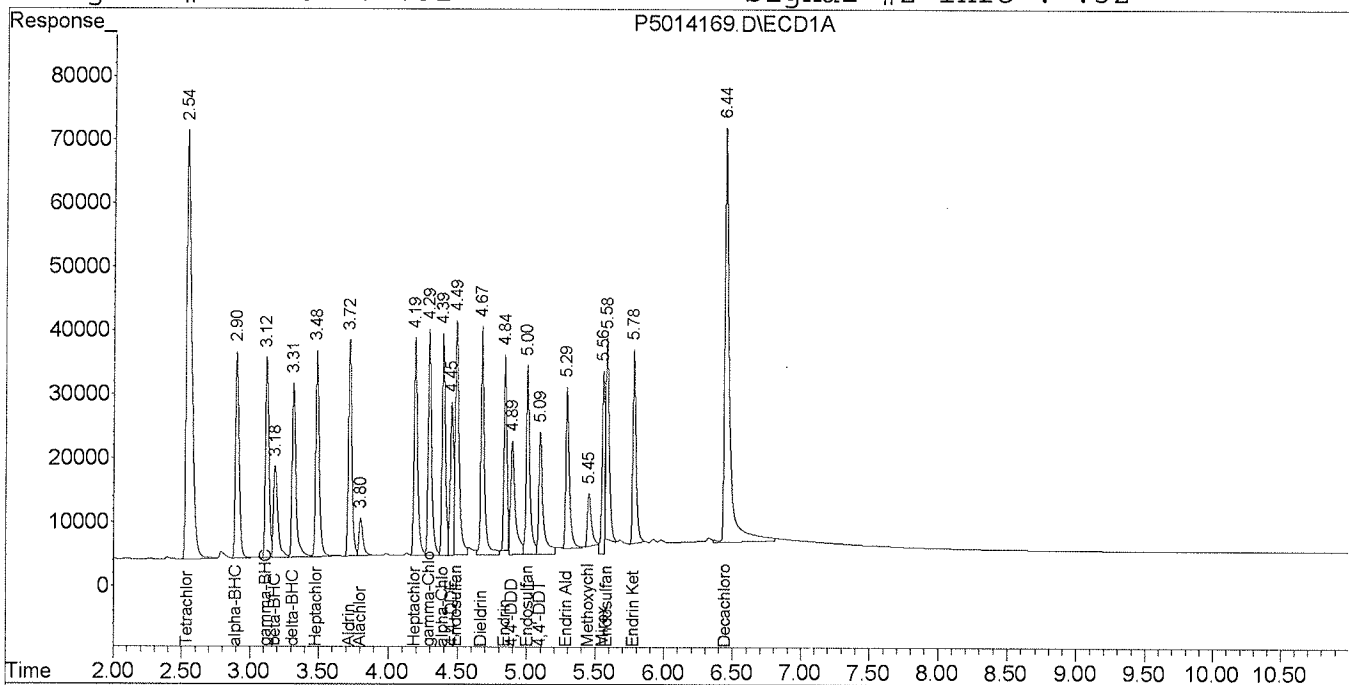
Signal #1 : C:\HPCHEM\1\DATA\031116\P5014169.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014169.D\ECD2B.CH
 Acq On : 11 Mar 2016 9:59 am Operator: AMC
 Sample : SEQ-CCV1 Inst : GC DUAL E
 Misc : QBPEST5-031116A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 10:26 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



Signal #1 : C:\HPCHEM\1\DATA\031116\P5014170.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\031116\P5014170.D\ECD2B.CH
Acq On : 11 Mar 2016 10:14 am Operator: AMC
Sample : SEQ-CCV2 Inst : GC DUAL E
Misc : QBPEST5-031116A Y14A024 CHLORDANE 1.0ug/ Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Mar 11 12:52 2016 Quant Results File: CHL51124.RES

Quant Method : C:\HPCHEM\1\METHODS\CHL51124.M (Chemstation Integrator)
Title : Chlordane - RTX-CLP & CLP-2 11/24/15
Last Update : Fri Jan 08 14:09:12 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	ug/mL	ug/mL

System Monitoring Compounds

1) SA Tetrachloro-m-xy	2.54	2.82	2660789	2220090	0.181	0.176
Spiked Amount	0.200	Range	60 - 150	Recovery =	90.50%	88.00%
5) SA Decachlorobiphen	6.45	7.12	2615449	1857041	0.149	0.098 #
Spiked Amount	0.200	Range	60 - 150	Recovery =	74.50%	49.00%#

Target Compounds

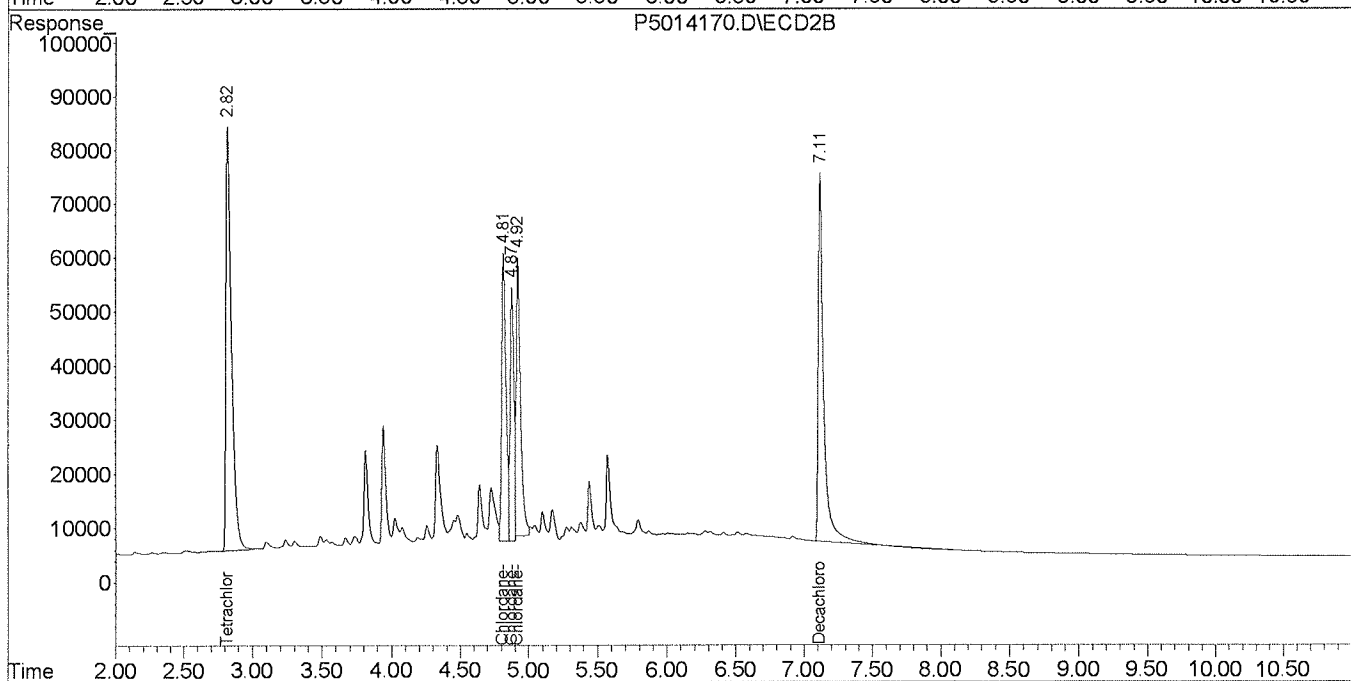
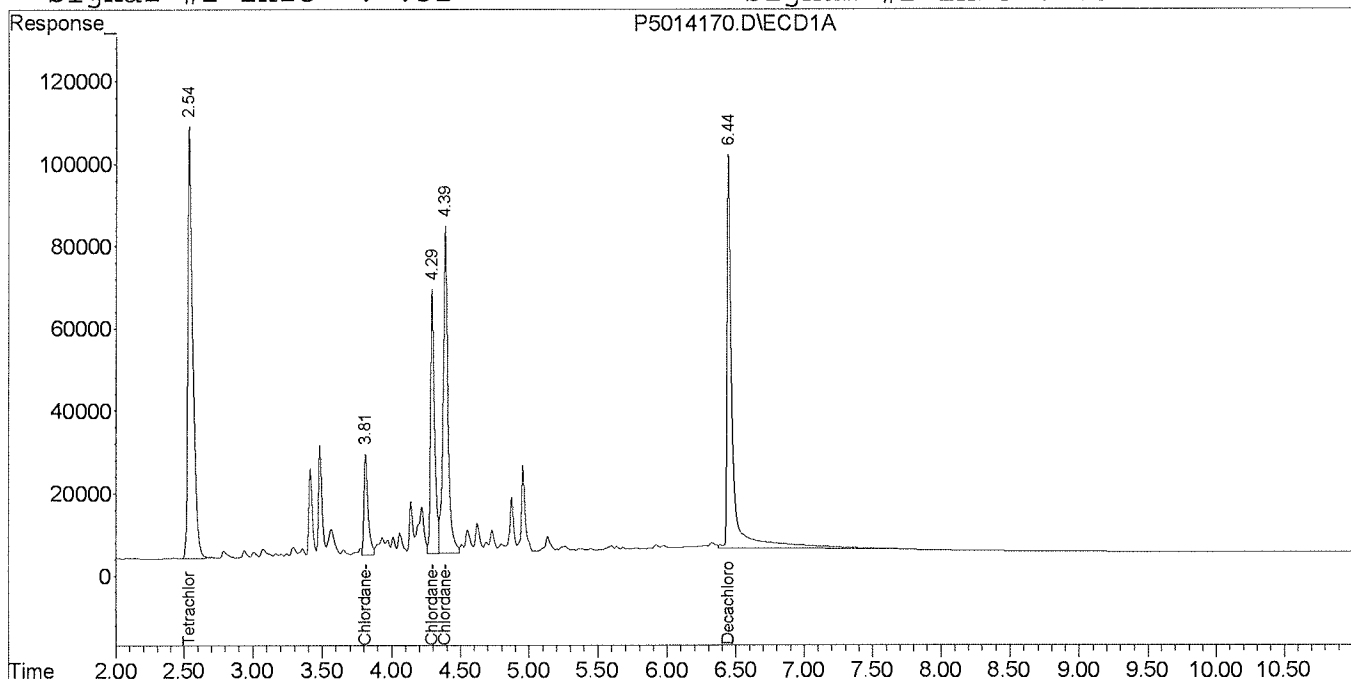
2) T Chlordane-1	3.81	4.81	498088	1121077	1.020	1.163
3) T Chlordane-2	4.29	4.88	1301800	885184	1.091	1.179
4) T Chlordane-3	4.39	4.92	1942643	1166096	1.007	1.112m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P5014170.D\ECD1A.CH Vial: 3
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014170.D\ECD2B.CH
 Acq On : 11 Mar 2016 10:14 am Operator: AMC
 Sample : SEQ-CCV2 Inst : GC DUAL E
 Misc : QBPEST5-031116A Y14A024 CHLORDANE 1.0ug/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 12:52 2016 Quant Results File: CHL51124.RES

Quant Method : C:\HPCHEM\1\METHODS\CHL51124.M (Chemstation Integrator)
 Title : Chlordane - RTX-CLP & CLP-2 11/24/15
 Last Update : Fri Jan 08 14:09:12 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\031116\P5014192.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014192.D\ECD2B.CH
 Acq On : 11 Mar 2016 3:06 pm Operator: AMC
 Sample : SEQ-CCV4 Inst : GC DUAL E
 Misc : QBPEST5-031116A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 16:22 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 : Fri Mar 11 12:56:26 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	1862476	1536399	151.423	148.140
Spiked Amount	200.000	Range	30 - 150	Recovery	= 75.71%	74.07%
24) SA Decachlorobiphen	6.45	7.12	1715707	1721495	158.555	175.417
Spiked Amount	200.000	Range	30 - 150	Recovery	= 79.28%	87.71%

Target Compounds

2) M alpha-BHC	2.90	3.28	650847	595766	50.195	42.649
3) M gamma-BHC (Linda	3.12	3.57	614414	581238	54.521	47.531
4) M beta-BHC	3.18	3.64	352264	345780	54.848	44.593m
5) M delta-BHC	3.32	3.90	576636	419260	54.276	47.600
6) M Heptachlor	3.49	3.94	630774	667500	57.962	53.624
7) M Aldrin	3.72	4.22	615814	571209	51.781	45.224
8) M Alachlor	3.80	4.10	128249	95379	50.803	49.457
9) M Heptachlor Epoxi	4.19	4.67	600539	536002	55.307	51.449
10) M gamma-Chlordane	4.29	4.81	621434	567556	53.937	51.902
11) M alpha-Chlordane	4.39	4.92	587148	494839	52.607	51.136
12) M Endosulfan I	4.49	4.97	672658	581647	53.195m	54.549
13) M 4,4'-DDE	4.45	5.03	401936	561559	51.653	54.553m
14) M Dieldrin	4.67	5.17	594690	563275	52.634	51.228m
15) M Endrin	4.84	5.39	454788	390843	58.890m	56.820m
16) M 4,4'-DDD	4.89	5.45	406757	391784	54.139	53.287m
17) M Endosulfan II	5.00	5.55	491861	478509	52.576	52.919m
18) M 4,4'-DDT	5.10	5.66	369477	344742	48.794	54.838m
19) M Endrin Aldehyde	5.29	5.77	457946	435542	55.269	54.213m
20) M Methoxychlor	5.45	6.12	180894	155935	57.532m	52.030m
21) M Mirex	5.56	6.30	334489	249277	41.769	48.013m
22) M Endosulfan sulfa	5.58	5.95	543304	389630	59.230m	53.677m
23) M Endrin Ketone	5.78	6.32	483530	610390	57.000m	54.501m

Quantitation Report

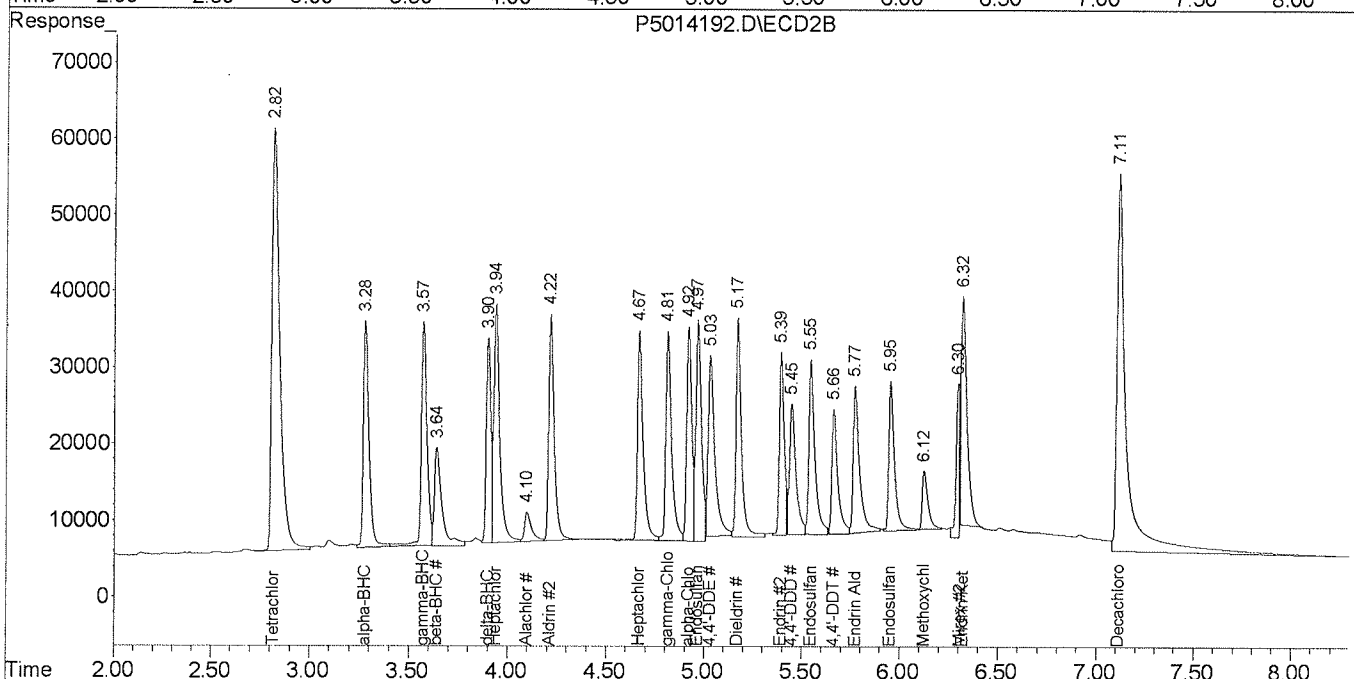
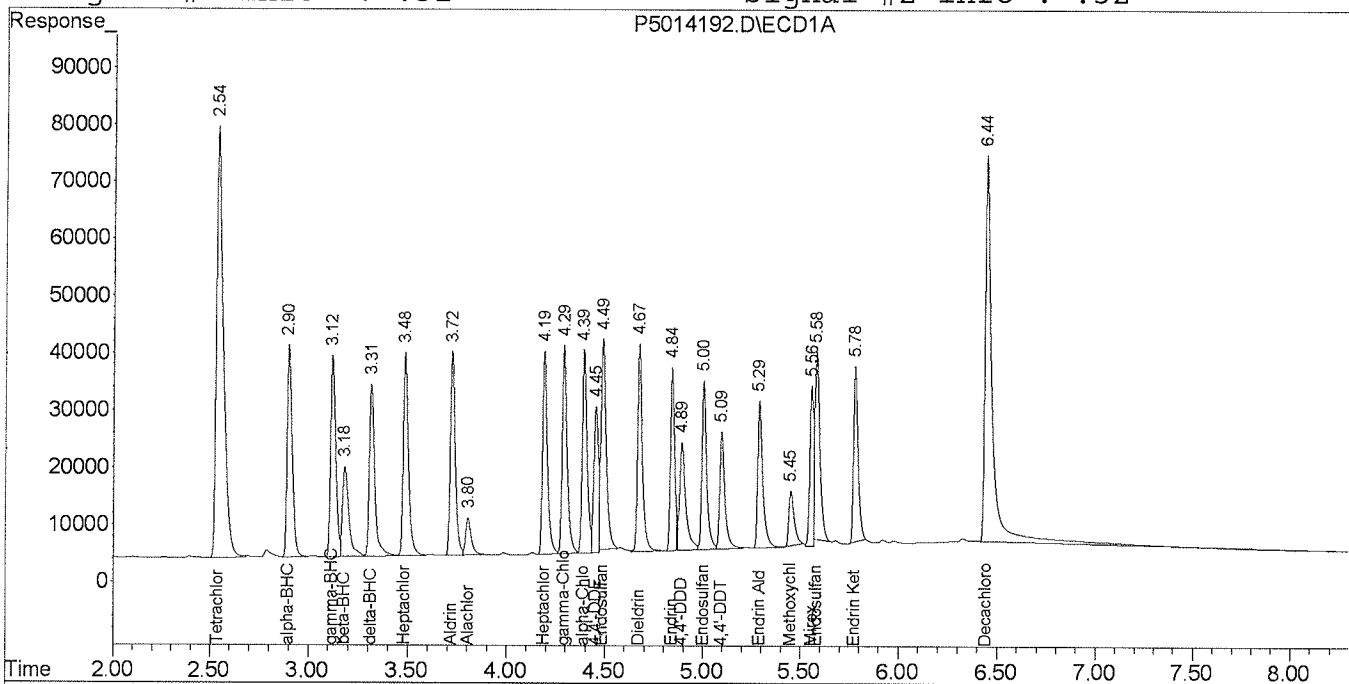
Signal #1 : C:\HPCHEM\1\DATA\031116\P5014192.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014192.D\ECD2B.CH
 Acq On : 11 Mar 2016 3:06 pm Operator: AMC
 Sample : SEQ-CCV4 Inst : GC DUAL E
 Misc : QBPEST5-031116A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 16:22 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 : Fri Mar 11 12:56:26 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: 3/11/2016

TIME: 6:26 PM

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>ENDRIN</u>
1227254	4536	31223	1263013	2.8

<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>DDT</u>
1548023	7341	9240	1564604	1.1

% BREAKDOWN of ENDRIN and DDT

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>ENDRIN</u>
1155351	2208	36458	1194017	3.2

<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>DDT</u>
1442608	7736	7930	1458274	1.1

Signal #1 : C:\HPCHEM\1\DATA\031116\P5014207.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014207.D\ECD2B.CH
 Acq On : 11 Mar 2016 6:26 pm Operator: AMC
 Sample : SEQ-BKD2 Inst : GC DUAL E
 Misc : QBPEST5-031116A Y14J138 DDT/ENDRIN Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 12:19 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 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	3108987	2423834	252.766	233.707
Spiked Amount	200.000	Range	30 - 150	Recovery	= 126.38%	116.85%
24) SA Decachlorobiphen	6.45	7.12	4068603	1307431	375.995	133.224 #
Spiked Amount	200.000	Range	30 - 150	Recovery	= 188.00%#	66.61%
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.	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. d	N.D. 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	7341	7736	0.943m	0.752m
14) M Dieldrin	0.00	0.00	0	0	N.D. d	N.D. d
15) M Endrin	4.84	5.40	1227254	1155351	158.916	167.964
16) M 4,4'-DDD	4.89	5.45	9240	7930	1.230m	1.079m
17) M Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
18) M 4,4'-DDT	5.10	5.67	1548023	1442608	204.435	229.474
19) M Endrin Aldehyde	5.29	5.77	4536	2208	0.547m	0.275m#
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	31223	36458	3.681m	3.255m

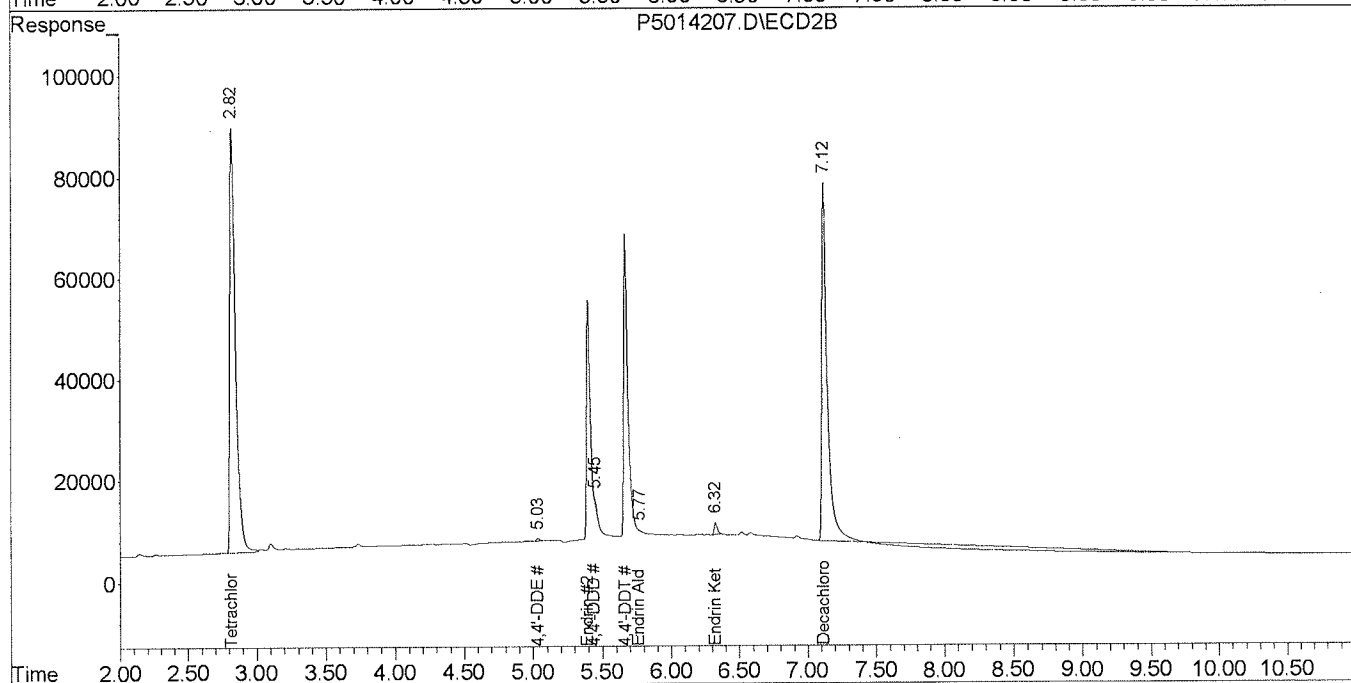
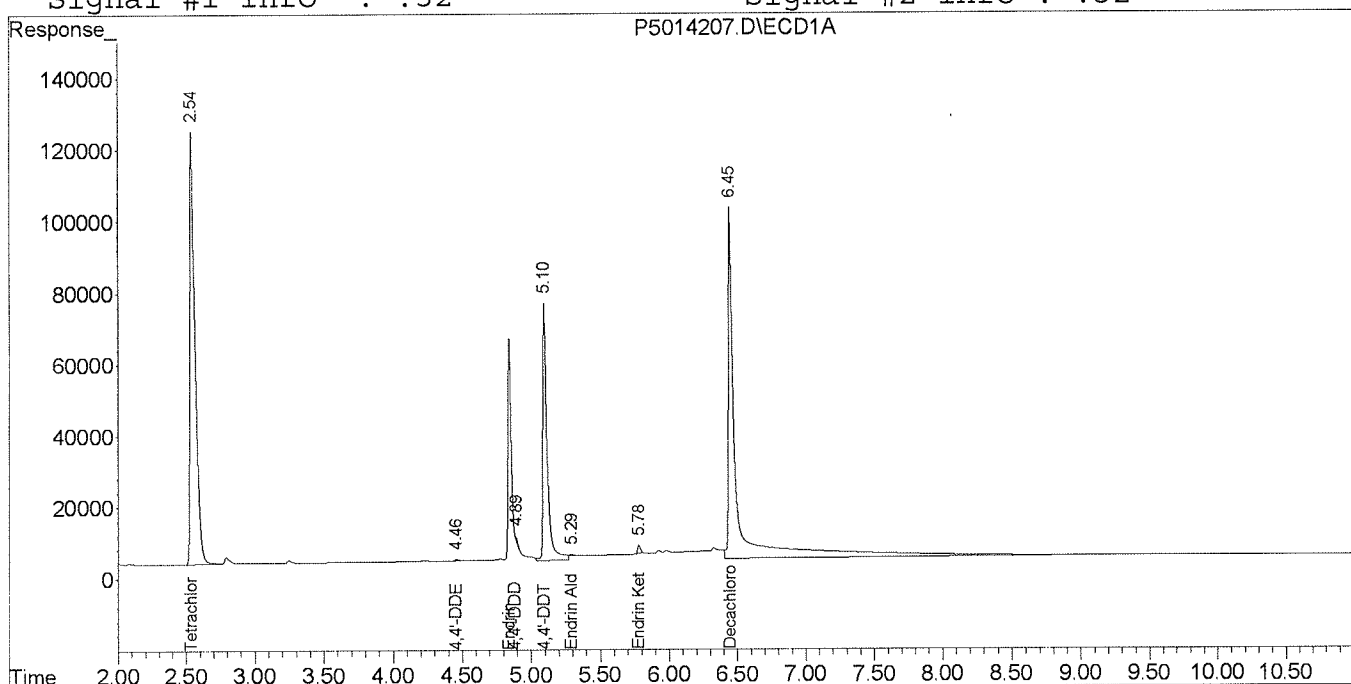
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P5014207.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014207.D\ECD2B.CH
 Acq On : 11 Mar 2016 6:26 pm Operator: AMC
 Sample : SEQ-BKD2 Inst : GC DUAL E
 Misc : QBPEST5-031116A Y14J138 DDT/ENDRIN Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 12:19 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 Se
 Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031116\P5014208.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014208.D\ECD2B.CH
 Acq On : 11 Mar 2016 6:42 pm Operator: AMC
 Sample : SEQ-CCV5 Inst : GC DUAL E
 Misc : QBPEST5-031116A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 7:44 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	1699327	1401473	138.158	135.131
Spiked Amount	200.000	Range	30 - 150	Recovery	= 69.08%	67.57%
24) SA Decachlorobiphen	6.44	7.12	1429477	1427214	132.103m	145.430m
Spiked Amount	200.000	Range	30 - 150	Recovery	= 66.05%	72.72%

Target Compounds

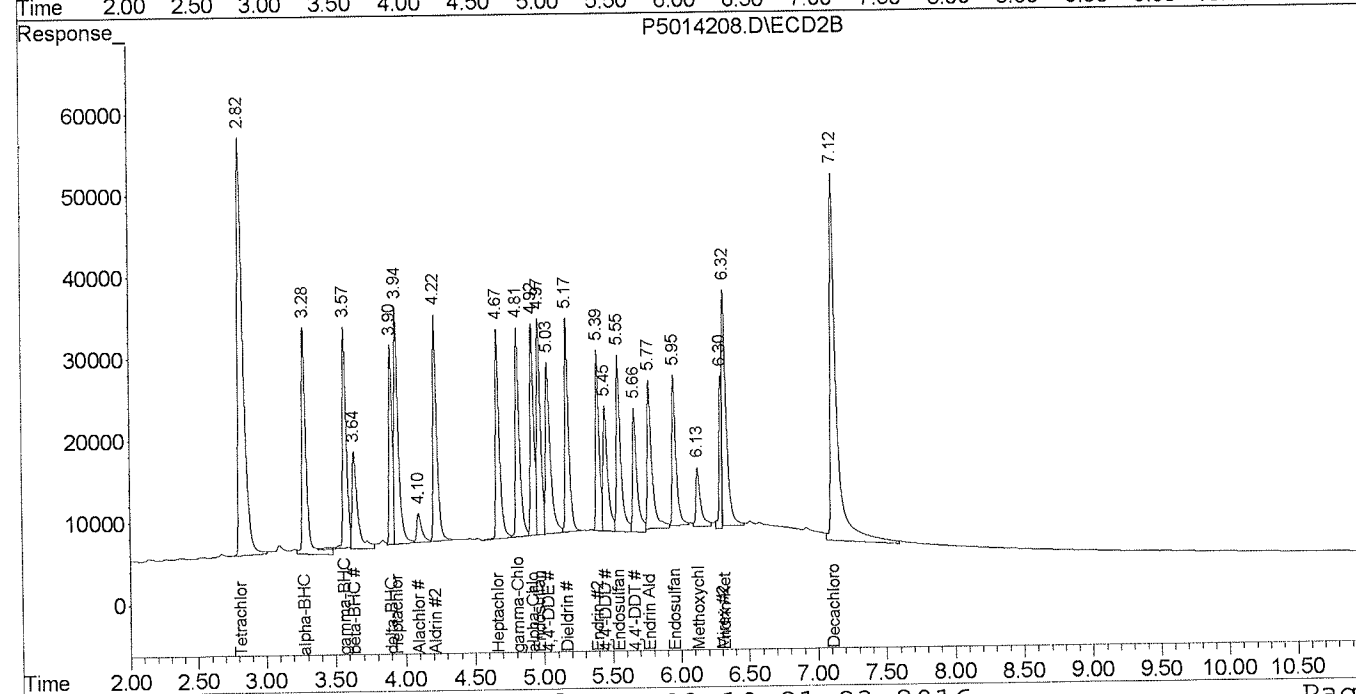
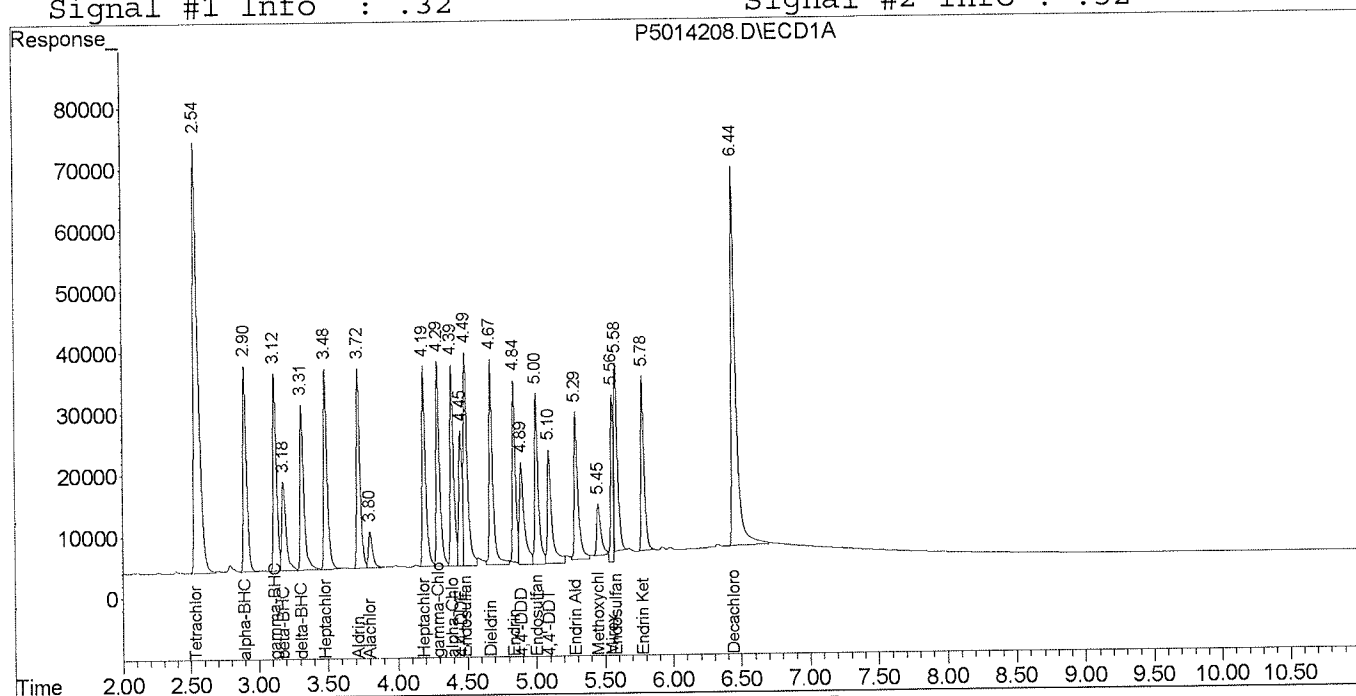
2) M alpha-BHC	2.90	3.28	589310	611864	45.449	43.802m
3) M gamma-BHC (Linda	3.12	3.57	559379	522201	49.638	42.703
4) M beta-BHC	3.18	3.64	321162	320105	50.005	41.282m
5) M delta-BHC	3.32	3.90	517572	384140	48.717	43.613
6) M Heptachlor	3.49	3.94	575281	607210	52.863	48.780
7) M Aldrin	3.72	4.22	558578	523540	46.968	41.450
8) M Alachlor	3.81	4.10	118731	86533	47.033	44.870
9) M Heptachlor Epoxi	4.19	4.67	553892	494875	51.011	47.501
10) M gamma-Chlordane	4.29	4.81	577281	503153	50.105	46.013
11) M alpha-Chlordane	4.39	4.92	545997	450577	48.920	46.562
12) M Endosulfan I	4.49	4.97	694161	516239	54.895	48.415
13) M 4,4'-DDE	4.46	5.03	342431	511478	44.006	49.688
14) M Dieldrin	4.68	5.17	596282	484124	52.775	44.030
15) M Endrin	4.84	5.40	442566	377668	57.307m	54.905
16) M 4,4'-DDD	4.90	5.45	400268	355217	53.275	48.314
17) M Endosulfan II	5.00	5.55	498956	459367	53.334	50.802
18) M 4,4'-DDT	5.10	5.67	405612	336190	53.566	53.477
19) M Endrin Aldehyde	5.29	5.77	456087	429591	55.044m	53.473m
20) M Methoxychlor	5.45	6.13	179510	173089	57.092m	57.754m
21) M Mirex	5.56	6.30	346711	214305	43.295	41.277m
22) M Endosulfan sulfa	5.58	5.95	535417	358583	58.370m	49.400m
23) M Endrin Ketone	5.78	6.32	464608	609698	54.769m	54.440m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P5014208.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014208.D\ECD2B.CH
 Acq On : 11 Mar 2016 6:42 pm Operator: AMC
 Sample : SEQ-CCV5 Inst : GC DUAL E
 Misc : QBPEST5-031116A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 7:44 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



FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 8081B**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202

Sequence:

Instrument:

Calibration:

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
01/LSB-1	16C0235-01	P5014203.D	03/11/16 17:25
02/LSB-1	16C0235-02	P5014204.D	03/11/16 17:40
03/LSB-2	16C0235-03	P5014205.D	03/11/16 17:55
04/LSB-2	16C0235-04	P5014206.D	03/11/16 18:11

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 8081B**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Sequence: Y6C1427Instrument: GC Dual ECalibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	Y6C1427-CCV1	P5014169.D	03/11/16 09:59
Blank	BC60572-BLK1	P5014172.D	03/11/16 10:44
LCS	BC60572-BS1	P5014173.D	03/11/16 10:59
LCS Dup	BC60572-BSD1	P5014174.D	03/11/16 11:14
Calibration Check	Y6C1427-CCV4	P5014192.D	03/11/16 15:06
Calibration Check	Y6C1427-CCV5	P5014208.D	03/11/16 18:42
Calibration Check	Y6C1427-CCV6	P5014229.D	03/12/16 00:05
Calibration Check	Y6C1427-CCV7	P5014242.D	03/12/16 03:25
Calibration Check	Y6C1427-CCV8	P5014263.D	03/12/16 08:50
Calibration Check	Y6C1427-CCV9	P5014272.D	03/12/16 11:09

FORM I

METHOD BLANK DATA SHEET
EPA 8081B

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60572-BLK1 File ID: P5014172.D
 Prepared: 03/10/16 13:40 Preparation: EPA 3550C Initial/Final: 30 g / 10 mL
 Analyzed: 03/11/16 10:44 Instrument: GC Dual E
 Batch: BC60572 Sequence: Y6C1427 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
72-54-8	4,4'-DDD	0.000330	U
72-55-9	4,4'-DDE	0.000330	U
50-29-3	4,4'-DDT	0.000330	U
309-00-2	Aldrin	0.000330	U
319-84-6	alpha-BHC	0.000330	U
5103-71-9	alpha-Chlordane	0.000330	U
319-85-7	beta-BHC	0.000330	U
57-74-9	Chlordane, total	0.0132	U
319-86-8	delta-BHC	0.000330	U
60-57-1	Dieldrin	0.000330	U
959-98-8	Endosulfan I	0.000330	U
33213-65-9	Endosulfan II	0.000330	U
1031-07-8	Endosulfan sulfate	0.000330	U
72-20-8	Endrin	0.000330	U
7421-93-4	Endrin aldehyde	0.000330	U
53494-70-5	Endrin ketone	0.000330	U
58-89-9	gamma-BHC (Lindane)	0.000330	U
5566-34-7	gamma-Chlordane	0.000330	U
76-44-8	Heptachlor	0.000330	U
1024-57-3	Heptachlor epoxide	0.000330	U
72-43-5	Methoxychlor	0.00165	U
8001-35-2	Toxaphene	0.0167	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg wet)	CONC (mg/kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.0670	0.0597	89.1	30 - 140	
Decachlorobiphenyl	0.0690	0.0465	67.4	30 - 140	

Signal #1 : C:\HPCHEM\1\DATA\031116\P5014172.D\ECD1A.CH Vial: 5
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014172.D\ECD2B.CH
 Acq On : 11 Mar 2016 10:44 am Operator: AMC
 Sample : BC60572-BLK1 Inst : GC DUAL E
 Misc : QBPEST5-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 12:57 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 : Fri Mar 11 12:56:26 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	2201639	1765811	178.997	170.260
Spiked Amount	200.000	Range	30 - 150	Recovery	= 89.50%	85.13%
24) SA Decachlorobiphen	6.44	7.11	1510324	1221544	139.575m	124.473m
Spiked Amount	200.000	Range	30 - 150	Recovery	= 69.79%	62.24%
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.	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. 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.	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. 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.	N.D.
18) M 4,4'-DDT	0.00	0.00	0	0	N.D.	N.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.	N.D.
21) M Mirex	0.00	0.00	0	0	N.D. d	N.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

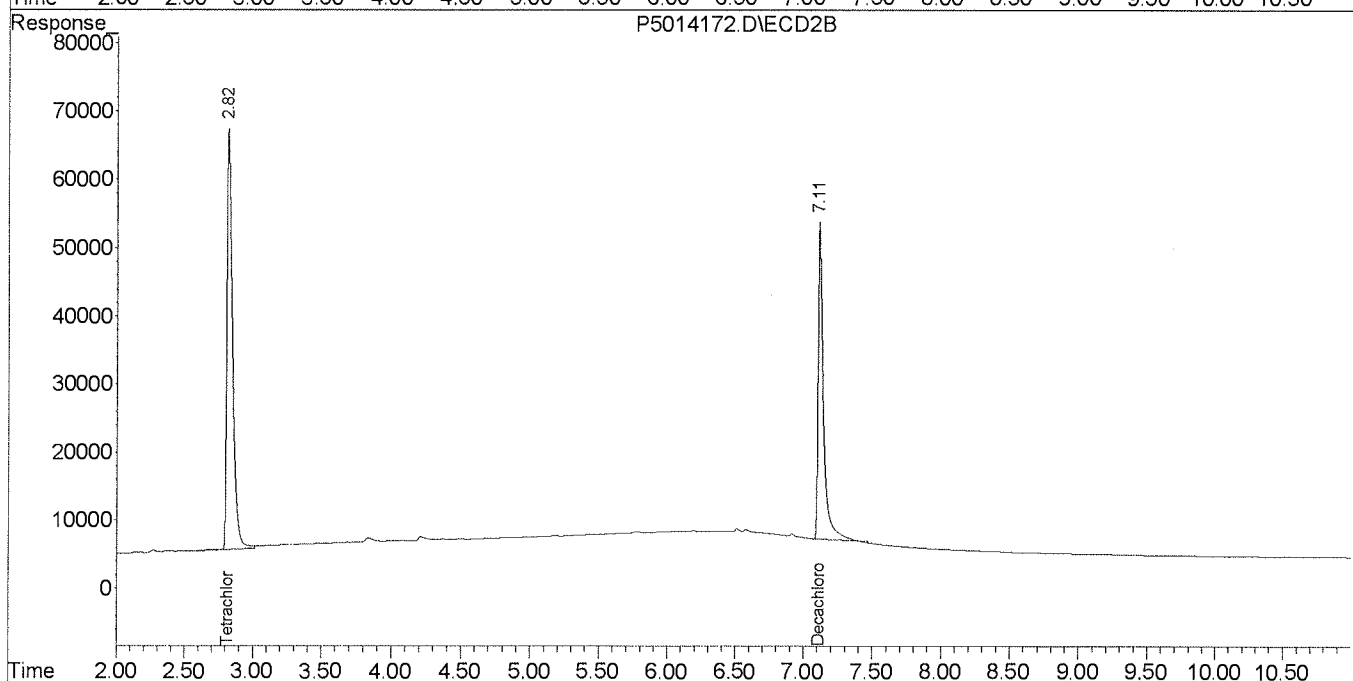
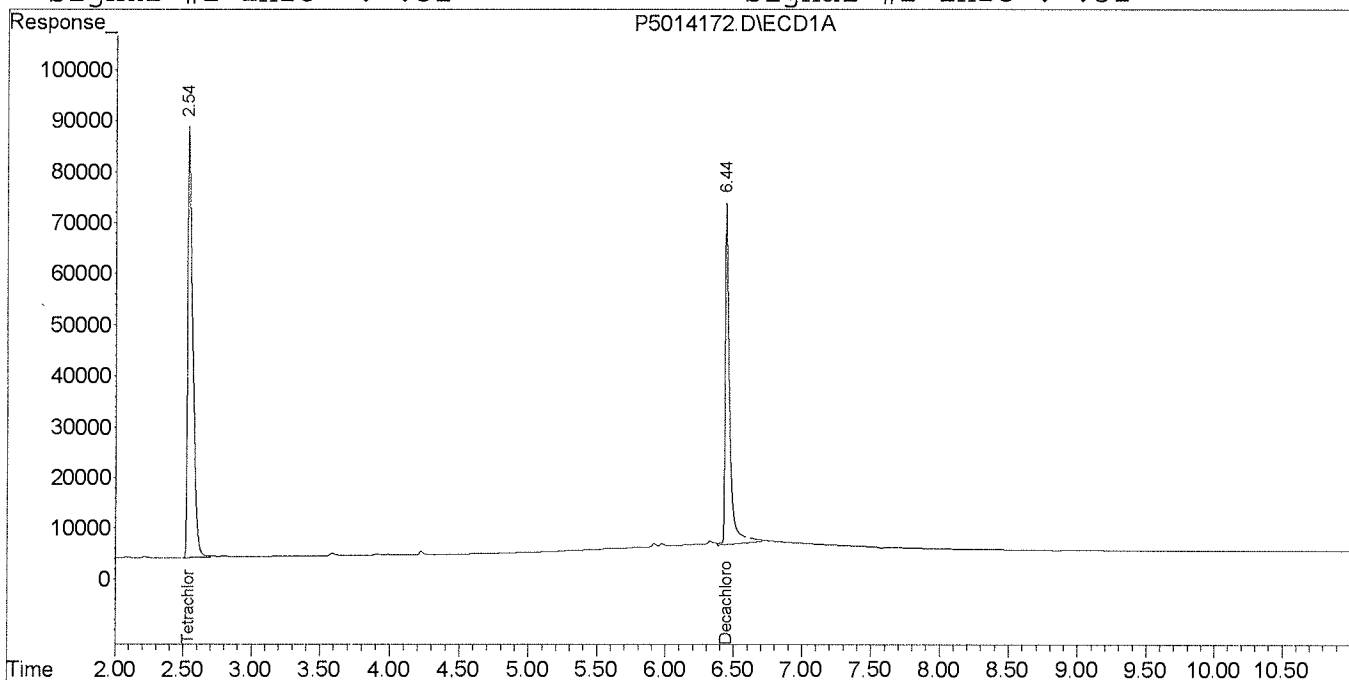
Signal #1 : C:\HPCHEM\1\DATA\031116\P5014172.D\ECD1A.CH Vial: 5
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014172.D\ECD2B.CH
 Acq On : 11 Mar 2016 10:44 am Operator: AMC
 Sample : BC60572-BLK1 Inst : GC DUAL E
 Misc : QBPEST5-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 12:57 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 : Fri Mar 11 12:56:26 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



FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60572Laboratory ID: BC60572-BS1Preparation: EPA 3550CInitial/Final: 30 g / 10 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
4,4'-DDD	0.0333	0.0356	107	40 - 140
4,4'-DDE	0.0333	0.0353	106	40 - 140
4,4'-DDT	0.0333	0.0344	103	40 - 140
Aldrin	0.0333	0.0347	104	40 - 140
alpha-BHC	0.0333	0.0363	109	40 - 140
alpha-Chlordane	0.0333	0.0351	105	40 - 140
beta-BHC	0.0333	0.0358	107	40 - 140
delta-BHC	0.0333	0.0348	104	40 - 140
Dieldrin	0.0333	0.0369	111	40 - 140
Endosulfan I	0.0333	0.0374	112	40 - 140
Endosulfan II	0.0333	0.0380	114	40 - 140
Endosulfan sulfate	0.0333	0.0352	106	40 - 140
Endrin	0.0333	0.0361	108	40 - 140
Endrin aldehyde	0.0333	0.0308	92.3	40 - 140
Endrin ketone	0.0333	0.0389	117	40 - 140
gamma-BHC (Lindane)	0.0333	0.0368	110	40 - 140
gamma-Chlordane	0.0333	0.0357	107	40 - 140
Heptachlor	0.0333	0.0341	102	40 - 140
Heptachlor epoxide	0.0333	0.0354	106	40 - 140
Methoxychlor	0.0333	0.0337	101	40 - 140

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: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Batch: BC60572

Laboratory ID: BC60572-BSD1

Preparation: EPA 3550C

Initial/Final: 30 g / 10 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCSD CONCENTRATION (mg/kg wet)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
4,4'-DDD	0.0333	0.0324	97.2	9.56	30	40 - 140
4,4'-DDE	0.0333	0.0301	90.4	15.8	30	40 - 140
4,4'-DDT	0.0333	0.0259	77.6	28.3	30	40 - 140
Aldrin	0.0333	0.0277	83.2	22.2	30	40 - 140
alpha-BHC	0.0333	0.0280	84.1	25.5	30	40 - 140
alpha-Chlordane	0.0333	0.0295	88.4	17.4	30	40 - 140
beta-BHC	0.0333	0.0286	85.9	22.2	30	40 - 140
delta-BHC	0.0333	0.0274	82.3	23.5	30	40 - 140
Dieldrin	0.0333	0.0280	84.1	27.3	30	40 - 140
Endosulfan I	0.0333	0.0293	87.9	24.4	30	40 - 140
Endosulfan II	0.0333	0.0291	87.3	26.6	30	40 - 140
Endosulfan sulfate	0.0333	0.0275	82.6	24.6	30	40 - 140
Endrin	0.0333	0.0290	86.9	22.0	30	40 - 140
Endrin aldehyde	0.0333	0.0264	79.1	15.4	30	40 - 140
Endrin ketone	0.0333	0.0303	90.9	24.8	30	40 - 140
gamma-BHC (Lindane)	0.0333	0.0278	83.5	27.8	30	40 - 140
gamma-Chlordane	0.0333	0.0280	84.1	24.1	30	40 - 140
Heptachlor	0.0333	0.0272	81.7	22.4	30	40 - 140
Heptachlor epoxide	0.0333	0.0268	80.5	27.4	30	40 - 140
Methoxychlor	0.0333	0.0334	100	0.681	30	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\031116\P5014173.D\ECD1A.CH Vial: 6
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014173.D\ECD2B.CH
 Acq On : 11 Mar 2016 10:59 am Operator: AMC
 Sample : BC60572-BS1 Inst : GC DUAL E
 Misc : QBPEST5-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 14:42 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 : Fri Mar 11 12:56:26 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	2438950	1863568	198.291	179.686
Spiked Amount	200.000	Range	30 - 150	Recovery	= 99.15%	89.84%
24) SA Decachlorobiphen	6.44	7.11	1718690	1884573	158.831m	192.034
Spiked Amount	200.000	Range	30 - 150	Recovery	= 79.42%	96.02%
Target Compounds						
2) M alpha-BHC	2.90	3.28	1410466	1321391	108.780	94.595
3) M gamma-BHC (Linda	3.12	3.57	1244588	1208196	110.441	98.800
4) M beta-BHC	3.18	3.64	689442	646264	107.347	83.345
5) M delta-BHC	3.31	3.90	1107899	891350	104.282m	101.199
6) M Heptachlor	3.48	3.94	1113572	1304823	102.326	104.824
7) M Aldrin	3.72	4.22	1237619	1197502	104.065	94.809
8) M Alachlor	3.80	4.10	242980	171249	96.251	88.799
9) M Heptachlor Epoxi	4.19	4.67	1152140	1078137	106.107	103.487
10) M gamma-Chlordane	4.29	4.81	1234160	1173724	107.119	107.336
11) M alpha-Chlordane	4.39	4.92	1174332	993945	105.217	102.714
12) M Endosulfan I	4.49	4.97	1419712	1163770	112.272	109.143
13) M 4,4'-DDE	4.45	5.03	824105	1199436	105.905	116.521
14) M Dieldrin	4.67	5.17	1250793	1249203	110.704	113.611
15) M Endrin	4.84	5.39	837330	773075	108.425m	112.389m
16) M 4,4'-DDD	4.89	5.45	803443	828639	106.937m	112.704m
17) M Endosulfan II	5.00	5.54	1067443	954059	114.100	105.510m
18) M 4,4'-DDT	5.09	5.66	781141	717822	103.159	114.183
19) M Endrin Aldehyde	5.29	5.77	764873	741964	92.311m	92.355m
20) M Methoxychlor	5.45	6.12	317537	271676	100.991m	90.649m
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	5.58	5.95	969648	829530	105.709	114.280m
23) M Endrin Ketone	5.78	6.32	989768	1231890	116.676m	109.995

Quantitation Report

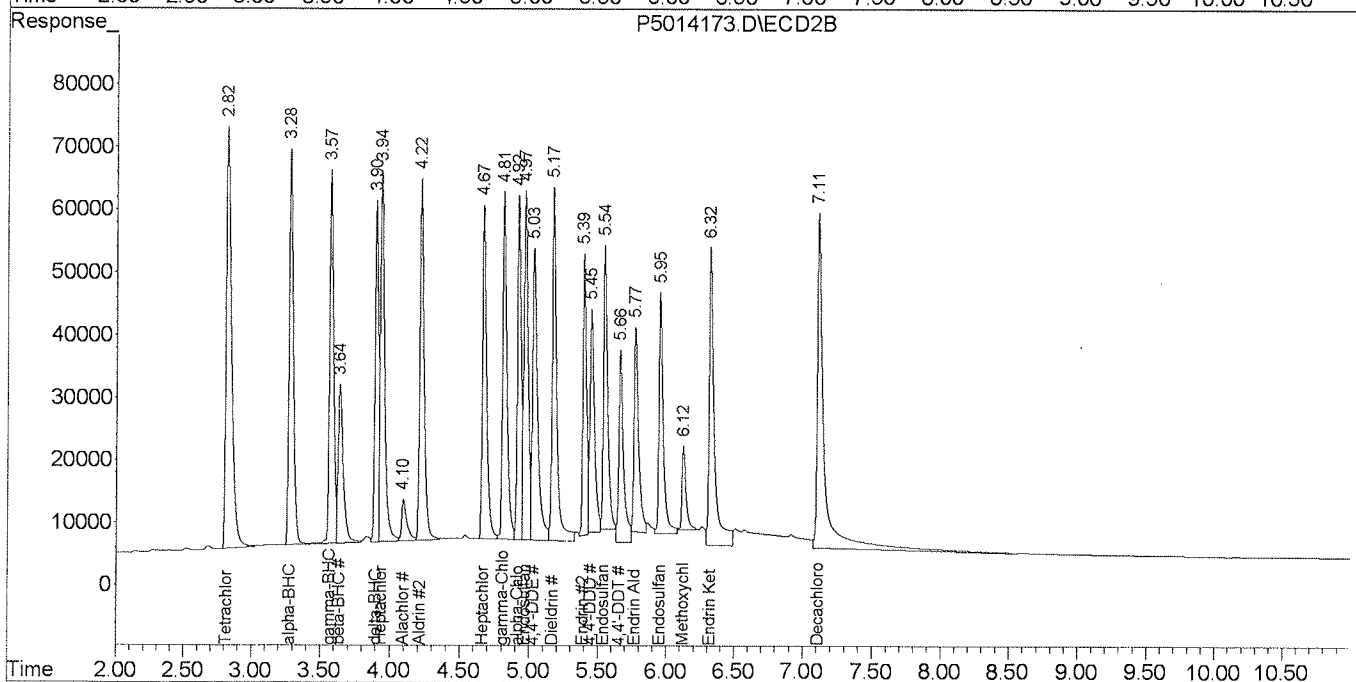
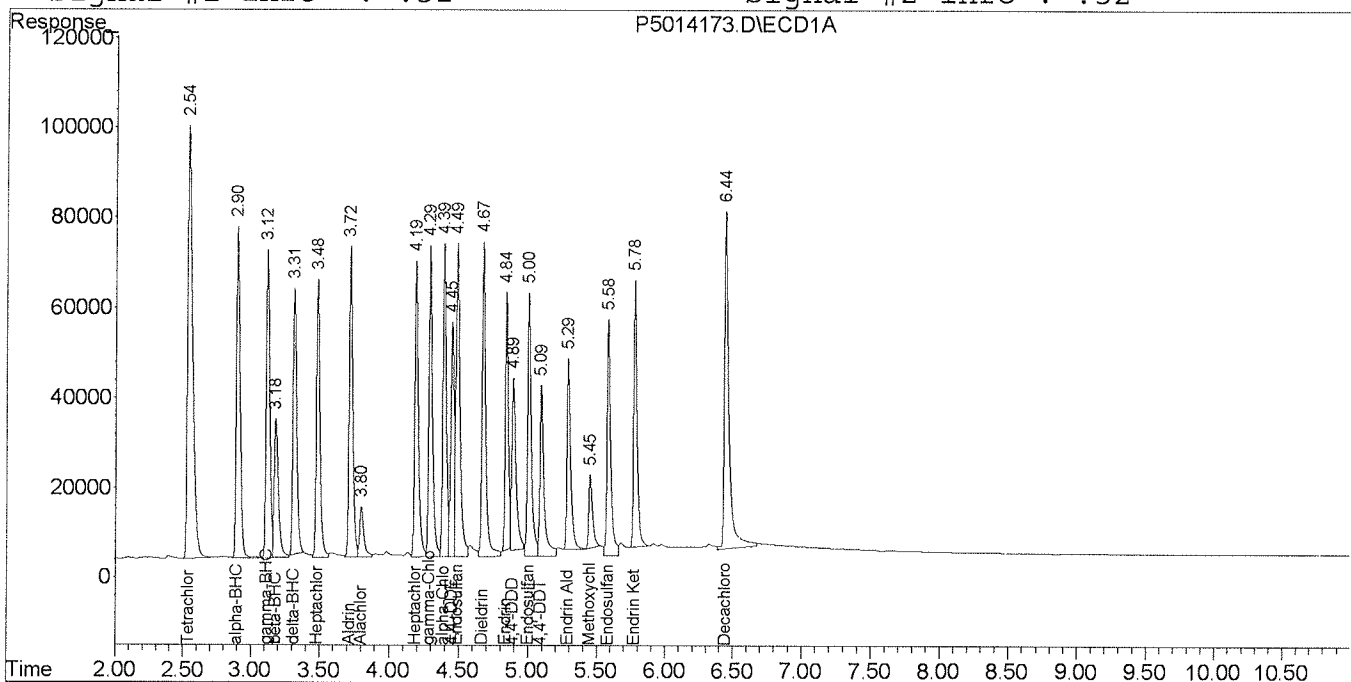
Signal #1 : C:\HPCHEM\1\DATA\031116\P5014173.D\ECD1A.CH Vial: 6
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014173.D\ECD2B.CH
 Acq On : 11 Mar 2016 10:59 am Operator: AMC
 Sample : BC60572-BS1 Inst : GC DUAL E
 Misc : QBPEST5-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 14:42 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 : Fri Mar 11 12:56:26 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\031116\P5014174.D\ECD1A.CH Vial: 7
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014174.D\ECD2B.CH
 Acq On : 11 Mar 2016 11:14 am Operator: AMC
 Sample : BC60572-BSD1 Inst : GC DUAL E
 Misc : QBPEST5-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 13:55 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 : Fri Mar 11 12:56:26 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

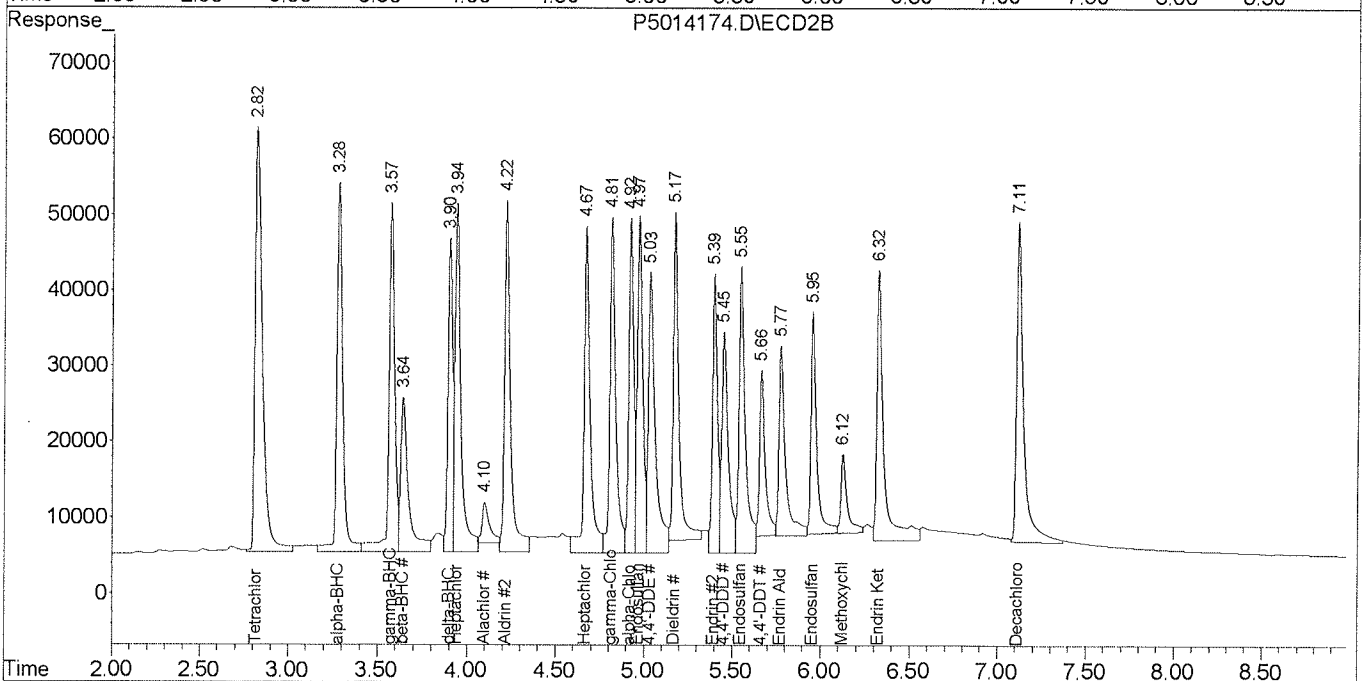
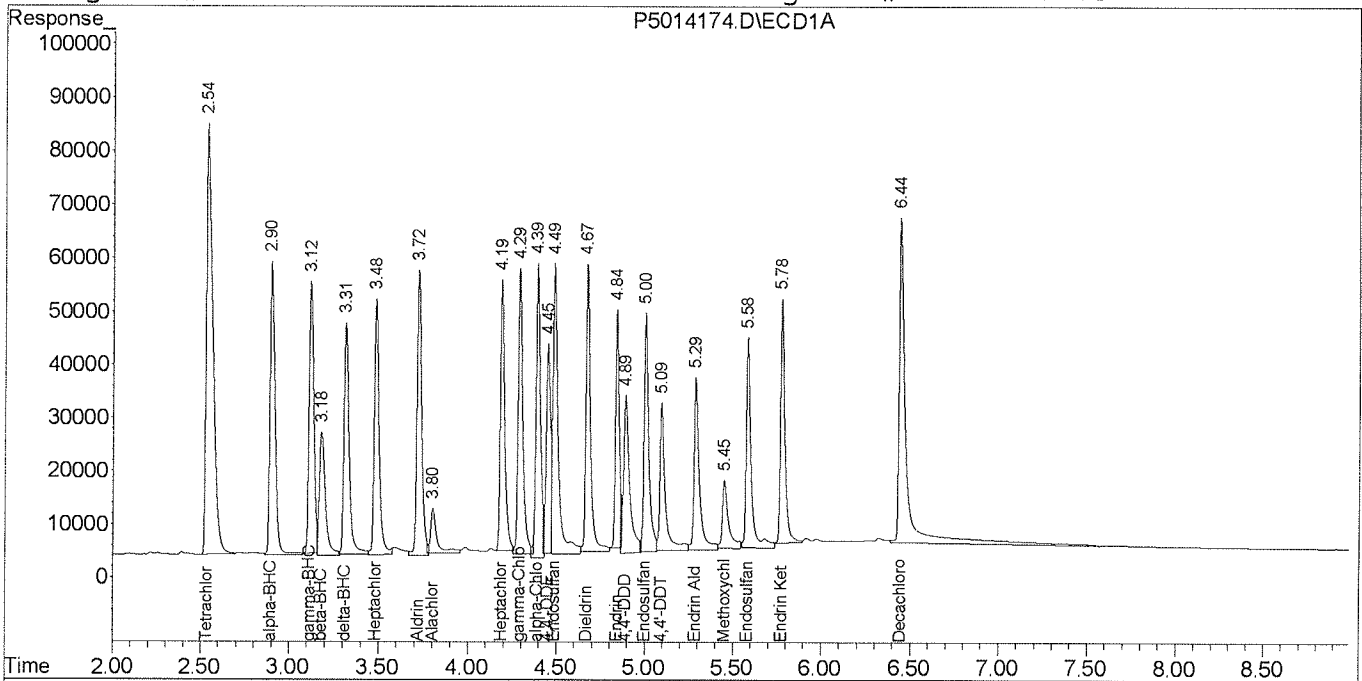
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	2079407	1646621	169.060	158.768
Spiked Amount	200.000	Range	30 - 150	Recovery	= 84.53%	79.38%
24) SA Decachlorobiphen	6.44	7.11	1717251	1149856	158.698	117.168m#
Spiked Amount	200.000	Range	30 - 150	Recovery	= 79.35%	58.58%
Target Compounds						
2) M alpha-BHC	2.90	3.28	1091061	1119725	84.146m	80.158
3) M gamma-BHC (Linda	3.12	3.57	940558	1044800	83.462	85.439
4) M beta-BHC	3.18	3.64	551736	613663	85.906m	79.141
5) M delta-BHC	3.31	3.90	874571	696106	82.320m	79.032
6) M Heptachlor	3.48	3.94	889121	1092830	81.701m	87.793
7) M Aldrin	3.72	4.22	990022	1087211	83.246m	86.077
8) M Alachlor	3.80	4.10	224717	158255	89.017m	82.061m
9) M Heptachlor Epoxi	4.19	4.67	874061	1037178	80.497	99.555
10) M gamma-Chlordane	4.29	4.81	969155	1027104	84.118m	93.927
11) M alpha-Chlordane	4.39	4.92	986181	822783	88.359m	85.026
12) M Endosulfan I	4.49	4.97	1110939	940825	87.854m	88.235
13) M 4,4'-DDE	4.45	5.03	703513	1026887	90.408m	99.758
14) M Dieldrin	4.67	5.17	949897	954366	84.073m	86.797m
15) M Endrin	4.84	5.40	671317	697658	86.928	101.425
16) M 4,4'-DDD	4.89	5.45	730167	766808	97.184m	104.295
17) M Endosulfan II	5.00	5.55	816883	942263	87.318m	104.206
18) M 4,4'-DDT	5.09	5.66	587500	481312	77.586m	76.562m
19) M Endrin Aldehyde	5.29	5.77	655283	654021	79.085m	81.408m
20) M Methoxychlor	5.45	6.12	315384	255458	100.306m	85.238m
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	5.58	5.95	757459	648245	82.577m	89.305m
23) M Endrin Ketone	5.78	6.32	771168	968247	90.907	86.454m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P5014174.D\ECD1A.CH Vial: 7
 Signal #2 : C:\HPCHEM\1\DATA\031116\P5014174.D\ECD2B.CH
 Acq On : 11 Mar 2016 11:14 am Operator: AMC
 Sample : BC60572-BSD1 Inst : GC DUAL E
 Misc : QBPEST5-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 13:55 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 : Fri Mar 11 12:56:26 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



PREPARATION BENCH SHEET-SOILS/SOLIDS

BC60572

York Analytical Laboratories, Inc.

Printed: 3/23/2016 11:16:55AM

Matrix: Soil

Preparation: EPA 3550C

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
16C0195-10 E	Polychlorinated Biphenyls	03/10/2016 13:40	30	10				100		
16C0195-10 E	Pesticides, 8081 target	03/10/2016 13:40	30	10				100		
16C0213-05 A	Pesticides, NJDEP/TCL	03/10/2016 13:40	30	10				100		
16C0213-05 A	Polychlorinated Biphenyls	03/10/2016 13:40	30	10				100		
16C0213-06 A	Pesticides, NJDEP/TCL	03/10/2016 13:40	30	10				100		
16C0213-06 A	Polychlorinated Biphenyls	03/10/2016 13:40	30	10				100		
16C0213-07 A	Pesticides, NJDEP/TCL	03/10/2016 13:40	30	10				100		
16C0213-07 A	Polychlorinated Biphenyls	03/10/2016 13:40	30	10				100		
16C0213-08 A	Pesticides, NJDEP/TCL	03/10/2016 13:40	30	10				100		
16C0213-08 A	Polychlorinated Biphenyls	03/10/2016 13:40	30	10				100		
16C0213-09 A	Pesticides, NJDEP/TCL	03/10/2016 13:40	30	10				100		
16C0213-09 A	Polychlorinated Biphenyls	03/10/2016 13:40	30	10				100		
16C0213-10 A	Pesticides, NJDEP/TCL	03/10/2016 13:40	30	10				100		
16C0213-10 A	Polychlorinated Biphenyls	03/10/2016 13:40	30	10				100		
16C0213-11 A	Pesticides, NJDEP/TCL	03/10/2016 13:40	30	10				100		
16C0213-11 A	Polychlorinated Biphenyls	03/10/2016 13:40	30	10				100		
16C0213-12 A	Pesticides, 8081 target	03/10/2016 13:40	30	10				100		Added for BatchQC in: BC60572
16C0213-12 A	Pesticides, NJDEP/TCL	03/10/2016 13:40	30	10				100		Added for BatchQC in: BC60572
16C0213-12 A	Pesticides, NJDEP/TCL	03/10/2016 13:40	30	10				100		
16C0213-12 A	Pesticides, NYSDEC Pa	03/10/2016 13:40	30	10				100		Added for BatchQC in: BC60572
16C0213-12 A	Polychlorinated Biphenyls	03/10/2016 13:40	30	10				100		
16C0213-13 A	Pesticides, NJDEP/TCL	03/10/2016 13:40	30	10				100		
16C0213-13 A	Polychlorinated Biphenyls	03/10/2016 13:40	30	10				100		
16C0213-14 A	Pesticides, NJDEP/TCL	03/10/2016 13:40	30	10				100		

Preparation Performed by MGL

Date: 03/10/2016 13:40

PUF Lot no.: _____

PREPARATION BENCH SHEET-SOILS/SOLIDS

BC60572

York Analytical Laboratories, Inc.

Printed: 3/23/2016 11:16:55AM

Matrix: Soil Preparation: EPA 3550C 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
16C0213-14 A	Polychlorinated Biphen	03/10/2016 13:40	30	10				100		
16C0213-15 A	Polychlorinated Biphen	03/10/2016 13:40	30	10				100		
16C0213-15 A	Pesticides, NJDEP/TCL	03/10/2016 13:40	30	10				100		
16C0213-16 A	Pesticides, NJDEP/TCL	03/10/2016 13:40	30	10				100		
16C0213-16 A	Polychlorinated Biphen	03/10/2016 13:40	30	10				100		
16C0235-01 E	Pesticides, 8081 target	03/10/2016 13:40	30	10				100		
16C0235-01 E	Pesticides, NYSDEC Pa	03/10/2016 13:40	30	10				100		
16C0235-01 E	Polychlorinated Biphen	03/10/2016 13:40	30	10				100		
16C0235-02 E	Pesticides, 8081 target	03/10/2016 13:40	30	10				100		
16C0235-02 E	Pesticides, NYSDEC Pa	03/10/2016 13:40	30	10				100		
16C0235-02 E	Polychlorinated Biphen	03/10/2016 13:40	30	10				100		
16C0235-03 E	Pesticides, 8081 target	03/10/2016 13:40	30	10				100		
16C0235-03 E	Pesticides, NYSDEC Pa	03/10/2016 13:40	30	10				100		
16C0235-03 E	Polychlorinated Biphen	03/10/2016 13:40	30	10				100		
16C0235-04 E	Pesticides, 8081 target	03/10/2016 13:40	30	10				100		
16C0235-04 E	Pesticides, NYSDEC Pa	03/10/2016 13:40	30	10				100		
16C0235-04 E	Polychlorinated Biphen	03/10/2016 13:40	30	10				100		
16C0338-01 D	Pesticides, NYSDEC Pa	03/10/2016 13:40	30	10				100		
16C0338-01 D	Polychlorinated Biphen	03/10/2016 13:40	30	10				100		
16C0338-02 D	Pesticides, NYSDEC Pa	03/10/2016 13:40	30	10				100		
16C0338-02 D	Polychlorinated Biphen	03/10/2016 13:40	30	10				100		
16C0381-01 A	Pesticides, NJDEP/TCL	03/10/2016 13:40	30	10				100		
16C0381-01 A	Polychlorinated Biphen	03/10/2016 13:40	30	10				100		
BC60572-BLK1	QC	03/10/2016 13:40	30	10				100		

Preparation Performed by MGL

Date: 03/10/2016 13:40

PUF Lot no.: _____

PREPARATION BENCH SHEET-SOILS/SOLIDS

BC60572

York Analytical Laboratories, Inc.

Printed: 3/23/2016 11:16:55AM

Matrix: Soil		Preparation: EPA 3550C					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
BC60572-BLK2	QC	03/10/2016 13:40	30	10				100		
BC60572-BS1	QC	03/10/2016 13:40	30	10	Y16B008		100	100		
BC60572-BS2	QC	03/10/2016 13:40	30	10	Y16C070		100	100		
BC60572-BSD1	QC	03/10/2016 13:40	30	10	Y16B008		100	100		
BC60572-MS1	QC	03/10/2016 13:40	30	10	Y16B008	16C0213-12	100	100		

Reagents:

ID Number	Description	Lot Number	ID Number	Description	Lot Number
Y15F071	Ottawa Sand Mix	051215	Y16A049	HEXANE	0000124859
Y16A073	Sodium Sulfate, Anhydrous	0000112050	Y16B067	ACETONE	0000125984

Sequence Name: C:\HPCHEM\1\SEQUENCE\P5031116.S
 Comment: PESTICIDES - SINGLE TOWER, DUAL DETECTORS
 Operator: AMC
 Data Path: C:\HPCHEM\1\DATA\031116\
 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	P5014168	PEST	SEQ-BKD1
2 Sample	2	P5014169	PEST	SEQ-CCV1
3 Sample	3	P5014170	PEST	SEQ-CCV2
4 Sample	4	P5014171	PEST	SEQ-CCV3
5 Sample	5	P5014172	PEST	BC60572-BLK1
6 Sample	6	P5014173	PEST	BC60572-BS1
7 Sample	7	P5014174	PEST	BC60572-BSD1
8 Sample	8	P5014175	PEST	BC60574-BLK1
9 Sample	9	P5014176	PEST	BC60574-BS1
10 Sample	10	P5014177	PEST	BC60574-BSD1
11 Sample	11	P5014178	PEST	16C0213-13
12 Sample	12	P5014179	PEST	16C0213-14
13 Sample	13	P5014180	PEST	16C0213-15
14 Sample	14	P5014181	PEST	16C0213-16
15 Sample	15	P5014182	PEST	16C0213-05
16 Sample	16	P5014183	PEST	16C0213-06
17 Sample	17	P5014184	PEST	16C0213-07
18 Sample	18	P5014185	PEST	16C0213-08
19 Sample	19	P5014186	PEST	16C0213-09
20 Sample	20	P5014187	PEST	16C0213-10
21 Sample	21	P5014188	PEST	16C0213-11
22 Sample	22	P5014189	PEST	16C0213-12
23 Sample	23	P5014190	PEST	16C0195-10
24 Sample	24	P5014191	PEST	16C0225-01
25 Sample	2	P5014192	PEST	SEQ-CCV4
26 Sample	25	P5014193	PEST	16C0225-02
27 Sample	26	P5014194	PEST	16C0225-03
28 Sample	27	P5014195	PEST	16C0225-04
29 Sample	28	P5014196	PEST	16C0225-05
30 Sample	29	P5014197	PEST	16C0225-06
31 Sample	30	P5014198	PEST	16C0225-07
32 Sample	31	P5014199	PEST	16C0225-08
33 Sample	32	P5014200	PEST	16C0225-09
34 Sample	33	P5014201	PEST	16C0225-10
35 Sample	34	P5014202	PEST	BC60572-MS1
36 Sample	35	P5014203	PEST	16C0235-01
37 Sample	36	P5014204	PEST	16C0235-02
38 Sample	37	P5014205	PEST	16C0235-03
39 Sample	38	P5014206	PEST	16C0235-04
40 Sample	1	P5014207	PEST	SEQ-BKD2
41 Sample	2	P5014208	PEST	SEQ-CCV5
42 Sample	39	P5014209	PEST	16C0338-01
43 Sample	40	P5014210	PEST	16C0338-02

Line Type	Vial	DataFile	Method	Sample Name
44 Sample	41	P5014211	PEST	16C0381-01
45 Sample	42	P5014212	PEST	16B0952-02
46 Sample	43	P5014213	PEST	BC60574-MS1
47 Sample	44	P5014214	PEST	16B0952-04
48 Sample	45	P5014215	PEST	16C0265-03
49 Sample	46	P5014216	PEST	16C0272-02
50 Sample	47	P5014217	PEST	BC60617-BLK1
51 Sample	48	P5014218	PEST	BC60617-BS1
52 Sample	49	P5014219	PEST	BC60617-BSD1
53 Sample	50	P5014220	PEST	16C0328-01
54 Sample	51	P5014221	PEST	16C0328-02
55 Sample	52	P5014222	PEST	16C0328-03
56 Sample	53	P5014223	PEST	16C0406-01
57 Sample	54	P5014224	PEST	16C0406-02
58 Sample	55	P5014225	PEST	16C0406-03
59 Sample	56	P5014226	PEST	16C0407-37
60 Sample	57	P5014227	PEST	16C0407-38
61 Sample	58	P5014228	PEST	16C0408-01
62 Sample	2	P5014229	PEST	SEQ-CCV6
63 Sample	59	P5014230	PEST	16C0454-02
64 Sample	60	P5014231	PEST	16C0461-06
65 Sample	61	P5014232	PEST	16C0458-01
66 Sample	62	P5014233	PEST	16C0458-02
67 Sample	63	P5014234	PEST	16C0458-03
68 Sample	64	P5014235	PEST	BC60497-BLK1
69 Sample	65	P5014236	PEST	BC60497-BS1
70 Sample	66	P5014237	PEST	BC60497-BSD1
71 Sample	67	P5014238	PEST	16C0268-28
72 Sample	68	P5014239	PEST	BC60497-DUP1
73 Sample	69	P5014240	PEST	16C0268-29
74 Sample	1	P5014241	PEST	SEQ-BKD3
75 Sample	2	P5014242	PEST	SEQ-CCV7
76 Sample	70	P5014243	PEST	BC60614-BLK1
77 Sample	71	P5014244	PEST	BC60614-BS1
78 Sample	72	P5014245	PEST	BC60614-BSD1
79 Sample	73	P5014246	PEST	16C0263-03
80 Sample	74	P5014247	PEST	16C0263-04
81 Sample	75	P5014248	PEST	16C0263-05
82 Sample	76	P5014249	PEST	16C0263-06
83 Sample	77	P5014250	PEST	16C0263-07
84 Sample	78	P5014251	PEST	16C0263-08
85 Sample	79	P5014252	PEST	16C0263-09
86 Sample	80	P5014253	PEST	16C0263-11
87 Sample	81	P5014254	PEST	16C0263-12
88 Sample	82	P5014255	PEST	BC60614-MS1
89 Sample	83	P5014256	PEST	BC60649-BLK1
90 Sample	84	P5014257	PEST	BC60649-BS1
91 Sample	85	P5014258	PEST	BC60649-BSD1
92 Sample	86	P5014259	PEST	16C0268-29
93 Sample	87	P5014260	PEST	16C0268-32
94 Sample	88	P5014261	PEST	16C0268-35
95 Sample	89	P5014262	PEST	16C0268-37
96 Sample	2	P5014263	PEST	SEQ-CCV8

Sequence Name: C:\HPCHEM\1\SEQUENCE\P5031116.S

Line Type	Vial	DataFile	Method	Sample Name
97 Sample	90	P5014264	PEST	16C0268-40
98 Sample	91	P5014265	PEST	16C0268-42
99 Sample	92	P5014266	PEST	BC60649-MS1
100 Sample	93	P5014267	PEST	16C0268-43
101 Sample	94	P5014268	PEST	16C0268-44
102 Sample	95	P5014269	PEST	16C0268-48
103 Sample	96	P5014270	PEST	16C0268-51
104 Sample	97	P5014271	PEST	16C0268-52
105 Sample	2	P5014272	PEST	SEQ-CCV9

York Analytical Laboratories, Inc.

SDG: 16C0235

CLASS: PEST

METHOD: EPA 8082A

DATA PACKAGE COVER PAGE

EPA 8082A

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-1

02/LSB-1

03/LSB-2

04/LSB-2

Lab Sample Id:

16C0235-01

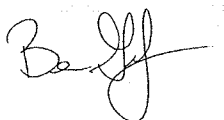
16C0235-02

16C0235-03

16C0235-04

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:

3/25/2016

Title:

Laboratory Director

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Sequence: Y6C1418 Instrument: ECD#1
 Matrix: Oil Calibration: UNASSIGNED

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (Y6C1418-CCV1) Lab File ID: P1027671.D Analyzed: 03/11/16 09:20								
Tetrachloro-m-xylene	0.161	88.2	0 - 200	4.66				
Decachlorobiphenyl	0.166	77.1	0 - 200	9.49				
Blank (BC60572-BLK2) Lab File ID: P1027673.D Analyzed: 03/11/16 09:58								
Tetrachloro-m-xylene	0.0670	92.5	30 - 140	4.66				
Decachlorobiphenyl	0.0690	70.5	30 - 140	9.48				
LCS (BC60572-BS2) Lab File ID: P1027674.D Analyzed: 03/11/16 10:18								
Tetrachloro-m-xylene	0.0670	91.0	30 - 140	4.66				
Decachlorobiphenyl	0.0690	73.4	30 - 140	9.48				
01/LSB-1 (16C0235-01) Lab File ID: P1027688.D Analyzed: 03/11/16 14:37								
Tetrachloro-m-xylene	0.0754	73.6	30 - 140	4.67				
Decachlorobiphenyl	0.0777	61.8	30 - 140	9.49				
02/LSB-1 (16C0235-02) Lab File ID: P1027689.D Analyzed: 03/11/16 14:56								
Tetrachloro-m-xylene	0.0759	84.1	30 - 140	4.66				
Decachlorobiphenyl	0.0782	60.9	30 - 140	9.48				
03/LSB-2 (16C0235-03) Lab File ID: P1027690.D Analyzed: 03/11/16 15:15								
Tetrachloro-m-xylene	0.0789	66.7	30 - 140	4.66				
Decachlorobiphenyl	0.0813	58.0	30 - 140	9.49				
04/LSB-2 (16C0235-04) Lab File ID: P1027691.D Analyzed: 03/11/16 15:31								
Tetrachloro-m-xylene	0.0956	85.1	30 - 140	4.66				
Decachlorobiphenyl	0.0985	59.9	30 - 140	9.49				
Calibration Check (Y6C1418-CCV3) Lab File ID: P1027692.D Analyzed: 03/11/16 15:50								
Tetrachloro-m-xylene	0.161	94.4	0 - 200	4.66				
Decachlorobiphenyl	0.166	78.3	0 - 200	9.49				
Calibration Check (Y6C1418-CCV4) Lab File ID: P1027713.D Analyzed: 03/11/16 22:34								
Tetrachloro-m-xylene	0.161	96.9	0 - 200	4.66				
Decachlorobiphenyl	0.166	86.7	0 - 200	9.48				
Calibration Check (Y6C1418-CCV5) Lab File ID: P1027720.D Analyzed: 03/12/16 00:48								
Tetrachloro-m-xylene	0.161	93.8	0 - 200	4.66				
Decachlorobiphenyl	0.166	83.7	0 - 200	9.48				

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil
Batch: BC60572 Laboratory ID: BC60572-BS2
Preparation: EPA 3550C Initial/Final: 30 g / 10 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
Aroclor 1016	0.333	0.359	108	40 - 130
Aroclor 1260	0.333	0.338	101	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: I6C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil Laboratory ID: BC60572-BLK2 File ID: P1027673.D
Prepared: 03/10/16 13:40 Preparation: EPA 3550C Initial/Final: 30 g / 10 mL
Analyzed: 03/11/16 09:58 Instrument: ECD#1
Batch: BC60572 Sequence: Y6C1418 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
12674-11-2	Aroclor 1016	0.0167	U
11104-28-2	Aroclor 1221	0.0167	U
11141-16-5	Aroclor 1232	0.0167	U
53469-21-9	Aroclor 1242	0.0167	U
12672-29-6	Aroclor 1248	0.0167	U
11097-69-1	Aroclor 1254	0.0167	U
11096-82-5	Aroclor 1260	0.0167	U
1336-36-3	Total PCBs	0.0167	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg wet)	CONC (mg/kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.0670	0.0620	92.5	30 - 140	
Decachlorobiphenyl	0.0690	0.0487	70.5	30 - 140	

FORM IV**PREPARATION BATCH SUMMARY****EPA 8082A**

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60572 Batch Matrix: Soil Preparation: EPA 3550C

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-1	16C0235-01	P1027688.D	03/10/16 13:40	
02/LSB-1	16C0235-02	P1027689.D	03/10/16 13:40	
03/LSB-2	16C0235-03	P1027690.D	03/10/16 13:40	
04/LSB-2	16C0235-04	P1027691.D	03/10/16 13:40	
Blank	BC60572-BLK2	P1027673.D	03/10/16 13:40	
LCS	BC60572-BS2	P1027674.D	03/10/16 13:40	

METHOD DETECTION AND REPORTING LIMITS

EPA 8082A

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument: ECD#1

Analyte	LOD	LOQ	Units
Aroclor 1016	0.0167	0.0167	mg/kg
Aroclor 1260	1.00	5.00	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: 16C0235

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-1	03/04/16 11:45	03/07/16 17:45	03/10/16 13:40	6.08	14.00	03/11/16 14:37	1.04	40.00	
02/LSB-1	03/04/16 12:20	03/07/16 17:45	03/10/16 13:40	6.06	14.00	03/11/16 14:56	1.05	40.00	
03/LSB-2	03/04/16 13:15	03/07/16 17:45	03/10/16 13:40	6.02	14.00	03/11/16 15:15	1.07	40.00	
04/LSB-2	03/04/16 13:30	03/07/16 17:45	03/10/16 13:40	6.01	14.00	03/11/16 15:31	1.08	40.00	

FORM I

ORGANIC ANALYSIS DATA SHEET

01/LSB-1

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-01 File ID: P1027688.D
 Sampled: 03/04/16 11:45 Prepared: 03/10/16 13:40 Analyzed: 03/11/16 14:37
 Solids: 88.84 Preparation: EPA 3550C Initial/Final: 30 g / 10 mL
 Batch: BC60572 Sequence: Y6C1418 Calibration: UNASSIGNED Instrument: ECD#1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
12674-11-2	Aroclor 1016	1	0.0188	U
11104-28-2	Aroclor 1221	1	0.0188	U
11141-16-5	Aroclor 1232	1	0.0188	U
53469-21-9	Aroclor 1242	1	0.0188	U
12672-29-6	Aroclor 1248	1	0.0188	U
11097-69-1	Aroclor 1254	1	0.0424	
11096-82-5	Aroclor 1260	1	0.0188	U
1336-36-3	Total PCBs	1	0.0424	

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.0754	0.0555	73.6	30 - 140	
Decachlorobiphenyl	0.0777	0.0480	61.8	30 - 140	

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027688.D\ECD1A.CH Vial: 18
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027688.D\ECD2B.CH
 Acq On : 11 Mar 2016 2:37 pm Operator: AMC
 Sample : 16C0235-01 Inst : ECD#1
 Misc : QBPCB1-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 11:13 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

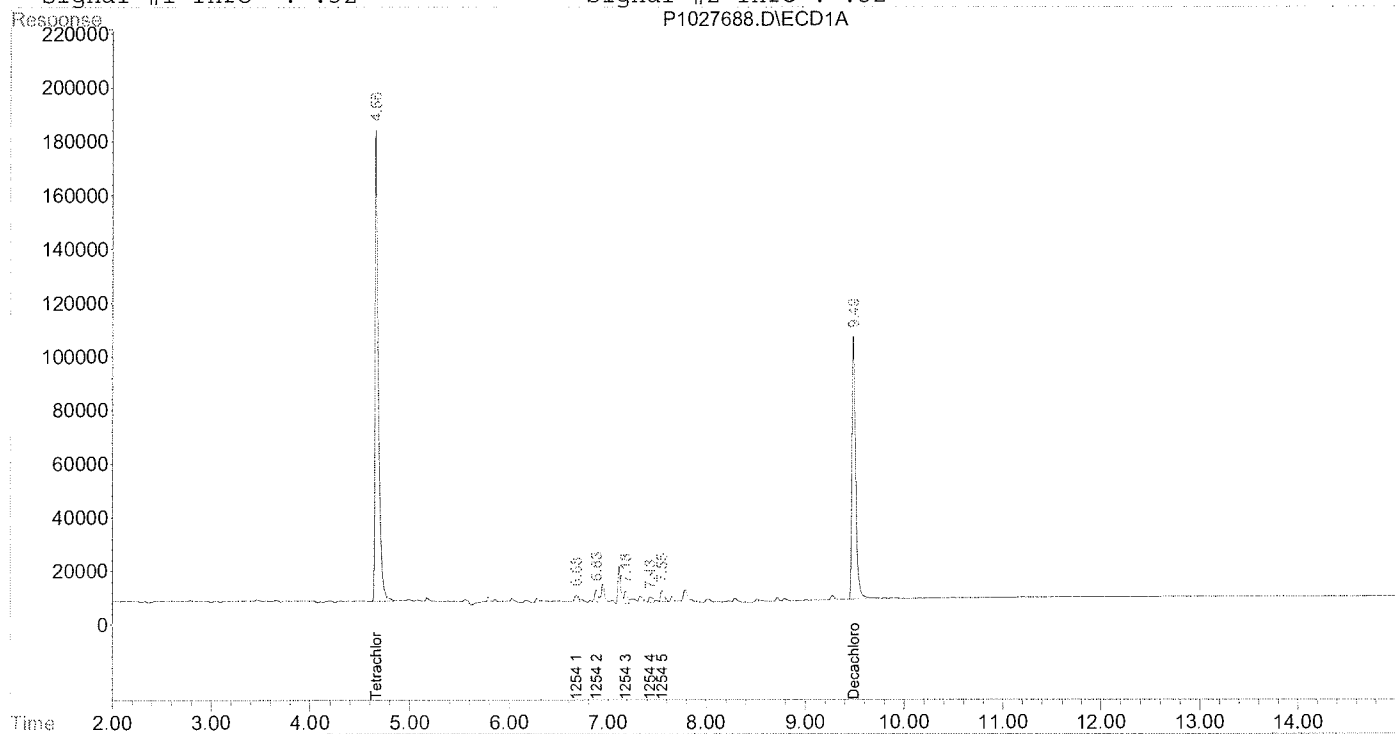
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.67	3.65	4167702	2193624	0.148	0.135
Spiked Amount	0.200	Range	30 - 150	Recovery	=	74.00% 67.50%
17) S Decachlorobiphen	9.49	8.25	2537846	1591018	0.128	0.121
Spiked Amount	0.200	Range	30 - 150	Recovery	=	64.00% 60.50%
Target Compounds						
2) 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. d	N.D. d
6) T 1016 5	0.00	0.00	0	0	N.D. d	N.D. d
7) T 1254 1	6.68	5.69	55958	38847	0.083m	0.074m
8) T 1254 2	6.88	5.84	87550	47719	0.108m	0.134m
9) T 1254 3	7.18	0.00	113512	0	0.117	N.D. d#
10) T 1254 4	7.43	6.18	57444	65148	0.091m	0.081
11) T 1254 5	7.55	6.74	112163	91403	0.166m	0.121 #
12) T 1260 1	0.00	0.00	0	0	N.D. d	N.D. d
13) T 1260 2	0.00	0.00	0	0	N.D. d	N.D. d
14) T 1260 3	0.00	0.00	0	0	N.D. d	N.D. d
15) T 1260 4	0.00	0.00	0	0	N.D. d	N.D. d
16) T 1260 5	0.00	0.00	0	0	N.D. d	N.D. d

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027688.D\ECD1A.CH Vial: 18
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027688.D\ECD2B.CH
 Acq On : 11 Mar 2016 2:37 pm Operator: AMC
 Sample : 16C0235-01 Inst : ECD#1
 Misc : QBPCB1-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 11:13 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



FORM I

ORGANIC ANALYSIS DATA SHEET

02/LSB-1

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-02 File ID: P1027689.D
 Sampled: 03/04/16 12:20 Prepared: 03/10/16 13:40 Analyzed: 03/11/16 14:56
 Solids: 88.27 Preparation: EPA 3550C Initial/Final: 30 g / 10 mL
 Batch: BC60572 Sequence: Y6C1418 Calibration: UNASSIGNED Instrument: ECD#1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
12674-11-2	Aroclor 1016	1	0.0189	U
11104-28-2	Aroclor 1221	1	0.0189	U
11141-16-5	Aroclor 1232	1	0.0189	U
53469-21-9	Aroclor 1242	1	0.0189	U
12672-29-6	Aroclor 1248	1	0.0189	U
11097-69-1	Aroclor 1254	1	0.0189	U
11096-82-5	Aroclor 1260	1	0.0189	U
1336-36-3	Total PCBs	1	0.0189	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylenc	0.0759	0.0638	84.1	30 - 140	
Decachlorobiphenyl	0.0782	0.0476	60.9	30 - 140	

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027689.D\ECD1A.CH Vial: 19
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027689.D\ECD2B.CH
 Acq On : 11 Mar 2016 2:56 pm Operator: AMC
 Sample : 16C0235-02 Inst : ECD#1
 Misc : QBPCB1-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 11:13 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

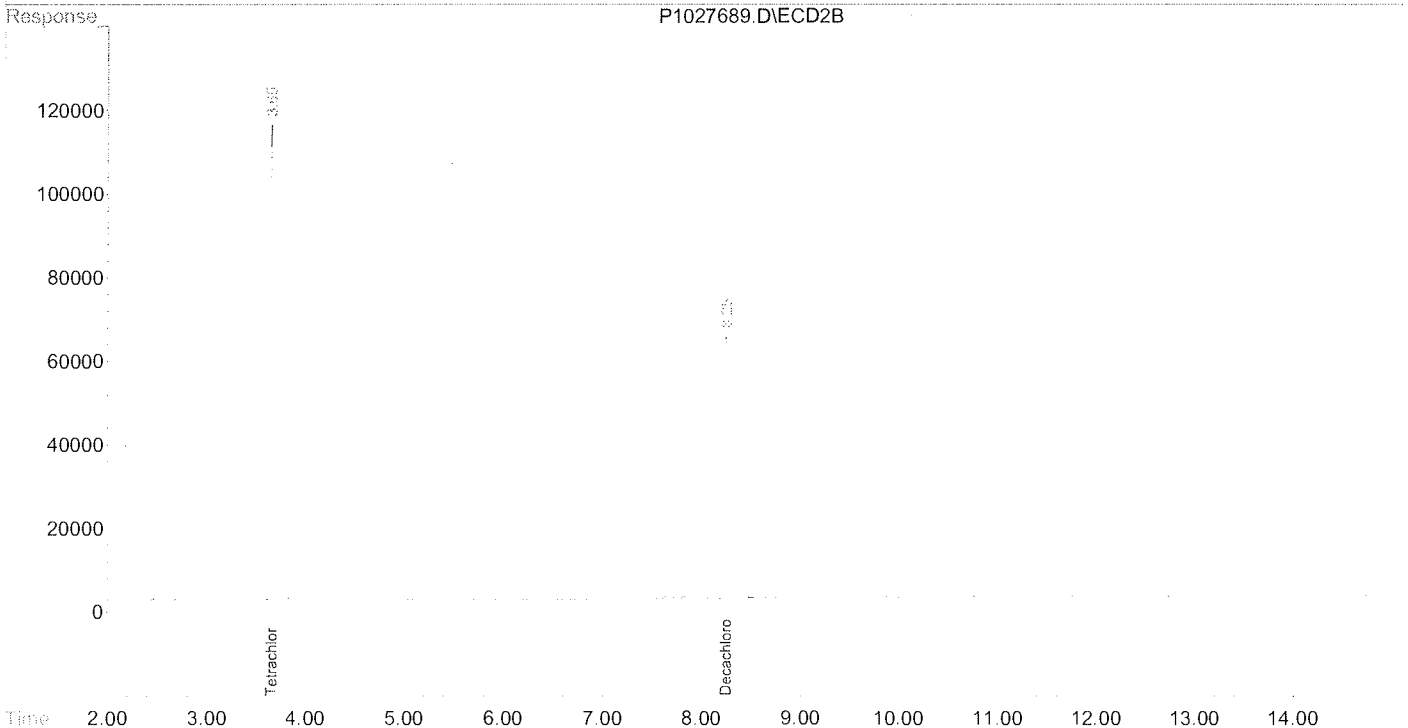
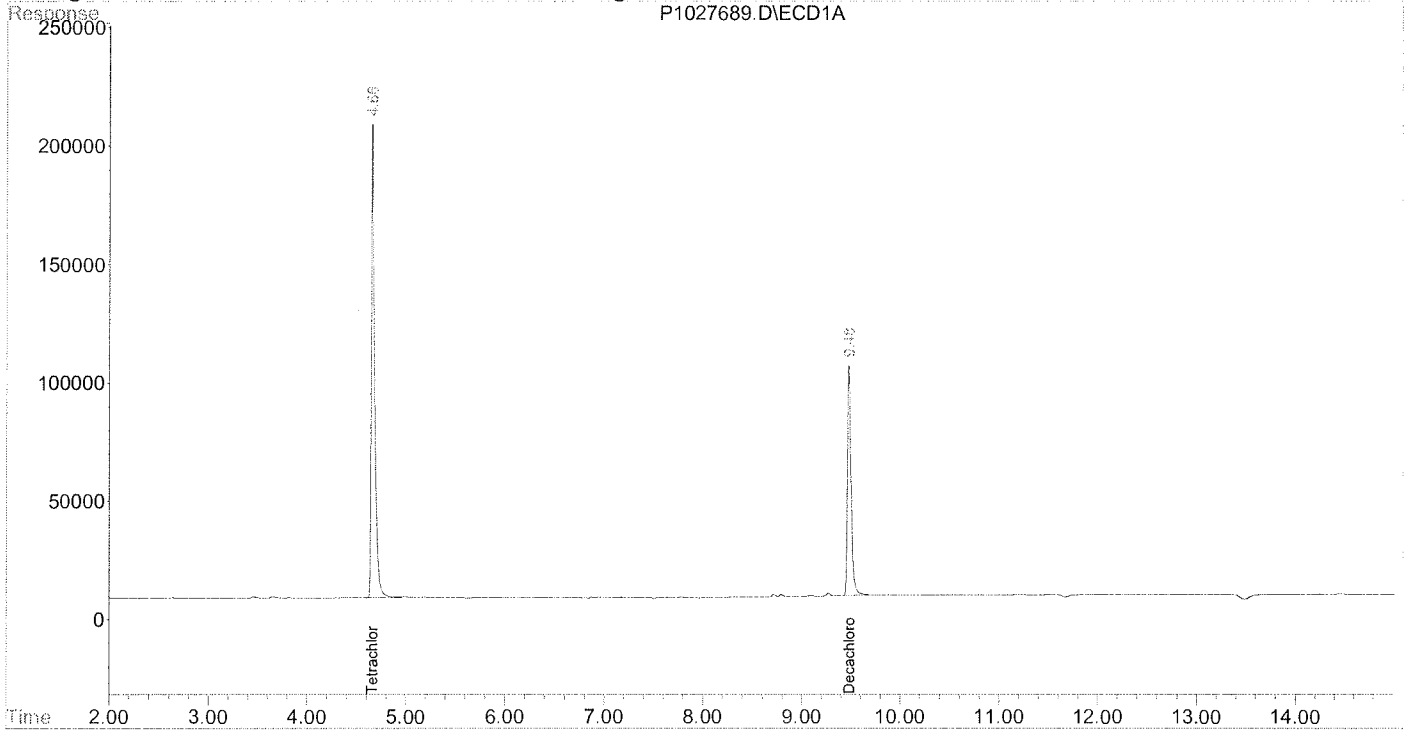
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.65	4772171	2409747	0.169	0.149
Spiked Amount	0.200	Range	30 - 150	Recovery =	84.50%	74.50%
17) S Decachlorobiphen	9.48	8.25	2500781	1629122	0.126	0.124
Spiked Amount	0.200	Range	30 - 150	Recovery =	63.00%	62.00%
Target Compounds						
2) 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.	N.D.
4) T 1016 3	0.00	0.00	0	0	N.D.	N.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.	N.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. d	N.D. d
13) T 1260 2	0.00	0.00	0	0	N.D. d	N.D. d
14) T 1260 3	0.00	0.00	0	0	N.D. d	N.D. d
15) T 1260 4	0.00	0.00	0	0	N.D. d	N.D. d
16) T 1260 5	0.00	0.00	0	0	N.D.	N.D.

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027689.D\ECD1A.CH Vial: 19
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027689.D\ECD2B.CH
 Acq On : 11 Mar 2016 2:56 pm Operator: AMC
 Sample : 16C0235-02 Inst : ECD#1
 Misc : QBPCB1-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 11:13 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



FORM I

ORGANIC ANALYSIS DATA SHEET

03/LSB-2

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-03 File ID: P1027690.D
 Sampled: 03/04/16 13:15 Prepared: 03/10/16 13:40 Analyzed: 03/11/16 15:15
 Solids: 84.92 Preparation: EPA 3550C Initial/Final: 30 g / 10 mL
 Batch: BC60572 Sequence: Y6C1418 Calibration: UNASSIGNED Instrument: ECD#1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
12674-11-2	Aroclor 1016	1	0.0196	U
11104-28-2	Aroclor 1221	1	0.0196	U
11141-16-5	Aroclor 1232	1	0.0196	U
53469-21-9	Aroclor 1242	1	0.0196	U
12672-29-6	Aroclor 1248	1	0.0196	U
11097-69-1	Aroclor 1254	1	0.134	
11096-82-5	Aroclor 1260	1	0.0593	
1336-36-3	Total PCBs	1	0.193	

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.0789	0.0526	66.7	30 - 140	
Decachlorobiphenyl	0.0813	0.0471	58.0	30 - 140	

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027690.D\ECD1A.CH Vial: 20
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027690.D\ECD2B.CH
 Acq On : 11 Mar 2016 3:15 pm Operator: AMC
 Sample : 16C0235-03 Inst : ECD#1
 Misc : QBPCB1-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 11:15 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

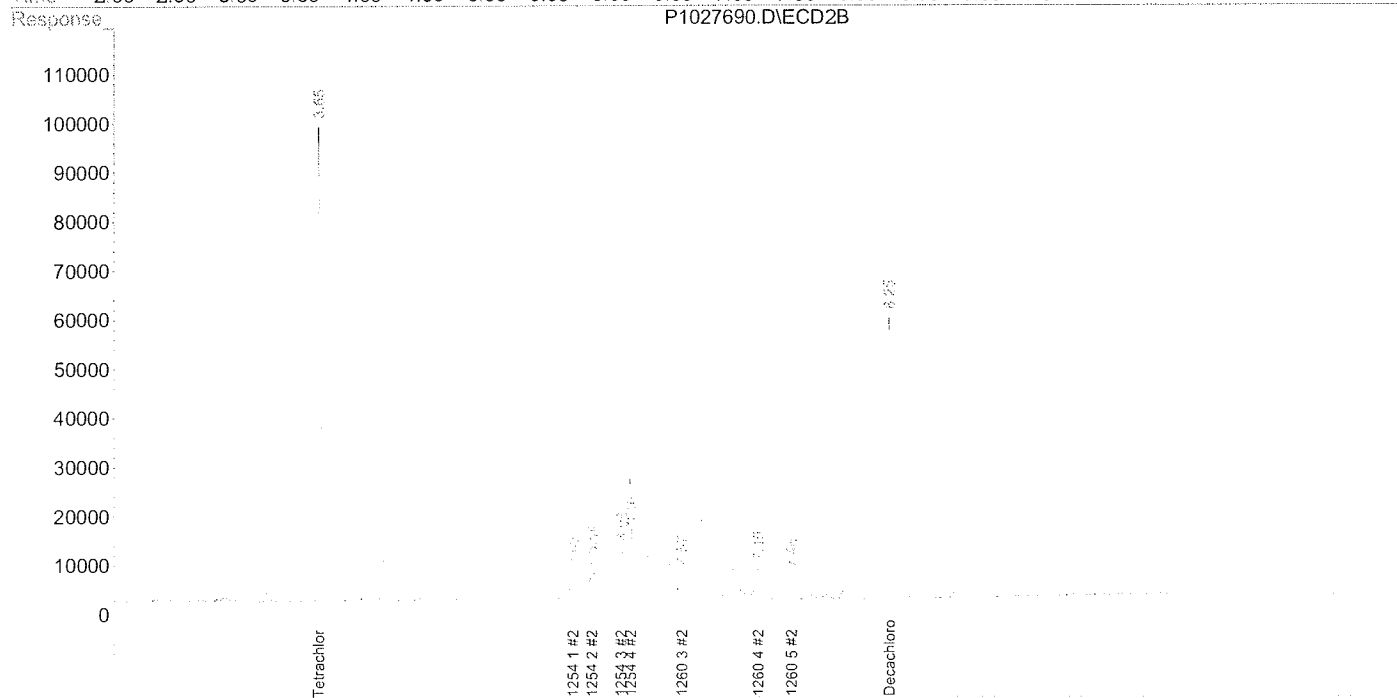
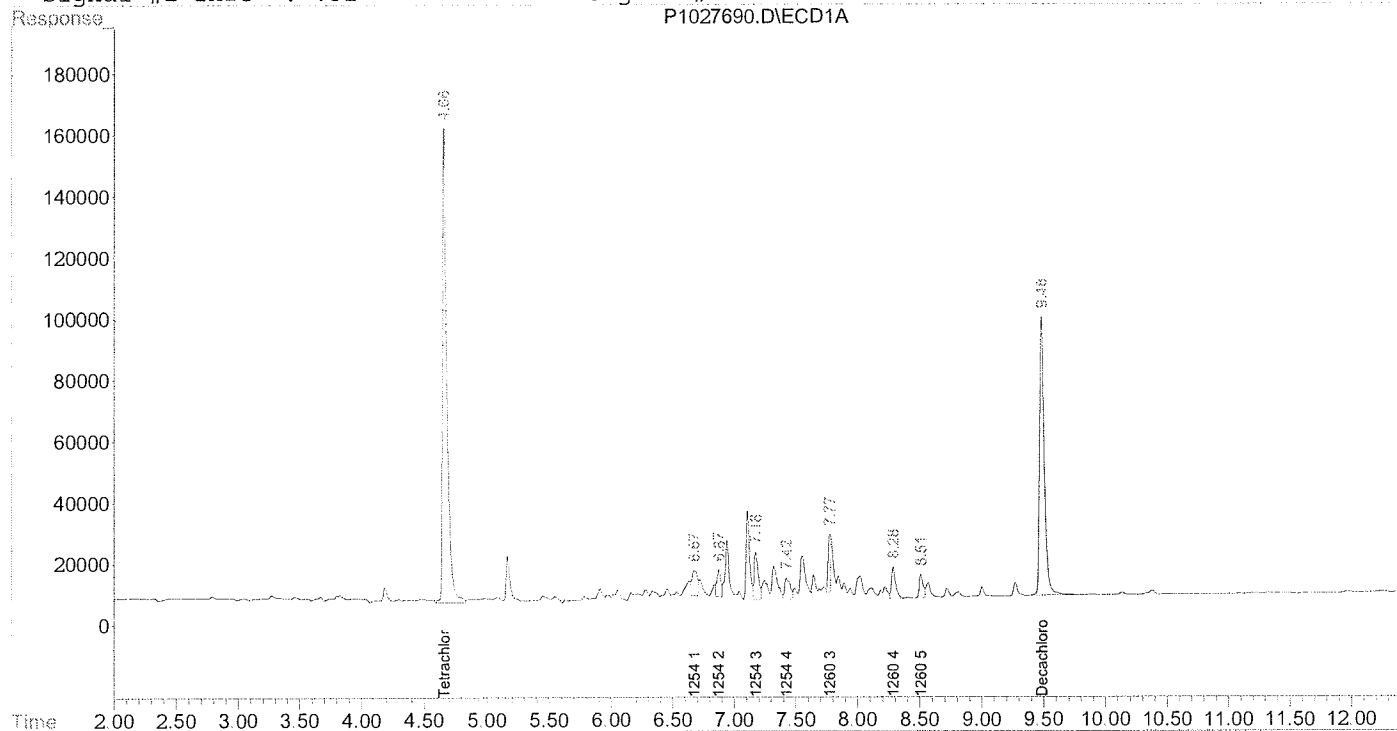
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.66	3769152	2046853	0.134	0.126
Spiked Amount	0.200	Range	30 - 150	Recovery	=	67.00% 63.00%
17) S Decachlorobiphen	9.49	8.25	2392524	1471911	0.120	0.112
Spiked Amount	0.200	Range	30 - 150	Recovery	=	60.00% 56.00%
Target Compounds						
2) 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. d	N.D. d
6) T 1016 5	0.00	0.00	0	0	N.D. d	N.D. d
7) T 1254 1	6.67	5.69	251733	103128	0.375m	0.197m#
8) T 1254 2	6.87	5.84	202142	96177	0.250m	0.271m
9) T 1254 3	7.18	6.08	374098	107092	0.387	0.340m
10) T 1254 4	7.43	6.16	219923	241777	0.350	0.302m
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. d	N.D. d
13) T 1260 2	0.00	0.00	0	0	N.D. d	N.D. d
14) T 1260 3	7.77	6.57	184742	123094	0.127m	0.168m#
15) T 1260 4	8.29	7.20	238980	212605	0.143	0.191 #
16) T 1260 5	8.51	7.47	161287	128054	0.183	0.144

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027690.D\ECD1A.CH Vial: 20
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027690.D\ECD2B.CH
 Acq On : 11 Mar 2016 3:15 pm Operator: AMC
 Sample : 16C0235-03 Inst : ECD#1
 Misc : QBPCB1-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 11:15 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



FORM I

ORGANIC ANALYSIS DATA SHEET

04/LSB-2

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0235-04 File ID: P1027691.D
 Sampled: 03/04/16 13:30 Prepared: 03/10/16 13:40 Analyzed: 03/11/16 15:31
 Solids: 70.08 Preparation: EPA 3550C Initial/Final: 30 g / 10 mL
 Batch: BC60572 Sequence: Y6C1418 Calibration: UNASSIGNED Instrument: ECD#1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
12674-11-2	Aroclor 1016	1	0.0238	U
11104-28-2	Aroclor 1221	1	0.0238	U
11141-16-5	Aroclor 1232	1	0.0238	U
53469-21-9	Aroclor 1242	1	0.0238	U
12672-29-6	Aroclor 1248	1	0.0238	U
11097-69-1	Aroclor 1254	1	0.0743	
11096-82-5	Aroclor 1260	1	0.0420	
1336-36-3	Total PCBs	1	0.116	

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.0956	0.0813	85.1	30 - 140	
Decachlorobiphenyl	0.0985	0.0590	59.9	30 - 140	

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027691.D\ECD1A.CH Vial: 21
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027691.D\ECD2B.CH
 Acq On : 11 Mar 2016 3:31 pm Operator: AMC
 Sample : 16C0235-04 Inst : ECD#1
 Misc : QBPCB1-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 11:16 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

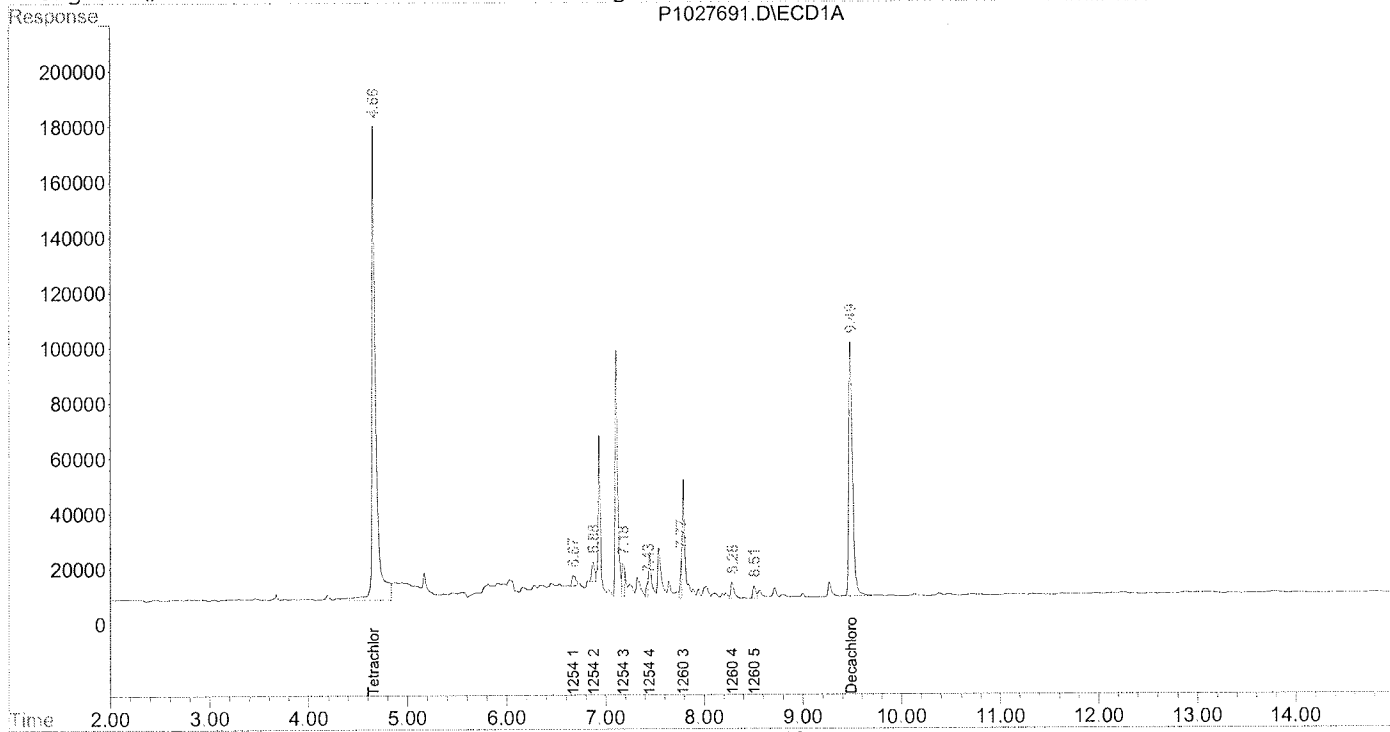
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.65	4820081	2089392	0.171	0.129
Spiked Amount	0.200	Range	30 - 150	Recovery	= 85.50%	64.50%
17) S Decachlorobiphen	9.49	8.25	2469897	1567660	0.124	0.119
Spiked Amount	0.200	Range	30 - 150	Recovery	= 62.00%	59.50%
Target Compounds						
2) 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. d	N.D. d
6) T 1016 5	0.00	0.00	0	0	N.D. d	N.D. d
7) T 1254 1	6.67	5.69	95254	52877	0.142m	0.101m#
8) T 1254 2	6.88	5.84	135160	66104	0.167m	0.186m
9) T 1254 3	7.18	0.00	183003	0	0.189m	N.D. d#
10) T 1254 4	7.43	0.00	79860	0	0.127m	N.D. 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. d	N.D. d
13) T 1260 2	0.00	0.00	0	0	N.D. d	N.D. d
14) T 1260 3	7.77	0.00	113848	0	0.078m	N.D. d#
15) T 1260 4	8.29	7.19	139742	86335	0.084	0.078
16) T 1260 5	8.51	7.47	91101	73120	0.103	0.082

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027691.D\ECD1A.CH Vial: 21
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027691.D\ECD2B.CH
 Acq On : 11 Mar 2016 3:31 pm Operator: AMC
 Sample : 16C0235-04 Inst : ECD#1
 Misc : QBPCB1-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 11:16 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



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-xylen	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-xylen	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 Page 1

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#

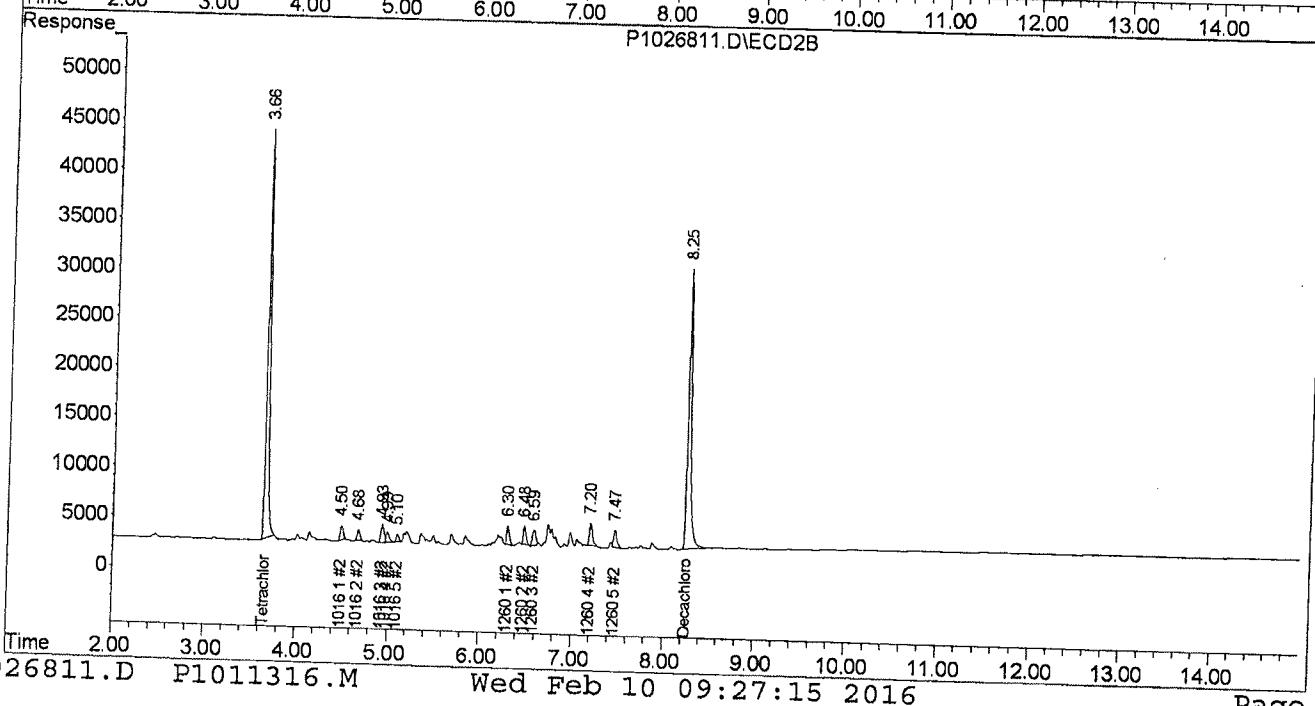
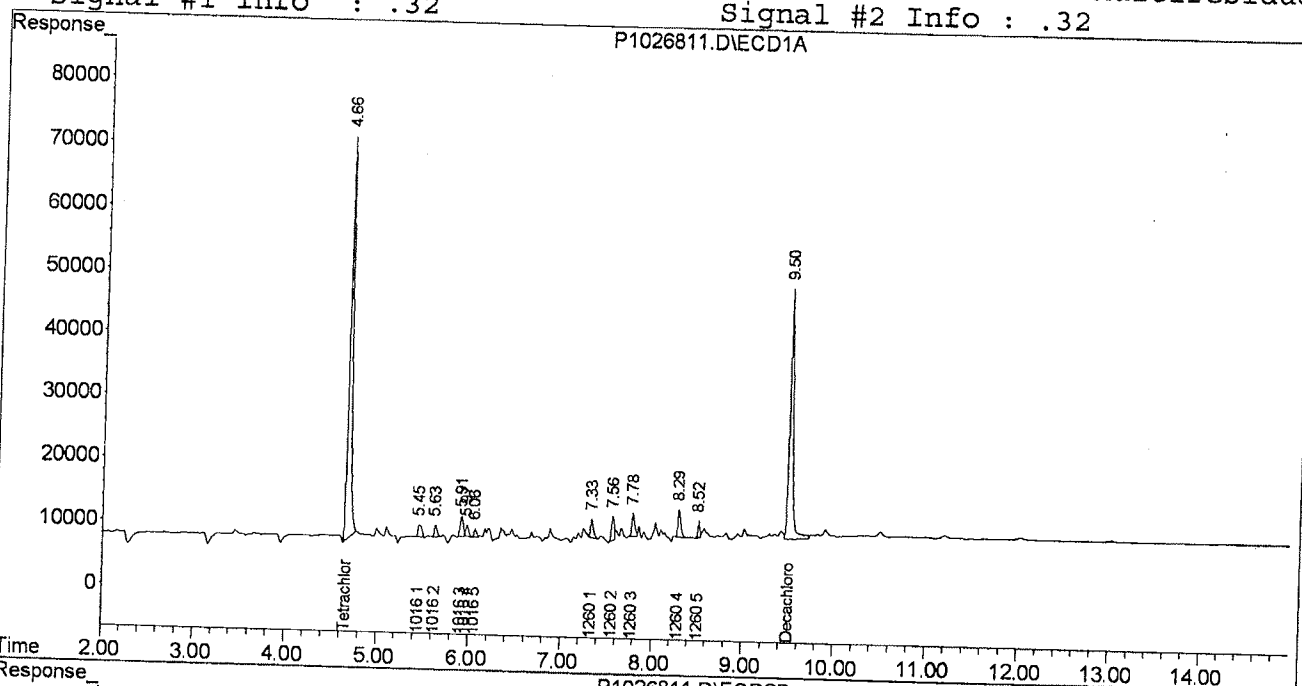
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 P1026811.D P1011316.M Wed Feb 10 09:27:14 2016

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

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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 #

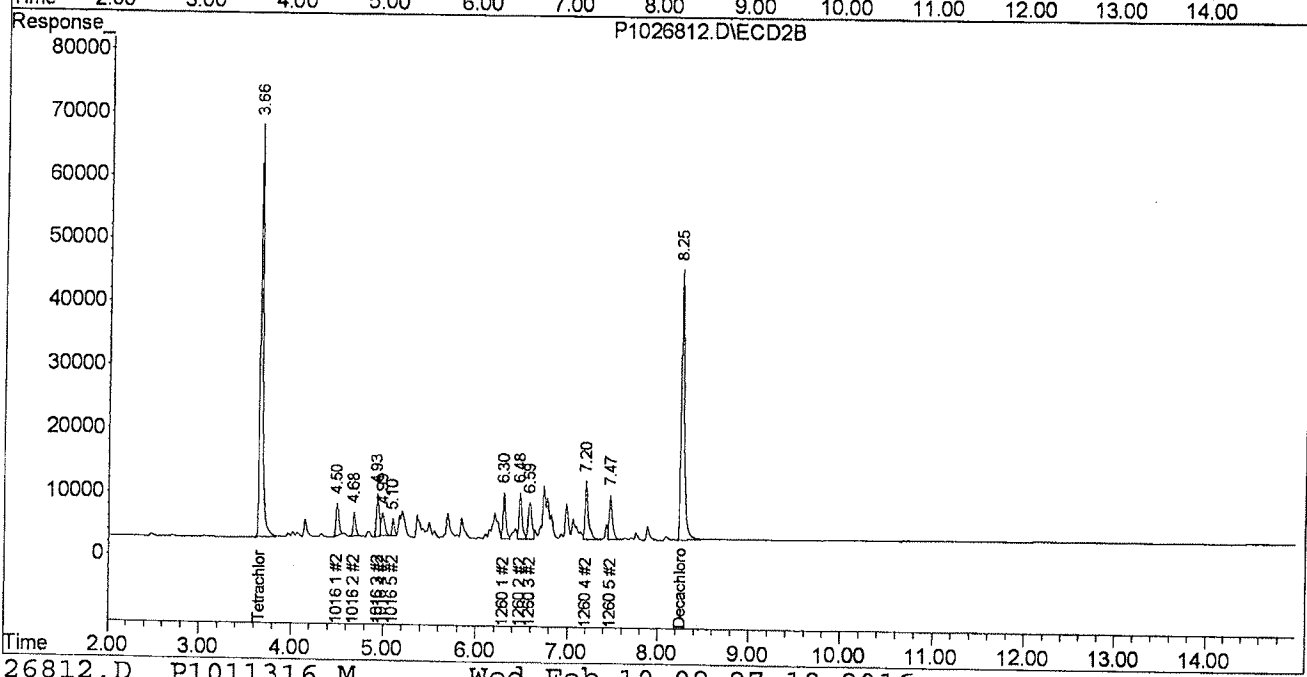
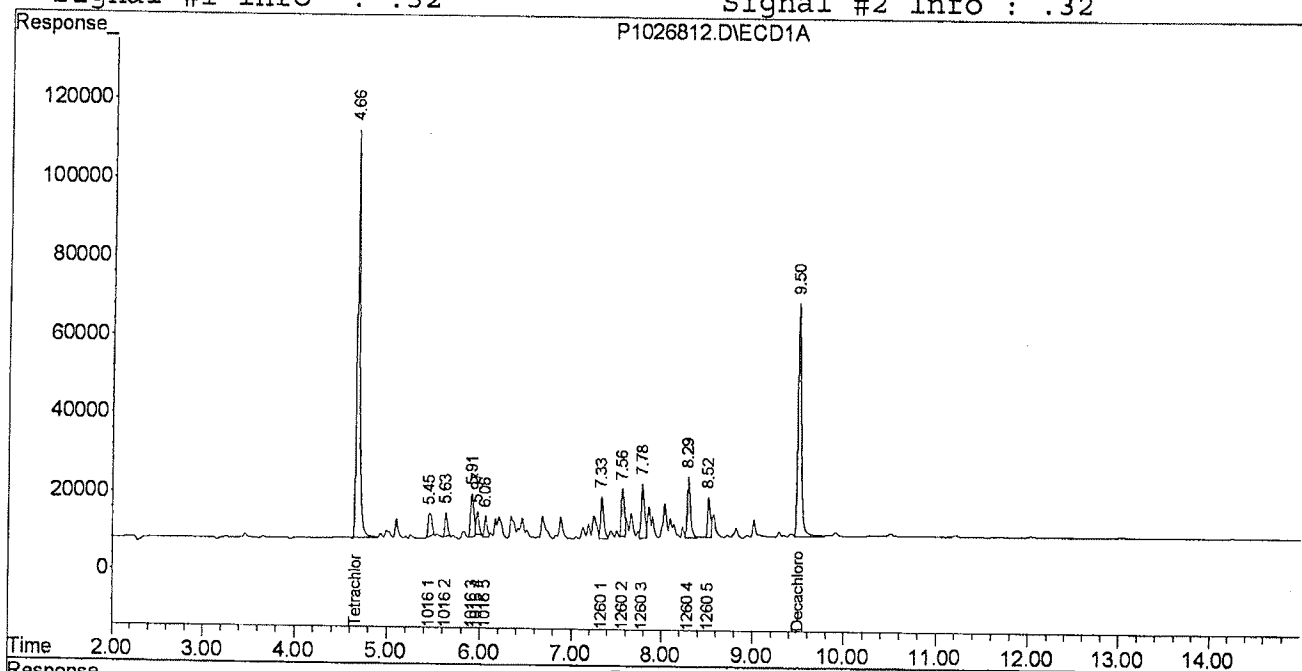
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 P1026812.D P1011316.M Wed Feb 10 09:27:17 2016

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

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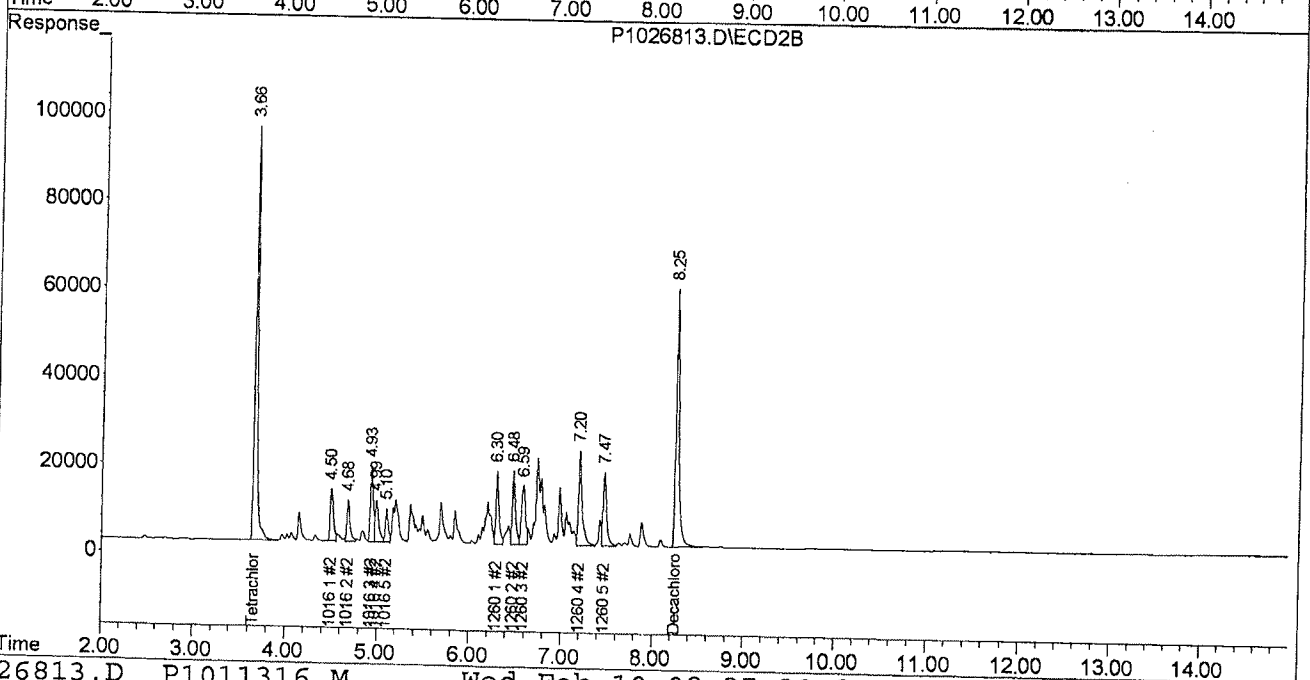
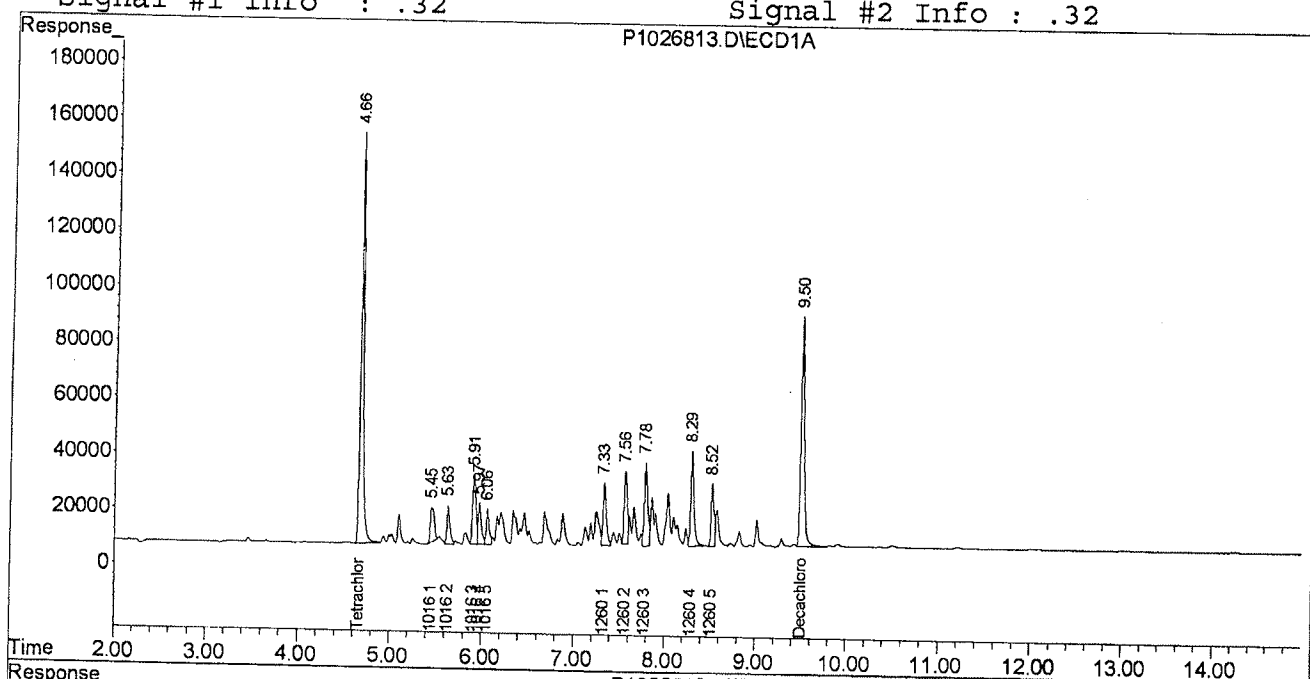
Page 1

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

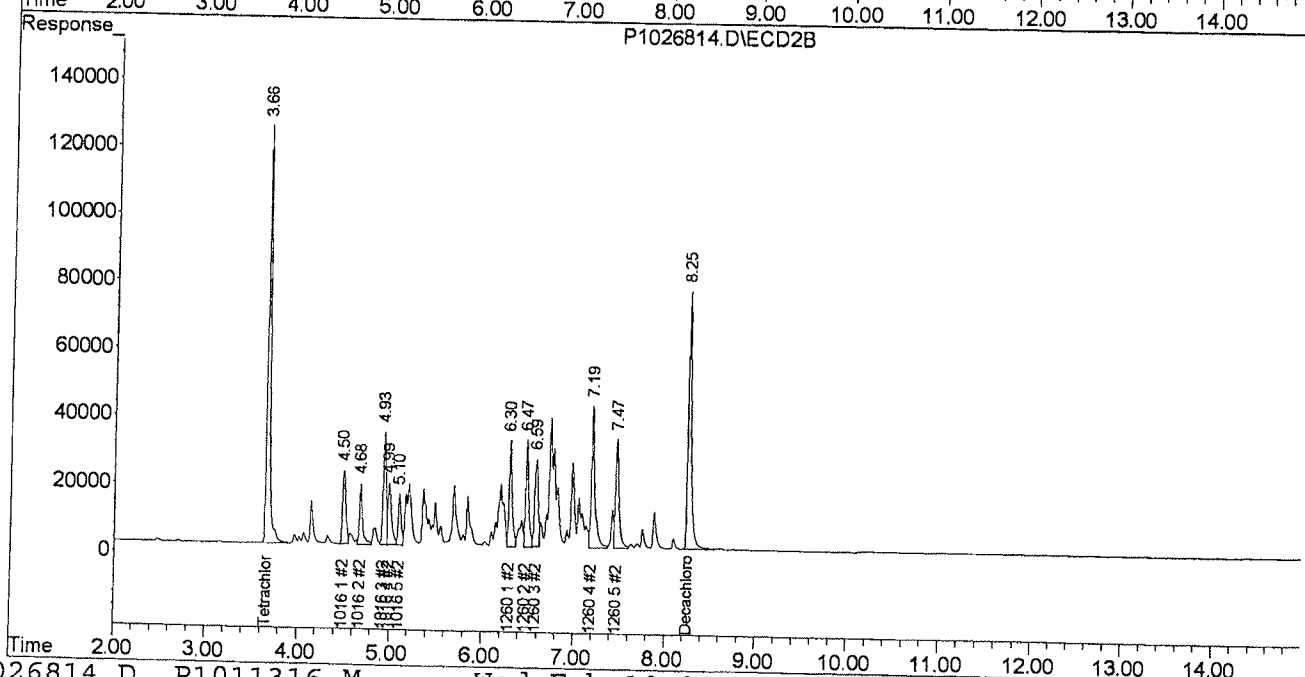
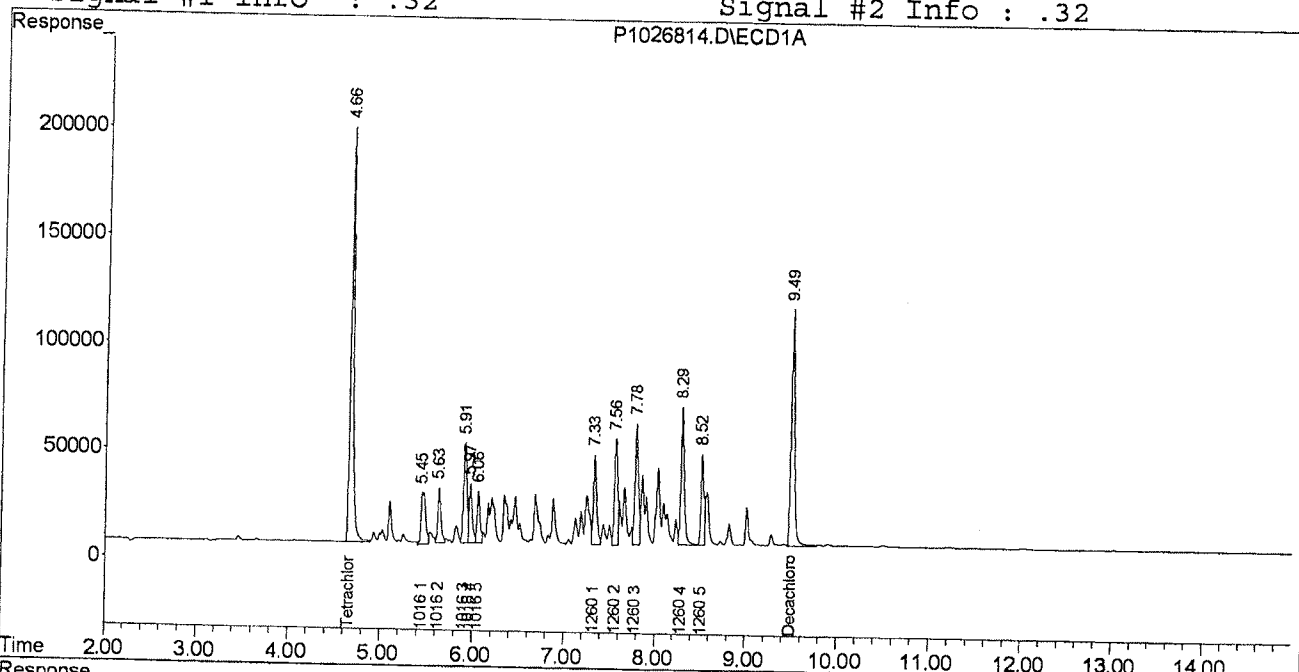
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.66	4343914	2583188	0.161	0.180
Spiked Amount	0.200	Range	30 - 150	Recovery =	80.50%	90.00%
17) S Decachlorobiphen	9.50f	8.25	2874131	1936496	0.167	0.261 #
Spiked Amount	0.200	Range	30 - 150	Recovery =	83.50%	130.50%
Target Compounds						
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	0.00	0.00	0	0	N.D. d	N.D. d
13) T 1260 2	7.33	6.30	985492	688671	1.037	1.409 #
14) T 1260 3	7.56	6.48	1214704	719417	0.981m	1.459 #
15) T 1260 4	7.78	6.59	1406167	719356	1.040	1.371m#
16) T 1260 5	8.29	7.20	1573700	1131706	1.098	1.645 #
	8.52	7.47	868172	907423	1.102	1.628 #

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



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

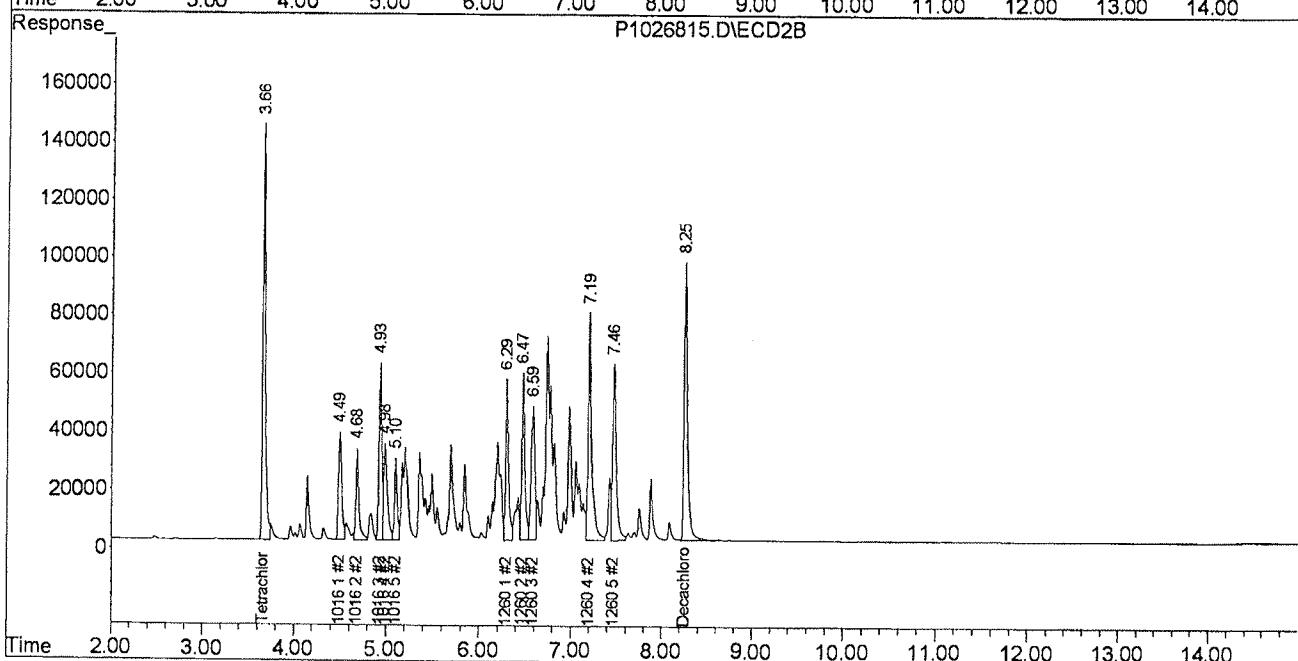
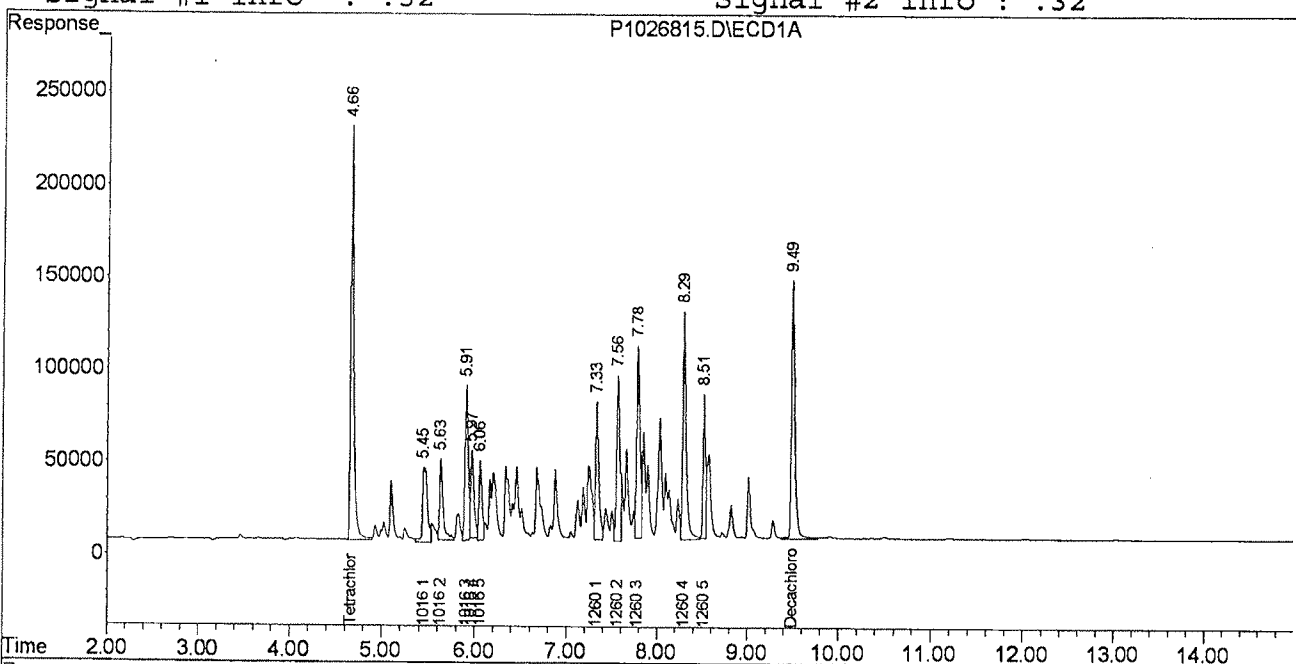
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.67	3.66	5098073	2874090	0.189	0.200
Spiked Amount	0.200	Range	30 - 150	Recovery =	94.50%	100.00%
17) S Decachlorobiphen	9.50f	8.25	3719557	2444452	0.215	0.330 #
Spiked Amount	0.200	Range	30 - 150	Recovery =	107.50%	165.00%#
Target Compounds						
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 #

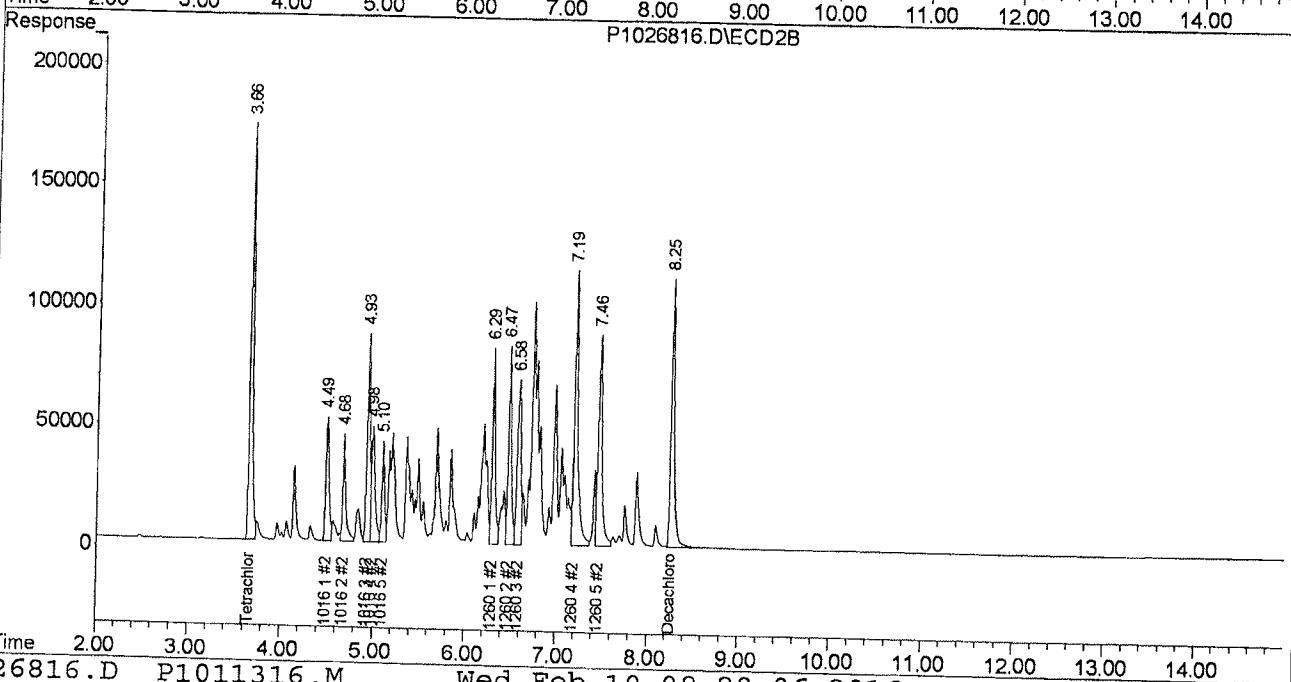
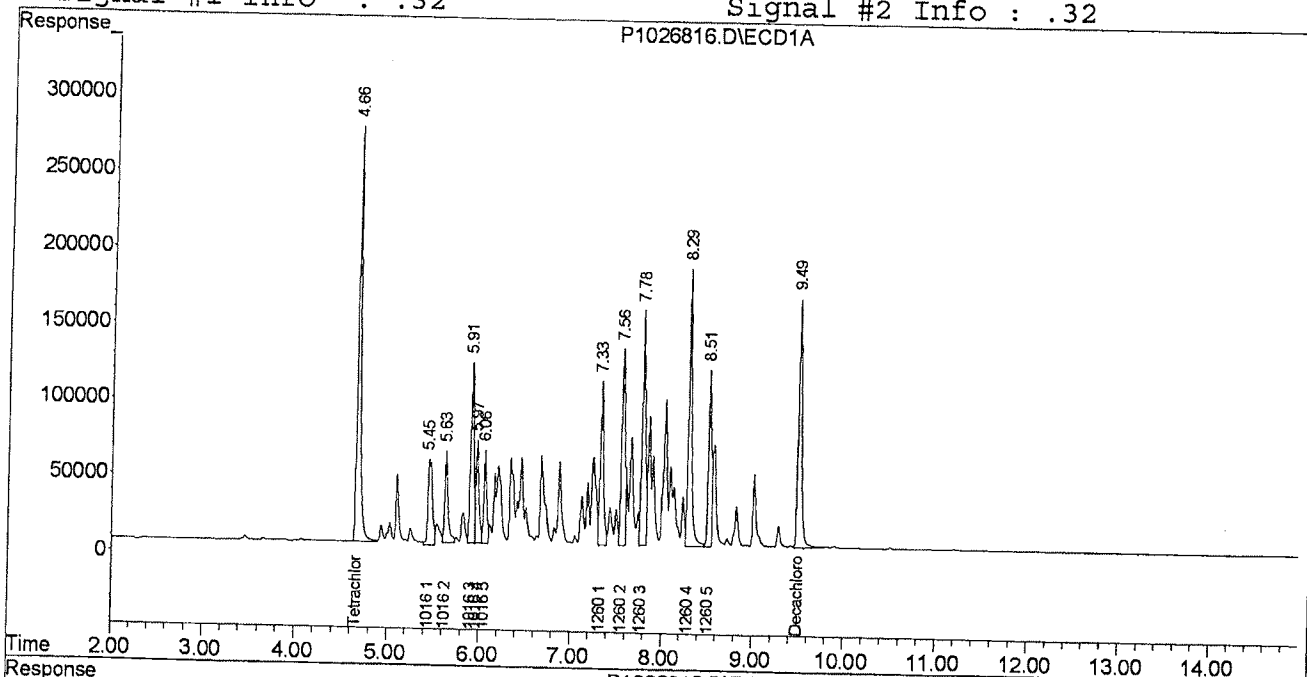
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 P1026816.D P1011316.M Wed Feb 10 09:28:06 2016

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



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

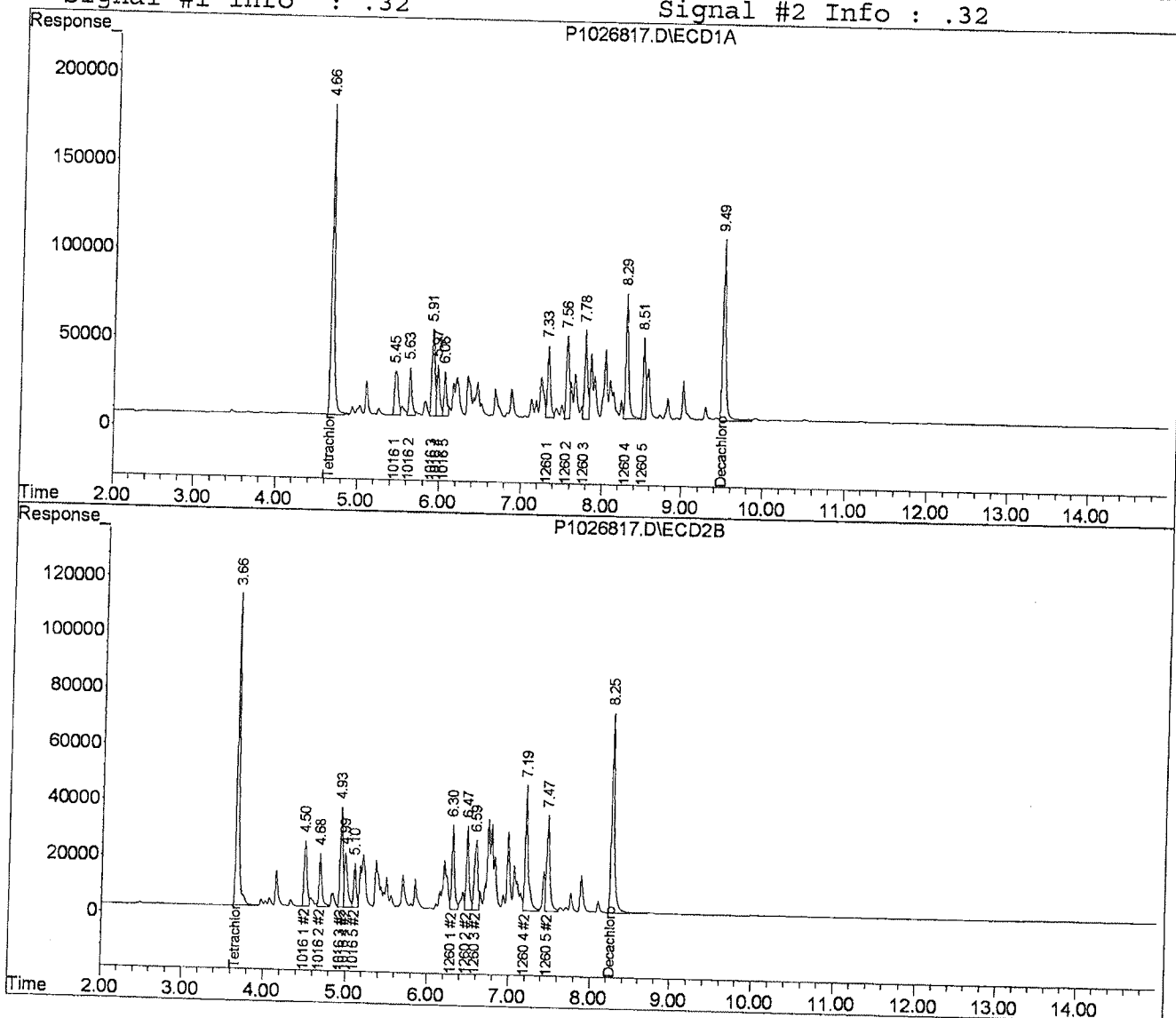
Quantitation Report

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\031116\P1027671.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027671.D\ECD2B.CH
 Acq On : 11 Mar 2016 9:20 am Operator: AMC
 Sample : SEQ-CCV1 Inst : ECD#1
 Misc : QBPCB1-031116A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 13:11 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

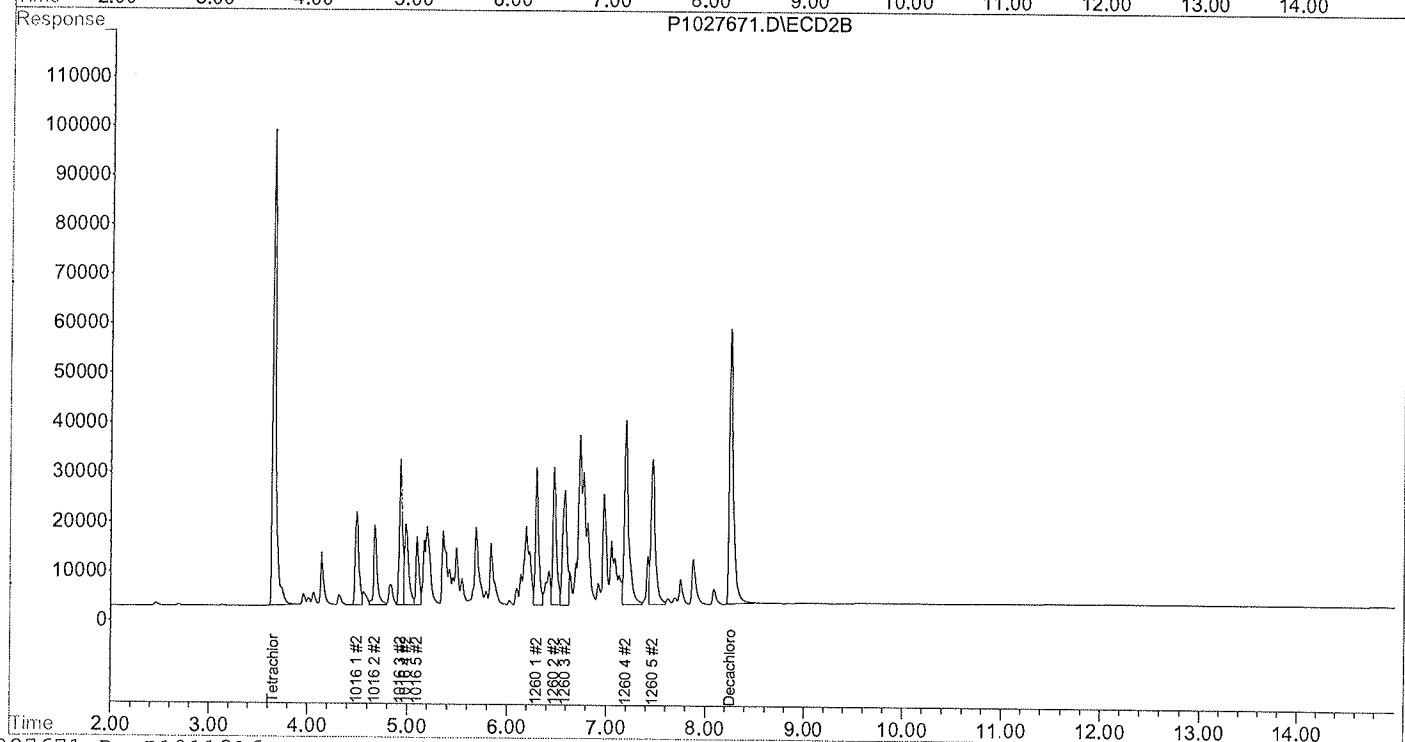
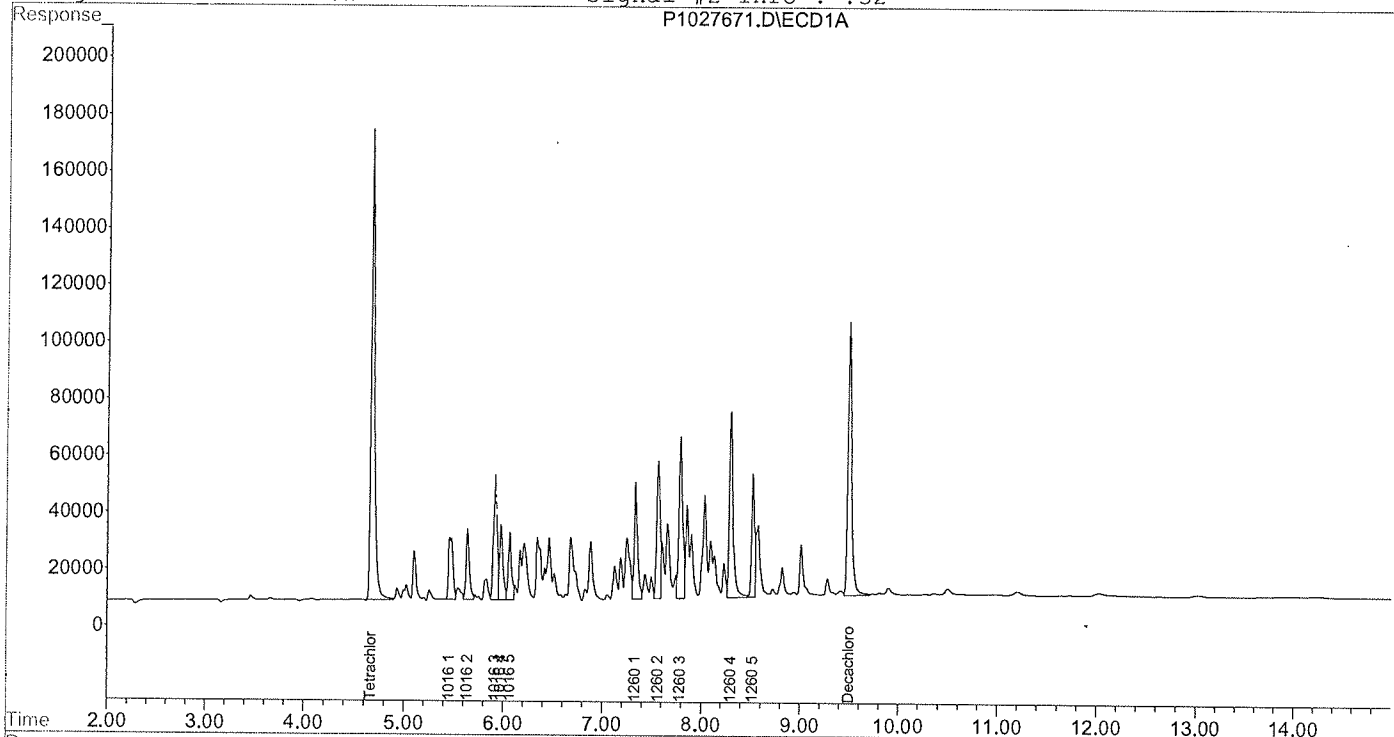
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.65	3996358	2157201	0.142	0.133
Spiked Amount	0.200 Range	30 - 150	Recovery	=	71.00%	66.50%
17) S Decachlorobiphen	9.49	8.25	2541811	1536645	0.128	0.117
Spiked Amount	0.200 Range	30 - 150	Recovery	=	64.00%	58.50%
Target Compounds						
2) T 1016 1	5.45	4.49	696496	474136	0.855	0.893
3) T 1016 2	5.63	4.67	582005	379626	0.952	0.991
4) T 1016 3	5.91	4.93	1122623	648276	0.912	0.924
5) T 1016 4	5.97	4.98	635193	462277	0.987	0.984
6) T 1016 5	6.06	5.09	537016	287992	1.029	1.007
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	998006	638934	0.948	0.915
13) T 1260 2	7.56	6.47	1194668	678847	0.912m	0.938
14) T 1260 3	7.78	6.58	1447129	715506	0.994	0.976m
15) T 1260 4	8.29	7.19	1646893	1092516	0.988	0.983
16) T 1260 5	8.52	7.46	915848	878095	1.040	0.987

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027671.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027671.D\ECD2B.CH
 Acq On : 11 Mar 2016 9:20 am Operator: AMC
 Sample : SEQ-CCV1 Inst : ECD#1
 Misc : QBPCB1-031116A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 13:11 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\031116\P1027692.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027692.D\ECD2B.CH
 Acq On : 11 Mar 2016 3:50 pm Operator: AMC
 Sample : SEQ-CCV3 Inst : ECD#1
 Misc : QBPCB1-031116A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 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

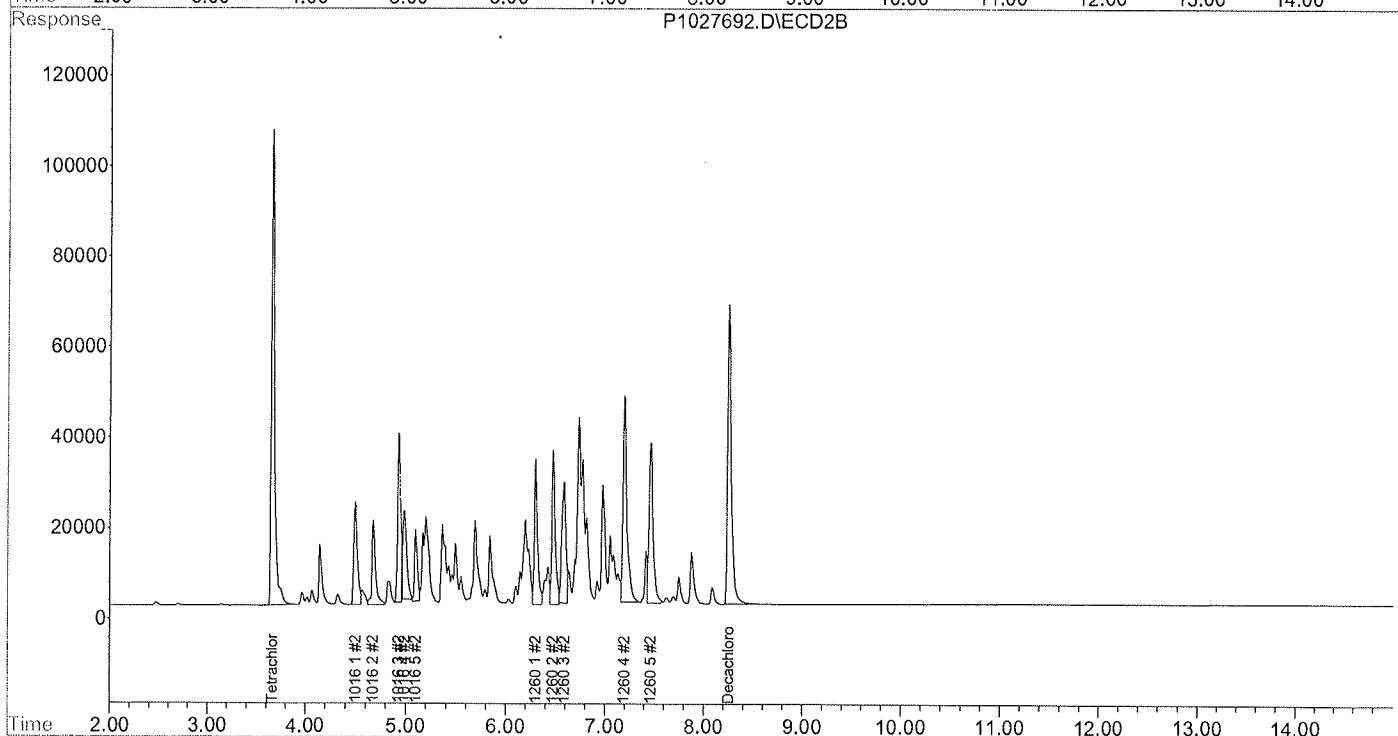
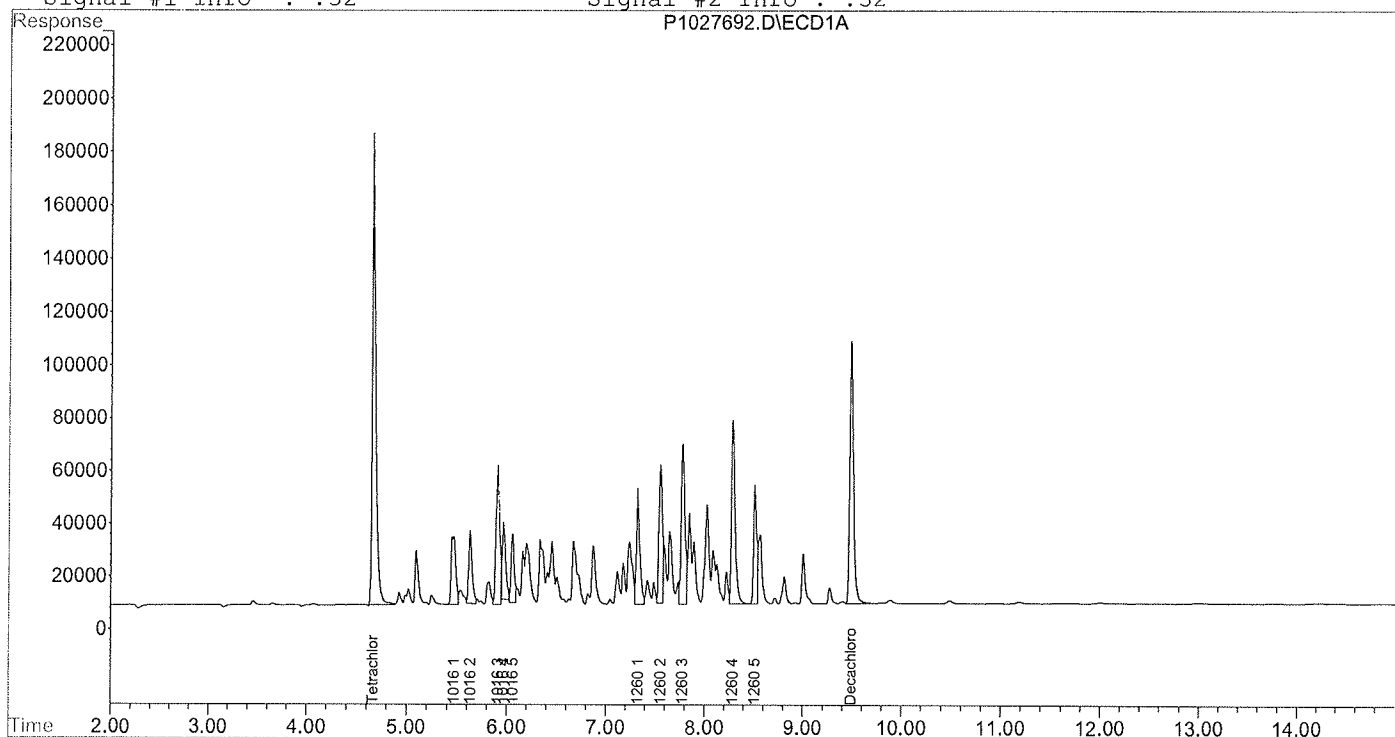
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.65	4290113	2257895	0.152	0.139
Spiked Amount	0.200	Range	30 - 150	Recovery	= 76.00%	69.50%
17) S Decachlorobiphen	9.49	8.25	2584023	1736209	0.130	0.132
Spiked Amount	0.200	Range	30 - 150	Recovery	= 65.00%	66.00%
Target Compounds						
2) T 1016 1	5.46	4.49	866742	567780	1.064	1.070
3) T 1016 2	5.63	4.68	656146	436173	1.074m	1.138
4) T 1016 3	5.91	4.93	1366663	776428	1.110	1.107m
5) T 1016 4	5.96	4.98	676877	490759	1.052m	1.045m
6) T 1016 5	6.05	5.09	557466	307349	1.068m	1.074m
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	1080611	715816	1.027	1.025
13) T 1260 2	7.55	6.47	1223158	797044	0.934m	1.101
14) T 1260 3	7.77	6.58	1557928	758618	1.070	1.034m
15) T 1260 4	8.28	7.19	1716053	1211469	1.030	1.090m
16) T 1260 5	8.51	7.46	984016	992720	1.118	1.115m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027692.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027692.D\ECD2B.CH
 Acq On : 11 Mar 2016 3:50 pm Operator: AMC
 Sample : SEQ-CCV3 Inst : ECD#1
 Misc : QBPCB1-031116A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 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



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027713.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027713.D\ECD2B.CH
 Acq On : 11 Mar 2016 10:34 pm Operator: AMC
 Sample : SEQ-CCV4 Inst : ECD#1
 Misc : QBPCB1-031116A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 8:14 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

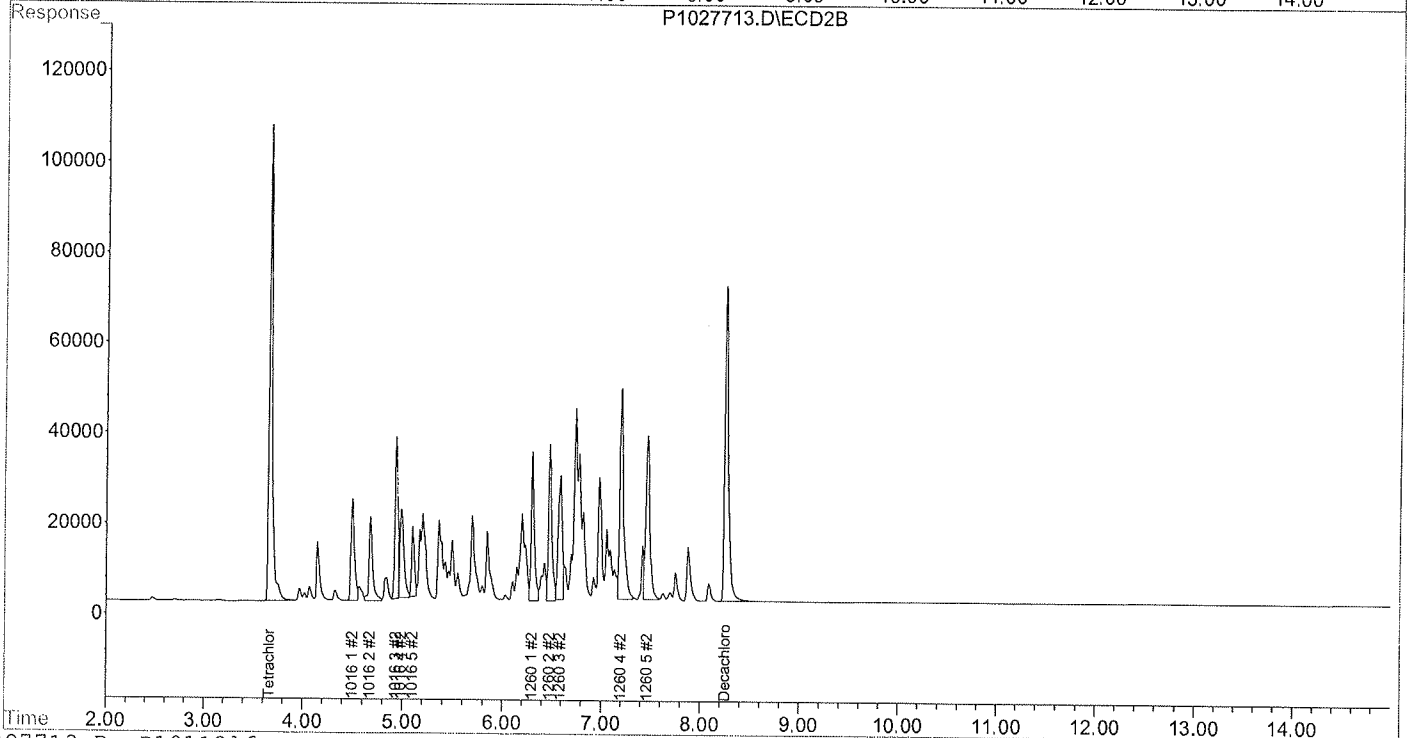
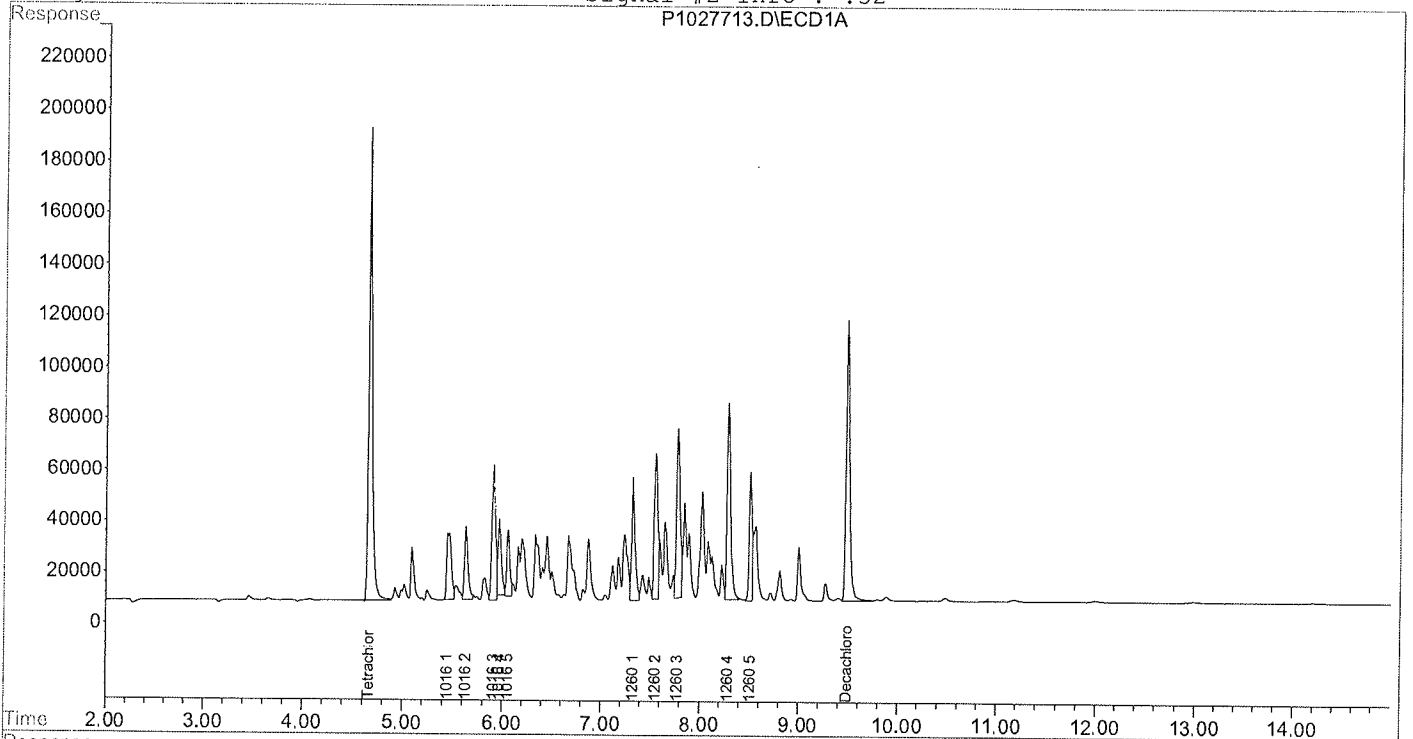
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.66	4394580	2291500	0.156	0.141
Spiked Amount	0.200	Range	30 - 150	Recovery	= 78.00%	70.50%
17) S Decachlorobiphen	9.48	8.25	2859961	1813724	0.144	0.138
Spiked Amount	0.200	Range	30 - 150	Recovery	= 72.00%	69.00%
Target Compounds						
2) T 1016 1	5.44	4.49	879970	559766	1.080m	1.055
3) T 1016 2	5.62	4.68	690424	431339	1.130m	1.125
4) T 1016 3	5.91	4.93	1380679	757359	1.122	1.080m
5) T 1016 4	5.96	4.98	702290	502764	1.092m	1.070m
6) T 1016 5	6.05	5.10	557361	301602	1.068m	1.054m
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	1189159	733008	1.130	1.050
13) T 1260 2	7.55	6.47	1331842	811373	1.017m	1.121
14) T 1260 3	7.77	6.58	1650027	751483	1.133m	1.025m
15) T 1260 4	8.28	7.19	1844105	1230197	1.107m	1.106m
16) T 1260 5	8.51	7.46	949239	1012593	1.078m	1.138m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027713.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027713.D\ECD2B.CH
 Acq On : 11 Mar 2016 10:34 pm Operator: AMC
 Sample : SEQ-CCV4 Inst : ECD#1
 Misc : QBPCB1-031116A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 8:14 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\031116\P1027720.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027720.D\ECD2B.CH
 Acq On : 12 Mar 2016 12:48 am Operator: AMC
 Sample : SEQ-CCV5 Inst : ECD#1
 Misc : QBPCB1-031116A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 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

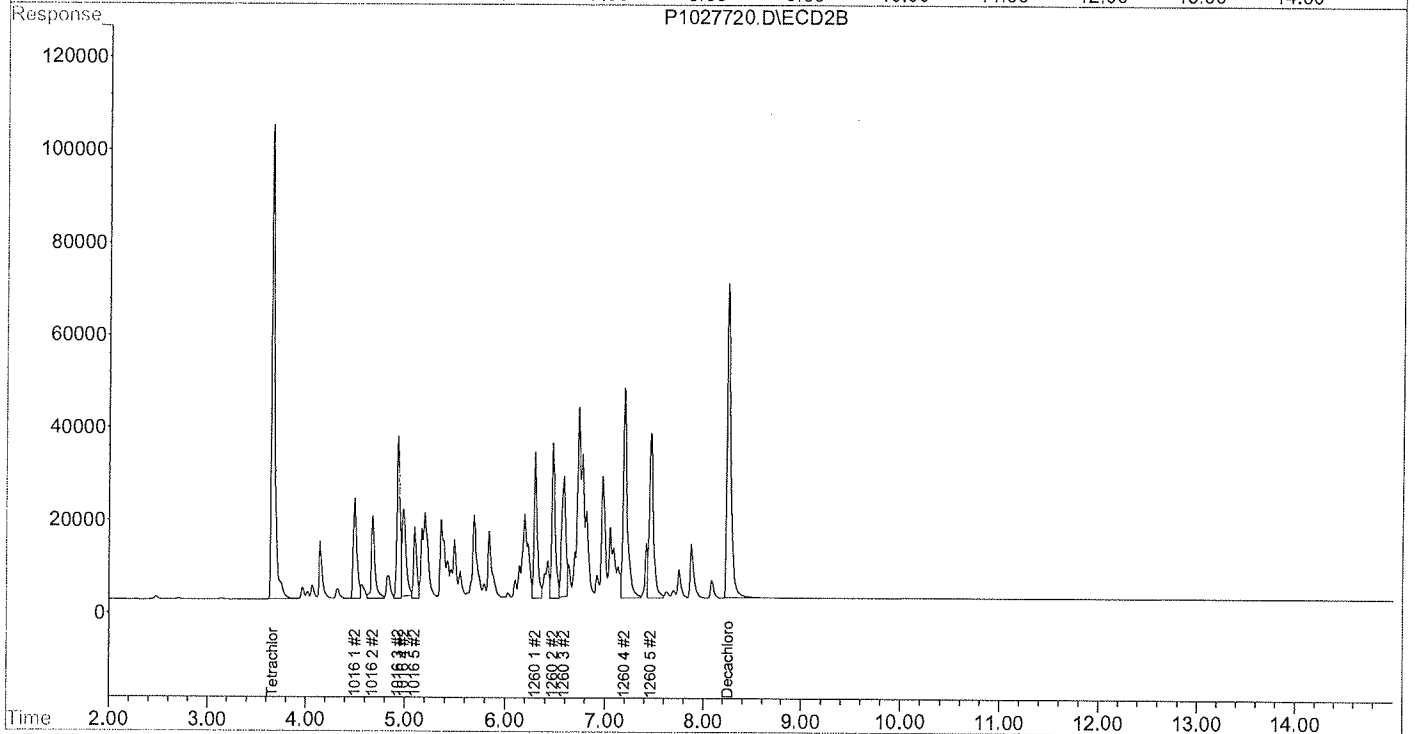
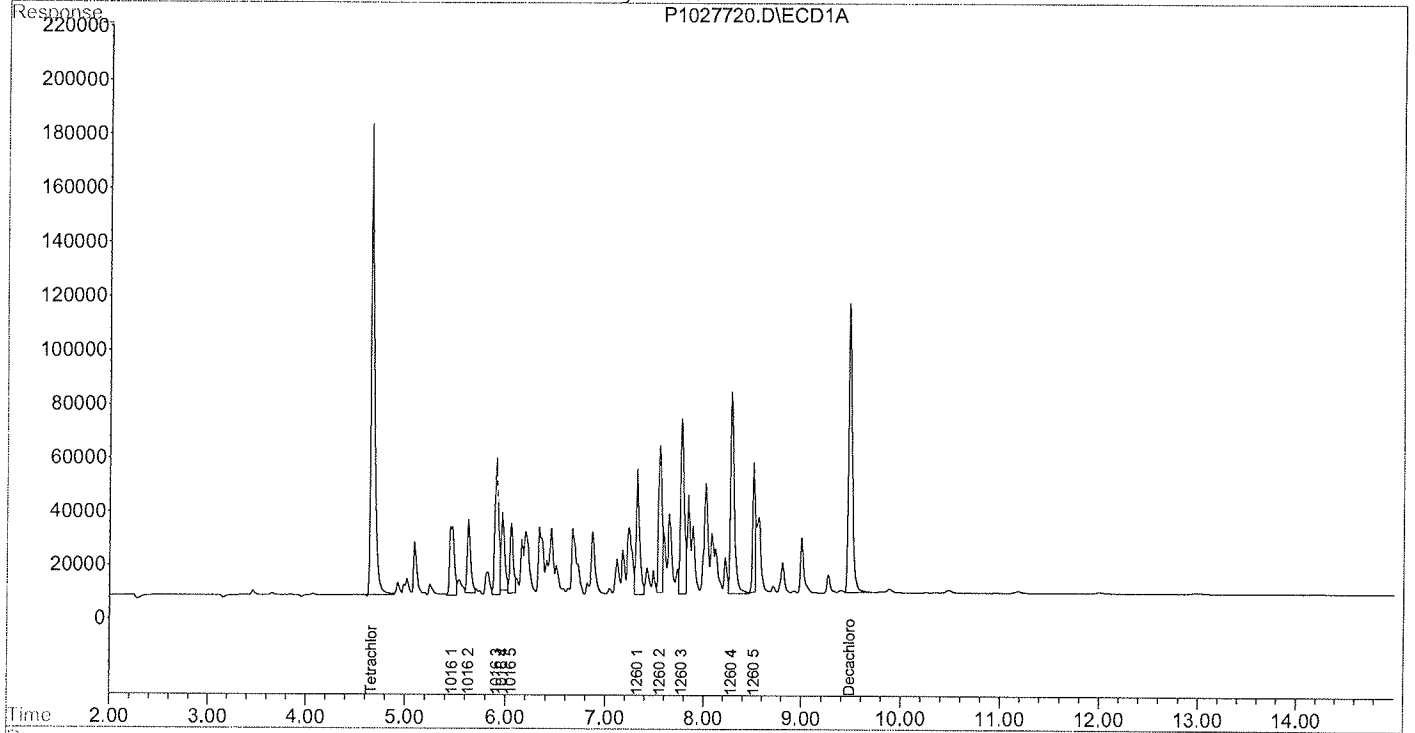
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.65	4274354	2234178	0.151	0.138
Spiked Amount	0.200	Range	30 - 150	Recovery	= 75.50%	69.00%
17) S Decachlorobiphen	9.48	8.25	2758274	1771179	0.139	0.135
Spiked Amount	0.200	Range	30 - 150	Recovery	= 69.50%	67.50%
Target Compounds						
2) T 1016 1	5.46	4.49	869451	545223	1.067m	1.027
3) T 1016 2	5.62	4.68	638562	420336	1.045m	1.097
4) T 1016 3	5.91	4.93	1328663	774521	1.080	1.104
5) T 1016 4	5.96	4.98	690948	498233	1.074m	1.061m
6) T 1016 5	6.05	5.10	597121	324860	1.144m	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	7.32	6.29	1147187	703840	1.090	1.008
13) T 1260 2	7.55	6.47	1328826	779033	1.015m	1.076
14) T 1260 3	7.77	6.58	1664580	763077	1.143	1.041m
15) T 1260 4	8.28	7.19	1877609	1257688	1.127	1.131
16) T 1260 5	8.51	7.46	890762	1020461	1.012m	1.147

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027720.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027720.D\ECD2B.CH
 Acq On : 12 Mar 2016 12:48 am Operator: AMC
 Sample : SEQ-CCV5 Inst : ECD#1
 Misc : QBPCB1-031116A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 14 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



FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 8082A**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Sequence: Y6C1418Instrument: ECD#1Calibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	Y6C1418-CCV1	P1027671.D	03/11/16 09:20
Blank	BC60572-BLK2	P1027673.D	03/11/16 09:58
LCS	BC60572-BS2	P1027674.D	03/11/16 10:18
01/LSB-1	16C0235-01	P1027688.D	03/11/16 14:37
02/LSB-1	16C0235-02	P1027689.D	03/11/16 14:56
03/LSB-2	16C0235-03	P1027690.D	03/11/16 15:15
04/LSB-2	16C0235-04	P1027691.D	03/11/16 15:31
Calibration Check	Y6C1418-CCV3	P1027692.D	03/11/16 15:50
Calibration Check	Y6C1418-CCV4	P1027713.D	03/11/16 22:34
Calibration Check	Y6C1418-CCV5	P1027720.D	03/12/16 00:48

FORM I

METHOD BLANK DATA SHEET
EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil Laboratory ID: BC60572-BLK2 File ID: P1027673.D
Prepared: 03/10/16 13:40 Preparation: EPA 3550C Initial/Final: 30 g / 10 mL
Analyzed: 03/11/16 09:58 Instrument: ECD#1
Batch: BC60572 Sequence: Y6C1418 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
12674-11-2	Aroclor 1016	0.0167	U
11104-28-2	Aroclor 1221	0.0167	U
11141-16-5	Aroclor 1232	0.0167	U
53469-21-9	Aroclor 1242	0.0167	U
12672-29-6	Aroclor 1248	0.0167	U
11097-69-1	Aroclor 1254	0.0167	U
11096-82-5	Aroclor 1260	0.0167	U
1336-36-3	Total PCBs	0.0167	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg wet)	CONC (mg/kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.0670	0.0620	92.5	30 - 140	
Decachlorobiphenyl	0.0690	0.0487	70.5	30 - 140	

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027673.D\ECD1A.CH Vial: 3
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027673.D\ECD2B.CH
 Acq On : 11 Mar 2016 9:58 am Operator: AMC
 Sample : BC60572-BLK2 Inst : ECD#1
 Misc : QBPCB1-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 13:13 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

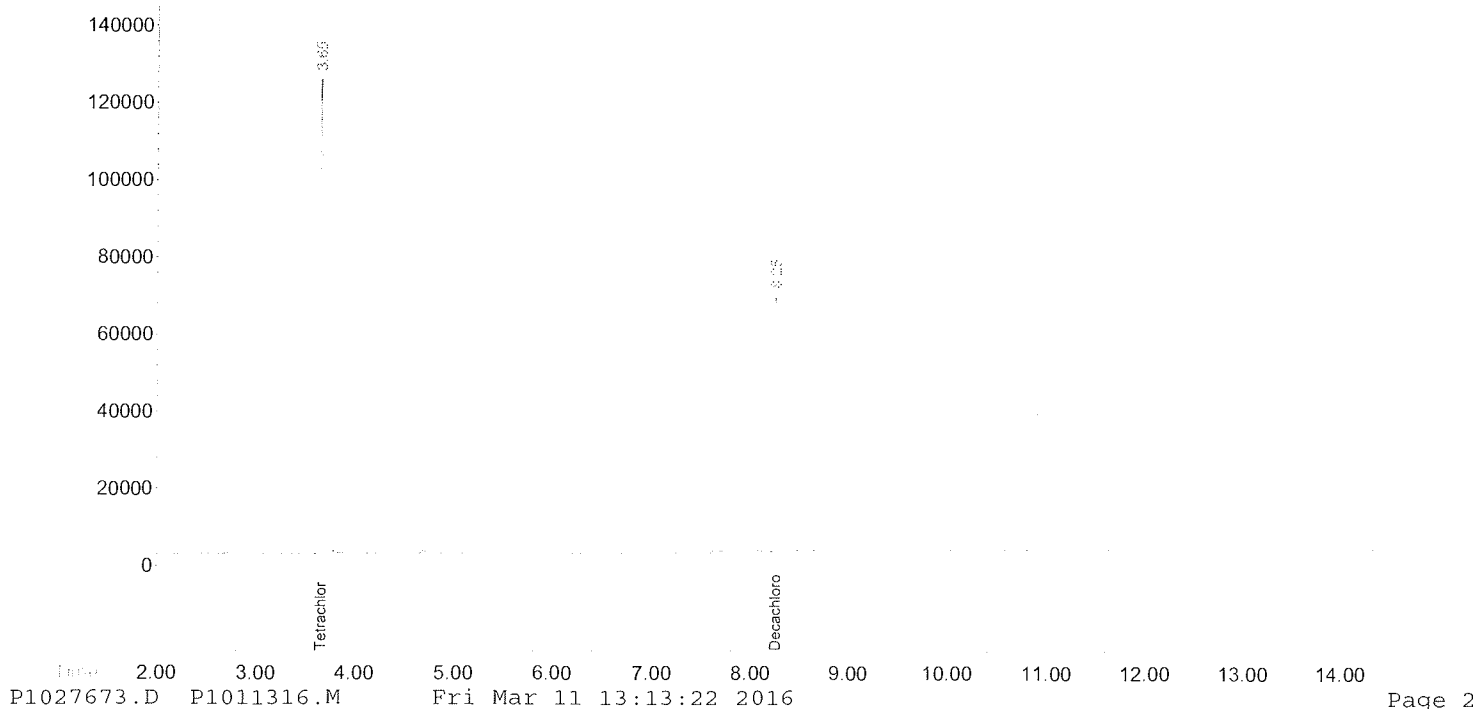
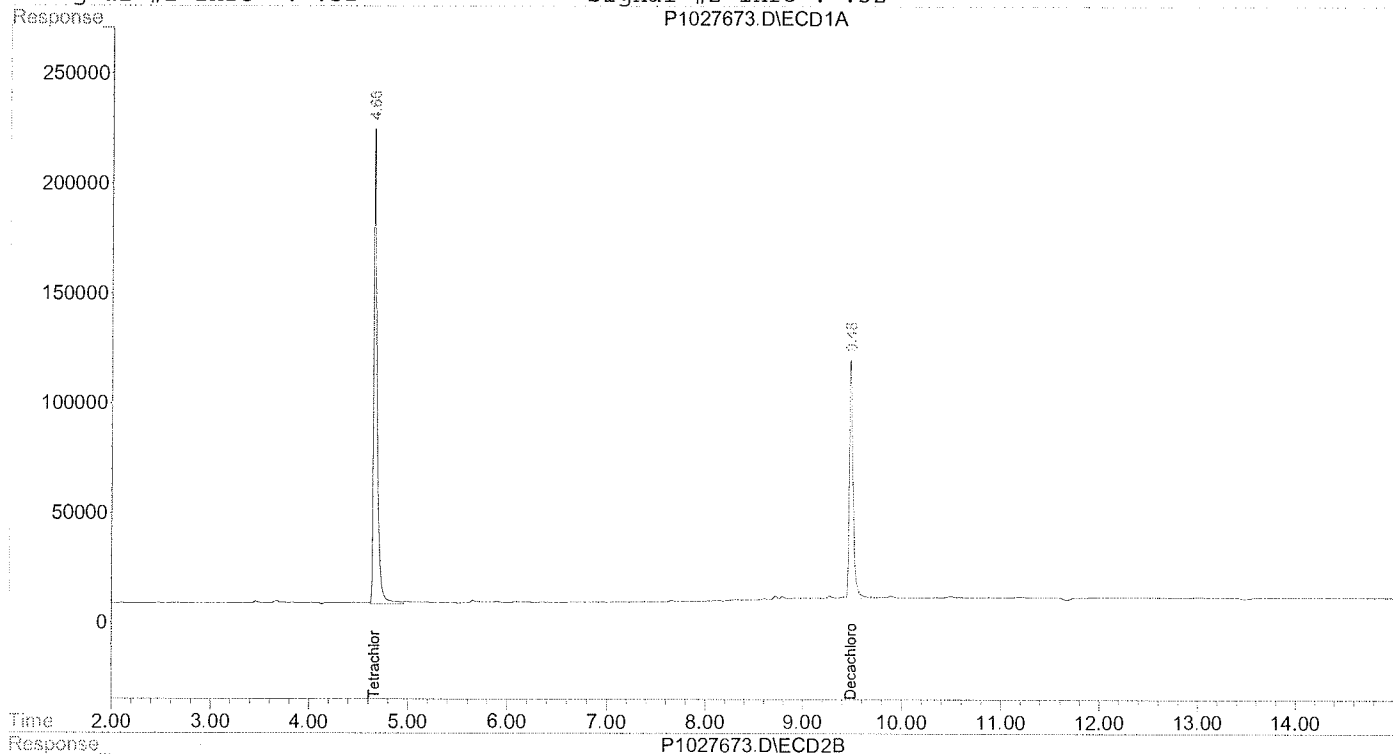
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.65	5240560	2695983	0.186	0.166
Spiked Amount	0.200	Range	30 - 150	Recovery =	93.00%	83.00%
17) S Decachlorobiphen	9.48	8.25	2893062	1760737	0.146	0.134
Spiked Amount	0.200	Range	30 - 150	Recovery =	73.00%	67.00%
Target Compounds						
2) 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. d	N.D. 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. 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	0.00	0.00	0	0	N.D. d	N.D. d
13) T 1260 2	0.00	0.00	0	0	N.D. d	N.D. d
14) T 1260 3	0.00	0.00	0	0	N.D. d	N.D. d
15) T 1260 4	0.00	0.00	0	0	N.D. d	N.D. d
16) T 1260 5	0.00	0.00	0	0	N.D.	N.D.

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027673.D\ECD1A.CH Vial: 3
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027673.D\ECD2B.CH
 Acq On : 11 Mar 2016 9:58 am Operator: AMC
 Sample : BC60572-BLK2 Inst : ECD#1
 Misc : QBPCB1-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 13:13 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



FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8082A

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60572Laboratory ID: BC60572-BS2Preparation: EPA 3550CInitial/Final: 30 g / 10 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
Aroclor 1016	0.333	0.359	108	40 - 130
Aroclor 1260	0.333	0.338	101	40 - 130

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

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027674.D\ECD1A.CH Vial: 4
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027674.D\ECD2B.CH
 Acq On : 11 Mar 2016 10:18 am Operator: AMC
 Sample : BC60572-BS2 Inst : ECD#1
 Misc : QBPCB1-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 13:14 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

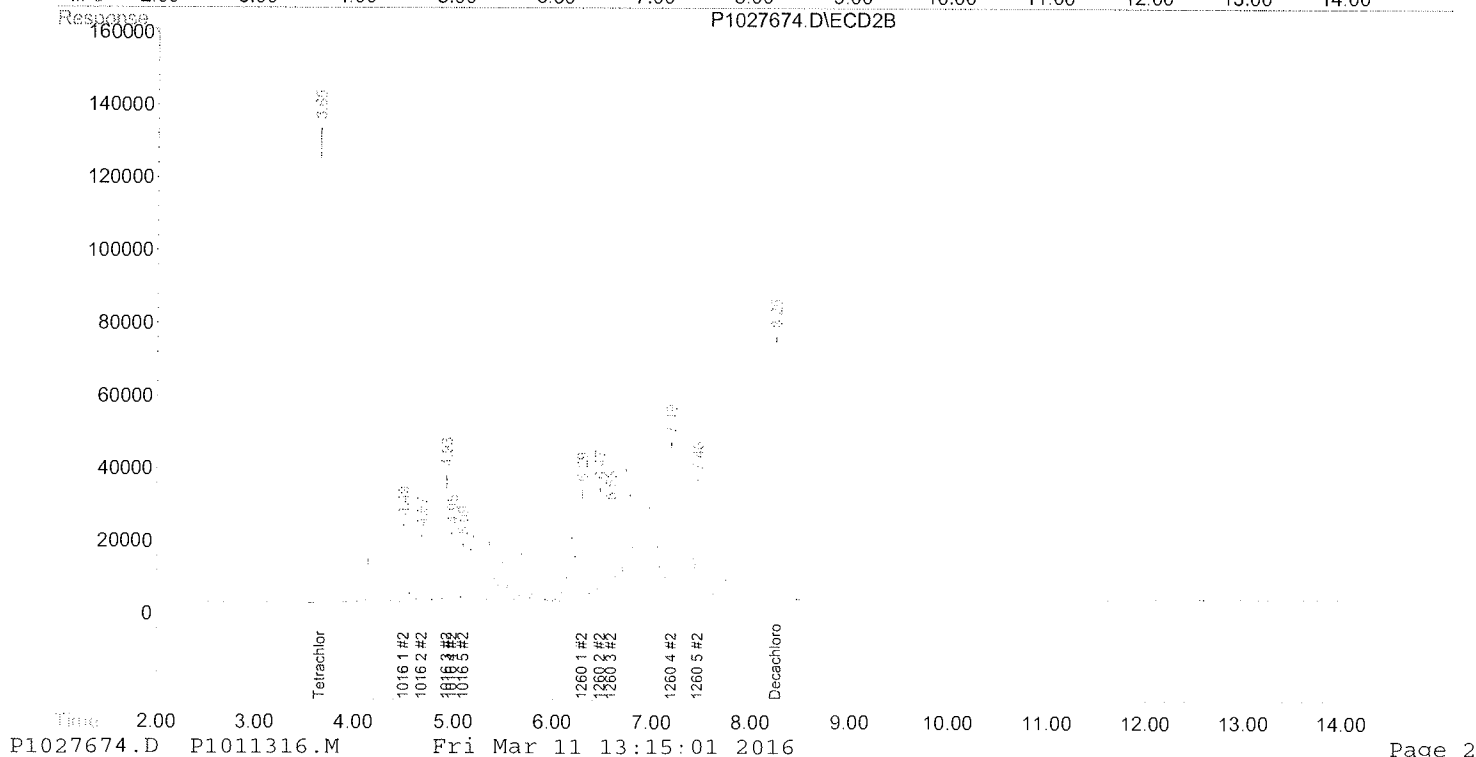
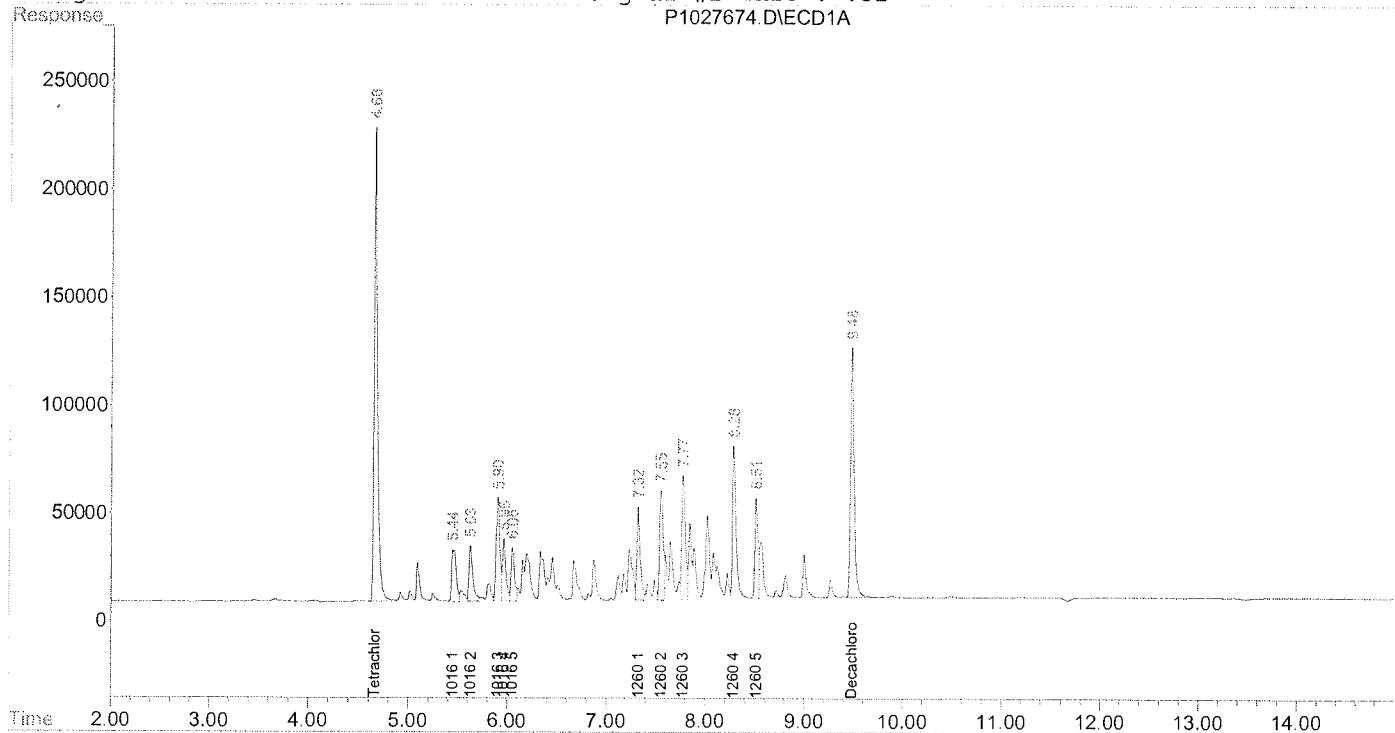
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.65	5171001	2854257	0.183	0.176
Spiked Amount	0.200	Range	30 - 150	Recovery	= 91.50%	88.00%
17) S Decachlorobiphen	9.48	8.25	3011146	1910783	0.152	0.145
Spiked Amount	0.200	Range	30 - 150	Recovery	= 76.00%	72.50%
Target Compounds						
2) T 1016 1	5.44	4.49	816924	535247	1.003m	1.009
3) T 1016 2	5.63	4.67	688550	461717	1.127	1.205
4) T 1016 3	5.91	4.93	1237742	774806	1.006	1.105
5) T 1016 4	5.97	4.98	704672	531117	1.095	1.131
6) T 1016 5	6.05	5.10	600749	336559	1.151m	1.176
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	1029826	681095	0.978	0.975
13) T 1260 2	7.55	6.47	1217487	720148	0.930m	0.995
14) T 1260 3	7.77	6.58	1434250	742326	0.985	1.012m
15) T 1260 4	8.28	7.19	1732742	1210887	1.040	1.089
16) T 1260 5	8.51	7.46	999421	966763	1.135	1.086

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031116\P1027674.D\ECD1A.CH Vial: 4
 Signal #2 : C:\HPCHEM\1\DATA\031116\P1027674.D\ECD2B.CH
 Acq On : 11 Mar 2016 10:18 am Operator: AMC
 Sample : BC60572-BS2 Inst : ECD#1
 Misc : QBPCB1-031116A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 11 13:14 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



PREPARATION BENCH SHEET

BC60572

York Analytical Laboratories, Inc.

Printed: 3/25/2016 2:39:00PM

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
16C0195-10	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0195-10	Pesticides, 8081 target list	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-05	Pesticides, NJDEP/TCL/Par	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-05	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-06	Pesticides, NJDEP/TCL/Par	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-06	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-07	Pesticides, NJDEP/TCL/Par	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-07	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-08	Pesticides, NJDEP/TCL/Par	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-08	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-09	Pesticides, NJDEP/TCL/Par	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-09	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-10	Pesticides, NJDEP/TCL/Par	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-10	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-11	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-11	Pesticides, NJDEP/TCL/Par	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-12	Pesticides, 8081 target list	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	Added for BatchQC in: BC60572
16C0213-12	Pesticides, NJDEP/TCL List	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	Added for BatchQC in: BC60572
16C0213-12	Pesticides, NJDEP/TCL/Par	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-12	Pesticides, NYSDEC Part 3:	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	Added for BatchQC in: BC60572
16C0213-12	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-13	Pesticides, NJDEP/TCL/Par	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-13	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	

PREPARATION BENCH SHEET

BC60572

York Analytical Laboratories, Inc.

Printed: 3/25/2016 2:39:00PM

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
16C0213-14	Pesticides, NJDEP/TCL/Par	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-14	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-15	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-15	Pesticides, NJDEP/TCL/Par	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-16	Pesticides, NJDEP/TCL/Par	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0213-16	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0235-01	Pesticides, 8081 target list	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0235-01	Pesticides, NYSDEC Part 3:	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0235-01	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0235-02	Pesticides, 8081 target list	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0235-02	Pesticides, NYSDEC Part 3:	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0235-02	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0235-03	Pesticides, 8081 target list	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0235-03	Pesticides, NYSDEC Part 3:	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0235-03	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0235-04	Pesticides, 8081 target list	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0235-04	Pesticides, NYSDEC Part 3:	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0235-04	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0338-01	Pesticides, NYSDEC Part 3:	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0338-01	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0338-02	Pesticides, NYSDEC Part 3:	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0338-02	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
16C0381-01	Pesticides, NJDEP/TCL List	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	

PREPARATION BENCH SHEET

BC60572

York Analytical Laboratories, Inc.

Printed: 3/25/2016 2:39:00PM

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
16C0381-01	Polychlorinated Biphenyls (l	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
BC60572-BLK1	QC	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
BC60572-BLK2	QC	03/10/2016 13:4	MGL	30	10				100	EPA 3550C	
BC60572-BS1	QC	03/10/2016 13:4	MGL	30	10	Y16B008		100	100	EPA 3550C	
BC60572-BS2	QC	03/10/2016 13:4	MGL	30	10	Y16C070		100	100	EPA 3550C	
BC60572-BSD1	QC	03/10/2016 13:4	MGL	30	10	Y16B008		100	100	EPA 3550C	
BC60572-MS1	QC	03/10/2016 13:4	MGL	30	10	Y16B008	16C0213-12	100	100	EPA 3550C	

Batch Comments:

Sequence Name: C:\HPCHEM\1\SEQUENCE\P1031116.S
Comment: PCB, A 60, B 60
Operator: AMC
Data Path: C:\HPCHEM\1\DATA\031116\
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	P1027671	PEST1	SEQ-CCV1
2	Sample	2	P1027672	PEST1	SEQ-CCV2
3	Sample	3	P1027673	PEST1	BC60572-BLK2
4	Sample	4	P1027674	PEST1	BC60572-BS2
5	Sample	5	P1027675	PEST1	16C0195-10
6	Sample	6	P1027676	PEST1	16C0213-05
7	Sample	7	P1027677	PEST1	16C0213-06
8	Sample	8	P1027678	PEST1	16C0213-07
9	Sample	9	P1027679	PEST1	16C0213-08
10	Sample	10	P1027680	PEST1	16C0213-09
11	Sample	11	P1027681	PEST1	16C0213-10
12	Sample	12	P1027682	PEST1	16C0213-11
13	Sample	13	P1027683	PEST1	16C0213-12
14	Sample	14	P1027684	PEST1	16C0213-13
15	Sample	15	P1027685	PEST1	16C0213-14
16	Sample	16	P1027686	PEST1	16C0213-15
17	Sample	17	P1027687	PEST1	16C0213-16
18	Sample	18	P1027688	PEST1	16C0235-01
19	Sample	19	P1027689	PEST1	16C0235-02
20	Sample	20	P1027690	PEST1	16C0235-03
21	Sample	21	P1027691	PEST1	16C0235-04
22	Sample	1	P1027692	PEST1	SEQ-CCV3
23	Sample	22	P1027693	PEST1	16C0338-01
24	Sample	23	P1027694	PEST1	16C0338-02
25	Sample	24	P1027695	PEST1	16C0381-01
26	Sample	25	P1027696	PEST1	BC60575-BLK1
27	Sample	26	P1027697	PEST1	BC60575-BS1
28	Sample	27	P1027698	PEST1	BC60575-BSD1
29	Sample	28	P1027699	PEST1	16C0288-01
30	Sample	29	P1027700	PEST1	16C0288-02
31	Sample	30	P1027701	PEST1	16C0351-01
32	Sample	31	P1027702	PEST1	16C0353-01
33	Sample	32	P1027703	PEST1	16C0353-02
34	Sample	33	P1027704	PEST1	16C0353-03
35	Sample	34	P1027705	PEST1	16C0353-04
36	Sample	35	P1027706	PEST1	16C0354-01
37	Sample	36	P1027707	PEST1	16C0356-01
38	Sample	37	P1027708	PEST1	16C0356-02
39	Sample	38	P1027709	PEST1	16C0356-03
40	Sample	39	P1027710	PEST1	16C0357-01
41	Sample	40	P1027711	PEST1	16C0357-02
42	Sample	41	P1027712	PEST1	16C0357-03
43	Sample	1	P1027713	PEST1	SEQ-CCV4

Sequence Name: C:\HPCHEM\1\SEQUENCE\P1031116.S

Line Type	Vial	DataFile	Method	Sample Name

44 Sample	42	P1027714	PEST1	16C0357-04
45 Sample	43	P1027715	PEST1	16C0357-05
46 Sample	44	P1027716	PEST1	16C0357-06
47 Sample	45	P1027717	PEST1	16C0358-01
48 Sample	46	P1027718	PEST1	16C0370-01
49 Sample	47	P1027719	PEST1	16C0370-02
50 Sample	1	P1027720	PEST1	SEQ-CCV5

York Analytical Laboratories, Inc.

SDG: 16C0235

CLASS: METALS

METHOD: EPA 6010C

DATA PACKAGE COVER PAGE

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-1

02/LSB-1

03/LSB-2

04/LSB-2

Lab Sample Id:

16C0235-01

16C0235-02

16C0235-03

16C0235-04

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:

3/25/2016

Title:

Laboratory Director

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Laboratory ID: 16C0235-01

File ID: qbi030816bRE 1-164

Sampled: 03/04/16 11:45

Prepared: 03/08/16 09:59

Analyzed: 03/09/16 04:02

Solids: 88.84

Preparation: EPA 3050B

Initial/Final: 0.5 g / 50 mL

Batch: BC60404

Sequence:

Calibration: 03/09/16 0

Instrument: WinLabICP

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7429-90-5	Aluminum	5900	1		EPA 6010C
7440-36-0	Antimony	0.563	1	U	EPA 6010C
7440-38-2	Arsenic	8.29	1		EPA 6010C
7440-39-3	Barium	88.3	1		EPA 6010C
7440-41-7	Beryllium	0.113	1	U	EPA 6010C
7440-43-9	Cadmium	2.81	1		EPA 6010C
7440-70-2	Calcium	40100	1		EPA 6010C
7440-47-3	Chromium	18.0	1		EPA 6010C
7440-48-4	Cobalt	4.91	1		EPA 6010C
7440-50-8	Copper	50.0	1		EPA 6010C
7439-89-6	Iron	14500	1		EPA 6010C
7439-92-1	Lead	401	1		EPA 6010C
7439-95-4	Magnesium	4360	1		EPA 6010C
7439-96-5	Manganese	283	1		EPA 6010C
7440-02-0	Nickel	17.2	1		EPA 6010C
7440-09-7	Potassium	766	1		EPA 6010C
7782-49-2	Selenium	1.13	1	U	EPA 6010C
7440-22-4	Silver	2.31	1		EPA 6010C
7440-23-5	Sodium	153	1		EPA 6010C
7440-28-0	Thallium	1.13	1	U	EPA 6010C
7440-62-2	Vanadium	16.2	1		EPA 6010C
7440-66-6	Zinc	1070	1		EPA 6010C

FORM I

INORGANIC ANALYSIS DATA SHEET

EPA 6010C

02/LSB-1

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0235-02File ID: qbi030816bRE_1-165Sampled: 03/04/16 12:20Prepared: 03/08/16 09:59Analyzed: 03/09/16 04:07Solids: 88.27Preparation: EPA 3050BInitial/Final: 0.5 g / 50 mLBatch: BC60404

Sequence:

Calibration: 03/09/16 0Instrument: WinLabICP

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7429-90-5	Aluminum	10700	1		EPA 6010C
7440-36-0	Antimony	0.566	1	U	EPA 6010C
7440-38-2	Arsenic	1.66	1		EPA 6010C
7440-39-3	Barium	72.4	1		EPA 6010C
7440-41-7	Beryllium	0.113	1	U	EPA 6010C
7440-43-9	Cadmium	0.340	1	U	EPA 6010C
7440-70-2	Calcium	3490	1		EPA 6010C
7440-47-3	Chromium	23.9	1		EPA 6010C
7440-48-4	Cobalt	13.7	1		EPA 6010C
7440-50-8	Copper	37.1	1		EPA 6010C
7439-89-6	Iron	21200	1		EPA 6010C
7439-92-1	Lead	8.28	1		EPA 6010C
7439-95-4	Magnesium	6730	1		EPA 6010C
7439-96-5	Manganese	413	1		EPA 6010C
7440-02-0	Nickel	23.3	1		EPA 6010C
7440-09-7	Potassium	2700	1		EPA 6010C
7782-49-2	Selenium	1.13	1	U	EPA 6010C
7440-22-4	Silver	0.566	1	U	EPA 6010C
7440-23-5	Sodium	220	1		EPA 6010C
7440-28-0	Thallium	1.13	1	U	EPA 6010C
7440-62-2	Vanadium	34.3	1		EPA 6010C
7440-66-6	Zinc	50.9	1		EPA 6010C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0235-03File ID: qbi030816bRE_1-166Sampled: 03/04/16 13:15Prepared: 03/08/16 09:59Analyzed: 03/09/16 04:12Solids: 84.92Preparation: EPA 3050BInitial/Final: 0.5 g / 50 mLBatch: BC60404

Sequence:

Calibration: 03/09/16 0Instrument: WinLabICP

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7429-90-5	Aluminum	4170	1		EPA 6010C
7440-36-0	Antimony	0.589	1	U	EPA 6010C
7440-38-2	Arsenic	3.87	1		EPA 6010C
7440-39-3	Barium	161	1		EPA 6010C
7440-41-7	Beryllium	0.118	1	U	EPA 6010C
7440-43-9	Cadmium	0.359	1		EPA 6010C
7440-70-2	Calcium	33900	1		EPA 6010C
7440-47-3	Chromium	55.5	1		EPA 6010C
7440-48-4	Cobalt	8.12	1		EPA 6010C
7440-50-8	Copper	31.2	1		EPA 6010C
7439-89-6	Iron	9780	1		EPA 6010C
7439-92-1	Lead	230	1		EPA 6010C
7439-95-4	Magnesium	16500	1		EPA 6010C
7439-96-5	Manganese	202	1		EPA 6010C
7440-02-0	Nickel	102	1		EPA 6010C
7440-09-7	Potassium	841	1		EPA 6010C
7782-49-2	Selenium	1.18	1	U	EPA 6010C
7440-22-4	Silver	0.589	1	U	EPA 6010C
7440-23-5	Sodium	273	1		EPA 6010C
7440-28-0	Thallium	1.18	1	U	EPA 6010C
7440-62-2	Vanadium	18.4	1		EPA 6010C
7440-66-6	Zinc	267	1		EPA 6010C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0235-04File ID: qbi030816bRE_1-167Sampled: 03/04/16 13:30Prepared: 03/08/16 09:59Analyzed: 03/09/16 04:17Solids: 70.08Preparation: EPA 3050BInitial/Final: 0.5 g / 50 mLBatch: BC60404

Sequence:

Calibration: 03/09/16 0Instrument: WinLabICP

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7429-90-5	Aluminum	4910	1		EPA 6010C
7440-36-0	Antimony	0.713	1	U	EPA 6010C
7440-38-2	Arsenic	3.53	1		EPA 6010C
7440-39-3	Barium	687	1		EPA 6010C
7440-41-7	Beryllium	0.143	1	U	EPA 6010C
7440-43-9	Cadmium	0.428	1	U	EPA 6010C
7440-70-2	Calcium	35100	1		EPA 6010C
7440-47-3	Chromium	18.4	1		EPA 6010C
7440-48-4	Cobalt	5.45	1		EPA 6010C
7440-50-8	Copper	31.3	1		EPA 6010C
7439-89-6	Iron	47500	1	E	EPA 6010C
7439-92-1	Lead	464	1		EPA 6010C
7439-95-4	Magnesium	6350	1		EPA 6010C
7439-96-5	Manganese	345	1		EPA 6010C
7440-02-0	Nickel	12.3	1		EPA 6010C
7440-09-7	Potassium	1600	1		EPA 6010C
7782-49-2	Selenium	3.68	1		EPA 6010C
7440-22-4	Silver	0.713	1	U	EPA 6010C
7440-23-5	Sodium	398	1		EPA 6010C
7440-28-0	Thallium	1.43	1	U	EPA 6010C
7440-62-2	Vanadium	16.5	1		EPA 6010C
7440-66-6	Zinc	694	1		EPA 6010C

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/08/16

Control Limit: +/- 10.00%

Sequence: Y6C0906

Lab Sample ID	Analyte	True	Found	%R	Units	Method
Y6C0906-ICV1	Aluminum	10.0	9.44	94.4	ug/mL	EPA 6010C
	Antimony	0.250	0.240	95.9	ug/mL	EPA 6010C
	Arsenic	0.250	0.243	97.1	ug/mL	EPA 6010C
	Barium	10.0	10.0	100	ug/mL	EPA 6010C
	Beryllium	0.250	0.252	101	ug/mL	EPA 6010C
	Cadmium	0.125	0.120	96.0	ug/mL	EPA 6010C
	Calcium	25.0	25.0	100	ug/mL	EPA 6010C
	Chromium	1.00	0.977	97.7	ug/mL	EPA 6010C
	Cobalt	2.50	2.46	98.6	ug/mL	EPA 6010C
	Copper	1.25	1.21	96.8	ug/mL	EPA 6010C
	Iron	5.00	5.01	100	ug/mL	EPA 6010C
	Lead	0.250	0.246	98.4	ug/mL	EPA 6010C
	Magnesium	25.0	25.1	100	ug/mL	EPA 6010C
	Manganese	2.50	2.53	101	ug/mL	EPA 6010C
	Nickel	2.50	2.43	97.2	ug/mL	EPA 6010C
	Potassium	5.00	5.06	101	ug/mL	EPA 6010C
	Selenium	0.250	0.244	97.4	ug/mL	EPA 6010C
	Silver	1.25	1.20	95.8	ug/mL	EPA 6010C
	Sodium	25.0	24.8	99.0	ug/mL	EPA 6010C
	Thallium	0.250	0.246	98.3	ug/mL	EPA 6010C
	Vanadium	2.50	2.42	96.9	ug/mL	EPA 6010C
	Zinc	2.50	2.45	98.1	ug/mL	EPA 6010C
Y6C0906-CCV1	Aluminum	10.0	9.28	92.8	ug/mL	EPA 6010C
	Antimony	0.250	0.240	96.1	ug/mL	EPA 6010C
	Arsenic	0.250	0.245	97.8	ug/mL	EPA 6010C
	Barium	10.0	9.82	98.2	ug/mL	EPA 6010C
	Beryllium	0.250	0.247	98.8	ug/mL	EPA 6010C
	Cadmium	0.125	0.119	94.8	ug/mL	EPA 6010C
	Calcium	25.0	25.1	100	ug/mL	EPA 6010C
	Chromium	1.00	0.961	96.1	ug/mL	EPA 6010C
	Cobalt	2.50	2.43	97.0	ug/mL	EPA 6010C
	Copper	1.25	1.19	95.3	ug/mL	EPA 6010C
	Iron	5.00	4.89	97.8	ug/mL	EPA 6010C
	Lead	0.250	0.246	98.4	ug/mL	EPA 6010C
	Magnesium	25.0	24.6	98.4	ug/mL	EPA 6010C
	Manganese	2.50	2.49	99.4	ug/mL	EPA 6010C
	Nickel	2.50	2.39	95.8	ug/mL	EPA 6010C
	Potassium	5.00	4.93	98.6	ug/mL	EPA 6010C

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/08/16

Control Limit: +/- 10.00%

Sequence: Y6C0906

Lab Sample ID	Analyte	True	Found	%R	Units	Method
Y6C0906-CCV1	Selenium	0.250	0.244	97.5	ug/mL	EPA 6010C
	Silver	1.25	1.18	94.1	ug/mL	EPA 6010C
	Sodium	25.0	24.8	99.1	ug/mL	EPA 6010C
	Thallium	0.250	0.247	98.7	ug/mL	EPA 6010C
	Vanadium	2.50	2.38	95.0	ug/mL	EPA 6010C
	Zinc	2.50	2.42	96.7	ug/mL	EPA 6010C
Y6C0906-CCVB	Aluminum	10.0	9.35	93.5	ug/mL	EPA 6010C
	Antimony	0.250	0.234	93.6	ug/mL	EPA 6010C
	Arsenic	0.250	0.246	98.4	ug/mL	EPA 6010C
	Barium	10.0	9.99	99.9	ug/mL	EPA 6010C
	Beryllium	0.250	0.252	101	ug/mL	EPA 6010C
	Cadmium	0.125	0.119	95.4	ug/mL	EPA 6010C
	Calcium	25.0	25.0	100	ug/mL	EPA 6010C
	Chromium	1.00	0.978	97.8	ug/mL	EPA 6010C
	Cobalt	2.50	2.47	98.7	ug/mL	EPA 6010C
	Copper	1.25	1.21	97.0	ug/mL	EPA 6010C
	Iron	5.00	5.01	100	ug/mL	EPA 6010C
	Lead	0.250	0.246	98.3	ug/mL	EPA 6010C
	Magnesium	25.0	25.1	100	ug/mL	EPA 6010C
	Manganese	2.50	2.53	101	ug/mL	EPA 6010C
	Nickel	2.50	2.43	97.2	ug/mL	EPA 6010C
	Potassium	5.00	5.01	100	ug/mL	EPA 6010C
	Selenium	0.250	0.241	96.3	ug/mL	EPA 6010C
	Silver	1.25	1.19	95.1	ug/mL	EPA 6010C
	Sodium	25.0	24.8	99.2	ug/mL	EPA 6010C
	Thallium	0.250	0.246	98.2	ug/mL	EPA 6010C
	Vanadium	2.50	2.42	96.9	ug/mL	EPA 6010C
	Zinc	2.50	2.43	97.3	ug/mL	EPA 6010C
Y6C0906-CCVC	Aluminum	10.0	9.48	94.8	ug/mL	EPA 6010C
	Antimony	0.250	0.251	100	ug/mL	EPA 6010C
	Arsenic	0.250	0.264	105	ug/mL	EPA 6010C
	Barium	10.0	10.7	107	ug/mL	EPA 6010C
	Beryllium	0.250	0.268	107	ug/mL	EPA 6010C
	Cadmium	0.125	0.128	102	ug/mL	EPA 6010C
	Calcium	25.0	25.0	100	ug/mL	EPA 6010C
	Chromium	1.00	1.05	105	ug/mL	EPA 6010C
	Cobalt	2.50	2.65	106	ug/mL	EPA 6010C
	Copper	1.25	1.30	104	ug/mL	EPA 6010C

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/09/16

Control Limit: +/- 10.00%

Sequence: Y6C0906

Lab Sample ID	Analyte	True	Found	%R	Units	Method
Y6C0906-CCVC	Iron	5.00	5.03	101	ug/mL	EPA 6010C
	Lead	0.250	0.263	105	ug/mL	EPA 6010C
	Magnesium	25.0	25.0	100	ug/mL	EPA 6010C
	Manganese	2.50	2.71	108	ug/mL	EPA 6010C
	Nickel	2.50	2.61	104	ug/mL	EPA 6010C
	Potassium	5.00	5.01	100	ug/mL	EPA 6010C
	Selenium	0.250	0.254	102	ug/mL	EPA 6010C
	Silver	1.25	1.28	102	ug/mL	EPA 6010C
	Sodium	25.0	24.7	98.6	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	2.60	104	ug/mL	EPA 6010C
Y6C0906-CCVD	Aluminum	10.0	9.46	94.6	ug/mL	EPA 6010C
	Antimony	0.250	0.238	95.3	ug/mL	EPA 6010C
	Arsenic	0.250	0.249	99.8	ug/mL	EPA 6010C
	Barium	10.0	10.0	100	ug/mL	EPA 6010C
	Beryllium	0.250	0.249	99.5	ug/mL	EPA 6010C
	Cadmium	0.125	0.122	97.5	ug/mL	EPA 6010C
	Calcium	25.0	25.2	101	ug/mL	EPA 6010C
	Chromium	1.00	1.01	101	ug/mL	EPA 6010C
	Cobalt	2.50	2.53	101	ug/mL	EPA 6010C
	Copper	1.25	1.25	100	ug/mL	EPA 6010C
	Iron	5.00	5.01	100	ug/mL	EPA 6010C
	Lead	0.250	0.250	99.9	ug/mL	EPA 6010C
	Magnesium	25.0	25.2	101	ug/mL	EPA 6010C
	Manganese	2.50	2.53	101	ug/mL	EPA 6010C
	Nickel	2.50	2.48	99.4	ug/mL	EPA 6010C
	Potassium	5.00	5.04	101	ug/mL	EPA 6010C
	Selenium	0.250	0.245	98.1	ug/mL	EPA 6010C
	Silver	1.25	1.23	98.6	ug/mL	EPA 6010C
	Sodium	25.0	25.0	100	ug/mL	EPA 6010C
	Thallium	0.250	0.246	98.5	ug/mL	EPA 6010C
	Vanadium	2.50	2.41	96.3	ug/mL	EPA 6010C
	Zinc	2.50	2.51	100	ug/mL	EPA 6010C
Y6C0906-CCVE	Aluminum	10.0	9.42	94.2	ug/mL	EPA 6010C
	Antimony	0.250	0.234	93.5	ug/mL	EPA 6010C
	Arsenic	0.250	0.250	100	ug/mL	EPA 6010C
	Barium	10.0	10.0	100	ug/mL	EPA 6010C

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/09/16

Control Limit: +/- 10.00%

Sequence: Y6C0906

Lab Sample ID	Analyte	True	Found	%R	Units	Method
Y6C0906-CCVE	Beryllium	0.250	0.250	100	ug/mL	EPA 6010C
	Cadmium	0.125	0.120	95.9	ug/mL	EPA 6010C
	Calcium	25.0	25.1	100	ug/mL	EPA 6010C
	Chromium	1.00	0.978	97.8	ug/mL	EPA 6010C
	Cobalt	2.50	2.47	98.9	ug/mL	EPA 6010C
	Copper	1.25	1.21	96.9	ug/mL	EPA 6010C
	Iron	5.00	5.01	100	ug/mL	EPA 6010C
	Lead	0.250	0.248	99.1	ug/mL	EPA 6010C
	Magnesium	25.0	25.3	101	ug/mL	EPA 6010C
	Manganese	2.50	2.53	101	ug/mL	EPA 6010C
	Nickel	2.50	2.44	97.4	ug/mL	EPA 6010C
	Potassium	5.00	5.06	101	ug/mL	EPA 6010C
	Selenium	0.250	0.242	97.0	ug/mL	EPA 6010C
	Silver	1.25	1.19	94.9	ug/mL	EPA 6010C
	Sodium	25.0	24.9	99.7	ug/mL	EPA 6010C
	Thallium	0.250	0.249	99.7	ug/mL	EPA 6010C
	Vanadium	2.50	2.41	96.5	ug/mL	EPA 6010C
	Zinc	2.50	2.44	97.6	ug/mL	EPA 6010C

* Values outside of QC limits

CRDL STANDARD

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/08/16

Sequence: Y6C0906

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limits
Y6C0906-CRL1	Aluminum		-0.045		ug/mL	70 - 130
	Antimony	0.0100	0.011	108	ug/mL	70 - 130
	Arsenic	0.0100	0.009	89.3	ug/mL	70 - 130
	Barium	0.0100	0.009	89.6	ug/mL	70 - 130
	Beryllium	0.000500	0.0005	91.3	ug/mL	70 - 130
	Cadmium	0.00300	0.003	104	ug/mL	70 - 130
	Calcium		-0.016		ug/mL	70 - 130
	Chromium	0.00500	0.005	95.8	ug/mL	70 - 130
	Cobalt	0.00500	0.005	99.8	ug/mL	70 - 130
	Copper	0.00500	0.005	98.3	ug/mL	70 - 130
	Iron		-0.004		ug/mL	70 - 130
	Lead	0.00300	0.003	85.9	ug/mL	70 - 130
	Magnesium		-0.003		ug/mL	70 - 130
	Manganese	0.00500	0.004	83.1	ug/mL	70 - 130
	Nickel	0.00500	0.006	114	ug/mL	70 - 130
	Potassium		-0.008		ug/mL	70 - 130
	Selenium	0.0100	0.005	45.1 *	ug/mL	70 - 130
	Silver	0.00500	0.005	102	ug/mL	70 - 130
	Sodium		-0.141		ug/mL	70 - 130
	Thallium	0.0100	0.008	76.4	ug/mL	70 - 130
	Vanadium	0.00500	0.004	85.9	ug/mL	70 - 130
	Zinc	0.00500	-0.006	*	ug/mL	70 - 130
Y6C0906-CRL2	Aluminum	0.0500	0.043	85.7	ug/mL	70 - 130
	Antimony		0.0006		ug/mL	70 - 130
	Arsenic		-0.002		ug/mL	70 - 130
	Barium		-0.002		ug/mL	70 - 130
	Beryllium		-0.00002		ug/mL	70 - 130
	Cadmium		0.000002		ug/mL	70 - 130

CRDL STANDARD

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/08/16

Sequence: Y6C0906

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limits
Y6C0906-CRL2	Calcium	0.100	0.099	99.4	ug/mL	70 - 130
	Chromium		-0.0004		ug/mL	70 - 130
	Cobalt		-0.0002		ug/mL	70 - 130
	Copper		-0.0003		ug/mL	70 - 130
	Iron	0.200	0.214	107	ug/mL	70 - 130
	Lead		-0.0001		ug/mL	70 - 130
	Magnesium	0.0500	0.040	81.0	ug/mL	70 - 130
	Manganese		-0.0008		ug/mL	70 - 130
	Nickel		0.001		ug/mL	70 - 130
	Potassium	0.200	0.160	80.2	ug/mL	70 - 130
	Selenium		-0.007		ug/mL	70 - 130
	Silver		0.00001		ug/mL	70 - 130
	Sodium	0.200	0.152	75.8	ug/mL	70 - 130
	Thallium		-0.0005		ug/mL	70 - 130
	Vanadium		-0.0005		ug/mL	70 - 130
	Zinc		-0.010		ug/mL	70 - 130

* Values outside of QC limits

FORM I**BLANKS
EPA 6010C**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Instrument ID: WinLabICPProject: 100433202Sequence: Y6C0906Calibration: 03/08/16 1

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
Y6C0906-ICB1	Aluminum	-0.075	0.050	ug/mL		EPA 6010C
	Antimony	0.002	0.005	ug/mL		EPA 6010C
	Arsenic	-0.004	0.010	ug/mL		EPA 6010C
	Barium	-0.001	0.010	ug/mL		EPA 6010C
	Beryllium	-0.00006	0.001	ug/mL		EPA 6010C
	Cadmium	-0.000007	0.003	ug/mL		EPA 6010C
	Calcium	-0.019	0.050	ug/mL		EPA 6010C
	Chromium	-0.0002	0.005	ug/mL		EPA 6010C
	Cobalt	-0.0002	0.005	ug/mL		EPA 6010C
	Copper	0.0004	0.005	ug/mL		EPA 6010C
	Iron	-0.004	0.020	ug/mL		EPA 6010C
	Lead	-0.0002	0.003	ug/mL		EPA 6010C
	Magnesium	-0.008	0.050	ug/mL		EPA 6010C
	Manganese	-0.0007	0.005	ug/mL		EPA 6010C
	Nickel	-0.0007	0.005	ug/mL		EPA 6010C
	Potassium	0.002	0.050	ug/mL		EPA 6010C
	Selenium	-0.002	0.010	ug/mL		EPA 6010C
	Silver	0.0003	0.005	ug/mL		EPA 6010C
	Sodium	-0.146	0.100	ug/mL		EPA 6010C
	Thallium	-0.001	0.010	ug/mL		EPA 6010C
	Vanadium	-0.0004	0.010	ug/mL		EPA 6010C
	Zinc	-0.013	0.010	ug/mL		EPA 6010C
Y6C0906-CCB1	Aluminum	-0.086	0.050	ug/mL		EPA 6010C
	Antimony	0.002	0.005	ug/mL		EPA 6010C
	Arsenic	-0.004	0.010	ug/mL		EPA 6010C
	Barium	-0.001	0.010	ug/mL		EPA 6010C
	Beryllium	-0.00004	0.001	ug/mL		EPA 6010C
	Cadmium	0.00009	0.003	ug/mL		EPA 6010C
	Calcium	-0.019	0.050	ug/mL		EPA 6010C
	Chromium	-0.0006	0.005	ug/mL		EPA 6010C
	Cobalt	-0.0001	0.005	ug/mL		EPA 6010C
	Copper	0.0004	0.005	ug/mL		EPA 6010C
	Iron	-0.003	0.020	ug/mL		EPA 6010C

FORM I

BLANKS
EPA 6010CLaboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Instrument ID: WinLabICPProject: 100433202Sequence: Y6C0906Calibration: 03/08/16 1

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
Y6C0906-CCB1	Lead	0.0002	0.003	ug/mL		EPA 6010C
	Magnesium	-0.004	0.050	ug/mL		EPA 6010C
	Manganese	-0.0007	0.005	ug/mL		EPA 6010C
	Nickel	0.0006	0.005	ug/mL		EPA 6010C
	Potassium	-0.00003	0.050	ug/mL		EPA 6010C
	Selenium	-0.004	0.010	ug/mL		EPA 6010C
	Silver	0.0009	0.005	ug/mL		EPA 6010C
	Sodium	-0.206	0.100	ug/mL		EPA 6010C
	Thallium	-0.0006	0.010	ug/mL		EPA 6010C
	Vanadium	-0.0004	0.010	ug/mL		EPA 6010C
	Zinc	-0.013	0.010	ug/mL		EPA 6010C
Y6C0906-CCBB	Aluminum	0.034	0.050	ug/mL		EPA 6010C
	Antimony	-0.0005	0.005	ug/mL		EPA 6010C
	Arsenic	-0.00001	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	0.0001	0.003	ug/mL		EPA 6010C
	Calcium	-0.0008	0.050	ug/mL		EPA 6010C
	Chromium	-0.00002	0.005	ug/mL		EPA 6010C
	Cobalt	0.0004	0.005	ug/mL		EPA 6010C
	Copper	0.0003	0.005	ug/mL		EPA 6010C
	Iron	0.009	0.020	ug/mL		EPA 6010C
	Lead	-0.0001	0.003	ug/mL		EPA 6010C
	Magnesium	0.008	0.050	ug/mL		EPA 6010C
	Manganese	0.00008	0.005	ug/mL		EPA 6010C
	Nickel	0.002	0.005	ug/mL		EPA 6010C
	Potassium	0.011	0.050	ug/mL		EPA 6010C
	Selenium	-0.005	0.010	ug/mL		EPA 6010C
	Silver	0.002	0.005	ug/mL		EPA 6010C
	Sodium	-0.529	0.100	ug/mL		EPA 6010C
	Thallium	0.001	0.010	ug/mL		EPA 6010C
	Vanadium	0.0002	0.010	ug/mL		EPA 6010C
	Zinc	0.0008	0.010	ug/mL		EPA 6010C

FORM I

BLANKS
EPA 6010CLaboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Instrument ID: WinLabICPProject: 100433202Sequence: Y6C0906Calibration: 03/09/16 0

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
BC60404-BLK1	Aluminum	-0.353	5.00	mg/kg wet		EPA 6010C
	Antimony	-0.053	0.500	mg/kg wet		EPA 6010C
	Arsenic	-0.272	1.00	mg/kg wet		EPA 6010C
	Barium	-0.084	1.00	mg/kg wet		EPA 6010C
	Beryllium	-0.003	0.100	mg/kg wet		EPA 6010C
	Cadmium	0.005	0.300	mg/kg wet		EPA 6010C
	Calcium	0.776	5.00	mg/kg wet		EPA 6010C
	Chromium	-0.031	0.500	mg/kg wet		EPA 6010C
	Cobalt	-0.016	0.500	mg/kg wet		EPA 6010C
	Copper	0.014	0.500	mg/kg wet		EPA 6010C
	Iron	1.70	2.00	mg/kg wet		EPA 6010C
	Lead	-0.021	0.300	mg/kg wet		EPA 6010C
	Magnesium	0.706	5.00	mg/kg wet		EPA 6010C
	Manganese	-0.038	0.500	mg/kg wet		EPA 6010C
	Nickel	0.051	0.500	mg/kg wet		EPA 6010C
	Potassium	2.17	5.00	mg/kg wet		EPA 6010C
	Selenium	-0.145	1.00	mg/kg wet		EPA 6010C
	Silver	0.007	0.500	mg/kg wet		EPA 6010C
	Sodium	-66.6	10.0	mg/kg wet		EPA 6010C
	Thallium	-0.089	1.00	mg/kg wet		EPA 6010C
	Vanadium	-0.031	1.00	mg/kg wet		EPA 6010C
	Zinc	-0.379	1.00	mg/kg wet		EPA 6010C
Y6C0906-CCBC	Aluminum	0.042	0.050	ug/mL		EPA 6010C
	Antimony	0.001	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	0.00004	0.001	ug/mL		EPA 6010C
	Cadmium	0.00002	0.003	ug/mL		EPA 6010C
	Calcium	0.010	0.050	ug/mL		EPA 6010C
	Chromium	-0.00006	0.005	ug/mL		EPA 6010C
	Cobalt	0.0002	0.005	ug/mL		EPA 6010C
	Copper	0.0008	0.005	ug/mL		EPA 6010C
	Iron	0.008	0.020	ug/mL		EPA 6010C

FORM I

BLANKS
EPA 6010CLaboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Instrument ID: WinLabICPProject: 100433202Sequence: Y6C0906Calibration: 03/09/16 0

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
Y6C0906-CCBC	Lead	0.0005	0.003	ug/mL		EPA 6010C
	Magnesium	0.015	0.050	ug/mL		EPA 6010C
	Manganese	0.0002	0.005	ug/mL		EPA 6010C
	Nickel	0.001	0.005	ug/mL		EPA 6010C
	Potassium	0.032	0.050	ug/mL		EPA 6010C
	Selenium	-0.006	0.010	ug/mL		EPA 6010C
	Silver	0.002	0.005	ug/mL		EPA 6010C
	Sodium	-0.591	0.100	ug/mL		EPA 6010C
	Thallium	0.002	0.010	ug/mL		EPA 6010C
	Vanadium	-0.00003	0.010	ug/mL		EPA 6010C
	Zinc	0.0005	0.010	ug/mL		EPA 6010C
Y6C0906-CCBD	Aluminum	0.043	0.050	ug/mL		EPA 6010C
	Antimony	0.0007	0.005	ug/mL		EPA 6010C
	Arsenic	-0.0007	0.010	ug/mL		EPA 6010C
	Barium	0.0006	0.010	ug/mL		EPA 6010C
	Beryllium	0.0001	0.001	ug/mL		EPA 6010C
	Cadmium	0.0001	0.003	ug/mL		EPA 6010C
	Calcium	0.001	0.050	ug/mL		EPA 6010C
	Chromium	-0.00002	0.005	ug/mL		EPA 6010C
	Cobalt	0.0004	0.005	ug/mL		EPA 6010C
	Copper	0.0001	0.005	ug/mL		EPA 6010C
	Iron	0.007	0.020	ug/mL		EPA 6010C
	Lead	0.0004	0.003	ug/mL		EPA 6010C
	Magnesium	0.011	0.050	ug/mL		EPA 6010C
	Manganese	0.0002	0.005	ug/mL		EPA 6010C
	Nickel	0.002	0.005	ug/mL		EPA 6010C
	Potassium	0.019	0.050	ug/mL		EPA 6010C
	Selenium	0.0009	0.010	ug/mL		EPA 6010C
	Silver	0.002	0.005	ug/mL		EPA 6010C
	Sodium	-0.532	0.100	ug/mL		EPA 6010C
	Thallium	0.003	0.010	ug/mL		EPA 6010C
	Vanadium	0.0003	0.010	ug/mL		EPA 6010C
	Zinc	0.0005	0.010	ug/mL		EPA 6010C

FORM I**BLANKS
EPA 6010C**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Instrument ID: WinLabICPProject: 100433202Sequence: Y6C0906Calibration: 03/09/16 0

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
Y6C0906-CCBE	Aluminum	0.037	0.050	ug/mL		EPA 6010C
	Antimony	0.0008	0.005	ug/mL		EPA 6010C
	Arsenic	0.0002	0.010	ug/mL		EPA 6010C
	Barium	0.0005	0.010	ug/mL		EPA 6010C
	Beryllium	0.0001	0.001	ug/mL		EPA 6010C
	Cadmium	0.00007	0.003	ug/mL		EPA 6010C
	Calcium	0.007	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	0.0002	0.005	ug/mL		EPA 6010C
	Iron	-0.001	0.020	ug/mL		EPA 6010C
	Lead	0.0006	0.003	ug/mL		EPA 6010C
	Magnesium	0.008	0.050	ug/mL		EPA 6010C
	Manganese	0.0001	0.005	ug/mL		EPA 6010C
	Nickel	0.003	0.005	ug/mL		EPA 6010C
	Potassium	-0.001	0.050	ug/mL		EPA 6010C
	Selenium	-0.0003	0.010	ug/mL		EPA 6010C
	Silver	0.002	0.005	ug/mL		EPA 6010C
	Sodium	-0.505	0.100	ug/mL		EPA 6010C
	Thallium	0.002	0.010	ug/mL		EPA 6010C
	Vanadium	0.00009	0.010	ug/mL		EPA 6010C
	Zinc	0.0005	0.010	ug/mL		EPA 6010C

ICP INTERFERENCE CHECK SAMPLE

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/08/16

Sequence: Y6C0906

Lab Sample ID	Analyte	True	Found	%R	Units
Y6C0906-IFA1	Aluminum	500	500.60	100	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	496.78	99.4	ug/mL
	Chromium		0.00		ug/mL
	Cobalt		0.00		ug/mL
	Copper		0.00		ug/mL
	Iron	200	192.82	96.4	ug/mL
	Lead		0.00		ug/mL
	Magnesium	500	472.12	94.4	ug/mL
	Manganese		0.00		ug/mL
	Nickel		0.00		ug/mL
	Potassium		-0.02		ug/mL
	Selenium		-0.01		ug/mL
	Silver		0.00		ug/mL
	Sodium		0.26		ug/mL
	Thallium		0.00		ug/mL
	Vanadium		0.00		ug/mL
	Zinc		0.00		ug/mL
Y6C0906-IFB1	Aluminum	500	514.03	103	ug/mL
	Antimony	0.500	0.50	99.9	ug/mL
	Arsenic	0.500	0.51	102	ug/mL
	Barium	0.500	0.49	98.3	ug/mL
	Beryllium	0.500	0.50	99.2	ug/mL
	Cadmium	1.00	0.93	92.5	ug/mL
	Calcium	500	498.10	99.6	ug/mL

ICP INTERFERENCE CHECK SAMPLE

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/08/16

Sequence: Y6C0906

Lab Sample ID	Analyte	True	Found	%R	Units
Y6C0906-IFB1	Chromium	0.500	0.47	93.7	ug/mL
	Cobalt	0.500	0.46	91.2	ug/mL
	Copper	0.500	0.52	103	ug/mL
	Iron	200	196.83	98.4	ug/mL
	Lead	1.00	0.93	93.0	ug/mL
	Magnesium	500	500.59	100	ug/mL
	Manganese	0.500	0.49	97.2	ug/mL
	Nickel	1.00	0.96	96.3	ug/mL
	Potassium		-0.05		ug/mL
	Selenium	0.500	0.51	103	ug/mL
	Silver	1.00	1.04	104	ug/mL
	Sodium		0.16		ug/mL
	Thallium	0.500	0.47	94.7	ug/mL
	Vanadium	0.500	0.46	92.6	ug/mL
	Zinc	1.00	0.89	89.1	ug/mL

* Values outside of QC limits

METHOD DETECTION AND REPORTING LIMITS

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument:

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

METHOD DETECTION AND REPORTING LIMITS

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument: WinLabICP

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

ICP Interelement Correction Factors

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

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	0.100528	0	0	0

ICP Linear Dynamic Range

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

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
7440-36-0	Antimony	20000
7440-38-2	Arsenic	10000
7440-39-3	Barium	2500
7440-41-7	Beryllium	500
7440-43-9	Cadmium	1000
7440-70-2	Calcium	100000
7440-47-3	Chromium	2000
7440-48-4	Cobalt	1670
7440-50-8	Copper	2500
7439-89-6	Iron	33300
7439-92-1	Lead	3000
7439-95-4	Magnesium	100000
7439-96-5	Manganese	1000
7440-02-0	Nickel	5000
7440-09-7	Potassium	10000
7782-49-2	Selenium	10000
7440-22-4	Silver	2500
7440-23-5	Sodium	50000
7440-28-0	Thallium	1670
7440-62-2	Vanadium	5000
7440-66-6	Zinc	1500

PREPARATION BATCH SUMMARY

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Batch: BC60404

Batch Matrix: SoilPreparation: EPA 3050B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-1	16C0235-01	qbi030816bRE_1-164	03/08/16 09:59	
02/LSB-1	16C0235-02	qbi030816bRE_1-165	03/08/16 09:59	
03/LSB-2	16C0235-03	qbi030816bRE_1-166	03/08/16 09:59	
04/LSB-2	16C0235-04	qbi030816bRE_1-167	03/08/16 09:59	
Blank	BC60404-BLK1	qbi030816bRE_1-141	03/08/16 09:59	
Reference	BC60404-SRM1	qbi030816bRE_1-142	03/08/16 09:59	

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY**
EPA 6010C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Sequence: Y6C0906 Instrument: WinLabICP
Matrix: Soil Calibration: 03/08/16

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	Y6C0906-ICV1	qbi030816bRE_1-011	03/08/16 14:14
Initial Cal Blank	Y6C0906-ICB1	qbi030816bRE_1-012	03/08/16 14:21
Instrument RL Check	Y6C0906-CRL1	qbi030816bRE_1-013	03/08/16 14:26
Instrument RL Check	Y6C0906-CRL2	qbi030816bRE_1-014	03/08/16 14:32
Interference Check A	Y6C0906-IFA1	qbi030816bRE_1-015	03/08/16 14:37
Interference Check B	Y6C0906-IFB1	qbi030816bRE_1-016	03/08/16 14:44
Calibration Check	Y6C0906-CCV1	qbi030816bRE_1-017	03/08/16 14:51
Calibration Blank	Y6C0906-CCB1	qbi030816bRE_1-018	03/08/16 14:59
Calibration Check	Y6C0906-CCVB	qbi030816bRE_1-137	03/09/16 01:39
Calibration Blank	Y6C0906-CCBB	qbi030816bRE_1-138	03/09/16 01:46
Blank	BC60404-BLK1	qbi030816bRE_1-141	03/09/16 02:01
Reference	BC60404-SRM1	qbi030816bRE_1-142	03/09/16 02:06
Calibration Check	Y6C0906-CCVC	qbi030816bRE_1-149	03/09/16 02:44
Calibration Blank	Y6C0906-CCBC	qbi030816bRE_1-150	03/09/16 02:52
Calibration Check	Y6C0906-CCVD	qbi030816bRE_1-161	03/09/16 03:45
Calibration Blank	Y6C0906-CCBD	qbi030816bRE_1-162	03/09/16 03:53
Calibration Check	Y6C0906-CCVE	qbi030816bRE_1-170	03/09/16 04:31
Calibration Blank	Y6C0906-CCBE	qbi030816bRE_1-171	03/09/16 04:38

HOLDING TIME SUMMARY

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

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-1	03/04/16 11:45	03/07/16 17:45	03/08/16 09:59	3.93	180.00	03/09/16 04:02	0.75	30.00	
02/LSB-1	03/04/16 12:20	03/07/16 17:45	03/08/16 09:59	3.90	180.00	03/09/16 04:07	0.76	30.00	
03/LSB-2	03/04/16 13:15	03/07/16 17:45	03/08/16 09:59	3.86	180.00	03/09/16 04:12	0.76	30.00	
04/LSB-2	03/04/16 13:30	03/07/16 17:45	03/08/16 09:59	3.85	180.00	03/09/16 04:17	0.76	30.00	

Sample Information Detail Report
Document Name: 030816b

File Description
Sample Information File

Parameters Common to All Samples

Batch ID qbi030816b
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	BC60398-BLK1	
12	10	BC60398-SRM1	
13	11	16C0173-01	
14	12	BC60398-DUP1	
15	13	BC60398-MS1	
16	14	16C0182-01	
17	15	16C0182-02	
18	16	16C0182-03	
19	17	16C0182-04	
20	18	16C0185-01	
21	3	SEQ-CCV2	
22	4	SEQ-CCB2	
23	19	16C0185-02	
24	20	16C0185-03	
25	21	16C0186-01	
26	22	16C0186-02	
27	23	16C0276-01	
28	24	SEQ-SRD1	16C0173-01
29	25	BC60401-BLK1	
30	26	BC60401-SRM1	
31	27	BC60401-BLK2	S
32	28	16C0114-01	S
33	3	SEQ-CCV3	
34	4	SEQ-CCB3	
35	29	BC60401-DUP1	S
36	30	BC60401-MS1	S
37	31	16C0114-03	S
38	32	16C0114-04	S
39	33	16C0114-05	S
40	34	16C0114-06	S
41	35	SEQ-SRD2	16C0114-01 S
42	36	BC60394-BLK1	
43	37	BC60394-SRM1	
44	38	16C0195-01	
45	3	SEQ-CCV4	
46	4	SEQ-CCB4	
47	39	BC60394-DUP1	
48	40	BC60394-MS1	
49	41	16C0195-02	
50	42	16C0195-03	
51	43	16C0195-04	
52	44	16C0195-05	
53	45	16C0195-06	
54	46	16C0195-07	
55	47	16C0195-08	
56	48	16C0195-09	
57	3	SEQ-CCV5	
58	4	SEQ-CCB5	

Sample Information Detail Report
Document Name: 030816b

59	49	16C0195-10	
60	50	16C0225-01	
61	51	16C0225-02	
62	52	16C0225-03	
63	53	16C0225-04	
64	54	16C0225-05	
65	55	16C0225-06	
66	56	16C0225-07	
67	57	16C0225-08	
68	58	16C0225-09	
69	3	SEQ-CCV6	
70	4	SEQ-CCB6	
71	59	16C0225-10	
72	60	SEQ-SRD3	16C0195-01
73	61	BC60395-BLK1	
74	62	BC60395-SRM1	
75	63	16C0202-01	
76	64	BC60395-DUP1	
77	65	BC60395-MS1	
78	66	16C0202-02	
79	67	16C0202-03	
80	68	16C0202-04	
81	3	SEQ-CCV7	
82	4	SEQ-CCB7	
83	69	16C0213-05	
84	70	16C0213-06	
85	71	16C0213-07	
86	72	16C0213-08	
87	73	16C0213-09	
88	74	16C0213-10	
89	75	16C0213-11	
90	76	16C0213-12	
91	77	16C0213-13	
92	78	16C0213-14	
93	3	SEQ-CCV8	
94	4	SEQ-CCB8	
95	79	16C0213-15	
96	80	16C0213-16	
97	81	16C0243-01	
98	82	16C0243-02	
99	83	16C0267-01	
100	84	16C0267-02	
101	85	SEQ-SRD4	16C0202-01
102	86	BC60396-BLK1	
103	87	BC60396-SRM1	
104	88	16B0952-02	
105	8	SEQ-CCV9	
106	1	SEQ-CCB9	
107	89	16B0952-04	
108	90	16C0216-02	
109	91	16C0216-03	
110	92	16C0216-04	
111	93	16C0216-05	
112	94	16C0216-06	
113	95	16C0216-07	
114	96	16C0216-08	
115	97	16C0216-09	
116	98	16C0216-10	
117	8	SEQ-CCVA	
118	1	SEQ-CCBA	
119	99	16C0216-13	
120	100	16C0216-14	
121	101	16C0216-16	
122	102	BC60396-DUP1	
123	103	BC60396-MS1	
124	104	16C0216-18	
125	105	16C0216-19	
126	106	16C0216-21	

Sample Information Detail Report
Document Name: 030816b

127	107	16C0240-02	
128	108	16C0247-01	
129	8	SEQ-CCVB	
130	1	SEQ-CCBB	
131	109	16C0270-01	
132	110	SEQ-SRD5	16C0216-16
133	111	BC60404-BLK1	
134	112	BC60404-SRM1	
135	113	16C0228-01	
136	114	BC60404-DUP1	
137	115	BC60404-MS1	
138	116	16C0228-02	
139	117	16C0228-03	
140	118	16C0228-04	
141	8	SEQ-CCVC	
142	1	SEQ-CCBC	
143	119	16C0228-05	
144	120	16C0228-06	
145	121	16C0228-07	
146	122	16C0228-08	
147	123	16C0228-09	
148	124	16C0228-10	
149	125	16C0228-11	
150	126	16C0228-12	
151	127	16C0228-13	
152	128	16C0228-14	
153	8	SEQ-CCVD	
154	1	SEQ-CCBD	
155	129	16C0228-15	
156	130	16C0235-01	
157	131	16C0235-02	
158	132	16C0235-03	
159	133	16C0235-04	
160	134	16C0235-05	
161	135	SEQ-SRD6	16C0228-01
162	8	SEQ-CCVE	
163	1	SEQ-CCBE	

PREPARATION BENCH SHEET

BC60398

York Analytical Laboratories, Inc.

Printed: 3/8/2016 9:53:54AM

Matrix: Water

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0173-01	Magnesium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	Added for BatchQC in: BC60398
16C0173-01	Zinc by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0173-01	Copper by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0173-01	Cadmium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0173-01	Lead by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0173-01	Nickel by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0173-01	Calcium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	Added for BatchQC in: BC60398
16C0182-01	Magnesium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0182-01	Calcium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0182-02	Magnesium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0182-02	Calcium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0182-03	Magnesium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0182-03	Calcium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0182-04	Calcium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0182-04	Magnesium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0185-01	Magnesium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0185-01	Calcium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0185-02	Calcium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0185-02	Magnesium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0185-03	Magnesium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0185-03	Calcium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0186-01	Magnesium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	
16C0186-01	Calcium by EPA 200.7	03/08/2016 09:55	ALD	45	50					EPA 200.7	

PREPARATION BENCH SHEET

BC60398

York Analytical Laboratories, Inc.

Printed: 3/8/2016 9:53:54AM

Matrix: Water

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0186-02	Calcium by EPA 200.7	03/08/2016 09:51	ALD	45	50					EPA 200.7	
16C0186-02	Zinc by EPA 200.7	03/08/2016 09:51	ALD	45	50					EPA 200.7	
16C0186-02	Magnesium by EPA 200.7	03/08/2016 09:51	ALD	45	50					EPA 200.7	
16C0276-01	Nickel by EPA 200.7	03/08/2016 09:51	ALD	45	50					EPA 200.7	
16C0276-01	Zinc by EPA 200.7	03/08/2016 09:51	ALD	45	50					EPA 200.7	
16C0276-01	Lead by EPA 200.7	03/08/2016 09:51	ALD	45	50					EPA 200.7	
16C0276-01	Copper by EPA 200.7	03/08/2016 09:51	ALD	45	50					EPA 200.7	
16C0276-01	Cadmium by EPA 200.7	03/08/2016 09:51	ALD	45	50					EPA 200.7	
BC60398-BLK1	QC	03/08/2016 09:51	ALD	50	50					EPA 200.7	
BC60398-DUP1	QC	03/08/2016 09:51	ALD	45	50		16C0173-01			EPA 200.7	
BC60398-MS1	QC	03/08/2016 09:51	ALD	45	50	Y15C050	16C0173-01	500		EPA 200.7	
BC60398-SRM1	QC	03/08/2016 09:51	ALD	50	50	Y15K022		1		EPA 200.7	

Batch Comments:

PREPARATION BENCH SHEET

BC60401

York Analytical Laboratories, Inc.

Printed: 3/8/2016 9:57:13AM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0114-01	Metals, SPLP RCRA	03/08/2016 09:51	ALD	45	50					EPA 3015A/1312	
16C0114-03	Metals, SPLP RCRA	03/08/2016 09:51	ALD	45	50					EPA 3015A/1312	
16C0114-04	Metals, SPLP RCRA	03/08/2016 09:51	ALD	45	50					EPA 3015A/1312	
16C0114-05	Metals, SPLP RCRA	03/08/2016 09:51	ALD	45	50					EPA 3015A/1312	
16C0114-06	Metals, SPLP RCRA	03/08/2016 09:51	ALD	45	50					EPA 3015A/1312	
BC60401-BLK1	QC	03/08/2016 09:51	ALD	50	50					EPA 3015A/1312	
BC60401-BLK2	QC	03/08/2016 09:51	ALD	50	50					EPA 3015A/1312	SPLP BLANK
BC60401-DUP1	QC	03/08/2016 09:51	ALD	45	50		16C0114-01			EPA 3015A/1312	
BC60401-MS1	QC	03/08/2016 09:51	ALD	45	50	Y15C050	16C0114-01	500		EPA 3015A/1312	
BC60401-SRM1	QC	03/08/2016 09:51	ALD	50	50	Y15K022		1		EPA 3015A/1312	

Batch Comments:

PREPARATION BENCH SHEET

BC60394

York Analytical Laboratories, Inc.

Printed: 3/8/2016 9:46:09AM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0195-01	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0195-02	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0195-03	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0195-04	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0195-05	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0195-06	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0195-07	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0195-08	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0195-09	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0195-10	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0225-01	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	Lab Composite required for analys
16C0225-02	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	Lab Composite required for analys
16C0225-03	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	Lab Composite required for analys
16C0225-04	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	Lab Composite required for analys
16C0225-05	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	Lab Composite required for analys
16C0225-06	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	Lab Composite required for analys
16C0225-07	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	Lab Composite required for analys
16C0225-08	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	Lab Composite required for analys
16C0225-09	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	Lab Composite required for analys
16C0225-10	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	Lab Composite required for analys
BC60394-BLK1	QC	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
BC60394-DUP1	QC	03/08/2016 09:4	ALD	0.5	50		16C0195-01			EPA 3050B	
BC60394-MS1	QC	03/08/2016 09:4	ALD	0.5	50	Y15C050	16C0195-01	500		EPA 3050B	

PREPARATION BENCH SHEET

BC60394

York Analytical Laboratories, Inc.

Printed: 3/8/2016 9:46:09AM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
BC60394-SRM1	QC	03/08/2016 09:4	ALD	0.5	50	Y15L063		500		EPA 3050B	

Batch Comments:

PREPARATION BENCH SHEET

BC60395

York Analytical Laboratories, Inc.

Printed: 3/8/2016 9:48:43AM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0202-01	Metals, Suffolk Co. App. B	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0202-01	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60395
16C0202-01	Metals, NYSDEC Part 375	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60395
16C0202-02	Metals, Suffolk Co. App. B	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0202-03	Metals, Suffolk Co. App. B	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0202-04	Metals, Suffolk Co. App. B	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0213-05	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0213-06	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0213-07	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0213-08	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0213-09	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0213-10	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0213-11	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0213-12	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0213-13	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0213-14	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0213-15	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0213-16	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0243-01	Metals, NYSDEC Part 375	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0243-02	Metals, NYSDEC Part 375	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0267-01	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
16C0267-02	Metals, Target Analyte	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	
BC60395-BLK1	QC	03/08/2016 09:4	ALD	0.5	50					EPA 3050B	

PREPARATION BENCH SHEET

BC60395

York Analytical Laboratories, Inc.

Printed: 3/8/2016 9:48:43AM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
BC60395-DUP1	QC	03/08/2016 09:4	ALD	0.5	50		16C0202-01			EPA 3050B	
BC60395-MS1	QC	03/08/2016 09:4	ALD	0.5	50	Y15C050	16C0202-01	500		EPA 3050B	
BC60395-SRM1	QC	03/08/2016 09:4	ALD	0.5	50	Y15L063		500		EPA 3050B	

Batch Comments:

PREPARATION BENCH SHEET

BC60396

York Analytical Laboratories, Inc.

Printed: 3/8/2016 9:51:53AM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16B0952-02	Metals, RCRA	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	On Hold
16B0952-04	Metals, RCRA	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	On Hold
16C0216-02	Metals, Chem Targets	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0216-03	Metals, Chem Targets	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0216-04	Metals, Chem Targets	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0216-05	Metals, Chem Targets	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0216-06	Metals, Chem Targets	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0216-07	Metals, Chem Targets	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0216-08	Metals, Chem Targets	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0216-09	Metals, Chem Targets	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0216-10	Metals, Chem Targets	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0216-13	Metals, Chem Targets	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0216-14	Metals, Chem Targets	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0216-16	Metals, RCRA	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0216-16	Metals, Suffolk Co. App. B	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60396
16C0216-16	Metals, Chem Targets	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60396
16C0216-18	Metals, Chem Targets	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	MS/MSD
16C0216-19	Metals, Chem Targets	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0216-21	Metals, Chem Targets	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	Field Dup
16C0240-02	Metals, RCRA	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0247-01	Metals, RCRA	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0270-01	Metals, Suffolk Co. App. B	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0396-BLK1	QC	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	

PREPARATION BENCH SHEET

BC60396

York Analytical Laboratories, Inc.

Printed: 3/8/2016 9:51:53AM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
BC60396-DUP1	QC	03/08/2016 09:51	ALD	0.5	50		16C0216-16			EPA 3050B	
BC60396-MS1	QC	03/08/2016 09:51	ALD	0.5	50	Y15C050	16C0216-16	500		EPA 3050B	
BC60396-SRM1	QC	03/08/2016 09:51	ALD	0.5	50	Y15L063		500		EPA 3050B	

Batch Comments:

PREPARATION BENCH SHEET

BC60404

York Analytical Laboratories, Inc.

Printed: 3/8/2016 9:59:47AM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0228-01	Metals, Target Analyte	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0228-01	Metals, NYSDEC Part 375	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60404
16C0228-02	Metals, Target Analyte	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0228-03	Metals, Target Analyte	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0228-04	Metals, Target Analyte	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0228-05	Metals, Target Analyte	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0228-06	Metals, Target Analyte	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0228-07	Metals, Target Analyte	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0228-08	Metals, Target Analyte	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0228-09	Metals, Target Analyte	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0228-10	Metals, Target Analyte	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0228-11	Metals, Target Analyte	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0228-12	Metals, Target Analyte	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0228-13	Metals, Target Analyte	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0228-14	Metals, Target Analyte	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0228-15	Metals, Target Analyte	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0235-01	Metals, NYSDEC Part 375	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0235-02	Metals, NYSDEC Part 375	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0235-03	Metals, NYSDEC Part 375	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0235-04	Metals, NYSDEC Part 375	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0235-05	Metals, NYSDEC Part 375	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0404-BLK1	QC	03/08/2016 09:51	ALD	0.5	50					EPA 3050B	
16C0404-DUP1	QC	03/08/2016 09:51	ALD	0.5	50		16C0228-01			EPA 3050B	

PREPARATION BENCH SHEET

BC60404

York Analytical Laboratories, Inc.

Printed: 3/8/2016 9:59:47AM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
BC60404-MS1	QC	03/08/2016 09:51	ALD	0.5	50	Y15C050	16C0228-01	500		EPA 3050B	
BC60404-SRM1	QC	03/08/2016 09:51	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: 3/8/2016 2:01:16 PM

Data Type: Reprocessed on 3/9/2016 6:14:12 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Y 371.029	19904103.9	153836.73	0.77%	5.000	mg/L
Y RADIAL	478558.4	6233.99	1.30%	5.000	mg/L
As 188.979†	-41.5	5.84	14.07%	[0.00]	mg/L
Tl 190.801†	-158.7	7.01	4.42%	[0.00]	mg/L
Se 196.026†	44.5	5.85	13.15%	[0.00]	mg/L
Zn 206.200†	1632.5	87.30	5.35%	[0.00]	mg/L
Sb 206.836†	117.0	2.98	2.55%	[0.00]	mg/L
Pb 220.353†	272.4	17.01	6.24%	[0.00]	mg/L
Cd 226.502†	-360.0	15.43	4.29%	[0.00]	mg/L
Co 228.616†	-117.6	19.71	16.76%	[0.00]	mg/L
Ni 232.003†	-1308.5	22.09	1.69%	[0.00]	mg/L
Ba 233.527†	321.0	14.21	4.43%	[0.00]	mg/L
Mn 257.610†	2617.9	72.15	2.76%	[0.00]	mg/L
Cr 267.716†	346.9	38.69	11.15%	[0.00]	mg/L
Fe 273.955†	576.8	7.61	1.32%	[0.00]	mg/L
Mg 279.077†	251.8	15.24	6.05%	[0.00]	mg/L
V 292.402†	164.7	134.72	81.79%	[0.00]	mg/L
Al 308.215†	13145.4	390.27	2.97%	[0.00]	mg/L
Be 313.107†	-9654.0	129.71	1.34%	[0.00]	mg/L
Cu 324.752†	4342.8	6.81	0.16%	[0.00]	mg/L
Ag 338.289†	-181.2	42.22	23.30%	[0.00]	mg/L
Na 330.237†	1129.1	65.22	5.78%	[0.00]	mg/L
Ca 227.546†	-575.3	27.79	4.83%	[0.00]	mg/L
Al RADIAL†	340.4	24.54	7.21%	[0.00]	mg/L
Fe RADIAL†	24.0	7.11	29.58%	[0.00]	mg/L
Ca RADIAL†	2555.1	24.85	0.97%	[0.00]	mg/L
K RADIAL†	285.4	56.47	19.79%	[0.00]	mg/L
Mg RADIAL†	33.6	12.01	35.72%	[0.00]	mg/L
Na RADIAL†	-31725.5	404.38	1.27%	[0.00]	mg/L
Mo 202.031	150.0	9.91	6.61%	[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: 3/8/2016 2:06:23 PM

Data Type: Reprocessed on 3/9/2016 6:14:13 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: CAL STD 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Y 371.029	18361152.8	115025.86	0.63%	4.612	mg/L
Y RADIAL	463490.0	4211.76	0.91%	4.843	mg/L
As 188.979†	3821.7	23.35	0.61%	[1.0000]	mg/L
Tl 190.801†	5804.1	28.73	0.49%	[1.0000]	mg/L
Se 196.026†	1978.1	12.27	0.62%	[1.0000]	mg/L
Zn 206.200†	502436.3	4372.22	0.87%	[5.0000]	mg/L
Sb 206.836†	3130.0	50.32	1.61%	[0.5000]	mg/L
Pb 220.353†	22645.5	211.43	0.93%	[1.0000]	mg/L
Cd 226.502†	143231.5	1197.04	0.84%	[0.5000]	mg/L
Co 228.616†	432871.9	3586.16	0.83%	[5.0000]	mg/L
Ni 232.003†	210365.6	1513.97	0.72%	[5.0000]	mg/L
Ba 233.527†	3426540.9	27922.79	0.81%	[20.0000]	mg/L
Mn 257.610†	8170230.7	25404.49	0.31%	[5.0000]	mg/L
Cr 267.716†	492265.9	4392.81	0.89%	[2.0000]	mg/L
Fe 273.955†	508966.9	3928.12	0.77%	[10.0000]	mg/L
Mg 279.077†	2233019.6	19865.49	0.89%	[50.0000]	mg/L

V 292.402†	2142748.4	23074.80	1.08%	[5.0000]	mg/L
Al 308.215†	772773.0	5776.08	0.75%	[20.0000]	mg/L
Be 313.107†	3313754.6	11514.29	0.35%	[0.5000]	mg/L
Cu 324.752†	922219.3	6590.16	0.71%	[2.5000]	mg/L
Ag 338.289†	504730.4	4330.28	0.86%	[2.5000]	mg/L
Na 330.237†	67949.0	441.16	0.65%	[50.0000]	mg/L
Ca 227.546†	30304.1	190.43	0.63%	[50.0000]	mg/L
Al RADIAL†	77001.1	556.29	0.72%	[20.0000]	mg/L
Fe RADIAL†	8253.9	95.95	1.16%	[10.0000]	mg/L
Ca RADIAL†	513984.3	125.52	0.02%	[50.0000]	mg/L
K RADIAL†	20020.1	70.09	0.35%	[10.0000]	mg/L
Mg RADIAL†	41886.4	235.84	0.56%	[50.0000]	mg/L
Na RADIAL†	868387.6	5702.62	0.66%	[50.0000]	mg/L
Mo 202.031	106946.3	567.74	0.53%	[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: 3/8/2016 2:14:04 PM

Data Type: Reprocessed on 3/9/2016 6:14:14 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	19132316.9	4.806 mg/L	0.0582			1.21%
Y RADIAL	469480.7	4.905 mg/L	0.0791			1.61%
As 188.979†	925.3	0.2429 mg/L	0.00364	0.2429 mg/L	0.00364	1.50%
Tl 190.801†	1423.2	0.2457 mg/L	0.00509	0.2457 mg/L	0.00509	2.07%
Se 196.026†	477.8	0.2436 mg/L	0.00128	0.2436 mg/L	0.00128	0.52%
Zn 206.200†	246406.1	2.452 mg/L	0.0119	2.452 mg/L	0.0119	0.49%
Sb 206.836†	1499.3	0.2397 mg/L	0.00464	0.2397 mg/L	0.00464	1.93%
Pb 220.353†	5542.7	0.2460 mg/L	0.00410	0.2460 mg/L	0.00410	1.67%
Cd 226.502†	34465.6	0.1200 mg/L	0.00093	0.1200 mg/L	0.00093	0.78%
Co 228.616†	213355.5	2.465 mg/L	0.0121	2.465 mg/L	0.0121	0.49%
Ni 232.003†	102256.3	2.430 mg/L	0.0124	2.430 mg/L	0.0124	0.51%
Ba 233.527†	1712807.5	9.997 mg/L	0.0475	9.997 mg/L	0.0475	0.48%
Mn 257.610†	4134643.7	2.531 mg/L	0.0137	2.531 mg/L	0.0137	0.54%
Cr 267.716†	240492.2	0.9772 mg/L	0.00544	0.9772 mg/L	0.00544	0.56%
Fe 273.955†	249111.8	4.894 mg/L	0.0262	4.894 mg/L	0.0262	0.54%
Mg 279.077†	1082447.8	24.24 mg/L	0.114	24.24 mg/L	0.114	0.47%
V 292.402†	1038395.4	2.423 mg/L	0.0070	2.423 mg/L	0.0070	0.29%
Al 308.215†	361547.4	9.356 mg/L	0.0518	9.356 mg/L	0.0518	0.55%
Be 313.107†	1670408.9	0.2520 mg/L	0.00079	0.2520 mg/L	0.00079	0.31%
Cu 324.752†	446271.1	1.210 mg/L	0.0071	1.210 mg/L	0.0071	0.59%
Ag 338.289†	241849.0	1.198 mg/L	0.0059	1.198 mg/L	0.0059	0.49%
Na 330.237†	30879.3	22.77 mg/L	0.155	22.77 mg/L	0.155	0.68%
Ca 227.546†	14372.9	23.77 mg/L	0.267	23.77 mg/L	0.267	1.12%
Al RADIAL†	36344.8	9.440 mg/L	0.0493	9.440 mg/L	0.0493	0.52%
Fe RADIAL†	4136.7	5.012 mg/L	0.0302	5.012 mg/L	0.0302	0.60%
Ca RADIAL†	257078.2	25.01 mg/L	0.043	25.01 mg/L	0.043	0.17%
K RADIAL†	10131.8	5.061 mg/L	0.0308	5.061 mg/L	0.0308	0.61%
Mg RADIAL†	21010.0	25.08 mg/L	0.078	25.08 mg/L	0.078	0.31%
Na RADIAL†	429870.4	24.75 mg/L	0.174	24.75 mg/L	0.174	0.70%
Mo 202.031	57302.6	1.072 mg/L	0.0098	1.072 mg/L	0.0098	0.91%

Sequence No.: 4

Sample ID: SEQ-ICB1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/8/2016 2:21:46 PM

Data Type: Reprocessed on 3/9/2016 6:14:14 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	20061746.3	5.040 mg/L	0.0431			0.86%
Y RADIAL	479442.3	5.009 mg/L	0.0523			1.04%

As 188.979†	-14.5	-0.0038 mg/L	0.00241	-0.0038 mg/L	0.00241	63.48%
Tl 190.801†	-6.0	-0.0010 mg/L	0.00208	-0.0010 mg/L	0.00208	200.60%
Se 196.026†	-4.9	-0.0025 mg/L	0.00295	-0.0025 mg/L	0.00295	118.18%
Zn 206.200†	-1329.3	-0.0132 mg/L	0.00020	-0.0132 mg/L	0.00020	1.53%
Sb 206.836†	13.3	0.0021 mg/L	0.00128	0.0021 mg/L	0.00128	59.85%
Pb 220.353†	-3.9	-0.0002 mg/L	0.00060	-0.0002 mg/L	0.00060	327.31%
Cd 226.502†	-2.0	0.0000 mg/L	0.00008	0.0000 mg/L	0.00008	>999.9%
Co 228.616†	-19.5	-0.0002 mg/L	0.00005	-0.0002 mg/L	0.00005	20.09%
Ni 232.003†	-31.6	-0.0007 mg/L	0.00041	-0.0007 mg/L	0.00041	55.35%
Ba 233.527†	-207.9	-0.0012 mg/L	0.00005	-0.0012 mg/L	0.00005	4.18%
Mn 257.610†	-1080.0	-0.0007 mg/L	0.00001	-0.0007 mg/L	0.00001	1.08%
Cr 267.716†	-40.1	-0.0002 mg/L	0.00019	-0.0002 mg/L	0.00019	116.31%
Fe 273.955†	-267.8	-0.0053 mg/L	0.00055	-0.0053 mg/L	0.00055	10.52%
Mg 279.077†	-95.7	-0.0021 mg/L	0.00256	-0.0021 mg/L	0.00256	119.52%
V 292.402†	-179.7	-0.0004 mg/L	0.00008	-0.0004 mg/L	0.00008	18.65%
Al 308.215†	-4143.7	-0.1072 mg/L	0.00104	-0.1072 mg/L	0.00104	0.97%
Be 313.107†	-384.3	-0.0001 mg/L	0.00004	-0.0001 mg/L	0.00004	74.45%
Cu 324.752†	152.0	0.0004 mg/L	0.00022	0.0004 mg/L	0.00022	54.33%
Ag 338.289†	65.0	0.0003 mg/L	0.00025	0.0003 mg/L	0.00025	78.64%
Na 330.237†	-292.8	-0.2155 mg/L	0.11566	-0.2155 mg/L	0.11566	53.67%
Ca 227.546†	15.2	0.0249 mg/L	0.04261	0.0249 mg/L	0.04261	170.85%
Al RADIAL†	-287.1	-0.0746 mg/L	0.00108	-0.0746 mg/L	0.00108	1.45%
Fe RADIAL†	-3.3	-0.0040 mg/L	0.00830	-0.0040 mg/L	0.00830	205.38%
Ca RADIAL†	-193.9	-0.0189 mg/L	0.00152	-0.0189 mg/L	0.00152	8.07%
K RADIAL†	3.5	0.0018 mg/L	0.04343	0.0018 mg/L	0.04343	>999.9%
Mg RADIAL†	-6.8	-0.0082 mg/L	0.01151	-0.0082 mg/L	0.01151	140.92%
Na RADIAL†	-2541.9	-0.1464 mg/L	0.02999	-0.1464 mg/L	0.02999	20.49%
Mo 202.031	39.1	0.001 mg/L	0.0001	0.001 mg/L	0.0001	11.92%

Sequence No.: 5

Sample ID: SEQ-CRL1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 156

Date Collected: 3/8/2016 2:26:54 PM

Data Type: Reprocessed on 3/9/2016 6:14:15 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	21078361.3	5.295 mg/L	0.2662			5.03%
Y RADIAL	489631.3	5.116 mg/L	0.0231			0.45%
As 188.979†	34.1	0.0089 mg/L	0.00161	0.0089 mg/L	0.00161	18.09%
Tl 190.801†	44.3	0.0076 mg/L	0.00161	0.0076 mg/L	0.00161	21.06%
Se 196.026†	8.9	0.0045 mg/L	0.00468	0.0045 mg/L	0.00468	103.67%
Zn 206.200†	-582.7	-0.0058 mg/L	0.00031	-0.0058 mg/L	0.00031	5.31%
Sb 206.836†	67.5	0.0108 mg/L	0.00074	0.0108 mg/L	0.00074	6.86%
Pb 220.353†	58.5	0.0026 mg/L	0.00101	0.0026 mg/L	0.00101	39.19%
Cd 226.502†	897.9	0.0031 mg/L	0.00004	0.0031 mg/L	0.00004	1.20%
Co 228.616†	431.8	0.0050 mg/L	0.00010	0.0050 mg/L	0.00010	2.05%
Ni 232.003†	239.2	0.0057 mg/L	0.00129	0.0057 mg/L	0.00129	22.75%
Ba 233.527†	1535.0	0.0090 mg/L	0.00046	0.0090 mg/L	0.00046	5.15%
Mn 257.610†	6787.1	0.0042 mg/L	0.00011	0.0042 mg/L	0.00011	2.54%
Cr 267.716†	1179.6	0.0048 mg/L	0.00018	0.0048 mg/L	0.00018	3.75%
Fe 273.955†	-208.5	-0.0041 mg/L	0.00023	-0.0041 mg/L	0.00023	5.69%
Mg 279.077†	-59.6	-0.0013 mg/L	0.00111	-0.0013 mg/L	0.00111	83.37%
V 292.402†	1841.1	0.0043 mg/L	0.00020	0.0043 mg/L	0.00020	4.71%
Al 308.215†	-3062.5	-0.0793 mg/L	0.01002	-0.0793 mg/L	0.01002	12.64%
Be 313.107†	3025.3	0.0005 mg/L	0.00001	0.0005 mg/L	0.00001	2.59%
Cu 324.752†	1814.1	0.0049 mg/L	0.00032	0.0049 mg/L	0.00032	6.61%
Ag 338.289†	1034.4	0.0051 mg/L	0.00043	0.0051 mg/L	0.00043	8.32%
Na 330.237†	-228.6	-0.1683 mg/L	0.03225	-0.1683 mg/L	0.03225	19.17%
Ca 227.546†	53.0	0.0874 mg/L	0.02722	0.0874 mg/L	0.02722	31.14%
Al RADIAL†	-172.8	-0.0449 mg/L	0.00931	-0.0449 mg/L	0.00931	20.76%
Fe RADIAL†	-3.1	-0.0038 mg/L	0.00889	-0.0038 mg/L	0.00889	233.25%
Ca RADIAL†	-163.1	-0.0159 mg/L	0.00277	-0.0159 mg/L	0.00277	17.44%
K RADIAL†	-16.3	-0.0082 mg/L	0.03323	-0.0082 mg/L	0.03323	407.23%
Mg RADIAL†	-2.6	-0.0031 mg/L	0.00354	-0.0031 mg/L	0.00354	114.46%
Na RADIAL†	-2449.2	-0.1410 mg/L	0.00906	-0.1410 mg/L	0.00906	6.42%
Mo 202.031	344.7	0.006 mg/L	0.0002	0.006 mg/L	0.0002	3.76%

Sequence No.: 6
 Sample ID: SEQ-CRL2
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 157
 Date Collected: 3/8/2016 2:32:07 PM
 Data Type: Reprocessed on 3/9/2016 6:14:16 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	21425353.0	5.382 mg/L	0.0401			0.75%
Y RADIAL	519526.6	5.428 mg/L	0.0252			0.46%
As 188.979†	-9.1	-0.0024 mg/L	0.00276	-0.0024 mg/L	0.00276	116.75%
Tl 190.801†	-3.1	-0.0005 mg/L	0.00169	-0.0005 mg/L	0.00169	322.91%
Se 196.026†	-13.2	-0.0066 mg/L	0.00509	-0.0066 mg/L	0.00509	77.03%
Zn 206.200†	-980.3	-0.0098 mg/L	0.00009	-0.0098 mg/L	0.00009	0.93%
Sb 206.836†	3.7	0.0006 mg/L	0.00166	0.0006 mg/L	0.00166	280.06%
Pb 220.353†	-2.6	-0.0001 mg/L	0.00077	-0.0001 mg/L	0.00077	630.81%
Cd 226.502†	4.9	0.0000 mg/L	0.00003	0.0000 mg/L	0.00003	>999.9%
Co 228.616†	-21.7	-0.0002 mg/L	0.00031	-0.0002 mg/L	0.00031	125.42%
Ni 232.003†	57.2	0.0014 mg/L	0.00057	0.0014 mg/L	0.00057	42.27%
Ba 233.527†	-317.3	-0.0019 mg/L	0.00011	-0.0019 mg/L	0.00011	5.95%
Mn 257.610†	-1388.4	-0.0008 mg/L	0.00001	-0.0008 mg/L	0.00001	1.52%
Cr 267.716†	-92.3	-0.0004 mg/L	0.00004	-0.0004 mg/L	0.00004	11.04%
Fe 273.955†	10301.6	0.2024 mg/L	0.00086	0.2024 mg/L	0.00086	0.43%
Mg 279.077†	2048.1	0.0458 mg/L	0.00129	0.0458 mg/L	0.00129	2.82%
V 292.402†	-201.4	-0.0005 mg/L	0.00020	-0.0005 mg/L	0.00020	41.15%
Al 308.215†	-188.3	-0.0049 mg/L	0.00166	-0.0049 mg/L	0.00166	34.12%
Be 313.107†	-129.1	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	99.10%
Cu 324.752†	-109.8	-0.0003 mg/L	0.00024	-0.0003 mg/L	0.00024	88.17%
Ag 338.289†	1.6	0.0000 mg/L	0.00044	0.0000 mg/L	0.00044	>999.9%
Na 330.237†	-61.2	-0.0440 mg/L	0.07924	-0.0440 mg/L	0.07924	180.16%
Ca 227.546†	102.7	0.1713 mg/L	0.01506	0.1713 mg/L	0.01506	8.79%
Al RADIAL†	165.0	0.0429 mg/L	0.00711	0.0429 mg/L	0.00711	16.58%
Fe RADIAL†	176.4	0.2137 mg/L	0.00564	0.2137 mg/L	0.00564	2.64%
Cr RADIAL†	1021.5	0.0994 mg/L	0.00472	0.0994 mg/L	0.00472	4.75%
K RADIAL†	321.0	0.1603 mg/L	0.02582	0.1603 mg/L	0.02582	16.11%
Mg RADIAL†	33.9	0.0405 mg/L	0.00751	0.0405 mg/L	0.00751	18.54%
Na RADIAL†	2633.3	0.1516 mg/L	0.00757	0.1516 mg/L	0.00757	4.99%
Mo 202.031	8.5	0.0000 mg/L	0.00003	0.0000 mg/L	0.00003	164.43%

Sequence No.: 7
 Sample ID: SEQ-IFAL
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 6
 Date Collected: 3/8/2016 2:37:13 PM
 Data Type: Reprocessed on 3/9/2016 6:14:16 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	17709106.1	4.449 mg/L	0.0468			1.05%
Y RADIAL	468673.1	4.897 mg/L	0.0182			0.37%
As 188.979†	105.3	0.0014 mg/L	0.01067	0.0014 mg/L	0.01067	781.10%
Tl 190.801†	-76.2	0.0042 mg/L	0.00742	0.0042 mg/L	0.00742	175.83%
Se 196.026†	-163.3	-0.0054 mg/L	0.02409	-0.0054 mg/L	0.02409	444.25%
Zn 206.200†	-63.1	-0.0026 mg/L	0.00014	-0.0026 mg/L	0.00014	5.60%
Sb 206.836†	-34.3	0.0020 mg/L	0.00474	0.0020 mg/L	0.00474	240.26%
Pb 220.353†	-1293.1	0.0013 mg/L	0.00069	0.0013 mg/L	0.00069	51.64%
Cd 226.502†	3723.7	-0.0005 mg/L	0.00033	-0.0005 mg/L	0.00033	66.89%
Co 228.616†	-475.7	-0.0015 mg/L	0.00037	-0.0015 mg/L	0.00037	25.17%
Ni 232.003†	377.8	0.0032 mg/L	0.00132	0.0032 mg/L	0.00132	41.41%
Ba 233.527†	-195.3	-0.0011 mg/L	0.00036	-0.0011 mg/L	0.00036	31.48%
Mn 257.610†	-42018.3	-0.0006 mg/L	0.00013	-0.0006 mg/L	0.00013	20.83%
Cr 267.716†	-1389.6	0.0002 mg/L	0.00014	0.0002 mg/L	0.00014	62.21%
Fe 273.955†	9193942.0	180.6 mg/L	0.44	180.6 mg/L	0.44	0.25%
Mg 279.077†	21719251.3	486.3 mg/L	2.20	486.3 mg/L	2.20	0.45%
V 292.402†	5002.2	-0.0018 mg/L	0.00098	-0.0018 mg/L	0.00098	53.60%

Al 308.215†	20043103.0	518.7 mg/L	0.80	518.7 mg/L	0.80	0.15%
Be 313.107†	-2509.1	-0.0004 mg/L	0.00002	-0.0004 mg/L	0.00002	4.15%
Cu 324.752†	-8535.8	0.0019 mg/L	0.00027	0.0019 mg/L	0.00027	13.78%
Ag 338.289†	-14.7	-0.0018 mg/L	0.00062	-0.0018 mg/L	0.00062	33.78%
Na 330.237†	-510.3	1.006 mg/L	0.1059	1.006 mg/L	0.1059	10.52%
Ca 227.546†	318708.5	527.9 mg/L	1.89	527.9 mg/L	1.89	0.36%
Al RADIAL†	1927320.3	500.6 mg/L	3.82	500.6 mg/L	3.82	0.76%
Fe RADIAL†	159150.3	192.8 mg/L	0.13	192.8 mg/L	0.13	0.07%
Ca RADIAL†	5106765.0	496.8 mg/L	2.89	496.8 mg/L	2.89	0.58%
K RADIAL†	-31.4	-0.0157 mg/L	0.02771	-0.0157 mg/L	0.02771	176.63%
Mg RADIAL†	395523.2	472.1 mg/L	3.42	472.1 mg/L	3.42	0.72%
Na RADIAL†	4518.1	0.2601 mg/L	0.00294	0.2601 mg/L	0.00294	1.13%
Mo 202.031	-401.7	-0.008 mg/L	0.0008	-0.008 mg/L	0.0008	11.10%

Sequence No.: 8

Sample ID: SEQ-IFB1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/8/2016 2:44:30 PM

Data Type: Reprocessed on 3/9/2016 6:14:17 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	17327973.8	4.353 mg/L	0.0345			0.79%
Y RADIAL	447763.8	4.678 mg/L	0.0126			0.27%
As 188.979†	1827.3	0.5077 mg/L	0.00949	0.5077 mg/L	0.00949	1.87%
Tl 190.801†	2646.7	0.4737 mg/L	0.00274	0.4737 mg/L	0.00274	0.58%
Se 196.026†	858.3	0.5127 mg/L	0.01269	0.5127 mg/L	0.01269	2.47%
Zn 206.200†	89744.1	0.8911 mg/L	0.01211	0.8911 mg/L	0.01211	1.36%
Sb 206.836†	3080.0	0.4996 mg/L	0.01517	0.4996 mg/L	0.01517	3.04%
Pb 220.353†	19713.7	0.9305 mg/L	0.01187	0.9305 mg/L	0.01187	1.28%
Cd 226.502†	269041.1	0.9254 mg/L	0.01113	0.9254 mg/L	0.01113	1.20%
Co 228.616†	39127.9	0.4561 mg/L	0.00362	0.4561 mg/L	0.00362	0.79%
Ni 232.003†	40776.7	0.9633 mg/L	0.01267	0.9633 mg/L	0.01267	1.32%
Ba 233.527†	84234.9	0.4917 mg/L	0.00508	0.4917 mg/L	0.00508	1.03%
Mn 257.610†	752237.4	0.4859 mg/L	0.00521	0.4859 mg/L	0.00521	1.07%
Cr 267.716†	113798.8	0.4683 mg/L	0.00584	0.4683 mg/L	0.00584	1.25%
Fe 273.955†	9209253.9	180.9 mg/L	0.36	180.9 mg/L	0.36	0.20%
Mg 279.077†	21714324.1	486.2 mg/L	0.69	486.2 mg/L	0.69	0.14%
V 292.402†	204416.5	0.4632 mg/L	0.00595	0.4632 mg/L	0.00595	1.29%
Al 308.215†	19976604.4	517.0 mg/L	0.74	517.0 mg/L	0.74	0.14%
Be 313.107†	3286535.0	0.4959 mg/L	0.00632	0.4959 mg/L	0.00632	1.27%
Cu 324.752†	181252.6	0.5169 mg/L	0.00535	0.5169 mg/L	0.00535	1.04%
Ag 338.289†	210723.6	1.042 mg/L	0.0127	1.042 mg/L	0.0127	1.22%
Na 330.237†	1432.3	2.455 mg/L	0.1389	2.455 mg/L	0.1389	5.66%
Ca 227.546†	306364.4	507.6 mg/L	6.17	507.6 mg/L	6.17	1.21%
Al RADIAL†	1979037.1	514.0 mg/L	3.41	514.0 mg/L	3.41	0.66%
Fe RADIAL†	162459.8	196.8 mg/L	0.94	196.8 mg/L	0.94	0.48%
Ca RADIAL†	5120261.2	498.1 mg/L	1.59	498.1 mg/L	1.59	0.32%
K RADIAL†	-96.4	-0.0481 mg/L	0.03699	-0.0481 mg/L	0.03699	76.84%
Mg RADIAL†	419371.8	500.6 mg/L	2.34	500.6 mg/L	2.34	0.47%
Na RADIAL†	2700.3	0.1555 mg/L	0.01101	0.1555 mg/L	0.01101	7.08%
Mo 202.031	24881.0	0.465 mg/L	0.0010	0.465 mg/L	0.0010	0.22%

Sequence No.: 9

Sample ID: SEQ-CCV1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 3/8/2016 2:51:51 PM

Data Type: Reprocessed on 3/9/2016 6:14:18 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	20267195.6	5.091 mg/L	0.0787			1.55%
Y RADIAL	508011.5	5.308 mg/L	0.0447			0.84%
As 188.979†	932.1	0.2446 mg/L	0.00535	0.2446 mg/L	0.00535	2.19%

Tl 190.801†	1429.8	0.2468 mg/L	0.00286	0.2468 mg/L	0.00286	1.16%
Se 196.026†	478.3	0.2438 mg/L	0.00718	0.2438 mg/L	0.00718	2.94%
Zn 206.200†	242880.5	2.417 mg/L	0.0393	2.417 mg/L	0.0393	1.63%
Sb 206.836†	1503.5	0.2404 mg/L	0.00054	0.2404 mg/L	0.00054	0.22%
Pb 220.353†	5545.4	0.2461 mg/L	0.00363	0.2461 mg/L	0.00363	1.48%
Cd 226.502†	34057.7	0.1185 mg/L	0.00182	0.1185 mg/L	0.00182	1.53%
Co 228.616†	210001.9	2.426 mg/L	0.0358	2.426 mg/L	0.0358	1.48%
Ni 232.003†	100765.0	2.395 mg/L	0.0396	2.395 mg/L	0.0396	1.65%
Ba 233.527†	1682805.6	9.822 mg/L	0.1506	9.822 mg/L	0.1506	1.53%
Mn 257.610†	4059853.9	2.485 mg/L	0.0368	2.485 mg/L	0.0368	1.48%
Cr 267.716†	236595.9	0.9614 mg/L	0.01587	0.9614 mg/L	0.01587	1.65%
Fe 273.955†	245194.0	4.817 mg/L	0.0756	4.817 mg/L	0.0756	1.57%
Mg 279.077†	1067599.9	23.90 mg/L	0.379	23.90 mg/L	0.379	1.59%
V 292.402†	1018064.2	2.375 mg/L	0.0368	2.375 mg/L	0.0368	1.55%
Al 308.215†	355536.0	9.200 mg/L	0.1389	9.200 mg/L	0.1389	1.51%
Be 313.107†	1636864.0	0.2470 mg/L	0.00402	0.2470 mg/L	0.00402	1.63%
Cu 324.752†	439189.9	1.191 mg/L	0.0184	1.191 mg/L	0.0184	1.54%
Ag 338.289†	237529.9	1.176 mg/L	0.0175	1.176 mg/L	0.0175	1.49%
Na 330.237†	30032.2	22.15 mg/L	0.316	22.15 mg/L	0.316	1.43%
Ca 227.546†	14403.5	23.81 mg/L	0.342	23.81 mg/L	0.342	1.44%
Al RADIAL†	35748.4	9.285 mg/L	0.0130	9.285 mg/L	0.0130	0.14%
Fe RADIAL†	4035.8	4.890 mg/L	0.0354	4.890 mg/L	0.0354	0.72%
Ca RADIAL†	257641.7	25.06 mg/L	0.026	25.06 mg/L	0.026	0.10%
K RADIAL†	9873.1	4.932 mg/L	0.0452	4.932 mg/L	0.0452	0.92%
Mg RADIAL†	20614.7	24.61 mg/L	0.111	24.61 mg/L	0.111	0.45%
Na RADIAL†	430463.2	24.79 mg/L	0.054	24.79 mg/L	0.054	0.22%
Mo 202.031†	59622.5	1.115 mg/L	0.0074	1.115 mg/L	0.0074	0.66%

Sequence No.: 10

Sample ID: SEQ-CCB1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/8/2016 2:59:33 PM

Data Type: Reprocessed on 3/9/2016 6:14:19 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCB1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21028187.4	5.282 mg/L	0.0346			0.66%
Y RADIAL	517528.2	5.407 mg/L	0.0985			1.82%
As 188.979†	-16.3	-0.0043 mg/L	0.00152	-0.0043 mg/L	0.00152	35.58%
Tl 190.801†	-3.3	-0.0006 mg/L	0.00117	-0.0006 mg/L	0.00117	204.22%
Se 196.026†	-8.1	-0.0041 mg/L	0.00232	-0.0041 mg/L	0.00232	56.43%
Zn 206.200†	-1314.6	-0.0131 mg/L	0.00009	-0.0131 mg/L	0.00009	0.67%
Sb 206.836†	13.9	0.0022 mg/L	0.00172	0.0022 mg/L	0.00172	77.36%
Pb 220.353†	5.9	0.0002 mg/L	0.00041	0.0002 mg/L	0.00041	163.64%
Cd 226.502†	26.5	0.0001 mg/L	0.00010	0.0001 mg/L	0.00010	104.84%
Co 228.616†	-10.0	-0.0001 mg/L	0.00011	-0.0001 mg/L	0.00011	98.14%
Ni 232.003†	25.4	0.0006 mg/L	0.00012	0.0006 mg/L	0.00012	20.15%
Ba 233.527†	-222.5	-0.0013 mg/L	0.00005	-0.0013 mg/L	0.00005	3.58%
Mn 257.610†	-1164.3	-0.0007 mg/L	0.00002	-0.0007 mg/L	0.00002	2.50%
Cr 267.716†	-147.5	-0.0006 mg/L	0.00022	-0.0006 mg/L	0.00022	36.98%
Fe 273.955†	-189.3	-0.0037 mg/L	0.00018	-0.0037 mg/L	0.00018	4.83%
Mg 279.077†	-5.1	-0.0001 mg/L	0.00106	-0.0001 mg/L	0.00106	925.52%
V 292.402†	-182.6	-0.0004 mg/L	0.00007	-0.0004 mg/L	0.00007	16.82%
Al 308.215†	-4276.0	-0.1107 mg/L	0.00051	-0.1107 mg/L	0.00051	0.46%
Be 313.107†	-276.6	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	38.45%
Cu 324.752†	156.8	0.0004 mg/L	0.00018	0.0004 mg/L	0.00018	41.74%
Ag 338.289†	177.1	0.0009 mg/L	0.00048	0.0009 mg/L	0.00048	54.65%
Na 330.237†	-376.7	-0.2772 mg/L	0.02405	-0.2772 mg/L	0.02405	8.68%
Ca 227.546†	55.2	0.0910 mg/L	0.05296	0.0910 mg/L	0.05296	58.19%
Al RADIAL†	-332.2	-0.0863 mg/L	0.01500	-0.0863 mg/L	0.01500	17.38%
Fe RADIAL†	-2.5	-0.0031 mg/L	0.00812	-0.0031 mg/L	0.00812	264.79%
Ca RADIAL†	-194.1	-0.0189 mg/L	0.00737	-0.0189 mg/L	0.00737	39.05%
K RADIAL†	-0.1	0.0000 mg/L	0.02576	0.0000 mg/L	0.02576	>999.9%
Mg RADIAL†	-3.6	-0.0043 mg/L	0.00093	-0.0043 mg/L	0.00093	21.77%
Na RADIAL†	-3570.9	-0.2056 mg/L	0.04212	-0.2056 mg/L	0.04212	20.48%
Mo 202.031†	26.8	0.001 mg/L	0.0005	0.001 mg/L	0.0005	108.79%

Sequence No.: 11
Sample ID: BC60398-BLK1
Analyst: KV
Logged In Analyst (Original) : administrator
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/8/2016 3:04:43 PM
Data Type: Reprocessed on 3/9/2016 6:14:19 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: BC60398-BLK1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21323082.0	5.356 mg/L		0.0898			1.68%
Y RADIAL	508512.6	5.313 mg/L		0.0352			0.66%
As 188.979+	-9.4	-0.0025 mg/L		0.00060	-0.0025 mg/L	0.00060	24.46%
Tl 190.801+	-4.5	-0.0008 mg/L		0.00076	-0.0008 mg/L	0.00076	98.69%
Se 196.026+	-7.0	-0.0036 mg/L		0.00181	-0.0036 mg/L	0.00181	50.91%
Zn 206.200+	-1255.0	-0.0125 mg/L		0.00003	-0.0125 mg/L	0.00003	0.26%
Sb 206.836+	10.6	0.0017 mg/L		0.00233	0.0017 mg/L	0.00233	137.73%
Pb 220.353+	-23.3	-0.0010 mg/L		0.00028	-0.0010 mg/L	0.00028	26.90%
Cd 226.502+	14.8	0.0001 mg/L		0.00014	0.0001 mg/L	0.00014	264.32%
Co 228.616+	-2.4	0.0000 mg/L		0.00020	0.0000 mg/L	0.00020	712.15%
Ni 232.003+	46.0	0.0011 mg/L		0.00089	0.0011 mg/L	0.00089	81.30%
Ba 233.527+	-248.7	-0.0015 mg/L		0.00010	-0.0015 mg/L	0.00010	7.04%
Mn 257.610+	-1216.0	-0.0007 mg/L		0.00002	-0.0007 mg/L	0.00002	3.23%
Cr 267.716+	-109.9	-0.0004 mg/L		0.00012	-0.0004 mg/L	0.00012	26.04%
Fe 273.955+	-232.3	-0.0046 mg/L		0.00037	-0.0046 mg/L	0.00037	8.00%
Mg 279.077+	-58.2	-0.0013 mg/L		0.00122	-0.0013 mg/L	0.00122	93.70%
V 292.402+	-176.1	-0.0004 mg/L		0.00023	-0.0004 mg/L	0.00023	55.73%
Al 308.215+	-4100.2	-0.1061 mg/L		0.00878	-0.1061 mg/L	0.00878	8.28%
Be 313.107+	-13.8	0.0000 mg/L		0.00003	0.0000 mg/L	0.00003	>999.9%
Cu 324.752+	-98.8	-0.0003 mg/L		0.00013	-0.0003 mg/L	0.00013	48.06%
Ag 338.289+	67.8	0.0003 mg/L		0.00026	0.0003 mg/L	0.00026	76.52%
Na 330.237+	-313.4	-0.2306 mg/L		0.05220	-0.2306 mg/L	0.05220	22.64%
Ca 227.546+	78.0	0.1286 mg/L		0.01582	0.1286 mg/L	0.01582	12.30%
Al RADIAL+	-286.2	-0.0743 mg/L		0.00940	-0.0743 mg/L	0.00940	12.65%
Fe RADIAL+	1.7	0.0021 mg/L		0.00087	0.0021 mg/L	0.00087	42.19%
Ca RADIAL+	-141.8	-0.0138 mg/L		0.00240	-0.0138 mg/L	0.00240	17.38%
K RADIAL+	-47.9	-0.0239 mg/L		0.01971	-0.0239 mg/L	0.01971	82.42%
Mg RADIAL+	4.6	0.0054 mg/L		0.00361	0.0054 mg/L	0.00361	66.33%
Na RADIAL+	-4143.9	-0.2386 mg/L		0.01447	-0.2386 mg/L	0.01447	6.06%
Mo 202.031	1.6	0.000 mg/L		0.0001	0.000 mg/L	0.0001	470.25%

Sequence No.: 12
Sample ID: BC60398-SRM1
Analyst: KV
Logged In Analyst (Original) : administrator
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/8/2016 3:09:52 PM
Data Type: Reprocessed on 3/9/2016 6:14:20 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: BC60398-SRM1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20416749.8	5.129 mg/L		0.1114			2.17%
Y RADIAL	483669.1	5.053 mg/L		0.0403			0.80%
As 188.979+	2093.2	0.5478 mg/L		0.00662	0.5478 mg/L	0.00662	1.21%
Tl 190.801+	1923.8	0.3315 mg/L		0.00341	0.3315 mg/L	0.00341	1.03%
Se 196.026+	1538.4	0.7779 mg/L		0.01717	0.7779 mg/L	0.01717	2.21%
Zn 206.200+	62610.5	0.6231 mg/L		0.00613	0.6231 mg/L	0.00613	0.98%
Sb 206.836+	1401.9	0.2240 mg/L		0.00387	0.2240 mg/L	0.00387	1.73%
Pb 220.353+	10123.3	0.4486 mg/L		0.00775	0.4486 mg/L	0.00775	1.73%
Cd 226.502+	122194.5	0.4265 mg/L		0.00412	0.4265 mg/L	0.00412	0.97%
Co 228.616+	8933.5	0.1032 mg/L		0.00181	0.1032 mg/L	0.00181	1.76%
Ni 232.003+	46145.5	1.097 mg/L		0.0113	1.097 mg/L	0.0113	1.03%
Ba 233.527+	75359.6	0.4399 mg/L		0.00453	0.4399 mg/L	0.00453	1.03%
Mn 257.610+	482904.8	0.2956 mg/L		0.00326	0.2956 mg/L	0.00326	1.10%
Cr 267.716+	148042.2	0.6015 mg/L		0.00573	0.6015 mg/L	0.00573	0.95%
Fe 273.955+	27985.0	0.5498 mg/L		0.00906	0.5498 mg/L	0.00906	1.65%
Mg 279.077+	742733.1	16.63 mg/L		0.127	16.63 mg/L	0.127	0.77%
V 292.402+	117256.5	0.2736 mg/L		0.00238	0.2736 mg/L	0.00238	0.87%
Al 308.215+	16912.3	0.4344 mg/L		0.01251	0.4344 mg/L	0.01251	2.88%

Be 313.107†	1832435.2	0.2765 mg/L	0.00267	0.2765 mg/L	0.00267	0.97%
Cu 324.752†	236478.3	0.6411 mg/L	0.00851	0.6411 mg/L	0.00851	1.33%
Ag 338.289†	108248.1	0.5350 mg/L	0.01164	0.5350 mg/L	0.01164	2.18%
Na 330.237†	118976.5	87.66 mg/L	1.052	87.66 mg/L	1.052	1.20%
Ca 227.546†	57431.9	94.77 mg/L	0.972	94.77 mg/L	0.972	1.03%
Al RADIAL†	1905.3	0.4917 mg/L	0.02095	0.4917 mg/L	0.02095	4.26%
Fe RADIAL†	475.0	0.5755 mg/L	0.00633	0.5755 mg/L	0.00633	1.10%
Ca RADIAL†	1108619.4	107.8 mg/L	1.63	107.8 mg/L	1.63	1.52%
K RADIAL†	57905.4	28.92 mg/L	0.287	28.92 mg/L	0.287	0.99%
Mg RADIAL†	14829.3	17.70 mg/L	0.232	17.70 mg/L	0.232	1.31%
Na RADIAL†	1757698.0	101.2 mg/L	1.54	101.2 mg/L	1.54	1.52%
Mo 202.031	33720.4	0.631 mg/L	0.0026	0.631 mg/L	0.0026	0.41%

Sequence No.: 13

Sample ID: 16C0173-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 11

Date Collected: 3/8/2016 3:18:04 PM

Data Type: Reprocessed on 3/9/2016 6:14:21 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0173-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19680836.6	4.944 mg/L	0.0428			0.87%
Y RADIAL	473953.1	4.952 mg/L	0.0499			1.01%
As 188.979†	1.7	0.0006 mg/L	0.00065	0.0006 mg/L	0.00065	117.12%
Tl 190.801†	-19.9	-0.0034 mg/L	0.00168	-0.0034 mg/L	0.00168	50.07%
Se 196.026†	15.4	0.0081 mg/L	0.00269	0.0081 mg/L	0.00269	33.25%
Zn 206.200†	1095.2	0.0109 mg/L	0.00026	0.0109 mg/L	0.00026	2.41%
Sb 206.836†	20.6	0.0033 mg/L	0.00198	0.0033 mg/L	0.00198	59.65%
Pb 220.353†	174.9	0.0091 mg/L	0.00026	0.0091 mg/L	0.00026	2.83%
Cd 226.502†	73.0	0.0002 mg/L	0.00006	0.0002 mg/L	0.00006	27.76%
Ce 228.616†	67.3	0.0008 mg/L	0.00009	0.0008 mg/L	0.00009	10.73%
Ni 232.003†	5.5	0.0001 mg/L	0.00065	0.0001 mg/L	0.00065	606.67%
Ba 233.527†	7492.2	0.0437 mg/L	0.00030	0.0437 mg/L	0.00030	0.68%
Mn 257.610†	412944.7	0.2528 mg/L	0.00385	0.2528 mg/L	0.00385	1.52%
Cr 267.716†	387.2	0.0016 mg/L	0.00014	0.0016 mg/L	0.00014	9.06%
Fe 273.955†	36911.2	0.7252 mg/L	0.00758	0.7252 mg/L	0.00758	1.05%
Mg 279.077†	442528.5	9.909 mg/L	0.1638	9.909 mg/L	0.1638	1.65%
V 292.402†	466.6	0.0010 mg/L	0.00013	0.0010 mg/L	0.00013	12.12%
Al 308.215†	20198.0	0.5200 mg/L	0.00644	0.5200 mg/L	0.00644	1.24%
Be 313.107†	-664.7	-0.0001 mg/L	0.00004	-0.0001 mg/L	0.00004	40.57%
Cu 324.752†	3524.7	0.0097 mg/L	0.00033	0.0097 mg/L	0.00033	3.37%
Ag 338.289†	285.7	0.0003 mg/L	0.00032	0.0003 mg/L	0.00032	92.76%
Na 330.237†	36992.2	27.32 mg/L	0.376	27.32 mg/L	0.376	1.38%
Ca 227.546†	50355.0	83.09 mg/L	1.207	83.09 mg/L	1.207	1.45%
Al RADIAL†	2221.0	0.5741 mg/L	0.00926	0.5741 mg/L	0.00926	1.61%
Fe RADIAL†	636.1	0.7707 mg/L	0.00950	0.7707 mg/L	0.00950	1.23%
Ca RADIAL†	990292.6	96.33 mg/L	2.540	96.33 mg/L	2.540	2.64%
K RADIAL†	30515.2	15.24 mg/L	0.077	15.24 mg/L	0.077	0.51%
Mg RADIAL†	8912.5	10.64 mg/L	0.084	10.64 mg/L	0.084	0.79%
Na RADIAL†	618524.5	35.61 mg/L	0.534	35.61 mg/L	0.534	1.50%
Mo 202.031	1493.3	0.028 mg/L	0.0001	0.028 mg/L	0.0001	0.28%

Sequence No.: 14

Sample ID: BC60398-DUP1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 12

Date Collected: 3/8/2016 3:23:14 PM

Data Type: Reprocessed on 3/9/2016 6:14:22 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60398-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20232754.1	5.083 mg/L	0.0609			1.20%
Y RADIAL	479965.3	5.015 mg/L	0.0422			0.84%
As 188.979†	-0.8	-0.0001 mg/L	0.00242	-0.0001 mg/L	0.00242	>999.9%
Tl 190.801†	-19.1	-0.0032 mg/L	0.00180	-0.0032 mg/L	0.00180	55.91%

Se 196.026†	14.6	0.0077 mg/L	0.00195	0.0077 mg/L	0.00195	25.31%
Zn 206.200†	1032.1	0.0103 mg/L	0.00012	0.0103 mg/L	0.00012	1.17%
Sb 206.836†	2.0	0.0003 mg/L	0.00203	0.0003 mg/L	0.00203	587.75%
Pb 220.353†	139.4	0.0076 mg/L	0.00050	0.0076 mg/L	0.00050	6.58%
Cd 226.502†	51.3	0.0001 mg/L	0.00010	0.0001 mg/L	0.00010	81.47%
Co 228.616†	59.2	0.0007 mg/L	0.00006	0.0007 mg/L	0.00006	8.91%
Ni 232.003†	49.5	0.0012 mg/L	0.00056	0.0012 mg/L	0.00056	48.27%
Ba 233.527†	7582.5	0.0443 mg/L	0.00032	0.0443 mg/L	0.00032	0.73%
Mn 257.610†	417702.0	0.2557 mg/L	0.00235	0.2557 mg/L	0.00235	0.92%
Cr 267.716†	455.7	0.0019 mg/L	0.00004	0.0019 mg/L	0.00004	2.18%
Fe 273.955†	37285.8	0.7326 mg/L	0.00787	0.7326 mg/L	0.00787	1.07%
Mg 279.077†	447456.3	10.02 mg/L	0.091	10.02 mg/L	0.091	0.90%
V 292.402†	456.6	0.0010 mg/L	0.00008	0.0010 mg/L	0.00008	7.91%
Al 308.215†	20094.2	0.5173 mg/L	0.00435	0.5173 mg/L	0.00435	0.84%
Be 313.107†	-453.8	-0.0001 mg/L	0.00003	-0.0001 mg/L	0.00003	42.66%
Cu 324.752†	3272.7	0.0090 mg/L	0.00029	0.0090 mg/L	0.00029	3.24%
Ag 338.289†	238.8	0.0001 mg/L	0.00068	0.0001 mg/L	0.00068	749.31%
Na 330.237†	37539.3	27.72 mg/L	0.179	27.72 mg/L	0.179	0.65%
Ca 227.546†	50975.3	84.11 mg/L	0.471	84.11 mg/L	0.471	0.56%
Al RADIAL†	2235.2	0.5777 mg/L	0.01467	0.5777 mg/L	0.01467	2.54%
Fe RADIAL†	649.7	0.7871 mg/L	0.00331	0.7871 mg/L	0.00331	0.42%
Ca RADIAL†	1009417.8	98.20 mg/L	1.743	98.20 mg/L	1.743	1.77%
K RADIAL†	30942.1	15.46 mg/L	0.079	15.46 mg/L	0.079	0.51%
Mg RADIAL†	9131.4	10.90 mg/L	0.047	10.90 mg/L	0.047	0.43%
Na RADIAL†	625776.9	36.03 mg/L	0.525	36.03 mg/L	0.525	1.46%
Mo 202.031†	1563.4	0.029 mg/L	0.0005	0.029 mg/L	0.0005	1.67%

Sequence No.: 15

Sample ID: BC60398-MS1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 13

Date Collected: 3/8/2016 3:28:25 PM

Data Type: Reprocessed on 3/9/2016 6:14:22 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60398-MS1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	23500622.3	5.903 mg/L		0.1028			1.74%
Y RADIAL	609552.9	6.369 mg/L		0.2224			3.49%
As 188.979†	7204.2	1.885 mg/L		0.0668	1.885 mg/L	0.0668	3.54%
Tl 190.801†	11282.6	1.944 mg/L		0.0624	1.944 mg/L	0.0624	3.21%
Se 196.026†	3960.3	2.003 mg/L		0.0866	2.003 mg/L	0.0866	4.32%
Zn 206.200†	52308.6	0.5205 mg/L		0.01978	0.5205 mg/L	0.01978	3.80%
Sb 206.836†	1542.6	0.2465 mg/L		0.01313	0.2465 mg/L	0.01313	5.33%
Pb 220.353†	11374.5	0.5038 mg/L		0.01648	0.5038 mg/L	0.01648	3.27%
Cd 226.502†	14594.4	0.0508 mg/L		0.00194	0.0508 mg/L	0.00194	3.81%
Co 228.616†	44676.1	0.5161 mg/L		0.01850	0.5161 mg/L	0.01850	3.59%
Ni 232.003†	21771.0	0.5174 mg/L		0.01964	0.5174 mg/L	0.01964	3.80%
Ba 233.527†	353746.5	2.065 mg/L		0.0412	2.065 mg/L	0.0412	1.99%
Mn 257.610†	1258779.5	0.7706 mg/L		0.01570	0.7706 mg/L	0.01570	2.04%
Cr 267.716†	48316.1	0.1964 mg/L		0.00399	0.1964 mg/L	0.00399	2.03%
Fe 273.955†	88454.1	1.738 mg/L		0.0343	1.738 mg/L	0.0343	1.97%
Mg 279.077†	440958.6	9.873 mg/L		0.2065	9.873 mg/L	0.2065	2.09%
V 292.402†	210499.7	0.4911 mg/L		0.01036	0.4911 mg/L	0.01036	2.11%
Al 308.215†	99333.3	2.568 mg/L		0.0680	2.568 mg/L	0.0680	2.65%
Be 313.107†	331600.0	0.0500 mg/L		0.00101	0.0500 mg/L	0.00101	2.02%
Cu 324.752†	99870.6	0.2710 mg/L		0.00555	0.2710 mg/L	0.00555	2.05%
Ag 338.289†	10204.0	0.0495 mg/L		0.00191	0.0495 mg/L	0.00191	3.85%
Na 330.237†	37349.0	27.58 mg/L		0.575	27.58 mg/L	0.575	2.08%
Ca 227.546†	51544.8	85.06 mg/L		2.990	85.06 mg/L	2.990	3.52%
Al RADIAL†	9889.5	2.566 mg/L		0.0059	2.566 mg/L	0.0059	0.23%
Fe RADIAL†	1454.0	1.762 mg/L		0.0182	1.762 mg/L	0.0182	1.04%
Ca RADIAL†	961914.4	93.57 mg/L		0.318	93.57 mg/L	0.318	0.34%
K RADIAL†	28434.3	14.20 mg/L		0.038	14.20 mg/L	0.038	0.27%
Mg RADIAL†	8518.8	10.17 mg/L		0.118	10.17 mg/L	0.118	1.16%
Na RADIAL†	581573.0	33.49 mg/L		0.178	33.49 mg/L	0.178	0.53%
Mo 202.031	1723.6	0.032 mg/L		0.0004	0.032 mg/L	0.0004	1.19%

Sequence No.: 16

Autosampler Location: 14

Sample ID: 16C0182-01
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Date Collected: 3/8/2016 3:36:06 PM
 Data Type: Reprocessed on 3/9/2016 6:14:23 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: 16C0182-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25503990.9	6.407 mg/L		0.0999			1.56%
Y RADIAL	643043.4	6.719 mg/L		0.1516			2.26%
As 188.979†	-3.1	-0.0008 mg/L		0.00179	-0.0008 mg/L	0.00179	224.69%
Tl 190.801†	16.3	0.0028 mg/L		0.00122	0.0028 mg/L	0.00122	43.43%
Se 196.026†	-17.7	-0.0089 mg/L		0.00194	-0.0089 mg/L	0.00194	21.78%
Zn 206.200†	-564.0	-0.0056 mg/L		0.00024	-0.0056 mg/L	0.00024	4.31%
Sb 206.836†	-12.5	-0.0020 mg/L		0.00113	-0.0020 mg/L	0.00113	57.04%
Pb 220.353†	-49.5	-0.0021 mg/L		0.00010	-0.0021 mg/L	0.00010	4.45%
Cd 226.502†	57.5	0.0002 mg/L		0.00007	0.0002 mg/L	0.00007	38.64%
Co 228.616†	1.6	0.0000 mg/L		0.00016	0.0000 mg/L	0.00016	737.90%
Ni 232.003†	200.3	0.0048 mg/L		0.00049	0.0048 mg/L	0.00049	10.23%
Ba 233.527†	1080.8	0.0063 mg/L		0.00014	0.0063 mg/L	0.00014	2.19%
Mn 257.610†	2383.2	0.0015 mg/L		0.00006	0.0015 mg/L	0.00006	4.31%
Cr 267.716†	58.9	0.0002 mg/L		0.00013	0.0002 mg/L	0.00013	52.29%
Fe 273.955†	6621.9	0.1301 mg/L		0.00249	0.1301 mg/L	0.00249	1.91%
Mg 279.077†	42624.6	0.9544 mg/L		0.01460	0.9544 mg/L	0.01460	1.53%
V 292.402†	-208.3	-0.0005 mg/L		0.00010	-0.0005 mg/L	0.00010	19.28%
Al 308.215†	-5783.4	-0.1498 mg/L		0.00270	-0.1498 mg/L	0.00270	1.80%
Be 313.107†	354.8	0.0001 mg/L		0.00002	0.0001 mg/L	0.00002	41.88%
Cu 324.752†	34819.9	0.0944 mg/L		0.00175	0.0944 mg/L	0.00175	1.86%
Ag 338.289†	189.0	0.0009 mg/L		0.00012	0.0009 mg/L	0.00012	13.18%
Na 330.237†	27212.5	20.03 mg/L		0.311	20.03 mg/L	0.311	1.55%
Ca 227.546†	2268.3	3.744 mg/L		0.0166	3.744 mg/L	0.0166	0.44%
Al RADIAL†	-344.7	-0.0896 mg/L		0.00803	-0.0896 mg/L	0.00803	8.96%
Fe RADIAL†	110.1	0.1334 mg/L		0.00302	0.1334 mg/L	0.00302	2.26%
Ca RADIAL†	41457.8	4.033 mg/L		0.0582	4.033 mg/L	0.0582	1.44%
K RADIAL†	1436.5	0.7175 mg/L		0.05797	0.7175 mg/L	0.05797	8.08%
Mg RADIAL†	843.8	1.007 mg/L		0.0061	1.007 mg/L	0.0061	0.60%
Na RADIAL†	474506.7	27.32 mg/L		0.137	27.32 mg/L	0.137	0.50%
Mo 202.031	191.9	0.004 mg/L		0.0003	0.004 mg/L	0.0003	7.77%

Sequence No.: 17

Autosampler Location: 15

Sample ID: 16C0182-02

Date Collected: 3/8/2016 3:41:13 PM

Analyst: KV

Data Type: Reprocessed on 3/9/2016 6:14:24 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 16C0182-02

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25101735.8	6.306 mg/L		0.0536			0.85%
Y RADIAL	681259.5	7.118 mg/L		0.2372			3.33%
As 188.979†	9.5	0.0027 mg/L		0.00125	0.0027 mg/L	0.00125	47.02%
Tl 190.801†	14.8	0.0026 mg/L		0.00123	0.0026 mg/L	0.00123	46.53%
Se 196.026†	10.2	0.0047 mg/L		0.00429	-0.0047 mg/L	0.00429	91.43%
Zn 206.200†	8849.1	0.0881 mg/L		0.00088	0.0881 mg/L	0.00088	1.00%
Sb 206.836†	19.1	0.0031 mg/L		0.00136	0.0031 mg/L	0.00136	43.86%
Pb 220.353†	70.7	0.0036 mg/L		0.00121	0.0036 mg/L	0.00121	33.90%
Cd 226.502†	233.1	0.0007 mg/L		0.00003	0.0007 mg/L	0.00003	4.16%
Co 228.616†	20.6	0.0003 mg/L		0.00005	0.0003 mg/L	0.00005	19.49%
Ni 232.003†	332.1	0.0079 mg/L		0.00018	0.0079 mg/L	0.00018	2.34%
Ba 233.527†	12003.6	0.0701 mg/L		0.00051	0.0701 mg/L	0.00051	0.73%
Mn 257.610†	123830.8	0.0759 mg/L		0.00053	0.0759 mg/L	0.00053	0.70%
Cr 267.716†	337.7	0.0014 mg/L		0.00006	0.0014 mg/L	0.00006	4.15%
Fe 273.955†	57978.2	1.139 mg/L		0.0077	1.139 mg/L	0.0077	0.68%
Mg 279.077†	290859.0	6.513 mg/L		0.0380	6.513 mg/L	0.0380	0.58%
V 292.402†	-61.6	-0.0002 mg/L		0.00021	-0.0002 mg/L	0.00021	96.19%
Al 308.215†	2905.7	0.0741 mg/L		0.00351	0.0741 mg/L	0.00351	4.74%
Be 313.107†	-28.5	0.0000 mg/L		0.00001	0.0000 mg/L	0.00001	247.72%

Cu 324.752†	34197.8	0.0929 mg/L	0.00094	0.0929 mg/L	0.00094	1.01%
Ag 338.289†	215.3	0.0007 mg/L	0.00035	0.0007 mg/L	0.00035	52.35%
Na 330.237†	418768.3	308.2 mg/L	3.03	308.2 mg/L	3.03	0.98%
Ca 227.546†	20835.0	34.39 mg/L	0.296	34.39 mg/L	0.296	0.86%
Al RADIAL†	430.7	0.1109 mg/L	0.00218	0.1109 mg/L	0.00218	1.96%
Fe RADIAL†	927.6	1.124 mg/L	0.0235	1.124 mg/L	0.0235	2.09%
Ca RADIAL†	378676.4	36.84 mg/L	0.069	36.84 mg/L	0.069	0.19%
K RADIAL†	12143.6	6.066 mg/L	0.0069	6.066 mg/L	0.0069	0.11%
Mg RADIAL†	5428.4	6.480 mg/L	0.1622	6.480 mg/L	0.1622	2.50%
Na RADIAL†	4694181.1	270.3 mg/L	2.78	270.3 mg/L	2.78	1.03%
Mo 202.031†	3458.8	0.065 mg/L	0.0006	0.065 mg/L	0.0006	0.85%

Sequence No.: 18

Sample ID: 16C0182-03

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 16

Date Collected: 3/8/2016 3:46:24 PM

Data Type: Reprocessed on 3/9/2016 6:14:24 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0182-03

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21475203.9	5.395 mg/L	0.1126			2.09%
Y RADIAL	584036.5	6.102 mg/L	0.0912			1.49%
As 188.979†	1485.0	0.3886 mg/L	0.00568	0.3886 mg/L	0.00568	1.46%
Tl 190.801†	-806.5	-0.1389 mg/L	0.00495	-0.1389 mg/L	0.00495	3.56%
Se 196.026†	52.3	0.0264 mg/L	0.00467	0.0264 mg/L	0.00467	17.66%
Zn 206.200†	-5250.1	-0.0522 mg/L	0.00120	-0.0522 mg/L	0.00120	2.30%
Sb 206.836†	-216.4	-0.0346 mg/L	0.00867	-0.0346 mg/L	0.00867	25.08%
Pb 220.353†	-5444.9	-0.2398 mg/L	0.00379	-0.2398 mg/L	0.00379	1.58%
Cd 226.502†	-652.4	-0.0023 mg/L	0.00016	-0.0023 mg/L	0.00016	6.91%
Co 228.616†	-17649.2	-0.2039 mg/L	0.00378	-0.2039 mg/L	0.00378	1.85%
Ni 232.003†	38466.5	0.9143 mg/L	0.01962	0.9143 mg/L	0.01962	2.15%
Ba 233.527†	2413.8	0.0141 mg/L	0.00031	0.0141 mg/L	0.00031	2.17%
Mn 257.610†	2421.5	0.0015 mg/L	0.00010	0.0015 mg/L	0.00010	6.44%
Cr 267.716†	2481.9	0.0101 mg/L	0.00050	0.0101 mg/L	0.00050	4.98%
Fe 273.955†	2858.4	0.0562 mg/L	0.00148	0.0562 mg/L	0.00148	2.63%
Mg 279.077†	102629.0	2.298 mg/L	0.0618	2.298 mg/L	0.0618	2.69%
V 292.402†	-502847.3	-1.173 mg/L	0.0120	-1.173 mg/L	0.0120	1.02%
Al 308.215†	90023.7	2.330 mg/L	0.0560	2.330 mg/L	0.0560	2.40%
Be 313.107†	-1307.4	-0.0002 mg/L	0.00003	-0.0002 mg/L	0.00003	16.79%
Cu 324.752†	18625.0	0.0505 mg/L	0.00155	0.0505 mg/L	0.00155	3.07%
Ag 338.289†	-35023.1	-0.1735 mg/L	0.00473	-0.1735 mg/L	0.00473	2.73%
Na 330.237†	702690.1	517.1 mg/L	12.19	517.1 mg/L	12.19	2.36%
Ca 227.546†	2777.1	4.585 mg/L	0.0335	4.585 mg/L	0.0335	0.73%
Al RADIAL†	15727.4	4.085 mg/L	0.0321	4.085 mg/L	0.0321	0.79%
Fe RADIAL†	49.3	0.0597 mg/L	0.00585	0.0597 mg/L	0.00585	9.79%
Ca RADIAL†	52125.9	5.071 mg/L	0.0158	5.071 mg/L	0.0158	0.31%
K RADIAL†	337152.6	168.4 mg/L	0.59	168.4 mg/L	0.59	0.35%
Mg RADIAL†	2057.2	2.456 mg/L	0.0404	2.456 mg/L	0.0404	1.64%
Na RADIAL†	7334616.0	422.3 mg/L	3.64	422.3 mg/L	3.64	0.86%
Mo 202.031†	6128313.8	114.6 mg/L	1.10	114.6 mg/L	1.10	0.96%

Sequence No.: 19

Sample ID: 16C0182-04

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 17

Date Collected: 3/8/2016 3:51:41 PM

Data Type: Reprocessed on 3/9/2016 6:14:25 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0182-04

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	18793959.9	4.721 mg/L	0.0168			0.36%
Y RADIAL	513309.6	5.363 mg/L	0.0642			1.20%
As 188.979†	2565.7	0.6713 mg/L	0.01371	0.6713 mg/L	0.01371	2.04%
Tl 190.801†	-1368.7	-0.2358 mg/L	0.00587	-0.2358 mg/L	0.00587	2.49%
Se 196.026†	96.1	0.0486 mg/L	0.00177	0.0486 mg/L	0.00177	3.65%

Zn 206.200†	-8981.7	-0.0894 mg/L	0.00160	-0.0894 mg/L	0.00160	1.79%
Sb 206.836†	-344.3	-0.0550 mg/L	0.01857	-0.0550 mg/L	0.01857	33.76%
Pb 220.353†	-9247.7	-0.4074 mg/L	0.00727	-0.4074 mg/L	0.00727	1.78%
Cd 226.502†	-1185.3	-0.0041 mg/L	0.00012	-0.0041 mg/L	0.00012	2.85%
Co 228.616†	-29504.2	-0.3408 mg/L	0.00500	-0.3408 mg/L	0.00500	1.47%
Ni 232.003†	65736.8	1.562 mg/L	0.0194	1.562 mg/L	0.0194	1.24%
Ba 233.527†	8305.3	0.0485 mg/L	0.00078	0.0485 mg/L	0.00078	1.60%
Mn 257.610†	24798.3	0.0152 mg/L	0.00005	0.0152 mg/L	0.00005	0.30%
Cr 267.716†	4085.3	0.0166 mg/L	0.00069	0.0166 mg/L	0.00069	4.14%
Fe 273.955†	-2417.5	-0.0475 mg/L	0.00116	-0.0475 mg/L	0.00116	2.45%
Mg 279.077†	338641.8	7.583 mg/L	0.0803	7.583 mg/L	0.0803	1.06%
V 292.402†	-853466.2	-1.992 mg/L	0.0076	-1.992 mg/L	0.0076	0.38%
Al 308.215†	159663.1	4.132 mg/L	0.0585	4.132 mg/L	0.0585	1.42%
Be 313.107†	-2155.9	-0.0003 mg/L	0.00001	-0.0003 mg/L	0.00001	2.93%
Cu 324.752†	31940.3	0.0866 mg/L	0.00100	0.0866 mg/L	0.00100	1.15%
Ag 338.289†	-61249.7	-0.3034 mg/L	0.00192	-0.3034 mg/L	0.00192	0.63%
Na 330.237†	1303482.8	959.2 mg/L	12.12	959.2 mg/L	12.12	1.26%
Ca 227.546†	2620.2	4.328 mg/L	0.1003	4.328 mg/L	0.1003	2.32%
Al RADIAL†	26905.2	6.988 mg/L	0.0097	6.988 mg/L	0.0097	0.14%
Fe RADIAL†	-30.9	-0.0375 mg/L	0.01069	-0.0375 mg/L	0.01069	28.54%
Ca RADIAL†	49728.1	4.838 mg/L	0.0056	4.838 mg/L	0.0056	0.12%
K RADIAL†	741067.7	370.2 mg/L	0.92	370.2 mg/L	0.92	0.25%
Mg RADIAL†	6539.2	7.806 mg/L	0.1034	7.806 mg/L	0.1034	1.32%
Na RADIAL†	12309516.9	708.8 mg/L	14.83	708.8 mg/L	14.83	2.09%
Mo 202.031	8594627.5	160.7 mg/L	2.26	160.7 mg/L	2.26	1.41%

Sequence No.: 20

Sample ID: 16C0185-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 18

Date Collected: 3/8/2016 3:57:03 PM

Data Type: Reprocessed on 3/9/2016 6:14:26 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0185-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	22668945.0	5.695 mg/L	0.0642			1.13%
Y RADIAL	568343.2	5.938 mg/L	0.0945			1.59%
As 188.979†	-8.0	-0.0021 mg/L	0.00142	-0.0021 mg/L	0.00142	69.17%
Tl 190.801†	0.6	0.0001 mg/L	0.00100	0.0001 mg/L	0.00100	814.17%
Se 196.026†	-7.9	-0.0039 mg/L	0.00316	-0.0039 mg/L	0.00316	80.04%
Zn 206.200†	60.9	0.0006 mg/L	0.00015	0.0006 mg/L	0.00015	25.30%
Sb 206.836†	-7.2	-0.0011 mg/L	0.00146	-0.0011 mg/L	0.00146	127.68%
Pb 220.353†	-26.9	-0.0011 mg/L	0.00094	-0.0011 mg/L	0.00094	82.68%
Cd 226.502†	17.4	0.0000 mg/L	0.00010	0.0000 mg/L	0.00010	206.98%
Co 228.616†	-26.2	-0.0003 mg/L	0.00016	-0.0003 mg/L	0.00016	54.40%
Ni 232.003†	123.4	0.0029 mg/L	0.00052	0.0029 mg/L	0.00052	17.73%
Ba 233.527†	2040.0	0.0119 mg/L	0.00019	0.0119 mg/L	0.00019	1.60%
Mn 257.610†	9501.8	0.0058 mg/L	0.00003	0.0058 mg/L	0.00003	0.48%
Cr 267.716†	44.4	0.0002 mg/L	0.00037	0.0002 mg/L	0.00037	197.19%
Fe 273.955†	8665.7	0.1703 mg/L	0.00147	0.1703 mg/L	0.00147	0.86%
Mg 279.077†	46842.3	1.049 mg/L	0.0061	1.049 mg/L	0.0061	0.58%
V 292.402†	-381.3	-0.0009 mg/L	0.00014	-0.0009 mg/L	0.00014	15.87%
Al 308.215†	-4838.3	-0.1254 mg/L	0.00206	-0.1254 mg/L	0.00206	1.64%
Be 313.107†	-90.8	0.0000 mg/L	0.00001	0.0000 mg/L	0.00001	72.61%
Cu 324.752†	104974.7	0.2846 mg/L	0.00172	0.2846 mg/L	0.00172	0.60%
Ag 338.289†	28.8	0.0001 mg/L	0.00020	0.0001 mg/L	0.00020	227.66%
Na 330.237†	7650.5	5.635 mg/L	0.0318	5.635 mg/L	0.0318	0.56%
Ca 227.546†	2778.8	4.586 mg/L	0.0319	4.586 mg/L	0.0319	0.70%
Al RADIAL†	-335.3	-0.0872 mg/L	0.00306	-0.0872 mg/L	0.00306	3.50%
Fe RADIAL†	142.1	0.1722 mg/L	0.00735	0.1722 mg/L	0.00735	4.27%
Ca RADIAL†	51995.3	5.058 mg/L	0.0072	5.058 mg/L	0.0072	0.14%
K RADIAL†	2096.1	1.047 mg/L	0.0524	1.047 mg/L	0.0524	5.01%
Mg RADIAL†	917.6	1.095 mg/L	0.0234	1.095 mg/L	0.0234	2.14%
Na RADIAL†	153962.5	8.865 mg/L	0.0550	8.865 mg/L	0.0550	0.62%
Mo 202.031	2202.7	0.041 mg/L	0.0028	0.041 mg/L	0.0028	6.71%

Sequence No.: 21

Sample ID: SEQ-CCV2

Autosampler Location: 3

Date Collected: 3/8/2016 4:02:11 PM

Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Data Type: Reprocessed on 3/9/2016 6:14:27 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: SEQ-CCV2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	22190333.2	5.574 mg/L	0.0808			1.45%
Y RADIAL	550581.1	5.752 mg/L	0.0839			1.46%
As 188.979†	948.9	0.2490 mg/L	0.01049	0.2490 mg/L	0.01049	4.21%
Tl 190.801†	1426.9	0.2463 mg/L	0.00589	0.2463 mg/L	0.00589	2.39%
Se 196.026†	473.0	0.2411 mg/L	0.00544	0.2411 mg/L	0.00544	2.26%
Zn 206.200†	246159.3	2.450 mg/L	0.0809	2.450 mg/L	0.0809	3.30%
Sb 206.836†	1467.7	0.2347 mg/L	0.00899	0.2347 mg/L	0.00899	3.83%
Pb 220.353†	5549.9	0.2463 mg/L	0.00647	0.2463 mg/L	0.00647	2.63%
Cd 226.502†	34153.3	0.1189 mg/L	0.00382	0.1189 mg/L	0.00382	3.21%
Co 228.616†	213122.6	2.462 mg/L	0.0731	2.462 mg/L	0.0731	2.97%
Ni 232.003†	101763.0	2.419 mg/L	0.0717	2.419 mg/L	0.0717	2.96%
Ba 233.527†	1667103.2	9.731 mg/L	0.1158	9.731 mg/L	0.1158	1.19%
Mn 257.610†	4017197.6	2.459 mg/L	0.0269	2.459 mg/L	0.0269	1.09%
Cr 267.716†	241912.0	0.9830 mg/L	0.02953	0.9830 mg/L	0.02953	3.00%
Fe 273.955†	250057.5	4.913 mg/L	0.1506	4.913 mg/L	0.1506	3.07%
Mg 279.077†	1060632.9	23.75 mg/L	0.249	23.75 mg/L	0.249	1.05%
V 292.402†	1005945.4	2.347 mg/L	0.0236	2.347 mg/L	0.0236	1.01%
Al 308.215†	367673.3	9.515 mg/L	0.2974	9.515 mg/L	0.2974	3.13%
Be 313.107†	1607485.4	0.2425 mg/L	0.00226	0.2425 mg/L	0.00226	0.93%
Cu 324.752†	447494.4	1.214 mg/L	0.0314	1.214 mg/L	0.0314	2.58%
Ag 338.289†	243761.4	1.207 mg/L	0.0302	1.207 mg/L	0.0302	2.50%
Na 330.237†	30500.8	22.49 mg/L	0.574	22.49 mg/L	0.574	2.55%
Ca 227.546†	14563.2	24.08 mg/L	0.573	24.08 mg/L	0.573	2.38%
Al RADIAL†	35973.6	9.343 mg/L	0.0269	9.343 mg/L	0.0269	0.29%
Fe RADIAL†	4113.5	4.984 mg/L	0.0636	4.984 mg/L	0.0636	1.28%
Co RADIAL†	259178.5	25.21 mg/L	0.015	25.21 mg/L	0.015	0.06%
K RADIAL†	10508.8	5.249 mg/L	0.1206	5.249 mg/L	0.1206	2.30%
Mg RADIAL†	20994.5	25.06 mg/L	0.490	25.06 mg/L	0.490	1.96%
Na RADIAL†	436127.0	25.11 mg/L	0.215	25.11 mg/L	0.215	0.86%
Mo 202.031†	66233.9	1.239 mg/L	0.0325	1.239 mg/L	0.0325	2.62%

Sequence No.: 22
 Sample ID: SEQ-CCB2

Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 4
 Date Collected: 3/8/2016 4:09:58 PM
 Data Type: Reprocessed on 3/9/2016 6:14:27 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: SEQ-CCB2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	22399625.1	5.627 mg/L	0.0589			1.05%
Y RADIAL	551866.7	5.766 mg/L	0.1327			2.30%
As 188.979†	-9.6	-0.0025 mg/L	0.00236	-0.0025 mg/L	0.00236	94.27%
Tl 190.801†	-1.4	-0.0002 mg/L	0.00095	-0.0002 mg/L	0.00095	394.67%
Se 196.026†	-13.2	-0.0067 mg/L	0.00449	-0.0067 mg/L	0.00449	67.30%
Zn 206.200†	1329.1	-0.0132 mg/L	0.00007	-0.0132 mg/L	0.00007	0.51%
Sb 206.836†	-10.1	-0.0016 mg/L	0.00154	-0.0016 mg/L	0.00154	94.84%
Pb 220.353†	-16.8	-0.0008 mg/L	0.00028	-0.0008 mg/L	0.00028	37.05%
Cd 226.502†	36.6	0.0001 mg/L	0.00005	0.0001 mg/L	0.00005	39.84%
Co 228.616†	-3.1	0.0000 mg/L	0.00013	0.0000 mg/L	0.00013	361.30%
Ni 232.003†	114.9	0.0027 mg/L	0.00029	0.0027 mg/L	0.00029	10.48%
Ba 233.527†	-216.2	-0.0013 mg/L	0.00010	-0.0013 mg/L	0.00010	8.08%
Mn 257.610†	-1170.6	-0.0007 mg/L	0.00004	-0.0007 mg/L	0.00004	6.07%
Cr 267.716†	-65.8	-0.0003 mg/L	0.00014	-0.0003 mg/L	0.00014	52.07%
Fe 273.955†	-252.0	-0.0050 mg/L	0.00230	-0.0050 mg/L	0.00230	46.38%
Mg 279.077†	-197.3	-0.0044 mg/L	0.00320	-0.0044 mg/L	0.00320	72.44%
V 292.402†	-98.4	-0.0002 mg/L	0.00007	-0.0002 mg/L	0.00007	28.55%
Al 308.215†	-4705.8	-0.1218 mg/L	0.00115	-0.1218 mg/L	0.00115	0.94%
Be 313.107†	73.1	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	150.30%
Cu 324.752†	-213.3	-0.0006 mg/L	0.00019	-0.0006 mg/L	0.00019	33.14%

Ag 338.289†	470.6	0.0023 mg/L	0.00049	0.0023 mg/L	0.00049	20.87%
Na 330.237†	-315.2	-0.2320 mg/L	0.10533	-0.2320 mg/L	0.10533	45.40%
Ca 227.546†	64.3	0.1060 mg/L	0.01220	0.1060 mg/L	0.01220	11.50%
Al RADIAL†	-308.2	-0.0801 mg/L	0.00673	-0.0801 mg/L	0.00673	8.41%
Fe RADIAL†	-4.8	-0.0058 mg/L	0.00156	-0.0058 mg/L	0.00156	26.85%
Ca RADIAL†	-296.2	-0.0288 mg/L	0.00643	-0.0288 mg/L	0.00643	22.32%
K RADIAL†	215.4	0.1076 mg/L	0.02551	0.1076 mg/L	0.02551	23.71%
Mg RADIAL†	1.2	0.0014 mg/L	0.01162	0.0014 mg/L	0.01162	812.14%
Na RADIAL†	681.6	0.0392 mg/L	0.04471	0.0392 mg/L	0.04471	113.93%
Mg 202.031	177.3	0.003 mg/L	0.0001	0.003 mg/L	0.0001	2.82%

Sequence No.: 23

Sample ID: 16C0185-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 19

Date Collected: 3/8/2016 4:15:07 PM

Data Type: Reprocessed on 3/9/2016 6:14:28 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0185-02

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21650829.3	5.439 mg/L		0.0421			0.77%
Y RADIAL	499877.2	5.223 mg/L		0.0631			1.21%
As 188.979†	146.5	0.0384 mg/L		0.00188	0.0384 mg/L	0.00188	4.90%
Tl 190.801†	-65.7	-0.0113 mg/L		0.00148	-0.0113 mg/L	0.00148	13.12%
Se 196.026†	-12.6	-0.0062 mg/L		0.00540	-0.0062 mg/L	0.00540	87.28%
Zn 206.200†	35088.2	0.3492 mg/L		0.00490	0.3492 mg/L	0.00490	1.40%
Sb 206.836†	-6.8	-0.0011 mg/L		0.00152	-0.0011 mg/L	0.00152	141.18%
Pb 220.353†	-546.0	-0.0234 mg/L		0.00035	-0.0234 mg/L	0.00035	1.50%
Cd 226.502†	3.3	0.0000 mg/L		0.00005	0.0000 mg/L	0.00005	307.83%
Co 228.616†	-1687.9	-0.0195 mg/L		0.00021	-0.0195 mg/L	0.00021	1.05%
Ni 232.003†	3807.1	0.0905 mg/L		0.00045	0.0905 mg/L	0.00045	0.50%
Ba 233.527†	13477.9	0.0787 mg/L		0.00119	0.0787 mg/L	0.00119	1.51%
Mn 257.610†	184019.5	0.1127 mg/L		0.00151	0.1127 mg/L	0.00151	1.34%
Cr 267.716†	366.4	0.0015 mg/L		0.00024	0.0015 mg/L	0.00024	15.88%
Fe 273.955†	18589.1	0.3652 mg/L		0.00562	0.3652 mg/L	0.00562	1.54%
Mg 279.077†	460145.8	10.30 mg/L		0.150	10.30 mg/L	0.150	1.46%
V 292.402†	-48511.4	-0.1132 mg/L		0.00181	-0.1132 mg/L	0.00181	1.60%
Al 308.215†	4168.5	0.1063 mg/L		0.00457	0.1063 mg/L	0.00457	4.30%
Be 313.107†	-273.8	0.0000 mg/L		0.00002	0.0000 mg/L	0.00002	52.39%
Cu 324.752†	64179.6	0.1740 mg/L		0.00225	0.1740 mg/L	0.00225	1.29%
Ag 338.289†	-3003.6	-0.0154 mg/L		0.00051	-0.0154 mg/L	0.00051	3.31%
Na 330.237†	104783.5	77.16 mg/L		0.841	77.16 mg/L	0.841	1.09%
Ca 227.546†	25946.4	42.81 mg/L		0.554	42.81 mg/L	0.554	1.29%
Al RADIAL†	1439.8	0.3725 mg/L		0.02125	0.3725 mg/L	0.02125	5.71%
Fe RADIAL†	341.9	0.4143 mg/L		0.00474	0.4143 mg/L	0.00474	1.14%
Cd RADIAL†	514866.0	50.09 mg/L		0.801	50.09 mg/L	0.801	1.60%
K RADIAL†	24973.5	12.47 mg/L		0.169	12.47 mg/L	0.169	1.35%
Mg RADIAL†	9667.3	11.54 mg/L		0.035	11.54 mg/L	0.035	0.31%
Na RADIAL†	1622257.2	93.41 mg/L		0.810	93.41 mg/L	0.810	0.87%
Mg 202.031	669985.9	12.53 mg/L		0.222	12.53 mg/L	0.222	1.77%

Sequence No.: 24

Sample ID: 16C0185-03

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 20

Date Collected: 3/8/2016 4:20:15 PM

Data Type: Reprocessed on 3/9/2016 6:14:29 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0185-03

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20130724.3	5.057 mg/L		0.0387			0.76%
Y RADIAL	498934.1	5.213 mg/L		0.0349			0.67%
As 188.979†	8.9	0.0023 mg/L		0.00382	0.0023 mg/L	0.00382	162.87%
Tl 190.801†	-9.7	-0.0017 mg/L		0.00164	-0.0017 mg/L	0.00164	98.53%
Se 196.026†	-6.4	-0.0032 mg/L		0.00193	-0.0032 mg/L	0.00193	59.83%
Zn 206.200†	4445.6	0.0442 mg/L		0.00068	0.0442 mg/L	0.00068	1.53%

Sb 206.836†	73.6	0.0118 mg/L	0.00072	0.0118 mg/L	0.00072	6.16%
Pb 220.353†	221.2	0.0098 mg/L	0.00058	0.0098 mg/L	0.00058	5.89%
Cd 226.502†	8.6	0.0000 mg/L	0.00001	0.0000 mg/L	0.00001	51.60%
Co 228.616†	-24.5	-0.0003 mg/L	0.00017	-0.0003 mg/L	0.00017	58.89%
Ni 232.003†	163.9	0.0039 mg/L	0.00036	0.0039 mg/L	0.00036	9.12%
Ba 233.527†	-10.7	-0.0001 mg/L	0.00011	-0.0001 mg/L	0.00011	170.07%
Mn 257.610†	11298.3	0.0069 mg/L	0.00008	0.0069 mg/L	0.00008	1.18%
Cr 267.716†	-37.9	-0.0002 mg/L	0.00026	-0.0002 mg/L	0.00026	170.12%
Fe 273.955†	4172.2	0.0820 mg/L	0.00102	0.0820 mg/L	0.00102	1.24%
Mg 279.077†	1340.5	0.0300 mg/L	0.00099	0.0300 mg/L	0.00099	3.29%
V 292.402†	830.7	0.0019 mg/L	0.00038	0.0019 mg/L	0.00038	19.81%
Al 308.215†	775.7	0.0201 mg/L	0.00329	0.0201 mg/L	0.00329	16.43%
Be 313.107†	-758.8	-0.0001 mg/L	0.00003	-0.0001 mg/L	0.00003	23.69%
Cu 324.752†	30940.5	0.0839 mg/L	0.00064	0.0839 mg/L	0.00064	0.76%
Ag 338.289†	-27.0	-0.0001 mg/L	0.00081	-0.0001 mg/L	0.00081	567.71%
Na 330.237†	937096.0	689.6 mg/L	5.32	689.6 mg/L	5.32	0.77%
Ca 227.546†	456.5	0.7540 mg/L	0.02832	0.7540 mg/L	0.02832	3.76%
Al RADIAL†	140.8	0.0365 mg/L	0.00288	0.0365 mg/L	0.00288	7.88%
Fe RADIAL†	73.8	0.0894 mg/L	0.00323	0.0894 mg/L	0.00323	3.61%
Ca RADIAL†	9401.3	0.9145 mg/L	0.01053	0.9145 mg/L	0.01053	1.15%
K RADIAL†	1903.5	0.9508 mg/L	0.00927	0.9508 mg/L	0.00927	0.97%
Mg RADIAL†	33.9	0.0405 mg/L	0.01011	0.0405 mg/L	0.01011	24.99%
Na RADIAL†	10138690.0	583.8 mg/L	7.44	583.8 mg/L	7.44	1.27%
Mo 202.031†	2120.7	0.040 mg/L	0.0007	0.040 mg/L	0.0007	1.77%

Sequence No.: 25

Sample ID: 16C0186-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 21

Date Collected: 3/8/2016 4:25:27 PM

Data Type: Reprocessed on 3/9/2016 6:14:29 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0186-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20541688.6	5.160 mg/L	0.0287			0.56%
Y RADIAL	503256.4	5.258 mg/L	0.0920			1.75%
As 188.979†	-19.3	-0.0050 mg/L	0.00128	-0.0050 mg/L	0.00128	25.55%
Tl 190.801†	-14.6	-0.0025 mg/L	0.00195	-0.0025 mg/L	0.00195	77.92%
Se 196.026†	-17.9	-0.0090 mg/L	0.00420	-0.0090 mg/L	0.00420	46.87%
Zn 206.200†	2574.7	0.0256 mg/L	0.00041	0.0256 mg/L	0.00041	1.59%
Sb 206.836†	-3.1	-0.0005 mg/L	0.00070	-0.0005 mg/L	0.00070	145.05%
Pb 220.353†	18.3	0.0009 mg/L	0.00120	0.0009 mg/L	0.00120	140.17%
Cd 226.502†	25.1	0.0001 mg/L	0.00003	0.0001 mg/L	0.00003	45.17%
Co 228.616†	-27.9	-0.0003 mg/L	0.00017	-0.0003 mg/L	0.00017	53.91%
Ni 232.003†	-38.1	-0.0009 mg/L	0.00134	-0.0009 mg/L	0.00134	147.88%
Ba 233.527†	2048.4	0.0120 mg/L	0.00015	0.0120 mg/L	0.00015	1.29%
Mn 257.610†	16465.1	0.0101 mg/L	0.00010	0.0101 mg/L	0.00010	1.02%
Cr 267.716†	54.3	0.0002 mg/L	0.00016	0.0002 mg/L	0.00016	71.14%
Fe 273.955†	7923.0	0.1557 mg/L	0.00139	0.1557 mg/L	0.00139	0.89%
Mg 279.077†	49303.5	1.104 mg/L	0.0077	1.104 mg/L	0.0077	0.70%
V 292.402†	-220.2	-0.0005 mg/L	0.00009	-0.0005 mg/L	0.00009	16.98%
Al 308.215†	-4450.8	-0.1154 mg/L	0.00103	-0.1154 mg/L	0.00103	0.89%
Be 313.107†	-323.1	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	32.14%
Cu 324.752†	22465.8	0.0609 mg/L	0.00094	0.0609 mg/L	0.00094	1.55%
Ag 338.289†	126.4	0.0006 mg/L	0.00033	0.0006 mg/L	0.00033	58.25%
Na 330.237†	8455.5	6.228 mg/L	0.0902	6.228 mg/L	0.0902	1.45%
Ca 227.546†	2894.6	4.777 mg/L	0.0509	4.777 mg/L	0.0509	1.07%
Al RADIAL†	-366.7	-0.0954 mg/L	0.01194	-0.0954 mg/L	0.01194	12.51%
Fe RADIAL†	135.9	0.1646 mg/L	0.00834	0.1646 mg/L	0.00834	5.07%
Ca RADIAL†	55423.7	5.392 mg/L	0.1176	5.392 mg/L	0.1176	2.18%
K RADIAL†	1040.9	0.5199 mg/L	0.02056	0.5199 mg/L	0.02056	3.96%
Mg RADIAL†	953.0	1.138 mg/L	0.0307	1.138 mg/L	0.0307	2.70%
Na RADIAL†	157240.4	9.054 mg/L	0.0710	9.054 mg/L	0.0710	0.78%
Mo 202.031	355.0	0.007 mg/L	0.0002	0.007 mg/L	0.0002	3.31%

Sequence No.: 26

Sample ID: 16C0186-02

Analyst: KV

Autosampler Location: 22

Date Collected: 3/8/2016 4:30:35 PM

Data Type: Reprocessed on 3/9/2016 6:14:30 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0186-02

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20553518.7	5.163 mg/L		0.0598			1.16%
Y RADIAL	482975.9	5.046 mg/L		0.0166			0.33%
As 188.979†	77.4	0.0203 mg/L		0.00496	0.0203 mg/L	0.00496	24.42%
Tl 190.801†	-49.6	-0.0085 mg/L		0.00057	-0.0085 mg/L	0.00057	6.73%
Se 196.026†	-8.8	-0.0043 mg/L		0.00213	-0.0043 mg/L	0.00213	49.90%
Zn 206.200†	28615.8	0.2848 mg/L		0.00150	0.2848 mg/L	0.00150	0.53%
Sb 206.836†	-8.9	-0.0014 mg/L		0.00015	-0.0014 mg/L	0.00015	10.48%
Pb 220.353†	-295.1	-0.0127 mg/L		0.00012	-0.0127 mg/L	0.00012	0.94%
Cd 226.502†	43.3	0.0001 mg/L		0.00004	0.0001 mg/L	0.00004	31.64%
Co 228.616†	-1015.1	-0.0117 mg/L		0.00047	-0.0117 mg/L	0.00047	3.98%
Ni 232.003†	2288.9	0.0544 mg/L		0.00114	0.0544 mg/L	0.00114	2.09%
Ba 233.527†	5530.0	0.0323 mg/L		0.00045	0.0323 mg/L	0.00045	1.38%
Mn 257.610†	78820.1	0.0483 mg/L		0.00029	0.0483 mg/L	0.00029	0.60%
Cr 267.716†	318.0	0.0013 mg/L		0.00020	0.0013 mg/L	0.00020	15.52%
Fe 273.955†	20494.8	0.4027 mg/L		0.00337	0.4027 mg/L	0.00337	0.84%
Mg 279.077†	212266.2	4.753 mg/L		0.0323	4.753 mg/L	0.0323	0.68%
V 292.402†	-28593.1	-0.0668 mg/L		0.00016	-0.0668 mg/L	0.00016	0.24%
Al 308.215†	3187.1	0.0817 mg/L		0.00352	0.0817 mg/L	0.00352	4.31%
Be 313.107†	-363.2	-0.0001 mg/L		0.00003	-0.0001 mg/L	0.00003	61.44%
Cu 324.752†	152778.7	0.4142 mg/L		0.00276	0.4142 mg/L	0.00276	0.67%
Ag 338.289†	-1824.4	-0.0093 mg/L		0.00049	-0.0093 mg/L	0.00049	5.31%
Na 330.237†	56441.8	41.56 mg/L		0.297	41.56 mg/L	0.297	0.72%
Ca 227.546†	11860.6	19.57 mg/L		0.214	19.57 mg/L	0.214	1.09%
Al RADIAL†	901.8	0.2336 mg/L		0.01929	0.2336 mg/L	0.01929	8.26%
Fe RADIAL†	356.9	0.4324 mg/L		0.00889	0.4324 mg/L	0.00889	2.06%
Ca RADIAL†	241289.0	23.47 mg/L		0.072	23.47 mg/L	0.072	0.31%
K RADIAL†	3485.3	1.741 mg/L		0.0423	1.741 mg/L	0.0423	2.43%
Mg RADIAL†	4338.0	5.178 mg/L		0.0460	5.178 mg/L	0.0460	0.89%
Na RADIAL†	941397.4	54.20 mg/L		0.991	54.20 mg/L	0.991	1.83%
Mo 202.031†	376530.4	7.041 mg/L		0.1005	7.041 mg/L	0.1005	1.43%

Sequence No.: 27

Sample ID: 16C0276-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 23

Date Collected: 3/8/2016 4:35:45 PM

Data Type: Reprocessed on 3/9/2016 6:14:31 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0276-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	15486192.6	3.890 mg/L		0.0484			1.25%
Y RADIAL	460598.4	4.812 mg/L		0.1927			4.00%
As 188.979†	-25.6	-0.0066 mg/L		0.00072	-0.0066 mg/L	0.00072	10.99%
Tl 190.801†	17.8	0.0031 mg/L		0.00081	0.0031 mg/L	0.00081	25.78%
Se 196.026†	-2.6	-0.0009 mg/L		0.00532	-0.0009 mg/L	0.00532	560.97%
Zn 206.200†	887.4	0.0088 mg/L		0.00074	0.0088 mg/L	0.00074	8.40%
Sb 206.836†	5.0	0.0008 mg/L		0.00179	0.0008 mg/L	0.00179	213.08%
Pb 220.353†	67.0	0.0049 mg/L		0.00154	0.0049 mg/L	0.00154	31.18%
Cd 226.502†	104.3	0.0003 mg/L		0.00007	0.0003 mg/L	0.00007	21.93%
Co 228.616†	415.8	0.0048 mg/L		0.00024	0.0048 mg/L	0.00024	5.07%
Ni 232.003†	359.8	0.0085 mg/L		0.00048	0.0085 mg/L	0.00048	5.60%
Ba 233.527†	57076.1	0.3331 mg/L		0.00767	0.3331 mg/L	0.00767	2.30%
Mn 257.610†	12467130.7	7.630 mg/L		0.0308	7.630 mg/L	0.0308	0.40%
Cr 267.716†	961.7	0.0039 mg/L		0.00031	0.0039 mg/L	0.00031	7.78%
Fe 273.955†	45153.6	0.8872 mg/L		0.02052	0.8872 mg/L	0.02052	2.31%
Mg 279.077†	15996585.4	358.2 mg/L		1.64	358.2 mg/L	1.64	0.46%
V 292.402†	231.2	0.0005 mg/L		0.00006	0.0005 mg/L	0.00006	12.95%
Al 308.215†	34105.5	0.8665 mg/L		0.03589	0.8665 mg/L	0.03589	4.14%
Be 313.107†	-2764.1	-0.0004 mg/L		0.00005	-0.0004 mg/L	0.00005	12.92%
Cu 324.752†	7573.6	0.0206 mg/L		0.00058	0.0206 mg/L	0.00058	2.79%
Ag 338.289†	138.2	-0.0009 mg/L		0.00050	-0.0009 mg/L	0.00050	58.54%

Na 330.237†	5118785.3	3767 mg/L	91.3	3767 mg/L	91.3	2.42%
Ca 227.546†	88331.5	145.8 mg/L	3.55	145.8 mg/L	3.55	2.44%
Al RADIAL†	2864.2	0.7399 mg/L	0.02021	0.7399 mg/L	0.02021	2.73%
Fe RADIAL†	726.0	0.8795 mg/L	0.03090	0.8795 mg/L	0.03090	3.51%
Ca RADIAL†	1417071.5	137.9 mg/L	0.52	137.9 mg/L	0.52	0.38%
K RADIAL†	224361.6	112.1 mg/L	0.38	112.1 mg/L	0.38	0.34%
Mg RADIAL†	286865.1	342.4 mg/L	2.68	342.4 mg/L	2.68	0.78%
Na RADIAL†	Saturated3					
Mo 202.031	595.9	0.011 mg/L	0.0004	0.011 mg/L	0.0004	3.48%

Sequence No.: 28

Sample ID: SEQ-SRD1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 24

Date Collected: 3/8/2016 4:40:50 PM

Data Type: Reprocessed on 3/9/2016 6:14:32 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-SRD1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	18786148.4	4.719 mg/L	0.0736			1.56%
Y RADIAL	464322.5	4.851 mg/L	0.1074			2.21%
As 188.979†	-15.8	-0.0041 mg/L	0.00097	-0.0041 mg/L	0.00097	23.42%
Tl 190.801†	-35.0	-0.0060 mg/L	0.00256	-0.0060 mg/L	0.00256	42.58%
Se 196.026†	-8.7	-0.0043 mg/L	0.00301	-0.0043 mg/L	0.00301	69.71%
Zn 206.200†	-752.1	-0.0075 mg/L	0.00027	-0.0075 mg/L	0.00027	3.66%
Sb 206.836†	-2.9	-0.0005 mg/L	0.00229	-0.0005 mg/L	0.00229	503.07%
Pb 220.353†	52.7	0.0026 mg/L	0.00035	0.0026 mg/L	0.00035	13.65%
Cd 226.502†	-18.2	-0.0001 mg/L	0.00001	-0.0001 mg/L	0.00001	9.91%
Co 228.616†	-30.1	-0.0003 mg/L	0.00017	-0.0003 mg/L	0.00017	49.52%
Ni 232.003†	-137.5	-0.0033 mg/L	0.00077	-0.0033 mg/L	0.00077	23.52%
Ba 233.527†	1222.5	0.0071 mg/L	0.00024	0.0071 mg/L	0.00024	3.38%
Mn 257.610†	80717.8	0.0494 mg/L	0.00100	0.0494 mg/L	0.00100	2.02%
Cr 267.716†	93.2	0.0004 mg/L	0.00013	0.0004 mg/L	0.00013	33.96%
Fe 273.955†	7498.8	0.1473 mg/L	0.00243	0.1473 mg/L	0.00243	1.65%
Mg 279.077†	87469.3	1.959 mg/L	0.0397	1.959 mg/L	0.0397	2.03%
V 292.402†	-145.9	-0.0004 mg/L	0.00021	-0.0004 mg/L	0.00021	59.24%
Al 308.215†	422.0	0.0104 mg/L	0.00790	0.0104 mg/L	0.00790	75.78%
Be 313.107†	-983.6	-0.0001 mg/L	0.00002	-0.0001 mg/L	0.00002	13.20%
Cu 324.752†	913.2	0.0025 mg/L	0.00022	0.0025 mg/L	0.00022	8.98%
Ag 338.289†	25.0	-0.0001 mg/L	0.00027	-0.0001 mg/L	0.00027	368.79%
Na 330.237†	7477.1	5.520 mg/L	0.0602	5.520 mg/L	0.0602	1.09%
Ca 227.546†	9644.4	15.91 mg/L	0.252	15.91 mg/L	0.252	1.58%
Al RADIAL†	90.1	0.0229 mg/L	0.00475	0.0229 mg/L	0.00475	20.76%
Fe RADIAL†	121.5	0.1472 mg/L	0.01015	0.1472 mg/L	0.01015	6.89%
Ca RADIAL†	182955.0	17.80 mg/L	0.375	17.80 mg/L	0.375	2.11%
K RADIAL†	6226.6	3.110 mg/L	0.1195	3.110 mg/L	0.1195	3.84%
Mg RADIAL†	1697.6	2.026 mg/L	0.0641	2.026 mg/L	0.0641	3.17%
Na RADIAL†	138472.0	7.973 mg/L	0.0729	7.973 mg/L	0.0729	0.91%
Mo 202.031	367.6	0.007 mg/L	0.0002	0.007 mg/L	0.0002	3.49%

Sequence No.: 29

Sample ID: BC60401-BLK1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 25

Date Collected: 3/8/2016 4:45:57 PM

Data Type: Reprocessed on 3/9/2016 6:14:32 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60401-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21003837.1	5.276 mg/L	0.0348			0.66%
Y RADIAL	499739.2	5.221 mg/L	0.1280			2.45%
As 188.979†	-22.0	-0.0058 mg/L	0.00131	-0.0058 mg/L	0.00131	22.72%
Tl 190.801†	0.3	0.0001 mg/L	0.00064	0.0001 mg/L	0.00064	>999.9%
Se 196.026†	-3.3	-0.0017 mg/L	0.00318	-0.0017 mg/L	0.00318	187.90%
Zn 206.200†	-1402.7	-0.0140 mg/L	0.00009	-0.0140 mg/L	0.00009	0.61%
Sb 206.836†	-9.4	-0.0015 mg/L	0.00100	-0.0015 mg/L	0.00100	66.45%

Pb 220.353†	-20.7	-0.0009 mg/L	0.00063	-0.0009 mg/L	0.00063	67.93%
Cd 226.502†	3.4	0.0000 mg/L	0.00008	0.0000 mg/L	0.00008	626.27%
Co 228.616†	-29.7	-0.0003 mg/L	0.00002	-0.0003 mg/L	0.00002	6.52%
Ni 232.003†	8.4	0.0002 mg/L	0.00024	0.0002 mg/L	0.00024	118.36%
Ba 233.527†	-288.9	-0.0017 mg/L	0.00005	-0.0017 mg/L	0.00005	2.84%
Mn 257.610†	-1072.7	-0.0007 mg/L	0.00002	-0.0007 mg/L	0.00002	3.01%
Cr 267.716†	-22.0	-0.0001 mg/L	0.00033	-0.0001 mg/L	0.00033	368.29%
Fe 273.955†	-334.7	-0.0066 mg/L	0.00016	-0.0066 mg/L	0.00016	2.50%
Mg 279.077†	31.5	0.0007 mg/L	0.00162	0.0007 mg/L	0.00162	229.33%
V 292.402†	-248.4	-0.0006 mg/L	0.00031	-0.0006 mg/L	0.00031	53.79%
Al 308.215†	-4606.9	-0.1192 mg/L	0.00392	-0.1192 mg/L	0.00392	3.28%
Be 313.107†	-232.1	0.0000 mg/L	0.00006	0.0000 mg/L	0.00006	166.57%
Cu 324.752†	-219.0	-0.0006 mg/L	0.00018	-0.0006 mg/L	0.00018	30.40%
Ag 338.289†	65.8	0.0003 mg/L	0.00023	0.0003 mg/L	0.00023	70.29%
Na 330.237†	277.6	0.2042 mg/L	0.01996	0.2042 mg/L	0.01996	9.77%
Ca 227.546†	26.9	0.0443 mg/L	0.02106	0.0443 mg/L	0.02106	47.55%
Al RADIAL†	-322.2	-0.0837 mg/L	0.01162	-0.0837 mg/L	0.01162	13.88%
Fe RADIAL†	-5.3	-0.0064 mg/L	0.00097	-0.0064 mg/L	0.00097	15.08%
Ca RADIAL†	-91.5	-0.0089 mg/L	0.00151	-0.0089 mg/L	0.00151	17.02%
K RADIAL†	266.1	0.1329 mg/L	0.02691	0.1329 mg/L	0.02691	20.24%
Mg RADIAL†	1.7	0.0021 mg/L	0.01278	0.0021 mg/L	0.01278	621.88%
Na RADIAL†	12396.4	0.7138 mg/L	0.01009	0.7138 mg/L	0.01009	1.41%
Mo 202.031	54.7	0.001 mg/L	0.0001	0.001 mg/L	0.0001	7.97%

Sequence No.: 30

Sample ID: BC60401-SRM1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 26

Date Collected: 3/8/2016 4:51:08 PM

Data Type: Reprocessed on 3/9/2016 6:14:33 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60401-SRM1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Y 371.029	19965097.5	5.015 mg/L		0.0385			0.77%
Y RADIAL	481969.5	5.036 mg/L		0.0352			0.70%
As 188.979†	2111.3	0.5525 mg/L		0.00182	0.5525 mg/L	0.00182	0.33%
Tl 190.801†	1944.0	0.3350 mg/L		0.00115	0.3350 mg/L	0.00115	0.34%
Se 196.026†	1540.8	0.7792 mg/L		0.00992	0.7792 mg/L	0.00992	1.27%
Zn 206.200†	63359.0	0.6305 mg/L		0.01939	0.6305 mg/L	0.01939	3.08%
Sr 206.836†	1401.7	0.2239 mg/L		0.00196	0.2239 mg/L	0.00196	0.87%
Pb 220.353†	10155.1	0.4500 mg/L		0.00124	0.4500 mg/L	0.00124	0.27%
Cd 226.502†	125052.6	0.4365 mg/L		0.01275	0.4365 mg/L	0.01275	2.92%
Co 228.616†	9032.0	0.1043 mg/L		0.00027	0.1043 mg/L	0.00027	0.26%
Ni 232.003†	47242.3	1.123 mg/L		0.0303	1.123 mg/L	0.0303	2.70%
Ba 233.527†	77298.8	0.4512 mg/L		0.01285	0.4512 mg/L	0.01285	2.85%
Mn 257.610†	495325.3	0.3032 mg/L		0.00883	0.3032 mg/L	0.00883	2.91%
Cr 267.716†	151953.1	0.6174 mg/L		0.01762	0.6174 mg/L	0.01762	2.85%
Fe 273.955†	27301.6	0.5364 mg/L		0.01564	0.5364 mg/L	0.01564	2.92%
Mg 279.077†	757044.2	16.95 mg/L		0.517	16.95 mg/L	0.517	3.05%
V 292.402†	120185.9	0.2804 mg/L		0.00777	0.2804 mg/L	0.00777	2.77%
Al 308.215†	21499.6	0.5532 mg/L		0.02156	0.5532 mg/L	0.02156	3.90%
Be 313.107†	1884843.8	0.2844 mg/L		0.00811	0.2844 mg/L	0.00811	2.85%
Cu 324.752†	241285.4	0.6542 mg/L		0.01764	0.6542 mg/L	0.01764	2.70%
Ag 338.289†	110219.6	0.5447 mg/L		0.01548	0.5447 mg/L	0.01548	2.84%
Na 330.237†	121824.3	89.75 mg/L		2.333	89.75 mg/L	2.333	2.60%
Ca 227.546†	58481.1	96.50 mg/L		2.583	96.50 mg/L	2.583	2.68%
Al RADIAL†	2358.1	0.6094 mg/L		0.00701	0.6094 mg/L	0.00701	1.15%
Fe RADIAL†	475.7	0.5764 mg/L		0.01227	0.5764 mg/L	0.01227	2.13%
Ca RADIAL†	1098855.7	106.9 mg/L		2.57	106.9 mg/L	2.57	2.41%
K RADIAL†	57746.3	28.84 mg/L		0.297	28.84 mg/L	0.297	1.03%
Mg RADIAL†	14738.3	17.59 mg/L		0.108	17.59 mg/L	0.108	0.61%
Na RADIAL†	1734541.5	99.87 mg/L		2.647	99.87 mg/L	2.647	2.65%
Mo 202.031	33473.9	0.626 mg/L		0.0046	0.626 mg/L	0.0046	0.74%

Sequence No.: 31

Sample ID: BC60401-BLK2

Analyst: KV

Logged In Analyst (Original) : administrator

Autosampler Location: 27

Date Collected: 3/8/2016 4:59:19 PM

Data Type: Reprocessed on 3/9/2016 6:14:34 AM

Initial Sample Wt:
Dilution:

Initial Sample Vol:
Sample Prep Vol:

Mean Data: BC60401-BLK2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20944095.5	5.261 mg/L	0.0403			0.77%
Y RADIAL	494876.1	5.170 mg/L	0.1379			2.67%
As 188.979†	-9.1	-0.0024 mg/L	0.00045	-0.0024 mg/L	0.00045	18.85%
Tl 190.801†	-19.5	-0.0034 mg/L	0.00079	-0.0034 mg/L	0.00079	23.46%
Se 196.026†	3.2	0.0016 mg/L	0.00074	0.0016 mg/L	0.00074	45.06%
Zn 206.200†	-1507.5	-0.0150 mg/L	0.00011	-0.0150 mg/L	0.00011	0.76%
Sb 206.836†	-4.8	-0.0008 mg/L	0.00203	-0.0008 mg/L	0.00203	267.59%
Pb 220.353†	-15.0	-0.0007 mg/L	0.00071	-0.0007 mg/L	0.00071	105.22%
Cd 226.502†	-7.1	0.0000 mg/L	0.00006	0.0000 mg/L	0.00006	224.07%
Co 228.616†	-23.9	-0.0003 mg/L	0.00007	-0.0003 mg/L	0.00007	27.03%
Ni 232.003†	20.8	0.0005 mg/L	0.00060	0.0005 mg/L	0.00060	120.76%
Ba 233.527†	-308.8	-0.0018 mg/L	0.00002	-0.0018 mg/L	0.00002	1.02%
Mn 257.610†	-1272.7	-0.0008 mg/L	0.00001	-0.0008 mg/L	0.00001	1.73%
Cr 267.716†	-64.6	-0.0003 mg/L	0.00014	-0.0003 mg/L	0.00014	54.99%
Fe 273.955†	-192.2	-0.0038 mg/L	0.00009	-0.0038 mg/L	0.00009	2.32%
Mg 279.077†	59.2	0.0013 mg/L	0.00053	0.0013 mg/L	0.00053	40.25%
V 292.402†	-220.5	-0.0005 mg/L	0.00005	-0.0005 mg/L	0.00005	10.08%
Al 308.215†	-5034.9	-0.1303 mg/L	0.00167	-0.1303 mg/L	0.00167	1.28%
Be 313.107†	-39.5	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	253.18%
Cu 324.752†	-330.5	-0.0009 mg/L	0.00021	-0.0009 mg/L	0.00021	23.16%
Ag 338.289†	-33.3	-0.0002 mg/L	0.00058	-0.0002 mg/L	0.00058	348.10%
Na 330.237†	-54.5	-0.0401 mg/L	0.07516	-0.0401 mg/L	0.07516	187.39%
Ca 227.546†	66.1	0.1089 mg/L	0.05661	0.1089 mg/L	0.05661	51.97%
Al RADIAL†	-336.5	-0.0874 mg/L	0.00685	-0.0874 mg/L	0.00685	7.84%
Fe RADIAL†	-3.5	-0.0042 mg/L	0.00477	-0.0042 mg/L	0.00477	112.56%
Ca RADIAL†	80.9	0.0079 mg/L	0.00296	0.0079 mg/L	0.00296	37.67%
K RADIAL†	139.3	0.0696 mg/L	0.02137	0.0696 mg/L	0.02137	30.71%
Mg RADIAL†	-2.0	-0.0024 mg/L	0.00931	-0.0024 mg/L	0.00931	393.00%
Na RADIAL†	2737.1	0.1576 mg/L	0.04514	0.1576 mg/L	0.04514	28.64%
Mg 202.031	30.2	0.001 mg/L	0.0001	0.001 mg/L	0.0001	16.29%

Sequence No.: 32

Sample ID: 16C0114-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 28

Date Collected: 3/8/2016 5:04:27 PM

Data Type: Reprocessed on 3/9/2016 6:14:35 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0114-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21639114.8	5.436 mg/L	0.0642			1.18%
Y RADIAL	502968.0	5.255 mg/L	0.0630			1.20%
As 188.979†	-57.1	-0.0149 mg/L	0.00187	-0.0149 mg/L	0.00187	12.52%
Tl 190.801†	-67.9	-0.0117 mg/L	0.00118	-0.0117 mg/L	0.00118	10.07%
Se 196.026†	26.4	0.0134 mg/L	0.00109	0.0134 mg/L	0.00109	8.13%
Zn 206.200†	-67.2	-0.0007 mg/L	0.00015	-0.0007 mg/L	0.00015	21.75%
Sb 206.836†	-29.4	-0.0047 mg/L	0.00208	-0.0047 mg/L	0.00208	44.28%
Pb 220.353†	49.3	0.0022 mg/L	0.00050	0.0022 mg/L	0.00050	22.52%
Cd 226.502†	-3.1	0.0000 mg/L	0.00003	0.0000 mg/L	0.00003	218.54%
Co 228.616†	-13.9	-0.0002 mg/L	0.00014	-0.0002 mg/L	0.00014	86.01%
Ni 232.003†	30.8	0.0007 mg/L	0.00055	0.0007 mg/L	0.00055	75.21%
Ba 233.527†	373.4	0.0022 mg/L	0.00011	0.0022 mg/L	0.00011	5.02%
Mn 257.610†	1871.6	0.0012 mg/L	0.00004	0.0012 mg/L	0.00004	3.57%
Cr 267.716†	98.6	0.0004 mg/L	0.00013	0.0004 mg/L	0.00013	32.25%
Fe 273.955†	3354.1	0.0659 mg/L	0.00089	0.0659 mg/L	0.00089	1.35%
Mg 279.077†	11023.3	0.2468 mg/L	0.00059	0.2468 mg/L	0.00059	0.24%
V 292.402†	-228.6	-0.0005 mg/L	0.00018	-0.0005 mg/L	0.00018	33.52%
Al 308.215†	-2871.4	-0.0744 mg/L	0.00050	-0.0744 mg/L	0.00050	0.67%
Be 313.107†	-114.0	0.0000 mg/L	0.00003	0.0000 mg/L	0.00003	198.82%
Cu 324.752†	2571.6	0.0070 mg/L	0.00028	0.0070 mg/L	0.00028	4.04%
Ag 338.289†	33.7	0.0001 mg/L	0.00027	0.0001 mg/L	0.00027	201.70%
Na 330.237†	16059.1	11.82 mg/L	0.140	11.82 mg/L	0.140	1.18%

Ca 227.546†	1575.8	2.601 mg/L	0.0616	2.601 mg/L	0.0616	2.37%
Al RADIAL†	-90.4	-0.0236 mg/L	0.01397	-0.0236 mg/L	0.01397	59.30%
Fe RADIAL†	53.1	0.0643 mg/L	0.00560	0.0643 mg/L	0.00560	8.70%
Ca RADIAL†	32358.4	3.148 mg/L	0.0791	3.148 mg/L	0.0791	2.51%
K RADIAL†	460.6	0.2301 mg/L	0.03887	0.2301 mg/L	0.03887	16.89%
Mg RADIAL†	228.5	0.2728 mg/L	0.01324	0.2728 mg/L	0.01324	4.85%
Na RADIAL†	305897.2	17.61 mg/L	0.124	17.61 mg/L	0.124	0.71%
Mo 202.031	550.9	0.010 mg/L	0.0002	0.010 mg/L	0.0002	2.13%

Sequence No.: 33

Sample ID: SEQ-CCV3

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution: 1:10

Autosampler Location: 3

Date Collected: 3/8/2016 5:09:35 PM

Data Type: Reprocessed on 3/9/2016 6:14:35 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCV3

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19918109.6	5.004 mg/L	0.0572			1.14%
Y RADIAL	500499.3	5.229 mg/L	0.0844			1.61%
As 188.979†	942.3	0.2473 mg/L	0.00134	0.2473 mg/L	0.00134	0.54%
Tl 190.801†	1419.2	0.2450 mg/L	0.00290	0.2450 mg/L	0.00290	1.18%
Se 196.026†	482.2	0.2457 mg/L	0.00274	0.2457 mg/L	0.00274	1.12%
Zn 206.200†	239338.4	2.382 mg/L	0.0226	2.382 mg/L	0.0226	0.95%
Sb 206.836†	1462.2	0.2338 mg/L	0.00268	0.2338 mg/L	0.00268	1.15%
Pb 220.353†	5558.3	0.2467 mg/L	0.00282	0.2467 mg/L	0.00282	1.14%
Cd 226.502†	33471.4	0.1165 mg/L	0.00126	0.1165 mg/L	0.00126	1.08%
Cu 228.616†	208707.2	2.411 mg/L	0.0221	2.411 mg/L	0.0221	0.92%
Ni 232.003†	99859.7	2.373 mg/L	0.0242	2.373 mg/L	0.0242	1.02%
Ba 233.527†	1675777.2	9.781 mg/L	0.0797	9.781 mg/L	0.0797	0.81%
Mn 257.610†	4043033.9	2.475 mg/L	0.0190	2.475 mg/L	0.0190	0.77%
Cr 267.716†	235106.5	0.9553 mg/L	0.00845	0.9553 mg/L	0.00845	0.88%
Fe 273.955†	243687.7	4.788 mg/L	0.0410	4.788 mg/L	0.0410	0.86%
Mg 279.077†	1061583.7	23.77 mg/L	0.215	23.77 mg/L	0.215	0.90%
V 292.402†	1014623.7	2.367 mg/L	0.0177	2.367 mg/L	0.0177	0.75%
Al 308.215†	354506.6	9.174 mg/L	0.0746	9.174 mg/L	0.0746	0.81%
Be 313.107†	1633304.4	0.2464 mg/L	0.00196	0.2464 mg/L	0.00196	0.80%
Cu 324.752†	435145.3	1.180 mg/L	0.0102	1.180 mg/L	0.0102	0.87%
Ag 338.289†	237102.1	1.174 mg/L	0.0099	1.174 mg/L	0.0099	0.84%
Na 330.237†	30131.8	22.22 mg/L	0.259	22.22 mg/L	0.259	1.17%
Ca 227.546†	14432.8	23.86 mg/L	0.218	23.86 mg/L	0.218	0.91%
Al RADIAL†	35880.5	9.319 mg/L	0.0306	9.319 mg/L	0.0306	0.33%
Fe RADIAL†	4004.6	4.852 mg/L	0.0685	4.852 mg/L	0.0685	1.41%
Ca RADIAL†	256908.7	24.99 mg/L	0.076	24.99 mg/L	0.076	0.31%
K RADIAL†	9823.1	4.907 mg/L	0.0568	4.907 mg/L	0.0568	1.16%
Mg RADIAL†	20381.5	24.33 mg/L	0.372	24.33 mg/L	0.372	1.53%
Na RADIAL†	439002.3	25.28 mg/L	0.113	25.28 mg/L	0.113	0.45%
Mo 202.031	58286.5	1.090 mg/L	0.0136	1.090 mg/L	0.0136	1.25%

Sequence No.: 34

Sample ID: SEQ-CCB3

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution: 1:10

Autosampler Location: 4

Date Collected: 3/8/2016 5:17:17 PM

Data Type: Reprocessed on 3/9/2016 6:14:36 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCB3

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20486252.6	5.146 mg/L	0.0729			1.42%
Y RADIAL	484278.2	5.060 mg/L	0.0854			1.69%
As 188.979†	-3.2	-0.0008 mg/L	0.00111	-0.0008 mg/L	0.00111	130.73%
Tl 190.801†	-1.9	-0.0003 mg/L	0.00022	-0.0003 mg/L	0.00022	66.49%
Se 196.026†	-2.2	-0.0011 mg/L	0.00472	-0.0011 mg/L	0.00472	419.58%
Zn 206.200†	-1195.2	-0.0119 mg/L	0.00025	-0.0119 mg/L	0.00025	2.07%
Sb 206.836†	0.5	0.0001 mg/L	0.00252	0.0001 mg/L	0.00252	>999.9%
Pb 220.353†	-1.4	-0.0001 mg/L	0.00029	-0.0001 mg/L	0.00029	411.85%

Cd 226.502†	-6.8	0.0000 mg/L	0.00005	0.0000 mg/L	0.00005	212.77%
Co 228.616†	-2.0	0.0000 mg/L	0.00021	0.0000 mg/L	0.00021	898.34%
Ni 232.003†	1.7	0.0000 mg/L	0.00063	0.0000 mg/L	0.00063	>999.9%
Ba 233.527†	-212.3	-0.0012 mg/L	0.00006	-0.0012 mg/L	0.00006	4.64%
Mn 257.610†	-988.1	-0.0006 mg/L	0.00002	-0.0006 mg/L	0.00002	2.72%
Cr 267.716†	-82.2	-0.0003 mg/L	0.00005	-0.0003 mg/L	0.00005	15.90%
Fe 273.955†	-264.7	-0.0052 mg/L	0.00026	-0.0052 mg/L	0.00026	5.03%
Mg 279.077†	-76.3	-0.0017 mg/L	0.00079	-0.0017 mg/L	0.00079	46.48%
V 292.402†	-85.1	-0.0002 mg/L	0.00005	-0.0002 mg/L	0.00005	23.06%
Al 308.215†	-4132.2	-0.1069 mg/L	0.00346	-0.1069 mg/L	0.00346	3.24%
Be 313.107†	-252.8	0.0000 mg/L	0.00000	0.0000 mg/L	0.00000	11.95%
Cu 324.752†	-113.8	-0.0003 mg/L	0.00020	-0.0003 mg/L	0.00020	65.88%
Ag 338.289†	306.8	0.0015 mg/L	0.00048	0.0015 mg/L	0.00048	31.43%
Na 330.237†	-303.2	-0.2231 mg/L	0.06063	-0.2231 mg/L	0.06063	27.17%
Ca 227.546†	31.3	0.0515 mg/L	0.03407	0.0515 mg/L	0.03407	66.19%
Al RADIAL†	-289.3	-0.0751 mg/L	0.00460	-0.0751 mg/L	0.00460	6.12%
Fe RADIAL†	-4.6	-0.0056 mg/L	0.00508	-0.0056 mg/L	0.00508	90.20%
Ca RADIAL†	-125.5	-0.0122 mg/L	0.00403	-0.0122 mg/L	0.00403	33.01%
K RADIAL†	22.8	0.0114 mg/L	0.03714	0.0114 mg/L	0.03714	326.68%
Mg RADIAL†	-2.7	-0.0033 mg/L	0.00896	-0.0033 mg/L	0.00896	273.75%
Na RADIAL†	-3843.3	-0.2213 mg/L	0.03240	-0.2213 mg/L	0.03240	14.64%
Mo 202.031†	41.4	0.001 mg/L	0.0001	0.001 mg/L	0.0001	18.32%

Sequence No.: 35

Sample ID: BC60401-DUP1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 29

Date Collected: 3/8/2016 5:22:27 PM

Data Type: Reprocessed on 3/9/2016 6:14:37 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60401-DUP1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21257772.8	5.340 mg/L		0.0202			0.38%
Y RADIAL	513563.7	5.366 mg/L		0.0486			0.91%
As 188.979†	-75.1	-0.0196 mg/L		0.00195	-0.0196 mg/L	0.00195	9.95%
Tl 190.801†	-74.0	-0.0128 mg/L		0.00082	-0.0128 mg/L	0.00082	6.44%
Se 196.026†	34.2	0.0173 mg/L		0.00111	0.0173 mg/L	0.00111	6.41%
Zn 206.200†	99.0	0.0010 mg/L		0.00017	0.0010 mg/L	0.00017	17.50%
Sb 206.836†	-27.7	-0.0044 mg/L		0.00145	-0.0044 mg/L	0.00145	32.90%
Pb 220.353†	56.4	0.0025 mg/L		0.00053	0.0025 mg/L	0.00053	20.96%
Cd 226.502†	-4.3	0.0000 mg/L		0.00007	0.0000 mg/L	0.00007	345.63%
Co 228.616†	-14.3	-0.0002 mg/L		0.00019	-0.0002 mg/L	0.00019	115.91%
Ni 232.003†	-16.5	-0.0004 mg/L		0.00024	-0.0004 mg/L	0.00024	60.46%
Ba 233.527†	414.0	0.0024 mg/L		0.00006	0.0024 mg/L	0.00006	2.63%
Mn 257.610†	1637.5	0.0010 mg/L		0.00001	0.0010 mg/L	0.00001	1.34%
Cr 267.716†	104.6	0.0004 mg/L		0.00015	0.0004 mg/L	0.00015	34.91%
Fe 273.955†	3311.9	0.0651 mg/L		0.00025	0.0651 mg/L	0.00025	0.38%
Mg 279.077†	10698.3	0.2395 mg/L		0.00313	0.2395 mg/L	0.00313	1.31%
V 292.402†	-137.9	-0.0003 mg/L		0.00010	-0.0003 mg/L	0.00010	31.21%
Al 308.215†	-2646.2	-0.0686 mg/L		0.00069	-0.0686 mg/L	0.00069	1.01%
Be 313.107†	11.9	0.0000 mg/L		0.00004	0.0000 mg/L	0.00004	>999.9%
Cu 324.752†	2906.2	0.0079 mg/L		0.00038	0.0079 mg/L	0.00038	4.79%
Ag 338.289†	212.5	0.0010 mg/L		0.00083	0.0010 mg/L	0.00083	81.72%
Na 330.237†	15758.7	11.60 mg/L		0.115	11.60 mg/L	0.115	0.99%
Ca 227.546†	1602.7	2.645 mg/L		0.0720	2.645 mg/L	0.0720	2.72%
Al RADIAL†	-123.4	-0.0321 mg/L		0.00926	-0.0321 mg/L	0.00926	28.81%
Fe RADIAL†	53.9	0.0653 mg/L		0.00392	0.0653 mg/L	0.00392	6.00%
Ca RADIAL†	31737.1	3.087 mg/L		0.0494	3.087 mg/L	0.0494	1.60%
K RADIAL†	345.2	0.1724 mg/L		0.04437	0.1724 mg/L	0.04437	25.74%
Mg RADIAL†	218.9	0.2613 mg/L		0.00782	0.2613 mg/L	0.00782	2.99%
Na RADIAL†	305910.4	17.61 mg/L		0.059	17.61 mg/L	0.059	0.34%
Mo 202.031	323.3	0.006 mg/L		0.0001	0.006 mg/L	0.0001	1.46%

Sequence No.: 36

Sample ID: BC60401-MS1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Autosampler Location: 30

Date Collected: 3/8/2016 5:27:35 PM

Data Type: Reprocessed on 3/9/2016 6:14:37 AM

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: BC60401-MS1

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20942860.5	5.261 mg/L	0.0299			0.57%
Y RADIAL	506855.1	5.296 mg/L	0.1023			1.93%
As 188.979†	7664.6	2.006 mg/L	0.0337	2.006 mg/L	0.0337	1.68%
Tl 190.801†	11270.4	1.942 mg/L	0.0398	1.942 mg/L	0.0398	2.05%
Se 196.026†	4332.2	2.191 mg/L	0.0467	2.191 mg/L	0.0467	2.13%
Zn 206.200†	50875.6	0.5063 mg/L	0.01156	0.5063 mg/L	0.01156	2.28%
Sb 206.836†	1485.6	0.2374 mg/L	0.00312	0.2374 mg/L	0.00312	1.31%
Pb 220.353†	11321.8	0.5002 mg/L	0.00888	0.5002 mg/L	0.00888	1.78%
Cd 226.502†	14437.4	0.0503 mg/L	0.00089	0.0503 mg/L	0.00089	1.77%
Co 228.616†	43372.4	0.5010 mg/L	0.01140	0.5010 mg/L	0.01140	2.27%
Ni 232.003†	20509.7	0.4874 mg/L	0.00938	0.4874 mg/L	0.00938	1.92%
Ba 233.527†	347306.9	2.027 mg/L	0.0482	2.027 mg/L	0.0482	2.38%
Mn 257.610†	841082.4	0.5149 mg/L	0.01201	0.5149 mg/L	0.01201	2.33%
Cr 267.716†	48727.0	0.1980 mg/L	0.00404	0.1980 mg/L	0.00404	2.04%
Fe 273.955†	53422.4	1.050 mg/L	0.0252	1.050 mg/L	0.0252	2.40%
Mg 279.077†	11285.3	0.2525 mg/L	0.00568	0.2525 mg/L	0.00568	2.25%
V 292.402†	208703.5	0.4869 mg/L	0.01088	0.4869 mg/L	0.01088	2.23%
Al 308.215†	64799.3	1.677 mg/L	0.0442	1.677 mg/L	0.0442	2.63%
Be 313.107†	336433.2	0.0508 mg/L	0.00120	0.0508 mg/L	0.00120	2.36%
Cu 324.752†	96401.2	0.2615 mg/L	0.00652	0.2615 mg/L	0.00652	2.49%
Ag 338.289†	9528.6	0.0472 mg/L	0.00107	0.0472 mg/L	0.00107	2.26%
Na 330.237†	16924.2	12.46 mg/L	0.304	12.46 mg/L	0.304	2.44%
Ca 227.546†	1700.2	2.816 mg/L	0.0774	2.816 mg/L	0.0774	2.75%
As RADIAL†	7277.8	1.890 mg/L	0.0382	1.890 mg/L	0.0382	2.02%
Fe RADIAL†	874.9	1.060 mg/L	0.0173	1.060 mg/L	0.0173	1.63%
Ca RADIAL†	33171.7	3.227 mg/L	0.0648	3.227 mg/L	0.0648	2.01%
K RADIAL†	298.9	0.1493 mg/L	0.01608	0.1493 mg/L	0.01608	10.77%
Mg RADIAL†	214.0	0.2553 mg/L	0.01393	0.2553 mg/L	0.01393	5.46%
Na RADIAL†	307187.7	17.69 mg/L	0.163	17.69 mg/L	0.163	0.92%
Mo 202.031	336.4	0.006 mg/L	0.0003	0.006 mg/L	0.0003	5.51%

Sequence No.: 37

Sample ID: 16C0114-03

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 31

Date Collected: 3/8/2016 5:35:38 PM

Data Type: Reprocessed on 3/9/2016 6:14:38 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0114-03

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20221423.1	5.080 mg/L	0.1907			3.76%
Y RADIAL	478711.3	5.002 mg/L	0.0638			1.28%
As 188.979†	-18.7	-0.0049 mg/L	0.00281	-0.0049 mg/L	0.00281	57.52%
Tl 190.801†	-9.4	-0.0016 mg/L	0.00113	-0.0016 mg/L	0.00113	70.59%
Se 196.026†	-4.0	-0.0020 mg/L	0.00492	-0.0020 mg/L	0.00492	250.27%
Zn 206.200†	-81.5	-0.0008 mg/L	0.00052	-0.0008 mg/L	0.00052	64.24%
Sb 206.836†	14.4	0.0023 mg/L	0.00365	0.0023 mg/L	0.00365	157.71%
Pb 220.353†	53.1	0.0024 mg/L	0.00075	0.0024 mg/L	0.00075	32.02%
Cd 226.502†	-8.5	0.0000 mg/L	0.00012	0.0000 mg/L	0.00012	321.27%
Co 228.616†	-36.2	-0.0004 mg/L	0.00021	-0.0004 mg/L	0.00021	51.25%
Ni 232.003†	-5.9	-0.0001 mg/L	0.00161	-0.0001 mg/L	0.00161	>999.9%
Ba 233.527†	422.3	0.0025 mg/L	0.00015	0.0025 mg/L	0.00015	6.04%
Mn 257.610†	805.2	0.0005 mg/L	0.00007	0.0005 mg/L	0.00007	13.78%
Cr 267.716†	1557.6	0.0063 mg/L	0.00033	0.0063 mg/L	0.00033	5.28%
Fe 273.955†	6412.3	0.1260 mg/L	0.00439	0.1260 mg/L	0.00439	3.48%
Mg 279.077†	9674.5	0.2166 mg/L	0.00252	0.2166 mg/L	0.00252	1.16%
V 292.402†	-140.6	-0.0003 mg/L	0.00018	-0.0003 mg/L	0.00018	52.99%
Al 308.215†	-1183.9	-0.0307 mg/L	0.00851	-0.0307 mg/L	0.00851	27.75%
Be 313.107†	-411.2	-0.0001 mg/L	0.00007	-0.0001 mg/L	0.00007	105.72%
Cu 324.752†	878.8	0.0024 mg/L	0.00033	0.0024 mg/L	0.00033	13.81%
Ag 338.289†	95.7	0.0005 mg/L	0.00014	0.0005 mg/L	0.00014	29.57%
Na 330.237†	13076.5	9.624 mg/L	0.1483	9.624 mg/L	0.1483	1.54%
Ca 227.546†	822.1	1.357 mg/L	0.0394	1.357 mg/L	0.0394	2.91%

Al RADIAL†	-58.5	-0.0152 mg/L	0.01148	-0.0152 mg/L	0.01148	75.42%
Fe RADIAL†	101.6	0.1231 mg/L	0.00640	0.1231 mg/L	0.00640	5.20%
Ca RADIAL†	14869.7	1.447 mg/L	0.0500	1.447 mg/L	0.0500	3.46%
K RADIAL†	129.7	0.0648 mg/L	0.02639	0.0648 mg/L	0.02639	40.73%
Mg RADIAL†	190.5	0.2274 mg/L	0.01109	0.2274 mg/L	0.01109	4.87%
Na RADIAL†	243748.0	14.03 mg/L	0.090	14.03 mg/L	0.090	0.64%
Mo 202.031	109.3	0.002 mg/L	0.0004	0.002 mg/L	0.0004	17.69%

Sequence No.: 38

Sample ID: 16C0114-04

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 32

Date Collected: 3/8/2016 5:40:46 PM

Data Type: Reprocessed on 3/9/2016 6:14:39 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0114-04

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20805519.0	5.226 mg/L	0.1460			2.79%
Y RADIAL	482048.2	5.036 mg/L	0.1012			2.01%
As 188.979†	-6.7	-0.0015 mg/L	0.00121	-0.0015 mg/L	0.00121	78.47%
Tl 190.801†	-7.6	-0.0012 mg/L	0.00333	-0.0012 mg/L	0.00333	283.65%
Se 196.026†	-5.3	-0.0021 mg/L	0.00496	-0.0021 mg/L	0.00496	235.22%
Zn 206.200†	-39.0	-0.0004 mg/L	0.00050	-0.0004 mg/L	0.00050	123.93%
Sb 206.836†	-3.6	-0.0005 mg/L	0.00180	-0.0005 mg/L	0.00180	350.11%
Pb 220.353†	35.5	0.0017 mg/L	0.00114	0.0017 mg/L	0.00114	65.54%
Cd 226.502†	41.5	0.0000 mg/L	0.00006	0.0000 mg/L	0.00006	144.80%
Co 228.616†	7.1	0.0001 mg/L	0.00013	0.0001 mg/L	0.00013	115.62%
Ni 232.003†	9.2	0.0002 mg/L	0.00066	0.0002 mg/L	0.00066	379.04%
Ba 233.527†	993.0	0.0058 mg/L	0.00013	0.0058 mg/L	0.00013	2.17%
Mn 257.610†	9246.7	0.0058 mg/L	0.00005	0.0058 mg/L	0.00005	0.84%
Cr 267.716†	539.7	0.0022 mg/L	0.00011	0.0022 mg/L	0.00011	4.70%
Fe 273.955†	74353.9	1.461 mg/L	0.0126	1.461 mg/L	0.0126	0.86%
Mg 279.077†	19109.3	0.4276 mg/L	0.00408	0.4276 mg/L	0.00408	0.95%
V 292.402†	1023.7	0.0023 mg/L	0.00009	0.0023 mg/L	0.00009	4.05%
Al 308.215†	69696.8	1.804 mg/L	0.0086	1.804 mg/L	0.0086	0.47%
Be 313.107†	-490.1	-0.0001 mg/L	0.00002	-0.0001 mg/L	0.00002	24.43%
Cu 324.752†	1111.2	0.0032 mg/L	0.00007	0.0032 mg/L	0.00007	2.28%
Ag 338.289†	22.1	0.0001 mg/L	0.00011	0.0001 mg/L	0.00011	94.79%
Na 330.237†	13643.8	10.05 mg/L	0.032	10.05 mg/L	0.032	0.32%
Ca 227.546†	891.9	1.485 mg/L	0.0442	1.485 mg/L	0.0442	2.98%
Al RADIAL†	7470.1	1.940 mg/L	0.0360	1.940 mg/L	0.0360	1.85%
Fe RADIAL†	1206.6	1.462 mg/L	0.0328	1.462 mg/L	0.0328	2.24%
Ca RADIAL†	16666.6	1.621 mg/L	0.0423	1.621 mg/L	0.0423	2.61%
K RADIAL†	256.7	0.1282 mg/L	0.06185	0.1282 mg/L	0.06185	48.25%
Mg RADIAL†	372.8	0.4448 mg/L	0.01840	0.4448 mg/L	0.01840	4.14%
Na RADIAL†	247467.2	14.25 mg/L	0.122	14.25 mg/L	0.122	0.86%
Mo 202.031	159.4	0.003 mg/L	0.0003	0.003 mg/L	0.0003	9.22%

Sequence No.: 39

Sample ID: 16C0114-05

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 33

Date Collected: 3/8/2016 5:45:49 PM

Data Type: Reprocessed on 3/9/2016 6:14:40 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0114-05

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21403918.1	5.377 mg/L	0.1149			2.14%
Y RADIAL	518405.2	5.416 mg/L	0.1709			3.16%
As 188.979†	-13.0	-0.0033 mg/L	0.00197	-0.0033 mg/L	0.00197	59.67%
Tl 190.801†	-3.0	-0.0005 mg/L	0.00260	-0.0005 mg/L	0.00260	557.59%
Se 196.026†	-10.3	-0.0049 mg/L	0.00163	-0.0049 mg/L	0.00163	32.97%
Zn 206.200†	-274.4	-0.0027 mg/L	0.00025	-0.0027 mg/L	0.00025	9.02%
Sb 206.836†	-2.8	-0.0004 mg/L	0.00174	-0.0004 mg/L	0.00174	413.75%
Pb 220.353†	-9.1	-0.0004 mg/L	0.00054	-0.0004 mg/L	0.00054	151.30%
Cd 226.502†	5.9	0.0000 mg/L	0.00014	0.0000 mg/L	0.00014	581.60%

Co	228.616†	17.4	0.0002 mg/L	0.00017	0.0002 mg/L	0.00017	78.28%
Ni	232.003†	51.8	0.0012 mg/L	0.00051	0.0012 mg/L	0.00051	41.83%
Ba	233.527†	2042.7	0.0119 mg/L	0.00028	0.0119 mg/L	0.00028	2.35%
Mn	257.610†	5802.0	0.0036 mg/L	0.00010	0.0036 mg/L	0.00010	2.66%
Cr	267.716†	360.6	0.0015 mg/L	0.00007	0.0015 mg/L	0.00007	4.46%
Fe	273.955†	32215.0	0.6329 mg/L	0.01308	0.6329 mg/L	0.01308	2.07%
Mg	279.077†	14145.6	0.3166 mg/L	0.00816	0.3166 mg/L	0.00816	2.58%
V	292.402†	186.0	0.0004 mg/L	0.00022	0.0004 mg/L	0.00022	55.75%
Al	308.215†	20035.4	0.5185 mg/L	0.01848	0.5185 mg/L	0.01848	3.56%
Be	313.107†	-204.7	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	136.98%
Cu	324.752†	645.8	0.0018 mg/L	0.00028	0.0018 mg/L	0.00028	15.54%
Ag	338.289†	41.8	0.0002 mg/L	0.00013	0.0002 mg/L	0.00013	60.61%
Na	330.237†	12878.9	9.481 mg/L	0.2843	9.481 mg/L	0.2843	3.00%
Ca	227.546†	603.9	1.002 mg/L	0.0352	1.002 mg/L	0.0352	3.51%
Al	RADIAL†	2199.5	0.5713 mg/L	0.00867	0.5713 mg/L	0.00867	1.52%
Fe	RADIAL†	523.8	0.6346 mg/L	0.01851	0.6346 mg/L	0.01851	2.92%
Ca	RADIAL†	10026.3	0.9754 mg/L	0.00537	0.9754 mg/L	0.00537	0.55%
K	RADIAL†	295.6	0.1477 mg/L	0.01938	0.1477 mg/L	0.01938	13.12%
Mg	RADIAL†	272.9	0.3257 mg/L	0.00485	0.3257 mg/L	0.00485	1.49%
Na	RADIAL†	238013.1	13.70 mg/L	0.103	13.70 mg/L	0.103	0.75%
Mo	202.031	206.5	0.004 mg/L	0.0003	0.004 mg/L	0.0003	7.21%

Sequence No.: 40

Sample ID: 16C0114-06

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 34

Date Collected: 3/8/2016 5:50:52 PM

Data Type: Reprocessed on 3/9/2016 6:14:40 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0114-06

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20886088.0	5.247 mg/L	0.0855			1.63%
Y RADIAL	500282.7	5.227 mg/L	0.1104			2.11%
As 188.979†	-13.7	-0.0033 mg/L	0.00101	-0.0033 mg/L	0.00101	30.73%
Ti 190.801†	-17.5	-0.0028 mg/L	0.00088	-0.0028 mg/L	0.00088	30.88%
Se 196.026†	-8.8	-0.0037 mg/L	0.00149	-0.0037 mg/L	0.00149	40.86%
Zn 206.200†	-21.5	-0.0002 mg/L	0.00021	-0.0002 mg/L	0.00021	89.03%
Sb 206.836†	-1.5	-0.0002 mg/L	0.00130	-0.0002 mg/L	0.00130	833.04%
Pb 220.353†	20.9	0.0011 mg/L	0.00017	0.0011 mg/L	0.00017	16.26%
Cd 226.502†	52.8	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	88.82%
Co 228.616†	28.0	0.0004 mg/L	0.00014	0.0004 mg/L	0.00014	37.61%
Ni 232.003†	49.9	0.0011 mg/L	0.00108	0.0011 mg/L	0.00108	95.55%
Ba 233.527†	1253.6	0.0073 mg/L	0.00007	0.0073 mg/L	0.00007	0.91%
Mn 257.610†	25024.6	0.0156 mg/L	0.00023	0.0156 mg/L	0.00023	1.46%
Cr 267.716†	494.6	0.0021 mg/L	0.00022	0.0021 mg/L	0.00022	10.50%
Fe 273.955†	97287.5	1.911 mg/L	0.0296	1.911 mg/L	0.0296	1.55%
Mg 279.077†	17198.6	0.3848 mg/L	0.00888	0.3848 mg/L	0.00888	2.31%
V 292.402†	948.7	0.0021 mg/L	0.00013	0.0021 mg/L	0.00013	6.15%
Al 308.215†	69138.2	1.789 mg/L	0.0251	1.789 mg/L	0.0251	1.40%
Be 313.107†	-418.7	-0.0001 mg/L	0.00002	-0.0001 mg/L	0.00002	32.00%
Cu 324.752†	772.4	0.0023 mg/L	0.00027	0.0023 mg/L	0.00027	11.39%
Ag 338.289†	-61.3	-0.0003 mg/L	0.00046	-0.0003 mg/L	0.00046	166.34%
Na 330.237†	12792.7	9.424 mg/L	0.1182	9.424 mg/L	0.1182	1.25%
Ca 227.546†	677.3	1.135 mg/L	0.0235	1.135 mg/L	0.0235	2.07%
Al RADIAL†	7410.2	1.925 mg/L	0.0397	1.925 mg/L	0.0397	2.06%
Fe RADIAL†	1586.5	1.922 mg/L	0.0369	1.922 mg/L	0.0369	1.92%
Ca RADIAL†	12405.5	1.207 mg/L	0.0243	1.207 mg/L	0.0243	2.01%
K RADIAL†	431.9	0.2157 mg/L	0.00987	0.2157 mg/L	0.00987	4.57%
Mg RADIAL†	332.9	0.3972 mg/L	0.01470	0.3972 mg/L	0.01470	3.70%
Na RADIAL†	234042.4	13.48 mg/L	0.096	13.48 mg/L	0.096	0.72%
Mo 202.031	129.4	0.002 mg/L	0.0002	0.002 mg/L	0.0002	7.51%

Sequence No.: 41

Sample ID: SEQ-SRD2

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 35

Date Collected: 3/8/2016 5:55:54 PM

Data Type: Reprocessed on 3/9/2016 6:14:41 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	21123697.1	5.306 mg/L	0.0572			1.08%
Y RADIAL	518045.1	5.413 mg/L	0.0178			0.33%
As 188.979†	-21.3	-0.0056 mg/L	0.00226	-0.0056 mg/L	0.00226	40.55%
Tl 190.801†	-19.5	-0.0034 mg/L	0.00220	-0.0034 mg/L	0.00220	65.67%
Se 196.026†	-0.3	-0.0001 mg/L	0.00348	-0.0001 mg/L	0.00348	>999.9%
Zn 206.200†	-1006.1	-0.0100 mg/L	0.00034	-0.0100 mg/L	0.00034	3.45%
Sb 206.836†	-16.2	-0.0026 mg/L	0.00017	-0.0026 mg/L	0.00017	6.39%
Pb 220.353†	7.9	0.0003 mg/L	0.00063	0.0003 mg/L	0.00063	182.45%
Cd 226.502†	3.2	0.0000 mg/L	0.00008	0.0000 mg/L	0.00008	717.64%
Co 228.616†	-49.6	-0.0006 mg/L	0.00030	-0.0006 mg/L	0.00030	52.48%
Ni 232.003†	-18.5	-0.0004 mg/L	0.00026	-0.0004 mg/L	0.00026	59.82%
Ba 233.527†	-182.1	-0.0011 mg/L	0.00013	-0.0011 mg/L	0.00013	12.63%
Mn 257.610†	-659.9	-0.0004 mg/L	0.00002	-0.0004 mg/L	0.00002	3.83%
Cr 267.716†	33.0	0.0001 mg/L	0.00007	0.0001 mg/L	0.00007	55.86%
Fe 273.955†	510.5	0.0100 mg/L	0.00073	0.0100 mg/L	0.00073	7.32%
Mg 279.077†	2001.6	0.0448 mg/L	0.00106	0.0448 mg/L	0.00106	2.36%
V 292.402†	-197.8	-0.0005 mg/L	0.00009	-0.0005 mg/L	0.00009	19.86%
Al 308.215†	-4827.9	-0.1250 mg/L	0.00205	-0.1250 mg/L	0.00205	1.64%
Be 313.107†	-186.0	0.0000 mg/L	0.00005	0.0000 mg/L	0.00005	168.48%
Cu 324.752†	403.1	0.0011 mg/L	0.00019	0.0011 mg/L	0.00019	17.01%
Ag 338.289†	12.0	0.0001 mg/L	0.00029	0.0001 mg/L	0.00029	550.87%
Na 330.237†	2677.8	1.971 mg/L	0.0417	1.971 mg/L	0.0417	2.12%
Ca 227.546†	333.8	0.5507 mg/L	0.09031	0.5507 mg/L	0.09031	16.40%
Al RADIAL†	-345.8	-0.0898 mg/L	0.00919	-0.0898 mg/L	0.00919	10.23%
Fe RADIAL†	4.3	0.0053 mg/L	0.00309	0.0053 mg/L	0.00309	58.64%
Cd RADIAL†	5977.1	0.5814 mg/L	0.00965	0.5814 mg/L	0.00965	1.66%
K RADIAL†	46.0	0.0230 mg/L	0.00457	0.0230 mg/L	0.00457	19.88%
Mg RADIAL†	45.8	0.0546 mg/L	0.00827	0.0546 mg/L	0.00827	15.15%
Na RADIAL†	54331.8	3.128 mg/L	0.0308	3.128 mg/L	0.0308	0.99%
Mo 202.031	115.9	0.002 mg/L	0.0003	0.002 mg/L	0.0003	14.23%

Sequence No.: 42

Sample ID: BC60394-BLK1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 36

Date Collected: 3/8/2016 6:01:04 PM

Data Type: Reprocessed on 3/9/2016 6:14:42 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60394-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21156512.9	5.315 mg/L	0.0862			1.62%
Y RADIAL	507444.9	5.302 mg/L	0.0878			1.66%
As 188.979†	-4.5	-0.0012 mg/L	0.00050	-0.0012 mg/L	0.00050	42.14%
Tl 190.801†	0.7	0.0001 mg/L	0.00220	0.0001 mg/L	0.00220	>999.9%
Se 196.026†	-5.2	-0.0026 mg/L	0.00403	-0.0026 mg/L	0.00403	153.10%
Zn 206.200†	-1217.6	-0.0121 mg/L	0.00010	-0.0121 mg/L	0.00010	0.81%
Sb 206.836†	-14.6	-0.0023 mg/L	0.00189	-0.0023 mg/L	0.00189	80.81%
Pb 220.353†	-3.5	-0.0002 mg/L	0.00083	-0.0002 mg/L	0.00083	516.46%
Cd 226.502†	20.1	0.0001 mg/L	0.00014	0.0001 mg/L	0.00014	195.73%
Co 228.616†	-16.6	-0.0002 mg/L	0.00001	-0.0002 mg/L	0.00001	5.20%
Ni 232.003†	23.7	0.0006 mg/L	0.00069	0.0006 mg/L	0.00069	122.68%
Ba 233.527†	-244.0	-0.0014 mg/L	0.00002	-0.0014 mg/L	0.00002	1.37%
Mn 257.610†	-1139.7	-0.0007 mg/L	0.00001	-0.0007 mg/L	0.00001	1.48%
Cr 267.716†	-119.0	-0.0005 mg/L	0.00027	-0.0005 mg/L	0.00027	55.24%
Fe 273.955†	-252.8	-0.0050 mg/L	0.00069	-0.0050 mg/L	0.00069	13.84%
Mg 279.077†	-101.6	-0.0023 mg/L	0.00057	-0.0023 mg/L	0.00057	24.94%
V 292.402†	-218.7	-0.0005 mg/L	0.00009	-0.0005 mg/L	0.00009	18.34%
Al 308.215†	-2978.8	-0.0771 mg/L	0.00402	-0.0771 mg/L	0.00402	5.21%
Be 313.107†	-296.1	0.0000 mg/L	0.00003	0.0000 mg/L	0.00003	70.20%
Cu 324.752†	-308.3	-0.0008 mg/L	0.00017	-0.0008 mg/L	0.00017	20.78%
Ag 338.289†	-33.8	-0.0002 mg/L	0.00047	-0.0002 mg/L	0.00047	278.68%
Na 330.237†	-410.8	-0.3023 mg/L	0.05851	-0.3023 mg/L	0.05851	19.35%
Ca 227.546†	70.8	0.1167 mg/L	0.02852	0.1167 mg/L	0.02852	24.44%
Al RADIAL†	-167.2	-0.0434 mg/L	0.01163	-0.0434 mg/L	0.01163	26.79%

Fe RADIAL†	-2.6	-0.0031 mg/L	0.00592	-0.0031 mg/L	0.00592	191.26%
Ca RADIAL†	-141.5	-0.0138 mg/L	0.00579	-0.0138 mg/L	0.00579	42.05%
K RADIAL†	-32.6	-0.0163 mg/L	0.01691	-0.0163 mg/L	0.01691	104.02%
Mg RADIAL†	-1.7	-0.0020 mg/L	0.00645	-0.0020 mg/L	0.00645	322.88%
Na RADIAL†	-5147.1	-0.2964 mg/L	0.03925	-0.2964 mg/L	0.03925	13.24%
Mo 202.031	3.3	0.000 mg/L	0.0002	0.000 mg/L	0.0002	270.01%

Sequence No.: 43

Sample ID: BC60394-SRM1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 37

Date Collected: 3/8/2016 6:06:13 PM

Data Type: Reprocessed on 3/9/2016 6:14:42 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60394-SRM1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20305484.2	5.101 mg/L	0.0735			1.44%
Y RADIAL	489784.2	5.117 mg/L	0.0628			1.23%
As 188.979†	4064.3	1.091 mg/L	0.0292	1.091 mg/L	0.0292	2.68%
Tl 190.801†	5297.8	0.9291 mg/L	0.02896	0.9291 mg/L	0.02896	3.12%
Se 196.026†	2796.2	1.486 mg/L	0.0254	1.486 mg/L	0.0254	1.71%
Zn 206.200†	152162.8	1.512 mg/L	0.0173	1.512 mg/L	0.0173	1.14%
Sb 206.836†	4965.6	0.8004 mg/L	0.02309	0.8004 mg/L	0.02309	2.88%
Pb 220.353†	19721.4	0.8703 mg/L	0.02037	0.8703 mg/L	0.02037	2.34%
Cd 226.502†	179180.8	0.6128 mg/L	0.00623	0.6128 mg/L	0.00623	1.02%
Co 228.616†	81080.3	0.9403 mg/L	0.00867	0.9403 mg/L	0.00867	0.92%
Ni 232.003†	38899.7	0.9191 mg/L	0.01020	0.9191 mg/L	0.01020	1.11%
Ba 233.527†	256395.0	1.497 mg/L	0.0152	1.497 mg/L	0.0152	1.02%
Mn 257.610†	5883969.5	3.624 mg/L	0.0365	3.624 mg/L	0.0365	1.01%
Cu 267.716†	375712.7	1.532 mg/L	0.0180	1.532 mg/L	0.0180	1.17%
Fe 273.955†	8274156.6	162.6 mg/L	0.09	162.6 mg/L	0.09	0.05%
Mg 279.077†	1237385.1	27.68 mg/L	0.295	27.68 mg/L	0.295	1.07%
V 292.402†	313427.4	0.7187 mg/L	0.00949	0.7187 mg/L	0.00949	1.32%
Al 308.215†	3306593.8	85.59 mg/L	1.007	85.59 mg/L	1.007	1.18%
Be 313.107†	6586579.1	0.9938 mg/L	0.00156	0.9938 mg/L	0.00156	0.16%
Cu 324.752†	454956.4	1.257 mg/L	0.0143	1.257 mg/L	0.0143	1.14%
Ag 338.289†	93532.4	0.4662 mg/L	0.00562	0.4662 mg/L	0.00562	1.21%
Ni 330.237†	7419.0	6.361 mg/L	0.1864	6.361 mg/L	0.1864	2.93%
Ca 227.546†	34140.4	57.96 mg/L	1.460	57.96 mg/L	1.460	2.52%
As RADIAL†	333703.2	86.69 mg/L	1.848	86.69 mg/L	1.848	2.13%
Fe RADIAL†	149870.7	181.6 mg/L	2.18	181.6 mg/L	2.18	1.20%
Cd RADIAL†	634478.4	61.72 mg/L	1.240	61.72 mg/L	1.240	2.01%
K RADIAL†	57045.5	28.49 mg/L	0.213	28.49 mg/L	0.213	0.75%
Mg RADIAL†	24698.2	29.46 mg/L	0.398	29.46 mg/L	0.398	1.35%
Ni RADIAL†	122626.5	7.061 mg/L	0.0957	7.061 mg/L	0.0957	1.36%
Mo 202.031	42119.9	0.788 mg/L	0.0066	0.788 mg/L	0.0066	0.83%

Sequence No.: 44

Sample ID: 16C0195-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 38

Date Collected: 3/8/2016 6:13:37 PM

Data Type: Reprocessed on 3/9/2016 6:14:43 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0195-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	18780375.6	4.718 mg/L	0.0309			0.66%
Y RADIAL	479246.0	5.007 mg/L	0.0437			0.87%
As 188.979†	208.9	0.0802 mg/L	0.00467	0.0802 mg/L	0.00467	5.83%
Tl 190.801†	-436.1	-0.0598 mg/L	0.00174	-0.0598 mg/L	0.00174	2.92%
Se 196.026†	-116.1	0.0096 mg/L	0.00314	0.0096 mg/L	0.00314	32.82%
Zn 206.200†	176974.4	1.759 mg/L	0.0137	1.759 mg/L	0.0137	0.78%
Sb 206.836†	-114.8	-0.0116 mg/L	0.00051	-0.0116 mg/L	0.00051	4.38%
Pb 220.353†	38599.6	1.709 mg/L	0.0117	1.709 mg/L	0.0117	0.69%
Cd 226.502†	4563.3	0.0040 mg/L	0.00020	0.0040 mg/L	0.00020	5.01%
Co 228.616†	6689.2	0.0808 mg/L	0.00091	0.0808 mg/L	0.00091	1.13%

Ni	232.003†	7780.0	0.1798 mg/L	0.00102	0.1798 mg/L	0.00102	0.57%
Ba	233.527†	90177.3	0.5263 mg/L	0.00528	0.5263 mg/L	0.00528	1.00%
Mn	257.610†	2907898.7	1.802 mg/L	0.0155	1.802 mg/L	0.0155	0.86%
Cr	267.716†	50114.8	0.2088 mg/L	0.00238	0.2088 mg/L	0.00238	1.14%
Fe	273.955†	8389487.9	164.8 mg/L	0.23	164.8 mg/L	0.23	0.14%
Mg	279.077†	1237009.7	27.67 mg/L	0.245	27.67 mg/L	0.245	0.89%
V	292.402†	132502.4	0.2972 mg/L	0.00281	0.2972 mg/L	0.00281	0.95%
Al	308.215†	4390786.5	113.6 mg/L	0.34	113.6 mg/L	0.34	0.30%
Be	313.107†	8115.7	0.0012 mg/L	0.00007	0.0012 mg/L	0.00007	5.89%
Cu	324.752†	85736.8	0.2546 mg/L	0.00263	0.2546 mg/L	0.00263	1.03%
Ag	338.289†	-6949.3	-0.0330 mg/L	0.00061	-0.0330 mg/L	0.00061	1.85%
Na	330.237†	1669.6	2.193 mg/L	0.1125	2.193 mg/L	0.1125	5.13%
Ca	227.546†	100661.5	167.6 mg/L	1.35	167.6 mg/L	1.35	0.81%
Al	RADIAL†	419683.1	109.0 mg/L	1.95	109.0 mg/L	1.95	1.79%
Fe	RADIAL†	140795.3	170.6 mg/L	0.86	170.6 mg/L	0.86	0.51%
Ca	RADIAL†	1826921.8	177.7 mg/L	3.94	177.7 mg/L	3.94	2.22%
K	RADIAL†	24230.6	12.10 mg/L	0.069	12.10 mg/L	0.069	0.57%
Mg	RADIAL†	23124.9	27.59 mg/L	0.181	27.59 mg/L	0.181	0.65%
Na	RADIAL†	29835.5	1.718 mg/L	0.0279	1.718 mg/L	0.0279	1.63%
Mo	202.031	7.8	0.000 mg/L	0.0001	0.000 mg/L	0.0001	89.02%

Sequence No.: 45

Sample ID: SEQ-CCV4

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 3/8/2016 6:18:17 PM

Data Type: Reprocessed on 3/9/2016 6:14:44 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	19022652.8	4.779 mg/L	0.0186			0.39%
Y RADIAL	504376.0	5.270 mg/L	0.0871			1.65%
As 188.979†	989.4	0.2596 mg/L	0.00452	0.2596 mg/L	0.00452	1.74%
Ti 190.801†	1494.2	0.2579 mg/L	0.00399	0.2579 mg/L	0.00399	1.55%
Se 196.026†	489.8	0.2496 mg/L	0.00478	0.2496 mg/L	0.00478	1.92%
Zn 206.200†	255189.2	2.539 mg/L	0.0591	2.539 mg/L	0.0591	2.33%
Sb 206.836†	1551.8	0.2481 mg/L	0.00322	0.2481 mg/L	0.00322	1.30%
Pb 220.353†	5888.0	0.2612 mg/L	0.00227	0.2612 mg/L	0.00227	0.87%
Cd 226.502†	35664.4	0.1242 mg/L	0.00323	0.1242 mg/L	0.00323	2.60%
Co 228.616†	221953.1	2.564 mg/L	0.0565	2.564 mg/L	0.0565	2.20%
Ni 232.003†	106259.5	2.525 mg/L	0.0534	2.525 mg/L	0.0534	2.12%
Ba 233.527†	1778318.2	10.38 mg/L	0.227	10.38 mg/L	0.227	2.19%
Mn 257.610†	4291487.8	2.627 mg/L	0.0581	2.627 mg/L	0.0581	2.21%
Cr 267.716†	249437.9	1.014 mg/L	0.0224	1.014 mg/L	0.0224	2.21%
Fe 273.955†	259620.3	5.101 mg/L	0.1132	5.101 mg/L	0.1132	2.22%
Mg 279.077†	1128418.0	25.27 mg/L	0.599	25.27 mg/L	0.599	2.37%
V 292.402†	1071456.4	2.500 mg/L	0.0528	2.500 mg/L	0.0528	2.11%
Al 308.215†	376778.1	9.750 mg/L	0.2197	9.750 mg/L	0.2197	2.25%
Be 313.107†	1718809.9	0.2593 mg/L	0.00548	0.2593 mg/L	0.00548	2.11%
Cu 324.752†	462731.6	1.255 mg/L	0.0261	1.255 mg/L	0.0261	2.08%
Ag 338.289†	250767.2	1.242 mg/L	0.0268	1.242 mg/L	0.0268	2.16%
Na 330.237†	31802.4	23.45 mg/L	0.533	23.45 mg/L	0.533	2.27%
Ca 227.546†	15162.7	25.07 mg/L	0.250	25.07 mg/L	0.250	1.00%
Al RADIAL†	35925.7	9.331 mg/L	0.0206	9.331 mg/L	0.0206	0.22%
Fe RADIAL†	4000.5	4.847 mg/L	0.0878	4.847 mg/L	0.0878	1.81%
Ca RADIAL†	257316.7	25.03 mg/L	0.029	25.03 mg/L	0.029	0.12%
K RADIAL†	9655.2	4.823 mg/L	0.0783	4.823 mg/L	0.0783	1.62%
Mg RADIAL†	20281.5	24.21 mg/L	0.554	24.21 mg/L	0.554	2.29%
Na RADIAL†	426604.1	24.56 mg/L	0.135	24.56 mg/L	0.135	0.55%
Mo 202.031	59094.5	1.105 mg/L	0.0230	1.105 mg/L	0.0230	2.08%

Sequence No.: 46

Sample ID: SEQ-CCB4

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/8/2016 6:25:57 PM

Data Type: Reprocessed on 3/9/2016 6:14:45 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCB4

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	21012142.5	5.278	mg/L	0.0833				1.58%
Y RADIAL	497953.3	5.203	mg/L	0.0782				1.50%
As 188.979†	-7.4	-0.0019	mg/L	0.00235	-0.0019	mg/L	0.00235	121.45%
Tl 190.801†	-3.0	-0.0005	mg/L	0.00224	-0.0005	mg/L	0.00224	438.23%
Se 196.026†	2.7	0.0014	mg/L	0.00260	0.0014	mg/L	0.00260	187.85%
Zn 206.200†	-1185.1	-0.0118	mg/L	0.00015	-0.0118	mg/L	0.00015	1.28%
Sb 206.836†	-0.8	-0.0001	mg/L	0.00174	-0.0001	mg/L	0.00174	>999.9%
Pb 220.353†	-12.8	-0.0006	mg/L	0.00069	-0.0006	mg/L	0.00069	119.93%
Cd 226.502†	29.1	0.0001	mg/L	0.00006	0.0001	mg/L	0.00006	57.81%
Co 228.616†	-10.3	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	33.25%
Ni 232.003†	56.6	0.0013	mg/L	0.00071	0.0013	mg/L	0.00071	52.85%
Ba 233.527†	-195.7	-0.0011	mg/L	0.00009	-0.0011	mg/L	0.00009	7.59%
Mn 257.610†	-1011.6	-0.0006	mg/L	0.00002	-0.0006	mg/L	0.00002	3.76%
Cr 267.716†	-117.6	-0.0005	mg/L	0.00015	-0.0005	mg/L	0.00015	32.28%
Fe 273.955†	-165.3	-0.0032	mg/L	0.00016	-0.0032	mg/L	0.00016	5.01%
Mg 279.077†	-89.3	-0.0020	mg/L	0.00011	-0.0020	mg/L	0.00011	5.66%
V 292.402†	-126.6	-0.0003	mg/L	0.00002	-0.0003	mg/L	0.00002	7.95%
Al 308.215†	-4064.2	-0.1052	mg/L	0.00428	-0.1052	mg/L	0.00428	4.07%
Be 313.107†	-23.2	0.0000	mg/L	0.00004	0.0000	mg/L	0.00004	>999.9%
Cu 324.752†	-66.2	-0.0002	mg/L	0.00053	-0.0002	mg/L	0.00053	298.06%
Ag 338.289†	262.1	0.0013	mg/L	0.00026	0.0013	mg/L	0.00026	20.18%
Na 330.237†	-360.2	-0.2650	mg/L	0.09903	-0.2650	mg/L	0.09903	37.36%
Ca 227.546†	55.2	0.0911	mg/L	0.02736	0.0911	mg/L	0.02736	30.04%
Al RADIAL†	-317.3	-0.0824	mg/L	0.00787	-0.0824	mg/L	0.00787	9.55%
Fe RADIAL†	5.9	0.0072	mg/L	0.00937	0.0072	mg/L	0.00937	130.65%
Ca RADIAL†	-120.5	-0.0117	mg/L	0.00222	-0.0117	mg/L	0.00222	18.93%
K RADIAL†	25.1	0.0125	mg/L	0.04621	0.0125	mg/L	0.04621	369.28%
Mg RADIAL†	4.2	0.0050	mg/L	0.00712	0.0050	mg/L	0.00712	142.50%
Na RADIAL†	-6996.1	-0.4028	mg/L	0.03453	-0.4028	mg/L	0.03453	8.57%
Mo 202.031	28.9	0.001	mg/L	0.0002	0.001	mg/L	0.0002	33.83%

Sequence No.: 47

Sample ID: BC60394-DUP1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 39

Date Collected: 3/8/2016 6:31:06 PM

Data Type: Reprocessed on 3/9/2016 6:14:45 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60394-DUP1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	19928938.2	5.006	mg/L	0.0539				1.08%
Y RADIAL	482921.9	5.046	mg/L	0.0309				0.61%
As 188.979†	210.2	0.0809	mg/L	0.00181	0.0809	mg/L	0.00181	2.24%
Tl 190.801†	-425.5	-0.0577	mg/L	0.00194	-0.0577	mg/L	0.00194	3.36%
Se 196.026†	-112.6	0.0123	mg/L	0.00478	0.0123	mg/L	0.00478	38.97%
Zn 206.200†	173613.7	1.726	mg/L	0.0229	1.726	mg/L	0.0229	1.33%
Sb 206.836†	-95.9	-0.0085	mg/L	0.00051	-0.0085	mg/L	0.00051	5.98%
Pb 220.353†	37593.3	1.665	mg/L	0.0232	1.665	mg/L	0.0232	1.39%
Cd 226.502†	4479.1	0.0035	mg/L	0.00026	0.0035	mg/L	0.00026	7.47%
Co 228.616†	6481.3	0.0785	mg/L	0.00050	0.0785	mg/L	0.00050	0.64%
Ni 232.003†	7638.6	0.1764	mg/L	0.00238	0.1764	mg/L	0.00238	1.35%
Ba 233.527†	87795.1	0.5124	mg/L	0.00777	0.5124	mg/L	0.00777	1.52%
Mn 257.610†	2811830.9	1.743	mg/L	0.0174	1.743	mg/L	0.0174	1.00%
Cr 267.716†	49159.4	0.2050	mg/L	0.00278	0.2050	mg/L	0.00278	1.35%
Fe 273.955†	8017569.1	157.5	mg/L	0.34	157.5	mg/L	0.34	0.22%
Mg 279.077†	1191434.5	26.65	mg/L	0.240	26.65	mg/L	0.240	0.90%
V 292.402†	129773.9	0.2907	mg/L	0.00428	0.2907	mg/L	0.00428	1.47%
Al 308.215†	4296862.9	111.2	mg/L	1.15	111.2	mg/L	1.15	1.04%
Be 313.107†	7647.2	0.0012	mg/L	0.00022	0.0012	mg/L	0.00022	18.86%
Cu 324.752†	84352.7	0.2511	mg/L	0.00309	0.2511	mg/L	0.00309	1.23%
Ag 338.289†	-6833.1	-0.0324	mg/L	0.00094	-0.0324	mg/L	0.00094	2.88%
Na 330.237†	1617.3	2.168	mg/L	0.0957	2.168	mg/L	0.0957	4.41%
Ca 227.546†	98517.6	164.1	mg/L	1.92	164.1	mg/L	1.92	1.17%
Al RADIAL†	430538.8	111.8	mg/L	0.87	111.8	mg/L	0.87	0.78%
Fe RADIAL†	142733.4	172.9	mg/L	0.37	172.9	mg/L	0.37	0.21%

Ca RADIAL†	1853809.6	180.3 mg/L	2.04	180.3 mg/L	2.04	1.13%
K RADIAL†	24566.2	12.27 mg/L	0.051	12.27 mg/L	0.051	0.42%
Mg RADIAL†	23449.6	27.97 mg/L	0.100	27.97 mg/L	0.100	0.36%
Na RADIAL†	31782.4	1.830 mg/L	0.0257	1.830 mg/L	0.0257	1.41%
Mo 202.031	-19.2	0.000 mg/L	0.0004	0.000 mg/L	0.0004	100.90%

Sequence No.: 48

Autosampler Location: 40

Sample ID: BC60394-MS1

Date Collected: 3/8/2016 6:35:54 PM

Analyst: KV

Data Type: Reprocessed on 3/9/2016 6:14:46 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: BC60394-MS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19583469.1	4.919 mg/L	0.0246			0.50%
Y RADIAL	479950.1	5.015 mg/L	0.0353			0.70%
As 188.979†	7411.3	1.966 mg/L	0.0301	1.966 mg/L	0.0301	1.53%
Te 190.801†	10111.3	1.758 mg/L	0.0293	1.758 mg/L	0.0293	1.67%
Se 196.026†	3645.9	1.914 mg/L	0.0346	1.914 mg/L	0.0346	1.81%
Zn 206.200†	219721.7	2.185 mg/L	0.0248	2.185 mg/L	0.0248	1.14%
Sb 206.836†	1428.2	0.2351 mg/L	0.00233	0.2351 mg/L	0.00233	0.99%
Pb 220.353†	49589.6	2.194 mg/L	0.0318	2.194 mg/L	0.0318	1.45%
Cd 226.502†	18110.3	0.0509 mg/L	0.00143	0.0509 mg/L	0.00143	2.80%
Co 228.616†	47682.8	0.5545 mg/L	0.00859	0.5545 mg/L	0.00859	1.55%
Ni 232.003†	27705.5	0.6532 mg/L	0.00803	0.6532 mg/L	0.00803	1.23%
Ba 233.527†	415058.6	2.423 mg/L	0.0277	2.423 mg/L	0.0277	1.14%
Mn 257.610†	3631508.4	2.245 mg/L	0.0265	2.245 mg/L	0.0265	1.18%
Cr 267.716†	94724.6	0.3902 mg/L	0.00471	0.3902 mg/L	0.00471	1.21%
Fe 273.955†	8242814.1	162.0 mg/L	0.40	162.0 mg/L	0.40	0.25%
Mg 279.077†	1207509.0	27.01 mg/L	0.330	27.01 mg/L	0.330	1.22%
V 292.402†	326206.9	0.7488 mg/L	0.00988	0.7488 mg/L	0.00988	1.32%
Al 308.215†	4411208.4	114.2 mg/L	1.59	114.2 mg/L	1.59	1.39%
Be 313.107†	320799.1	0.0484 mg/L	0.00057	0.0484 mg/L	0.00057	1.18%
Cu 324.752†	176555.2	0.5016 mg/L	0.00664	0.5016 mg/L	0.00664	1.32%
Ag 338.289†	3015.5	0.0164 mg/L	0.00042	0.0164 mg/L	0.00042	2.57%
Na 330.237†	2390.6	2.752 mg/L	0.1719	2.752 mg/L	0.1719	6.24%
Ca 227.546†	99144.7	165.2 mg/L	2.03	165.2 mg/L	2.03	1.23%
Al RADIAL†	428797.6	111.4 mg/L	1.62	111.4 mg/L	1.62	1.45%
Fe RADIAL†	145675.8	176.5 mg/L	1.08	176.5 mg/L	1.08	0.61%
Cd RADIAL†	1837851.3	178.8 mg/L	3.39	178.8 mg/L	3.39	1.90%
K RADIAL†	24802.5	12.39 mg/L	0.032	12.39 mg/L	0.032	0.26%
Mg RADIAL†	23813.6	28.41 mg/L	0.301	28.41 mg/L	0.301	1.06%
Na RADIAL†	29035.6	1.672 mg/L	0.0299	1.672 mg/L	0.0299	1.79%
Mo 202.031	-65.1	-0.001 mg/L	0.0008	-0.001 mg/L	0.0008	68.03%

Sequence No.: 49

Autosampler Location: 41

Sample ID: 16C0195-02

Date Collected: 3/8/2016 6:43:15 PM

Analyst: KV

Data Type: Reprocessed on 3/9/2016 6:14:47 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 16C0195-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	17741063.9	4.457 mg/L	0.0290			0.65%
Y RADIAL	482792.3	5.044 mg/L	0.0674			1.34%
As 188.979†	1820.4	0.4920 mg/L	0.01374	0.4920 mg/L	0.01374	2.79%
Te 190.801†	-213.8	-0.0274 mg/L	0.01302	-0.0274 mg/L	0.01302	47.51%
Se 196.026†	-85.9	-0.0015 mg/L	0.00717	-0.0015 mg/L	0.00717	472.34%
Zn 206.200†	289878.4	2.884 mg/L	0.0286	2.884 mg/L	0.0286	0.99%
Sb 206.836†	-43.1	-0.0027 mg/L	0.00192	-0.0027 mg/L	0.00192	70.88%
Pb 220.353†	146306.3	6.472 mg/L	0.0687	6.472 mg/L	0.0687	1.06%
Cd 226.502†	8494.1	0.0223 mg/L	0.00085	0.0223 mg/L	0.00085	3.83%
Co 228.616†	3162.6	0.0387 mg/L	0.00039	0.0387 mg/L	0.00039	1.00%
Ni 232.003†	8622.9	0.2018 mg/L	0.00783	0.2018 mg/L	0.00783	3.88%

Ba 233.527†	1284110.5	7.495 mg/L	0.0865	7.495 mg/L	0.0865	1.15%
Mn 257.610†	2351956.1	1.453 mg/L	0.0155	1.453 mg/L	0.0155	1.07%
Cr 267.716†	42535.7	0.1760 mg/L	0.00445	0.1760 mg/L	0.00445	2.53%
Fe 273.955†	5400970.4	106.1 mg/L	0.18	106.1 mg/L	0.18	0.17%
Mg 279.077†	8245722.0	184.6 mg/L	0.45	184.6 mg/L	0.45	0.24%
V 292.402†	164437.0	0.3764 mg/L	0.00446	0.3764 mg/L	0.00446	1.19%
Al 308.215†	1463913.5	37.86 mg/L	0.465	37.86 mg/L	0.465	1.23%
Be 313.107†	3536.4	0.0005 mg/L	0.00003	0.0005 mg/L	0.00003	6.22%
Cu 324.752†	565842.5	1.548 mg/L	0.0190	1.548 mg/L	0.0190	1.23%
Ag 338.289†	-611.4	-0.0126 mg/L	0.00075	-0.0126 mg/L	0.00075	5.98%
Na 330.237†	7299.7	6.875 mg/L	0.1863	6.875 mg/L	0.1863	2.71%
Ca 227.546†	668072.2	1103 mg/L	11.9	1103 mg/L	11.9	1.08%
Al RADIAL†	129393.3	33.59 mg/L	0.002	33.59 mg/L	0.002	0.01%
Fe RADIAL†	86480.9	104.8 mg/L	0.16	104.8 mg/L	0.16	0.15%
Ca RADIAL†	10646383.3	1036 mg/L	13.8	1036 mg/L	13.8	1.33%
K RADIAL†	15490.5	7.737 mg/L	0.0349	7.737 mg/L	0.0349	0.45%
Mg RADIAL†	145455.1	173.6 mg/L	0.49	173.6 mg/L	0.49	0.28%
Na RADIAL†	41332.6	2.380 mg/L	0.0389	2.380 mg/L	0.0389	1.63%
Mo 202.031†	271.2	0.005 mg/L	0.0002	0.005 mg/L	0.0002	4.00%

Sequence No.: 50

Sample ID: 16C0195-03

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 42

Date Collected: 3/8/2016 6:50:38 PM

Data Type: Reprocessed on 3/9/2016 6:14:48 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0195-03

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	18755178.1	4.711 mg/L	0.0203			0.43%
Y RADIAL	474946.8	4.962 mg/L	0.0184			0.37%
As 188.979†	216.2	0.0754 mg/L	0.00245	0.0754 mg/L	0.00245	3.25%
Tl 190.801†	-240.0	-0.0300 mg/L	0.00318	-0.0300 mg/L	0.00318	10.59%
Se 196.026†	-73.0	0.0134 mg/L	0.00734	0.0134 mg/L	0.00734	54.93%
Zn 206.200†	2497900.2	24.86 mg/L	0.231	24.86 mg/L	0.231	0.93%
Sb 206.836†	-45.2	-0.0022 mg/L	0.00315	-0.0022 mg/L	0.00315	142.06%
Pb 220.353†	84411.0	3.729 mg/L	0.0302	3.729 mg/L	0.0302	0.81%
Co 226.502†	14420.5	0.0415 mg/L	0.00009	0.0415 mg/L	0.00009	0.22%
Co 228.616†	3053.4	0.0379 mg/L	0.00020	0.0379 mg/L	0.00020	0.53%
Ni 232.003†	3942.4	0.0899 mg/L	0.00227	0.0899 mg/L	0.00227	2.53%
Ba 233.527†	1590271.3	9.282 mg/L	0.0745	9.282 mg/L	0.0745	0.80%
Mn 257.610†	3923475.6	2.417 mg/L	0.0161	2.417 mg/L	0.0161	0.67%
Cr 267.716†	33426.5	0.1396 mg/L	0.00118	0.1396 mg/L	0.00118	0.84%
Fe 273.955†	6220332.2	122.2 mg/L	0.40	122.2 mg/L	0.40	0.33%
Mg 279.077†	846957.1	18.94 mg/L	0.176	18.94 mg/L	0.176	0.93%
V 292.402†	93034.7	0.2083 mg/L	0.00231	0.2083 mg/L	0.00231	1.11%
Al 308.215†	2167769.8	56.11 mg/L	0.369	56.11 mg/L	0.369	0.66%
Be 313.107†	3037.3	0.0005 mg/L	0.00002	0.0005 mg/L	0.00002	4.30%
Cu 324.752†	140063.9	0.3960 mg/L	0.00152	0.3960 mg/L	0.00152	0.38%
Ag 338.289†	-3006.6	-0.0151 mg/L	0.00138	-0.0151 mg/L	0.00138	9.16%
Na 330.237†	50892.6	38.27 mg/L	0.086	38.27 mg/L	0.086	0.22%
Ca 227.546†	138600.8	229.8 mg/L	2.20	229.8 mg/L	2.20	0.96%
Al RADIAL†	203170.7	52.78 mg/L	1.050	52.78 mg/L	1.050	1.99%
Fe RADIAL†	103779.0	125.7 mg/L	0.15	125.7 mg/L	0.15	0.12%
Ca RADIAL†	2481462.6	241.4 mg/L	5.63	241.4 mg/L	5.63	2.33%
K RADIAL†	11133.0	5.561 mg/L	0.0256	5.561 mg/L	0.0256	0.46%
Mg RADIAL†	15702.8	18.73 mg/L	0.161	18.73 mg/L	0.161	0.86%
Na RADIAL†	90361.6	5.203 mg/L	0.1149	5.203 mg/L	0.1149	2.21%
Mo 202.031	568.0	0.011 mg/L	0.0001	0.011 mg/L	0.0001	0.94%

Sequence No.: 51

Sample ID: 16C0195-04

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 43

Date Collected: 3/8/2016 6:55:19 PM

Data Type: Reprocessed on 3/9/2016 6:14:48 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0195-04

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20046653.1	5.036 mg/L	0.0572			1.14%
Y RADIAL	484847.6	5.066 mg/L	0.0500			0.99%
As 188.979†	42.6	0.0363 mg/L	0.00405	0.0363 mg/L	0.00405	11.14%
Tl 190.801†	-303.8	-0.0372 mg/L	0.00077	-0.0372 mg/L	0.00077	2.07%
Se 196.026†	-113.4	0.0098 mg/L	0.00521	0.0098 mg/L	0.00521	53.36%
Zn 206.200†	129196.6	1.284 mg/L	0.0115	1.284 mg/L	0.0115	0.89%
Sb 206.836†	-95.6	-0.0086 mg/L	0.00169	-0.0086 mg/L	0.00169	19.61%
Pb 220.353†	44361.7	1.956 mg/L	0.0144	1.956 mg/L	0.0144	0.73%
Cd 226.502†	4531.1	0.0041 mg/L	0.00039	0.0041 mg/L	0.00039	9.69%
Co 228.616†	4978.1	0.0610 mg/L	0.00022	0.0610 mg/L	0.00022	0.36%
Ni 232.003†	12254.9	0.2862 mg/L	0.00198	0.2862 mg/L	0.00198	0.69%
Ba 233.527†	203737.5	1.189 mg/L	0.0089	1.189 mg/L	0.0089	0.75%
Mn 257.610†	4913701.4	3.029 mg/L	0.0179	3.029 mg/L	0.0179	0.59%
Cr 267.716†	77467.9	0.3199 mg/L	0.00337	0.3199 mg/L	0.00337	1.05%
Fe 273.955†	7742394.0	152.1 mg/L	0.38	152.1 mg/L	0.38	0.25%
Mg 279.077†	1226964.6	27.45 mg/L	0.121	27.45 mg/L	0.121	0.44%
V 292.402†	153648.8	0.3468 mg/L	0.00411	0.3468 mg/L	0.00411	1.18%
Al 308.215†	2170993.1	56.20 mg/L	0.218	56.20 mg/L	0.218	0.39%
Be 313.107†	1570.5	0.0002 mg/L	0.00006	0.0002 mg/L	0.00006	26.44%
Cu 324.752†	161057.2	0.4584 mg/L	0.00417	0.4584 mg/L	0.00417	0.91%
Ag 338.289†	-4558.4	-0.0202 mg/L	0.00103	-0.0202 mg/L	0.00103	5.11%
Na 330.237†	817.9	1.462 mg/L	0.0895	1.462 mg/L	0.0895	6.12%
Ca 227.546†	45802.8	77.06 mg/L	0.435	77.06 mg/L	0.435	0.57%
Al RADIAL†	219729.4	57.09 mg/L	0.685	57.09 mg/L	0.685	1.20%
Fe RADIAL†	138443.4	167.7 mg/L	2.18	167.7 mg/L	2.18	1.30%
Ca RADIAL†	875611.8	85.18 mg/L	0.987	85.18 mg/L	0.987	1.16%
K RADIAL†	16460.6	8.222 mg/L	0.0671	8.222 mg/L	0.0671	0.82%
Mg RADIAL†	24316.1	29.01 mg/L	0.484	29.01 mg/L	0.484	1.67%
Na RADIAL†	18997.2	1.094 mg/L	0.0223	1.094 mg/L	0.0223	2.04%
Mo 202.031	127.5	0.002 mg/L	0.0003	0.002 mg/L	0.0003	11.07%

Sequence No.: 52

Sample ID: 16C0195-05

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 44

Date Collected: 3/8/2016 7:00:07 PM

Data Type: Reprocessed on 3/9/2016 6:14:49 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0195-05

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20474657.9	5.143 mg/L	0.0756			1.47%
Y RADIAL	486517.1	5.083 mg/L	0.0140			0.28%
As 188.979†	-1.3	0.0281 mg/L	0.00110	0.0281 mg/L	0.00110	3.93%
Tl 190.801†	-325.4	-0.0390 mg/L	0.00350	-0.0390 mg/L	0.00350	8.96%
Se 196.026†	-118.0	0.0160 mg/L	0.00298	0.0160 mg/L	0.00298	18.58%
Zn 206.200†	103711.7	1.030 mg/L	0.0195	1.030 mg/L	0.0195	1.89%
Sb 206.836†	-129.4	-0.0131 mg/L	0.00175	-0.0131 mg/L	0.00175	13.31%
Pb 220.353†	54659.0	2.409 mg/L	0.0442	2.409 mg/L	0.0442	1.83%
Cd 226.502†	3952.6	0.0005 mg/L	0.00027	0.0005 mg/L	0.00027	48.97%
Co 228.616†	4900.4	0.0606 mg/L	0.00089	0.0606 mg/L	0.00089	1.48%
Ni 232.003†	7346.1	0.1689 mg/L	0.00522	0.1689 mg/L	0.00522	3.09%
Ba 233.527†	148614.2	0.8674 mg/L	0.01681	0.8674 mg/L	0.01681	1.94%
Mn 257.610†	7159478.7	4.406 mg/L	0.1157	4.406 mg/L	0.1157	2.63%
Cr 267.716†	32769.4	0.1389 mg/L	0.00200	0.1389 mg/L	0.00200	1.44%
Fe 273.955†	8642430.7	169.8 mg/L	0.12	169.8 mg/L	0.12	0.07%
Mg 279.077†	1130059.2	25.27 mg/L	0.741	25.27 mg/L	0.741	2.93%
V 292.402†	99446.2	0.2188 mg/L	0.00496	0.2188 mg/L	0.00496	2.27%
Al 308.215†	2278081.8	58.97 mg/L	1.581	58.97 mg/L	1.581	2.68%
Be 313.107†	2062.0	0.0003 mg/L	0.00013	0.0003 mg/L	0.00013	42.35%
Cu 324.752†	66287.1	0.2043 mg/L	0.00389	0.2043 mg/L	0.00389	1.90%
Ag 338.289†	-6451.5	-0.0288 mg/L	0.00176	-0.0288 mg/L	0.00176	6.10%
Na 330.237†	241.2	1.109 mg/L	0.0974	1.109 mg/L	0.0974	8.78%
Ca 227.546†	30539.4	52.06 mg/L	0.895	52.06 mg/L	0.895	1.72%
Al RADIAL†	235013.1	61.06 mg/L	0.774	61.06 mg/L	0.774	1.27%
Fe RADIAL†	156220.8	189.3 mg/L	0.32	189.3 mg/L	0.32	0.17%
Ca RADIAL†	577250.9	56.15 mg/L	0.626	56.15 mg/L	0.626	1.11%

K RADIAL†	19844.0	9.912 mg/L	0.0454	9.912 mg/L	0.0454	0.46%
Mg RADIAL†	22732.0	27.12 mg/L	0.015	27.12 mg/L	0.015	0.06%
Na RADIAL†	24763.8	1.426 mg/L	0.0309	1.426 mg/L	0.0309	2.16%
Mo 202.031	-74.5	-0.001 mg/L	0.0001	-0.001 mg/L	0.0001	5.17%

Sequence No.: 53

Sample ID: 16C0195-06

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 45

Date Collected: 3/8/2016 7:04:54 PM

Data Type: Reprocessed on 3/9/2016 6:14:50 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0195-06

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	18821416.0	4.728 mg/L	0.0313			0.66%
Y RADIAL	493662.8	5.158 mg/L	0.0147			0.28%
As 188.979†	124.4	0.0573 mg/L	0.00041	0.0573 mg/L	0.00041	0.71%
Tl 190.801†	-203.0	-0.0201 mg/L	0.00256	-0.0201 mg/L	0.00256	12.71%
Se 196.026†	-121.9	0.0045 mg/L	0.00667	0.0045 mg/L	0.00667	148.80%
Zn 206.200†	349211.6	3.474 mg/L	0.0445	3.474 mg/L	0.0445	1.28%
Sb 206.836†	47.7	0.0142 mg/L	0.00095	0.0142 mg/L	0.00095	6.70%
Pb 220.353†	78759.9	3.477 mg/L	0.0423	3.477 mg/L	0.0423	1.22%
Cd 226.502†	7417.9	0.0143 mg/L	0.00047	0.0143 mg/L	0.00047	3.26%
Co 228.616†	4086.8	0.0507 mg/L	0.00017	0.0507 mg/L	0.00017	0.34%
Ni 232.003†	12495.5	0.2920 mg/L	0.00204	0.2920 mg/L	0.00204	0.70%
Ba 233.527†	335089.4	1.956 mg/L	0.0234	1.956 mg/L	0.0234	1.20%
Mn 257.610†	4265183.8	2.632 mg/L	0.0300	2.632 mg/L	0.0300	1.14%
Cr 267.716†	99960.6	0.4112 mg/L	0.00498	0.4112 mg/L	0.00498	1.21%
Fe 273.955†	8192568.4	161.0 mg/L	0.57	161.0 mg/L	0.57	0.36%
Mg 279.077†	8893026.0	199.1 mg/L	0.65	199.1 mg/L	0.65	0.33%
V 292.402†	115375.3	0.2577 mg/L	0.00370	0.2577 mg/L	0.00370	1.44%
Al 308.215†	1729744.6	44.76 mg/L	0.568	44.76 mg/L	0.568	1.27%
Be 313.107†	4688.4	0.0007 mg/L	0.00005	0.0007 mg/L	0.00005	6.94%
Cu 324.752†	477522.6	1.316 mg/L	0.0128	1.316 mg/L	0.0128	0.97%
Ag 338.289†	-1521.0	-0.0087 mg/L	0.00040	-0.0087 mg/L	0.00040	4.66%
Na 330.237†	6421.4	5.879 mg/L	0.0513	5.879 mg/L	0.0513	0.87%
Ca 227.546†	242012.4	400.8 mg/L	4.80	400.8 mg/L	4.80	1.20%
As RADIAL†	158143.0	41.08 mg/L	0.121	41.08 mg/L	0.121	0.29%
Fe RADIAL†	136418.6	165.3 mg/L	0.37	165.3 mg/L	0.37	0.22%
Cd RADIAL†	4061934.9	395.1 mg/L	5.13	395.1 mg/L	5.13	1.30%
K RADIAL†	8564.5	4.278 mg/L	0.0463	4.278 mg/L	0.0463	1.08%
Mg RADIAL†	161823.3	193.2 mg/L	0.48	193.2 mg/L	0.48	0.25%
Na RADIAL†	26435.4	1.522 mg/L	0.0143	1.522 mg/L	0.0143	0.94%
Mo 202.031	2938.1	0.055 mg/L	0.0005	0.055 mg/L	0.0005	0.94%

Sequence No.: 54

Sample ID: 16C0195-07

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 46

Date Collected: 3/8/2016 7:09:38 PM

Data Type: Reprocessed on 3/9/2016 6:14:50 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0195-07

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20426404.8	5.131 mg/L	0.0643			1.25%
Y RADIAL	469943.1	4.910 mg/L	0.0396			0.81%
As 188.979†	46.3	0.0369 mg/L	0.00110	0.0369 mg/L	0.00110	2.99%
Tl 190.801†	-380.9	-0.0508 mg/L	0.00193	-0.0508 mg/L	0.00193	3.79%
Se 196.026†	-96.1	0.0174 mg/L	0.00789	0.0174 mg/L	0.00789	45.25%
Zn 206.200†	116999.7	1.163 mg/L	0.0133	1.163 mg/L	0.0133	1.15%
Sb 206.836†	-123.7	-0.0132 mg/L	0.00188	-0.0132 mg/L	0.00188	14.22%
Pb 220.353†	34921.9	1.541 mg/L	0.0168	1.541 mg/L	0.0168	1.09%
Cd 226.502†	4044.3	0.0026 mg/L	0.00030	0.0026 mg/L	0.00030	11.79%
Co 228.616†	5314.7	0.0648 mg/L	0.00042	0.0648 mg/L	0.00042	0.65%
Ni 232.003†	8425.1	0.1953 mg/L	0.00115	0.1953 mg/L	0.00115	0.59%
Ba 233.527†	148391.5	0.8661 mg/L	0.00805	0.8661 mg/L	0.00805	0.93%

Mn 257.610†	5111294.5	3.149 mg/L	0.0271	3.149 mg/L	0.0271	0.86%
Cr 267.716†	39366.8	0.1650 mg/L	0.00141	0.1650 mg/L	0.00141	0.85%
Fe 273.955†	7494445.0	147.2 mg/L	1.19	147.2 mg/L	1.19	0.81%
Mg 279.077†	1145348.1	25.62 mg/L	0.224	25.62 mg/L	0.224	0.87%
V 292.402†	111527.8	0.2487 mg/L	0.00383	0.2487 mg/L	0.00383	1.54%
Al 308.215†	2704345.2	70.00 mg/L	0.599	70.00 mg/L	0.599	0.86%
Be 313.107†	362.4	0.0001 mg/L	0.00012	0.0001 mg/L	0.00012	218.83%
Cu 324.752†	125120.1	0.3606 mg/L	0.00364	0.3606 mg/L	0.00364	1.01%
Ag 338.289†	-6474.6	-0.0293 mg/L	0.00068	-0.0293 mg/L	0.00068	2.32%
Na 330.237†	202.8	0.9579 mg/L	0.08508	0.9579 mg/L	0.08508	8.88%
Ca 227.546†	23166.0	39.70 mg/L	0.445	39.70 mg/L	0.445	1.12%
Al RADIAL†	286382.1	74.40 mg/L	1.306	74.40 mg/L	1.306	1.76%
Fe RADIAL†	136241.0	165.1 mg/L	2.06	165.1 mg/L	2.06	1.25%
Ca RADIAL†	462629.4	45.00 mg/L	0.606	45.00 mg/L	0.606	1.35%
K RADIAL†	21181.7	10.58 mg/L	0.079	10.58 mg/L	0.079	0.74%
Mg RADIAL†	23594.5	28.15 mg/L	0.449	28.15 mg/L	0.449	1.60%
Na RADIAL†	22251.3	1.281 mg/L	0.0195	1.281 mg/L	0.0195	1.52%
Mo 202.031	33.3	0.001 mg/L	0.0003	0.001 mg/L	0.0003	51.21%

Sequence No.: 55

Sample ID: 16C0195-08

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 47

Date Collected: 3/8/2016 7:14:25 PM

Data Type: Reprocessed on 3/9/2016 6:14:51 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0195-08

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19680150.2	4.944 mg/L	0.0342			0.69%
Y RADIAL	481571.0	5.031 mg/L	0.0197			0.39%
As 188.979†	95.3	0.0478 mg/L	0.00397	0.0478 mg/L	0.00397	8.31%
Tl 190.801†	-352.1	-0.0470 mg/L	0.00108	-0.0470 mg/L	0.00108	2.31%
Se 196.026†	-96.2	0.0123 mg/L	0.00107	0.0123 mg/L	0.00107	8.72%
Zn 206.200†	312555.2	3.109 mg/L	0.0495	3.109 mg/L	0.0495	1.59%
Sb 206.836†	-92.5	-0.0087 mg/L	0.00225	-0.0087 mg/L	0.00225	25.81%
Pb 220.353†	38113.4	1.684 mg/L	0.0282	1.684 mg/L	0.0282	1.67%
Cd 226.502†	6914.0	0.0135 mg/L	0.00031	0.0135 mg/L	0.00031	2.33%
Co 228.616†	5275.8	0.0641 mg/L	0.00075	0.0641 mg/L	0.00075	1.17%
Ni 232.003†	11947.5	0.2794 mg/L	0.00363	0.2794 mg/L	0.00363	1.30%
Ba 233.527†	136570.1	0.7971 mg/L	0.01288	0.7971 mg/L	0.01288	1.62%
Mn 257.610†	4148463.5	2.559 mg/L	0.0188	2.559 mg/L	0.0188	0.74%
Cr 267.716†	37372.7	0.1565 mg/L	0.00244	0.1565 mg/L	0.00244	1.56%
Fe 273.955†	7282410.0	143.1 mg/L	1.05	143.1 mg/L	1.05	0.74%
Mg 279.077†	1529086.8	34.21 mg/L	0.279	34.21 mg/L	0.279	0.82%
V 292.402†	126716.8	0.2850 mg/L	0.00536	0.2850 mg/L	0.00536	1.88%
Al 308.215†	2669882.0	69.10 mg/L	0.536	69.10 mg/L	0.536	0.77%
Be 313.107†	3473.9	0.0005 mg/L	0.00016	0.0005 mg/L	0.00016	30.23%
Cu 324.752†	345186.5	0.9555 mg/L	0.01581	0.9555 mg/L	0.01581	1.65%
Ag 338.289†	-5652.2	-0.0276 mg/L	0.00064	-0.0276 mg/L	0.00064	2.31%
Na 330.237†	4320.6	4.112 mg/L	0.0454	4.112 mg/L	0.0454	1.10%
Ca 227.546†	127008.1	210.9 mg/L	3.47	210.9 mg/L	3.47	1.65%
Al RADIAL†	260262.4	67.61 mg/L	1.258	67.61 mg/L	1.258	1.86%
Fe RADIAL†	125717.0	152.3 mg/L	0.28	152.3 mg/L	0.28	0.19%
Ca RADIAL†	2375503.8	231.1 mg/L	4.57	231.1 mg/L	4.57	1.98%
K RADIAL†	18536.2	9.259 mg/L	0.0340	9.259 mg/L	0.0340	0.37%
Mg RADIAL†	29653.6	35.38 mg/L	0.080	35.38 mg/L	0.080	0.23%
Na RADIAL†	25128.8	1.447 mg/L	0.0280	1.447 mg/L	0.0280	1.94%
Mo 202.031	151.1	0.003 mg/L	0.0002	0.003 mg/L	0.0002	8.14%

Sequence No.: 56

Sample ID: 16C0195-09

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 48

Date Collected: 3/8/2016 7:19:12 PM

Data Type: Reprocessed on 3/9/2016 6:14:52 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0195-09

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	16664138.2	4.186 mg/L	0.0468			1.12%
Y RADIAL	438191.9	4.578 mg/L	0.0104			0.23%
As 188.979†	58.0	0.0325 mg/L	0.00548	0.0325 mg/L	0.00548	16.88%
Tl 190.801†	-382.1	-0.0554 mg/L	0.00118	-0.0554 mg/L	0.00118	2.12%
Se 196.026†	-75.7	0.0079 mg/L	0.00943	0.0079 mg/L	0.00943	118.73%
Zn 206.200†	60774.8	0.6036 mg/L	0.00773	0.6036 mg/L	0.00773	1.28%
Sb 206.836†	-97.8	-0.0110 mg/L	0.00545	-0.0110 mg/L	0.00545	49.39%
Pb 220.353†	14111.1	0.6331 mg/L	0.00435	0.6331 mg/L	0.00435	0.69%
Cd 226.502†	3481.6	0.0041 mg/L	0.00010	0.0041 mg/L	0.00010	2.35%
Co 228.616†	3323.3	0.0408 mg/L	0.00021	0.0408 mg/L	0.00021	0.51%
Ni 232.003†	5392.3	0.1247 mg/L	0.00388	0.1247 mg/L	0.00388	3.11%
Ba 233.527†	170732.1	0.9965 mg/L	0.01030	0.9965 mg/L	0.01030	1.03%
Mn 257.610†	3815735.3	2.350 mg/L	0.0186	2.350 mg/L	0.0186	0.79%
Cr 267.716†	36513.0	0.1519 mg/L	0.00126	0.1519 mg/L	0.00126	0.83%
Fe 273.955†	5777900.9	113.5 mg/L	0.05	113.5 mg/L	0.05	0.05%
Mg 279.077†	1753456.9	39.24 mg/L	0.392	39.24 mg/L	0.392	1.00%
V 292.402†	66891.3	0.1480 mg/L	0.00094	0.1480 mg/L	0.00094	0.63%
Al 308.215†	3091201.6	80.00 mg/L	0.630	80.00 mg/L	0.630	0.79%
Be 313.107†	-3791.4	-0.0006 mg/L	0.00012	-0.0006 mg/L	0.00012	20.59%
Cu 324.752†	72040.4	0.2103 mg/L	0.00068	0.2103 mg/L	0.00068	0.32%
Ag 338.289†	-5024.3	-0.0295 mg/L	0.00085	-0.0295 mg/L	0.00085	2.87%
Na 330.237†	8869.9	7.668 mg/L	0.1460	7.668 mg/L	0.1460	1.90%
Ca 227.546†	374375.3	618.7 mg/L	6.31	618.7 mg/L	6.31	1.02%
Al RADIAL†	278769.8	72.40 mg/L	1.030	72.40 mg/L	1.030	1.42%
Fe RADIAL†	95368.3	115.5 mg/L	0.65	115.5 mg/L	0.65	0.57%
Ca RADIAL†	6333156.1	616.1 mg/L	9.19	616.1 mg/L	9.19	1.49%
K RADIAL†	21887.2	10.93 mg/L	0.081	10.93 mg/L	0.081	0.74%
Mg RADIAL†	31958.4	38.14 mg/L	0.159	38.14 mg/L	0.159	0.42%
Na RADIAL†	148114.6	8.528 mg/L	0.1850	8.528 mg/L	0.1850	2.17%
Mo 202.031	448.0	0.008 mg/L	0.0003	0.008 mg/L	0.0003	3.09%

Sequence No.: 57

Sample ID: SEQ-CCV5

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 3/8/2016 7:23:53 PM

Data Type: Reprocessed on 3/9/2016 6:14:53 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	20413823.4	5.128 mg/L	0.0916			1.79%
Y RADIAL	498960.0	5.213 mg/L	0.0827			1.59%
As 188.979†	952.6	0.2500 mg/L	0.00209	0.2500 mg/L	0.00209	0.84%
Tl 190.801†	1420.2	0.2451 mg/L	0.00246	0.2451 mg/L	0.00246	1.00%
Se 196.026†	472.1	0.2406 mg/L	0.00540	0.2406 mg/L	0.00540	2.25%
Zn 206.200†	244938.1	2.437 mg/L	0.0295	2.437 mg/L	0.0295	1.21%
Sb 206.836†	1457.2	0.2330 mg/L	0.00253	0.2330 mg/L	0.00253	1.09%
Pb 220.353†	5519.3	0.2450 mg/L	0.00306	0.2450 mg/L	0.00306	1.25%
Cd 226.502†	34204.4	0.1191 mg/L	0.00150	0.1191 mg/L	0.00150	1.26%
Co 228.616†	213235.5	2.463 mg/L	0.0295	2.463 mg/L	0.0295	1.20%
Ni 232.003†	102192.6	2.429 mg/L	0.0303	2.429 mg/L	0.0303	1.25%
Ba 233.527†	1705777.7	9.956 mg/L	0.1204	9.956 mg/L	0.1204	1.21%
Mn 257.610†	4119572.5	2.522 mg/L	0.0317	2.522 mg/L	0.0317	1.26%
Cr 267.716†	239685.2	0.9740 mg/L	0.01073	0.9740 mg/L	0.01073	1.10%
Fe 273.955†	249168.0	4.896 mg/L	0.0608	4.896 mg/L	0.0608	1.24%
Mg 279.077†	1086483.8	24.33 mg/L	0.281	24.33 mg/L	0.281	1.15%
V 292.402†	1030864.5	2.405 mg/L	0.0247	2.405 mg/L	0.0247	1.03%
Al 308.215†	361240.5	9.348 mg/L	0.1272	9.348 mg/L	0.1272	1.36%
Be 313.107†	1655533.6	0.2498 mg/L	0.00238	0.2498 mg/L	0.00238	0.95%
Cu 324.752†	445988.8	1.210 mg/L	0.0181	1.210 mg/L	0.0181	1.49%
Ag 338.289†	240657.0	1.192 mg/L	0.0165	1.192 mg/L	0.0165	1.39%
Na 330.237†	30302.3	22.35 mg/L	0.301	22.35 mg/L	0.301	1.35%
Ca 227.546†	14442.8	23.88 mg/L	0.148	23.88 mg/L	0.148	0.62%
Al RADIAL†	36443.4	9.465 mg/L	0.0269	9.465 mg/L	0.0269	0.28%
Fe RADIAL†	4133.7	5.008 mg/L	0.1241	5.008 mg/L	0.1241	2.48%
Ca RADIAL†	258917.0	25.19 mg/L	0.029	25.19 mg/L	0.029	0.12%
K RADIAL†	10020.3	5.005 mg/L	0.1271	5.005 mg/L	0.1271	2.54%

Mg RADIAL†	20977.5	25.04 mg/L	0.737	25.04 mg/L	0.737	2.94%
Na RADIAL†	428270.4	24.66 mg/L	0.234	24.66 mg/L	0.234	0.95%
Mo 202.031	60844.2	1.138 mg/L	0.0153	1.138 mg/L	0.0153	1.34%

Sequence No.: 58

Sample ID: SEQ-CCB5

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/8/2016 7:31:35 PM

Data Type: Reprocessed on 3/9/2016 6:14:53 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	21110372.8	5.303 mg/L	0.0536			1.01%
Y RADIAL	509172.9	5.320 mg/L	0.0786			1.48%
As 188.979†	-8.3	-0.0022 mg/L	0.00196	-0.0022 mg/L	0.00196	90.00%
Tl 190.801†	-0.9	-0.0002 mg/L	0.00224	-0.0002 mg/L	0.00224	>999.9%
Se 196.026†	-6.2	-0.0031 mg/L	0.00194	-0.0031 mg/L	0.00194	61.73%
Zn 206.200†	-1187.3	-0.0118 mg/L	0.00011	-0.0118 mg/L	0.00011	0.91%
Sb 206.836†	7.4	0.0012 mg/L	0.00302	0.0012 mg/L	0.00302	255.82%
Pb 220.353†	8.7	0.0004 mg/L	0.00084	0.0004 mg/L	0.00084	225.22%
Co 226.502†	-5.4	0.0000 mg/L	0.00007	0.0000 mg/L	0.00007	403.43%
Co 228.616†	-3.9	0.0000 mg/L	0.00028	0.0000 mg/L	0.00028	624.17%
Ni 232.003†	36.9	0.0009 mg/L	0.00084	0.0009 mg/L	0.00084	95.77%
Ba 233.527†	-194.7	-0.0011 mg/L	0.00011	-0.0011 mg/L	0.00011	9.56%
Mn 257.610†	-938.3	-0.0006 mg/L	0.00002	-0.0006 mg/L	0.00002	3.24%
Cr 267.716†	-32.3	-0.0001 mg/L	0.00021	-0.0001 mg/L	0.00021	156.48%
Fe 273.955†	-116.6	-0.0023 mg/L	0.00044	-0.0023 mg/L	0.00044	19.01%
Mg 279.077†	-15.4	-0.0003 mg/L	0.00059	-0.0003 mg/L	0.00059	171.13%
V 292.402†	-164.8	-0.0004 mg/L	0.00012	-0.0004 mg/L	0.00012	32.48%
Al 308.215†	-4290.1	-0.1110 mg/L	0.00111	-0.1110 mg/L	0.00111	1.00%
Be 313.107†	203.4	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	55.49%
Cu 324.752†	64.3	0.0002 mg/L	0.00023	0.0002 mg/L	0.00023	133.39%
Ag 338.289†	349.7	0.0017 mg/L	0.00021	0.0017 mg/L	0.00021	12.36%
Na 330.237†	-499.5	-0.3675 mg/L	0.03226	-0.3675 mg/L	0.03226	8.78%
Ca 227.546†	47.0	0.0775 mg/L	0.03922	0.0775 mg/L	0.03922	50.60%
Al RADIAL†	-306.3	-0.0796 mg/L	0.01336	-0.0796 mg/L	0.01336	16.79%
Fe RADIAL†	-3.0	-0.0037 mg/L	0.00594	-0.0037 mg/L	0.00594	161.12%
Ca RADIAL†	-97.3	-0.0095 mg/L	0.00330	-0.0095 mg/L	0.00330	34.81%
K RADIAL†	10.7	0.0053 mg/L	0.04321	0.0053 mg/L	0.04321	810.00%
Mg RADIAL†	3.9	0.0046 mg/L	0.00272	0.0046 mg/L	0.00272	58.59%
Na RADIAL†	-8268.5	-0.4761 mg/L	0.02401	-0.4761 mg/L	0.02401	5.04%
Mo 202.031	25.9	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	46.84%

Sequence No.: 59

Sample ID: 16C0195-10

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 49

Date Collected: 3/8/2016 7:36:44 PM

Data Type: Reprocessed on 3/9/2016 6:14:54 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0195-10

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	17687292.7	4.443 mg/L	0.0252			0.57%
Y RADIAL	480200.1	5.017 mg/L	0.0580			1.16%
As 188.979†	25.8	0.0296 mg/L	0.00278	0.0296 mg/L	0.00278	9.40%
Tl 190.801†	-261.8	-0.0314 mg/L	0.00168	-0.0314 mg/L	0.00168	5.36%
Se 196.026†	-113.3	0.0036 mg/L	0.00455	0.0036 mg/L	0.00455	126.35%
Zn 206.200†	72798.1	0.7229 mg/L	0.00410	0.7229 mg/L	0.00410	0.57%
Sb 206.836†	-80.7	-0.0068 mg/L	0.00156	-0.0068 mg/L	0.00156	22.86%
Pb 220.353†	5523.6	0.2468 mg/L	0.00148	0.2468 mg/L	0.00148	0.60%
Co 226.502†	7311.0	0.0149 mg/L	0.00017	0.0149 mg/L	0.00017	1.13%
Co 228.616†	3015.7	0.0380 mg/L	0.00038	0.0380 mg/L	0.00038	1.00%
Ni 232.003†	4453.9	0.1013 mg/L	0.00455	0.1013 mg/L	0.00455	4.49%
Ba 233.527†	61022.7	0.3562 mg/L	0.00191	0.3562 mg/L	0.00191	0.54%
Mn 257.610†	2762013.2	1.710 mg/L	0.0124	1.710 mg/L	0.0124	0.72%

Cr 267.716†	29530.0	0.1246 mg/L	0.00099	0.1246 mg/L	0.00099	0.79%
Fe 273.955†	7724801.2	151.8 mg/L	0.34	151.8 mg/L	0.34	0.23%
Mg 279.077†	5236848.0	117.2 mg/L	0.30	117.2 mg/L	0.30	0.26%
V 292.402†	98518.4	0.2192 mg/L	0.00145	0.2192 mg/L	0.00145	0.66%
Al 308.215†	2033168.5	52.62 mg/L	0.433	52.62 mg/L	0.433	0.82%
Be 313.107†	1830.9	0.0003 mg/L	0.00005	0.0003 mg/L	0.00005	17.56%
Cu 324.752†	66450.8	0.1999 mg/L	0.00129	0.1999 mg/L	0.00129	0.65%
Ag 338.289†	-3049.1	-0.0178 mg/L	0.00067	-0.0178 mg/L	0.00067	3.76%
Na 330.237†	1453.6	2.279 mg/L	0.0110	2.279 mg/L	0.0110	0.48%
Ca 227.546†	316393.8	523.4 mg/L	2.40	523.4 mg/L	2.40	0.46%
Al RADIAL†	186429.4	48.42 mg/L	0.175	48.42 mg/L	0.175	0.36%
Fe RADIAL†	125587.5	152.2 mg/L	0.47	152.2 mg/L	0.47	0.31%
Ca RADIAL†	5270335.6	512.7 mg/L	6.37	512.7 mg/L	6.37	1.24%
K RADIAL†	11371.0	5.680 mg/L	0.0480	5.680 mg/L	0.0480	0.84%
Mg RADIAL†	94124.0	112.3 mg/L	0.40	112.3 mg/L	0.40	0.36%
Na RADIAL†	33802.2	1.946 mg/L	0.0106	1.946 mg/L	0.0106	0.54%
Mg 202.031	459.3	0.009 mg/L	0.0001	0.009 mg/L	0.0001	1.03%

Sequence No.: 60

Sample ID: 16C0225-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 50

Date Collected: 3/8/2016 7:41:27 PM

Data Type: Reprocessed on 3/9/2016 6:14:55 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0225-01

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units		
Y 371.029	20030402.9	5.032 mg/L	0.0884			1.76%
Y RADIAL	483934.1	5.056 mg/L	0.0543			1.07%
As 188.979†	23.8	0.0279 mg/L	0.00255	0.0279 mg/L	0.00255	9.15%
Tl 190.801†	-303.3	-0.0393 mg/L	0.00239	-0.0393 mg/L	0.00239	6.08%
Se 196.026†	-86.7	0.0140 mg/L	0.00618	0.0140 mg/L	0.00618	44.22%
Zn 206.200†	148218.7	1.474 mg/L	0.0416	1.474 mg/L	0.0416	2.82%
Sb 206.836†	-96.1	-0.0096 mg/L	0.00174	-0.0096 mg/L	0.00174	18.16%
Pb 220.353†	14626.6	0.6451 mg/L	0.00894	0.6451 mg/L	0.00894	1.39%
Cd 226.502†	3594.6	0.0024 mg/L	0.00033	0.0024 mg/L	0.00033	13.64%
Co 228.616†	5336.1	0.0647 mg/L	0.00081	0.0647 mg/L	0.00081	1.26%
Ni 232.003†	5547.9	0.1275 mg/L	0.00238	0.1275 mg/L	0.00238	1.87%
Ba 233.527†	386813.4	2.258 mg/L	0.0617	2.258 mg/L	0.0617	2.73%
Mn 257.610†	6671973.5	4.102 mg/L	0.0973	4.102 mg/L	0.0973	2.37%
Cr 267.716†	33258.2	0.1395 mg/L	0.00351	0.1395 mg/L	0.00351	2.52%
Fe 273.955†	6866579.0	134.9 mg/L	3.29	134.9 mg/L	3.29	2.44%
Mg 279.077†	1059004.1	23.69 mg/L	0.600	23.69 mg/L	0.600	2.53%
V 292.402†	99140.9	0.2212 mg/L	0.00594	0.2212 mg/L	0.00594	2.69%
Al 308.215†	2313134.5	59.87 mg/L	1.702	59.87 mg/L	1.702	2.84%
Be 313.107†	5129.0	0.0008 mg/L	0.00004	0.0008 mg/L	0.00004	5.55%
Cu 324.752†	77660.8	0.2293 mg/L	0.00501	0.2293 mg/L	0.00501	2.18%
Ag 338.289†	-5684.8	-0.0264 mg/L	0.00056	-0.0264 mg/L	0.00056	2.11%
Na 330.237†	1036.6	1.531 mg/L	0.0796	1.531 mg/L	0.0796	5.20%
Ca 227.546†	55066.9	92.15 mg/L	2.394	92.15 mg/L	2.394	2.60%
Al RADIAL†	233116.9	60.56 mg/L	0.131	60.56 mg/L	0.131	0.22%
Fe RADIAL†	119228.4	144.5 mg/L	1.31	144.5 mg/L	1.31	0.91%
Ca RADIAL†	1031495.8	100.3 mg/L	0.27	100.3 mg/L	0.27	0.26%
K RADIAL†	19347.5	9.664 mg/L	0.0280	9.664 mg/L	0.0280	0.29%
Mg RADIAL†	20930.0	24.97 mg/L	0.272	24.97 mg/L	0.272	1.09%
Na RADIAL†	18805.6	1.083 mg/L	0.0450	1.083 mg/L	0.0450	4.15%
Mg 202.031	-104.6	-0.002 mg/L	0.0001	-0.002 mg/L	0.0001	7.03%

Sequence No.: 61

Sample ID: 16C0225-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 51

Date Collected: 3/8/2016 7:46:15 PM

Data Type: Reprocessed on 3/9/2016 6:14:55 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0225-02

Mean Corrected	Calib.	Sample

Analyte	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
Y 371.029	18869226.7	4.740 mg/L	0.0426			0.90%
Y RADIAL	483123.2	5.048 mg/L	0.0577			1.14%
As 188.979†	59.3	0.0340 mg/L	0.00332	0.0340 mg/L	0.00332	9.78%
Tl 190.801†	-298.5	-0.0404 mg/L	0.00133	-0.0404 mg/L	0.00133	3.30%
Se 196.026†	-85.9	0.0058 mg/L	0.00698	0.0058 mg/L	0.00698	120.92%
Zn 206.200†	213766.8	2.126 mg/L	0.0511	2.126 mg/L	0.0511	2.40%
Sb 206.836†	-78.0	-0.0076 mg/L	0.00209	-0.0076 mg/L	0.00209	27.61%
Pb 220.353†	22713.4	1.005 mg/L	0.0055	1.005 mg/L	0.0055	0.55%
Cd 226.502†	3367.0	0.0031 mg/L	0.00013	0.0031 mg/L	0.00013	4.20%
Cd 228.616†	4369.2	0.0530 mg/L	0.00041	0.0530 mg/L	0.00041	0.77%
Ni 232.003†	5473.8	0.1264 mg/L	0.00140	0.1264 mg/L	0.00140	1.11%
Ba 233.527†	802214.6	4.682 mg/L	0.1008	4.682 mg/L	0.1008	2.15%
Mn 257.610†	4854161.5	2.987 mg/L	0.0116	2.987 mg/L	0.0116	0.39%
Cr 267.716†	35720.8	0.1489 mg/L	0.00339	0.1489 mg/L	0.00339	2.27%
Fe 273.955†	6086021.8	119.6 mg/L	0.52	119.6 mg/L	0.52	0.44%
Mg 279.077†	1303081.8	29.16 mg/L	0.700	29.16 mg/L	0.700	2.40%
V 292.402†	80581.9	0.1794 mg/L	0.00434	0.1794 mg/L	0.00434	2.42%
Al 308.215†	2237863.5	57.92 mg/L	1.219	57.92 mg/L	1.219	2.10%
Be 313.107†	4047.7	0.0006 mg/L	0.00007	0.0006 mg/L	0.00007	11.12%
Cu 324.752†	67467.6	0.1989 mg/L	0.00302	0.1989 mg/L	0.00302	1.52%
Ag 338.289†	-4517.1	-0.0224 mg/L	0.00124	-0.0224 mg/L	0.00124	5.53%
Na 330.237†	4112.9	3.809 mg/L	0.1217	3.809 mg/L	0.1217	3.20%
Ca 227.546†	124535.7	206.6 mg/L	4.72	206.6 mg/L	4.72	2.28%
Al RADIAL†	215449.1	55.97 mg/L	0.154	55.97 mg/L	0.154	0.28%
Fe RADIAL†	101478.0	122.9 mg/L	0.41	122.9 mg/L	0.41	0.33%
Ca RADIAL†	2225749.3	216.5 mg/L	5.04	216.5 mg/L	5.04	2.33%
K RADIAL†	17271.9	8.627 mg/L	0.0616	8.627 mg/L	0.0616	0.71%
Mg RADIAL†	24015.7	28.66 mg/L	0.069	28.66 mg/L	0.069	0.24%
Na RADIAL†	41650.6	2.398 mg/L	0.0154	2.398 mg/L	0.0154	0.64%
Md 202.031	421.1	0.008 mg/L	0.0002	0.008 mg/L	0.0002	2.13%

Sequence No.: 62

Sample ID: 16C0225-03

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 52

Date Collected: 3/8/2016 7:50:55 PM

Data Type: Reprocessed on 3/9/2016 6:14:56 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0225-03

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20269411.0	5.092 mg/L	0.0066			0.13%
Y RADIAL	486675.0	5.085 mg/L	0.0360			0.71%
As 188.979†	30.5	0.0291 mg/L	0.00202	0.0291 mg/L	0.00202	6.93%
Tl 190.801†	-323.9	-0.0431 mg/L	0.00120	-0.0431 mg/L	0.00120	2.78%
Se 196.026†	-97.9	0.0069 mg/L	0.00198	0.0069 mg/L	0.00198	28.80%
Zn 206.200†	582720.3	5.798 mg/L	0.1117	5.798 mg/L	0.1117	1.93%
Sb 206.836†	-102.7	-0.0108 mg/L	0.00358	-0.0108 mg/L	0.00358	33.17%
Pb 220.353†	18952.6	0.8375 mg/L	0.00821	0.8375 mg/L	0.00821	0.98%
Cd 226.502†	3405.7	0.0020 mg/L	0.00016	0.0020 mg/L	0.00016	7.70%
Cd 228.616†	5393.6	0.0653 mg/L	0.00085	0.0653 mg/L	0.00085	1.31%
Ni 232.003†	5984.8	0.1380 mg/L	0.00369	0.1380 mg/L	0.00369	2.67%
Ba 233.527†	513066.2	2.995 mg/L	0.0507	2.995 mg/L	0.0507	1.69%
Mn 257.610†	5791648.3	3.563 mg/L	0.0466	3.563 mg/L	0.0466	1.31%
Cr 267.716†	31645.2	0.1329 mg/L	0.00233	0.1329 mg/L	0.00233	1.75%
Fe 273.955†	6630071.1	130.3 mg/L	1.77	130.3 mg/L	1.77	1.36%
Mg 279.077†	1127196.3	25.22 mg/L	0.384	25.22 mg/L	0.384	1.52%
V 292.402†	98372.5	0.2197 mg/L	0.00448	0.2197 mg/L	0.00448	2.04%
Al 308.215†	2627153.1	68.00 mg/L	0.923	68.00 mg/L	0.923	1.36%
Be 313.107†	3660.2	0.0006 mg/L	0.00013	0.0006 mg/L	0.00013	22.66%
Cu 324.752†	62583.6	0.1880 mg/L	0.00304	0.1880 mg/L	0.00304	1.62%
Ag 338.289†	-5895.3	-0.0275 mg/L	0.00024	-0.0275 mg/L	0.00024	0.89%
Na 330.237†	8195.7	6.782 mg/L	0.1923	6.782 mg/L	0.1923	2.84%
Ca 227.546†	53849.4	90.11 mg/L	1.897	90.11 mg/L	1.897	2.10%
Al RADIAL†	266734.9	69.29 mg/L	0.720	69.29 mg/L	0.720	1.04%
Fe RADIAL†	116268.8	140.9 mg/L	0.91	140.9 mg/L	0.91	0.64%
Ca RADIAL†	1031496.8	100.3 mg/L	1.20	100.3 mg/L	1.20	1.20%
K RADIAL†	15322.7	7.654 mg/L	0.0458	7.654 mg/L	0.0458	0.60%
Mg RADIAL†	22470.3	26.81 mg/L	0.146	26.81 mg/L	0.146	0.54%

Na RADIAL†	15740.5	0.9063 mg/L	0.03326	0.9063 mg/L	0.03326	3.67%
Mo 202.031†	-67.8	-0.001 mg/L	0.0004	-0.001 mg/L	0.0004	27.83%

Sequence No.: 63

Sample ID: 16C0225-04

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 53

Date Collected: 3/8/2016 7:55:42 PM

Data Type: Reprocessed on 3/9/2016 6:14:57 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0225-04

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029†	20085767.9	5.046 mg/L		0.0077			0.15%
Y RADIAL	483992.0	5.057 mg/L		0.0241			0.48%
As 188.979†	39.8	0.0353 mg/L		0.00138	0.0353 mg/L	0.00138	3.91%
Te 190.801†	-310.7	-0.0386 mg/L		0.00078	-0.0386 mg/L	0.00078	2.03%
Se 196.026†	-106.6	0.0125 mg/L		0.00069	0.0125 mg/L	0.00069	5.50%
Zn 206.200†	234156.6	2.329 mg/L		0.0168	2.329 mg/L	0.0168	0.72%
Sb 206.836†	-97.7	-0.0090 mg/L		0.00277	-0.0090 mg/L	0.00277	30.79%
Pb 220.353†	26141.4	1.153 mg/L		0.0025	1.153 mg/L	0.0025	0.22%
Cd 226.502†	4087.7	0.0026 mg/L		0.00014	0.0026 mg/L	0.00014	5.28%
Co 228.616†	4953.8	0.0607 mg/L		0.00023	0.0607 mg/L	0.00023	0.38%
Ni 232.003†	6111.7	0.1403 mg/L		0.00294	0.1403 mg/L	0.00294	2.10%
Ba 233.527†	878995.1	5.131 mg/L		0.0834	5.131 mg/L	0.0834	1.63%
Mn 257.610†	4545913.6	2.804 mg/L		0.0467	2.804 mg/L	0.0467	1.67%
Cr 267.716†	33553.9	0.1414 mg/L		0.00081	0.1414 mg/L	0.00081	0.57%
Fe 273.955†	7744860.6	152.2 mg/L		0.08	152.2 mg/L	0.08	0.05%
Mg 279.077†	1194609.7	26.72 mg/L		0.489	26.72 mg/L	0.489	1.83%
V 292.402†	122492.4	0.2742 mg/L		0.00169	0.2742 mg/L	0.00169	0.62%
Al 308.215†	2330426.3	60.32 mg/L		1.111	60.32 mg/L	1.111	1.84%
Be 313.107†	3820.6	0.0006 mg/L		0.00003	0.0006 mg/L	0.00003	4.98%
Cu 324.752†	156786.0	0.4466 mg/L		0.00101	0.4466 mg/L	0.00101	0.23%
Ag 338.289†	-5544.6	-0.0257 mg/L		0.00034	-0.0257 mg/L	0.00034	1.31%
Na 330.237†	2680.0	2.880 mg/L		0.1283	2.880 mg/L	0.1283	4.46%
Ca 227.546†	75802.6	126.5 mg/L		0.63	126.5 mg/L	0.63	0.50%
Al RADIAL†	234893.5	61.02 mg/L		1.078	61.02 mg/L	1.078	1.77%
Fe RADIAL†	137079.2	166.1 mg/L		1.42	166.1 mg/L	1.42	0.86%
Ca RADIAL†	1445209.2	140.6 mg/L		1.76	140.6 mg/L	1.76	1.25%
K RADIAL†	17328.1	8.655 mg/L		0.0704	8.655 mg/L	0.0704	0.81%
Mg RADIAL†	23331.9	27.83 mg/L		0.234	27.83 mg/L	0.234	0.84%
Na RADIAL†	20464.3	1.178 mg/L		0.0150	1.178 mg/L	0.0150	1.27%
Mo 202.031†	-37.7	-0.001 mg/L		0.0005	-0.001 mg/L	0.0005	73.12%

Sequence No.: 64

Sample ID: 16C0225-05

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 54

Date Collected: 3/8/2016 8:00:31 PM

Data Type: Reprocessed on 3/9/2016 6:14:58 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0225-05

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029†	20192448.0	5.072 mg/L		0.0085			0.17%
Y RADIAL	488208.6	5.101 mg/L		0.0665			1.30%
As 188.979†	21.2	0.0267 mg/L		0.00119	0.0267 mg/L	0.00119	4.47%
Te 190.801†	-305.0	-0.0399 mg/L		0.00081	-0.0399 mg/L	0.00081	2.03%
Se 196.026†	-83.6	0.0141 mg/L		0.00187	0.0141 mg/L	0.00187	13.20%
Zn 206.200†	166602.5	1.657 mg/L		0.0126	1.657 mg/L	0.0126	0.76%
Sb 206.836†	-97.0	-0.0099 mg/L		0.00101	-0.0099 mg/L	0.00101	10.17%
Pb 220.353†	20706.3	0.9155 mg/L		0.00992	0.9155 mg/L	0.00992	1.08%
Cd 226.502†	3605.6	0.0027 mg/L		0.00010	0.0027 mg/L	0.00010	3.62%
Co 228.616†	4598.9	0.0561 mg/L		0.00071	0.0561 mg/L	0.00071	1.27%
Ni 232.003†	5697.3	0.1312 mg/L		0.00140	0.1312 mg/L	0.00140	1.06%
Ba 233.527†	417053.7	2.434 mg/L		0.0165	2.434 mg/L	0.0165	0.68%
Mn 257.610†	4429444.3	2.729 mg/L		0.0402	2.729 mg/L	0.0402	1.47%
Cr 267.716†	33461.8	0.1402 mg/L		0.00150	0.1402 mg/L	0.00150	1.07%

Fe 273.955†	6634183.2	130.3 mg/L	1.84	130.3 mg/L	1.84	1.41%
Mg 279.077†	989002.8	22.12 mg/L	0.337	22.12 mg/L	0.337	1.52%
V 292.402†	113111.1	0.2541 mg/L	0.00150	0.2541 mg/L	0.00150	0.59%
Al 308.215†	2755778.7	71.33 mg/L	1.088	71.33 mg/L	1.088	1.53%
Be 313.107†	8610.0	0.0013 mg/L	0.00001	0.0013 mg/L	0.00001	0.81%
Cu 324.752†	54845.0	0.1670 mg/L	0.00081	0.1670 mg/L	0.00081	0.49%
Ag 338.289†	-5575.1	-0.0261 mg/L	0.00079	-0.0261 mg/L	0.00079	3.02%
Na 330.237†	3062.7	3.024 mg/L	0.0687	3.024 mg/L	0.0687	2.27%
Ca 227.546†	64876.5	108.3 mg/L	1.01	108.3 mg/L	1.01	0.93%
Al RADIAL†	276047.2	71.71 mg/L	0.447	71.71 mg/L	0.447	0.62%
Fe RADIAL†	116346.8	141.0 mg/L	2.02	141.0 mg/L	2.02	1.44%
Ca RADIAL†	1225826.0	119.2 mg/L	0.16	119.2 mg/L	0.16	0.13%
K RADIAL†	17747.9	8.865 mg/L	0.1017	8.865 mg/L	0.1017	1.15%
Mg RADIAL†	19728.0	23.54 mg/L	0.373	23.54 mg/L	0.373	1.58%
Na RADIAL†	45456.9	2.617 mg/L	0.0219	2.617 mg/L	0.0219	0.84%
Mo 202.031†	-39.3	-0.001 mg/L	0.0004	-0.001 mg/L	0.0004	59.66%

Sequence No.: 65

Sample ID: 16C0225-06

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 55

Date Collected: 3/8/2016 8:05:18 PM

Data Type: Reprocessed on 3/9/2016 6:14:58 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0225-06

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20403620.9	5.125 mg/L	0.0610			1.19%
Y RADIAL	479858.4	5.014 mg/L	0.0177			0.35%
As 188.979†	-7.5	0.0169 mg/L	0.00060	0.0169 mg/L	0.00060	3.51%
Ti 190.801†	-354.0	-0.0496 mg/L	0.00210	-0.0496 mg/L	0.00210	4.22%
Se 196.026†	-89.3	0.0053 mg/L	0.00233	0.0053 mg/L	0.00233	44.19%
Zn 206.200†	148316.1	1.475 mg/L	0.0148	1.475 mg/L	0.0148	1.01%
Sb 206.836†	-112.7	-0.0130 mg/L	0.00202	-0.0130 mg/L	0.00202	15.51%
Pb 220.353†	15641.3	0.6920 mg/L	0.00448	0.6920 mg/L	0.00448	0.65%
Cd 226.502†	2877.8	0.0012 mg/L	0.00013	0.0012 mg/L	0.00013	10.47%
Co 228.616†	4372.3	0.0531 mg/L	0.00052	0.0531 mg/L	0.00052	0.97%
Ni 232.003†	5023.4	0.1156 mg/L	0.00074	0.1156 mg/L	0.00074	0.64%
Ba 233.527†	391178.5	2.283 mg/L	0.0290	2.283 mg/L	0.0290	1.27%
Mn 257.610†	3653524.5	2.252 mg/L	0.0190	2.252 mg/L	0.0190	0.84%
Cr 267.716†	33490.5	0.1399 mg/L	0.00216	0.1399 mg/L	0.00216	1.54%
Fe 273.955†	5978720.1	117.5 mg/L	0.97	117.5 mg/L	0.97	0.83%
Mg 279.077†	1036551.3	23.19 mg/L	0.206	23.19 mg/L	0.206	0.89%
V 292.402†	97834.6	0.2195 mg/L	0.00266	0.2195 mg/L	0.00266	1.21%
Al 308.215†	2556577.5	66.17 mg/L	0.570	66.17 mg/L	0.570	0.86%
Be 313.107†	1048.2	0.0002 mg/L	0.00011	0.0002 mg/L	0.00011	67.34%
Cu 324.752†	854577.0	2.333 mg/L	0.0191	2.333 mg/L	0.0191	0.82%
Ag 338.289†	-6177.2	-0.0290 mg/L	0.00029	-0.0290 mg/L	0.00029	1.00%
Na 330.237†	719.4	1.192 mg/L	0.0410	1.192 mg/L	0.0410	3.44%
Ca 227.546†	41908.9	70.28 mg/L	0.831	70.28 mg/L	0.831	1.18%
Al RADIAL†	265789.8	69.05 mg/L	1.112	69.05 mg/L	1.112	1.61%
Fe RADIAL†	104037.1	126.0 mg/L	0.17	126.0 mg/L	0.17	0.13%
Ca RADIAL†	823385.4	80.10 mg/L	1.221	80.10 mg/L	1.221	1.52%
K RADIAL†	18206.0	9.094 mg/L	0.0189	9.094 mg/L	0.0189	0.21%
Mg RADIAL†	20569.5	24.54 mg/L	0.035	24.54 mg/L	0.035	0.14%
Na RADIAL†	18371.7	1.058 mg/L	0.0278	1.058 mg/L	0.0278	2.63%
Mo 202.031†	-154.3	-0.003 mg/L	0.0002	-0.003 mg/L	0.0002	7.54%

Sequence No.: 66

Sample ID: 16C0225-07

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 56

Date Collected: 3/8/2016 8:10:06 PM

Data Type: Reprocessed on 3/9/2016 6:14:59 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0225-07

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD

Y 371.029	20813337.4	5.228 mg/L	0.0460			0.88%
Y RADIAL	490372.7	5.123 mg/L	0.0319			0.62%
As 188.979†	-56.7	0.0143 mg/L	0.00265	0.0143 mg/L	0.00265	18.49%
Tl 190.801†	-342.7	-0.0415 mg/L	0.00245	-0.0415 mg/L	0.00245	5.89%
Se 196.026†	-119.7	0.0173 mg/L	0.00698	0.0173 mg/L	0.00698	40.38%
Zn 206.200†	50012.8	0.4958 mg/L	0.01465	0.4958 mg/L	0.01465	2.96%
Sb 206.836†	-155.6	-0.0171 mg/L	0.00072	-0.0171 mg/L	0.00072	4.24%
Pb 220.353†	4089.5	0.1764 mg/L	0.00060	0.1764 mg/L	0.00060	0.34%
Cd 226.502†	3606.1	-0.0010 mg/L	0.00047	-0.0010 mg/L	0.00047	45.63%
Co 228.616†	5541.0	0.0681 mg/L	0.00021	0.0681 mg/L	0.00021	0.31%
Ni 232.003†	5307.9	0.1203 mg/L	0.00471	0.1203 mg/L	0.00471	3.91%
Ba 233.527†	137154.5	0.8005 mg/L	0.02252	0.8005 mg/L	0.02252	2.81%
Mn 257.610†	6404887.0	3.945 mg/L	0.0225	3.945 mg/L	0.0225	0.57%
Cr 267.716†	39283.6	0.1655 mg/L	0.00467	0.1655 mg/L	0.00467	2.82%
Fe 273.955†	8848970.9	173.9 mg/L	0.41	173.9 mg/L	0.41	0.23%
Mg 279.077†	855398.5	19.12 mg/L	0.121	19.12 mg/L	0.121	0.63%
V 292.402†	116350.8	0.2579 mg/L	0.00762	0.2579 mg/L	0.00762	2.95%
Al 308.215†	2648740.0	68.57 mg/L	0.516	68.57 mg/L	0.516	0.75%
Be 313.107†	12183.8	0.0018 mg/L	0.00013	0.0018 mg/L	0.00013	7.23%
Cu 324.752†	53796.5	0.1711 mg/L	0.00346	0.1711 mg/L	0.00346	2.02%
Ag 338.289†	-6791.0	-0.0300 mg/L	0.00053	-0.0300 mg/L	0.00053	1.78%
Na 330.237†	-1680.8	-0.3145 mg/L	0.04454	-0.3145 mg/L	0.04454	14.16%
Ca 227.546†	11556.9	20.79 mg/L	0.170	20.79 mg/L	0.170	0.82%
Al RADIAL†	271482.9	70.53 mg/L	1.135	70.53 mg/L	1.135	1.61%
Fe RADIAL†	160541.7	194.5 mg/L	2.16	194.5 mg/L	2.16	1.11%
Ca RADIAL†	224868.3	21.88 mg/L	0.273	21.88 mg/L	0.273	1.25%
K RADIAL†	22085.1	11.03 mg/L	0.105	11.03 mg/L	0.105	0.95%
Mg RADIAL†	17219.7	20.54 mg/L	0.266	20.54 mg/L	0.266	1.29%
Na RADIAL†	8628.4	0.4968 mg/L	0.01212	0.4968 mg/L	0.01212	2.44%
Mo 202.031	-95.2	-0.002 mg/L	0.0003	-0.002 mg/L	0.0003	16.38%

Sequence No.: 67

Sample ID: 16C0225-08

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 57

Date Collected: 3/8/2016 8:14:53 PM

Data Type: Reprocessed on 3/9/2016 6:15:00 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0225-08

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20592811.8	5.173 mg/L		0.0601			1.16%
Y RADIAL	491239.8	5.132 mg/L		0.0430			0.84%
As 188.979†	-32.5	0.0147 mg/L		0.00084	0.0147 mg/L	0.00084	5.72%
Tl 190.801†	-284.7	-0.0351 mg/L		0.00229	-0.0351 mg/L	0.00229	6.51%
Se 196.026†	-106.0	0.0083 mg/L		0.00551	0.0083 mg/L	0.00551	66.73%
Zn 206.200†	51969.6	0.5156 mg/L		0.00679	0.5156 mg/L	0.00679	1.32%
Sb 206.836†	-124.7	-0.0138 mg/L		0.00084	-0.0138 mg/L	0.00084	6.10%
Pb 220.353†	4498.1	0.1948 mg/L		0.00215	0.1948 mg/L	0.00215	1.10%
Cd 226.502†	3035.3	-0.0002 mg/L		0.00043	-0.0002 mg/L	0.00043	189.32%
Co 228.616†	5007.8	0.0611 mg/L		0.00055	0.0611 mg/L	0.00055	0.89%
Ni 232.003†	5033.3	0.1150 mg/L		0.00265	0.1150 mg/L	0.00265	2.31%
Ba 233.527†	130029.4	0.7590 mg/L		0.01024	0.7590 mg/L	0.01024	1.35%
Mn 257.610†	3729868.3	2.303 mg/L		0.0289	2.303 mg/L	0.0289	1.25%
Cr 267.716†	29049.1	0.1227 mg/L		0.00118	0.1227 mg/L	0.00118	0.96%
Fe 273.955†	7074043.3	139.0 mg/L		0.30	139.0 mg/L	0.30	0.22%
Mg 279.077†	797140.1	17.82 mg/L		0.234	17.82 mg/L	0.234	1.32%
V 292.402†	91546.6	0.2028 mg/L		0.00284	0.2028 mg/L	0.00284	1.40%
Al 308.215†	1929703.5	49.95 mg/L		0.622	49.95 mg/L	0.622	1.25%
Be 313.107†	5940.2	0.0009 mg/L		0.00013	0.0009 mg/L	0.00013	14.33%
Cu 324.752†	40000.7	0.1285 mg/L		0.00113	0.1285 mg/L	0.00113	0.88%
Ag 338.289†	-5113.2	-0.0225 mg/L		0.00053	-0.0225 mg/L	0.00053	2.34%
Na 330.237†	-970.4	0.0266 mg/L		0.02790	0.0266 mg/L	0.02790	104.99%
Ca 227.546†	13091.0	22.97 mg/L		0.100	22.97 mg/L	0.100	0.44%
Al RADIAL†	197026.5	51.19 mg/L		0.483	51.19 mg/L	0.483	0.94%
Fe RADIAL†	127642.2	154.6 mg/L		1.87	154.6 mg/L	1.87	1.21%
Ca RADIAL†	255292.7	24.83 mg/L		0.283	24.83 mg/L	0.283	1.14%
K RADIAL†	19920.1	9.950 mg/L		0.1174	9.950 mg/L	0.1174	1.18%
Mg RADIAL†	16129.3	19.24 mg/L		0.271	19.24 mg/L	0.271	1.41%
Na RADIAL†	9318.9	0.5366 mg/L		0.02326	0.5366 mg/L	0.02326	4.33%

Mo 202.031 -252.6 -0.005 mg/L 0.0003 -0.005 mg/L 0.0003 6.45%

Sequence No.: 68

Sample ID: 16C0225-09

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 58

Date Collected: 3/8/2016 8:19:35 PM

Data Type: Reprocessed on 3/9/2016 6:15:01 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0225-09

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	18940139.8	4.758 mg/L		0.0238			0.50%
Y-RADIAL	481808.3	5.034 mg/L		0.0524			1.04%
As 188.979†	58.9	0.0343 mg/L		0.00336	0.0343 mg/L	0.00336	9.80%
Tl 190.801†	-325.1	-0.0447 mg/L		0.00332	-0.0447 mg/L	0.00332	7.43%
Se 196.026†	-87.6	0.0061 mg/L		0.00578	0.0061 mg/L	0.00578	95.14%
Zn 206.200†	220014.1	2.188 mg/L		0.0235	2.188 mg/L	0.0235	1.07%
Sb 206.836†	-80.0	-0.0078 mg/L		0.00138	-0.0078 mg/L	0.00138	17.76%
Pb 220.353†	31276.3	1.384 mg/L		0.0112	1.384 mg/L	0.0112	0.81%
Cd 226.502†	3581.7	0.0037 mg/L		0.00012	0.0037 mg/L	0.00012	3.28%
Co 228.616†	4599.2	0.0558 mg/L		0.00058	0.0558 mg/L	0.00058	1.05%
Ni 232.003†	5676.7	0.1311 mg/L		0.00238	0.1311 mg/L	0.00238	1.81%
Ba 233.527†	809735.0	4.726 mg/L		0.0525	4.726 mg/L	0.0525	1.11%
Mn 257.610†	5379733.1	3.309 mg/L		0.0193	3.309 mg/L	0.0193	0.58%
Cr 267.716†	36797.5	0.1533 mg/L		0.00138	0.1533 mg/L	0.00138	0.90%
Fe 273.955†	6204045.2	121.9 mg/L		0.73	121.9 mg/L	0.73	0.60%
Mg 279.077†	1570946.4	35.16 mg/L		0.402	35.16 mg/L	0.402	1.14%
V 292.402†	112760.8	0.2543 mg/L		0.00246	0.2543 mg/L	0.00246	0.97%
Al 308.215†	2535884.6	65.63 mg/L		0.860	65.63 mg/L	0.860	1.31%
Be 313.107†	3546.1	0.0005 mg/L		0.00003	0.0005 mg/L	0.00003	6.25%
Cu 324.752†	97343.2	0.2803 mg/L		0.00352	0.2803 mg/L	0.00352	1.25%
Ag 338.289†	-4285.3	-0.0215 mg/L		0.00032	-0.0215 mg/L	0.00032	1.48%
Na 330.237†	3878.4	3.681 mg/L		0.0445	3.681 mg/L	0.0445	1.21%
Ca 227.546†	142666.8	236.5 mg/L		2.86	236.5 mg/L	2.86	1.21%
Al RADIAL†	237946.0	61.81 mg/L		0.855	61.81 mg/L	0.855	1.38%
Fe RADIAL†	103951.0	125.9 mg/L		0.76	125.9 mg/L	0.76	0.60%
Ca RADIAL†	2548904.2	248.0 mg/L		3.34	248.0 mg/L	3.34	1.35%
K RADIAL†	17172.1	8.577 mg/L		0.0509	8.577 mg/L	0.0509	0.59%
Mg RADIAL†	29146.8	34.78 mg/L		0.184	34.78 mg/L	0.184	0.53%
Na RADIAL†	43183.2	2.486 mg/L		0.0302	2.486 mg/L	0.0302	1.21%
Mo 202.031†	-91.3	-0.002 mg/L		0.0001	-0.002 mg/L	0.0001	8.52%

Sequence No.: 69

Sample ID: SEQ-CCV6

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 3/8/2016 8:24:17 PM

Data Type: Reprocessed on 3/9/2016 6:15:01 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCV6

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20447889.7	5.137 mg/L		0.0477			0.93%
Y-RADIAL	499108.6	5.215 mg/L		0.0247			0.47%
As 188.979†	944.7	0.2480 mg/L		0.00111	0.2480 mg/L	0.00111	0.45%
Tl 190.801†	1441.8	0.2489 mg/L		0.00160	0.2489 mg/L	0.00160	0.64%
Se 196.026†	469.5	0.2394 mg/L		0.00284	0.2394 mg/L	0.00284	1.18%
Zn 206.200†	241349.0	2.402 mg/L		0.0061	2.402 mg/L	0.0061	0.26%
Sb 206.836†	1446.4	0.2312 mg/L		0.00088	0.2312 mg/L	0.00088	0.38%
Pb 220.353†	5550.8	0.2463 mg/L		0.00199	0.2463 mg/L	0.00199	0.81%
Cd 226.502†	33802.2	0.1176 mg/L		0.00025	0.1176 mg/L	0.00025	0.21%
Co 228.616†	210868.7	2.436 mg/L		0.0088	2.436 mg/L	0.0088	0.36%
Ni 232.003†	101078.9	2.402 mg/L		0.0065	2.402 mg/L	0.0065	0.27%
Ba 233.527†	1690547.8	9.867 mg/L		0.0305	9.867 mg/L	0.0305	0.31%
Mn 257.610†	4071712.8	2.492 mg/L		0.0086	2.492 mg/L	0.0086	0.34%
Cr 267.716†	237141.5	0.9636 mg/L		0.00178	0.9636 mg/L	0.00178	0.19%
Fe 273.955†	246722.3	4.848 mg/L		0.0171	4.848 mg/L	0.0171	0.35%

Mg 279.077†	1074740.6	24.06 mg/L	0.073	24.06 mg/L	0.073	0.30%
V 292.402†	1017424.3	2.374 mg/L	0.0118	2.374 mg/L	0.0118	0.50%
Al 308.215†	357076.7	9.240 mg/L	0.0362	9.240 mg/L	0.0362	0.39%
Be 313.107†	1633054.2	0.2464 mg/L	0.00155	0.2464 mg/L	0.00155	0.63%
Cu 324.752†	440786.1	1.196 mg/L	0.0072	1.196 mg/L	0.0072	0.60%
Ag 338.289†	236651.9	1.172 mg/L	0.0052	1.172 mg/L	0.0052	0.44%
Na 330.237†	29653.9	21.87 mg/L	0.146	21.87 mg/L	0.146	0.67%
Ca 227.546†	14501.9	23.98 mg/L	0.189	23.98 mg/L	0.189	0.79%
Al RADIAL†	36005.3	9.352 mg/L	0.0352	9.352 mg/L	0.0352	0.38%
Fe RADIAL†	4166.4	5.048 mg/L	0.0745	5.048 mg/L	0.0745	1.48%
Ca RADIAL†	257376.6	25.04 mg/L	0.052	25.04 mg/L	0.052	0.21%
K RADIAL†	10111.3	5.051 mg/L	0.0598	5.051 mg/L	0.0598	1.18%
Mg RADIAL†	21268.0	25.39 mg/L	0.351	25.39 mg/L	0.351	1.38%
Na RADIAL†	432920.0	24.93 mg/L	0.061	24.93 mg/L	0.061	0.25%
Mo 202.031	60318.7	1.128 mg/L	0.0134	1.128 mg/L	0.0134	1.19%

Sequence No.: 70

Sample ID: SEQ-CCB6

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/8/2016 8:32:00 PM

Data Type: Reprocessed on 3/9/2016 6:15:02 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCB6

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20709212.9	5.202 mg/L		0.1135			2.18%
Y RADIAL	492734.6	5.148 mg/L		0.1105			2.15%
As 188.979†	-11.2	-0.0029 mg/L		0.00177	-0.0029 mg/L	0.00177	60.28%
Tl 190.801†	-5.0	-0.0009 mg/L		0.00084	-0.0009 mg/L	0.00084	98.02%
Se 196.026†	-1.2	-0.0006 mg/L		0.00546	-0.0006 mg/L	0.00546	878.67%
Zn 206.200†	-1187.9	-0.0118 mg/L		0.00003	-0.0118 mg/L	0.00003	0.27%
Sb 206.836†	5.6	0.0009 mg/L		0.00170	0.0009 mg/L	0.00170	189.00%
Pb 220.353†	-10.2	-0.0005 mg/L		0.00022	-0.0005 mg/L	0.00022	48.25%
Cd 226.502†	0.6	0.0000 mg/L		0.00012	0.0000 mg/L	0.00012	>999.9%
Co 228.616†	-7.6	-0.0001 mg/L		0.00002	-0.0001 mg/L	0.00002	28.15%
Ni 232.003†	22.6	0.0005 mg/L		0.00140	0.0005 mg/L	0.00140	260.93%
Ba 233.527†	-167.0	-0.0010 mg/L		0.00009	-0.0010 mg/L	0.00009	9.57%
Mn 257.610†	-891.0	-0.0005 mg/L		0.00004	-0.0005 mg/L	0.00004	7.01%
Cr 267.716†	-57.3	-0.0002 mg/L		0.00012	-0.0002 mg/L	0.00012	53.49%
Fe 273.955†	-61.6	-0.0012 mg/L		0.00039	-0.0012 mg/L	0.00039	32.06%
Mg 279.077†	-35.7	-0.0008 mg/L		0.00047	-0.0008 mg/L	0.00047	58.59%
V 292.402†	-87.0	-0.0002 mg/L		0.00003	-0.0002 mg/L	0.00003	13.96%
Al 308.215†	-3894.8	-0.1008 mg/L		0.00578	-0.1008 mg/L	0.00578	5.73%
Be 313.107†	-56.5	0.0000 mg/L		0.00002	0.0000 mg/L	0.00002	178.13%
Cu 324.752†	154.7	0.0004 mg/L		0.00024	0.0004 mg/L	0.00024	56.17%
Ag 338.289†	494.0	0.0024 mg/L		0.00006	0.0024 mg/L	0.00006	2.59%
Na 330.237†	-559.6	-0.4118 mg/L		0.04927	-0.4118 mg/L	0.04927	11.97%
Ca 227.546†	58.3	0.0961 mg/L		0.01952	0.0961 mg/L	0.01952	20.31%
Al RADIAL†	-271.1	-0.0704 mg/L		0.00581	-0.0704 mg/L	0.00581	8.25%
Fe RADIAL†	1.6	0.0020 mg/L		0.00820	0.0020 mg/L	0.00820	410.75%
Ca RADIAL†	-120.9	-0.0118 mg/L		0.00418	-0.0118 mg/L	0.00418	35.56%
K RADIAL†	31.4	0.0157 mg/L		0.00745	0.0157 mg/L	0.00745	47.51%
Mg RADIAL†	1.5	0.0018 mg/L		0.02114	0.0018 mg/L	0.02114	>999.9%
Na RADIAL†	-10497.3	-0.6044 mg/L		0.05155	-0.6044 mg/L	0.05155	8.53%
Mo 202.031	19.2	0.000 mg/L		0.0001	0.000 mg/L	0.0001	23.67%

Sequence No.: 71

Sample ID: 16C0225-10

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 59

Date Collected: 3/8/2016 8:37:10 PM

Data Type: Reprocessed on 3/9/2016 6:15:03 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0225-10

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19945676.1	5.010 mg/L		0.1063			2.12%

Y RADIAL	474442.0	4.957 mg/L	0.0540			1.09%
As 188.979†	5.8	0.0265 mg/L	0.00164	0.0265 mg/L	0.00164	6.17%
Tl 190.801†	-442.8	-0.0613 mg/L	0.00109	-0.0613 mg/L	0.00109	1.78%
Se 196.026†	-111.2	0.0105 mg/L	0.00749	0.0105 mg/L	0.00749	71.28%
Zn 206.200†	114244.4	1.135 mg/L	0.0080	1.135 mg/L	0.0080	0.70%
Sb 206.836†	-113.5	-0.0115 mg/L	0.00063	-0.0115 mg/L	0.00063	5.45%
Pb 220.353†	13227.0	0.5826 mg/L	0.00603	0.5826 mg/L	0.00603	1.04%
Cd 226.502†	3591.4	0.0009 mg/L	0.00065	0.0009 mg/L	0.00065	75.13%
Co 228.616†	6403.4	0.0775 mg/L	0.00059	0.0775 mg/L	0.00059	0.76%
Ni 232.003†	8605.7	0.1995 mg/L	0.00197	0.1995 mg/L	0.00197	0.99%
Ba 233.527†	321604.0	1.877 mg/L	0.0112	1.877 mg/L	0.0112	0.60%
Mn 257.610†	5369622.2	3.308 mg/L	0.0425	3.308 mg/L	0.0425	1.28%
Cr 267.716†	37823.0	0.1588 mg/L	0.00170	0.1588 mg/L	0.00170	1.07%
Fe 273.955†	7889907.1	155.0 mg/L	0.25	155.0 mg/L	0.25	0.16%
Mg 279.077†	1225317.7	27.41 mg/L	0.358	27.41 mg/L	0.358	1.31%
V 292.402†	121915.9	0.2728 mg/L	0.00203	0.2728 mg/L	0.00203	0.74%
Al 308.215†	2667942.3	69.06 mg/L	0.873	69.06 mg/L	0.873	1.26%
Be 313.107†	1601.0	0.0002 mg/L	0.00010	0.0002 mg/L	0.00010	43.29%
Cu 324.752†	72276.2	0.2176 mg/L	0.00111	0.2176 mg/L	0.00111	0.51%
Ag 338.289†	-7656.5	-0.0354 mg/L	0.00052	-0.0354 mg/L	0.00052	1.46%
Na 330.237†	-862.9	0.2087 mg/L	0.02360	0.2087 mg/L	0.02360	11.31%
Ca 227.546†	38378.7	64.81 mg/L	0.147	64.81 mg/L	0.147	0.23%
Al RADIAL†	271438.6	70.52 mg/L	1.188	70.52 mg/L	1.188	1.69%
Fe RADIAL†	137668.8	166.8 mg/L	1.74	166.8 mg/L	1.74	1.05%
Co RADIAL†	744092.2	72.38 mg/L	1.235	72.38 mg/L	1.235	1.71%
K RADIAL†	22425.8	11.20 mg/L	0.129	11.20 mg/L	0.129	1.15%
Mg RADIAL†	24017.2	28.65 mg/L	0.336	28.65 mg/L	0.336	1.17%
Na RADIAL†	14558.5	0.8383 mg/L	0.01674	0.8383 mg/L	0.01674	2.00%
Mo 202.031	-177.0	-0.003 mg/L	0.0001	-0.003 mg/L	0.0001	4.20%

Sequence No.: 72

Sample ID: SEQ-SRD3

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 60

Date Collected: 3/8/2016 8:41:59 PM

Data Type: Reprocessed on 3/9/2016 6:15:03 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	18961672.1	4.763 mg/L	0.0289			0.61%
Y RADIAL	492783.5	5.149 mg/L	0.0680			1.32%
As 188.979†	18.0	0.0096 mg/L	0.00172	0.0096 mg/L	0.00172	17.91%
Tl 190.801†	-112.7	-0.0165 mg/L	0.00175	-0.0165 mg/L	0.00175	10.60%
Se 196.026†	-14.1	0.0059 mg/L	0.00347	0.0059 mg/L	0.00347	58.97%
Zn 206.200†	34893.5	0.3469 mg/L	0.00215	0.3469 mg/L	0.00215	0.62%
Sb 206.836†	-26.1	-0.0029 mg/L	0.00124	-0.0029 mg/L	0.00124	42.91%
Pb 220.353†	8110.2	0.3589 mg/L	0.00183	0.3589 mg/L	0.00183	0.51%
Cd 226.502†	868.2	0.0008 mg/L	0.00015	0.0008 mg/L	0.00015	19.65%
Co 228.616†	1313.5	0.0159 mg/L	0.00004	0.0159 mg/L	0.00004	0.23%
Ni 232.003†	1400.8	0.0323 mg/L	0.00083	0.0323 mg/L	0.00083	2.55%
Ba 233.527†	17847.2	0.1042 mg/L	0.00069	0.1042 mg/L	0.00069	0.66%
Mn 257.610†	545640.3	0.3382 mg/L	0.00134	0.3382 mg/L	0.00134	0.40%
Cr 267.716†	10239.5	0.0426 mg/L	0.00053	0.0426 mg/L	0.00053	1.24%
Fe 273.955†	1724845.7	33.89 mg/L	0.420	33.89 mg/L	0.420	1.24%
Mg 279.077†	251928.0	5.636 mg/L	0.0489	5.636 mg/L	0.0489	0.87%
V 292.402†	26522.9	0.0596 mg/L	0.00064	0.0596 mg/L	0.00064	1.07%
Al 308.215†	791281.0	20.48 mg/L	0.280	20.48 mg/L	0.280	1.37%
Be 313.107†	501.1	0.0001 mg/L	0.00002	0.0001 mg/L	0.00002	20.91%
Cu 324.752†	17618.5	0.0520 mg/L	0.00040	0.0520 mg/L	0.00040	0.76%
Ag 338.289†	-1425.4	-0.0068 mg/L	0.00077	-0.0068 mg/L	0.00077	11.40%
Na 330.237†	-298.3	-0.0360 mg/L	0.06578	-0.0360 mg/L	0.06578	182.88%
Ca 227.546†	18499.4	30.82 mg/L	0.141	30.82 mg/L	0.141	0.46%
Al RADIAL†	76629.5	19.91 mg/L	0.021	19.91 mg/L	0.021	0.10%
Fe RADIAL†	26879.9	32.57 mg/L	0.238	32.57 mg/L	0.238	0.73%
Co RADIAL†	341693.5	33.24 mg/L	0.032	33.24 mg/L	0.032	0.10%
K RADIAL†	4580.6	2.288 mg/L	0.0344	2.288 mg/L	0.0344	1.50%
Mg RADIAL†	4464.0	5.325 mg/L	0.0168	5.325 mg/L	0.0168	0.32%
Na RADIAL†	-3647.9	-0.2100 mg/L	0.04219	-0.2100 mg/L	0.04219	20.09%
Mo 202.031	15.6	0.000 mg/L	0.0004	0.000 mg/L	0.0004	138.02%

Sequence No.: 73
 Sample ID: BC60395-BLK1
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 61
 Date Collected: 3/8/2016 8:46:44 PM
 Data Type: Reprocessed on 3/9/2016 6:15:04 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: BC60395-BLK1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21133826.2	5.309 mg/L		0.0388			0.73%
Y RADIAL	506059.9	5.287 mg/L		0.0656			1.24%
As 188.979†	-7.1	-0.0018 mg/L		0.00143	-0.0018 mg/L	0.00143	77.54%
Tl 190.801†	-6.3	-0.0011 mg/L		0.00133	-0.0011 mg/L	0.00133	122.32%
Se 196.026†	-10.3	-0.0052 mg/L		0.00092	-0.0052 mg/L	0.00092	17.69%
Zn 206.200†	-1351.1	-0.0134 mg/L		0.00005	-0.0134 mg/L	0.00005	0.40%
Sb 206.836†	-9.1	-0.0015 mg/L		0.00013	-0.0015 mg/L	0.00013	8.76%
Pb 220.353†	-12.4	-0.0006 mg/L		0.00023	-0.0006 mg/L	0.00023	41.69%
Cd 226.502†	1.2	0.0000 mg/L		0.00011	0.0000 mg/L	0.00011	>999.9%
Co 228.616†	-28.3	-0.0003 mg/L		0.00003	-0.0003 mg/L	0.00003	8.97%
Ni 232.003†	39.6	0.0009 mg/L		0.00048	0.0009 mg/L	0.00048	51.39%
Ba 233.527†	-272.0	-0.0016 mg/L		0.00005	-0.0016 mg/L	0.00005	3.15%
Mn 257.610†	-1092.6	-0.0007 mg/L		0.00002	-0.0007 mg/L	0.00002	2.80%
Cr 267.716†	-79.9	-0.0003 mg/L		0.00030	-0.0003 mg/L	0.00030	92.43%
Fe 273.955†	84.1	0.0017 mg/L		0.00054	0.0017 mg/L	0.00054	32.76%
Mg 279.077†	-123.4	-0.0028 mg/L		0.00075	-0.0028 mg/L	0.00075	27.16%
V 292.402†	-139.8	-0.0003 mg/L		0.00007	-0.0003 mg/L	0.00007	22.21%
Al 308.215†	-3853.0	-0.0997 mg/L		0.00350	-0.0997 mg/L	0.00350	3.51%
Be 313.107†	-641.0	-0.0001 mg/L		0.00002	-0.0001 mg/L	0.00002	15.81%
Cu 324.752†	17.9	0.0000 mg/L		0.00043	0.0000 mg/L	0.00043	878.08%
Ag 338.289†	100.6	0.0005 mg/L		0.00044	0.0005 mg/L	0.00044	88.77%
Na 330.237†	-529.0	-0.3893 mg/L		0.03350	-0.3893 mg/L	0.03350	8.61%
Ca 227.546†	78.0	0.1287 mg/L		0.03679	0.1287 mg/L	0.03679	28.59%
Al RADIAL†	-306.5	-0.0796 mg/L		0.01539	-0.0796 mg/L	0.01539	19.32%
Fe RADIAL†	-0.0	0.0000 mg/L		0.00791	0.0000 mg/L	0.00791	>999.9%
Ca RADIAL†	-125.7	-0.0122 mg/L		0.00606	-0.0122 mg/L	0.00606	49.57%
K RADIAL†	-38.1	-0.0191 mg/L		0.01158	-0.0191 mg/L	0.01158	60.77%
Mg RADIAL†	-1.8	-0.0022 mg/L		0.00334	-0.0022 mg/L	0.00334	154.04%
Na RADIAL†	-9688.1	-0.5578 mg/L		0.03700	-0.5578 mg/L	0.03700	6.63%
Mg 202.031	7.3	0.0000 mg/L		0.0001	0.0000 mg/L	0.0001	61.21%

Sequence No.: 74
 Sample ID: BC60395-SRM1
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 62
 Date Collected: 3/8/2016 8:51:54 PM
 Data Type: Reprocessed on 3/9/2016 6:15:05 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: BC60395-SRM1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20714567.9	5.204 mg/L		0.0666			1.28%
Y RADIAL	490127.2	5.121 mg/L		0.0294			0.57%
As 188.979†	4300.0	1.154 mg/L		0.0069	1.154 mg/L	0.0069	0.60%
Tl 190.801†	5503.4	0.9658 mg/L		0.03106	0.9658 mg/L	0.03106	3.22%
Se 196.026†	2915.7	1.552 mg/L		0.0035	1.552 mg/L	0.0035	0.23%
Zn 206.200†	159204.6	1.582 mg/L		0.0073	1.582 mg/L	0.0073	0.46%
Sb 206.836†	5414.6	0.8727 mg/L		0.00335	0.8727 mg/L	0.00335	0.38%
Pb 220.353†	20020.7	0.8833 mg/L		0.00575	0.8833 mg/L	0.00575	0.65%
Cd 226.502†	188368.7	0.6439 mg/L		0.00327	0.6439 mg/L	0.00327	0.51%
Co 228.616†	84864.4	0.9843 mg/L		0.00379	0.9843 mg/L	0.00379	0.39%
Ni 232.003†	41018.3	0.9691 mg/L		0.00298	0.9691 mg/L	0.00298	0.31%
Ba 233.527†	265627.6	1.550 mg/L		0.0055	1.550 mg/L	0.0055	0.36%
Mn 257.610†	5895449.1	3.633 mg/L		0.0155	3.633 mg/L	0.0155	0.43%
Cr 267.716†	398483.5	1.625 mg/L		0.0074	1.625 mg/L	0.0074	0.46%
Fe 273.955†	8856716.4	174.0 mg/L		0.39	174.0 mg/L	0.39	0.23%
Mg 279.077†	1313330.8	29.38 mg/L		0.128	29.38 mg/L	0.128	0.44%

V 292.402†	332405.7	0.7620 mg/L	0.00348	0.7620 mg/L	0.00348	0.46%
Al 308.215†	3482581.5	90.15 mg/L	0.279	90.15 mg/L	0.279	0.31%
Be 313.107†	6926592.3	1.045 mg/L	0.0027	1.045 mg/L	0.0027	0.26%
Cu 324.752†	468461.7	1.295 mg/L	0.0065	1.295 mg/L	0.0065	0.50%
Ag 338.289†	98380.9	0.4905 mg/L	0.00326	0.4905 mg/L	0.00326	0.67%
Na 330.237†	7305.4	6.344 mg/L	0.0518	6.344 mg/L	0.0518	0.82%
Ca 227.546†	35943.7	61.05 mg/L	0.518	61.05 mg/L	0.518	0.85%
Al RADIAL†	354857.9	92.19 mg/L	0.871	92.19 mg/L	0.871	0.95%
Fe RADIAL†	161209.0	195.3 mg/L	0.91	195.3 mg/L	0.91	0.47%
Ca RADIAL†	665240.0	64.71 mg/L	0.368	64.71 mg/L	0.368	0.57%
K RADIAL†	60730.8	30.33 mg/L	0.172	30.33 mg/L	0.172	0.57%
Mg RADIAL†	26318.7	31.40 mg/L	0.157	31.40 mg/L	0.157	0.50%
Na RADIAL†	122162.7	7.034 mg/L	0.0819	7.034 mg/L	0.0819	1.16%
Mg 202.031	45455.5	0.850 mg/L	0.0104	0.850 mg/L	0.0104	1.22%

Sequence No.: 75

Sample ID: 16C0202-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 63

Date Collected: 3/8/2016 8:59:16 PM

Data Type: Reprocessed on 3/9/2016 6:15:06 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0202-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20278371.0	5.094 mg/L	0.0354			0.69%
Y RADIAL	493630.9	5.157 mg/L	0.0479			0.93%
As 188.979†	22.7	0.0117 mg/L	0.00320	0.0117 mg/L	0.00320	27.29%
Tl 190.801†	-128.3	-0.0186 mg/L	0.00144	-0.0186 mg/L	0.00144	7.74%
Se 196.026†	-21.6	0.0045 mg/L	0.00729	0.0045 mg/L	0.00729	163.03%
Zn 206.200†	4016.7	0.0396 mg/L	0.00023	0.0396 mg/L	0.00023	0.58%
Sb 206.836†	-28.2	-0.0030 mg/L	0.00357	-0.0030 mg/L	0.00357	119.89%
Pb 220.353†	536.5	0.0242 mg/L	0.00053	0.0242 mg/L	0.00053	2.20%
Cd 226.502†	796.2	0.0001 mg/L	0.00012	0.0001 mg/L	0.00012	140.58%
Co 228.616†	897.5	0.0112 mg/L	0.00021	0.0112 mg/L	0.00021	1.87%
Ni 232.003†	1163.0	0.0265 mg/L	0.00064	0.0265 mg/L	0.00064	2.43%
Ba 233.527†	8937.2	0.0522 mg/L	0.00006	0.0522 mg/L	0.00006	0.12%
Mn 257.610†	452998.6	0.2822 mg/L	0.00431	0.2822 mg/L	0.00431	1.53%
Cr 267.716†	33132.5	0.1358 mg/L	0.00260	0.1358 mg/L	0.00260	1.91%
Fe 273.955†	1930712.8	37.93 mg/L	0.698	37.93 mg/L	0.698	1.84%
Mg 279.077†	157799.4	3.527 mg/L	0.0736	3.527 mg/L	0.0736	2.09%
V 292.402†	29876.2	0.0670 mg/L	0.00158	0.0670 mg/L	0.00158	2.36%
Al 308.215†	926408.9	23.98 mg/L	0.432	23.98 mg/L	0.432	1.80%
Be 313.107†	-951.3	-0.0001 mg/L	0.00006	-0.0001 mg/L	0.00006	41.98%
Cu 324.752†	8468.7	0.0280 mg/L	0.00064	0.0280 mg/L	0.00064	2.30%
Ag 338.289†	-1991.7	-0.0091 mg/L	0.00008	-0.0091 mg/L	0.00008	0.86%
Na 330.237†	-1179.3	-0.6885 mg/L	0.01296	-0.6885 mg/L	0.01296	1.88%
Ca 227.546†	647.9	1.418 mg/L	0.0440	1.418 mg/L	0.0440	3.10%
Al RADIAL†	93788.0	24.36 mg/L	0.074	24.36 mg/L	0.074	0.30%
Fe RADIAL†	31758.9	38.48 mg/L	0.867	38.48 mg/L	0.867	2.25%
Ca RADIAL†	11205.4	1.090 mg/L	0.0299	1.090 mg/L	0.0299	2.74%
K RADIAL†	2924.4	1.461 mg/L	0.0503	1.461 mg/L	0.0503	3.45%
Mg RADIAL†	2960.3	3.530 mg/L	0.0909	3.530 mg/L	0.0909	2.58%
Na RADIAL†	-3302.0	-0.1901 mg/L	0.02503	-0.1901 mg/L	0.02503	13.17%
Mg 202.031	33.3	0.001 mg/L	0.0001	0.001 mg/L	0.0001	13.93%

Sequence No.: 76

Sample ID: EC60395-DUP1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 64

Date Collected: 3/8/2016 9:04:01 PM

Data Type: Reprocessed on 3/9/2016 6:15:06 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: EC60395-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20556173.0	5.164 mg/L	0.0661			1.28%
Y RADIAL	505537.3	5.282 mg/L	0.0222			0.42%

As	188.979†	15.0	0.0096 mg/L	0.00349	0.0096 mg/L	0.00349	36.45%
Tl	190.801†	-135.3	-0.0199 mg/L	0.00338	-0.0199 mg/L	0.00338	16.95%
Se	196.026†	-28.2	0.0008 mg/L	0.00421	0.0008 mg/L	0.00421	513.21%
Zn	206.200†	3916.7	0.0386 mg/L	0.00104	0.0386 mg/L	0.00104	2.68%
Sb	206.836†	-24.1	-0.0023 mg/L	0.00147	-0.0023 mg/L	0.00147	62.84%
Pb	220.353†	517.5	0.0234 mg/L	0.00124	0.0234 mg/L	0.00124	5.28%
Cd	226.502†	768.3	0.0000 mg/L	0.00009	0.0000 mg/L	0.00009	209.83%
Co	228.616†	893.4	0.0111 mg/L	0.00023	0.0111 mg/L	0.00023	2.03%
Ni	232.003†	1154.2	0.0263 mg/L	0.00101	0.0263 mg/L	0.00101	3.85%
Ba	233.527†	9120.3	0.0532 mg/L	0.00087	0.0532 mg/L	0.00087	1.64%
Mn	257.610†	446024.7	0.2779 mg/L	0.00550	0.2779 mg/L	0.00550	1.98%
Cr	267.716†	32518.3	0.1333 mg/L	0.00315	0.1333 mg/L	0.00315	2.36%
Fe	273.955†	1930200.6	37.92 mg/L	0.420	37.92 mg/L	0.420	1.11%
Mg	279.077†	155755.5	3.481 mg/L	0.0896	3.481 mg/L	0.0896	2.57%
V	292.402†	29487.9	0.0662 mg/L	0.00178	0.0662 mg/L	0.00178	2.69%
Al	308.215†	937864.8	24.28 mg/L	0.277	24.28 mg/L	0.277	1.14%
Be	313.107†	-1138.6	-0.0002 mg/L	0.00001	-0.0002 mg/L	0.00001	8.60%
Cu	324.752†	8047.6	0.0267 mg/L	0.00078	0.0267 mg/L	0.00078	2.92%
Ag	338.289†	-1984.6	-0.0091 mg/L	0.00078	-0.0091 mg/L	0.00078	8.57%
Na	330.237†	-1208.2	-0.7134 mg/L	0.05226	-0.7134 mg/L	0.05226	7.33%
Ca	227.546†	658.4	1.428 mg/L	0.0155	1.428 mg/L	0.0155	1.09%
Al	RADIAL†	93652.8	24.33 mg/L	0.057	24.33 mg/L	0.057	0.23%
Fe	RADIAL†	31123.4	37.71 mg/L	0.380	37.71 mg/L	0.380	1.01%
Ca	RADIAL†	11131.7	1.083 mg/L	0.0176	1.083 mg/L	0.0176	1.63%
K	RADIAL†	2989.4	1.493 mg/L	0.0394	1.493 mg/L	0.0394	2.64%
Mg	RADIAL†	2909.7	3.470 mg/L	0.0586	3.470 mg/L	0.0586	1.69%
Na	RADIAL†	-3335.9	-0.1921 mg/L	0.01075	-0.1921 mg/L	0.01075	5.59%
Mo	202.031	17.0	0.000 mg/L	0.0002	0.000 mg/L	0.0002	53.20%

Sequence No.: 77

Autosampler Location: 65

Sample ID: EC60395-MS1

Date Collected: 3/8/2016 9:08:47 PM

Analyst: KV

Data Type: Reprocessed on 3/9/2016 6:15:07 AM

Logged In Analyst (Original) : administrator

Initial Sample Vol:

Initial Sample Wt:

Sample Prep Vol:

Dilution:

Mean Data: EC60395-MS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20508709.5	5.152 mg/L	0.0901			1.75%
Y RADIAL	502920.1	5.255 mg/L	0.1105			2.10%
As 188.979†	7409.6	1.945 mg/L	0.0144	1.945 mg/L	0.0144	0.74%
Tl 190.801†	11055.7	1.908 mg/L	0.0047	1.908 mg/L	0.0047	0.24%
Se 196.026†	3809.1	1.942 mg/L	0.0354	1.942 mg/L	0.0354	1.82%
Zn 206.200†	54711.4	0.5441 mg/L	0.00271	0.5441 mg/L	0.00271	0.50%
Sb 206.836†	1565.9	0.2517 mg/L	0.00398	0.2517 mg/L	0.00398	1.58%
Pb 220.353†	11941.2	0.5281 mg/L	0.00101	0.5281 mg/L	0.00101	0.19%
Cd 226.502†	15272.3	0.0505 mg/L	0.00043	0.0505 mg/L	0.00043	0.86%
Co 228.616†	45900.9	0.5310 mg/L	0.00276	0.5310 mg/L	0.00276	0.52%
Ni 232.003†	22776.7	0.5401 mg/L	0.00400	0.5401 mg/L	0.00400	0.74%
Ba 233.527†	349748.2	2.041 mg/L	0.0161	2.041 mg/L	0.0161	0.79%
Mn 257.610†	1269122.7	0.7819 mg/L	0.00531	0.7819 mg/L	0.00531	0.68%
Cr 267.716†	79961.8	0.3261 mg/L	0.00166	0.3261 mg/L	0.00166	0.51%
Fe 273.955†	1974325.9	38.79 mg/L	0.297	38.79 mg/L	0.297	0.77%
Mg 279.077†	154751.6	3.459 mg/L	0.0240	3.459 mg/L	0.0240	0.69%
V 292.402†	229334.7	0.5323 mg/L	0.00339	0.5323 mg/L	0.00339	0.64%
Al 308.215†	1036339.6	26.82 mg/L	0.192	26.82 mg/L	0.192	0.72%
Be 313.107†	316934.4	0.0478 mg/L	0.00030	0.0478 mg/L	0.00030	0.64%
Cu 324.752†	103690.5	0.2863 mg/L	0.00266	0.2863 mg/L	0.00266	0.93%
Ag 338.289†	8283.7	0.0418 mg/L	0.00019	0.0418 mg/L	0.00019	0.45%
Na 330.237†	-443.2	-0.1379 mg/L	0.01797	-0.1379 mg/L	0.01797	13.03%
Ca 227.546†	692.2	1.509 mg/L	0.1182	1.509 mg/L	0.1182	7.83%
Al RADIAL†	105638.6	27.44 mg/L	0.113	27.44 mg/L	0.113	0.41%
Fe RADIAL†	33342.2	40.40 mg/L	0.513	40.40 mg/L	0.513	1.27%
Ca RADIAL†	11662.0	1.134 mg/L	0.0231	1.134 mg/L	0.0231	2.04%
K RADIAL†	3533.1	1.765 mg/L	0.0644	1.765 mg/L	0.0644	3.65%
Mg RADIAL†	3047.5	3.634 mg/L	0.0590	3.634 mg/L	0.0590	1.62%
Na RADIAL†	-3217.8	-0.1853 mg/L	0.01798	-0.1853 mg/L	0.01798	9.70%
Mo 202.031	-0.3	0.000 mg/L	0.0002	0.000 mg/L	0.0002	>999.9%

Sequence No.: 78
 Sample ID: 16C0202-02
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 66
 Date Collected: 3/8/2016 9:16:03 PM
 Data Type: Reprocessed on 3/9/2016 6:15:08 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: 16C0202-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20622823.2	5.181 mg/L	0.0679			1.31%
Y RADIAL	504261.1	5.269 mg/L	0.0611			1.16%
As 188.979†	-28.1	0.0054 mg/L	0.00296	0.0054 mg/L	0.00296	55.26%
Tl 190.801†	-60.4	-0.0028 mg/L	0.00125	-0.0028 mg/L	0.00125	44.78%
Se 196.026†	-60.5	0.0033 mg/L	0.00518	0.0033 mg/L	0.00518	158.19%
Zn 206.200†	14405.1	0.1425 mg/L	0.00267	0.1425 mg/L	0.00267	1.87%
Sb 206.836†	-41.1	-0.0032 mg/L	0.00200	-0.0032 mg/L	0.00200	62.95%
Pb 220.353†	655.8	0.0244 mg/L	0.00026	0.0244 mg/L	0.00026	1.08%
Cd 226.502†	1609.2	-0.0003 mg/L	0.00015	-0.0003 mg/L	0.00015	49.94%
Cu 228.616†	876.0	0.0119 mg/L	0.00011	0.0119 mg/L	0.00011	0.95%
Ni 232.003†	1836.1	0.0411 mg/L	0.00244	0.0411 mg/L	0.00244	5.94%
Ba 233.527†	7167.5	0.0418 mg/L	0.00038	0.0418 mg/L	0.00038	0.90%
Mn 257.610†	725615.4	0.4551 mg/L	0.01114	0.4551 mg/L	0.01114	2.45%
Cr 267.716†	11880.1	0.0508 mg/L	0.00103	0.0508 mg/L	0.00103	2.03%
Fe 273.955†	4340032.4	85.27 mg/L	2.162	85.27 mg/L	2.162	2.54%
Mg 279.077†	91027.3	2.025 mg/L	0.0388	2.025 mg/L	0.0388	1.92%
V 292.402†	21372.0	0.0439 mg/L	0.00109	0.0439 mg/L	0.00109	2.47%
Al 308.215†	375635.9	9.729 mg/L	0.2662	9.729 mg/L	0.2662	2.74%
Be 313.107†	-1289.4	-0.0002 mg/L	0.00002	-0.0002 mg/L	0.00002	10.58%
Cu 324.752†	45545.6	0.1345 mg/L	0.00184	0.1345 mg/L	0.00184	1.37%
Ag 338.289†	-1210.2	-0.0043 mg/L	0.00035	-0.0043 mg/L	0.00035	8.17%
Na 330.237†	-548.6	-0.0097 mg/L	0.04927	-0.0097 mg/L	0.04927	508.24%
Ca 227.546†	1146.1	2.628 mg/L	0.0732	2.628 mg/L	0.0732	2.79%
Al RADIAL†	38805.8	10.09 mg/L	0.052	10.09 mg/L	0.052	0.51%
Fe RADIAL†	69873.0	84.65 mg/L	0.501	84.65 mg/L	0.501	0.59%
Ca RADIAL†	20190.1	1.964 mg/L	0.0226	1.964 mg/L	0.0226	1.15%
K RADIAL†	1248.9	0.6238 mg/L	0.02554	0.6238 mg/L	0.02554	4.09%
Mg RADIAL†	1719.7	2.044 mg/L	0.0125	2.044 mg/L	0.0125	0.61%
Na RADIAL†	-3470.1	-0.1998 mg/L	0.01685	-0.1998 mg/L	0.01685	8.43%
Mo 202.031	25.5	0.000 mg/L	0.0003	0.000 mg/L	0.0003	59.74%

Sequence No.: 79
 Sample ID: 16C0202-03
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 67
 Date Collected: 3/8/2016 9:21:13 PM
 Data Type: Reprocessed on 3/9/2016 6:15:08 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: 16C0202-03

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21226836.7	5.332 mg/L	0.0653			1.22%
Y RADIAL	518782.0	5.420 mg/L	0.0787			1.45%
As 188.979†	4.0	0.0032 mg/L	0.00428	0.0032 mg/L	0.00428	134.10%
Tl 190.801†	-52.4	-0.0077 mg/L	0.00156	-0.0077 mg/L	0.00156	20.11%
Se 196.026†	-14.9	-0.0018 mg/L	0.00429	-0.0018 mg/L	0.00429	232.15%
Zn 206.200†	1631.2	0.0161 mg/L	0.00011	0.0161 mg/L	0.00011	0.70%
Sb 206.836†	-17.0	-0.0022 mg/L	0.00017	-0.0022 mg/L	0.00017	7.95%
Pb 220.353†	395.4	0.0178 mg/L	0.00096	0.0178 mg/L	0.00096	5.40%
Cd 226.502†	304.2	0.0001 mg/L	0.00002	0.0001 mg/L	0.00002	26.82%
Cu 228.616†	430.1	0.0053 mg/L	0.00013	0.0053 mg/L	0.00013	2.44%
Ni 232.003†	446.9	0.0102 mg/L	0.00050	0.0102 mg/L	0.00050	4.86%
Ba 233.527†	4047.3	0.0236 mg/L	0.00009	0.0236 mg/L	0.00009	0.38%
Mn 257.610†	235896.2	0.1462 mg/L	0.00230	0.1462 mg/L	0.00230	1.57%
Cr 267.716†	5211.5	0.0216 mg/L	0.00052	0.0216 mg/L	0.00052	2.39%
Fe 273.955†	707926.0	13.91 mg/L	0.218	13.91 mg/L	0.218	1.57%
Mg 279.077†	61147.7	1.367 mg/L	0.0185	1.367 mg/L	0.0185	1.36%
V 292.402†	11173.1	0.0251 mg/L	0.00032	0.0251 mg/L	0.00032	1.28%

Al 308.215†	363516.3	9.409 mg/L	0.1457	9.409 mg/L	0.1457	1.55%
Be 313.107†	-645.3	-0.0001 mg/L	0.00005	-0.0001 mg/L	0.00005	56.43%
Cu 324.752†	3771.0	0.0121 mg/L	0.00046	0.0121 mg/L	0.00046	3.85%
Ag 338.289†	-949.5	-0.0044 mg/L	0.00054	-0.0044 mg/L	0.00054	12.16%
Na 330.237†	-862.2	-0.5674 mg/L	0.02446	-0.5674 mg/L	0.02446	4.31%
Ca 227.546†	660.2	1.219 mg/L	0.0894	1.219 mg/L	0.0894	7.34%
Al RADIAL†	38252.4	9.937 mg/L	0.0313	9.937 mg/L	0.0313	0.32%
Fe RADIAL†	11771.9	14.26 mg/L	0.106	14.26 mg/L	0.106	0.74%
Ca RADIAL†	11088.3	1.079 mg/L	0.0088	1.079 mg/L	0.0088	0.81%
K RADIAL†	1281.9	0.6403 mg/L	0.00803	0.6403 mg/L	0.00803	1.25%
Mg RADIAL†	1189.2	1.418 mg/L	0.0092	1.418 mg/L	0.0092	0.65%
Na RADIAL†	-5246.2	-0.3021 mg/L	0.02561	-0.3021 mg/L	0.02561	8.48%
Mo 202.031	-3.0	0.000 mg/L	0.0001	0.000 mg/L	0.0001	257.92%

Sequence No.: 80

Sample ID: 16C0202-04

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 68

Date Collected: 3/8/2016 9:26:17 PM

Data Type: Reprocessed on 3/9/2016 6:15:09 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0202-04

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20408092.3	5.127 mg/L	0.0878			1.71%
Y RADIAL	494821.9	5.170 mg/L	0.0476			0.92%
As 188.979†	67.3	0.0284 mg/L	0.00054	0.0284 mg/L	0.00054	1.90%
Tl 190.801†	-212.9	-0.0302 mg/L	0.00274	-0.0302 mg/L	0.00274	9.07%
Se 196.026†	-51.3	0.0029 mg/L	0.00286	0.0029 mg/L	0.00286	98.80%
Zn 206.200†	122560.0	1.219 mg/L	0.0379	1.219 mg/L	0.0379	3.11%
Sb 206.836†	-25.6	-0.0012 mg/L	0.00329	-0.0012 mg/L	0.00329	265.66%
Pb 220.353†	7638.0	0.3403 mg/L	0.00333	0.3403 mg/L	0.00333	0.98%
Cd 226.502†	2140.9	0.0024 mg/L	0.00007	0.0024 mg/L	0.00007	3.04%
Co 228.616†	2159.2	0.0264 mg/L	0.00040	0.0264 mg/L	0.00040	1.50%
Ni 232.003†	3540.2	0.0820 mg/L	0.00052	0.0820 mg/L	0.00052	0.64%
Ba 233.527†	95273.6	0.5561 mg/L	0.01662	0.5561 mg/L	0.01662	2.99%
Mn 257.610†	1623487.9	1.003 mg/L	0.0309	1.003 mg/L	0.0309	3.08%
Cr 267.716†	26599.0	0.1103 mg/L	0.00354	0.1103 mg/L	0.00354	3.21%
Fe 273.955†	3496813.8	68.70 mg/L	2.111	68.70 mg/L	2.111	3.07%
Mg 279.077†	594651.4	13.30 mg/L	0.426	13.30 mg/L	0.426	3.21%
V 292.402†	71353.3	0.1615 mg/L	0.00529	0.1615 mg/L	0.00529	3.28%
Al 308.215†	2266211.6	58.66 mg/L	1.856	58.66 mg/L	1.856	3.16%
Be 313.107†	1878.0	0.0003 mg/L	0.00004	0.0003 mg/L	0.00004	12.41%
Cu 324.752†	90010.4	0.2534 mg/L	0.00789	0.2534 mg/L	0.00789	3.12%
Ag 338.289†	-3319.2	-0.0154 mg/L	0.00074	-0.0154 mg/L	0.00074	4.84%
Na 330.237†	1002.4	1.105 mg/L	0.1512	1.105 mg/L	0.1512	13.68%
Ca 227.546†	19266.7	32.45 mg/L	0.251	32.45 mg/L	0.251	0.77%
Al RADIAL†	225930.8	58.69 mg/L	0.268	58.69 mg/L	0.268	0.46%
Fe RADIAL†	59473.5	72.05 mg/L	0.369	72.05 mg/L	0.369	0.51%
Ca RADIAL†	352861.8	34.33 mg/L	0.065	34.33 mg/L	0.065	0.19%
K RADIAL†	5416.6	2.706 mg/L	0.0322	2.706 mg/L	0.0322	1.19%
Mg RADIAL†	11641.9	13.89 mg/L	0.040	13.89 mg/L	0.040	0.29%
Na RADIAL†	7871.5	0.4532 mg/L	0.02472	0.4532 mg/L	0.02472	5.45%
Mo 202.031	260.2	0.005 mg/L	0.0002	0.005 mg/L	0.0002	4.15%

Sequence No.: 81

Sample ID: SEQ-CCV7

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 3/8/2016 9:30:58 PM

Data Type: Reprocessed on 3/9/2016 6:15:10 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	19089748.6	4.795 mg/L	0.0677			1.41%
Y RADIAL	490448.3	5.124 mg/L	0.0847			1.65%
As 188.979†	972.5	0.2552 mg/L	0.00521	0.2552 mg/L	0.00521	2.04%

Tl 190.801†	1491.0	0.2573 mg/L	0.00175	0.2573 mg/L	0.00175	0.68%
Se 196.026†	486.5	0.2479 mg/L	0.00536	0.2479 mg/L	0.00536	2.16%
Zn 206.200†	253894.6	2.527 mg/L	0.0421	2.527 mg/L	0.0421	1.66%
Sb 206.836†	1539.5	0.2461 mg/L	0.00909	0.2461 mg/L	0.00909	3.69%
Pb 220.353†	5859.7	0.2600 mg/L	0.00481	0.2600 mg/L	0.00481	1.85%
Cd 226.502†	35468.7	0.1235 mg/L	0.00197	0.1235 mg/L	0.00197	1.59%
Co 228.616†	221754.3	2.562 mg/L	0.0331	2.562 mg/L	0.0331	1.29%
Ni 232.003†	106173.0	2.523 mg/L	0.0326	2.523 mg/L	0.0326	1.29%
Ba 233.527†	1776319.4	10.37 mg/L	0.147	10.37 mg/L	0.147	1.42%
Mn 257.610†	4283301.3	2.622 mg/L	0.0407	2.622 mg/L	0.0407	1.55%
Cr 267.716†	249743.0	1.015 mg/L	0.0172	1.015 mg/L	0.0172	1.69%
Fe 273.955†	259102.0	5.091 mg/L	0.0777	5.091 mg/L	0.0777	1.53%
Mg 279.077†	1127965.0	25.26 mg/L	0.433	25.26 mg/L	0.433	1.71%
V 292.402†	1075498.3	2.509 mg/L	0.0499	2.509 mg/L	0.0499	1.99%
Al 308.215†	375736.6	9.723 mg/L	0.1617	9.723 mg/L	0.1617	1.66%
Be 313.107†	1729804.8	0.2610 mg/L	0.00574	0.2610 mg/L	0.00574	2.20%
Cu 324.752†	464432.6	1.260 mg/L	0.0163	1.260 mg/L	0.0163	1.29%
Ag 338.289†	250450.3	1.240 mg/L	0.0175	1.240 mg/L	0.0175	1.41%
Na 330.237†	31382.8	23.14 mg/L	0.299	23.14 mg/L	0.299	1.29%
Ca 227.546†	15154.5	25.06 mg/L	0.408	25.06 mg/L	0.408	1.63%
Al RADIAL†	36409.4	9.457 mg/L	0.0159	9.457 mg/L	0.0159	0.17%
Fe RADIAL†	4117.1	4.988 mg/L	0.0746	4.988 mg/L	0.0746	1.50%
Ca RADIAL†	257377.5	25.04 mg/L	0.040	25.04 mg/L	0.040	0.16%
K RADIAL†	10034.8	5.012 mg/L	0.0291	5.012 mg/L	0.0291	0.58%
Mg RADIAL†	20857.4	24.90 mg/L	0.204	24.90 mg/L	0.204	0.82%
Na RADIAL†	421225.5	24.25 mg/L	0.070	24.25 mg/L	0.070	0.29%
Mo 202.031†	59218.2	1.107 mg/L	0.0181	1.107 mg/L	0.0181	1.64%

Sequence No.: 82

Sample ID: SEQ-CCB7

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/8/2016 9:38:38 PM

Data Type: Reprocessed on 3/9/2016 6:15:11 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCB7

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21034218.7	5.284 mg/L		0.0366			0.69%
Y RADIAL	505330.4	5.280 mg/L		0.0644			1.22%
As 188.979†	-11.9	-0.0031 mg/L	0.00061		-0.0031 mg/L	0.00061	19.50%
Tl 190.801†	-2.2	-0.0004 mg/L	0.00064		-0.0004 mg/L	0.00064	165.17%
Se 196.026†	-3.8	-0.0019 mg/L	0.00147		-0.0019 mg/L	0.00147	75.55%
Zn 206.200†	-1184.7	-0.0118 mg/L	0.00008		-0.0118 mg/L	0.00008	0.66%
Sb 206.836†	-0.5	-0.0001 mg/L	0.00064		-0.0001 mg/L	0.00064	780.04%
Pb 220.353†	-10.1	-0.0005 mg/L	0.00145		-0.0005 mg/L	0.00145	316.47%
Cd 226.502†	-5.7	0.0000 mg/L	0.00006		0.0000 mg/L	0.00006	291.94%
Co 228.616†	-13.7	-0.0002 mg/L	0.00025		-0.0002 mg/L	0.00025	158.26%
Ni 232.003†	44.2	0.0010 mg/L	0.00057		0.0010 mg/L	0.00057	54.59%
Ba 233.527†	-174.4	-0.0010 mg/L	0.00002		-0.0010 mg/L	0.00002	2.31%
Mn 257.610†	-958.0	-0.0006 mg/L	0.00002		-0.0006 mg/L	0.00002	2.84%
Cr 267.716†	-59.5	-0.0002 mg/L	0.00024		-0.0002 mg/L	0.00024	100.98%
Fe 273.955†	-138.3	-0.0027 mg/L	0.00017		-0.0027 mg/L	0.00017	6.22%
Mg 279.077†	-116.4	-0.0026 mg/L	0.00162		-0.0026 mg/L	0.00162	62.13%
V 292.402†	-121.0	-0.0003 mg/L	0.00025		-0.0003 mg/L	0.00025	88.32%
Al 308.215†	-4138.1	-0.1071 mg/L	0.00109		-0.1071 mg/L	0.00109	1.02%
Be 313.107†	23.1	0.0000 mg/L	0.00004		0.0000 mg/L	0.00004	>999.9%
Cu 324.752†	32.0	0.0001 mg/L	0.00012		0.0001 mg/L	0.00012	137.46%
Ag 338.289†	351.1	0.0017 mg/L	0.00029		0.0017 mg/L	0.00029	16.69%
Na 330.237†	-561.4	-0.4131 mg/L	0.03023		-0.4131 mg/L	0.03023	7.32%
Ca 227.546†	69.8	0.1151 mg/L	0.02115		0.1151 mg/L	0.02115	18.37%
Al RADIAL†	-291.2	-0.0756 mg/L	0.01188		-0.0756 mg/L	0.01188	15.71%
Fe RADIAL†	-0.2	-0.0002 mg/L	0.00457		-0.0002 mg/L	0.00457	>999.9%
Ca RADIAL†	-217.4	-0.0211 mg/L	0.00328		-0.0211 mg/L	0.00328	15.53%
K RADIAL†	17.1	0.0086 mg/L	0.01785		0.0086 mg/L	0.01785	208.66%
Mg RADIAL†	-4.0	-0.0048 mg/L	0.00489		-0.0048 mg/L	0.00489	101.57%
Na RADIAL†	-9708.2	-0.5590 mg/L	0.01963		-0.5590 mg/L	0.01963	3.51%
Mo 202.031†	27.4	0.001 mg/L	0.0002		0.001 mg/L	0.0002	36.73%

Sequence No.: 83

Sample ID: 16C0213-05

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 69

Date Collected: 3/8/2016 9:43:47 PM

Data Type: Reprocessed on 3/9/2016 6:15:11 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0213-05

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19622998.1	4.929 mg/L	0.0335			0.68%
Y RADIAL	490698.5	5.127 mg/L	0.0117			0.23%
As 188.979†	13.1	0.0164 mg/L	0.00339	0.0164 mg/L	0.00339	20.65%
Tl 190.801†	-143.8	-0.0170 mg/L	0.00108	-0.0170 mg/L	0.00108	6.34%
Se 196.026†	-53.9	0.0074 mg/L	0.00551	0.0074 mg/L	0.00551	74.24%
Zn 206.200†	37752.5	0.3748 mg/L	0.00240	0.3748 mg/L	0.00240	0.64%
Sb 206.836†	-38.9	-0.0028 mg/L	0.00188	-0.0028 mg/L	0.00188	67.76%
Pb 220.353†	6765.2	0.2994 mg/L	0.00187	0.2994 mg/L	0.00187	0.62%
Cd 226.502†	1989.4	0.0009 mg/L	0.00012	0.0009 mg/L	0.00012	13.70%
Co 228.616†	3417.0	0.0413 mg/L	0.00011	0.0413 mg/L	0.00011	0.26%
Ni 232.003†	5973.1	0.1394 mg/L	0.00214	0.1394 mg/L	0.00214	1.53%
Ba 233.527†	85153.3	0.4970 mg/L	0.00365	0.4970 mg/L	0.00365	0.73%
Mn 257.610†	5634090.1	3.459 mg/L	0.0073	3.459 mg/L	0.0073	0.21%
Cr 267.716†	24998.7	0.1042 mg/L	0.00076	0.1042 mg/L	0.00076	0.73%
Fe 273.955†	4359416.1	85.65 mg/L	0.170	85.65 mg/L	0.170	0.20%
Mg 279.077†	1557711.1	34.87 mg/L	0.249	34.87 mg/L	0.249	0.71%
V 292.402†	52400.2	0.1162 mg/L	0.00145	0.1162 mg/L	0.00145	1.25%
Al 308.215†	1656281.3	42.87 mg/L	0.375	42.87 mg/L	0.375	0.88%
Be 313.107†	6201.1	0.0009 mg/L	0.00001	0.0009 mg/L	0.00001	1.25%
Cu 324.752†	38231.8	0.1149 mg/L	0.00141	0.1149 mg/L	0.00141	1.23%
Ag 338.289†	-2492.4	-0.0117 mg/L	0.00050	-0.0117 mg/L	0.00050	4.30%
Na 330.237†	3141.5	2.804 mg/L	0.0763	2.804 mg/L	0.0763	2.72%
Ca 227.546†	51452.4	85.67 mg/L	0.840	85.67 mg/L	0.840	0.98%
Al RADIAL†	160267.5	41.63 mg/L	0.140	41.63 mg/L	0.140	0.34%
Fe RADIAL†	71575.4	86.72 mg/L	0.329	86.72 mg/L	0.329	0.38%
Ca RADIAL†	952558.4	92.66 mg/L	1.009	92.66 mg/L	1.009	1.09%
K RADIAL†	17199.1	8.591 mg/L	0.0153	8.591 mg/L	0.0153	0.18%
Mg RADIAL†	28460.5	33.96 mg/L	0.128	33.96 mg/L	0.128	0.38%
Na RADIAL†	61826.4	3.560 mg/L	0.0373	3.560 mg/L	0.0373	1.05%
Mo 202.031	-58.3	-0.001 mg/L	0.0003	-0.001 mg/L	0.0003	27.02%

Sequence No.: 84

Sample ID: 16C0213-06

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 70

Date Collected: 3/8/2016 9:48:29 PM

Data Type: Reprocessed on 3/9/2016 6:15:12 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0213-06

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20077146.9	5.043 mg/L	0.0340			0.67%
Y RADIAL	485094.1	5.068 mg/L	0.0245			0.48%
As 188.979†	-1.8	0.0167 mg/L	0.00259	0.0167 mg/L	0.00259	15.47%
Tl 190.801†	-189.2	-0.0223 mg/L	0.00125	-0.0223 mg/L	0.00125	5.63%
Se 196.026†	-81.5	0.0047 mg/L	0.00270	0.0047 mg/L	0.00270	57.93%
Zn 206.200†	33535.2	0.3326 mg/L	0.00144	0.3326 mg/L	0.00144	0.43%
Sb 206.836†	-66.9	-0.0061 mg/L	0.00283	-0.0061 mg/L	0.00283	46.14%
Pb 220.353†	7398.6	0.3264 mg/L	0.00256	0.3264 mg/L	0.00256	0.78%
Cd 226.502†	2344.7	0.0002 mg/L	0.00008	0.0002 mg/L	0.00008	50.23%
Co 228.616†	4729.8	0.0570 mg/L	0.00018	0.0570 mg/L	0.00018	0.31%
Ni 232.003†	13587.1	0.3195 mg/L	0.00758	0.3195 mg/L	0.00758	2.37%
Ba 233.527†	127578.2	0.7446 mg/L	0.01670	0.7446 mg/L	0.01670	2.24%
Mn 257.610†	6504454.8	3.995 mg/L	0.0535	3.995 mg/L	0.0535	1.34%
Cr 267.716†	30819.7	0.1287 mg/L	0.00284	0.1287 mg/L	0.00284	2.21%
Fe 273.955†	5442857.8	106.9 mg/L	1.47	106.9 mg/L	1.47	1.38%
Mg 279.077†	1512621.4	33.85 mg/L	0.524	33.85 mg/L	0.524	1.55%
V 292.402†	58033.8	0.1274 mg/L	0.00315	0.1274 mg/L	0.00315	2.47%
Al 308.215†	1798734.0	46.56 mg/L	0.601	46.56 mg/L	0.601	1.29%

Be 313.107†	7758.8	0.0012 mg/L	0.00004	0.0012 mg/L	0.00004	3.74%
Cu 324.752†	44610.5	0.1358 mg/L	0.00268	0.1358 mg/L	0.00268	1.97%
Ag 338.289†	-3500.0	-0.0162 mg/L	0.00078	-0.0162 mg/L	0.00078	4.80%
Na 330.237†	12665.4	9.952 mg/L	0.2056	9.952 mg/L	0.2056	2.07%
Ca 227.546†	55288.5	92.25 mg/L	2.264	92.25 mg/L	2.264	2.45%
Al RADIAL†	187267.8	48.65 mg/L	0.343	48.65 mg/L	0.343	0.71%
Fe RADIAL†	94627.9	114.6 mg/L	0.91	114.6 mg/L	0.91	0.80%
Ca RADIAL†	1057013.1	102.8 mg/L	2.27	102.8 mg/L	2.27	2.21%
K RADIAL†	22411.8	11.19 mg/L	0.094	11.19 mg/L	0.094	0.84%
Mg RADIAL†	29929.5	35.72 mg/L	0.284	35.72 mg/L	0.284	0.80%
Na RADIAL†	224420.7	12.92 mg/L	0.220	12.92 mg/L	0.220	1.71%
Mo 202.031	-61.1	-0.001 mg/L	0.0003	-0.001 mg/L	0.0003	22.06%

Sequence No.: 85

Sample ID: 16C0213-07

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 71

Date Collected: 3/8/2016 9:53:16 PM

Data Type: Reprocessed on 3/9/2016 6:15:13 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0213-07

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19996892.9	5.023 mg/L	0.0841			1.67%
Y RADIAL	518989.6	5.422 mg/L	0.1240			2.29%
As 188.979†	6.1	0.0174 mg/L	0.00106	0.0174 mg/L	0.00106	6.12%
Tl 190.801†	-215.1	-0.0276 mg/L	0.00299	-0.0276 mg/L	0.00299	10.84%
Se 196.026†	-83.5	-0.0002 mg/L	0.00489	-0.0002 mg/L	0.00489	>999.9%
Zn 206.200†	38808.1	0.3851 mg/L	0.00511	0.3851 mg/L	0.00511	1.33%
Sb 206.836†	-83.1	-0.0091 mg/L	0.00063	-0.0091 mg/L	0.00063	6.93%
Pb 220.353†	11025.9	0.4883 mg/L	0.00859	0.4883 mg/L	0.00859	1.76%
Co 226.502†	2358.3	0.0009 mg/L	0.00010	0.0009 mg/L	0.00010	11.02%
Cr 228.616†	3782.5	0.0459 mg/L	0.00055	0.0459 mg/L	0.00055	1.20%
Ni 232.003†	6944.1	0.1619 mg/L	0.00145	0.1619 mg/L	0.00145	0.90%
Ba 233.527†	143576.1	0.8380 mg/L	0.01033	0.8380 mg/L	0.01033	1.23%
Mn 257.610†	5605873.9	3.444 mg/L	0.0846	3.444 mg/L	0.0846	2.46%
Cr 267.716†	32466.2	0.1351 mg/L	0.00174	0.1351 mg/L	0.00174	1.29%
Fe 273.955†	5381827.2	105.7 mg/L	2.61	105.7 mg/L	2.61	2.47%
Mg 279.077†	2157780.3	48.30 mg/L	1.201	48.30 mg/L	1.201	2.49%
V 292.402†	76138.0	0.1703 mg/L	0.00165	0.1703 mg/L	0.00165	0.97%
Al 308.215†	2124298.3	54.98 mg/L	1.476	54.98 mg/L	1.476	2.69%
Be 313.107†	9535.1	0.0014 mg/L	0.00005	0.0014 mg/L	0.00005	3.48%
Cu 324.752†	54526.3	0.1615 mg/L	0.00215	0.1615 mg/L	0.00215	1.33%
Ag 338.289†	-3256.3	-0.0156 mg/L	0.00032	-0.0156 mg/L	0.00032	2.08%
Na 330.237†	4435.8	3.891 mg/L	0.1423	3.891 mg/L	0.1423	3.66%
Ca 227.546†	81758.9	135.8 mg/L	1.68	135.8 mg/L	1.68	1.23%
Al RADIAL†	202025.3	52.48 mg/L	0.074	52.48 mg/L	0.074	0.14%
Fe RADIAL†	86825.2	105.2 mg/L	0.13	105.2 mg/L	0.13	0.12%
Ca RADIAL†	1456591.9	141.7 mg/L	2.98	141.7 mg/L	2.98	2.11%
K RADIAL†	21747.8	10.86 mg/L	0.042	10.86 mg/L	0.042	0.39%
Mg RADIAL†	39270.0	46.87 mg/L	0.054	46.87 mg/L	0.054	0.11%
Na RADIAL†	87623.2	5.045 mg/L	0.0592	5.045 mg/L	0.0592	1.17%
Mo 202.031	101.3	0.002 mg/L	0.0007	0.002 mg/L	0.0007	34.54%

Sequence No.: 86

Sample ID: 16C0213-08

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 72

Date Collected: 3/8/2016 9:58:03 PM

Data Type: Reprocessed on 3/9/2016 6:15:14 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0213-08

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19959032.1	5.014 mg/L	0.0584			1.17%
Y RADIAL	483843.9	5.055 mg/L	0.0600			1.19%
As 188.979†	21.1	0.0214 mg/L	0.00312	0.0214 mg/L	0.00312	14.53%
Tl 190.801†	-229.6	-0.0300 mg/L	0.00202	-0.0300 mg/L	0.00202	6.73%

Se 196.026f	-77.9	0.0031 mg/L	0.00948	0.0031 mg/L	0.00948	303.90%
Zn 206.200f	48827.9	0.4848 mg/L	0.01123	0.4848 mg/L	0.01123	2.32%
Sb 206.836f	-70.0	-0.0070 mg/L	0.00091	-0.0070 mg/L	0.00091	13.11%
Pb 220.353f	15239.4	0.6743 mg/L	0.01513	0.6743 mg/L	0.01513	2.24%
Cd 226.502f	2315.4	0.0006 mg/L	0.00018	0.0006 mg/L	0.00018	28.26%
Co 228.616f	3998.0	0.0484 mg/L	0.00110	0.0484 mg/L	0.00110	2.28%
Ni 232.003f	6839.3	0.1594 mg/L	0.00150	0.1594 mg/L	0.00150	0.94%
Ba 233.527f	138756.6	0.8099 mg/L	0.01955	0.8099 mg/L	0.01955	2.41%
Mn 257.610f	5974280.0	3.670 mg/L	0.0610	3.670 mg/L	0.0610	1.66%
Cr 267.716f	32446.3	0.1351 mg/L	0.00316	0.1351 mg/L	0.00316	2.34%
Fe 273.955f	5074384.2	99.70 mg/L	1.732	99.70 mg/L	1.732	1.74%
Mg 279.077f	1124056.1	25.15 mg/L	0.455	25.15 mg/L	0.455	1.81%
V 292.402f	72242.9	0.1611 mg/L	0.00409	0.1611 mg/L	0.00409	2.54%
Al 308.215f	2156026.6	55.80 mg/L	1.031	55.80 mg/L	1.031	1.85%
Be 313.107f	5147.5	0.0008 mg/L	0.00002	0.0008 mg/L	0.00002	3.09%
Cu 324.752f	53406.1	0.1586 mg/L	0.00364	0.1586 mg/L	0.00364	2.30%
Ag 338.289f	-3979.3	-0.0188 mg/L	0.00040	-0.0188 mg/L	0.00040	2.11%
Na 330.237f	2288.2	2.278 mg/L	0.0444	2.278 mg/L	0.0444	1.95%
Ca 227.546f	55948.6	93.27 mg/L	2.250	93.27 mg/L	2.250	2.41%
Al RADIALf	216992.2	56.37 mg/L	1.431	56.37 mg/L	1.431	2.54%
Fe RADIALf	87669.9	106.2 mg/L	0.57	106.2 mg/L	0.57	0.54%
Ca RADIALf	1071451.6	104.2 mg/L	2.90	104.2 mg/L	2.90	2.78%
K RADIALf	24642.2	12.31 mg/L	0.039	12.31 mg/L	0.039	0.32%
Mg RADIALf	22266.6	26.57 mg/L	0.176	26.57 mg/L	0.176	0.66%
Na RADIALf	61382.1	3.534 mg/L	0.0897	3.534 mg/L	0.0897	2.54%
Mo 202.031	-29.4	-0.001 mg/L	0.0004	-0.001 mg/L	0.0004	69.61%

Sequence No.: 87

Sample ID: 16C0213-09

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 73

Date Collected: 3/8/2016 10:02:50 PM

Data Type: Reprocessed on 3/9/2016 6:15:14 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0213-09

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20397228.8	5.124 mg/L		0.0757			1.48%
Y RADIAL	487541.6	5.094 mg/L		0.0220			0.43%
As 188.979f	-8.2	0.0121 mg/L		0.00209	0.0121 mg/L	0.00209	17.20%
Tl 190.801f	-193.3	-0.0247 mg/L		0.00089	-0.0247 mg/L	0.00089	3.61%
Se 196.026f	-67.8	0.0038 mg/L		0.00166	0.0038 mg/L	0.00166	43.35%
Zn 206.200f	26253.4	0.2603 mg/L		0.00351	0.2603 mg/L	0.00351	1.35%
Sb 206.836f	-77.8	-0.0086 mg/L		0.00159	-0.0086 mg/L	0.00159	18.41%
Pb 220.353f	5962.2	0.2637 mg/L		0.00419	0.2637 mg/L	0.00419	1.59%
Cd 226.502f	1897.0	0.0000 mg/L		0.00016	0.0000 mg/L	0.00016	337.59%
Co 228.616f	3356.8	0.0408 mg/L		0.00056	0.0408 mg/L	0.00056	1.36%
Ni 232.003f	6224.5	0.1451 mg/L		0.00153	0.1451 mg/L	0.00153	1.05%
Ba 233.527f	168636.2	0.9843 mg/L		0.00434	0.9843 mg/L	0.00434	0.44%
Mn 257.610f	3549157.7	2.184 mg/L		0.0216	2.184 mg/L	0.0216	0.99%
Cr 267.716f	25366.3	0.1060 mg/L		0.00042	0.1060 mg/L	0.00042	0.39%
Fe 273.955f	4547765.3	89.35 mg/L		0.937	89.35 mg/L	0.937	1.05%
Mg 279.077f	1132826.0	25.35 mg/L		0.287	25.35 mg/L	0.287	1.13%
V 292.402f	58074.1	0.1288 mg/L		0.00030	0.1288 mg/L	0.00030	0.23%
Al 308.215f	1777484.2	46.01 mg/L		0.506	46.01 mg/L	0.506	1.10%
Be 313.107f	5998.2	0.0009 mg/L		0.00004	0.0009 mg/L	0.00004	4.41%
Cu 324.752f	30515.2	0.0951 mg/L		0.00069	0.0951 mg/L	0.00069	0.73%
Ag 338.289f	-3226.5	-0.0147 mg/L		0.00025	-0.0147 mg/L	0.00025	1.70%
Na 330.237f	144.5	0.6029 mg/L		0.05657	0.6029 mg/L	0.05657	9.38%
Ca 227.546f	30148.0	50.60 mg/L		0.343	50.60 mg/L	0.343	0.68%
Al RADIALf	186621.6	48.48 mg/L		0.649	48.48 mg/L	0.649	1.34%
Fe RADIALf	78628.4	95.26 mg/L		1.385	95.26 mg/L	1.385	1.45%
Ca RADIALf	578390.5	56.27 mg/L		0.600	56.27 mg/L	0.600	1.07%
K RADIALf	19665.5	9.823 mg/L		0.1130	9.823 mg/L	0.1130	1.15%
Mg RADIALf	22402.8	26.73 mg/L		0.492	26.73 mg/L	0.492	1.84%
Na RADIALf	21769.6	1.253 mg/L		0.0226	1.253 mg/L	0.0226	1.80%
Mo 202.031	-108.2	-0.002 mg/L		0.0003	-0.002 mg/L	0.0003	13.70%

Sequence No.: 88

Autosampler Location: 74

Sample ID: 16C0213-10

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Date Collected: 3/8/2016 10:07:38 PM

Data Type: Reprocessed on 3/9/2016 6:15:15 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0213-10

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20549684.1	5.162 mg/L	0.0946			1.83%
Y RADIAL	487742.9	5.096 mg/L	0.0494			0.97%
As 188.979†	-3.1	0.0134 mg/L	0.00095	0.0134 mg/L	0.00095	7.08%
Tl 190.801†	-185.3	-0.0234 mg/L	0.00238	-0.0234 mg/L	0.00238	10.17%
Se 196.026†	-74.2	0.0004 mg/L	0.00448	0.0004 mg/L	0.00448	>999.9%
Zn 206.200†	26549.8	0.2633 mg/L	0.00479	0.2633 mg/L	0.00479	1.82%
Sb 206.836†	-63.4	-0.0064 mg/L	0.00087	-0.0064 mg/L	0.00087	13.60%
Pb 220.353†	5796.7	0.2564 mg/L	0.00405	0.2564 mg/L	0.00405	1.58%
Cd 226.502†	1864.2	-0.0001 mg/L	0.00023	-0.0001 mg/L	0.00023	193.84%
Co 228.616†	3934.5	0.0474 mg/L	0.00074	0.0474 mg/L	0.00074	1.55%
Ni 232.003†	8722.2	0.2045 mg/L	0.00136	0.2045 mg/L	0.00136	0.66%
Ba 233.527†	133661.9	0.7802 mg/L	0.00911	0.7802 mg/L	0.00911	1.17%
Mn 257.610†	5645640.9	3.467 mg/L	0.0276	3.467 mg/L	0.0276	0.80%
Cr 267.716†	41996.5	0.1735 mg/L	0.00206	0.1735 mg/L	0.00206	1.19%
Fe 273.955†	4488815.5	88.19 mg/L	0.715	88.19 mg/L	0.715	0.81%
Mg 279.077†	1492935.4	33.41 mg/L	0.295	33.41 mg/L	0.295	0.88%
V 292.402†	59645.1	0.1326 mg/L	0.00143	0.1326 mg/L	0.00143	1.08%
Al 308.215†	1724877.7	44.65 mg/L	0.327	44.65 mg/L	0.327	0.73%
Be 313.107†	5912.8	0.0009 mg/L	0.00009	0.0009 mg/L	0.00009	9.90%
Cu 324.752†	31374.7	0.0974 mg/L	0.00121	0.0974 mg/L	0.00121	1.24%
Ag 338.289†	-3220.7	-0.0148 mg/L	0.00056	-0.0148 mg/L	0.00056	3.80%
Na 330.237†	-166.8	0.3790 mg/L	0.03571	0.3790 mg/L	0.03571	9.42%
Ca 227.546†	34163.5	57.22 mg/L	0.741	57.22 mg/L	0.741	1.29%
Al RADIAL†	181525.7	47.16 mg/L	0.282	47.16 mg/L	0.282	0.60%
Fe RADIAL†	78148.1	94.68 mg/L	0.798	94.68 mg/L	0.798	0.84%
Ca RADIAL†	661459.4	64.35 mg/L	1.460	64.35 mg/L	1.460	2.27%
K RADIAL†	19050.2	9.516 mg/L	0.0649	9.516 mg/L	0.0649	0.68%
Mg RADIAL†	29585.9	35.31 mg/L	0.313	35.31 mg/L	0.313	0.89%
Na RADIAL†	17284.7	0.9952 mg/L	0.00936	0.9952 mg/L	0.00936	0.94%
Mo 202.031	-20.2	0.000 mg/L	0.0004	0.000 mg/L	0.0004	94.72%

Sequence No.: 89

Sample ID: 16C0213-11

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 75

Date Collected: 3/8/2016 10:12:24 PM

Data Type: Reprocessed on 3/9/2016 6:15:16 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0213-11

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20418466.1	5.129 mg/L	0.0438			0.85%
Y RADIAL	486041.4	5.078 mg/L	0.0266			0.52%
As 188.979†	-20.4	0.0110 mg/L	0.00173	0.0110 mg/L	0.00173	15.75%
Tl 190.801†	-199.2	-0.0245 mg/L	0.00282	-0.0245 mg/L	0.00282	11.51%
Se 196.026†	-80.2	0.0029 mg/L	0.00357	0.0029 mg/L	0.00357	122.28%
Zn 206.200†	21682.8	0.2147 mg/L	0.00199	0.2147 mg/L	0.00199	0.93%
Sb 206.836†	-81.0	-0.0086 mg/L	0.00028	-0.0086 mg/L	0.00028	3.31%
Pb 220.353†	3698.3	0.1632 mg/L	0.00036	0.1632 mg/L	0.00036	0.22%
Cd 226.502†	2093.5	-0.0003 mg/L	0.00011	-0.0003 mg/L	0.00011	38.23%
Co 228.616†	3933.7	0.0477 mg/L	0.00061	0.0477 mg/L	0.00061	1.28%
Ni 232.003†	6268.1	0.1457 mg/L	0.00140	0.1457 mg/L	0.00140	0.96%
Ba 233.527†	195953.0	1.144 mg/L	0.0120	1.144 mg/L	0.0120	1.05%
Mn 257.610†	5455821.2	3.353 mg/L	0.0583	3.353 mg/L	0.0583	1.74%
Cr 267.716†	25154.7	0.1055 mg/L	0.00099	0.1055 mg/L	0.00099	0.94%
Fe 273.955†	5075979.5	99.73 mg/L	1.761	99.73 mg/L	1.761	1.77%
Mg 279.077†	1428109.9	31.96 mg/L	0.591	31.96 mg/L	0.591	1.85%
V 292.402†	56795.0	0.1249 mg/L	0.00148	0.1249 mg/L	0.00148	1.18%
Al 308.215†	1767685.7	45.75 mg/L	0.836	45.75 mg/L	0.836	1.83%
Be 313.107†	6979.9	0.0011 mg/L	0.00002	0.0011 mg/L	0.00002	2.15%

Cu 324.752†	26121.7	0.0849 mg/L	0.00048	0.0849 mg/L	0.00048	0.56%
Ag 338.289†	-3848.8	-0.0178 mg/L	0.00030	-0.0178 mg/L	0.00030	1.67%
Na 330.237†	-490.6	0.2207 mg/L	0.04901	0.2207 mg/L	0.04901	22.21%
Ca 227.546†	42343.9	70.84 mg/L	0.713	70.84 mg/L	0.713	1.01%
Al RADIAL†	188312.5	48.92 mg/L	0.388	48.92 mg/L	0.388	0.79%
Fe RADIAL†	89716.5	108.7 mg/L	0.74	108.7 mg/L	0.74	0.68%
Ca RADIAL†	817395.8	79.52 mg/L	1.660	79.52 mg/L	1.660	2.09%
K RADIAL†	27063.9	13.52 mg/L	0.094	13.52 mg/L	0.094	0.69%
Mg RADIAL†	28787.7	34.35 mg/L	0.295	34.35 mg/L	0.295	0.86%
Na RADIAL†	17222.2	0.9916 mg/L	0.02150	0.9916 mg/L	0.02150	2.17%
Mo 202.031	-135.9	-0.003 mg/L	0.0002	-0.003 mg/L	0.0002	7.57%

Sequence No.: 90

Sample ID: 16C0213-12

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 76

Date Collected: 3/8/2016 10:17:12 PM

Data Type: Reprocessed on 3/9/2016 6:15:17 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0213-12

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20420302.4	5.130 mg/L		0.0823			1.61%
Y RADIAL	489403.6	5.113 mg/L		0.0382			0.75%
As 188.979†	8.9	0.0170 mg/L		0.00115	0.0170 mg/L	0.00115	6.76%
Tl 190.801†	-189.8	-0.0239 mg/L		0.00287	-0.0239 mg/L	0.00287	12.01%
Se 196.026†	-67.9	0.0048 mg/L		0.00258	0.0048 mg/L	0.00258	53.48%
Zn 206.200†	25847.7	0.2562 mg/L		0.00385	0.2562 mg/L	0.00385	1.50%
Sb 206.836†	-77.0	-0.0084 mg/L		0.00003	-0.0084 mg/L	0.00003	0.37%
Pb 220.353†	3609.4	0.1592 mg/L		0.00316	0.1592 mg/L	0.00316	1.99%
Cd 226.502†	1910.3	-0.0002 mg/L		0.00013	-0.0002 mg/L	0.00013	70.56%
Co 228.616†	3515.1	0.0427 mg/L		0.00068	0.0427 mg/L	0.00068	1.60%
Ni 232.003†	6103.6	0.1421 mg/L		0.00036	0.1421 mg/L	0.00036	0.25%
Ba 233.527†	104921.7	0.6124 mg/L		0.00347	0.6124 mg/L	0.00347	0.57%
Mn 257.610†	4738656.0	2.913 mg/L		0.0332	2.913 mg/L	0.0332	1.14%
Cr 267.716†	24031.0	0.1006 mg/L		0.00042	0.1006 mg/L	0.00042	0.42%
Fe 273.955†	4649589.1	91.35 mg/L		0.984	91.35 mg/L	0.984	1.08%
Mg 279.077†	1421586.2	31.82 mg/L		0.346	31.82 mg/L	0.346	1.09%
V 292.402†	47935.0	0.1050 mg/L		0.00064	0.1050 mg/L	0.00064	0.61%
Al 308.215†	1602602.7	41.48 mg/L		0.454	41.48 mg/L	0.454	1.09%
Be 313.107†	6009.2	0.0009 mg/L		0.00003	0.0009 mg/L	0.00003	3.22%
Cu 324.752†	28931.6	0.0911 mg/L		0.00074	0.0911 mg/L	0.00074	0.81%
Ag 338.289†	-3386.8	-0.0156 mg/L		0.00084	-0.0156 mg/L	0.00084	5.36%
Na 330.237†	-275.4	0.3218 mg/L		0.07090	0.3218 mg/L	0.07090	22.03%
Ca 227.546†	37952.9	63.50 mg/L		0.469	63.50 mg/L	0.469	0.74%
Al RADIAL†	168192.7	43.69 mg/L		0.528	43.69 mg/L	0.528	1.21%
Fe RADIAL†	80742.8	97.82 mg/L		1.206	97.82 mg/L	1.206	1.23%
Ca RADIAL†	745989.1	72.57 mg/L		1.168	72.57 mg/L	1.168	1.61%
K RADIAL†	19329.5	9.655 mg/L		0.1052	9.655 mg/L	0.1052	1.09%
Mg RADIAL†	28187.1	33.64 mg/L		0.560	33.64 mg/L	0.560	1.67%
Na RADIAL†	15574.5	0.8967 mg/L		0.01092	0.8967 mg/L	0.01092	1.22%
Mo 202.031	-45.9	-0.001 mg/L		0.0002	-0.001 mg/L	0.0002	21.56%

Sequence No.: 91

Sample ID: 16C0213-13

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 77

Date Collected: 3/8/2016 10:21:59 PM

Data Type: Reprocessed on 3/9/2016 6:15:17 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0213-13

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21014194.7	5.279 mg/L		0.0491			0.93%
Y RADIAL	490060.0	5.120 mg/L		0.0072			0.14%
As 188.979†	-15.1	0.0115 mg/L		0.00420	0.0115 mg/L	0.00420	36.41%
Tl 190.801†	-162.8	-0.0188 mg/L		0.00208	-0.0188 mg/L	0.00208	11.07%
Se 196.026†	-73.0	0.0044 mg/L		0.00372	0.0044 mg/L	0.00372	84.36%

Zn 206.200†	17088.2	0.1690 mg/L	0.00327	0.1690 mg/L	0.00327	1.93%
Sb 206.836†	-81.4	-0.0089 mg/L	0.00154	-0.0089 mg/L	0.00154	17.29%
Pb 220.353†	849.6	0.0360 mg/L	0.00080	0.0360 mg/L	0.00080	2.22%
Cd 226.502†	1848.4	-0.0008 mg/L	0.00019	-0.0008 mg/L	0.00019	23.90%
Co 228.616†	3428.0	0.0418 mg/L	0.00087	0.0418 mg/L	0.00087	2.09%
Ni 232.003†	4841.2	0.1120 mg/L	0.00104	0.1120 mg/L	0.00104	0.92%
Ba 233.527†	82890.9	0.4838 mg/L	0.00619	0.4838 mg/L	0.00619	1.28%
Mn 257.610†	3443842.6	2.121 mg/L	0.0178	2.121 mg/L	0.0178	0.84%
Cr 267.716†	21362.7	0.0899 mg/L	0.00106	0.0899 mg/L	0.00106	1.18%
Fe 273.955†	4816534.3	94.63 mg/L	0.797	94.63 mg/L	0.797	0.84%
Mg 279.077†	860252.1	19.25 mg/L	0.180	19.25 mg/L	0.180	0.93%
V 292.402†	48282.7	0.1054 mg/L	0.00189	0.1054 mg/L	0.00189	1.80%
Al 308.215†	1505446.9	38.97 mg/L	0.398	38.97 mg/L	0.398	1.02%
Be 313.107†	7722.4	0.0012 mg/L	0.00006	0.0012 mg/L	0.00006	4.97%
Cu 324.752†	21704.8	0.0723 mg/L	0.00067	0.0723 mg/L	0.00067	0.93%
Ag 338.289†	-3155.6	-0.0137 mg/L	0.00064	-0.0137 mg/L	0.00064	4.68%
Na 330.237†	-103.2	0.4134 mg/L	0.10045	0.4134 mg/L	0.10045	24.30%
Ca 227.546†	5895.3	10.65 mg/L	0.198	10.65 mg/L	0.198	1.86%
Al RADIAL†	163404.3	42.45 mg/L	0.081	42.45 mg/L	0.081	0.19%
Fe RADIAL†	85218.4	103.2 mg/L	0.21	103.2 mg/L	0.21	0.20%
Ca RADIAL†	116547.2	11.34 mg/L	0.009	11.34 mg/L	0.009	0.08%
K RADIAL†	20262.5	10.12 mg/L	0.069	10.12 mg/L	0.069	0.68%
Mg RADIAL†	17428.4	20.79 mg/L	0.041	20.79 mg/L	0.041	0.20%
Na RADIAL†	18517.3	1.066 mg/L	0.0151	1.066 mg/L	0.0151	1.41%
Mo 202.031	-124.3	-0.002 mg/L	0.0003	-0.002 mg/L	0.0003	13.66%

Sequence No.: 92

Sample ID: 16C0213-14

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 78

Date Collected: 3/8/2016 10:26:47 PM

Data Type: Reprocessed on 3/9/2016 6:15:18 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0213-14

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21120013.2	5.305 mg/L	0.0427			0.80%
Y RADIAL	490697.1	5.127 mg/L	0.0206			0.40%
As 188.979†	-32.8	0.0091 mg/L	0.00478	0.0091 mg/L	0.00478	52.74%
Tl 190.801†	-163.5	-0.0176 mg/L	0.00101	-0.0176 mg/L	0.00101	5.74%
Se 196.026†	-85.0	0.0041 mg/L	0.00732	0.0041 mg/L	0.00732	180.04%
Zn 206.200†	18590.2	0.1838 mg/L	0.00123	0.1838 mg/L	0.00123	0.67%
Sb 206.836†	-95.4	-0.0106 mg/L	0.00042	-0.0106 mg/L	0.00042	4.01%
Pb 220.353†	1128.1	0.0482 mg/L	0.00019	0.0482 mg/L	0.00019	0.39%
Cd 226.502†	2160.4	-0.0007 mg/L	0.00004	-0.0007 mg/L	0.00004	5.94%
Co 228.616†	4736.6	0.0572 mg/L	0.00033	0.0572 mg/L	0.00033	0.58%
Ni 232.003†	6712.3	0.1560 mg/L	0.00204	0.1560 mg/L	0.00204	1.31%
Ba 233.527†	103529.9	0.6043 mg/L	0.00343	0.6043 mg/L	0.00343	0.57%
Mn 257.610†	7459587.3	4.580 mg/L	0.0358	4.580 mg/L	0.0358	0.78%
Cr 267.716†	27007.7	0.1133 mg/L	0.00045	0.1133 mg/L	0.00045	0.40%
Fe 273.955†	5584905.0	109.7 mg/L	0.88	109.7 mg/L	0.88	0.80%
Mg 279.077†	971134.1	21.73 mg/L	0.194	21.73 mg/L	0.194	0.89%
V 292.402†	59658.0	0.1310 mg/L	0.00106	0.1310 mg/L	0.00106	0.81%
Al 308.215†	1788838.5	46.30 mg/L	0.418	46.30 mg/L	0.418	0.90%
Be 313.107†	11695.0	0.0018 mg/L	0.00005	0.0018 mg/L	0.00005	2.83%
Cu 324.752†	26804.0	0.0879 mg/L	0.00050	0.0879 mg/L	0.00050	0.57%
Ag 338.289†	-3577.6	-0.0155 mg/L	0.00065	-0.0155 mg/L	0.00065	4.17%
Na 330.237†	343.7	0.8132 mg/L	0.03723	0.8132 mg/L	0.03723	4.58%
Ca 227.546†	8510.4	15.09 mg/L	0.101	15.09 mg/L	0.101	0.67%
Al RADIAL†	189354.9	49.19 mg/L	0.172	49.19 mg/L	0.172	0.35%
Fe RADIAL†	97061.8	117.6 mg/L	0.41	117.6 mg/L	0.41	0.35%
Ca RADIAL†	164176.1	15.97 mg/L	0.101	15.97 mg/L	0.101	0.63%
K RADIAL†	26301.8	13.14 mg/L	0.046	13.14 mg/L	0.046	0.35%
Mg RADIAL†	19278.3	23.00 mg/L	0.106	23.00 mg/L	0.106	0.46%
Na RADIAL†	30367.9	1.749 mg/L	0.0217	1.749 mg/L	0.0217	1.24%
Mo 202.031	-196.2	-0.004 mg/L	0.0004	-0.004 mg/L	0.0004	10.47%

Sequence No.: 93

Sample ID: SEQ-CCV8

Autosampler Location: 3

Date Collected: 3/8/2016 10:31:33 PM

Analyst: KV

Data Type: Reprocessed on 3/9/2016 6:15:19 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Initial Sample Vol:

Dilution:

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	20489352.7	5.147 mg/L		0.0138			0.27%
Y RADIAL	499081.1	5.214 mg/L		0.0452			0.87%
As 188.979†	944.1	0.2478 mg/L		0.00179	0.2478 mg/L	0.00179	0.72%
Tl 190.801†	1422.7	0.2456 mg/L		0.00216	0.2456 mg/L	0.00216	0.88%
Se 196.026†	477.9	0.2436 mg/L		0.00162	0.2436 mg/L	0.00162	0.66%
Zn 206.200†	245479.7	2.443 mg/L		0.0606	2.443 mg/L	0.0606	2.48%
Sb 206.836†	1450.6	0.2319 mg/L		0.00454	0.2319 mg/L	0.00454	1.96%
Pb 220.353†	5585.4	0.2479 mg/L		0.00240	0.2479 mg/L	0.00240	0.97%
Cd 226.502†	34465.7	0.1200 mg/L		0.00296	0.1200 mg/L	0.00296	2.46%
Co 228.616†	214283.7	2.475 mg/L		0.0624	2.475 mg/L	0.0624	2.52%
Ni 232.003†	102779.3	2.443 mg/L		0.0590	2.443 mg/L	0.0590	2.42%
Ba 233.527†	1719057.4	10.03 mg/L		0.236	10.03 mg/L	0.236	2.36%
Mn 257.610†	4146478.1	2.538 mg/L		0.0544	2.538 mg/L	0.0544	2.14%
Cr 267.716†	241473.7	0.9812 mg/L		0.02085	0.9812 mg/L	0.02085	2.13%
Fe 273.955†	251454.5	4.940 mg/L		0.1073	4.940 mg/L	0.1073	2.17%
Mg 279.077†	1095886.5	24.54 mg/L		0.598	24.54 mg/L	0.598	2.44%
V 292.402†	1038781.5	2.424 mg/L		0.0446	2.424 mg/L	0.0446	1.84%
Al 308.215†	364066.9	9.421 mg/L		0.2274	9.421 mg/L	0.2274	2.41%
Be 313.107†	1668743.7	0.2518 mg/L		0.00396	0.2518 mg/L	0.00396	1.57%
Cu 324.752†	449092.3	1.218 mg/L		0.0247	1.218 mg/L	0.0247	2.03%
Ag 338.289†	241299.4	1.195 mg/L		0.0217	1.195 mg/L	0.0217	1.81%
Na 330.237†	30371.0	22.40 mg/L		0.546	22.40 mg/L	0.546	2.44%
Ca 227.546†	14563.9	24.08 mg/L		0.233	24.08 mg/L	0.233	0.97%
Al RADIAL†	36472.9	9.473 mg/L		0.0135	9.473 mg/L	0.0135	0.14%
Fe RADIAL†	4265.3	5.168 mg/L		0.1479	5.168 mg/L	0.1479	2.86%
Ca RADIAL†	257829.2	25.08 mg/L		0.065	25.08 mg/L	0.065	0.26%
K RADIAL†	10398.5	5.194 mg/L		0.1065	5.194 mg/L	0.1065	2.05%
Mg RADIAL†	21661.8	25.86 mg/L		0.745	25.86 mg/L	0.745	2.88%
Na RADIAL†	428401.0	24.67 mg/L		0.067	24.67 mg/L	0.067	0.27%
Mo 202.031	61421.6	1.149 mg/L		0.0259	1.149 mg/L	0.0259	2.26%

Sequence No.: 94

Autosampler Location: 4

Sample ID: SEQ-CCB8

Date Collected: 3/8/2016 10:39:16 PM

Analyst: KV

Data Type: Reprocessed on 3/9/2016 6:15:19 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Initial Sample Vol:

Dilution:

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	21407610.7	5.378 mg/L		0.0330			0.61%
Y RADIAL	498115.3	5.204 mg/L		0.0992			1.91%
As 188.979†	-8.8	-0.0023 mg/L		0.00123	-0.0023 mg/L	0.00123	53.37%
Tl 190.801†	0.4	0.0001 mg/L		0.00199	0.0001 mg/L	0.00199	>999.9%
Se 196.026†	-9.3	-0.0047 mg/L		0.00349	-0.0047 mg/L	0.00349	74.73%
Zn 206.200†	-1202.1	-0.0120 mg/L		0.00013	-0.0120 mg/L	0.00013	1.08%
Sb 206.836†	-6.1	-0.0010 mg/L		0.00134	-0.0010 mg/L	0.00134	137.54%
Pb 220.353†	-6.1	-0.0003 mg/L		0.00032	-0.0003 mg/L	0.00032	115.97%
Cd 226.502†	3.7	0.0000 mg/L		0.00004	0.0000 mg/L	0.00004	293.69%
Co 228.616†	-19.7	-0.0002 mg/L		0.00013	-0.0002 mg/L	0.00013	58.49%
Ni 232.003†	42.6	0.0010 mg/L		0.00065	0.0010 mg/L	0.00065	64.53%
Ba 233.527†	-193.5	-0.0011 mg/L		0.00012	-0.0011 mg/L	0.00012	10.27%
Mn 257.610†	-839.4	-0.0005 mg/L		0.00001	-0.0005 mg/L	0.00001	2.08%
Cr 267.716†	-95.7	-0.0004 mg/L		0.00011	-0.0004 mg/L	0.00011	28.08%
Fe 273.955†	-90.9	-0.0018 mg/L		0.00068	-0.0018 mg/L	0.00068	37.88%
Mg 279.077†	-17.6	-0.0004 mg/L		0.00092	-0.0004 mg/L	0.00092	233.04%
V 292.402†	-177.7	-0.0004 mg/L		0.00012	-0.0004 mg/L	0.00012	29.30%
Al 308.215†	-4025.9	-0.1042 mg/L		0.00967	-0.1042 mg/L	0.00967	9.28%
Be 313.107†	-6.5	0.0000 mg/L		0.00004	0.0000 mg/L	0.00004	>999.9%
Cu 324.752†	-72.9	-0.0002 mg/L		0.00008	-0.0002 mg/L	0.00008	38.37%

Ag 338.289†	538.8	0.0027 mg/L	0.00018	0.0027 mg/L	0.00018	6.72%
Na 330.237†	-556.9	-0.4098 mg/L	0.04053	-0.4098 mg/L	0.04053	9.89%
Ca 227.546†	60.0	0.0989 mg/L	0.06525	0.0989 mg/L	0.06525	65.95%
Al RADIAL†	-259.8	-0.0675 mg/L	0.00668	-0.0675 mg/L	0.00668	9.91%
Fe RADIAL†	5.6	0.0068 mg/L	0.00157	0.0068 mg/L	0.00157	23.11%
Ca RADIAL†	-128.2	-0.0125 mg/L	0.00675	-0.0125 mg/L	0.00675	54.09%
K RADIAL†	21.9	0.0109 mg/L	0.01043	0.0109 mg/L	0.01043	95.47%
Mg RADIAL†	9.1	0.0108 mg/L	0.00592	0.0108 mg/L	0.00592	54.71%
Na RADIAL†	-10795.8	-0.6216 mg/L	0.04520	-0.6216 mg/L	0.04520	7.27%
Mo 202.031	29.3	0.001 mg/L	0.0001	0.001 mg/L	0.0001	26.73%

Sequence No.: 95

Sample ID: 16C0213-15

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 79

Date Collected: 3/8/2016 10:44:25 PM

Data Type: Reprocessed on 3/9/2016 6:15:20 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0213-15

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20813908.2	5.229 mg/L	0.0437			0.84%
Y RADIAL	485879.5	5.076 mg/L	0.0307			0.60%
As 188.979†	-25.7	0.0064 mg/L	0.00292	0.0064 mg/L	0.00292	45.65%
Tl 190.801†	-154.2	-0.0187 mg/L	0.00149	-0.0187 mg/L	0.00149	8.00%
Se 196.026†	-61.1	0.0041 mg/L	0.00348	0.0041 mg/L	0.00348	83.76%
Zn 206.200†	14464.6	0.1431 mg/L	0.00038	0.1431 mg/L	0.00038	0.26%
Sb 206.836†	-45.5	-0.0038 mg/L	0.00194	-0.0038 mg/L	0.00194	51.39%
Pb 220.353†	764.9	0.0324 mg/L	0.00045	0.0324 mg/L	0.00045	1.37%
Cd 226.502†	1619.8	-0.0005 mg/L	0.00003	-0.0005 mg/L	0.00003	6.08%
Co 228.616†	3169.1	0.0384 mg/L	0.00023	0.0384 mg/L	0.00023	0.60%
Ni 232.003†	5084.4	0.1182 mg/L	0.00107	0.1182 mg/L	0.00107	0.90%
Ba 233.527†	54180.7	0.3162 mg/L	0.00324	0.3162 mg/L	0.00324	1.02%
Mn 257.610†	3594060.1	2.211 mg/L	0.0093	2.211 mg/L	0.0093	0.42%
Cr 267.716†	20583.2	0.0863 mg/L	0.00082	0.0863 mg/L	0.00082	0.95%
Fe 273.955†	4166134.7	81.85 mg/L	0.342	81.85 mg/L	0.342	0.42%
Mg 279.077†	778951.5	17.43 mg/L	0.212	17.43 mg/L	0.212	1.21%
V 292.402†	43002.8	0.0942 mg/L	0.00080	0.0942 mg/L	0.00080	0.85%
Al 308.215†	1272262.1	32.93 mg/L	0.166	32.93 mg/L	0.166	0.50%
Be 313.107†	6151.5	0.0009 mg/L	0.00002	0.0009 mg/L	0.00002	1.69%
Cu 324.752†	18804.9	0.0624 mg/L	0.00068	0.0624 mg/L	0.00068	1.10%
Ag 338.289†	-2707.9	-0.0118 mg/L	0.00021	-0.0118 mg/L	0.00021	1.76%
Na 330.237†	467.7	0.7599 mg/L	0.03658	0.7599 mg/L	0.03658	4.81%
Ca 227.546†	5542.1	9.925 mg/L	0.0569	9.925 mg/L	0.0569	0.57%
Al RADIAL†	136591.7	35.49 mg/L	0.084	35.49 mg/L	0.084	0.24%
Fe RADIAL†	72285.9	87.58 mg/L	0.306	87.58 mg/L	0.306	0.35%
Ca RADIAL†	106144.5	10.33 mg/L	0.073	10.33 mg/L	0.073	0.71%
K RADIAL†	18067.4	9.025 mg/L	0.0729	9.025 mg/L	0.0729	0.81%
Mg RADIAL†	15143.0	18.07 mg/L	0.049	18.07 mg/L	0.049	0.27%
Na RADIAL†	28240.1	1.626 mg/L	0.0316	1.626 mg/L	0.0316	1.94%
Mo 202.031	-142.1	-0.003 mg/L	0.0003	-0.003 mg/L	0.0003	12.88%

Sequence No.: 96

Sample ID: 16C0213-16

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 80

Date Collected: 3/8/2016 10:49:13 PM

Data Type: Reprocessed on 3/9/2016 6:15:21 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0213-16

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21066359.2	5.292 mg/L	0.0616			1.16%
Y RADIAL	491697.6	5.137 mg/L	0.0262			0.51%
As 188.979†	-14.9	0.0104 mg/L	0.00349	0.0104 mg/L	0.00349	33.48%
Tl 190.801†	-158.7	-0.0187 mg/L	0.00285	-0.0187 mg/L	0.00285	15.22%
Se 196.026†	-64.5	0.0056 mg/L	0.00184	0.0056 mg/L	0.00184	32.80%
Zn 206.200†	15349.2	0.1518 mg/L	0.00205	0.1518 mg/L	0.00205	1.35%

Sb	206.836†	-60.0	-0.0058 mg/L	0.00232	-0.0058 mg/L	0.00232	40.02%
Pb	220.353†	848.2	0.0357 mg/L	0.00125	0.0357 mg/L	0.00125	3.51%
Cd	226.502†	1714.7	-0.0007 mg/L	0.00007	-0.0007 mg/L	0.00007	10.52%
Co	228.616†	3607.3	0.0437 mg/L	0.00056	0.0437 mg/L	0.00056	1.28%
Ni	232.003†	4599.2	0.1064 mg/L	0.00420	0.1064 mg/L	0.00420	3.95%
Ba	233.527†	67711.2	0.3952 mg/L	0.00565	0.3952 mg/L	0.00565	1.43%
Mn	257.610†	4452098.2	2.737 mg/L	0.0401	2.737 mg/L	0.0401	1.47%
Cr	267.716†	19334.9	0.0815 mg/L	0.00109	0.0815 mg/L	0.00109	1.33%
Fe	273.955†	4480108.4	88.02 mg/L	1.332	88.02 mg/L	1.332	1.51%
Mg	279.077†	768060.4	17.18 mg/L	0.261	17.18 mg/L	0.261	1.52%
V	292.402†	47143.5	0.1033 mg/L	0.00154	0.1033 mg/L	0.00154	1.49%
Al	308.215†	1298268.9	33.61 mg/L	0.487	33.61 mg/L	0.487	1.45%
Be	313.107†	7843.6	0.0012 mg/L	0.00001	0.0012 mg/L	0.00001	0.78%
Cu	324.752†	21402.6	0.0704 mg/L	0.00064	0.0704 mg/L	0.00064	0.92%
Ag	338.289†	-3172.1	-0.0139 mg/L	0.00013	-0.0139 mg/L	0.00013	0.92%
Na	330.237†	315.7	0.6865 mg/L	0.02882	0.6865 mg/L	0.02882	4.20%
Ca	227.546†	6287.3	11.22 mg/L	0.130	11.22 mg/L	0.130	1.16%
Al RADIAL†	140794.7	36.58 mg/L	0.354	36.58 mg/L	0.354	0.97%	
Fe RADIAL†	78832.0	95.51 mg/L	1.093	95.51 mg/L	1.093	1.14%	
Ca RADIAL†	123959.4	12.06 mg/L	0.133	12.06 mg/L	0.133	1.11%	
K RADIAL†	18207.2	9.094 mg/L	0.1107	9.094 mg/L	0.1107	1.22%	
Mg RADIAL†	15564.5	18.57 mg/L	0.230	18.57 mg/L	0.230	1.24%	
Na RADIAL†	27528.4	1.585 mg/L	0.0185	1.585 mg/L	0.0185	1.17%	
Mo	202.031†	-149.1	-0.003 mg/L	0.0002	-0.003 mg/L	0.0002	6.35%

Sequence No.: 97

Sample ID: 16C0243-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 81

Date Collected: 3/8/2016 10:54:01 PM

Data Type: Reprocessed on 3/9/2016 6:15:22 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0243-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21079060.1	5.295 mg/L		0.0336			0.63%
Y RADIAL	518794.0	5.420 mg/L		0.0722			1.33%
As 188.979†	30.0	0.0196 mg/L		0.00213	0.0196 mg/L	0.00213	10.83%
Tl 190.801†	-201.1	-0.0276 mg/L		0.00103	-0.0276 mg/L	0.00103	3.75%
Se 196.026†	-49.1	0.0066 mg/L		0.00593	0.0066 mg/L	0.00593	89.96%
Zn 206.200†	9230.6	0.0911 mg/L		0.00039	0.0911 mg/L	0.00039	0.43%
Sb 206.836†	-71.9	-0.0084 mg/L		0.00055	-0.0084 mg/L	0.00055	6.60%
Pb 220.353†	867.4	0.0396 mg/L		0.00040	0.0396 mg/L	0.00040	1.01%
Cd 226.502†	1562.0	0.0000 mg/L		0.00009	0.0000 mg/L	0.00009	197.55%
Co 228.616†	2647.9	0.0322 mg/L		0.00016	0.0322 mg/L	0.00016	0.51%
Ni 232.003†	1893.1	0.0426 mg/L		0.00110	0.0426 mg/L	0.00110	2.58%
Ba 233.527†	19295.9	0.1126 mg/L		0.00053	0.1126 mg/L	0.00053	0.47%
Mn 257.610†	2188964.3	1.350 mg/L		0.0176	1.350 mg/L	0.0176	1.30%
Cr 267.716†	14609.0	0.0617 mg/L		0.00015	0.0617 mg/L	0.00015	0.25%
Fe 273.955†	3846049.0	75.57 mg/L		1.017	75.57 mg/L	1.017	1.35%
Mg 279.077†	316900.1	7.083 mg/L		0.1536	7.083 mg/L	0.1536	2.17%
V 292.402†	38583.9	0.0845 mg/L		0.00233	0.0845 mg/L	0.00233	2.76%
Al 308.215†	2007203.9	51.95 mg/L		0.792	51.95 mg/L	0.792	1.52%
Be 313.107†	387.2	0.0001 mg/L		0.00000	0.0001 mg/L	0.00000	5.34%
Cu 324.752†	8642.7	0.0336 mg/L		0.00053	0.0336 mg/L	0.00053	1.56%
Ag 338.289†	-3755.0	-0.0170 mg/L		0.00026	-0.0170 mg/L	0.00026	1.53%
Na 330.237†	-1910.3	-1.041 mg/L		0.0196	-1.041 mg/L	0.0196	1.88%
Ca 227.546†	582.9	1.675 mg/L		0.0514	1.675 mg/L	0.0514	3.07%
Al RADIAL†	202374.1	52.57 mg/L		0.165	52.57 mg/L	0.165	0.31%
Fe RADIAL†	64832.8	78.55 mg/L		0.382	78.55 mg/L	0.382	0.49%
Ca RADIAL†	9344.9	0.9091 mg/L		0.00457	0.9091 mg/L	0.00457	0.50%
K RADIAL†	5202.3	2.599 mg/L		0.0580	2.599 mg/L	0.0580	2.23%
Mg RADIAL†	6053.2	7.218 mg/L		0.0118	7.218 mg/L	0.0118	0.16%
Na RADIAL†	-3204.4	-0.1845 mg/L		0.03014	-0.1845 mg/L	0.03014	16.34%
Mo 202.031	-64.2	-0.001 mg/L		0.0000	-0.001 mg/L	0.0000	2.80%

Sequence No.: 98

Sample ID: 16C0243-02

Analyst: KV

Autosampler Location: 82

Date Collected: 3/8/2016 10:58:47 PM

Data Type: Reprocessed on 3/9/2016 6:15:22 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 16C0243-02

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20515082.3	5.153 mg/L		0.0466			0.90%
Y RADIAL	515872.0	5.390 mg/L		0.0389			0.72%
As 188.979†	34.8	0.0219 mg/L		0.00057	0.0219 mg/L	0.00057	2.62%
Tl 190.801†	-256.0	-0.0364 mg/L		0.00362	-0.0364 mg/L	0.00362	9.93%
Se 196.026†	-65.6	0.0010 mg/L		0.00521	0.0010 mg/L	0.00521	538.94%
Zn 206.200†	11188.6	0.1105 mg/L		0.00293	0.1105 mg/L	0.00293	2.65%
Sb 206.836†	-90.5	-0.0111 mg/L		0.00185	-0.0111 mg/L	0.00185	16.71%
Pb 220.353†	919.9	0.0421 mg/L		0.00077	0.0421 mg/L	0.00077	1.83%
Cd 226.502†	1727.7	0.0001 mg/L		0.00009	0.0001 mg/L	0.00009	161.55%
Co 228.616†	3245.7	0.0393 mg/L		0.00079	0.0393 mg/L	0.00079	2.02%
Ni 232.003†	2348.9	0.0533 mg/L		0.00153	0.0533 mg/L	0.00153	2.88%
Ba 233.527†	22291.8	0.1301 mg/L		0.00259	0.1301 mg/L	0.00259	1.99%
Mn 257.610†	2086875.5	1.288 mg/L		0.0189	1.288 mg/L	0.0189	1.47%
Cr 267.716†	16667.4	0.0703 mg/L		0.00155	0.0703 mg/L	0.00155	2.21%
Fe 273.955†	4360207.3	85.67 mg/L		1.276	85.67 mg/L	1.276	1.49%
Mg 279.077†	383787.3	8.580 mg/L		0.1392	8.580 mg/L	0.1392	1.62%
V 292.402†	45578.2	0.1004 mg/L		0.00193	0.1004 mg/L	0.00193	1.93%
Al 308.215†	2222564.9	57.53 mg/L		0.971	57.53 mg/L	0.971	1.69%
Be 313.107†	622.6	0.0001 mg/L		0.00008	0.0001 mg/L	0.00008	86.68%
Cu 324.752†	10330.5	0.0391 mg/L		0.00049	0.0391 mg/L	0.00049	1.25%
Ag 338.289†	-4455.3	-0.0204 mg/L		0.00010	-0.0204 mg/L	0.00010	0.49%
Na 330.237†	-2107.5	-1.153 mg/L		0.0505	-1.153 mg/L	0.0505	4.38%
Ca 227.546†	1452.8	3.172 mg/L		0.1066	3.172 mg/L	0.1066	3.36%
Al RADIAL†	219736.9	57.08 mg/L		0.176	57.08 mg/L	0.176	0.31%
Fe RADIAL†	70424.9	85.32 mg/L		0.418	85.32 mg/L	0.418	0.49%
Ca RADIAL†	24985.2	2.431 mg/L		0.0053	2.431 mg/L	0.0053	0.22%
K RADIAL†	5979.7	2.987 mg/L		0.0207	2.987 mg/L	0.0207	0.69%
Mg RADIAL†	6922.6	8.255 mg/L		0.0443	8.255 mg/L	0.0443	0.54%
Na RADIAL†	-2937.3	-0.1691 mg/L		0.01707	-0.1691 mg/L	0.01707	10.09%
Mo 202.031	-75.9	-0.001 mg/L		0.0005	-0.001 mg/L	0.0005	35.48%

Sequence No.: 99

Autosampler Location: 83

Sample ID: 16C0267-01

Date Collected: 3/8/2016 11:03:35 PM

Analyst: KV

Data Type: Reprocessed on 3/9/2016 6:15:23 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 16C0267-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20718230.0	5.205 mg/L		0.0774			1.49%
Y RADIAL	526261.0	5.498 mg/L		0.1053			1.91%
As 188.979†	116.6	0.0627 mg/L		0.00395	0.0627 mg/L	0.00395	6.29%
Tl 190.801†	-205.4	-0.0161 mg/L		0.00183	-0.0161 mg/L	0.00183	11.36%
Se 196.026†	-146.6	0.0118 mg/L		0.00647	0.0118 mg/L	0.00647	54.91%
Zn 206.200†	78763.3	0.7817 mg/L		0.01141	0.7817 mg/L	0.01141	1.46%
Sb 206.836†	-129.1	-0.0121 mg/L		0.00075	-0.0121 mg/L	0.00075	6.18%
Pb 220.353†	16418.4	0.7252 mg/L		0.00880	0.7252 mg/L	0.00880	1.21%
Cd 226.502†	4299.7	0.0000 mg/L		0.00026	0.0000 mg/L	0.00026	>999.9%
Co 228.616†	7037.7	0.0858 mg/L		0.00094	0.0858 mg/L	0.00094	1.09%
Ni 232.003†	9334.8	0.2154 mg/L		0.00508	0.2154 mg/L	0.00508	2.36%
Ba 233.527†	90109.8	0.5260 mg/L		0.00806	0.5260 mg/L	0.00806	1.53%
Mn 257.610†	7900075.1	4.863 mg/L		0.0259	4.863 mg/L	0.0259	0.53%
Cr 267.716†	54297.7	0.2271 mg/L		0.00372	0.2271 mg/L	0.00372	1.64%
Fe 273.955†	10538036.4	207.0 mg/L		0.64	207.0 mg/L	0.64	0.31%
Mg 279.077†	2010650.1	44.99 mg/L		0.245	44.99 mg/L	0.245	0.54%
V 292.402†	110327.9	0.2424 mg/L		0.00404	0.2424 mg/L	0.00404	1.66%
Al 308.215†	4562744.4	118.1 mg/L		0.45	118.1 mg/L	0.45	0.38%
Be 313.107†	27122.4	0.0041 mg/L		0.00005	0.0041 mg/L	0.00005	1.17%
Cu 324.752†	97248.3	0.2915 mg/L		0.00385	0.2915 mg/L	0.00385	1.32%
Ag 338.289†	-4079.6	-0.0163 mg/L		0.00026	-0.0163 mg/L	0.00026	1.60%

Na 330.237†	7546.3	6.582 mg/L	0.1641	6.582 mg/L	0.1641	2.49%
Ca 227.546†	20457.7	35.68 mg/L	0.337	35.68 mg/L	0.337	0.94%
Al RADIAL†	436737.4	113.5 mg/L	2.04	113.5 mg/L	2.04	1.79%
Fe RADIAL†	177208.3	214.7 mg/L	1.12	214.7 mg/L	1.12	0.52%
Ca RADIAL†	362521.9	35.27 mg/L	0.055	35.27 mg/L	0.055	0.16%
K RADIAL†	37941.4	18.95 mg/L	0.227	18.95 mg/L	0.227	1.20%
Mg RADIAL†	37236.5	44.43 mg/L	0.255	44.43 mg/L	0.255	0.57%
Na RADIAL†	128431.4	7.395 mg/L	0.0947	7.395 mg/L	0.0947	1.28%
Mo 202.031	-244.1	-0.005 mg/L	0.0004	-0.005 mg/L	0.0004	8.77%

Sequence No.: 100

Sample ID: 16C0267-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 84

Date Collected: 3/8/2016 11:08:24 PM

Data Type: Reprocessed on 3/9/2016 6:15:24 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0267-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20832169.9	5.233 mg/L	0.0420			0.80%
Y RADIAL	524848.5	5.484 mg/L	0.0542			0.99%
As 188.979†	109.5	0.0482 mg/L	0.00141	0.0482 mg/L	0.00141	2.93%
Tl 190.801†	-414.0	-0.0596 mg/L	0.00209	-0.0596 mg/L	0.00209	3.50%
Se 196.026†	-74.0	0.0147 mg/L	0.00372	0.0147 mg/L	0.00372	25.35%
Zn 206.200†	120225.7	1.195 mg/L	0.0195	1.195 mg/L	0.0195	1.63%
Sb 206.836†	-124.6	-0.0147 mg/L	0.00365	-0.0147 mg/L	0.00365	24.78%
Pb 220.353†	18932.3	0.8352 mg/L	0.00428	0.8352 mg/L	0.00428	0.51%
Cd 226.502†	3283.5	0.0023 mg/L	0.00006	0.0023 mg/L	0.00006	2.45%
Co 228.616†	4997.8	0.0605 mg/L	0.00016	0.0605 mg/L	0.00016	0.26%
Ni 232.003†	5299.9	0.1221 mg/L	0.00397	0.1221 mg/L	0.00397	3.25%
Ba 233.527†	102289.9	0.5970 mg/L	0.00885	0.5970 mg/L	0.00885	1.48%
Mn 257.610†	2966802.0	1.833 mg/L	0.0165	1.833 mg/L	0.0165	0.90%
Cr 267.716†	27239.1	0.1146 mg/L	0.00146	0.1146 mg/L	0.00146	1.28%
Fe 273.955†	6580058.6	129.3 mg/L	1.16	129.3 mg/L	1.16	0.90%
Mg 279.077†	1895331.6	42.42 mg/L	0.372	42.42 mg/L	0.372	0.88%
V 292.402†	78194.7	0.1733 mg/L	0.00114	0.1733 mg/L	0.00114	0.66%
Al 308.215†	2195149.9	56.82 mg/L	0.516	56.82 mg/L	0.516	0.91%
Be 313.107†	-7240.5	-0.0011 mg/L	0.00013	-0.0011 mg/L	0.00013	12.08%
Cu 324.752†	109332.4	0.3133 mg/L	0.00455	0.3133 mg/L	0.00455	1.45%
Ag 338.289†	-7119.5	-0.0336 mg/L	0.00036	-0.0336 mg/L	0.00036	1.06%
Na 330.237†	666.4	1.177 mg/L	0.0214	1.177 mg/L	0.0214	1.82%
Ca 227.546†	47911.2	80.21 mg/L	1.276	80.21 mg/L	1.276	1.59%
Al RADIAL†	211878.9	55.04 mg/L	0.177	55.04 mg/L	0.177	0.32%
Fe RADIAL†	107548.6	130.3 mg/L	0.41	130.3 mg/L	0.41	0.32%
Ca RADIAL†	868861.4	84.52 mg/L	0.172	84.52 mg/L	0.172	0.20%
K RADIAL†	28297.3	14.13 mg/L	0.026	14.13 mg/L	0.026	0.18%
Mg RADIAL†	35002.3	41.77 mg/L	0.150	41.77 mg/L	0.150	0.36%
Na RADIAL†	35143.0	2.023 mg/L	0.0375	2.023 mg/L	0.0375	1.85%
Mo 202.031	34.4	0.001 mg/L	0.0002	0.001 mg/L	0.0002	24.26%

Sequence No.: 101

Sample ID: SEQ-SRD4

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 85

Date Collected: 3/8/2016 11:13:11 PM

Data Type: Reprocessed on 3/9/2016 6:15:24 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	19888719.6	4.996 mg/L	0.0417			0.83%
Y RADIAL	532599.2	5.565 mg/L	0.0323			0.58%
As 188.979†	-13.5	-0.0024 mg/L	0.00247	-0.0024 mg/L	0.00247	101.24%
Tl 190.801†	-43.7	-0.0069 mg/L	0.00052	-0.0069 mg/L	0.00052	7.60%
Se 196.026†	-8.2	-0.0012 mg/L	0.00157	-0.0012 mg/L	0.00157	125.91%
Zn 206.200†	86.4	0.0008 mg/L	0.00026	0.0008 mg/L	0.00026	32.96%
Sb 206.836†	-2.7	-0.0001 mg/L	0.00103	-0.0001 mg/L	0.00103	723.63%

Pb	220.353†	157.7	0.0070 mg/L	0.00054	0.0070 mg/L	0.00054	7.69%
Cd	226.502†	105.5	-0.0001 mg/L	0.00005	-0.0001 mg/L	0.00005	33.67%
Co	228.616†	149.9	0.0019 mg/L	0.00010	0.0019 mg/L	0.00010	5.33%
Ni	232.003†	148.4	0.0033 mg/L	0.00058	0.0033 mg/L	0.00058	17.57%
Ba	233.527†	1635.6	0.0095 mg/L	0.00012	0.0095 mg/L	0.00012	1.24%
Mn	257.610†	92047.8	0.0573 mg/L	0.00036	0.0573 mg/L	0.00036	0.62%
Cr	267.716†	6783.6	0.0278 mg/L	0.00016	0.0278 mg/L	0.00016	0.58%
Fe	273.955†	403356.5	7.925 mg/L	0.0316	7.925 mg/L	0.0316	0.40%
Mg	279.077†	32017.8	0.7157 mg/L	0.00478	0.7157 mg/L	0.00478	0.67%
V	292.402†	5919.2	0.0133 mg/L	0.00031	0.0133 mg/L	0.00031	2.35%
Al	308.215†	181410.6	4.696 mg/L	0.0376	4.696 mg/L	0.0376	0.80%
Be	313.107†	-971.8	-0.0001 mg/L	0.00002	-0.0001 mg/L	0.00002	15.45%
Cu	324.752†	2256.8	0.0071 mg/L	0.00011	0.0071 mg/L	0.00011	1.62%
Ag	338.289†	-283.0	-0.0013 mg/L	0.00013	-0.0013 mg/L	0.00013	10.47%
Na	330.237†	-611.6	-0.4160 mg/L	0.08067	-0.4160 mg/L	0.08067	19.39%
Ca	227.546†	170.5	0.3474 mg/L	0.00453	0.3474 mg/L	0.00453	1.30%
Al	RADIAL†	17428.6	4.528 mg/L	0.0155	4.528 mg/L	0.0155	0.34%
Fe	RADIAL†	6026.0	7.301 mg/L	0.1224	7.301 mg/L	0.1224	1.68%
Ca	RADIAL†	2290.6	0.2228 mg/L	0.00526	0.2228 mg/L	0.00526	2.36%
K	RADIAL†	500.4	0.2499 mg/L	0.04083	0.2499 mg/L	0.04083	16.34%
Mg	RADIAL†	562.6	0.6708 mg/L	0.01131	0.6708 mg/L	0.01131	1.69%
Na	RADIAL†	-6642.0	-0.3824 mg/L	0.01011	-0.3824 mg/L	0.01011	2.64%
Mo	202.031	7.1	0.000 mg/L	0.0002	0.000 mg/L	0.0002	159.99%

Sequence No.: 102

Sample ID: BC60396-BLK1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 86

Date Collected: 3/8/2016 11:18:14 PM

Data Type: Reprocessed on 3/9/2016 6:15:25 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60396-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21355126.6	5.365 mg/L	0.0598			1.12%
Y RADIAL	518022.0	5.412 mg/L	0.1453			2.68%
As 188.979†	-13.6	-0.0036 mg/L	0.00051	-0.0036 mg/L	0.00051	14.33%
Tl 190.801†	1.6	0.0003 mg/L	0.00076	0.0003 mg/L	0.00076	271.00%
Se 196.026†	-5.3	-0.0027 mg/L	0.00242	-0.0027 mg/L	0.00242	89.56%
Zn 206.200†	-1076.8	-0.0107 mg/L	0.00014	-0.0107 mg/L	0.00014	1.33%
Sb 206.836†	-2.1	-0.0003 mg/L	0.00149	-0.0003 mg/L	0.00149	441.91%
Pb 220.353†	-3.0	-0.0001 mg/L	0.00118	-0.0001 mg/L	0.00118	849.84%
Cd 226.502†	15.1	0.0001 mg/L	0.00003	0.0001 mg/L	0.00003	61.20%
Co 228.616†	-14.5	-0.0002 mg/L	0.00016	-0.0002 mg/L	0.00016	94.81%
Ni 232.003†	66.4	0.0016 mg/L	0.00089	0.0016 mg/L	0.00089	56.49%
Ba 233.527†	-224.3	-0.0013 mg/L	0.00005	-0.0013 mg/L	0.00005	3.45%
Mn 257.610†	-971.5	-0.0006 mg/L	0.00001	-0.0006 mg/L	0.00001	1.06%
Cr 267.716†	-46.2	-0.0002 mg/L	0.00039	-0.0002 mg/L	0.00039	208.34%
Fe 273.955†	144.9	0.0028 mg/L	0.00037	0.0028 mg/L	0.00037	12.91%
Mg 279.077†	-31.2	-0.0007 mg/L	0.00214	-0.0007 mg/L	0.00214	306.06%
V 292.402†	-114.3	-0.0003 mg/L	0.00005	-0.0003 mg/L	0.00005	17.11%
Al 308.215†	-3453.0	-0.0894 mg/L	0.00192	-0.0894 mg/L	0.00192	2.15%
Be 313.107†	-54.3	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	207.63%
Cu 324.752†	-221.8	-0.0006 mg/L	0.00010	-0.0006 mg/L	0.00010	16.08%
Ag 338.289†	5.7	0.0000 mg/L	0.00058	0.0000 mg/L	0.00058	>999.9%
Na 330.237†	-622.9	-0.4583 mg/L	0.02751	-0.4583 mg/L	0.02751	6.00%
Ca 227.546†	61.5	0.1016 mg/L	0.01905	0.1016 mg/L	0.01905	18.76%
Al RADIAL†	-200.5	-0.0521 mg/L	0.00846	-0.0521 mg/L	0.00846	16.25%
Fe RADIAL†	4.1	0.0049 mg/L	0.00708	0.0049 mg/L	0.00708	143.37%
Ca RADIAL†	-104.2	-0.0101 mg/L	0.00410	-0.0101 mg/L	0.00410	40.50%
K RADIAL†	-20.9	-0.0104 mg/L	0.02021	-0.0104 mg/L	0.02021	193.49%
Mg RADIAL†	-1.1	-0.0013 mg/L	0.00908	-0.0013 mg/L	0.00908	674.25%
Na RADIAL†	-9308.4	-0.5360 mg/L	0.06071	-0.5360 mg/L	0.06071	11.33%
Mo 202.031	-2.6	0.000 mg/L	0.0001	0.000 mg/L	0.0001	251.89%

Sequence No.: 103

Sample ID: BC60396-SRM1

Analyst: KV

Logged In Analyst (Original) : administrator

Autosampler Location: 87

Date Collected: 3/8/2016 11:23:23 PM

Data Type: Reprocessed on 3/9/2016 6:15:26 AM

Initial Sample Wt:
Dilution:

Initial Sample Vol:
Sample Prep Vol:

Mean Data: BC60396-SRM1

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20691939.8	5.198 mg/L	0.0614			1.18%
Y RADIAL	495228.0	5.174 mg/L	0.0329			0.64%
As 188.979†	4302.2	1.156 mg/L	0.0212	1.156 mg/L	0.0212	1.84%
Tl 190.801†	5486.8	0.9636 mg/L	0.02480	0.9636 mg/L	0.02480	2.57%
Se 196.026†	2930.8	1.563 mg/L	0.0294	1.563 mg/L	0.0294	1.88%
Zn 206.200†	162932.8	1.619 mg/L	0.0111	1.619 mg/L	0.0111	0.69%
Sb 206.836†	5438.7	0.8769 mg/L	0.01191	0.8769 mg/L	0.01191	1.36%
Pb 220.353†	20136.0	0.8880 mg/L	0.01598	0.8880 mg/L	0.01598	1.80%
Cd 226.502†	192702.6	0.6585 mg/L	0.00512	0.6585 mg/L	0.00512	0.78%
Co 228.616†	86750.7	1.006 mg/L	0.0081	1.006 mg/L	0.0081	0.81%
Ni 232.003†	41874.7	0.9892 mg/L	0.00901	0.9892 mg/L	0.00901	0.91%
Ba 233.527†	271461.2	1.584 mg/L	0.0100	1.584 mg/L	0.0100	0.63%
Mn 257.610†	6035421.2	3.720 mg/L	0.0234	3.720 mg/L	0.0234	0.63%
Cr 267.716†	407268.3	1.661 mg/L	0.0108	1.661 mg/L	0.0108	0.65%
Fe 273.955†	9051134.9	177.8 mg/L	0.16	177.8 mg/L	0.16	0.09%
Mg 279.077†	1346189.6	30.11 mg/L	0.164	30.11 mg/L	0.164	0.55%
V 292.402†	340327.1	0.7800 mg/L	0.00426	0.7800 mg/L	0.00426	0.55%
Al 308.215†	3567090.2	92.33 mg/L	0.611	92.33 mg/L	0.611	0.66%
Be 313.107†	7087950.2	1.069 mg/L	0.0007	1.069 mg/L	0.0007	0.07%
Cu 324.752†	478357.6	1.323 mg/L	0.0103	1.323 mg/L	0.0103	0.78%
Ag 338.289†	100480.8	0.5010 mg/L	0.00236	0.5010 mg/L	0.00236	0.47%
Na 330.237†	7355.2	6.415 mg/L	0.1530	6.415 mg/L	0.1530	2.38%
Ca 227.546†	36172.8	61.49 mg/L	0.878	61.49 mg/L	0.878	1.43%
Al RADIAL†	359283.8	93.34 mg/L	1.571	93.34 mg/L	1.571	1.68%
Fe RADIAL†	167112.9	202.5 mg/L	2.42	202.5 mg/L	2.42	1.19%
Ca RADIAL†	674902.3	65.65 mg/L	1.286	65.65 mg/L	1.286	1.96%
K RADIAL†	62735.9	31.34 mg/L	0.386	31.34 mg/L	0.386	1.23%
Mg RADIAL†	27301.7	32.57 mg/L	0.460	32.57 mg/L	0.460	1.41%
Na RADIAL†	123748.9	7.125 mg/L	0.1319	7.125 mg/L	0.1319	1.85%
Mo 202.031	45429.0	0.850 mg/L	0.0084	0.850 mg/L	0.0084	0.98%

Sequence No.: 104

Sample ID: 16B0952-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 88

Date Collected: 3/8/2016 11:30:46 PM

Data Type: Reprocessed on 3/9/2016 6:15:27 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16B0952-02

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20713981.9	5.203 mg/L	0.0414			0.80%
Y RADIAL	512702.6	5.357 mg/L	0.0994			1.85%
As 188.979†	24.2	0.0138 mg/L	0.00318	0.0138 mg/L	0.00318	23.09%
Tl 190.801†	-83.2	-0.0099 mg/L	0.00044	-0.0099 mg/L	0.00044	4.44%
Se 196.026†	-34.9	0.0022 mg/L	0.00269	0.0022 mg/L	0.00269	123.79%
Zn 206.200†	6127.1	0.0605 mg/L	0.00024	0.0605 mg/L	0.00024	0.40%
Sb 206.836†	-23.0	-0.0017 mg/L	0.00163	-0.0017 mg/L	0.00163	95.50%
Pb 220.353†	611.0	0.0261 mg/L	0.00068	0.0261 mg/L	0.00068	2.60%
Cd 226.502†	985.9	0.0000 mg/L	0.00005	0.0000 mg/L	0.00005	173.15%
Co 228.616†	1463.2	0.0179 mg/L	0.00017	0.0179 mg/L	0.00017	0.97%
Ni 232.003†	1441.2	0.0328 mg/L	0.00085	0.0328 mg/L	0.00085	2.58%
Ba 233.527†	9733.9	0.0568 mg/L	0.00015	0.0568 mg/L	0.00015	0.26%
Mn 257.610†	1457982.2	0.8987 mg/L	0.00406	0.8987 mg/L	0.00406	0.45%
Cr 267.716†	27734.0	0.1142 mg/L	0.00239	0.1142 mg/L	0.00239	2.10%
Fe 273.955†	2497136.7	49.06 mg/L	0.217	49.06 mg/L	0.217	0.44%
Mg 279.077†	154459.7	3.451 mg/L	0.0683	3.451 mg/L	0.0683	1.98%
V 292.402†	18622.3	0.0400 mg/L	0.00088	0.0400 mg/L	0.00088	2.20%
Al 308.215†	741331.7	19.19 mg/L	0.098	19.19 mg/L	0.098	0.51%
Be 313.107†	2930.5	0.0004 mg/L	0.00001	0.0004 mg/L	0.00001	2.60%
Cu 324.752†	10058.8	0.0337 mg/L	0.00074	0.0337 mg/L	0.00074	2.19%
Ag 338.289†	-1561.1	-0.0068 mg/L	0.00020	-0.0068 mg/L	0.00020	2.95%
Na 330.237†	-942.7	-0.4622 mg/L	0.06836	-0.4622 mg/L	0.06836	14.79%

Ca 227.546†	1105.9	2.266 mg/L	0.0672	2.266 mg/L	0.0672	2.96%
Al RADIAL†	75465.7	19.61 mg/L	0.088	19.61 mg/L	0.088	0.45%
Fe RADIAL†	40931.8	49.59 mg/L	0.693	49.59 mg/L	0.693	1.40%
Ca RADIAL†	19006.7	1.849 mg/L	0.0246	1.849 mg/L	0.0246	1.33%
K RADIAL†	3599.7	1.798 mg/L	0.0115	1.798 mg/L	0.0115	0.64%
Mg RADIAL†	2843.0	3.389 mg/L	0.0567	3.389 mg/L	0.0567	1.67%
Na RADIAL†	-2939.4	-0.1692 mg/L	0.05391	-0.1692 mg/L	0.05391	31.86%
Mo 202.031	930.5	0.017 mg/L	0.0005	0.017 mg/L	0.0005	2.82%

Sequence No.: 105

Sample ID: SEQ-CCV9

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/8/2016 11:35:32 PM

Data Type: Reprocessed on 3/9/2016 6:15:27 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	21119108.0	5.305 mg/L	0.0599			1.13%
Y RADIAL	512687.0	5.357 mg/L	0.0612			1.14%
As 188.979†	936.6	0.2458 mg/L	0.00056	0.2458 mg/L	0.00056	0.23%
Tl 190.801†	1442.3	0.2489 mg/L	0.00260	0.2489 mg/L	0.00260	1.04%
Se 196.026†	460.3	0.2347 mg/L	0.00747	0.2347 mg/L	0.00747	3.18%
Zn 206.200†	244813.1	2.436 mg/L	0.0135	2.436 mg/L	0.0135	0.55%
Sb 206.836†	1454.8	0.2326 mg/L	0.00363	0.2326 mg/L	0.00363	1.56%
Pb 220.353†	5538.4	0.2458 mg/L	0.00246	0.2458 mg/L	0.00246	1.00%
Cd 226.502†	34326.6	0.1195 mg/L	0.00087	0.1195 mg/L	0.00087	0.73%
Co 228.616†	213884.1	2.471 mg/L	0.0137	2.471 mg/L	0.0137	0.55%
Ni 232.003†	102278.3	2.431 mg/L	0.0137	2.431 mg/L	0.0137	0.56%
Ba 233.527†	1712215.3	9.994 mg/L	0.0560	9.994 mg/L	0.0560	0.56%
Mn 257.610†	4121799.4	2.523 mg/L	0.0188	2.523 mg/L	0.0188	0.75%
Cr 267.716†	240251.7	0.9763 mg/L	0.00642	0.9763 mg/L	0.00642	0.66%
Fe 273.955†	249536.3	4.903 mg/L	0.0353	4.903 mg/L	0.0353	0.72%
Mg 279.077†	1090456.4	24.42 mg/L	0.163	24.42 mg/L	0.163	0.67%
V 292.402†	1033050.9	2.410 mg/L	0.0182	2.410 mg/L	0.0182	0.76%
Al 308.215†	361502.6	9.355 mg/L	0.0623	9.355 mg/L	0.0623	0.67%
Be 313.107†	1660100.1	0.2505 mg/L	0.00235	0.2505 mg/L	0.00235	0.94%
Cu 324.752†	445587.9	1.209 mg/L	0.0105	1.209 mg/L	0.0105	0.87%
Ag 338.289†	239612.4	1.187 mg/L	0.0098	1.187 mg/L	0.0098	0.83%
Na 330.237†	30335.6	22.37 mg/L	0.200	22.37 mg/L	0.200	0.89%
Ca 227.546†	14404.0	23.82 mg/L	0.100	23.82 mg/L	0.100	0.42%
Al RADIAL†	36344.7	9.440 mg/L	0.0240	9.440 mg/L	0.0240	0.25%
Fe RADIAL†	4147.3	5.025 mg/L	0.0479	5.025 mg/L	0.0479	0.95%
Ca RADIAL†	258080.2	25.11 mg/L	0.029	25.11 mg/L	0.029	0.11%
K RADIAL†	10143.5	5.067 mg/L	0.0553	5.067 mg/L	0.0553	1.09%
Mg RADIAL†	21189.2	25.29 mg/L	0.339	25.29 mg/L	0.339	1.34%
Na RADIAL†	430084.4	24.76 mg/L	0.219	24.76 mg/L	0.219	0.89%
Mo 202.031	63450.4	1.187 mg/L	0.0113	1.187 mg/L	0.0113	0.95%

Sequence No.: 106

Sample ID: SEQ-CCB9

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/8/2016 11:43:15 PM

Data Type: Reprocessed on 3/9/2016 6:15:28 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	21661512.8	5.441 mg/L	0.0380			0.70%
Y RADIAL	525491.9	5.490 mg/L	0.0898			1.64%
As 188.979†	11.0	0.0029 mg/L	0.00056	0.0029 mg/L	0.00056	19.32%
Tl 190.801†	17.5	0.0030 mg/L	0.00197	0.0030 mg/L	0.00197	65.18%
Se 196.026†	-12.7	-0.0064 mg/L	0.00247	-0.0064 mg/L	0.00247	38.37%
Zn 206.200†	57.3	0.0006 mg/L	0.00023	0.0006 mg/L	0.00023	39.73%
Sb 206.836†	-0.1	0.0000 mg/L	0.00176	0.0000 mg/L	0.00176	>999.9%
Pb 220.353†	21.7	0.0010 mg/L	0.00093	0.0010 mg/L	0.00093	96.93%

Cd 226.502†	22.9	0.0001 mg/L	0.00005	0.0001 mg/L	0.00005	61.87%
Co 228.616†	39.6	0.0005 mg/L	0.00020	0.0005 mg/L	0.00020	43.85%
Ni 232.003†	103.5	0.0025 mg/L	0.00033	0.0025 mg/L	0.00033	13.30%
Ba 233.527†	63.7	0.0004 mg/L	0.00008	0.0004 mg/L	0.00008	21.36%
Mn 257.610†	156.7	0.0001 mg/L	0.00001	0.0001 mg/L	0.00001	8.77%
Cr 267.716†	12.6	0.0001 mg/L	0.00020	0.0001 mg/L	0.00020	401.35%
Fe 273.955†	165.6	0.0033 mg/L	0.00035	0.0033 mg/L	0.00035	10.82%
Mg 279.077†	55.5	0.0012 mg/L	0.00025	0.0012 mg/L	0.00025	19.89%
V 292.402†	53.5	0.0001 mg/L	0.00015	0.0001 mg/L	0.00015	123.37%
Al 308.215†	-116.9	-0.0030 mg/L	0.00617	-0.0030 mg/L	0.00617	203.93%
Be 313.107†	289.2	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	56.40%
Cu 324.752†	180.1	0.0005 mg/L	0.00030	0.0005 mg/L	0.00030	61.78%
Ag 338.289†	577.2	0.0029 mg/L	0.00062	0.0029 mg/L	0.00062	21.74%
Na 330.237†	-496.8	-0.3655 mg/L	0.06523	-0.3655 mg/L	0.06523	17.84%
Ca 227.546†	79.2	0.1306 mg/L	0.00974	0.1306 mg/L	0.00974	7.45%
Al RADIAL†	108.5	0.0282 mg/L	0.01438	0.0282 mg/L	0.01438	51.02%
Fe RADIAL†	-1.3	-0.0016 mg/L	0.00643	-0.0016 mg/L	0.00643	400.74%
Ca RADIAL†	21.9	0.0021 mg/L	0.00195	0.0021 mg/L	0.00195	91.54%
K RADIAL†	69.0	0.0345 mg/L	0.01536	0.0345 mg/L	0.01536	44.55%
Mg RADIAL†	6.8	0.0081 mg/L	0.00759	0.0081 mg/L	0.00759	94.06%
Na RADIAL†	-8232.7	-0.4740 mg/L	0.03306	-0.4740 mg/L	0.03306	6.97%
Mo 202.031	35.4	0.001 mg/L	0.0003	0.001 mg/L	0.0003	47.18%

Sequence No.: 107

Sample ID: 16B0952-04

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 89

Date Collected: 3/8/2016 11:48:22 PM

Data Type: Reprocessed on 3/9/2016 6:15:29 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16B0952-04

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21577629.9	5.420 mg/L		0.0300			0.55%
Y RADIAL	528846.2	5.525 mg/L		0.1212			2.19%
As 188.979†	-0.5	0.0049 mg/L		0.00181	0.0049 mg/L	0.00181	37.10%
Tl 190.801†	-54.7	-0.0064 mg/L		0.00155	-0.0064 mg/L	0.00155	24.11%
Se 196.026†	-32.0	-0.0029 mg/L		0.00322	-0.0029 mg/L	0.00322	112.02%
Zn 206.200†	2988.9	0.0294 mg/L		0.00013	0.0294 mg/L	0.00013	0.43%
Sb 206.836†	-20.3	-0.0019 mg/L		0.00106	-0.0019 mg/L	0.00106	55.41%
Pb 220.353†	303.9	0.0124 mg/L		0.00059	0.0124 mg/L	0.00059	4.77%
Cd 226.502†	633.5	-0.0001 mg/L		0.00003	-0.0001 mg/L	0.00003	27.32%
Co 228.616†	707.5	0.0089 mg/L		0.00007	0.0089 mg/L	0.00007	0.84%
Ni 232.003†	872.2	0.0197 mg/L		0.00025	0.0197 mg/L	0.00025	1.27%
Ba 233.527†	6402.4	0.0374 mg/L		0.00028	0.0374 mg/L	0.00028	0.74%
Mn 257.610†	700771.1	0.4332 mg/L		0.00286	0.4332 mg/L	0.00286	0.66%
Cr 267.716†	5136.3	0.0219 mg/L		0.00033	0.0219 mg/L	0.00033	1.52%
Fe 273.955†	1662753.6	32.67 mg/L		0.222	32.67 mg/L	0.222	0.68%
Mg 279.077†	83273.3	1.859 mg/L		0.0247	1.859 mg/L	0.0247	1.33%
V 292.402†	12611.3	0.0271 mg/L		0.00062	0.0271 mg/L	0.00062	2.27%
Al 308.215†	374147.6	9.686 mg/L		0.0740	9.686 mg/L	0.0740	0.76%
Be 313.107†	2047.7	0.0003 mg/L		0.00003	0.0003 mg/L	0.00003	9.16%
Cu 324.752†	6535.3	0.0220 mg/L		0.00017	0.0220 mg/L	0.00017	0.78%
Ag 338.289†	-924.4	-0.0039 mg/L		0.00068	-0.0039 mg/L	0.00068	17.30%
Na 330.237†	-878.6	-0.4919 mg/L		0.03575	-0.4919 mg/L	0.03575	7.27%
Ca 227.546†	370.2	0.9046 mg/L		0.00438	0.9046 mg/L	0.00438	0.48%
Al RADIAL†	38791.6	10.08 mg/L		0.056	10.08 mg/L	0.056	0.56%
Fe RADIAL†	27460.0	33.27 mg/L		0.188	33.27 mg/L	0.188	0.56%
Ca RADIAL†	5386.7	0.5240 mg/L		0.00632	0.5240 mg/L	0.00632	1.21%
K RADIAL†	2795.8	1.396 mg/L		0.0120	1.396 mg/L	0.0120	0.86%
Mg RADIAL†	1548.8	1.845 mg/L		0.0050	1.845 mg/L	0.0050	0.27%
Na RADIAL†	-2007.3	-0.1156 mg/L		0.04286	-0.1156 mg/L	0.04286	37.09%
Mo 202.031	50.6	0.001 mg/L		0.0001	0.001 mg/L	0.0001	7.01%

Sequence No.: 108

Sample ID: 16C0216-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Autosampler Location: 90

Date Collected: 3/8/2016 11:53:34 PM

Data Type: Reprocessed on 3/9/2016 6:15:30 AM

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 16C0216-02

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19649653.0	4.936 mg/L	0.0154			0.31%
Y RADIAL	488326.6	5.102 mg/L	0.0321			0.63%
As 188.979†	-8.6	0.0117 mg/L	0.00242	0.0117 mg/L	0.00242	20.74%
Tl 190.801†	-481.8	-0.0747 mg/L	0.00201	-0.0747 mg/L	0.00201	2.69%
Se 196.026†	-66.9	0.0033 mg/L	0.00306	0.0033 mg/L	0.00306	93.49%
Zn 206.200†	20879.4	0.2069 mg/L	0.00076	0.2069 mg/L	0.00076	0.37%
Sb 206.836†	-131.8	-0.0174 mg/L	0.00058	-0.0174 mg/L	0.00058	3.36%
Pb 220.353†	1841.0	0.0833 mg/L	0.00134	0.0833 mg/L	0.00134	1.60%
Cd 226.502†	1977.6	0.0004 mg/L	0.00019	0.0004 mg/L	0.00019	46.86%
Co 228.616†	4126.2	0.0496 mg/L	0.00040	0.0496 mg/L	0.00040	0.81%
Ni 232.003†	3501.7	0.0804 mg/L	0.00143	0.0804 mg/L	0.00143	1.77%
Ba 233.527†	53529.7	0.3124 mg/L	0.00138	0.3124 mg/L	0.00138	0.44%
Mn 257.610†	2089660.4	1.291 mg/L	0.0089	1.291 mg/L	0.0089	0.69%
Cr 267.716†	18858.5	0.0794 mg/L	0.00021	0.0794 mg/L	0.00021	0.26%
Fe 273.955†	4649608.0	91.35 mg/L	0.360	91.35 mg/L	0.360	0.39%
Mg 279.077†	887943.9	19.87 mg/L	0.102	19.87 mg/L	0.102	0.51%
V 292.402†	67225.6	0.1504 mg/L	0.00125	0.1504 mg/L	0.00125	0.83%
Al 308.215†	2553812.1	66.10 mg/L	0.399	66.10 mg/L	0.399	0.60%
Be 313.107†	-12530.0	-0.0019 mg/L	0.00013	-0.0019 mg/L	0.00013	6.92%
Cu 324.752†	39086.0	0.1180 mg/L	0.00058	0.1180 mg/L	0.00058	0.49%
Ag 338.289†	-8265.3	-0.0392 mg/L	0.00059	-0.0392 mg/L	0.00059	1.51%
Na 330.237†	-3024.9	-1.790 mg/L	0.0310	-1.790 mg/L	0.0310	1.73%
Ca 227.546†	3760.1	7.048 mg/L	0.0324	7.048 mg/L	0.0324	0.46%
Al RADIAL†	250737.3	65.14 mg/L	0.660	65.14 mg/L	0.660	1.01%
Fe RADIAL†	76505.4	92.69 mg/L	0.709	92.69 mg/L	0.709	0.77%
Ca RADIAL†	67820.7	6.598 mg/L	0.0480	6.598 mg/L	0.0480	0.73%
K RADIAL†	24621.3	12.30 mg/L	0.050	12.30 mg/L	0.050	0.41%
Mg RADIAL†	16599.7	19.81 mg/L	0.190	19.81 mg/L	0.190	0.96%
Na RADIAL†	2299.4	0.1324 mg/L	0.01802	0.1324 mg/L	0.01802	13.61%
Mo 202.031	0.9	0.000 mg/L	0.0001	0.000 mg/L	0.0001	522.53%

Sequence No.: 109

Sample ID: 16C0216-03

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 91

Date Collected: 3/8/2016 11:58:15 PM

Data Type: Reprocessed on 3/9/2016 6:15:30 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0216-03

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21054065.5	5.289 mg/L	0.0588			1.11%
Y RADIAL	488408.1	5.103 mg/L	0.0181			0.36%
As 188.979†	-24.9	0.0039 mg/L	0.00342	0.0039 mg/L	0.00342	86.88%
Tl 190.801†	-324.3	-0.0496 mg/L	0.00185	-0.0496 mg/L	0.00185	3.74%
Se 196.026†	-47.5	0.0039 mg/L	0.00473	0.0039 mg/L	0.00473	122.51%
Zn 206.200†	19373.3	0.1921 mg/L	0.00160	0.1921 mg/L	0.00160	0.83%
Sb 206.836†	-103.6	-0.0138 mg/L	0.00087	-0.0138 mg/L	0.00087	6.32%
Pb 220.353†	728.6	0.0323 mg/L	0.00136	0.0323 mg/L	0.00136	4.21%
Cd 226.502†	1412.2	0.0001 mg/L	0.00006	0.0001 mg/L	0.00006	113.10%
Co 228.616†	3414.8	0.0409 mg/L	0.00024	0.0409 mg/L	0.00024	0.59%
Ni 232.003†	2598.1	0.0597 mg/L	0.00042	0.0597 mg/L	0.00042	0.71%
Ba 233.527†	41040.6	0.2395 mg/L	0.00268	0.2395 mg/L	0.00268	1.12%
Mn 257.610†	1430530.2	0.8845 mg/L	0.00929	0.8845 mg/L	0.00929	1.05%
Cr 267.716†	16324.0	0.0684 mg/L	0.00065	0.0684 mg/L	0.00065	0.95%
Fe 273.955†	3345911.3	65.74 mg/L	0.699	65.74 mg/L	0.699	1.06%
Mg 279.077†	706261.3	15.80 mg/L	0.173	15.80 mg/L	0.173	1.09%
V 292.402†	50973.7	0.1141 mg/L	0.00081	0.1141 mg/L	0.00081	0.71%
Al 308.215†	1367724.7	35.40 mg/L	0.388	35.40 mg/L	0.388	1.09%
Be 313.107†	-10934.5	-0.0016 mg/L	0.00005	-0.0016 mg/L	0.00005	2.97%
Cu 324.752†	28780.6	0.0871 mg/L	0.00099	0.0871 mg/L	0.00099	1.13%
Ag 338.289†	-5544.8	-0.0261 mg/L	0.00060	-0.0261 mg/L	0.00060	2.28%
Na 330.237†	-2175.7	-1.272 mg/L	0.0234	-1.272 mg/L	0.0234	1.84%
Ca 227.546†	3663.7	6.672 mg/L	0.0528	6.672 mg/L	0.0528	0.79%

Al RADIAL†	145562.5	37.82 mg/L	0.274	37.82 mg/L	0.274	0.73%
Fe RADIAL†	57495.6	69.66 mg/L	0.458	69.66 mg/L	0.458	0.66%
Ca RADIAL†	69802.6	6.790 mg/L	0.0120	6.790 mg/L	0.0120	0.18%
K RADIAL†	22688.3	11.33 mg/L	0.112	11.33 mg/L	0.112	0.99%
Mg RADIAL†	14035.4	16.75 mg/L	0.117	16.75 mg/L	0.117	0.70%
Na RADIAL†	2554.3	0.1471 mg/L	0.01067	0.1471 mg/L	0.01067	7.25%
Mo 202.031	324.5	0.006 mg/L	0.0004	0.006 mg/L	0.0004	6.05%

Sequence No.: 110

Sample ID: 16C0216-04

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 92

Date Collected: 3/9/2016 12:02:56 AM

Data Type: Reprocessed on 3/9/2016 6:15:31 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0216-04

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19616373.1	4.928 mg/L		0.0044			0.09%
Y RADIAL	521105.3	5.445 mg/L		0.0749			1.38%
As 188.979†	-18.6	0.0041 mg/L		0.00064	0.0041 mg/L	0.00064	15.59%
Tl 190.801†	-348.3	-0.0546 mg/L		0.00114	-0.0546 mg/L	0.00114	2.09%
Se 196.026†	-45.7	0.0009 mg/L		0.00616	0.0009 mg/L	0.00616	722.00%
Zn 206.200†	12305.8	0.1219 mg/L		0.00118	0.1219 mg/L	0.00118	0.97%
Sb 206.836†	-86.3	-0.0114 mg/L		0.00227	-0.0114 mg/L	0.00227	19.92%
Pb 220.353†	452.6	0.0206 mg/L		0.00074	0.0206 mg/L	0.00074	3.58%
Cd 226.502†	1339.9	0.0005 mg/L		0.00017	0.0005 mg/L	0.00017	35.19%
Co 228.616†	2909.5	0.0349 mg/L		0.00034	0.0349 mg/L	0.00034	0.97%
Ni 232.003†	2307.5	0.0530 mg/L		0.00127	0.0530 mg/L	0.00127	2.40%
Ba 233.527†	49716.7	0.2902 mg/L		0.00246	0.2902 mg/L	0.00246	0.85%
Mn 257.610†	1633728.4	1.008 mg/L		0.0071	1.008 mg/L	0.0071	0.70%
Cr 267.716†	12373.3	0.0521 mg/L		0.00052	0.0521 mg/L	0.00052	1.00%
Fe 273.955†	3213387.4	63.14 mg/L		0.479	63.14 mg/L	0.479	0.76%
Mg 279.077†	733423.8	16.41 mg/L		0.112	16.41 mg/L	0.112	0.68%
V 292.402†	47671.6	0.1070 mg/L		0.00096	0.1070 mg/L	0.00096	0.90%
Al 308.215†	1496418.1	38.73 mg/L		0.312	38.73 mg/L	0.312	0.81%
Be 313.107†	-9194.6	-0.0014 mg/L		0.00007	-0.0014 mg/L	0.00007	5.36%
Cu 324.752†	22841.6	0.0697 mg/L		0.00076	0.0697 mg/L	0.00076	1.10%
Ag 338.289†	-5848.7	-0.0278 mg/L		0.00086	-0.0278 mg/L	0.00086	3.08%
Na 330.237†	-2529.9	-1.578 mg/L		0.0159	-1.578 mg/L	0.0159	1.01%
Ca 227.546†	3316.3	6.014 mg/L		0.0944	6.014 mg/L	0.0944	1.57%
Al RADIAL†	139142.2	36.15 mg/L		0.089	36.15 mg/L	0.089	0.25%
Fe RADIAL†	49474.2	59.94 mg/L		0.991	59.94 mg/L	0.991	1.65%
Ca RADIAL†	57698.4	5.613 mg/L		0.1354	5.613 mg/L	0.1354	2.41%
K RADIAL†	22389.5	11.18 mg/L		0.239	11.18 mg/L	0.239	2.14%
Mg RADIAL†	13023.0	15.54 mg/L		0.232	15.54 mg/L	0.232	1.49%
Na RADIAL†	-195.5	-0.0113 mg/L		0.01341	-0.0113 mg/L	0.01341	119.18%
Mo 202.031	4.6	0.000 mg/L		0.0001	0.000 mg/L	0.0001	127.46%

Sequence No.: 111

Sample ID: 16C0216-05

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 93

Date Collected: 3/9/2016 12:07:36 AM

Data Type: Reprocessed on 3/9/2016 6:15:32 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0216-05

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20836023.3	5.234 mg/L		0.0655			1.25%
Y RADIAL	486431.8	5.082 mg/L		0.0409			0.80%
As 188.979†	-18.0	0.0070 mg/L		0.00135	0.0070 mg/L	0.00135	19.27%
Tl 190.801†	-403.6	-0.0625 mg/L		0.00067	-0.0625 mg/L	0.00067	1.06%
Se 196.026†	-54.9	0.0035 mg/L		0.00396	0.0035 mg/L	0.00396	114.70%
Zn 206.200†	23089.5	0.2290 mg/L		0.00126	0.2290 mg/L	0.00126	0.55%
Sb 206.836†	-108.4	-0.0142 mg/L		0.00117	-0.0142 mg/L	0.00117	8.23%
Pb 220.353†	1379.5	0.0618 mg/L		0.00024	0.0618 mg/L	0.00024	0.39%
Cd 226.502†	1573.8	0.0000 mg/L		0.00015	0.0000 mg/L	0.00015	505.84%

Co 228.616†	2990.0	0.0362 mg/L	0.00046	0.0362 mg/L	0.00046	1.28%
Ni 232.003†	3374.1	0.0779 mg/L	0.00214	0.0779 mg/L	0.00214	2.75%
Ba 233.527†	63456.5	0.3704 mg/L	0.00336	0.3704 mg/L	0.00336	0.91%
Mn 257.610†	1773726.4	1.096 mg/L	0.0057	1.096 mg/L	0.0057	0.52%
Cr 267.716†	31825.4	0.1317 mg/L	0.00151	0.1317 mg/L	0.00151	1.15%
Fe 273.955†	3721902.2	73.13 mg/L	0.398	73.13 mg/L	0.398	0.54%
Mg 279.077†	843604.6	18.88 mg/L	0.148	18.88 mg/L	0.148	0.79%
V 292.402†	62896.4	0.1413 mg/L	0.00128	0.1413 mg/L	0.00128	0.91%
Al 308.215†	1730740.2	44.80 mg/L	0.255	44.80 mg/L	0.255	0.57%
Be 313.107†	-13880.9	-0.0021 mg/L	0.00019	-0.0021 mg/L	0.00019	9.29%
Cu 324.752†	30483.1	0.0928 mg/L	0.00055	0.0928 mg/L	0.00055	0.59%
Ag 338.289†	-7027.9	-0.0333 mg/L	0.00039	-0.0333 mg/L	0.00039	1.17%
Na 330.237†	-2421.9	-1.413 mg/L	0.0538	-1.413 mg/L	0.0538	3.81%
Ca 227.546†	4068.0	7.419 mg/L	0.0904	7.419 mg/L	0.0904	1.22%
Al RADIAL†	184731.9	47.99 mg/L	0.603	47.99 mg/L	0.603	1.26%
Fe RADIAL†	64437.0	78.07 mg/L	1.044	78.07 mg/L	1.044	1.34%
Ca RADIAL†	77948.6	7.583 mg/L	0.1221	7.583 mg/L	0.1221	1.61%
K RADIAL†	30540.0	15.25 mg/L	0.143	15.25 mg/L	0.143	0.94%
Mg RADIAL†	16895.2	20.16 mg/L	0.368	20.16 mg/L	0.368	1.83%
Na RADIAL†	7582.8	0.4366 mg/L	0.03303	0.4366 mg/L	0.03303	7.57%
Mo 202.031	1293.5	0.024 mg/L	0.0004	0.024 mg/L	0.0004	1.73%

Sequence No.: 112

Sample ID: 16C0216-06

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 94

Date Collected: 3/9/2016 12:12:23 AM

Data Type: Reprocessed on 3/9/2016 6:15:33 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0216-06

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19497929.1	4.898 mg/L		0.0279			0.57%
Y RADIAL	487319.6	5.092 mg/L		0.0211			0.41%
As 188.979†	-12.3	0.0075 mg/L		0.00077	0.0075 mg/L	0.00077	10.16%
Ti 190.801†	-453.6	-0.0717 mg/L		0.00462	-0.0717 mg/L	0.00462	6.44%
Se 196.026†	-57.4	-0.0003 mg/L		0.00619	-0.0003 mg/L	0.00619	>999.9%
Zn 206.200†	13770.9	0.1363 mg/L		0.00038	0.1363 mg/L	0.00038	0.28%
Sr 206.836†	-111.0	-0.0149 mg/L		0.00147	-0.0149 mg/L	0.00147	9.88%
Pb 220.353†	452.0	0.0209 mg/L		0.00023	0.0209 mg/L	0.00023	1.08%
Cd 226.502†	1603.6	0.0006 mg/L		0.00006	0.0006 mg/L	0.00006	9.52%
Co 228.616†	3440.5	0.0412 mg/L		0.00032	0.0412 mg/L	0.00032	0.77%
Ni 232.003†	2630.7	0.0604 mg/L		0.00062	0.0604 mg/L	0.00062	1.03%
Ba 233.527†	63922.2	0.3731 mg/L		0.00270	0.3731 mg/L	0.00270	0.72%
Mn 257.610†	1838505.8	1.134 mg/L		0.0065	1.134 mg/L	0.0065	0.58%
Cr 267.716†	15521.2	0.0652 mg/L		0.00017	0.0652 mg/L	0.00017	0.27%
Fe 273.955†	3582278.3	70.38 mg/L		0.424	70.38 mg/L	0.424	0.60%
Mg 279.077†	845141.6	18.91 mg/L		0.138	18.91 mg/L	0.138	0.73%
V 292.402†	53072.9	0.1188 mg/L		0.00068	0.1188 mg/L	0.00068	0.57%
Al 308.215†	1712223.7	44.32 mg/L		0.179	44.32 mg/L	0.179	0.40%
Be 313.107†	-14944.3	-0.0023 mg/L		0.00021	-0.0023 mg/L	0.00021	9.35%
Cu 324.752†	19651.6	0.0626 mg/L		0.00051	0.0626 mg/L	0.00051	0.82%
Ag 338.289†	-7481.0	-0.0357 mg/L		0.00053	-0.0357 mg/L	0.00053	1.50%
Na 330.237†	-3090.6	-1.932 mg/L		0.0714	-1.932 mg/L	0.0714	3.69%
Ca 227.546†	5867.1	10.33 mg/L		0.058	10.33 mg/L	0.058	0.56%
Al RADIAL†	173609.9	45.10 mg/L		0.169	45.10 mg/L	0.169	0.38%
Fe RADIAL†	59132.2	71.64 mg/L		0.286	71.64 mg/L	0.286	0.40%
Ca RADIAL†	107324.9	10.44 mg/L		0.040	10.44 mg/L	0.040	0.38%
K RADIAL†	30340.1	15.15 mg/L		0.050	15.15 mg/L	0.050	0.33%
Mg RADIAL†	16121.8	19.24 mg/L		0.083	19.24 mg/L	0.083	0.43%
Na RADIAL†	-1107.9	-0.0638 mg/L		0.01261	-0.0638 mg/L	0.01261	19.77%
Mo 202.031	-66.9	-0.001 mg/L		0.0002	-0.001 mg/L	0.0002	15.11%

Sequence No.: 113

Sample ID: 16C0216-07

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 95

Date Collected: 3/9/2016 12:17:03 AM

Data Type: Reprocessed on 3/9/2016 6:15:33 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0216-07

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20477721.5	5.144 mg/L	0.0355			0.69%
Y RADIAL	522760.6	5.462 mg/L	0.0200			0.37%
As 188.979†	-42.4	0.0111 mg/L	0.00141	0.0111 mg/L	0.00141	12.70%
Tl 190.801†	-1087.8	-0.1741 mg/L	0.00127	-0.1741 mg/L	0.00127	0.73%
Se 196.026†	-113.8	0.0017 mg/L	0.00468	0.0017 mg/L	0.00468	268.41%
Zn 206.200†	34741.1	0.3442 mg/L	0.00021	0.3442 mg/L	0.00021	0.06%
Sb 206.836†	-287.6	-0.0401 mg/L	0.00084	-0.0401 mg/L	0.00084	2.10%
Pb 220.353†	915.8	0.0428 mg/L	0.00148	0.0428 mg/L	0.00148	3.45%
Cd 226.502†	3409.6	0.0015 mg/L	0.00020	0.0015 mg/L	0.00020	13.01%
Co 228.616†	7878.4	0.0941 mg/L	0.00011	0.0941 mg/L	0.00011	0.12%
Ni 232.003†	7072.2	0.1636 mg/L	0.00363	0.1636 mg/L	0.00363	2.22%
Ba 233.527†	191165.2	1.116 mg/L	0.0134	1.116 mg/L	0.0134	1.20%
Mn 257.610†	3602121.8	2.224 mg/L	0.0459	2.224 mg/L	0.0459	2.06%
Cr 267.716†	45682.3	0.1901 mg/L	0.00216	0.1901 mg/L	0.00216	1.13%
Fe 273.955†	7374719.3	144.9 mg/L	0.63	144.9 mg/L	0.63	0.44%
Mg 279.077†	2197813.2	49.19 mg/L	1.150	49.19 mg/L	1.150	2.34%
V 292.402†	133520.8	0.3012 mg/L	0.00361	0.3012 mg/L	0.00361	1.20%
Al 308.215†	3903715.2	101.0 mg/L	2.31	101.0 mg/L	2.31	2.28%
Be 313.107†	-47701.6	-0.0072 mg/L	0.00037	-0.0072 mg/L	0.00037	5.11%
Cu 324.752†	60877.3	0.1843 mg/L	0.00220	0.1843 mg/L	0.00220	1.19%
Ag 338.289†	-19341.8	-0.0930 mg/L	0.00023	-0.0930 mg/L	0.00023	0.25%
Na 330.237†	-7506.6	-4.826 mg/L	0.0412	-4.826 mg/L	0.0412	0.85%
Ca 227.546†	7264.4	13.33 mg/L	0.019	13.33 mg/L	0.019	0.14%
Al RADIAL†	372394.0	96.74 mg/L	0.542	96.74 mg/L	0.542	0.56%
Fe RADIAL†	122276.3	148.1 mg/L	0.81	148.1 mg/L	0.81	0.55%
Ca RADIAL†	126040.7	12.26 mg/L	0.010	12.26 mg/L	0.010	0.08%
K RADIAL†	85984.3	42.95 mg/L	0.128	42.95 mg/L	0.128	0.30%
Mg RADIAL†	40189.8	47.96 mg/L	0.320	47.96 mg/L	0.320	0.67%
Na RADIAL†	9790.6	0.5637 mg/L	0.01980	0.5637 mg/L	0.01980	3.51%
Mo 202.031	604.3	0.011 mg/L	0.0002	0.011 mg/L	0.0002	2.09%

Sequence No.: 114

Sample ID: 16C0216-08

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 96

Date Collected: 3/9/2016 12:21:51 AM

Data Type: Reprocessed on 3/9/2016 6:15:34 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0216-08

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21036121.1	5.284 mg/L	0.0850			1.61%
Y RADIAL	489260.3	5.112 mg/L	0.0240			0.47%
As 188.979†	-18.3	0.0072 mg/L	0.00220	0.0072 mg/L	0.00220	30.51%
Tl 190.801†	-379.6	-0.0582 mg/L	0.00260	-0.0582 mg/L	0.00260	4.47%
Se 196.026†	-61.5	0.0009 mg/L	0.00552	0.0009 mg/L	0.00552	622.75%
Zn 206.200†	16235.7	0.1608 mg/L	0.00515	0.1608 mg/L	0.00515	3.20%
Sb 206.836†	-109.9	-0.0144 mg/L	0.00117	-0.0144 mg/L	0.00117	8.14%
Pb 220.353†	878.0	0.0390 mg/L	0.00113	0.0390 mg/L	0.00113	2.90%
Cd 226.502†	1634.6	0.0001 mg/L	0.00015	0.0001 mg/L	0.00015	142.15%
Co 228.616†	3653.7	0.0439 mg/L	0.00095	0.0439 mg/L	0.00095	2.16%
Ni 232.003†	2818.5	0.0646 mg/L	0.00186	0.0646 mg/L	0.00186	2.88%
Ba 233.527†	50186.4	0.2929 mg/L	0.00775	0.2929 mg/L	0.00775	2.65%
Mn 257.610†	1984646.7	1.225 mg/L	0.0212	1.225 mg/L	0.0212	1.73%
Cr 267.716†	15815.6	0.0667 mg/L	0.00164	0.0667 mg/L	0.00164	2.46%
Fe 273.955†	3743580.9	73.55 mg/L	1.294	73.55 mg/L	1.294	1.76%
Mg 279.077†	748161.1	16.74 mg/L	0.297	16.74 mg/L	0.297	1.78%
V 292.402†	46801.6	0.1036 mg/L	0.00272	0.1036 mg/L	0.00272	2.63%
Al 308.215†	1569922.7	40.64 mg/L	0.776	40.64 mg/L	0.776	1.91%
Be 313.107†	-11986.5	-0.0018 mg/L	0.00015	-0.0018 mg/L	0.00015	8.05%
Cu 324.752†	29172.4	0.0895 mg/L	0.00185	0.0895 mg/L	0.00185	2.06%
Ag 338.289†	-6945.2	-0.0329 mg/L	0.00054	-0.0329 mg/L	0.00054	1.65%
Na 330.237†	-2870.3	-1.735 mg/L	0.0517	-1.735 mg/L	0.0517	2.98%
Ca 227.546†	3381.1	6.299 mg/L	0.1428	6.299 mg/L	0.1428	2.27%
Al RADIAL†	171172.5	44.47 mg/L	0.379	44.47 mg/L	0.379	0.85%

Fe RADIAL†	66006.8	79.97 mg/L	0.793	79.97 mg/L	0.793	0.99%
Ca RADIAL†	65158.4	6.339 mg/L	0.0684	6.339 mg/L	0.0684	1.08%
K RADIAL†	29449.9	14.71 mg/L	0.128	14.71 mg/L	0.128	0.87%
Mg RADIAL†	15231.9	18.17 mg/L	0.211	18.17 mg/L	0.211	1.16%
Na RADIAL†	-124.3	-0.0072 mg/L	0.02713	-0.0072 mg/L	0.02713	378.99%
Mo 202.031	210.2	0.004 mg/L	0.0003	0.004 mg/L	0.0003	6.68%

Sequence No.: 115

Sample ID: 16C0216-09

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 97

Date Collected: 3/9/2016 12:26:39 AM

Data Type: Reprocessed on 3/9/2016 6:15:35 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0216-09

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21069904.8	5.293 mg/L	0.0628			1.19%
Y RADIAL	485713.4	5.075 mg/L	0.0365			0.72%
As 188.979†	11.1	0.0126 mg/L	0.00230	0.0126 mg/L	0.00230	18.28%
Tl 190.801†	-390.0	-0.0614 mg/L	0.00292	-0.0614 mg/L	0.00292	4.76%
Se 196.026†	-50.7	0.0002 mg/L	0.00320	0.0002 mg/L	0.00320	>999.9%
Zn 206.200†	25646.2	0.2546 mg/L	0.00218	0.2546 mg/L	0.00218	0.86%
Sb 206.836†	-109.0	-0.0148 mg/L	0.00088	-0.0148 mg/L	0.00088	5.95%
Pb 220.353†	1729.1	0.0780 mg/L	0.00048	0.0780 mg/L	0.00048	0.62%
Cd 226.502†	1282.4	-0.0001 mg/L	0.00011	-0.0001 mg/L	0.00011	217.90%
Co 228.616†	3699.1	0.0441 mg/L	0.00014	0.0441 mg/L	0.00014	0.33%
Ni 232.003†	4407.3	0.1028 mg/L	0.00041	0.1028 mg/L	0.00041	0.40%
Ba 233.527†	51116.2	0.2984 mg/L	0.00284	0.2984 mg/L	0.00284	0.95%
Mn 257.610†	2335163.6	1.437 mg/L	0.0127	1.437 mg/L	0.0127	0.88%
Cr 267.716†	14382.2	0.0604 mg/L	0.00032	0.0604 mg/L	0.00032	0.53%
Fe 273.955†	3063292.5	60.19 mg/L	0.532	60.19 mg/L	0.532	0.88%
Mg 279.077†	689901.1	15.44 mg/L	0.131	15.44 mg/L	0.131	0.85%
V 292.402†	41698.2	0.0928 mg/L	0.00060	0.0928 mg/L	0.00060	0.65%
Al 308.215†	1689370.2	43.73 mg/L	0.393	43.73 mg/L	0.393	0.90%
Be 313.107†	-542.6	-0.0001 mg/L	0.00016	-0.0001 mg/L	0.00016	198.32%
Cu 324.752†	33514.7	0.0993 mg/L	0.00119	0.0993 mg/L	0.00119	1.20%
Ag 338.289†	-6140.9	-0.0292 mg/L	0.00100	-0.0292 mg/L	0.00100	3.42%
Na 330.237†	-2087.2	-1.230 mg/L	0.0320	-1.230 mg/L	0.0320	2.60%
Ca 227.546†	3210.8	5.888 mg/L	0.0065	5.888 mg/L	0.0065	0.11%
Al RADIAL†	182058.0	47.29 mg/L	0.581	47.29 mg/L	0.581	1.23%
Fe RADIAL†	53380.8	64.67 mg/L	0.864	64.67 mg/L	0.864	1.34%
Ca RADIAL†	61728.3	6.005 mg/L	0.0924	6.005 mg/L	0.0924	1.54%
K RADIAL†	27418.3	13.70 mg/L	0.146	13.70 mg/L	0.146	1.07%
Mg RADIAL†	13891.0	16.58 mg/L	0.213	16.58 mg/L	0.213	1.29%
Na RADIAL†	493.1	0.0284 mg/L	0.02802	0.0284 mg/L	0.02802	98.69%
Mo 202.031	423.1	0.008 mg/L	0.0002	0.008 mg/L	0.0002	2.43%

Sequence No.: 116

Sample ID: 16C0216-10

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 98

Date Collected: 3/9/2016 12:31:21 AM

Data Type: Reprocessed on 3/9/2016 6:15:35 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0216-10

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20219318.6	5.079 mg/L	0.0589			1.16%
Y RADIAL	482685.1	5.043 mg/L	0.0182			0.36%
As 188.979†	-17.7	0.0138 mg/L	0.00039	0.0138 mg/L	0.00039	2.82%
Tl 190.801†	-806.0	-0.1278 mg/L	0.01590	-0.1278 mg/L	0.01590	12.44%
Se 196.026†	-83.6	0.0068 mg/L	0.00562	0.0068 mg/L	0.00562	82.05%
Zn 206.200†	26043.2	0.2579 mg/L	0.00490	0.2579 mg/L	0.00490	1.90%
Sb 206.836†	-209.3	-0.0286 mg/L	0.00257	-0.0286 mg/L	0.00257	9.01%
Pb 220.353†	921.7	0.0430 mg/L	0.00048	0.0430 mg/L	0.00048	1.11%
Cd 226.502†	2664.6	0.0007 mg/L	0.00007	0.0007 mg/L	0.00007	9.82%
Co 228.616†	5290.2	0.0637 mg/L	0.00114	0.0637 mg/L	0.00114	1.78%

Ni 232.003†	3844.3	0.0877 mg/L	0.00119	0.0877 mg/L	0.00119	1.36%
Ba 233.527†	100685.4	0.5877 mg/L	0.00948	0.5877 mg/L	0.00948	1.61%
Mn 257.610†	2964518.3	1.830 mg/L	0.0433	1.830 mg/L	0.0433	2.37%
Cr 267.716†	25774.8	0.1085 mg/L	0.00190	0.1085 mg/L	0.00190	1.75%
Fe 273.955†	5907920.4	116.1 mg/L	2.72	116.1 mg/L	2.72	2.35%
Mg 279.077†	1371063.0	30.68 mg/L	0.762	30.68 mg/L	0.762	2.48%
V 292.402†	92811.1	0.2080 mg/L	0.00375	0.2080 mg/L	0.00375	1.80%
Al 308.215†	3166441.5	81.96 mg/L	2.028	81.96 mg/L	2.028	2.47%
Be 313.107†	-29521.3	-0.0045 mg/L	0.00012	-0.0045 mg/L	0.00012	2.70%
Cu 324.752†	35482.8	0.1122 mg/L	0.00186	0.1122 mg/L	0.00186	1.66%
Ag 338.289†	-14217.9	-0.0681 mg/L	0.00129	-0.0681 mg/L	0.00129	1.89%
Na 330.237†	-5390.9	-3.388 mg/L	0.0356	-3.388 mg/L	0.0356	1.05%
Ca 227.546†	5826.1	10.73 mg/L	0.141	10.73 mg/L	0.141	1.32%
Al RADIAL†	317876.2	82.58 mg/L	0.679	82.58 mg/L	0.679	0.82%
Fe RADIAL†	101387.9	122.8 mg/L	1.07	122.8 mg/L	1.07	0.87%
Ca RADIAL†	109453.7	10.65 mg/L	0.110	10.65 mg/L	0.110	1.03%
K RADIAL†	60599.8	30.27 mg/L	0.184	30.27 mg/L	0.184	0.61%
Mg RADIAL†	26841.9	32.03 mg/L	0.276	32.03 mg/L	0.276	0.86%
Na RADIAL†	6179.2	0.3558 mg/L	0.02331	0.3558 mg/L	0.02331	6.55%
Mo 202.031	-117.7	-0.002 mg/L	0.0004	-0.002 mg/L	0.0004	19.27%

Sequence No.: 117

Sample ID: SEQ-CCVA

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/9/2016 12:36:09 AM

Data Type: Reprocessed on 3/9/2016 6:15:36 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCVA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20553384.5	5.163 mg/L	0.0667			1.29%
Y RADIAL	499147.2	5.215 mg/L	0.0212			0.41%
As 188.979†	940.6	0.2469 mg/L	0.00175	0.2469 mg/L	0.00175	0.71%
Ti 190.801†	1430.6	0.2469 mg/L	0.00349	0.2469 mg/L	0.00349	1.41%
Se 196.026†	464.1	0.2366 mg/L	0.00672	0.2366 mg/L	0.00672	2.84%
Zn 206.200†	239655.6	2.385 mg/L	0.0168	2.385 mg/L	0.0168	0.70%
Sb 206.836†	1462.6	0.2338 mg/L	0.00258	0.2338 mg/L	0.00258	1.11%
Pb 220.353†	5522.2	0.2451 mg/L	0.00280	0.2451 mg/L	0.00280	1.14%
Cd 226.502†	33754.3	0.1175 mg/L	0.00086	0.1175 mg/L	0.00086	0.73%
Co 228.616†	210526.3	2.432 mg/L	0.0138	2.432 mg/L	0.0138	0.57%
Na 232.003†	100805.6	2.396 mg/L	0.0203	2.396 mg/L	0.0203	0.85%
Ba 233.527†	1688796.4	9.857 mg/L	0.0633	9.857 mg/L	0.0633	0.64%
Mn 257.610†	4074791.4	2.494 mg/L	0.0163	2.494 mg/L	0.0163	0.65%
Cr 267.716†	237269.7	0.9641 mg/L	0.00634	0.9641 mg/L	0.00634	0.66%
Fe 273.955†	246724.8	4.848 mg/L	0.0296	4.848 mg/L	0.0296	0.61%
Mg 279.077†	1071230.1	23.99 mg/L	0.183	23.99 mg/L	0.183	0.76%
V 292.402†	1020218.0	2.380 mg/L	0.0159	2.380 mg/L	0.0159	0.67%
Al 308.215†	357021.1	9.239 mg/L	0.0677	9.239 mg/L	0.0677	0.73%
Be 313.107†	1637255.0	0.2470 mg/L	0.00157	0.2470 mg/L	0.00157	0.63%
Cu 324.752†	441447.3	1.197 mg/L	0.0091	1.197 mg/L	0.0091	0.76%
Ag 338.289†	237702.7	1.177 mg/L	0.0074	1.177 mg/L	0.0074	0.62%
Na 330.237†	29837.5	22.00 mg/L	0.137	22.00 mg/L	0.137	0.62%
Ca 227.546†	14488.4	23.96 mg/L	0.170	23.96 mg/L	0.170	0.71%
Al RADIAL†	36660.7	9.522 mg/L	0.0196	9.522 mg/L	0.0196	0.21%
Fe RADIAL†	4106.0	4.975 mg/L	0.1233	4.975 mg/L	0.1233	2.48%
Ca RADIAL†	256899.0	24.99 mg/L	0.028	24.99 mg/L	0.028	0.11%
K RADIAL†	10072.5	5.031 mg/L	0.1051	5.031 mg/L	0.1051	2.09%
Mg RADIAL†	20844.1	24.88 mg/L	0.720	24.88 mg/L	0.720	2.89%
Na RADIAL†	434101.7	24.99 mg/L	0.086	24.99 mg/L	0.086	0.34%
Mo 202.031	60874.6	1.138 mg/L	0.0219	1.138 mg/L	0.0219	1.93%

Sequence No.: 118

Sample ID: SEQ-CCVA

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/9/2016 12:43:50 AM

Data Type: Reprocessed on 3/9/2016 6:15:37 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCBA

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21584159.6	5.422 mg/L		0.0828			1.53%
Y RADIAL	510414.6	5.333 mg/L		0.0493			0.92%
As 188.979†	-10.3	-0.0027 mg/L		0.00203	-0.0027 mg/L	0.00203	75.52%
Tl 190.801†	13.3	0.0023 mg/L		0.00071	0.0023 mg/L	0.00071	31.08%
Se 196.026†	-7.7	-0.0039 mg/L		0.00261	-0.0039 mg/L	0.00261	67.01%
Zn 206.200†	53.2	0.0005 mg/L		0.00025	0.0005 mg/L	0.00025	47.03%
Sb 206.836†	1.7	0.0003 mg/L		0.00173	0.0003 mg/L	0.00173	620.98%
Pb 220.353†	-0.2	0.0000 mg/L		0.00041	0.0000 mg/L	0.00041	>999.9%
Cd 226.502†	41.2	0.0001 mg/L		0.00004	0.0001 mg/L	0.00004	26.56%
Co 228.616†	17.0	0.0002 mg/L		0.00019	0.0002 mg/L	0.00019	95.86%
Ni 232.003†	72.6	0.0017 mg/L		0.00063	0.0017 mg/L	0.00063	36.51%
Ba 233.527†	74.3	0.0004 mg/L		0.00005	0.0004 mg/L	0.00005	10.72%
Mn 257.610†	146.3	0.0001 mg/L		0.00002	0.0001 mg/L	0.00002	25.73%
Cr 267.716†	-22.5	-0.0001 mg/L		0.00011	-0.0001 mg/L	0.00011	124.74%
Fe 273.955†	188.3	0.0037 mg/L		0.00068	0.0037 mg/L	0.00068	18.41%
Mg 279.077†	130.7	0.0029 mg/L		0.00159	0.0029 mg/L	0.00159	54.41%
V 292.402†	32.0	0.0001 mg/L		0.00020	0.0001 mg/L	0.00020	267.86%
Al 308.215†	-251.9	-0.0065 mg/L		0.00646	-0.0065 mg/L	0.00646	99.07%
Be 313.107†	479.3	0.0001 mg/L		0.00003	0.0001 mg/L	0.00003	47.39%
Cu 324.752†	91.2	0.0002 mg/L		0.00033	0.0002 mg/L	0.00033	133.72%
Ag 338.289†	487.9	0.0024 mg/L		0.00014	0.0024 mg/L	0.00014	5.87%
Na 330.237†	-526.1	-0.3871 mg/L		0.07319	-0.3871 mg/L	0.07319	18.91%
Ca 227.546†	86.7	0.1431 mg/L		0.02478	0.1431 mg/L	0.02478	17.32%
As RADIAL†	134.3	0.0349 mg/L		0.00756	0.0349 mg/L	0.00756	21.66%
Fe RADIAL†	2.3	0.0028 mg/L		0.00589	0.0028 mg/L	0.00589	210.47%
Ca RADIAL†	33.4	0.0033 mg/L		0.00245	0.0033 mg/L	0.00245	75.36%
K RADIAL†	67.4	0.0337 mg/L		0.03176	0.0337 mg/L	0.03176	94.34%
Mg RADIAL†	-1.9	-0.0022 mg/L		0.01035	-0.0022 mg/L	0.01035	461.60%
Na RADIAL†	-9313.3	-0.5362 mg/L		0.02875	-0.5362 mg/L	0.02875	5.36%
Mo 202.031†	17.7	0.000 mg/L		0.0001	0.000 mg/L	0.0001	30.56%

Sequence No.: 119

Sample ID: 16C0216-13

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 99

Date Collected: 3/9/2016 12:48:56 AM

Data Type: Reprocessed on 3/9/2016 6:15:38 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0216-13

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20468067.5	5.142 mg/L		0.0640			1.24%
Y RADIAL	504526.4	5.271 mg/L		0.1569			2.98%
As 188.979†	-7.5	0.0068 mg/L		0.00191	0.0068 mg/L	0.00191	28.20%
Tl 190.801†	-379.3	-0.0601 mg/L		0.00301	-0.0601 mg/L	0.00301	5.02%
Se 196.026†	-47.0	-0.0004 mg/L		0.00536	-0.0004 mg/L	0.00536	>999.9%
Zn 206.200†	11471.1	0.1136 mg/L		0.00173	0.1136 mg/L	0.00173	1.52%
Sb 206.836†	-93.8	-0.0127 mg/L		0.00246	-0.0127 mg/L	0.00246	19.39%
Pb 220.353†	410.1	0.0190 mg/L		0.00178	0.0190 mg/L	0.00178	9.34%
Cd 226.502†	1293.2	0.0004 mg/L		0.00014	0.0004 mg/L	0.00014	33.12%
Co 228.616†	2499.5	0.0301 mg/L		0.00024	0.0301 mg/L	0.00024	0.79%
Ni 232.003†	1805.2	0.0412 mg/L		0.00034	0.0412 mg/L	0.00034	0.83%
Ba 233.527†	52357.4	0.3056 mg/L		0.00467	0.3056 mg/L	0.00467	1.53%
Mn 257.610†	1904811.5	1.173 mg/L		0.0162	1.173 mg/L	0.0162	1.38%
Cr 267.716†	11361.4	0.0479 mg/L		0.00055	0.0479 mg/L	0.00055	1.14%
Fe 273.955†	2978372.7	58.52 mg/L		0.875	58.52 mg/L	0.875	1.49%
Mg 279.077†	662965.5	14.84 mg/L		0.236	14.84 mg/L	0.236	1.59%
V 292.402†	43320.2	0.0970 mg/L		0.00136	0.0970 mg/L	0.00136	1.40%
Al 308.215†	1472630.2	38.12 mg/L		0.586	38.12 mg/L	0.586	1.54%
Be 313.107†	-9889.9	-0.0015 mg/L		0.00005	-0.0015 mg/L	0.00005	3.64%
Cu 324.752†	16960.0	0.0536 mg/L		0.00075	0.0536 mg/L	0.00075	1.41%
Ag 338.289†	-5986.8	-0.0286 mg/L		0.00073	-0.0286 mg/L	0.00073	2.57%
Na 330.237†	-2526.4	-1.582 mg/L		0.0239	-1.582 mg/L	0.0239	1.51%
Ca 227.546†	3973.9	7.087 mg/L		0.1225	7.087 mg/L	0.1225	1.73%
As RADIAL†	145356.5	37.76 mg/L		0.230	37.76 mg/L	0.230	0.61%
Fe RADIAL†	48192.1	58.39 mg/L		1.056	58.39 mg/L	1.056	1.81%

Ca RADIAL†	71523.9	6.958 mg/L	0.1403	6.958 mg/L	0.1403	2.02%
K RADIAL†	26919.9	13.45 mg/L	0.242	13.45 mg/L	0.242	1.80%
Mg RADIAL†	12435.1	14.84 mg/L	0.282	14.84 mg/L	0.282	1.90%
Na RADIAL†	2805.6	0.1615 mg/L	0.05222	0.1615 mg/L	0.05222	32.32%
Mo 202.031	-61.4	-0.001 mg/L	0.0004	-0.001 mg/L	0.0004	30.65%

Sequence No.: 120
Sample ID: 16C0216-14

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 100

Date Collected: 3/9/2016 12:53:38 AM

Data Type: Reprocessed on 3/9/2016 6:15:38 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0216-14

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19501280.1	4.899 mg/L	0.0393			0.80%
Y RADIAL	504654.0	5.273 mg/L	0.0747			1.42%
As 188.979†	-6.6	0.0051 mg/L	0.00207	0.0051 mg/L	0.00207	40.40%
Tl 190.801†	-265.5	-0.0416 mg/L	0.00098	-0.0416 mg/L	0.00098	2.36%
Se 196.026†	-38.9	-0.0014 mg/L	0.00408	-0.0014 mg/L	0.00408	293.56%
Zn 206.200†	6827.5	0.0675 mg/L	0.00018	0.0675 mg/L	0.00018	0.26%
Sb 206.836†	-60.2	-0.0078 mg/L	0.00117	-0.0078 mg/L	0.00117	15.05%
Pb 220.353†	394.3	0.0174 mg/L	0.00140	0.0174 mg/L	0.00140	8.07%
Cd 226.502†	1033.0	0.0004 mg/L	0.00008	0.0004 mg/L	0.00008	19.93%
Co 228.616†	2142.1	0.0257 mg/L	0.00014	0.0257 mg/L	0.00014	0.54%
Ni 232.003†	1640.6	0.0376 mg/L	0.00281	0.0376 mg/L	0.00281	7.46%
Ba 233.527†	32735.6	0.1911 mg/L	0.00490	0.1911 mg/L	0.00490	2.56%
Mn 257.610†	1453590.1	0.8955 mg/L	0.01674	0.8955 mg/L	0.01674	1.87%
Cr 267.716†	9136.8	0.0385 mg/L	0.00094	0.0385 mg/L	0.00094	2.45%
Fe 273.955†	2414465.8	47.44 mg/L	0.892	47.44 mg/L	0.892	1.88%
Mg 279.077†	421777.6	9.437 mg/L	0.1883	9.437 mg/L	0.1883	2.00%
V 292.402†	31821.7	0.0711 mg/L	0.00207	0.0711 mg/L	0.00207	2.91%
Al 308.215†	948087.6	24.54 mg/L	0.477	24.54 mg/L	0.477	1.95%
Be 313.107†	-7888.4	-0.0012 mg/L	0.00009	-0.0012 mg/L	0.00009	7.29%
Cu 324.752†	17961.4	0.0546 mg/L	0.00122	0.0546 mg/L	0.00122	2.23%
Ag 338.289†	-4204.7	-0.0200 mg/L	0.00158	-0.0200 mg/L	0.00158	7.90%
Na 330.237†	-1641.0	-0.9871 mg/L	0.05130	-0.9871 mg/L	0.05130	5.20%
Ca 227.546†	5069.0	8.774 mg/L	0.0592	8.774 mg/L	0.0592	0.67%
Al RADIAL†	90186.3	23.43 mg/L	0.034	23.43 mg/L	0.034	0.15%
Fe RADIAL†	37747.1	45.73 mg/L	0.597	45.73 mg/L	0.597	1.30%
Ca RADIAL†	90228.3	8.777 mg/L	0.1258	8.777 mg/L	0.1258	1.43%
K RADIAL†	16089.5	8.037 mg/L	0.0845	8.037 mg/L	0.0845	1.05%
Mg RADIAL†	7622.6	9.095 mg/L	0.0826	9.095 mg/L	0.0826	0.91%
Na RADIAL†	484.5	0.0279 mg/L	0.02189	0.0279 mg/L	0.02189	78.45%
Mo 202.031	-34.5	-0.001 mg/L	0.0002	-0.001 mg/L	0.0002	30.55%

Sequence No.: 121
Sample ID: 16C0216-16

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 3/9/2016 12:58:24 AM

Data Type: Reprocessed on 3/9/2016 6:15:39 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0216-16

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20024070.7	5.030 mg/L	0.0634			1.26%
Y RADIAL	480085.3	5.016 mg/L	0.0143			0.28%
As 188.979†	-18.5	0.0081 mg/L	0.00459	0.0081 mg/L	0.00459	56.93%
Tl 190.801†	-481.0	-0.0751 mg/L	0.00158	-0.0751 mg/L	0.00158	2.11%
Se 196.026†	-67.4	0.0003 mg/L	0.00547	0.0003 mg/L	0.00547	>999.9%
Zn 206.200†	15317.2	0.1516 mg/L	0.00213	0.1516 mg/L	0.00213	1.41%
Sb 206.836†	-129.7	-0.0173 mg/L	0.00137	-0.0173 mg/L	0.00137	7.94%
Pb 220.353†	664.5	0.0299 mg/L	0.00130	0.0299 mg/L	0.00130	4.33%
Cd 226.502†	1826.2	0.0004 mg/L	0.00012	0.0004 mg/L	0.00012	33.13%
Co 228.616†	3718.5	0.0448 mg/L	0.00055	0.0448 mg/L	0.00055	1.23%
Ni 232.003†	2606.7	0.0594 mg/L	0.00080	0.0594 mg/L	0.00080	1.35%

Ba 233.527†	65830.9	0.3842 mg/L	0.00281	0.3842 mg/L	0.00281	0.73%
Mn 257.610†	2101589.6	1.297 mg/L	0.0216	1.297 mg/L	0.0216	1.66%
Cr 267.716†	16574.0	0.0700 mg/L	0.00092	0.0700 mg/L	0.00092	1.32%
Fe 273.955†	4135246.4	81.25 mg/L	1.398	81.25 mg/L	1.398	1.72%
Mg 279.077†	937374.9	20.98 mg/L	0.378	20.98 mg/L	0.378	1.80%
V 292.402†	62361.5	0.1395 mg/L	0.00073	0.1395 mg/L	0.00073	0.53%
Al 308.215†	1807433.2	46.78 mg/L	0.777	46.78 mg/L	0.777	1.66%
Be 313.107†	-16750.8	-0.0025 mg/L	0.00036	-0.0025 mg/L	0.00036	14.25%
Cu 324.752†	27839.4	0.0866 mg/L	0.00047	0.0866 mg/L	0.00047	0.54%
Ag 338.289†	-8464.5	-0.0403 mg/L	0.00106	-0.0403 mg/L	0.00106	2.63%
Na 330.237†	-3412.3	-2.103 mg/L	0.0393	-2.103 mg/L	0.0393	1.87%
Ca 227.546†	5276.3	9.482 mg/L	0.1034	9.482 mg/L	0.1034	1.09%
Al RADIAL†	191593.6	49.77 mg/L	0.260	49.77 mg/L	0.260	0.52%
Fe RADIAL†	70989.5	86.01 mg/L	0.600	86.01 mg/L	0.600	0.70%
Ca RADIAL†	99604.3	9.689 mg/L	0.0960	9.689 mg/L	0.0960	0.99%
K RADIAL†	33573.2	16.77 mg/L	0.173	16.77 mg/L	0.173	1.03%
Mg RADIAL†	18582.4	22.17 mg/L	0.136	22.17 mg/L	0.136	0.61%
Na RADIAL†	2087.7	0.1202 mg/L	0.01173	0.1202 mg/L	0.01173	9.76%
Mo 202.031	-61.2	-0.001 mg/L	0.0002	-0.001 mg/L	0.0002	16.60%

Sequence No.: 122

Sample ID: EC60396-DUP1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 102

Date Collected: 3/9/2016 1:03:12 AM

Data Type: Reprocessed on 3/9/2016 6:15:40 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: EC60396-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20205283.3	5.076 mg/L	0.0595			1.17%
Y RADIAL	479077.8	5.005 mg/L	0.0614			1.23%
As 188.979†	-20.5	0.0076 mg/L	0.00091	0.0076 mg/L	0.00091	11.98%
Tl 190.801†	-480.0	-0.0749 mg/L	0.00022	-0.0749 mg/L	0.00022	0.30%
Se 196.026†	-62.7	0.0029 mg/L	0.00384	0.0029 mg/L	0.00384	133.90%
Zn 206.200†	15359.9	0.1520 mg/L	0.00190	0.1520 mg/L	0.00190	1.25%
Sb 206.836†	-134.8	-0.0181 mg/L	0.00230	-0.0181 mg/L	0.00230	12.72%
Pb 220.353†	653.8	0.0294 mg/L	0.00101	0.0294 mg/L	0.00101	3.43%
Cd 226.502†	1844.8	0.0004 mg/L	0.00004	0.0004 mg/L	0.00004	9.03%
Co 228.616†	3739.4	0.0450 mg/L	0.00077	0.0450 mg/L	0.00077	1.72%
Ni 232.003†	2663.5	0.0607 mg/L	0.00150	0.0607 mg/L	0.00150	2.46%
Ba 233.527†	65548.8	0.3826 mg/L	0.00638	0.3826 mg/L	0.00638	1.67%
Mn 257.610†	2130835.4	1.315 mg/L	0.0206	1.315 mg/L	0.0206	1.57%
Cr 267.716†	16570.9	0.0700 mg/L	0.00053	0.0700 mg/L	0.00053	0.76%
Fe 273.955†	4194103.0	82.40 mg/L	1.290	82.40 mg/L	1.290	1.57%
Mg 279.077†	951758.2	21.30 mg/L	0.378	21.30 mg/L	0.378	1.78%
V 292.402†	61982.0	0.1386 mg/L	0.00283	0.1386 mg/L	0.00283	2.04%
Al 308.215†	1834206.6	47.48 mg/L	0.728	47.48 mg/L	0.728	1.53%
Be 313.107†	-17544.1	-0.0026 mg/L	0.00004	-0.0026 mg/L	0.00004	1.35%
Cu 324.752†	27770.4	0.0865 mg/L	0.00157	0.0865 mg/L	0.00157	1.81%
Ag 338.289†	-8480.8	-0.0404 mg/L	0.00091	-0.0404 mg/L	0.00091	2.25%
Na 330.237†	-3271.0	-1.997 mg/L	0.0589	-1.997 mg/L	0.0589	2.95%
Ca 227.546†	5331.7	9.577 mg/L	0.0789	9.577 mg/L	0.0789	0.82%
Al RADIAL†	192725.2	50.07 mg/L	0.229	50.07 mg/L	0.229	0.46%
Fe RADIAL†	71334.5	86.42 mg/L	0.632	86.42 mg/L	0.632	0.73%
Ca RADIAL†	100213.0	9.749 mg/L	0.1098	9.749 mg/L	0.1098	1.13%
K RADIAL†	33867.3	16.92 mg/L	0.075	16.92 mg/L	0.075	0.44%
Mg RADIAL†	18664.8	22.27 mg/L	0.128	22.27 mg/L	0.128	0.58%
Na RADIAL†	2262.1	0.1302 mg/L	0.02507	0.1302 mg/L	0.02507	19.25%
Mo 202.031	-52.0	-0.001 mg/L	0.0002	-0.001 mg/L	0.0002	21.57%

Sequence No.: 123

Sample ID: EC60396-MS1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 103

Date Collected: 3/9/2016 1:08:00 AM

Data Type: Reprocessed on 3/9/2016 6:15:40 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60396-MS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19386942.6	4.870 mg/L	0.0515			1.06%
Y RADIAL	475621.4	4.969 mg/L	0.0376			0.76%
As 188.979†	7394.0	1.948 mg/L	0.0648	1.948 mg/L	0.0648	3.33%
Tl 190.801†	10389.3	1.798 mg/L	0.0683	1.798 mg/L	0.0683	3.80%
Se 196.026†	3815.7	1.964 mg/L	0.0770	1.964 mg/L	0.0770	3.92%
Zn 206.200†	64852.1	0.6445 mg/L	0.02028	0.6445 mg/L	0.02028	3.15%
Sb 206.836†	1461.3	0.2369 mg/L	0.01207	0.2369 mg/L	0.01207	5.09%
Pb 220.353†	11908.6	0.5266 mg/L	0.01447	0.5266 mg/L	0.01447	2.75%
Cd 226.502†	15986.0	0.0497 mg/L	0.00185	0.0497 mg/L	0.00185	3.73%
Co 228.616†	48305.5	0.5598 mg/L	0.01708	0.5598 mg/L	0.01708	3.05%
Ni 232.003†	24065.3	0.5694 mg/L	0.01818	0.5694 mg/L	0.01818	3.19%
Ba 233.527†	415775.9	2.427 mg/L	0.0389	2.427 mg/L	0.0389	1.60%
Mn 257.610†	3019701.2	1.859 mg/L	0.0291	1.859 mg/L	0.0291	1.56%
Cr 267.716†	64301.6	0.2639 mg/L	0.00457	0.2639 mg/L	0.00457	1.73%
Fe 273.955†	4342251.6	85.32 mg/L	1.340	85.32 mg/L	1.340	1.57%
Mg 279.077†	973441.1	21.78 mg/L	0.368	21.78 mg/L	0.368	1.69%
V 292.402†	268434.1	0.6203 mg/L	0.01003	0.6203 mg/L	0.01003	1.62%
Al 308.215†	1957336.1	50.66 mg/L	0.647	50.66 mg/L	0.647	1.28%
Be 313.107†	309535.4	0.0467 mg/L	0.00072	0.0467 mg/L	0.00072	1.55%
Cu 324.752†	124426.1	0.3486 mg/L	0.00445	0.3486 mg/L	0.00445	1.28%
Ag 338.289†	1439.6	0.0088 mg/L	0.00074	0.0088 mg/L	0.00074	8.40%
Na 330.237†	-2582.4	-1.487 mg/L	0.0400	-1.487 mg/L	0.0400	2.69%
Ca 227.546†	5397.8	9.695 mg/L	0.3101	9.695 mg/L	0.3101	3.20%
Al RADIAL†	199969.8	51.95 mg/L	0.239	51.95 mg/L	0.239	0.46%
Fe RADIAL†	72007.7	87.24 mg/L	0.443	87.24 mg/L	0.443	0.51%
Cd RADIAL†	99690.9	9.698 mg/L	0.0504	9.698 mg/L	0.0504	0.52%
K RADIAL†	33720.9	16.84 mg/L	0.101	16.84 mg/L	0.101	0.60%
Mg RADIAL†	18651.8	22.26 mg/L	0.142	22.26 mg/L	0.142	0.64%
Na RADIAL†	1659.4	0.0955 mg/L	0.00210	0.0955 mg/L	0.00210	2.20%
Mo 202.031†	-62.5	-0.001 mg/L	0.0002	-0.001 mg/L	0.0002	15.45%

Sequence No.: 124

Sample ID: 16C0216-18

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 104

Date Collected: 3/9/2016 1:15:19 AM

Data Type: Reprocessed on 3/9/2016 6:15:41 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0216-18

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19462153.4	4.889 mg/L	0.0784			1.60%
Y RADIAL	469872.2	4.909 mg/L	0.0286			0.58%
As 188.979†	-27.4	0.0045 mg/L	0.00303	0.0045 mg/L	0.00303	67.59%
Tl 190.801†	-506.0	-0.0802 mg/L	0.00215	-0.0802 mg/L	0.00215	2.69%
Se 196.026†	-54.4	0.0036 mg/L	0.01123	0.0036 mg/L	0.01123	309.90%
Zn 206.200†	14177.2	0.1403 mg/L	0.00130	0.1403 mg/L	0.00130	0.92%
Sb 206.836†	-120.7	-0.0162 mg/L	0.00140	-0.0162 mg/L	0.00140	8.61%
Pb 220.353†	501.6	0.0228 mg/L	0.00029	0.0228 mg/L	0.00029	1.27%
Cd 226.502†	1691.2	0.0005 mg/L	0.00010	0.0005 mg/L	0.00010	22.52%
Co 228.616†	3392.2	0.0408 mg/L	0.00046	0.0408 mg/L	0.00046	1.13%
Ni 232.003†	2159.1	0.0490 mg/L	0.00064	0.0490 mg/L	0.00064	1.31%
Ba 233.527†	79350.7	0.4632 mg/L	0.01464	0.4632 mg/L	0.01464	3.16%
Mn 257.610†	2112528.8	1.303 mg/L	0.0094	1.303 mg/L	0.0094	0.72%
Cr 267.716†	14747.6	0.0623 mg/L	0.00060	0.0623 mg/L	0.00060	0.97%
Fe 273.955†	3832755.0	75.30 mg/L	0.604	75.30 mg/L	0.604	0.80%
Mg 279.077†	918434.5	20.55 mg/L	0.177	20.55 mg/L	0.177	0.86%
V 292.402†	64188.2	0.1443 mg/L	0.00433	0.1443 mg/L	0.00433	3.00%
Al 308.215†	1705737.0	44.15 mg/L	0.339	44.15 mg/L	0.339	0.77%
Be 313.107†	-21845.4	-0.0033 mg/L	0.00011	-0.0033 mg/L	0.00011	3.26%
Cu 324.752†	18707.3	0.0608 mg/L	0.00188	0.0608 mg/L	0.00188	3.09%
Ag 338.289†	-9115.9	-0.0437 mg/L	0.00173	-0.0437 mg/L	0.00173	3.96%
Na 330.237†	-3591.1	-2.272 mg/L	0.0426	-2.272 mg/L	0.0426	1.87%
Ca 227.546†	5642.6	10.01 mg/L	0.098	10.01 mg/L	0.098	0.98%
Al RADIAL†	177098.2	46.01 mg/L	0.155	46.01 mg/L	0.155	0.34%
Fe RADIAL†	64210.4	77.79 mg/L	0.307	77.79 mg/L	0.307	0.39%
Cd RADIAL†	105152.1	10.23 mg/L	0.063	10.23 mg/L	0.063	0.61%

K RADIAL†	39091.4	19.53 mg/L	0.029	19.53 mg/L	0.029	0.15%
Mg RADIAL†	17747.4	21.18 mg/L	0.113	21.18 mg/L	0.113	0.53%
Na RADIAL†	1182.0	0.0681 mg/L	0.03419	0.0681 mg/L	0.03419	50.24%
MO 202.031	-74.3	-0.001 mg/L	0.0004	-0.001 mg/L	0.0004	30.02%

Sequence No.: 125

Autosampler Location: 105

Sample ID: 16C0216-19

Date Collected: 3/9/2016 1:20:07 AM

Analyst: KV

Data Type: Reprocessed on 3/9/2016 6:15:42 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 16C0216-19

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19079439.2	4.793 mg/L	0.0649			1.35%
Y RADIAL	473127.8	4.943 mg/L	0.0353			0.72%
As 188.979†	-37.7	0.0021 mg/L	0.00117	0.0021 mg/L	0.00117	56.52%
TL 190.801†	-497.6	-0.0786 mg/L	0.00552	-0.0786 mg/L	0.00552	7.02%
Se 196.026†	-55.2	0.0039 mg/L	0.00007	0.0039 mg/L	0.00007	1.75%
Zn 206.200†	15044.7	0.1489 mg/L	0.00143	0.1489 mg/L	0.00143	0.96%
Sb 206.836†	-126.6	-0.0171 mg/L	0.00075	-0.0171 mg/L	0.00075	4.40%
Pb 220.353†	577.5	0.0259 mg/L	0.00164	0.0259 mg/L	0.00164	6.32%
Cd 226.502†	1770.8	0.0006 mg/L	0.00004	0.0006 mg/L	0.00004	6.95%
Co 228.616†	3688.6	0.0443 mg/L	0.00028	0.0443 mg/L	0.00028	0.63%
Ni 232.003†	2229.8	0.0506 mg/L	0.00076	0.0506 mg/L	0.00076	1.51%
Ba 233.527†	79107.9	0.4617 mg/L	0.00462	0.4617 mg/L	0.00462	1.00%
Mn 257.610†	2387915.9	1.472 mg/L	0.0159	1.472 mg/L	0.0159	1.08%
Cr 267.716†	15358.4	0.0648 mg/L	0.00041	0.0648 mg/L	0.00041	0.63%
Fe 273.955†	4022007.5	79.02 mg/L	0.499	79.02 mg/L	0.499	0.63%
Mg 279.077†	964708.1	21.59 mg/L	0.241	21.59 mg/L	0.241	1.11%
V 292.402†	62750.8	0.1409 mg/L	0.00172	0.1409 mg/L	0.00172	1.22%
Al 308.215†	1732342.2	44.84 mg/L	0.530	44.84 mg/L	0.530	1.18%
Be 313.107†	-21698.0	-0.0033 mg/L	0.00019	-0.0033 mg/L	0.00019	5.75%
Cu 324.752†	18640.1	0.0609 mg/L	0.00052	0.0609 mg/L	0.00052	0.85%
Ag 338.289†	-8866.5	-0.0424 mg/L	0.00091	-0.0424 mg/L	0.00091	2.15%
Na 330.237†	-3720.3	-2.359 mg/L	0.0234	-2.359 mg/L	0.0234	0.99%
Ca 227.546†	5786.7	10.27 mg/L	0.072	10.27 mg/L	0.072	0.70%
Al RADIAL†	171866.9	44.65 mg/L	0.380	44.65 mg/L	0.380	0.85%
Fe RADIAL†	65713.7	79.61 mg/L	0.598	79.61 mg/L	0.598	0.75%
Ca RADIAL†	105196.6	10.23 mg/L	0.058	10.23 mg/L	0.058	0.56%
K RADIAL†	37651.1	18.81 mg/L	0.170	18.81 mg/L	0.170	0.90%
Mg RADIAL†	17880.5	21.34 mg/L	0.133	21.34 mg/L	0.133	0.62%
Na RADIAL†	-857.3	-0.0494 mg/L	0.01894	-0.0494 mg/L	0.01894	38.38%
MO 202.031	-107.5	-0.002 mg/L	0.0004	-0.002 mg/L	0.0004	20.42%

Sequence No.: 126

Autosampler Location: 106

Sample ID: 16C0216-21

Date Collected: 3/9/2016 1:24:48 AM

Analyst: KV

Data Type: Reprocessed on 3/9/2016 6:15:43 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 16C0216-21

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19695934.1	4.948 mg/L	0.0595			1.20%
Y RADIAL	479030.4	5.005 mg/L	0.0246			0.49%
As 188.979†	-26.4	0.0130 mg/L	0.00377	0.0130 mg/L	0.00377	29.09%
TL 190.801†	-604.6	-0.0922 mg/L	0.00199	-0.0922 mg/L	0.00199	2.16%
Se 196.026†	-88.9	0.0081 mg/L	0.00154	0.0081 mg/L	0.00154	18.94%
Zn 206.200†	39310.7	0.3899 mg/L	0.00456	0.3899 mg/L	0.00456	1.17%
Sb 206.836†	-167.5	-0.0215 mg/L	0.00232	-0.0215 mg/L	0.00232	10.77%
Pb 220.353†	1185.5	0.0535 mg/L	0.00121	0.0535 mg/L	0.00121	2.25%
Cd 226.502†	2778.2	0.0004 mg/L	0.00022	0.0004 mg/L	0.00022	52.22%
Co 228.616†	5227.9	0.0632 mg/L	0.00049	0.0632 mg/L	0.00049	0.78%
Ni 232.003†	5589.7	0.1289 mg/L	0.00231	0.1289 mg/L	0.00231	1.79%
Ba 233.527†	81263.2	0.4743 mg/L	0.00446	0.4743 mg/L	0.00446	0.94%

Mn 257.610†	3143724.6	1.941 mg/L	0.0309	1.941 mg/L	0.0309	1.59%
Cr 267.716†	27177.5	0.1145 mg/L	0.00106	0.1145 mg/L	0.00106	0.92%
Fe 273.955†	6335448.2	124.5 mg/L	1.95	124.5 mg/L	1.95	1.57%
Mg 279.077†	1422380.7	31.83 mg/L	0.550	31.83 mg/L	0.550	1.73%
V 292.402†	87460.0	0.1948 mg/L	0.00293	0.1948 mg/L	0.00293	1.50%
Al 308.215†	3018509.8	78.13 mg/L	1.308	78.13 mg/L	1.308	1.67%
Be 313.107†	-16712.1	-0.0025 mg/L	0.00026	-0.0025 mg/L	0.00026	10.32%
Cu 324.752†	72766.6	0.2145 mg/L	0.00229	0.2145 mg/L	0.00229	1.07%
Ag 338.289†	-10690.9	-0.0504 mg/L	0.00064	-0.0504 mg/L	0.00064	1.28%
Na 330.237†	-3480.8	-1.939 mg/L	0.0835	-1.939 mg/L	0.0835	4.31%
Ca 227.546†	4504.8	8.633 mg/L	0.0919	8.633 mg/L	0.0919	1.06%
Al RADIAL†	307767.5	79.95 mg/L	0.555	79.95 mg/L	0.555	0.69%
Fe RADIAL†	109478.2	132.6 mg/L	0.85	132.6 mg/L	0.85	0.64%
Ca RADIAL†	82612.7	8.036 mg/L	0.0573	8.036 mg/L	0.0573	0.71%
K RADIAL†	48797.3	24.37 mg/L	0.187	24.37 mg/L	0.187	0.77%
Mg RADIAL†	28030.6	33.45 mg/L	0.280	33.45 mg/L	0.280	0.84%
Na RADIAL†	7528.1	0.4335 mg/L	0.01160	0.4335 mg/L	0.01160	2.68%
Mo 202.031	166.7	0.003 mg/L	0.0001	0.003 mg/L	0.0001	4.19%

Sequence No.: 127

Sample ID: 16C0240-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 107

Date Collected: 3/9/2016 1:29:37 AM

Data Type: Reprocessed on 3/9/2016 6:15:43 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0240-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	18492126.0	4.645 mg/L	0.0284			0.61%
Y RADIAL	485953.1	5.077 mg/L	0.1319			2.60%
As 188.979†	32.4	0.0374 mg/L	0.00335	0.0374 mg/L	0.00335	8.97%
Tl 190.801†	-616.2	-0.0888 mg/L	0.00416	-0.0888 mg/L	0.00416	4.69%
Se 196.026†	-135.8	0.0084 mg/L	0.00997	0.0084 mg/L	0.00997	119.14%
Zn 206.200†	3564972.7	35.47 mg/L	0.342	35.47 mg/L	0.342	0.96%
Sb 206.836†	2.8	0.0081 mg/L	0.00233	0.0081 mg/L	0.00233	28.78%
Pb 220.353†	78590.2	3.475 mg/L	0.0307	3.475 mg/L	0.0307	0.88%
Cd 226.502†	9556.8	0.0199 mg/L	0.00039	0.0199 mg/L	0.00039	1.94%
Ce 228.616†	8635.8	0.1038 mg/L	0.00018	0.1038 mg/L	0.00018	0.17%
Nb 232.003†	11632.7	0.2707 mg/L	0.00567	0.2707 mg/L	0.00567	2.09%
Ba 233.527†	288190.6	1.682 mg/L	0.0144	1.682 mg/L	0.0144	0.85%
Mn 257.610†	3834369.6	2.372 mg/L	0.0211	2.372 mg/L	0.0211	0.89%
Cr 267.716†	108629.2	0.4472 mg/L	0.00471	0.4472 mg/L	0.00471	1.05%
Fe 273.955†	9533521.6	187.3 mg/L	0.36	187.3 mg/L	0.36	0.19%
Mg 279.077†	3498182.0	78.30 mg/L	0.768	78.30 mg/L	0.768	0.98%
V 292.402†	126472.8	0.2816 mg/L	0.00303	0.2816 mg/L	0.00303	1.07%
Al 308.215†	3891109.7	100.7 mg/L	1.04	100.7 mg/L	1.04	1.03%
Be 313.107†	-13538.3	-0.0020 mg/L	0.00001	-0.0020 mg/L	0.00001	0.61%
Cu 324.752†	519195.6	1.432 mg/L	0.0133	1.432 mg/L	0.0133	0.93%
Ag 338.289†	-6918.0	-0.0356 mg/L	0.00091	-0.0356 mg/L	0.00091	2.57%
Na 330.237†	73043.8	55.09 mg/L	0.842	55.09 mg/L	0.842	1.53%
Ca 227.546†	287009.3	475.3 mg/L	4.98	475.3 mg/L	4.98	1.05%
Al RADIAL†	356739.9	92.67 mg/L	0.445	92.67 mg/L	0.445	0.48%
Fe RADIAL†	158966.9	192.6 mg/L	0.72	192.6 mg/L	0.72	0.38%
Ca RADIAL†	4696378.5	456.9 mg/L	8.25	456.9 mg/L	8.25	1.81%
K RADIAL†	49604.7	24.78 mg/L	0.219	24.78 mg/L	0.219	0.88%
Mg RADIAL†	62214.2	74.25 mg/L	0.264	74.25 mg/L	0.264	0.36%
Na RADIAL†	145256.4	8.364 mg/L	0.1706	8.364 mg/L	0.1706	2.04%
Mo 202.031	2036.6	0.038 mg/L	0.0002	0.038 mg/L	0.0002	0.44%

Sequence No.: 128

Sample ID: 16C0247-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 3/9/2016 1:34:21 AM

Data Type: Reprocessed on 3/9/2016 6:15:44 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0247-01

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	20503810.7	5.151	mg/L	0.0831				1.61%
Y RADIAL	509724.9	5.326	mg/L	0.0517				0.97%
As 188.979†	50.6	0.0228	mg/L	0.00091	0.0228	mg/L	0.00091	3.99%
Tl 190.801†	-194.0	-0.0277	mg/L	0.00266	-0.0277	mg/L	0.00266	9.60%
Se 196.026†	-41.5	0.0045	mg/L	0.00228	0.0045	mg/L	0.00228	50.90%
Zn 206.200†	50906.7	0.5060	mg/L	0.00977	0.5060	mg/L	0.00977	1.93%
Sb 206.836†	-40.5	-0.0039	mg/L	0.00193	-0.0039	mg/L	0.00193	49.07%
Pb 220.353†	8121.8	0.3582	mg/L	0.00431	0.3582	mg/L	0.00431	1.20%
Cd 226.502†	1875.8	0.0021	mg/L	0.00013	0.0021	mg/L	0.00013	6.20%
Co 228.616†	2382.4	0.0289	mg/L	0.00047	0.0289	mg/L	0.00047	1.63%
Ni 232.003†	3299.2	0.0765	mg/L	0.00132	0.0765	mg/L	0.00132	1.72%
Ba 233.527†	38063.1	0.2222	mg/L	0.00504	0.2222	mg/L	0.00504	2.27%
Mn 257.610†	789133.5	0.4912	mg/L	0.01007	0.4912	mg/L	0.01007	2.05%
Cr 267.716†	19642.5	0.0817	mg/L	0.00157	0.0817	mg/L	0.00157	1.92%
Fe 273.955†	3192441.6	62.72	mg/L	1.270	62.72	mg/L	1.270	2.02%
Mg 279.077†	356728.4	7.977	mg/L	0.1621	7.977	mg/L	0.1621	2.03%
V 292.402†	41365.2	0.0921	mg/L	0.00154	0.0921	mg/L	0.00154	1.67%
Al 308.215†	1167092.1	30.21	mg/L	0.670	30.21	mg/L	0.670	2.22%
Be 313.107†	2775.3	0.0004	mg/L	0.00011	0.0004	mg/L	0.00011	26.22%
Cu 324.752†	43960.9	0.1274	mg/L	0.00262	0.1274	mg/L	0.00262	2.06%
Ag 338.289†	-2983.9	-0.0136	mg/L	0.00048	-0.0136	mg/L	0.00048	3.53%
Na 330.237†	-632.7	-0.1614	mg/L	0.03505	-0.1614	mg/L	0.03505	21.72%
Ca 227.546†	5252.7	9.237	mg/L	0.1173	9.237	mg/L	0.1173	1.27%
Al RADIAL†	116249.8	30.20	mg/L	0.146	30.20	mg/L	0.146	0.48%
Fe RADIAL†	52535.6	63.65	mg/L	0.250	63.65	mg/L	0.250	0.39%
Ca RADIAL†	97994.6	9.533	mg/L	0.0497	9.533	mg/L	0.0497	0.52%
K RADIAL†	7996.7	3.994	mg/L	0.0267	3.994	mg/L	0.0267	0.67%
Mg RADIAL†	6776.9	8.083	mg/L	0.0369	8.083	mg/L	0.0369	0.46%
Na RADIAL†	-772.9	-0.0445	mg/L	0.03494	-0.0445	mg/L	0.03494	78.52%
Mo 202.031	48.7	0.001	mg/L	0.0002	0.001	mg/L	0.0002	21.87%

Sequence No.: 129

Sample ID: SEQ-CCVB

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/9/2016 1:39:03 AM

Data Type: Reprocessed on 3/9/2016 6:15:45 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCVB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	20895746.7	5.249	mg/L	0.0662				1.26%
Y RADIAL	510079.0	5.329	mg/L	0.0405				0.76%
As 188.979†	937.1	0.2460	mg/L	0.00454	0.2460	mg/L	0.00454	1.85%
Tl 190.801†	1422.4	0.2455	mg/L	0.00433	0.2455	mg/L	0.00433	1.76%
Se 196.026†	472.0	0.2406	mg/L	0.00366	0.2406	mg/L	0.00366	1.52%
Zn 206.200†	244396.3	2.432	mg/L	0.0243	2.432	mg/L	0.0243	1.00%
Sb 206.836†	1463.1	0.2339	mg/L	0.00625	0.2339	mg/L	0.00625	2.67%
Pb 220.353†	5538.0	0.2458	mg/L	0.00332	0.2458	mg/L	0.00332	1.35%
Cd 226.502†	34269.6	0.1193	mg/L	0.00104	0.1193	mg/L	0.00104	0.87%
Co 228.616†	213652.1	2.468	mg/L	0.0243	2.468	mg/L	0.0243	0.99%
Ni 232.003†	102259.3	2.430	mg/L	0.0259	2.430	mg/L	0.0259	1.06%
Ba 233.527†	1711853.3	9.992	mg/L	0.0876	9.992	mg/L	0.0876	0.88%
Mn 257.610†	4133425.9	2.530	mg/L	0.0229	2.530	mg/L	0.0229	0.90%
Cr 267.716†	240801.2	0.9785	mg/L	0.00979	0.9785	mg/L	0.00979	1.00%
Fe 273.955†	250219.3	4.916	mg/L	0.0384	4.916	mg/L	0.0384	0.78%
Mg 279.077†	1091348.3	24.44	mg/L	0.198	24.44	mg/L	0.198	0.81%
V 292.402†	1037807.3	2.421	mg/L	0.0160	2.421	mg/L	0.0160	0.66%
Al 308.215†	361891.6	9.365	mg/L	0.0827	9.365	mg/L	0.0827	0.88%
Be 313.107†	1669707.2	0.2519	mg/L	0.00134	0.2519	mg/L	0.00134	0.53%
Cu 324.752†	447139.7	1.213	mg/L	0.0118	1.213	mg/L	0.0118	0.97%
Ag 338.289†	240083.7	1.189	mg/L	0.0102	1.189	mg/L	0.0102	0.86%
Na 330.237†	30294.2	22.34	mg/L	0.201	22.34	mg/L	0.201	0.90%
Ca 227.546†	14461.4	23.91	mg/L	0.319	23.91	mg/L	0.319	1.33%
Al RADIAL†	36014.7	9.354	mg/L	0.0390	9.354	mg/L	0.0390	0.42%
Fe RADIAL†	4131.2	5.005	mg/L	0.0346	5.005	mg/L	0.0346	0.69%
Ca RADIAL†	256889.0	24.99	mg/L	0.019	24.99	mg/L	0.019	0.08%
K RADIAL†	10028.0	5.009	mg/L	0.0514	5.009	mg/L	0.0514	1.03%

Mg RADIAL†	21046.6	25.12 mg/L	0.281	25.12 mg/L	0.281	1.12%
Na RADIAL†	430630.5	24.79 mg/L	0.054	24.79 mg/L	0.054	0.22%
Mo 202.031	62793.1	1.174 mg/L	0.0046	1.174 mg/L	0.0046	0.39%

Sequence No.: 130

Sample ID: SEQ-CCBB

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/9/2016 1:46:44 AM

Data Type: Reprocessed on 3/9/2016 6:15:46 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCBB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21687222.3	5.448 mg/L	0.0514			0.94%
Y RADIAL	518366.0	5.416 mg/L	0.1639			3.03%
As 188.979†	-0.1	0.0000 mg/L	0.00155	0.0000 mg/L	0.00155	>999.9%
Tl 190.801†	7.9	0.0014 mg/L	0.00102	0.0014 mg/L	0.00102	74.25%
Se 196.026†	-10.1	-0.0051 mg/L	0.00282	-0.0051 mg/L	0.00282	55.30%
Zn 206.200†	82.1	0.0008 mg/L	0.00014	0.0008 mg/L	0.00014	16.56%
Sb 206.836†	-3.3	-0.0005 mg/L	0.00056	-0.0005 mg/L	0.00056	104.61%
Pb 220.353†	-2.6	-0.0001 mg/L	0.00042	-0.0001 mg/L	0.00042	380.00%
Cd 226.502†	38.7	0.0001 mg/L	0.00006	0.0001 mg/L	0.00006	41.14%
Co 228.616†	35.9	0.0004 mg/L	0.00018	0.0004 mg/L	0.00018	42.73%
Ni 232.003†	104.9	0.0025 mg/L	0.00051	0.0025 mg/L	0.00051	20.60%
Ba 233.527†	59.4	0.0003 mg/L	0.00007	0.0003 mg/L	0.00007	19.36%
Mn 257.610†	133.8	0.0001 mg/L	0.00003	0.0001 mg/L	0.00003	31.41%
Cr 267.716†	-6.1	0.0000 mg/L	0.00023	0.0000 mg/L	0.00023	944.81%
Fe 273.955†	195.4	0.0038 mg/L	0.00032	0.0038 mg/L	0.00032	8.31%
Mg 279.077†	75.6	0.0017 mg/L	0.00209	0.0017 mg/L	0.00209	123.62%
V 292.402†	89.8	0.0002 mg/L	0.00006	0.0002 mg/L	0.00006	29.93%
Al 308.215†	-380.7	-0.0099 mg/L	0.00385	-0.0099 mg/L	0.00385	39.03%
Be 313.107†	565.4	0.0001 mg/L	0.00002	0.0001 mg/L	0.00002	18.70%
Cu 324.752†	104.2	0.0003 mg/L	0.00011	0.0003 mg/L	0.00011	39.05%
Ag 338.289†	373.0	0.0018 mg/L	0.00008	0.0018 mg/L	0.00008	4.56%
Na 330.237†	-514.8	-0.3788 mg/L	0.03192	-0.3788 mg/L	0.03192	8.43%
Ca 227.546†	96.1	0.1586 mg/L	0.02156	0.1586 mg/L	0.02156	13.60%
As RADIAL†	129.1	0.0335 mg/L	0.01152	0.0335 mg/L	0.01152	34.34%
Fe RADIAL†	7.0	0.0085 mg/L	0.00694	0.0085 mg/L	0.00694	81.63%
Cd RADIAL†	-7.8	-0.0008 mg/L	0.00639	-0.0008 mg/L	0.00639	843.17%
K RADIAL†	21.9	0.0110 mg/L	0.03641	0.0110 mg/L	0.03641	332.09%
Mg RADIAL†	6.3	0.0075 mg/L	0.00091	0.0075 mg/L	0.00091	12.11%
Na RADIAL†	-9188.3	-0.5290 mg/L	0.07518	-0.5290 mg/L	0.07518	14.21%
Mo 202.031	28.9	0.001 mg/L	0.0003	0.001 mg/L	0.0003	56.00%

Sequence No.: 131

Sample ID: 16C0270-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 109

Date Collected: 3/9/2016 1:51:51 AM

Data Type: Reprocessed on 3/9/2016 6:15:46 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0270-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20288738.4	5.097 mg/L	0.0677			1.33%
Y RADIAL	496044.9	5.183 mg/L	0.0912			1.76%
As 188.979†	-45.3	-0.0013 mg/L	0.00214	-0.0013 mg/L	0.00214	160.00%
Tl 190.801†	-100.1	-0.0109 mg/L	0.00133	-0.0109 mg/L	0.00133	12.18%
Se 196.026†	-46.8	0.0044 mg/L	0.00243	0.0044 mg/L	0.00243	54.97%
Zn 206.200†	35786.9	0.3554 mg/L	0.00304	0.3554 mg/L	0.00304	0.85%
Sb 206.836†	-30.8	-0.0021 mg/L	0.00189	-0.0021 mg/L	0.00189	89.13%
Pb 220.353†	3015.0	0.1299 mg/L	0.00049	0.1299 mg/L	0.00049	0.38%
Cd 226.502†	2044.0	0.0022 mg/L	0.00042	0.0022 mg/L	0.00042	18.98%
Co 228.616†	346.8	0.0055 mg/L	0.00027	0.0055 mg/L	0.00027	4.89%
Ni 232.003†	1047.9	0.0228 mg/L	0.00123	0.0228 mg/L	0.00123	5.39%
Ba 233.527†	345952.2	2.019 mg/L	0.0157	2.019 mg/L	0.0157	0.78%
Mn 257.610†	367352.4	0.2339 mg/L	0.00147	0.2339 mg/L	0.00147	0.63%

Cr 267.716†	6860.8	0.0300 mg/L	0.00013	0.0300 mg/L	0.00013	0.45%
Fe 273.955†	3424914.4	67.29 mg/L	1.420	67.29 mg/L	1.420	2.11%
Mg 279.077†	136499.9	3.045 mg/L	0.0150	3.045 mg/L	0.0150	0.49%
V 292.402†	11742.1	0.0225 mg/L	0.00036	0.0225 mg/L	0.00036	1.62%
Al 308.215†	457262.6	11.84 mg/L	0.235	11.84 mg/L	0.235	1.99%
Be 313.107†	1255.5	0.0002 mg/L	0.00002	0.0002 mg/L	0.00002	11.09%
Cu 324.752†	321736.1	0.8813 mg/L	0.00566	0.8813 mg/L	0.00566	0.64%
Ag 338.289†	-904.5	-0.0032 mg/L	0.00047	-0.0032 mg/L	0.00047	14.92%
Na 330.237†	-12.3	0.3224 mg/L	0.03325	0.3224 mg/L	0.03325	10.31%
Ca 227.546†	3529.6	6.437 mg/L	0.0687	6.437 mg/L	0.0687	1.07%
Al RADIAL†	47720.6	12.40 mg/L	0.047	12.40 mg/L	0.047	0.38%
Fe RADIAL†	57930.1	70.18 mg/L	2.353	70.18 mg/L	2.353	3.35%
Ca RADIAL†	67351.9	6.552 mg/L	0.2679	6.552 mg/L	0.2679	4.09%
K RADIAL†	4500.4	2.248 mg/L	0.0387	2.248 mg/L	0.0387	1.72%
Mg RADIAL†	2550.9	3.038 mg/L	0.0960	3.038 mg/L	0.0960	3.16%
Na RADIAL†	1920.2	0.1106 mg/L	0.03532	0.1106 mg/L	0.03532	31.94%
Mo 202.031	-79.4	-0.001 mg/L	0.0003	-0.001 mg/L	0.0003	22.57%

Sequence No.: 132

Sample ID: SEQ-SRD5

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 110

Date Collected: 3/9/2016 1:56:38 AM

Data Type: Reprocessed on 3/9/2016 6:15:47 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-SRD5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20595031.8	5.174 mg/L	0.0328			0.63%
Y RADIAL	506202.0	5.289 mg/L	0.0516			0.98%
As 188.979†	-20.6	-0.0031 mg/L	0.00178	-0.0031 mg/L	0.00178	58.07%
Tl 190.801†	-94.2	-0.0148 mg/L	0.00079	-0.0148 mg/L	0.00079	5.33%
Se 196.026†	-15.4	-0.0016 mg/L	0.00381	-0.0016 mg/L	0.00381	240.41%
Zn 206.200†	2624.0	0.0260 mg/L	0.00057	0.0260 mg/L	0.00057	2.18%
Sb 206.836†	-17.6	-0.0022 mg/L	0.00116	-0.0022 mg/L	0.00116	53.02%
Pb 220.353†	149.4	0.0067 mg/L	0.00049	0.0067 mg/L	0.00049	7.39%
Co 226.502†	344.1	0.0001 mg/L	0.00004	0.0001 mg/L	0.00004	33.27%
Co 228.616†	671.5	0.0081 mg/L	0.00022	0.0081 mg/L	0.00022	2.75%
Na 232.003†	524.0	0.0120 mg/L	0.00013	0.0120 mg/L	0.00013	1.09%
Ba 233.527†	11820.7	0.0690 mg/L	0.00111	0.0690 mg/L	0.00111	1.62%
Mn 257.610†	393728.2	0.2430 mg/L	0.00216	0.2430 mg/L	0.00216	0.89%
Cr 267.716†	3132.9	0.0132 mg/L	0.00039	0.0132 mg/L	0.00039	2.93%
Fe 273.955†	784900.3	15.42 mg/L	0.149	15.42 mg/L	0.149	0.97%
Mg 279.077†	174119.7	3.896 mg/L	0.0379	3.896 mg/L	0.0379	0.97%
V 292.402†	11203.4	0.0251 mg/L	0.00034	0.0251 mg/L	0.00034	1.36%
Al 308.215†	313478.2	8.114 mg/L	0.0796	8.114 mg/L	0.0796	0.98%
Be 313.107†	-2879.1	-0.0004 mg/L	0.00003	-0.0004 mg/L	0.00003	6.51%
Cu 324.752†	5254.9	0.0163 mg/L	0.00039	0.0163 mg/L	0.00039	2.37%
Ag 338.289†	-1516.8	-0.0072 mg/L	0.00016	-0.0072 mg/L	0.00016	2.15%
Na 330.237†	-1036.9	-0.6898 mg/L	0.06211	-0.6898 mg/L	0.06211	9.00%
Ca 227.546†	977.4	1.752 mg/L	0.0362	1.752 mg/L	0.0362	2.07%
Al RADIAL†	33771.4	8.773 mg/L	0.0355	8.773 mg/L	0.0355	0.40%
Fe RADIAL†	12744.1	15.44 mg/L	0.025	15.44 mg/L	0.025	0.16%
Ca RADIAL†	17707.7	1.723 mg/L	0.0049	1.723 mg/L	0.0049	0.28%
K RADIAL†	6180.9	3.087 mg/L	0.0302	3.087 mg/L	0.0302	0.98%
Mg RADIAL†	3338.8	3.984 mg/L	0.0327	3.984 mg/L	0.0327	0.82%
Na RADIAL†	-7089.4	-0.4082 mg/L	0.03620	-0.4082 mg/L	0.03620	8.87%
Mo 202.031	-13.9	0.000 mg/L	0.0000	0.000 mg/L	0.0000	11.24%

Sequence No.: 133

Sample ID: BC60404-BLK1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 111

Date Collected: 3/9/2016 2:01:19 AM

Data Type: Reprocessed on 3/9/2016 6:15:48 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60404-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD

Analyte	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
Y 371.029	20675807.2	5.194 mg/L	0.0077			0.15%
Y RADIAL	487790.0	5.096 mg/L	0.1352			2.65%
As 188.979†	-10.4	-0.0027 mg/L	0.00058	-0.0027 mg/L	0.00058	21.47%
Tl 190.801†	-5.2	-0.0009 mg/L	0.00293	-0.0009 mg/L	0.00293	328.36%
Se 196.026†	-2.9	-0.0015 mg/L	0.00142	-0.0015 mg/L	0.00142	97.57%
Zn 206.200†	-380.6	-0.0038 mg/L	0.00027	-0.0038 mg/L	0.00027	7.04%
Sb 206.836†	-3.3	-0.0005 mg/L	0.00196	-0.0005 mg/L	0.00196	369.50%
Pb 220.353†	-4.7	-0.0002 mg/L	0.00131	-0.0002 mg/L	0.00131	624.78%
Cd 226.502†	15.7	0.0001 mg/L	0.00004	0.0001 mg/L	0.00004	72.80%
Co 228.616†	-13.5	-0.0002 mg/L	0.00007	-0.0002 mg/L	0.00007	45.34%
Ni 232.003†	21.4	0.0005 mg/L	0.00019	0.0005 mg/L	0.00019	37.23%
Ba 233.527†	-143.3	-0.0008 mg/L	0.00000	-0.0008 mg/L	0.00000	0.20%
Mn 257.610†	-623.6	-0.0004 mg/L	0.00001	-0.0004 mg/L	0.00001	1.80%
Cr 267.716†	-76.7	-0.0003 mg/L	0.00017	-0.0003 mg/L	0.00017	53.74%
Fe 273.955†	238.5	0.0047 mg/L	0.00021	0.0047 mg/L	0.00021	4.53%
Mg 279.077†	88.9	0.0020 mg/L	0.00101	0.0020 mg/L	0.00101	50.75%
V 292.402†	-130.4	-0.0003 mg/L	0.00002	-0.0003 mg/L	0.00002	6.64%
Al 308.215†	-1511.9	-0.0391 mg/L	0.00408	-0.0391 mg/L	0.00408	10.42%
Be 313.107†	-211.1	0.0000 mg/L	0.00005	0.0000 mg/L	0.00005	166.01%
Cu 324.752†	49.8	0.0001 mg/L	0.00040	0.0001 mg/L	0.00040	294.52%
Ag 338.289†	14.9	0.0001 mg/L	0.00047	0.0001 mg/L	0.00047	631.16%
Na 330.237†	-571.1	-0.4202 mg/L	0.02730	-0.4202 mg/L	0.02730	6.50%
Ca 227.546†	61.6	0.1018 mg/L	0.02024	0.1018 mg/L	0.02024	19.87%
Al RADIAL†	-13.6	-0.0035 mg/L	0.00396	-0.0035 mg/L	0.00396	112.01%
Fe RADIAL†	14.0	0.0170 mg/L	0.00420	0.0170 mg/L	0.00420	24.69%
Ca RADIAL†	79.8	0.0078 mg/L	0.00718	0.0078 mg/L	0.00718	92.47%
K RADIAL†	43.5	0.0217 mg/L	0.03866	0.0217 mg/L	0.03866	177.89%
Mg RADIAL†	5.9	0.0071 mg/L	0.00443	0.0071 mg/L	0.00443	62.80%
Na RADIAL†	-11569.4	-0.6661 mg/L	0.06687	-0.6661 mg/L	0.06687	10.04%
Mo 202.031†	-7.3	0.000 mg/L	0.0002	0.000 mg/L	0.0002	138.44%

Sequence No.: 134

Sample ID: BC60404-SRM1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt: .

Dilution: .

Autosampler Location: 112

Date Collected: 3/9/2016 2:06:30 AM

Data Type: Reprocessed on 3/9/2016 6:15:48 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60404-SRM1

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	18860287.9	4.738 mg/L	0.0230			0.48%
Y RADIAL	478526.4	5.000 mg/L	0.0348			0.70%
As 188.979†	4359.0	1.170 mg/L	0.0051	1.170 mg/L	0.0051	0.44%
Tl 190.801†	5451.0	0.9567 mg/L	0.03799	0.9567 mg/L	0.03799	3.97%
Se 196.026†	2982.3	1.586 mg/L	0.0357	1.586 mg/L	0.0357	2.25%
Zn 206.200†	170684.0	1.697 mg/L	0.0301	1.697 mg/L	0.0301	1.77%
Sb 206.836†	5560.4	0.8960 mg/L	0.01483	0.8960 mg/L	0.01483	1.66%
Pb 220.353†	20732.0	0.9147 mg/L	0.01510	0.9147 mg/L	0.01510	1.65%
Cd 226.502†	201860.8	0.6910 mg/L	0.01214	0.6910 mg/L	0.01214	1.76%
Co 228.616†	91037.4	1.056 mg/L	0.0176	1.056 mg/L	0.0176	1.67%
Ni 232.003†	43644.7	1.031 mg/L	0.0215	1.031 mg/L	0.0215	2.08%
Ba 233.527†	285562.1	1.667 mg/L	0.0291	1.667 mg/L	0.0291	1.74%
Mn 257.610†	6198971.3	3.819 mg/L	0.0253	3.819 mg/L	0.0253	0.66%
Cr 267.716†	430250.0	1.754 mg/L	0.0295	1.754 mg/L	0.0295	1.68%
Fe 273.955†	9504715.7	186.7 mg/L	1.12	186.7 mg/L	1.12	0.60%
Mg 279.077†	1421619.2	31.80 mg/L	0.554	31.80 mg/L	0.554	1.74%
V 292.402†	358422.6	0.8227 mg/L	0.01173	0.8227 mg/L	0.01173	1.43%
Al 308.215†	3786627.4	98.01 mg/L	1.856	98.01 mg/L	1.856	1.89%
Be 313.107†	7470790.3	1.127 mg/L	0.0059	1.127 mg/L	0.0059	0.52%
Cu 324.752†	506532.8	1.399 mg/L	0.0259	1.399 mg/L	0.0259	1.85%
Ag 338.289†	106051.5	0.5285 mg/L	0.00780	0.5285 mg/L	0.00780	1.48%
Na 330.237†	7579.4	6.545 mg/L	0.0685	6.545 mg/L	0.0685	1.05%
Ca 227.546†	37122.2	63.00 mg/L	0.517	63.00 mg/L	0.517	0.82%
Al RADIAL†	355315.2	92.31 mg/L	2.476	92.31 mg/L	2.476	2.68%
Fe RADIAL†	161152.5	195.2 mg/L	0.73	195.2 mg/L	0.73	0.37%
Ca RADIAL†	660792.4	64.28 mg/L	1.963	64.28 mg/L	1.963	3.05%
K RADIAL†	60750.7	30.34 mg/L	0.130	30.34 mg/L	0.130	0.43%
Mg RADIAL†	26293.9	31.37 mg/L	0.103	31.37 mg/L	0.103	0.33%

Na RADIAL†	121367.6	6.988 mg/L	0.1727	6.988 mg/L	0.1727	2.47%
Mo 202.031	42702.8	0.799 mg/L	0.0040	0.799 mg/L	0.0040	0.50%

Sequence No.: 135

Sample ID: 16C0228-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 113

Date Collected: 3/9/2016 2:13:50 AM

Data Type: Reprocessed on 3/9/2016 6:15:49 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0228-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19518979.3	4.903 mg/L	0.1298			2.65%
Y RADIAL	471021.3	4.921 mg/L	0.0146			0.30%
As 188.979†	-23.9	0.0116 mg/L	0.00155	0.0116 mg/L	0.00155	13.29%
Tl 190.801†	-253.2	-0.0329 mg/L	0.00481	-0.0329 mg/L	0.00481	14.63%
Se 196.026†	-90.7	0.0019 mg/L	0.00233	0.0019 mg/L	0.00233	124.56%
Zn 206.200†	26622.4	0.2637 mg/L	0.00532	0.2637 mg/L	0.00532	2.02%
Sb 206.836†	-91.8	-0.0099 mg/L	0.00395	-0.0099 mg/L	0.00395	39.82%
Pb 220.353†	1721.3	0.0777 mg/L	0.00221	0.0777 mg/L	0.00221	2.84%
Cd 226.502†	2377.2	-0.0001 mg/L	0.00009	-0.0001 mg/L	0.00009	164.09%
Co 228.616†	3850.2	0.0470 mg/L	0.00073	0.0470 mg/L	0.00073	1.55%
Ni 232.003†	5091.8	0.1174 mg/L	0.00188	0.1174 mg/L	0.00188	1.60%
Ba 233.527†	76590.3	0.4470 mg/L	0.00309	0.4470 mg/L	0.00309	0.69%
Mn 257.610†	3588714.1	2.212 mg/L	0.0575	2.212 mg/L	0.0575	2.60%
Cr 267.716†	23188.2	0.0978 mg/L	0.00019	0.0978 mg/L	0.00019	0.20%
Fe 273.955†	5773919.3	113.4 mg/L	3.03	113.4 mg/L	3.03	2.67%
Mg 279.077†	1112285.5	24.89 mg/L	0.712	24.89 mg/L	0.712	2.86%
V 292.402†	59247.3	0.1299 mg/L	0.00062	0.1299 mg/L	0.00062	0.48%
Al 308.215†	2656495.7	68.76 mg/L	1.774	68.76 mg/L	1.774	2.58%
Be 313.107†	2540.5	0.0004 mg/L	0.00008	0.0004 mg/L	0.00008	21.65%
Cu 324.752†	28266.6	0.0921 mg/L	0.00069	0.0921 mg/L	0.00069	0.75%
Ag 338.289†	-4764.4	-0.0220 mg/L	0.00024	-0.0220 mg/L	0.00024	1.09%
Na 330.237†	-636.0	0.1539 mg/L	0.08563	0.1539 mg/L	0.08563	55.65%
Ca 227.546†	38462.3	64.54 mg/L	0.209	64.54 mg/L	0.209	0.32%
Al RADIAL†	267664.7	69.53 mg/L	1.313	69.53 mg/L	1.313	1.89%
Fe RADIAL†	98478.6	119.3 mg/L	0.64	119.3 mg/L	0.64	0.54%
Cd RADIAL†	723994.1	70.43 mg/L	1.489	70.43 mg/L	1.489	2.11%
K RADIAL†	21559.6	10.77 mg/L	0.085	10.77 mg/L	0.085	0.79%
Mg RADIAL†	21670.2	25.86 mg/L	0.187	25.86 mg/L	0.187	0.72%
Na RADIAL†	16331.6	0.9403 mg/L	0.02710	0.9403 mg/L	0.02710	2.88%
Mo 202.031	-156.6	-0.003 mg/L	0.0004	-0.003 mg/L	0.0004	13.03%

Sequence No.: 136

Sample ID: BC60404-DUP1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 114

Date Collected: 3/9/2016 2:18:38 AM

Data Type: Reprocessed on 3/9/2016 6:15:50 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60404-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	18957881.3	4.762 mg/L	0.0182			0.38%
Y RADIAL	477997.3	4.994 mg/L	0.0541			1.08%
As 188.979†	-30.5	0.0103 mg/L	0.00349	0.0103 mg/L	0.00349	33.94%
Tl 190.801†	-283.3	-0.0379 mg/L	0.00222	-0.0379 mg/L	0.00222	5.87%
Se 196.026†	-76.6	0.0100 mg/L	0.00071	0.0100 mg/L	0.00071	7.08%
Zn 206.200†	28120.1	0.2786 mg/L	0.00271	0.2786 mg/L	0.00271	0.97%
Sb 206.836†	-84.7	-0.0087 mg/L	0.00395	-0.0087 mg/L	0.00395	45.37%
Pb 220.353†	1798.0	0.0809 mg/L	0.00107	0.0809 mg/L	0.00107	1.32%
Cd 226.502†	2480.2	0.0001 mg/L	0.00011	0.0001 mg/L	0.00011	77.43%
Co 228.616†	4100.2	0.0499 mg/L	0.00024	0.0499 mg/L	0.00024	0.48%
Ni 232.003†	5242.3	0.1209 mg/L	0.00169	0.1209 mg/L	0.00169	1.40%
Ba 233.527†	79569.8	0.4644 mg/L	0.00397	0.4644 mg/L	0.00397	0.86%
Mn 257.610†	3840876.1	2.366 mg/L	0.0192	2.366 mg/L	0.0192	0.81%
Cr 267.716†	23994.3	0.1012 mg/L	0.00062	0.1012 mg/L	0.00062	0.61%

Fe 273.955†	6031851.6	118.5 mg/L	0.37	118.5 mg/L	0.37	0.31%
Mg 279.077†	1195988.6	26.76 mg/L	0.254	26.76 mg/L	0.254	0.95%
V 292.402†	61282.1	0.1345 mg/L	0.00172	0.1345 mg/L	0.00172	1.28%
Al 308.215†	2852702.9	73.84 mg/L	0.706	73.84 mg/L	0.706	0.96%
Be 313.107†	2161.2	0.0003 mg/L	0.00008	0.0003 mg/L	0.00008	25.52%
Cu 324.752†	29145.4	0.0948 mg/L	0.00097	0.0948 mg/L	0.00097	1.02%
Ag 338.289†	-4827.5	-0.0223 mg/L	0.00040	-0.0223 mg/L	0.00040	1.81%
Na 330.237†	-723.1	0.1014 mg/L	0.05477	0.1014 mg/L	0.05477	54.03%
Ca 227.546†	39922.8	66.97 mg/L	0.655	66.97 mg/L	0.655	0.98%
Al RADIAL†	269253.8	69.95 mg/L	0.247	69.95 mg/L	0.247	0.35%
Fe RADIAL†	100485.7	121.7 mg/L	1.07	121.7 mg/L	1.07	0.88%
Ca RADIAL†	727836.1	70.80 mg/L	0.150	70.80 mg/L	0.150	0.21%
K RADIAL†	21917.4	10.95 mg/L	0.104	10.95 mg/L	0.104	0.95%
Mg RADIAL†	22088.8	26.36 mg/L	0.277	26.36 mg/L	0.277	1.05%
Na RADIAL†	16917.6	0.9741 mg/L	0.03925	0.9741 mg/L	0.03925	4.03%
Mo 202.031†	-168.9	-0.003 mg/L	0.0002	-0.003 mg/L	0.0002	5.53%

Sequence No.: 137

Sample ID: BC60404-MS1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 115

Date Collected: 3/9/2016 2:23:20 AM

Data Type: Reprocessed on 3/9/2016 6:15:51 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60404-MS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	18916504.9	4.752 mg/L	0.0541			1.14%
Y RADIAL	478491.7	4.999 mg/L	0.0331			0.66%
As 188.979†	7618.8	2.012 mg/L	0.0239	2.012 mg/L	0.0239	1.19%
Ti 190.801†	10885.8	1.887 mg/L	0.0160	1.887 mg/L	0.0160	0.85%
Se 196.026†	3867.0	2.005 mg/L	0.0297	2.005 mg/L	0.0297	1.48%
Zn 206.200†	78025.1	0.7752 mg/L	0.00742	0.7752 mg/L	0.00742	0.96%
Sb 206.836†	1483.4	0.2419 mg/L	0.00712	0.2419 mg/L	0.00712	2.94%
Pb 220.353†	13273.5	0.5880 mg/L	0.00831	0.5880 mg/L	0.00831	1.41%
Cd 226.502†	17022.1	0.0507 mg/L	0.00045	0.0507 mg/L	0.00045	0.88%
Co 228.616†	48961.9	0.5681 mg/L	0.00527	0.5681 mg/L	0.00527	0.93%
Ni 232.003†	27247.0	0.6439 mg/L	0.00711	0.6439 mg/L	0.00711	1.10%
Ba 233.527†	431517.1	2.519 mg/L	0.0318	2.519 mg/L	0.0318	1.26%
Mn 257.610†	4684747.8	2.883 mg/L	0.0309	2.883 mg/L	0.0309	1.07%
Cr 267.716†	72829.3	0.2997 mg/L	0.00372	0.2997 mg/L	0.00372	1.24%
Fe 273.955†	6127496.1	120.4 mg/L	1.54	120.4 mg/L	1.54	1.28%
Mg 279.077†	1198378.6	26.81 mg/L	0.345	26.81 mg/L	0.345	1.29%
V 292.402†	269290.4	0.6197 mg/L	0.00801	0.6197 mg/L	0.00801	1.29%
Al 308.215†	2937573.1	76.03 mg/L	0.774	76.03 mg/L	0.774	1.02%
Be 313.107†	334685.7	0.0505 mg/L	0.00069	0.0505 mg/L	0.00069	1.36%
Cu 324.752†	126572.8	0.3593 mg/L	0.00252	0.3593 mg/L	0.00252	0.70%
Ag 338.289†	5602.0	0.0294 mg/L	0.00108	0.0294 mg/L	0.00108	3.66%
Na 330.237†	240.5	0.8232 mg/L	0.12595	0.8232 mg/L	0.12595	15.30%
Ca 227.546†	41477.1	69.56 mg/L	0.946	69.56 mg/L	0.946	1.36%
Al RADIAL†	282497.8	73.39 mg/L	0.820	73.39 mg/L	0.820	1.12%
Fe RADIAL†	102441.3	124.1 mg/L	1.26	124.1 mg/L	1.26	1.02%
Ca RADIAL†	746007.1	72.57 mg/L	0.854	72.57 mg/L	0.854	1.18%
K RADIAL†	22200.3	11.09 mg/L	0.128	11.09 mg/L	0.128	1.15%
Mg RADIAL†	22426.7	26.76 mg/L	0.225	26.76 mg/L	0.225	0.84%
Na RADIAL†	17116.5	0.9855 mg/L	0.00939	0.9855 mg/L	0.00939	0.95%
Mo 202.031†	-210.0	-0.004 mg/L	0.0004	-0.004 mg/L	0.0004	10.82%

Sequence No.: 138

Sample ID: 16C0228-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 116

Date Collected: 3/9/2016 2:30:37 AM

Data Type: Reprocessed on 3/9/2016 6:15:51 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0228-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD

Y 371.029	20144955.4	5.061 mg/L	0.0407		0.80%
Y RADIAL	495429.8	5.176 mg/L	0.0291		0.56%
As 188.979†	23.2	0.0144 mg/L	0.00272	0.0144 mg/L	18.95%
Tl 190.801†	-122.2	-0.0161 mg/L	0.00126	-0.0161 mg/L	7.84%
Se 196.026†	-3.8	0.0202 mg/L	0.00604	0.0202 mg/L	29.91%
Zn 206.200†	42437.1	0.4218 mg/L	0.00296	0.4218 mg/L	0.70%
Sb 206.836†	-33.9	-0.0032 mg/L	0.00063	-0.0032 mg/L	19.71%
Pb 220.353†	1757.1	0.0799 mg/L	0.00067	0.0799 mg/L	0.84%
Cd 226.502†	3993.0	0.0101 mg/L	0.00005	0.0101 mg/L	0.51%
Co 228.616†	2050.0	0.0248 mg/L	0.00016	0.0248 mg/L	0.65%
Ni 232.003†	3679.7	0.0858 mg/L	0.00112	0.0858 mg/L	1.30%
Ba 233.527†	93071.8	0.5432 mg/L	0.00184	0.5432 mg/L	0.34%
Mn 257.610†	1587510.1	0.9787 mg/L	0.00398	0.9787 mg/L	0.41%
Cr 267.716†	29889.6	0.1231 mg/L	0.00055	0.1231 mg/L	0.45%
Fe 273.955†	2743100.6	53.90 mg/L	0.200	53.90 mg/L	0.37%
Mg 279.077†	607780.5	13.60 mg/L	0.045	13.60 mg/L	0.33%
V 292.402†	72135.2	0.1645 mg/L	0.00082	0.1645 mg/L	0.50%
Al 308.215†	1612397.2	41.73 mg/L	0.163	41.73 mg/L	0.39%
Be 313.107†	31559.0	0.0048 mg/L	0.00003	0.0048 mg/L	0.55%
Cu 324.752†	246250.5	0.6747 mg/L	0.00239	0.6747 mg/L	0.35%
Ag 338.289†	-1607.5	-0.0075 mg/L	0.00036	-0.0075 mg/L	4.76%
Na 330.237†	256.3	0.5024 mg/L	0.12433	0.5024 mg/L	24.75%
Ca 227.546†	33344.5	55.52 mg/L	0.507	55.52 mg/L	0.91%
Al RADIAL†	157713.1	40.97 mg/L	0.163	40.97 mg/L	0.40%
Fe RADIAL†	45572.0	55.21 mg/L	0.614	55.21 mg/L	1.11%
Cd RADIAL†	607608.0	59.11 mg/L	0.053	59.11 mg/L	0.09%
K RADIAL†	7575.3	3.784 mg/L	0.0568	3.784 mg/L	1.50%
Mg RADIAL†	11689.3	13.95 mg/L	0.178	13.95 mg/L	1.28%
Na RADIAL†	6159.6	0.3547 mg/L	0.02035	0.3547 mg/L	5.74%
Mo 202.031†	126.0	0.002 mg/L	0.0001	0.002 mg/L	5.17%

Sequence No.: 139

Sample ID: 16C0228-03

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 117

Date Collected: 3/9/2016 2:35:20 AM

Data Type: Reprocessed on 3/9/2016 6:15:52 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0228-03

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19144303.8	4.809 mg/L		0.0234			0.49%
Y RADIAL	474410.0	4.957 mg/L		0.0644			1.30%
As 188.979†	-40.2	0.0083 mg/L		0.00161	0.0083 mg/L	0.00161	19.38%
Tl 190.801†	-74.1	-0.0015 mg/L		0.00100	-0.0015 mg/L	0.00100	68.13%
Se 196.026†	-83.9	0.0077 mg/L		0.00369	0.0077 mg/L	0.00369	47.73%
Zn 206.200†	26751.9	0.2650 mg/L		0.00291	0.2650 mg/L	0.00291	1.10%
Sb 206.836†	-84.8	-0.0086 mg/L		0.00068	-0.0086 mg/L	0.00068	7.97%
Pb 220.353†	1020.7	0.0442 mg/L		0.00125	0.0442 mg/L	0.00125	2.82%
Cd 226.502†	2456.4	-0.0002 mg/L		0.00004	-0.0002 mg/L	0.00004	17.68%
Co 228.616†	3711.6	0.0455 mg/L		0.00054	0.0455 mg/L	0.00054	1.18%
Ni 232.003†	4688.9	0.1077 mg/L		0.00350	0.1077 mg/L	0.00350	3.25%
Ba 233.527†	40556.1	0.2367 mg/L		0.00704	0.2367 mg/L	0.00704	2.98%
Mn 257.610†	12875115.1	7.896 mg/L		0.0294	7.896 mg/L	0.0294	0.37%
Cr 267.716†	18959.5	0.0809 mg/L		0.00201	0.0809 mg/L	0.00201	2.48%
Fe 273.955†	6294024.9	123.7 mg/L		0.47	123.7 mg/L	0.47	0.38%
Mg 279.077†	1154713.5	25.84 mg/L		0.821	25.84 mg/L	0.821	3.18%
V 292.402†	46716.9	0.1002 mg/L		0.00292	0.1002 mg/L	0.00292	2.91%
Al 308.215†	2344342.7	60.68 mg/L		1.843	60.68 mg/L	1.843	3.04%
Be 313.107†	9496.9	0.0014 mg/L		0.00003	0.0014 mg/L	0.00003	1.93%
Cu 324.752†	23558.2	0.0802 mg/L		0.00189	0.0802 mg/L	0.00189	2.36%
Ag 338.289†	-2765.4	-0.0113 mg/L		0.00068	-0.0113 mg/L	0.00068	6.03%
Na 330.237†	-776.5	0.0203 mg/L		0.04968	0.0203 mg/L	0.04968	244.24%
Ca 227.546†	6150.8	11.27 mg/L		0.077	11.27 mg/L	0.077	0.68%
Al RADIAL†	229968.1	59.74 mg/L		0.858	59.74 mg/L	0.858	1.44%
Fe RADIAL†	103527.0	125.4 mg/L		0.72	125.4 mg/L	0.72	0.57%
Cd RADIAL†	112713.8	10.96 mg/L		0.079	10.96 mg/L	0.079	0.72%
K RADIAL†	12095.9	6.042 mg/L		0.0398	6.042 mg/L	0.0398	0.66%
Mg RADIAL†	21642.8	25.82 mg/L		0.078	25.82 mg/L	0.078	0.30%
Na RADIAL†	-2083.5	-0.1200 mg/L		0.02707	-0.1200 mg/L	0.02707	22.56%

Mo 202.031 -256.9 -0.005 mg/L 0.0004 -0.005 mg/L 0.0004 8.23%

Sequence No.: 140

Sample ID: 16C0228-04

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 118

Date Collected: 3/9/2016 2:40:02 AM

Data Type: Reprocessed on 3/9/2016 6:15:53 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0228-04

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19768729.8	4.966 mg/L		0.0754			1.52%
Y RADIAL	501210.6	5.237 mg/L		0.0299			0.57%
As 188.979†	-12.2	0.0244 mg/L		0.00308	0.0244 mg/L	0.00308	12.64%
Tl 190.801†	-241.8	-0.0251 mg/L		0.00248	-0.0251 mg/L	0.00248	9.89%
Se 196.026†	-137.8	0.0038 mg/L		0.00394	0.0038 mg/L	0.00394	103.33%
Zn 206.200†	53948.0	0.5350 mg/L		0.00557	0.5350 mg/L	0.00557	1.04%
Sb 206.836†	-107.8	-0.0099 mg/L		0.00515	-0.0099 mg/L	0.00515	51.90%
Pb 220.353†	2273.6	0.1015 mg/L		0.00181	0.1015 mg/L	0.00181	1.79%
Cd 226.502†	3809.9	0.0004 mg/L		0.00018	0.0004 mg/L	0.00018	41.51%
Ce 228.616†	8640.1	0.1036 mg/L		0.00031	0.1036 mg/L	0.00031	0.30%
Ni 232.003†	9333.7	0.2163 mg/L		0.00301	0.2163 mg/L	0.00301	1.39%
Ba 233.527†	63909.6	0.3730 mg/L		0.00416	0.3730 mg/L	0.00416	1.11%
Mn 257.610†	5581178.0	3.439 mg/L		0.0124	3.439 mg/L	0.0124	0.36%
Cr 267.716†	36715.7	0.1548 mg/L		0.00138	0.1548 mg/L	0.00138	0.89%
Fe 273.955†	9101738.6	178.8 mg/L		0.41	178.8 mg/L	0.41	0.23%
Mg 279.077†	3787926.6	84.79 mg/L		0.458	84.79 mg/L	0.458	0.54%
V 292.402†	83640.8	0.1823 mg/L		0.00175	0.1823 mg/L	0.00175	0.96%
Al 308.215†	3969064.0	102.7 mg/L		0.55	102.7 mg/L	0.55	0.53%
Be 313.107†	21915.3	0.0033 mg/L		0.00001	0.0033 mg/L	0.00001	0.32%
Cu 324.752†	72325.7	0.2199 mg/L		0.00248	0.2199 mg/L	0.00248	1.13%
Ag 338.289†	-4827.6	-0.0212 mg/L		0.00033	-0.0212 mg/L	0.00033	1.53%
Na 330.237†	-415.9	0.6305 mg/L		0.06443	0.6305 mg/L	0.06443	10.22%
Ca 227.546†	50353.9	84.74 mg/L		0.912	84.74 mg/L	0.912	1.08%
Al RADIAL†	378020.9	98.20 mg/L		0.371	98.20 mg/L	0.371	0.38%
Fe RADIAL†	151647.2	183.7 mg/L		0.33	183.7 mg/L	0.33	0.18%
Ca RADIAL†	895101.4	87.07 mg/L		1.703	87.07 mg/L	1.703	1.96%
K RADIAL†	32941.7	16.45 mg/L		0.025	16.45 mg/L	0.025	0.15%
Mg RADIAL†	68759.6	82.06 mg/L		0.197	82.06 mg/L	0.197	0.24%
Na RADIAL†	14870.3	0.8562 mg/L		0.01725	0.8562 mg/L	0.01725	2.01%
Mo 202.031	-272.0	-0.005 mg/L		0.0003	-0.005 mg/L	0.0003	6.28%

Sequence No.: 141

Sample ID: SEQ-CCVC

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/9/2016 2:44:52 AM

Data Type: Reprocessed on 3/9/2016 6:15:53 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCVC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19385135.9	4.870 mg/L		0.0439			0.90%
Y RADIAL	498884.0	5.212 mg/L		0.0705			1.35%
As 188.979†	1004.6	0.2636 mg/L		0.00446	0.2636 mg/L	0.00446	1.69%
Tl 190.801†	1528.9	0.2639 mg/L		0.00401	0.2639 mg/L	0.00401	1.52%
Se 196.026†	498.3	0.2539 mg/L		0.00225	0.2539 mg/L	0.00225	0.89%
Zn 206.200†	261558.8	2.603 mg/L		0.0297	2.603 mg/L	0.0297	1.14%
Sb 206.836†	1568.4	0.2507 mg/L		0.00255	0.2507 mg/L	0.00255	1.02%
Pb 220.353†	5930.1	0.2631 mg/L		0.00292	0.2631 mg/L	0.00292	1.11%
Cd 226.502†	36749.6	0.1279 mg/L		0.00149	0.1279 mg/L	0.00149	1.16%
Ce 228.616†	229370.6	2.650 mg/L		0.0279	2.650 mg/L	0.0279	1.05%
Ni 232.003†	109660.5	2.606 mg/L		0.0290	2.606 mg/L	0.0290	1.11%
Ba 233.527†	1837003.5	10.72 mg/L		0.105	10.72 mg/L	0.105	0.98%
Mn 257.610†	4428756.6	2.711 mg/L		0.0245	2.711 mg/L	0.0245	0.90%
Cr 267.716†	258221.4	1.049 mg/L		0.0093	1.049 mg/L	0.0093	0.88%
Fe 273.955†	268847.0	5.282 mg/L		0.0493	5.282 mg/L	0.0493	0.93%

Mg 279.077†	1169411.8	26.18 mg/L	0.270	26.18 mg/L	0.270	1.03%
V 292.402†	1109375.1	2.588 mg/L	0.0252	2.588 mg/L	0.0252	0.97%
Al 308.215†	388829.4	10.06 mg/L	0.114	10.06 mg/L	0.114	1.13%
Be 313.107†	1778131.5	0.2683 mg/L	0.00261	0.2683 mg/L	0.00261	0.97%
Cu 324.752†	480450.6	1.303 mg/L	0.0146	1.303 mg/L	0.0146	1.12%
Ag 338.289†	257612.7	1.276 mg/L	0.0120	1.276 mg/L	0.0120	0.94%
Na 330.237†	32357.8	23.86 mg/L	0.297	23.86 mg/L	0.297	1.25%
Ca 227.546†	15431.7	25.51 mg/L	0.150	25.51 mg/L	0.150	0.59%
Al RADIAL†	36481.7	9.475 mg/L	0.0287	9.475 mg/L	0.0287	0.30%
Fe RADIAL†	4148.2	5.026 mg/L	0.1143	5.026 mg/L	0.1143	2.27%
Ca RADIAL†	257329.3	25.03 mg/L	0.020	25.03 mg/L	0.020	0.08%
K RADIAL†	10029.5	5.010 mg/L	0.1535	5.010 mg/L	0.1535	3.06%
Mg RADIAL†	20970.1	25.03 mg/L	0.576	25.03 mg/L	0.576	2.30%
Na RADIAL†	428254.3	24.66 mg/L	0.125	24.66 mg/L	0.125	0.51%
Mo 202.031†	62529.1	1.169 mg/L	0.0221	1.169 mg/L	0.0221	1.89%

Sequence No.: 142

Sample ID: SEQ-CCBC

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/9/2016 2:52:32 AM

Data Type: Reprocessed on 3/9/2016 6:15:54 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	21133561.2	5.309 mg/L		0.0857			1.61%
Y RADIAL	499451.3	5.218 mg/L		0.1049			2.01%
As 188.979†	-4.0	-0.0010 mg/L		0.00162	-0.0010 mg/L	0.00162	155.10%
Ti 190.801†	10.2	0.0018 mg/L		0.00059	0.0018 mg/L	0.00059	33.74%
Se 196.026†	-11.0	-0.0055 mg/L		0.00302	-0.0055 mg/L	0.00302	54.36%
Zn 206.200†	52.3	0.0005 mg/L		0.00025	0.0005 mg/L	0.00025	47.49%
Sb 206.836†	7.1	0.0011 mg/L		0.00225	0.0011 mg/L	0.00225	197.40%
Pb 220.353†	11.8	0.0005 mg/L		0.00017	0.0005 mg/L	0.00017	32.32%
Cd 226.502†	5.2	0.0000 mg/L		0.00006	0.0000 mg/L	0.00006	332.48%
Co 228.616†	19.9	0.0002 mg/L		0.00001	0.0002 mg/L	0.00001	5.74%
Ni 232.003†	53.9	0.0013 mg/L		0.00034	0.0013 mg/L	0.00034	26.77%
Ba 233.527†	76.1	0.0004 mg/L		0.00014	0.0004 mg/L	0.00014	31.08%
Mn 257.610†	309.0	0.0002 mg/L		0.00004	0.0002 mg/L	0.00004	18.51%
Cr 267.716†	-16.0	-0.0001 mg/L		0.00022	-0.0001 mg/L	0.00022	342.17%
Fe 273.955†	286.4	0.0056 mg/L		0.00039	0.0056 mg/L	0.00039	6.96%
Mg 279.077†	108.6	0.0024 mg/L		0.00262	0.0024 mg/L	0.00262	107.63%
V 292.402†	-11.8	0.0000 mg/L		0.00028	0.0000 mg/L	0.00028	986.23%
Al 308.215†	127.1	0.0033 mg/L		0.00618	0.0033 mg/L	0.00618	188.04%
Be 313.107†	245.5	0.0000 mg/L		0.00003	0.0000 mg/L	0.00003	92.06%
Cu 324.752†	280.9	0.0008 mg/L		0.00052	0.0008 mg/L	0.00052	67.92%
Ag 338.289†	461.9	0.0023 mg/L		0.00044	0.0023 mg/L	0.00044	19.43%
Na 330.237†	-560.2	-0.4122 mg/L		0.03373	-0.4122 mg/L	0.03373	8.18%
Ca 227.546†	70.7	0.1168 mg/L		0.04150	0.1168 mg/L	0.04150	35.52%
Al RADIAL†	163.0	0.0423 mg/L		0.00409	0.0423 mg/L	0.00409	9.66%
Fe RADIAL†	6.2	0.0076 mg/L		0.00409	0.0076 mg/L	0.00409	54.08%
Ca RADIAL†	104.6	0.0102 mg/L		0.00533	0.0102 mg/L	0.00533	52.38%
K RADIAL†	64.3	0.0321 mg/L		0.01386	0.0321 mg/L	0.01386	43.17%
Mg RADIAL†	12.3	0.0147 mg/L		0.00364	0.0147 mg/L	0.00364	24.78%
Na RADIAL†	-10269.2	-0.5913 mg/L		0.03758	-0.5913 mg/L	0.03758	6.36%
Mo 202.031†	7.7	0.000 mg/L		0.0003	0.000 mg/L	0.0003	238.25%

Sequence No.: 143

Sample ID: 16C0228-05

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 119

Date Collected: 3/9/2016 2:57:39 AM

Data Type: Reprocessed on 3/9/2016 6:15:55 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0228-05

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	18315280.6	4.601 mg/L		0.0065			0.14%

Y RADIAL	490093.7	5.121 mg/L	0.0516			1.01%
As 188.979†	-6.0	0.0133 mg/L	0.00020	0.0133 mg/L	0.00020	1.53%
Tl 190.801†	-352.0	-0.0517 mg/L	0.00154	-0.0517 mg/L	0.00154	2.98%
Se 196.026†	-89.5	-0.0056 mg/L	0.00887	-0.0056 mg/L	0.00887	158.92%
Zn 206.200†	34843.9	0.3458 mg/L	0.00411	0.3458 mg/L	0.00411	1.19%
Sb 206.836†	-70.7	-0.0074 mg/L	0.00316	-0.0074 mg/L	0.00316	42.83%
Pb 220.353†	3927.6	0.1817 mg/L	0.00270	0.1817 mg/L	0.00270	1.49%
Cd 226.502†	2480.5	0.0017 mg/L	0.00016	0.0017 mg/L	0.00016	9.41%
Co 228.616†	4042.3	0.0488 mg/L	0.00069	0.0488 mg/L	0.00069	1.42%
Ni 232.003†	4871.7	0.1128 mg/L	0.00314	0.1128 mg/L	0.00314	2.78%
Ba 233.527†	96949.6	0.5659 mg/L	0.00268	0.5659 mg/L	0.00268	0.47%
Mn 257.610†	3471528.3	2.137 mg/L	0.0085	2.137 mg/L	0.0085	0.40%
Cr 267.716†	34448.0	0.1430 mg/L	0.00060	0.1430 mg/L	0.00060	0.42%
Fe 273.955†	5134934.2	100.9 mg/L	0.41	100.9 mg/L	0.41	0.40%
Mg 279.077†	4026258.6	90.14 mg/L	0.419	90.14 mg/L	0.419	0.46%
V 292.402†	69135.9	0.1544 mg/L	0.00042	0.1544 mg/L	0.00042	0.27%
Al 308.215†	2880328.9	74.54 mg/L	0.310	74.54 mg/L	0.310	0.42%
Be 313.107†	2447.4	0.0004 mg/L	0.00015	0.0004 mg/L	0.00015	41.55%
Cu 324.752†	38381.5	0.1169 mg/L	0.00062	0.1169 mg/L	0.00062	0.53%
Ag 338.289†	-4624.0	-0.0260 mg/L	0.00086	-0.0260 mg/L	0.00086	3.31%
Na 330.237†	-707.4	0.3784 mg/L	0.05671	0.3784 mg/L	0.05671	14.99%
Ca 227.546†	276687.8	457.4 mg/L	2.84	457.4 mg/L	2.84	0.62%
Al RADIAL†	264022.1	68.57 mg/L	0.420	68.57 mg/L	0.420	0.61%
Fe RADIAL†	81814.2	99.12 mg/L	0.451	99.12 mg/L	0.451	0.45%
Ca RADIAL†	4597157.1	447.2 mg/L	4.94	447.2 mg/L	4.94	1.10%
K RADIAL†	25241.0	12.61 mg/L	0.126	12.61 mg/L	0.126	1.00%
Mg RADIAL†	70706.5	84.39 mg/L	0.448	84.39 mg/L	0.448	0.53%
Na RADIAL†	24851.6	1.431 mg/L	0.0108	1.431 mg/L	0.0108	0.75%
Mo 202.031†	-36.1	-0.001 mg/L	0.0003	-0.001 mg/L	0.0003	44.49%

Sequence No.: 144

Sample ID: 16C0228-06

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 120

Date Collected: 3/9/2016 3:02:21 AM

Data Type: Reprocessed on 3/9/2016 6:15:56 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0228-06

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19193510.1	4.821 mg/L		0.0209			0.43%
Y RADIAL	497480.7	5.198 mg/L		0.0528			1.01%
As 188.979†	-16.4	0.0118 mg/L		0.00134	0.0118 mg/L	0.00134	11.39%
Tl 190.801†	-396.2	-0.0586 mg/L		0.00245	-0.0586 mg/L	0.00245	4.18%
Se 196.026†	-99.2	-0.0072 mg/L		0.01058	-0.0072 mg/L	0.01058	146.18%
Zn 206.200†	26892.9	0.2666 mg/L		0.00034	0.2666 mg/L	0.00034	0.13%
Sb 206.836†	-122.1	-0.0152 mg/L		0.00211	-0.0152 mg/L	0.00211	13.84%
Pb 220.353†	891.9	0.0417 mg/L		0.00075	0.0417 mg/L	0.00075	1.81%
Cd 226.502†	2424.4	0.0010 mg/L		0.00013	0.0010 mg/L	0.00013	13.08%
Co 228.616†	5566.6	0.0665 mg/L		0.00029	0.0665 mg/L	0.00029	0.43%
Ni 232.003†	5444.6	0.1262 mg/L		0.00478	0.1262 mg/L	0.00478	3.79%
Ba 233.527†	63724.5	0.3719 mg/L		0.00437	0.3719 mg/L	0.00437	1.18%
Mn 257.610†	4421146.8	2.720 mg/L		0.0298	2.720 mg/L	0.0298	1.09%
Cr 267.716†	31255.2	0.1303 mg/L		0.00188	0.1303 mg/L	0.00188	1.44%
Fe 273.955†	5519175.1	108.4 mg/L		1.24	108.4 mg/L	1.24	1.14%
Mg 279.077†	5326612.5	119.3 mg/L		1.39	119.3 mg/L	1.39	1.17%
V 292.402†	72666.9	0.1621 mg/L		0.00164	0.1621 mg/L	0.00164	1.01%
Al 308.215†	2211532.2	57.24 mg/L		0.608	57.24 mg/L	0.608	1.06%
Be 313.107†	-2583.2	-0.0004 mg/L		0.00015	-0.0004 mg/L	0.00015	38.82%
Cu 324.752†	32744.7	0.1027 mg/L		0.00117	0.1027 mg/L	0.00117	1.14%
Ag 338.289†	-6715.1	-0.0334 mg/L		0.00055	-0.0334 mg/L	0.00055	1.66%
Na 330.237†	-1740.7	-0.5832 mg/L		0.05614	-0.5832 mg/L	0.05614	9.63%
Ca 227.546†	122874.0	203.7 mg/L		2.16	203.7 mg/L	2.16	1.06%
Al RADIAL†	206281.1	53.58 mg/L		0.326	53.58 mg/L	0.326	0.61%
Fe RADIAL†	88515.9	107.2 mg/L		0.52	107.2 mg/L	0.52	0.49%
Ca RADIAL†	2100511.7	204.3 mg/L		2.28	204.3 mg/L	2.28	1.11%
K RADIAL†	32596.5	16.28 mg/L		0.118	16.28 mg/L	0.118	0.72%
Mg RADIAL†	94620.7	112.9 mg/L		0.64	112.9 mg/L	0.64	0.57%
Na RADIAL†	18050.7	1.039 mg/L		0.0316	1.039 mg/L	0.0316	3.04%
Mo 202.031†	-201.0	-0.004 mg/L		0.0001	-0.004 mg/L	0.0001	1.73%

Sequence No.: 145
Sample ID: 16C0228-07
Analyst: KV

Logged In Analyst (Original) : administrator
Initial Sample Wt:
Dilution:

Autosampler Location: 121
Date Collected: 3/9/2016 3:07:09 AM
Data Type: Reprocessed on 3/9/2016 6:15:56 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 16C0228-07

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20477011.4	5.144 mg/L	0.0907			1.76%
Y RADIAL	485601.7	5.074 mg/L	0.0313			0.62%
As 188.979†	-18.0	0.0154 mg/L	0.00467	0.0154 mg/L	0.00467	30.28%
Tl 190.801†	-178.8	-0.0187 mg/L	0.00441	-0.0187 mg/L	0.00441	23.55%
Se 196.026†	-97.2	0.0045 mg/L	0.00381	0.0045 mg/L	0.00381	84.42%
Zn 206.200†	42225.3	0.4189 mg/L	0.00557	0.4189 mg/L	0.00557	1.33%
Sb 206.836†	-93.6	-0.0096 mg/L	0.00188	-0.0096 mg/L	0.00188	19.54%
Pb 220.353†	1648.7	0.0758 mg/L	0.00204	0.0758 mg/L	0.00204	2.69%
Cd 226.502†	2398.9	-0.0010 mg/L	0.00002	-0.0010 mg/L	0.00002	2.35%
Cd 228.616†	4421.4	0.0539 mg/L	0.00008	0.0539 mg/L	0.00008	0.14%
Ni 232.003†	5496.9	0.1266 mg/L	0.00109	0.1266 mg/L	0.00109	0.86%
Ba 233.527†	86313.6	0.5038 mg/L	0.00634	0.5038 mg/L	0.00634	1.26%
Mn 257.610†	1902791.1	1.182 mg/L	0.0127	1.182 mg/L	0.0127	1.07%
Cr 267.716†	32656.5	0.1368 mg/L	0.00141	0.1368 mg/L	0.00141	1.03%
Fe 273.955†	6286028.5	123.5 mg/L	1.29	123.5 mg/L	1.29	1.04%
Mg 279.077†	1236944.9	27.68 mg/L	0.301	27.68 mg/L	0.301	1.09%
V 292.402†	69930.8	0.1538 mg/L	0.00233	0.1538 mg/L	0.00233	1.51%
Al 308.215†	3537170.6	91.55 mg/L	0.934	91.55 mg/L	0.934	1.02%
Be 313.107†	25438.8	0.0038 mg/L	0.00004	0.0038 mg/L	0.00004	1.17%
Cu 324.752†	11942.0	0.0498 mg/L	0.00014	0.0498 mg/L	0.00014	0.28%
Ag 338.289†	-3130.0	-0.0130 mg/L	0.00055	-0.0130 mg/L	0.00055	4.22%
Na 330.237†	633.9	1.103 mg/L	0.0311	1.103 mg/L	0.0311	2.82%
Ca 227.546†	8466.7	15.19 mg/L	0.071	15.19 mg/L	0.071	0.47%
Al RADIAL†	359860.3	93.48 mg/L	0.295	93.48 mg/L	0.295	0.32%
Fe RADIAL†	110675.3	134.1 mg/L	1.43	134.1 mg/L	1.43	1.07%
Ca RADIAL†	165219.3	16.07 mg/L	0.165	16.07 mg/L	0.165	1.02%
K RADIAL†	17693.1	8.838 mg/L	0.0453	8.838 mg/L	0.0453	0.51%
Mg RADIAL†	24866.2	29.67 mg/L	0.306	29.67 mg/L	0.306	1.03%
Ns RADIAL†	22650.9	1.304 mg/L	0.0233	1.304 mg/L	0.0233	1.78%
Mo 202.031	-224.9	-0.004 mg/L	0.0001	-0.004 mg/L	0.0001	2.39%

Sequence No.: 146
Sample ID: 16C0228-08

Analyst: KV
Logged In Analyst (Original) : administrator
Initial Sample Wt:
Dilution:

Autosampler Location: 122
Date Collected: 3/9/2016 3:11:57 AM
Data Type: Reprocessed on 3/9/2016 6:15:57 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 16C0228-08

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19083314.8	4.794 mg/L	0.0285			0.60%
Y RADIAL	478834.4	5.003 mg/L	0.0551			1.10%
As 188.979†	-17.3	0.0068 mg/L	0.00255	0.0068 mg/L	0.00255	37.50%
Tl 190.801†	-205.6	-0.0286 mg/L	0.00186	-0.0286 mg/L	0.00186	6.49%
Se 196.026†	-55.2	0.0023 mg/L	0.00045	0.0023 mg/L	0.00045	19.72%
Zn 206.200†	16014.6	0.1586 mg/L	0.00227	0.1586 mg/L	0.00227	1.43%
Sb 206.836†	-67.8	-0.0078 mg/L	0.00064	-0.0078 mg/L	0.00064	8.16%
Pb 220.353†	654.2	0.0287 mg/L	0.00124	0.0287 mg/L	0.00124	4.33%
Cd 226.502†	1529.4	0.0001 mg/L	0.00010	0.0001 mg/L	0.00010	188.17%
Cd 228.616†	2670.7	0.0324 mg/L	0.00044	0.0324 mg/L	0.00044	1.36%
Ni 232.003†	3111.9	0.0717 mg/L	0.00100	0.0717 mg/L	0.00100	1.40%
Ba 233.527†	41251.4	0.2408 mg/L	0.00197	0.2408 mg/L	0.00197	0.82%
Mn 257.610†	2097977.3	1.294 mg/L	0.0089	1.294 mg/L	0.0089	0.69%
Cr 267.716†	19908.8	0.0832 mg/L	0.00066	0.0832 mg/L	0.00066	0.79%
Fe 273.955†	3820192.6	75.06 mg/L	0.520	75.06 mg/L	0.520	0.69%
Mg 279.077†	1950598.8	43.66 mg/L	0.341	43.66 mg/L	0.341	0.78%

V 292.402†	45988.1	0.1020 mg/L	0.00086	0.1020 mg/L	0.00086	0.84%
Al 308.215†	1256232.5	32.52 mg/L	0.268	32.52 mg/L	0.268	0.82%
Be 313.107†	923.0	0.0001 mg/L	0.00005	0.0001 mg/L	0.00005	34.88%
Cu 324.752†	22483.4	0.0708 mg/L	0.00028	0.0708 mg/L	0.00028	0.40%
Ag 338.289†	-3200.0	-0.0150 mg/L	0.00015	-0.0150 mg/L	0.00015	1.03%
Na 330.237†	-361.2	0.1437 mg/L	0.03365	0.1437 mg/L	0.03365	23.41%
Cd 227.546†	33388.5	55.77 mg/L	0.336	55.77 mg/L	0.336	0.60%
Al RADIAL†	125512.7	32.61 mg/L	0.147	32.61 mg/L	0.147	0.45%
Fe RADIAL†	62342.8	75.53 mg/L	0.652	75.53 mg/L	0.652	0.86%
Ca RADIAL†	624328.7	60.73 mg/L	0.641	60.73 mg/L	0.641	1.06%
K RADIAL†	13555.8	6.771 mg/L	0.0732	6.771 mg/L	0.0732	1.08%
Mg RADIAL†	36272.3	43.29 mg/L	0.412	43.29 mg/L	0.412	0.95%
Na RADIAL†	14054.5	0.8092 mg/L	0.02283	0.8092 mg/L	0.02283	2.82%
Mo 202.031	-141.6	-0.003 mg/L	0.0002	-0.003 mg/L	0.0002	8.45%

Sequence No.: 147

Sample ID: 16C0228-09

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 123

Date Collected: 3/9/2016 3:16:39 AM

Data Type: Reprocessed on 3/9/2016 6:15:58 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0228-09

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20413751.7	5.128 mg/L	0.0062			0.12%
Y RADIAL	483803.5	5.055 mg/L	0.0310			0.61%
As 188.979†	-16.6	0.0151 mg/L	0.00399	0.0151 mg/L	0.00399	26.40%
Te 190.801†	-158.6	-0.0157 mg/L	0.00121	-0.0157 mg/L	0.00121	7.75%
Se 196.026†	-82.8	0.0100 mg/L	0.00478	0.0100 mg/L	0.00478	47.61%
Zn 206.200†	30860.8	0.3058 mg/L	0.00261	0.3058 mg/L	0.00261	0.85%
Sm 206.836†	-58.1	-0.0041 mg/L	0.00204	-0.0041 mg/L	0.00204	49.36%
Pb 220.353†	4014.8	0.1766 mg/L	0.00268	0.1766 mg/L	0.00268	1.52%
Cd 226.502†	2440.8	-0.0006 mg/L	0.00019	-0.0006 mg/L	0.00019	33.15%
Co 228.616†	3845.5	0.0471 mg/L	0.00016	0.0471 mg/L	0.00016	0.33%
Ni 232.003†	5115.4	0.1177 mg/L	0.00165	0.1177 mg/L	0.00165	1.40%
Ba 233.527†	45230.8	0.2640 mg/L	0.00347	0.2640 mg/L	0.00347	1.32%
Mn 257.610†	2730668.5	1.688 mg/L	0.0245	1.688 mg/L	0.0245	1.45%
Cr 267.716†	23822.4	0.1007 mg/L	0.00150	0.1007 mg/L	0.00150	1.49%
Fe 273.955†	6084788.8	119.6 mg/L	1.76	119.6 mg/L	1.76	1.47%
Mg 279.077†	1047703.0	23.44 mg/L	0.352	23.44 mg/L	0.352	1.50%
V 292.402†	59553.3	0.1299 mg/L	0.00155	0.1299 mg/L	0.00155	1.19%
Al 308.215†	2358301.4	61.04 mg/L	1.088	61.04 mg/L	1.088	1.78%
Be 313.107†	10438.6	0.0016 mg/L	0.00001	0.0016 mg/L	0.00001	0.71%
Cu 324.752†	34233.1	0.1097 mg/L	0.00134	0.1097 mg/L	0.00134	1.22%
Ag 338.289†	-2970.6	-0.0123 mg/L	0.00079	-0.0123 mg/L	0.00079	6.38%
Na 330.237†	-706.6	0.0984 mg/L	0.02877	0.0984 mg/L	0.02877	29.24%
Cd 227.546†	9416.2	16.70 mg/L	0.104	16.70 mg/L	0.104	0.62%
Al RADIAL†	242126.4	62.90 mg/L	0.194	62.90 mg/L	0.194	0.31%
Fe RADIAL†	107088.5	129.7 mg/L	0.78	129.7 mg/L	0.78	0.60%
Ca RADIAL†	182063.6	17.71 mg/L	0.027	17.71 mg/L	0.027	0.15%
K RADIAL†	12891.2	6.439 mg/L	0.0620	6.439 mg/L	0.0620	0.96%
Mg RADIAL†	21055.7	25.12 mg/L	0.167	25.12 mg/L	0.167	0.67%
Na RADIAL†	1248.6	0.0719 mg/L	0.01703	0.0719 mg/L	0.01703	23.68%
Mo 202.031	-114.1	-0.002 mg/L	0.0002	-0.002 mg/L	0.0002	8.78%

Sequence No.: 148

Sample ID: 16C0228-10

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 124

Date Collected: 3/9/2016 3:21:28 AM

Data Type: Reprocessed on 3/9/2016 6:15:58 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0228-10

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	18671405.1	4.690 mg/L	0.0182			0.39%
Y RADIAL	502962.2	5.255 mg/L	0.0355			0.68%

As	188.979†	56.6	0.0286 mg/L	0.00397	0.0286 mg/L	0.00397	13.86%
Tl	190.801†	-322.4	-0.0473 mg/L	0.00130	-0.0473 mg/L	0.00130	2.74%
Se	196.026†	-82.0	-0.0046 mg/L	0.01037	-0.0046 mg/L	0.01037	223.20%
Zn	206.200†	32883.8	0.3263 mg/L	0.00376	0.3263 mg/L	0.00376	1.15%
Sb	206.836†	-88.6	-0.0105 mg/L	0.00015	-0.0105 mg/L	0.00015	1.39%
Pb	220.353†	6233.6	0.2875 mg/L	0.00290	0.2875 mg/L	0.00290	1.01%
Cd	226.502†	2474.3	0.0022 mg/L	0.00017	0.0022 mg/L	0.00017	7.71%
Co	228.616†	3629.9	0.0439 mg/L	0.00031	0.0439 mg/L	0.00031	0.70%
Ni	232.003†	5097.4	0.1184 mg/L	0.00324	0.1184 mg/L	0.00324	2.73%
Ba	233.527†	92243.5	0.5384 mg/L	0.00876	0.5384 mg/L	0.00876	1.63%
Mn	257.610†	6521651.1	4.003 mg/L	0.0049	4.003 mg/L	0.0049	0.12%
Cr	267.716†	32764.5	0.1359 mg/L	0.00157	0.1359 mg/L	0.00157	1.15%
Fe	273.955†	4808104.2	94.47 mg/L	0.073	94.47 mg/L	0.073	0.08%
Mg	279.077†	9894692.5	221.5 mg/L	0.17	221.5 mg/L	0.17	0.08%
V	292.402†	75333.9	0.1694 mg/L	0.00240	0.1694 mg/L	0.00240	1.42%
Al	308.215†	3225985.4	83.48 mg/L	1.465	83.48 mg/L	1.465	1.75%
Be	313.107†	8931.0	0.0013 mg/L	0.00010	0.0013 mg/L	0.00010	7.20%
Cu	324.752†	43202.9	0.1291 mg/L	0.00192	0.1291 mg/L	0.00192	1.48%
Ag	338.289†	-4389.7	-0.0270 mg/L	0.00025	-0.0270 mg/L	0.00025	0.92%
Na	330.237†	-1050.2	0.2705 mg/L	0.12875	0.2705 mg/L	0.12875	47.59%
Ca	227.546†	402812.5	665.5 mg/L	10.83	665.5 mg/L	10.83	1.63%
Al	RADIAL†	289327.6	75.14 mg/L	0.010	75.14 mg/L	0.010	0.01%
Fe	RADIAL†	75910.4	91.97 mg/L	0.151	91.97 mg/L	0.151	0.16%
Ca	RADIAL†	6452233.6	627.7 mg/L	6.43	627.7 mg/L	6.43	1.03%
K	RADIAL†	16152.0	8.068 mg/L	0.0293	8.068 mg/L	0.0293	0.36%
Mg	RADIAL†	172615.8	206.0 mg/L	0.44	206.0 mg/L	0.44	0.21%
Na	RADIAL†	22131.2	1.274 mg/L	0.0259	1.274 mg/L	0.0259	2.04%
Mo	202.031	104.5	0.002 mg/L	0.0006	0.002 mg/L	0.0006	29.62%

Sequence No.: 149

Sample ID: 16C0228-11

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 125

Date Collected: 3/9/2016 3:26:12 AM

Data Type: Reprocessed on 3/9/2016 6:15:59 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0228-11

Mean Corrected		Calib.	Sample			
Analyte	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
Y 371.029	19866183.2	4.990 mg/L	0.0734			1.47%
Y RADIAL	476096.8	4.974 mg/L	0.0391			0.79%
As 188.979†	-27.6	0.0066 mg/L	0.00089	0.0066 mg/L	0.00089	13.36%
Tl 190.801†	-138.5	-0.0156 mg/L	0.00369	-0.0156 mg/L	0.00369	23.70%
Se 196.026†	-81.9	-0.0045 mg/L	0.00401	-0.0045 mg/L	0.00401	89.77%
Zn 206.200†	28320.4	0.2809 mg/L	0.00137	0.2809 mg/L	0.00137	0.49%
Sb 206.836†	-45.3	-0.0036 mg/L	0.00487	-0.0036 mg/L	0.00487	136.36%
Pb 220.353†	1810.1	0.0808 mg/L	0.00192	0.0808 mg/L	0.00192	2.38%
Cd 226.502†	1773.4	-0.0003 mg/L	0.00012	-0.0003 mg/L	0.00012	44.78%
Co 228.616†	3142.8	0.0382 mg/L	0.00047	0.0382 mg/L	0.00047	1.22%
Ni 232.003†	4262.6	0.0985 mg/L	0.00099	0.0985 mg/L	0.00099	1.00%
Ba 233.527†	35417.0	0.2067 mg/L	0.00143	0.2067 mg/L	0.00143	0.69%
Mn 257.610†	1333235.7	0.8279 mg/L	0.01613	0.8279 mg/L	0.01613	1.95%
Cr 267.716†	29312.7	0.1219 mg/L	0.00107	0.1219 mg/L	0.00107	0.88%
Fe 273.955†	4540040.5	89.20 mg/L	1.824	89.20 mg/L	1.824	2.04%
Mg 279.077†	1362009.6	30.48 mg/L	0.645	30.48 mg/L	0.645	2.11%
V 292.402†	39396.3	0.0855 mg/L	0.00151	0.0855 mg/L	0.00151	1.77%
Al 308.215†	1969759.9	50.98 mg/L	1.053	50.98 mg/L	1.053	2.07%
Be 313.107†	7811.7	0.0012 mg/L	0.00004	0.0012 mg/L	0.00004	3.59%
Cu 324.752†	22376.7	0.0727 mg/L	0.00058	0.0727 mg/L	0.00058	0.80%
Ag 338.289†	-2534.4	-0.0111 mg/L	0.00068	-0.0111 mg/L	0.00068	6.15%
Na 330.237†	-628.6	-0.0013 mg/L	0.03717	-0.0013 mg/L	0.03717	>999.9%
Ca 227.546†	18566.5	31.47 mg/L	0.168	31.47 mg/L	0.168	0.53%
Al RADIAL†	202995.4	52.73 mg/L	0.093	52.73 mg/L	0.093	0.18%
Fe RADIAL†	76237.6	92.37 mg/L	0.250	92.37 mg/L	0.250	0.27%
Ca RADIAL†	349560.3	34.00 mg/L	0.052	34.00 mg/L	0.052	0.15%
K RADIAL†	14336.2	7.161 mg/L	0.0387	7.161 mg/L	0.0387	0.54%
Mg RADIAL†	26156.2	31.21 mg/L	0.015	31.21 mg/L	0.015	0.05%
Na RADIAL†	1397.8	0.0805 mg/L	0.01245	0.0805 mg/L	0.01245	15.47%
Mo 202.031	-78.9	-0.001 mg/L	0.0000	-0.001 mg/L	0.0000	2.57%

Sequence No.: 150
 Sample ID: 16C0228-12
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 126
 Date Collected: 3/9/2016 3:31:01 AM
 Data Type: Reprocessed on 3/9/2016 6:16:00 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: 16C0228-12

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19212189.6	4.826 mg/L	0.0242			0.50%
Y RADIAL	479053.6	5.005 mg/L	0.0468			0.94%
As 188.979†	-26.4	0.0065 mg/L	0.00213	0.0065 mg/L	0.00213	32.79%
Tl 190.801†	-183.4	-0.0235 mg/L	0.00092	-0.0235 mg/L	0.00092	3.91%
Se 196.026†	-67.4	0.0017 mg/L	0.00119	0.0017 mg/L	0.00119	72.06%
Zn 206.200†	27714.6	0.2749 mg/L	0.00297	0.2749 mg/L	0.00297	1.08%
Sb 206.836†	-59.2	-0.0059 mg/L	0.00153	-0.0059 mg/L	0.00153	25.82%
Pb 220.353†	1633.1	0.0739 mg/L	0.00058	0.0739 mg/L	0.00058	0.79%
Cd 226.502†	1818.8	0.0001 mg/L	0.00004	0.0001 mg/L	0.00004	45.82%
Co 228.616†	3297.2	0.0400 mg/L	0.00050	0.0400 mg/L	0.00050	1.24%
Ni 232.003†	4218.7	0.0976 mg/L	0.00341	0.0976 mg/L	0.00341	3.49%
Ba 233.527†	43097.5	0.2516 mg/L	0.00175	0.2516 mg/L	0.00175	0.70%
Mn 257.610†	1623968.8	1.005 mg/L	0.0077	1.005 mg/L	0.0077	0.77%
Cr 267.716†	27771.9	0.1156 mg/L	0.00073	0.1156 mg/L	0.00073	0.63%
Fe 273.955†	4449403.7	87.42 mg/L	0.421	87.42 mg/L	0.421	0.48%
Mg 279.077†	1600028.8	35.81 mg/L	0.280	35.81 mg/L	0.280	0.78%
V 292.402†	45958.8	0.1010 mg/L	0.00067	0.1010 mg/L	0.00067	0.66%
Al 308.215†	2178521.3	56.39 mg/L	0.438	56.39 mg/L	0.438	0.78%
Be 313.107†	8640.6	0.0013 mg/L	0.00003	0.0013 mg/L	0.00003	2.59%
Cu 324.752†	24671.0	0.0785 mg/L	0.00089	0.0785 mg/L	0.00089	1.13%
Ag 338.289†	-2841.7	-0.0129 mg/L	0.00032	-0.0129 mg/L	0.00032	2.48%
Na 330.237†	-587.0	0.0361 mg/L	0.02739	0.0361 mg/L	0.02739	75.88%
Ca 227.546†	30985.4	51.94 mg/L	0.536	51.94 mg/L	0.536	1.03%
As RADIAL†	216103.9	56.14 mg/L	0.281	56.14 mg/L	0.281	0.50%
Fe RADIAL†	73773.8	89.38 mg/L	0.607	89.38 mg/L	0.607	0.68%
Ca RADIAL†	565468.0	55.01 mg/L	0.961	55.01 mg/L	0.961	1.75%
K RADIAL†	12691.6	6.339 mg/L	0.0190	6.339 mg/L	0.0190	0.30%
Mg RADIAL†	29789.2	35.55 mg/L	0.279	35.55 mg/L	0.279	0.79%
Na RADIAL†	4695.1	0.2703 mg/L	0.01289	0.2703 mg/L	0.01289	4.77%
Mo 202.031	-181.4	-0.003 mg/L	0.0003	-0.003 mg/L	0.0003	8.85%

Sequence No.: 151
 Sample ID: 16C0228-13
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 127
 Date Collected: 3/9/2016 3:35:43 AM
 Data Type: Reprocessed on 3/9/2016 6:16:01 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: 16C0228-13

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19472771.5	4.892 mg/L	0.0546			1.12%
Y RADIAL	483156.3	5.048 mg/L	0.0378			0.75%
As 188.979†	-38.4	0.0029 mg/L	0.00151	0.0029 mg/L	0.00151	52.74%
Tl 190.801†	-161.4	-0.0201 mg/L	0.00191	-0.0201 mg/L	0.00191	9.54%
Se 196.026†	-61.0	0.0036 mg/L	0.00128	0.0036 mg/L	0.00128	35.60%
Zn 206.200†	26639.8	0.2642 mg/L	0.00030	0.2642 mg/L	0.00030	0.12%
Sb 206.836†	-64.4	-0.0069 mg/L	0.00136	-0.0069 mg/L	0.00136	19.78%
Pb 220.353†	1224.6	0.0542 mg/L	0.00050	0.0542 mg/L	0.00050	0.92%
Cd 226.502†	1656.8	-0.0002 mg/L	0.00005	-0.0002 mg/L	0.00005	19.70%
Co 228.616†	3843.7	0.0462 mg/L	0.00014	0.0462 mg/L	0.00014	0.30%
Ni 232.003†	4741.6	0.1101 mg/L	0.00215	0.1101 mg/L	0.00215	1.95%
Ba 233.527†	33362.0	0.1947 mg/L	0.00260	0.1947 mg/L	0.00260	1.33%
Mn 257.610†	1148522.8	0.7141 mg/L	0.00864	0.7141 mg/L	0.00864	1.21%
Cr 267.716†	27938.6	0.1161 mg/L	0.00150	0.1161 mg/L	0.00150	1.29%
Fe 273.955†	4308972.9	84.66 mg/L	0.504	84.66 mg/L	0.504	0.60%
Mg 279.077†	1120660.9	25.08 mg/L	0.330	25.08 mg/L	0.330	1.31%
V 292.402†	37504.2	0.0815 mg/L	0.00169	0.0815 mg/L	0.00169	2.07%

Al 308.215†	1771540.2	45.85 mg/L	0.609	45.85 mg/L	0.609	1.33%
Be 313.107†	6414.5	0.0010 mg/L	0.00006	0.0010 mg/L	0.00006	5.94%
Cu 324.752†	32790.2	0.1001 mg/L	0.00130	0.1001 mg/L	0.00130	1.30%
Ag 338.289†	-2597.9	-0.0113 mg/L	0.00025	-0.0113 mg/L	0.00025	2.18%
Na 330.237†	-710.9	-0.1134 mg/L	0.01274	-0.1134 mg/L	0.01274	11.23%
Ca 227.546†	6166.7	10.95 mg/L	0.105	10.95 mg/L	0.105	0.96%
Al RADIAL†	178251.7	46.31 mg/L	0.089	46.31 mg/L	0.089	0.19%
Fe RADIAL†	71072.0	86.11 mg/L	0.248	86.11 mg/L	0.248	0.29%
Ca RADIAL†	113953.1	11.09 mg/L	0.061	11.09 mg/L	0.061	0.55%
K RADIAL†	12795.8	6.391 mg/L	0.0519	6.391 mg/L	0.0519	0.81%
Mg RADIAL†	21071.7	25.14 mg/L	0.047	25.14 mg/L	0.047	0.19%
Na RADIAL†	29.0	0.0017 mg/L	0.01739	0.0017 mg/L	0.01739	>999.9%
Mo 202.031	-216.1	-0.004 mg/L	0.0002	-0.004 mg/L	0.0002	4.89%

Sequence No.: 152

Sample ID: 16C0228-14

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 128

Date Collected: 3/9/2016 3:40:25 AM

Data Type: Reprocessed on 3/9/2016 6:16:01 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0228-14

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	19024344.9	4.779 mg/L	0.0243			0.51%
Y RADIAL	490164.2	5.121 mg/L	0.0478			0.93%
As 188.979†	-5.5	0.0149 mg/L	0.00389	0.0149 mg/L	0.00389	26.18%
Tl 190.801†	-218.1	-0.0278 mg/L	0.00190	-0.0278 mg/L	0.00190	6.85%
Se 196.026†	-84.8	0.0006 mg/L	0.00687	0.0006 mg/L	0.00687	>999.9%
Zn 206.200†	66357.9	0.6593 mg/L	0.00564	0.6593 mg/L	0.00564	0.85%
Sb 206.836†	-36.3	-0.0015 mg/L	0.00099	-0.0015 mg/L	0.00099	66.47%
Pb 220.353†	19002.0	0.8448 mg/L	0.00959	0.8448 mg/L	0.00959	1.14%
Cd 226.502†	2719.1	0.0019 mg/L	0.00002	0.0019 mg/L	0.00002	1.04%
Ce 228.616†	4127.6	0.0500 mg/L	0.00037	0.0500 mg/L	0.00037	0.74%
Ni 232.003†	5248.1	0.1215 mg/L	0.00157	0.1215 mg/L	0.00157	1.29%
Ba 233.527†	64311.2	0.3754 mg/L	0.00188	0.3754 mg/L	0.00188	0.50%
Mn 257.610†	4412780.1	2.715 mg/L	0.0434	2.715 mg/L	0.0434	1.60%
Cr 267.716†	32098.3	0.1337 mg/L	0.00089	0.1337 mg/L	0.00089	0.67%
Fe 273.955†	5576622.0	109.6 mg/L	1.70	109.6 mg/L	1.70	1.55%
Mg 279.077†	5719641.0	128.1 mg/L	2.14	128.1 mg/L	2.14	1.67%
V 292.402†	65568.5	0.1454 mg/L	0.00140	0.1454 mg/L	0.00140	0.96%
Al 308.215†	2637559.4	68.26 mg/L	1.122	68.26 mg/L	1.122	1.64%
Be 313.107†	10906.5	0.0016 mg/L	0.00004	0.0016 mg/L	0.00004	2.66%
Cu 324.752†	75272.5	0.2182 mg/L	0.00088	0.2182 mg/L	0.00088	0.40%
Ag 338.289†	-3381.5	-0.0185 mg/L	0.00065	-0.0185 mg/L	0.00065	3.52%
Na 330.237†	-111.5	0.7669 mg/L	0.12815	0.7669 mg/L	0.12815	16.71%
Ca 227.546†	213058.0	352.5 mg/L	1.63	352.5 mg/L	1.63	0.46%
Al RADIAL†	247860.7	64.38 mg/L	0.129	64.38 mg/L	0.129	0.20%
Fe RADIAL†	89683.4	108.7 mg/L	0.40	108.7 mg/L	0.40	0.37%
Ca RADIAL†	3613051.5	351.5 mg/L	0.90	351.5 mg/L	0.90	0.26%
K RADIAL†	15045.5	7.515 mg/L	0.0527	7.515 mg/L	0.0527	0.70%
Mg RADIAL†	102081.9	121.8 mg/L	0.47	121.8 mg/L	0.47	0.38%
Na RADIAL†	13498.0	0.7772 mg/L	0.01634	0.7772 mg/L	0.01634	2.10%
Mo 202.031	54.3	0.001 mg/L	0.0001	0.001 mg/L	0.0001	6.87%

Sequence No.: 153

Sample ID: SEQ-CCVD

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/9/2016 3:45:14 AM

Data Type: Reprocessed on 3/9/2016 6:16:02 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCVD

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20721806.0	5.205 mg/L	0.0483			0.93%
Y RADIAL	513810.2	5.368 mg/L	0.1057			1.97%
As 188.979†	950.4	0.2494 mg/L	0.00062	0.2494 mg/L	0.00062	0.25%

TL 190.801†	1426.7	0.2463 mg/L	0.00134	0.2463 mg/L	0.00134	0.54%
Se 196.026†	481.0	0.2451 mg/L	0.00363	0.2451 mg/L	0.00363	1.48%
Zn 206.200†	251810.7	2.506 mg/L	0.0624	2.506 mg/L	0.0624	2.49%
Sb 206.836†	1490.2	0.2382 mg/L	0.00210	0.2382 mg/L	0.00210	0.88%
Pb 220.353†	5629.4	0.2498 mg/L	0.00200	0.2498 mg/L	0.00200	0.80%
Cd 226.502†	34999.5	0.1218 mg/L	0.00310	0.1218 mg/L	0.00310	2.54%
Co 228.616†	219153.5	2.531 mg/L	0.0584	2.531 mg/L	0.0584	2.31%
Ni 232.003†	104507.3	2.484 mg/L	0.0563	2.484 mg/L	0.0563	2.27%
Ba 233.527†	1715090.4	10.01 mg/L	0.141	10.01 mg/L	0.141	1.41%
Mn 257.610†	4129023.4	2.528 mg/L	0.0398	2.528 mg/L	0.0398	1.57%
Cr 267.716†	249369.5	1.013 mg/L	0.0234	1.013 mg/L	0.0234	2.31%
Fe 273.955†	257899.4	5.067 mg/L	0.1154	5.067 mg/L	0.1154	2.28%
Mg 279.077†	1087480.7	24.35 mg/L	0.366	24.35 mg/L	0.366	1.50%
V 292.402†	1031536.9	2.407 mg/L	0.0382	2.407 mg/L	0.0382	1.59%
Al 308.215†	376350.8	9.739 mg/L	0.2486	9.739 mg/L	0.2486	2.55%
Be 313.107†	1648156.7	0.2487 mg/L	0.00454	0.2487 mg/L	0.00454	1.82%
Cu 324.752†	461855.4	1.253 mg/L	0.0289	1.253 mg/L	0.0289	2.30%
Ag 338.289†	248992.8	1.233 mg/L	0.0268	1.233 mg/L	0.0268	2.18%
Na 330.237†	30810.8	22.72 mg/L	0.574	22.72 mg/L	0.574	2.53%
Ca 227.546†	14611.0	24.16 mg/L	0.135	24.16 mg/L	0.135	0.56%
Al RADIAL†	36431.7	9.462 mg/L	0.0224	9.462 mg/L	0.0224	0.24%
Fe RADIAL†	4132.0	5.006 mg/L	0.0313	5.006 mg/L	0.0313	0.63%
Ca RADIAL†	258622.4	25.16 mg/L	0.029	25.16 mg/L	0.029	0.12%
K RADIAL†	10094.7	5.042 mg/L	0.0327	5.042 mg/L	0.0327	0.65%
Mg RADIAL†	21145.3	25.24 mg/L	0.156	25.24 mg/L	0.156	0.62%
Na RADIAL†	434393.6	25.01 mg/L	0.226	25.01 mg/L	0.226	0.90%
Mo 202.031†	63452.8	1.187 mg/L	0.0392	1.187 mg/L	0.0392	3.30%

Sequence No.: 154

Sample ID: SEQ-CCBD

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/9/2016 3:53:01 AM

Data Type: Reprocessed on 3/9/2016 6:16:03 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCBD

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21668834.4	5.443 mg/L	0.0681			1.25%
Y RADIAL	515026.1	5.381 mg/L	0.1298			2.41%
As 188.979†	-2.7	-0.0007 mg/L	0.00173	-0.0007 mg/L	0.00173	243.54%
TL 190.801†	18.9	0.0032 mg/L	0.00205	0.0032 mg/L	0.00205	63.22%
Se 196.026†	1.8	0.0009 mg/L	0.00208	0.0009 mg/L	0.00208	227.05%
Zn 206.200†	48.5	0.0005 mg/L	0.00034	0.0005 mg/L	0.00034	70.79%
Sb 206.836†	4.3	0.0007 mg/L	0.00212	0.0007 mg/L	0.00212	306.10%
Pb 220.353†	10.0	0.0004 mg/L	0.00132	0.0004 mg/L	0.00132	295.70%
Cd 226.502†	42.4	0.0001 mg/L	0.00007	0.0001 mg/L	0.00007	46.59%
Co 228.616†	34.8	0.0004 mg/L	0.00007	0.0004 mg/L	0.00007	16.94%
Ni 232.003†	84.2	0.0020 mg/L	0.00129	0.0020 mg/L	0.00129	64.70%
Ba 233.527†	94.6	0.0006 mg/L	0.00008	0.0006 mg/L	0.00008	14.99%
Mn 257.610†	249.7	0.0002 mg/L	0.00004	0.0002 mg/L	0.00004	26.77%
Cr 267.716†	-5.3	0.0000 mg/L	0.00033	0.0000 mg/L	0.00033	>999.9%
Fe 273.955†	226.5	0.0045 mg/L	0.00056	0.0045 mg/L	0.00056	12.50%
Mg 279.077†	262.7	0.0059 mg/L	0.00103	0.0059 mg/L	0.00103	17.47%
V 292.402†	127.1	0.0003 mg/L	0.00014	0.0003 mg/L	0.00014	48.14%
Al 308.215†	-418.1	-0.0108 mg/L	0.00615	-0.0108 mg/L	0.00615	56.81%
Be 313.107†	635.3	0.0001 mg/L	0.00004	0.0001 mg/L	0.00004	41.78%
Cu 324.752†	50.8	0.0001 mg/L	0.00047	0.0001 mg/L	0.00047	342.50%
Ag 338.289†	432.1	0.0021 mg/L	0.00046	0.0021 mg/L	0.00046	21.71%
Na 330.237†	-524.7	-0.3861 mg/L	0.10223	-0.3861 mg/L	0.10223	26.48%
Ca 227.546†	85.5	0.1411 mg/L	0.06116	0.1411 mg/L	0.06116	43.34%
Al RADIAL†	164.8	0.0428 mg/L	0.00873	0.0428 mg/L	0.00873	20.39%
Fe RADIAL†	5.6	0.0068 mg/L	0.01119	0.0068 mg/L	0.01119	164.19%
Ca RADIAL†	13.5	0.0013 mg/L	0.00324	0.0013 mg/L	0.00324	247.64%
K RADIAL†	37.7	0.0188 mg/L	0.01934	0.0188 mg/L	0.01934	102.66%
Mg RADIAL†	9.3	0.0111 mg/L	0.00575	0.0111 mg/L	0.00575	51.95%
Na RADIAL†	-9234.3	-0.5317 mg/L	0.06546	-0.5317 mg/L	0.06546	12.31%
Mo 202.031†	27.2	0.001 mg/L	0.0004	0.001 mg/L	0.0004	71.40%

Sequence No.: 155
 Sample ID: 16C0228-15
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 129
 Date Collected: 3/9/2016 3:58:08 AM
 Data Type: Reprocessed on 3/9/2016 6:16:03 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: 16C0228-15

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	18740611.2	4.708 mg/L	0.0664			1.41%
Y RADIAL	502230.9	5.247 mg/L	0.1105			2.11%
As 188.979†	-32.2	0.0031 mg/L	0.00368	0.0031 mg/L	0.00368	119.11%
Tl 190.801†	-270.1	-0.0396 mg/L	0.00154	-0.0396 mg/L	0.00154	3.88%
Se 196.026†	-72.1	-0.0057 mg/L	0.00615	-0.0057 mg/L	0.00615	107.20%
Zn 206.200†	17972.3	0.1781 mg/L	0.00068	0.1781 mg/L	0.00068	0.38%
Sb 206.836†	-57.5	-0.0061 mg/L	0.00132	-0.0061 mg/L	0.00132	21.48%
Pb 220.353†	819.6	0.0370 mg/L	0.00059	0.0370 mg/L	0.00059	1.59%
Cd 226.502†	1747.9	0.0007 mg/L	0.00003	0.0007 mg/L	0.00003	3.52%
Ce 228.616†	2785.2	0.0338 mg/L	0.00044	0.0338 mg/L	0.00044	1.31%
Ni 232.003†	3089.4	0.0711 mg/L	0.00066	0.0711 mg/L	0.00066	0.92%
Ba 233.527†	27163.2	0.1585 mg/L	0.00063	0.1585 mg/L	0.00063	0.40%
Mn 257.610†	1642047.1	1.015 mg/L	0.0064	1.015 mg/L	0.0064	0.63%
Cr 267.716†	20328.2	0.0849 mg/L	0.00092	0.0849 mg/L	0.00092	1.08%
Fe 273.955†	4059856.0	79.77 mg/L	0.628	79.77 mg/L	0.628	0.79%
Mg 279.077†	3858177.2	86.38 mg/L	0.574	86.38 mg/L	0.574	0.67%
V 292.402†	56429.0	0.1263 mg/L	0.00060	0.1263 mg/L	0.00060	0.47%
Al 308.215†	1461294.3	37.82 mg/L	0.190	37.82 mg/L	0.190	0.50%
Be 313.107†	-2311.4	-0.0003 mg/L	0.00002	-0.0003 mg/L	0.00002	6.69%
Cu 324.752†	16631.4	0.0551 mg/L	0.00020	0.0551 mg/L	0.00020	0.36%
Ag 338.289†	-3778.3	-0.0186 mg/L	0.00049	-0.0186 mg/L	0.00049	2.63%
Na 330.237†	-1158.9	-0.3764 mg/L	0.07952	-0.3764 mg/L	0.07952	21.13%
Ca 227.546†	74135.2	123.0 mg/L	0.57	123.0 mg/L	0.57	0.46%
Al RADIAL†	132672.7	34.46 mg/L	0.233	34.46 mg/L	0.233	0.68%
Fe RADIAL†	63344.3	76.74 mg/L	0.491	76.74 mg/L	0.491	0.64%
Ca RADIAL†	1264060.7	123.0 mg/L	4.27	123.0 mg/L	4.27	3.47%
K RADIAL†	16840.1	8.412 mg/L	0.0512	8.412 mg/L	0.0512	0.61%
Mg RADIAL†	66037.2	78.82 mg/L	0.285	78.82 mg/L	0.285	0.36%
Na RADIAL†	12393.0	0.7136 mg/L	0.02300	0.7136 mg/L	0.02300	3.22%
Mo 202.031†	-138.4	-0.003 mg/L	0.0007	-0.003 mg/L	0.0007	25.67%

Sequence No.: 156
 Sample ID: 16C0235-01
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 130
 Date Collected: 3/9/2016 4:02:50 AM
 Data Type: Reprocessed on 3/9/2016 6:16:04 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: 16C0235-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20042548.0	5.035 mg/L	0.0352			0.70%
Y RADIAL	487557.2	5.094 mg/L	0.0422			0.83%
As 188.979†	207.6	0.0737 mg/L	0.00074	0.0737 mg/L	0.00074	1.01%
Tl 190.801†	-165.1	-0.0168 mg/L	0.00086	-0.0168 mg/L	0.00086	5.12%
Se 196.026†	-87.6	0.0074 mg/L	0.00745	0.0074 mg/L	0.00745	101.36%
Zn 206.200†	954970.8	9.502 mg/L	0.1453	9.502 mg/L	0.1453	1.53%
Sb 206.836†	-60.2	-0.0045 mg/L	0.00167	-0.0045 mg/L	0.00167	37.35%
Pb 220.353†	80701.1	3.566 mg/L	0.0363	3.566 mg/L	0.0363	1.02%
Cd 226.502†	9748.3	0.0250 mg/L	0.00011	0.0250 mg/L	0.00011	0.45%
Ce 228.616†	3540.4	0.0436 mg/L	0.00030	0.0436 mg/L	0.00030	0.69%
Ni 232.003†	6579.8	0.1525 mg/L	0.00277	0.1525 mg/L	0.00277	1.82%
Ba 233.527†	134391.0	0.7844 mg/L	0.00843	0.7844 mg/L	0.00843	1.07%
Mn 257.610†	4083887.1	2.516 mg/L	0.0420	2.516 mg/L	0.0420	1.67%
Cr 267.716†	38445.1	0.1601 mg/L	0.00116	0.1601 mg/L	0.00116	0.73%
Fe 273.955†	6159636.2	121.0 mg/L	2.01	121.0 mg/L	2.01	1.66%
Mg 279.077†	1667035.3	37.31 mg/L	0.639	37.31 mg/L	0.639	1.71%
V 292.402†	65424.2	0.1436 mg/L	0.00096	0.1436 mg/L	0.00096	0.67%
Al 308.215†	2026495.8	52.45 mg/L	0.935	52.45 mg/L	0.935	1.78%

Be 313.107†	6012.5	0.0009 mg/L	0.00013	0.0009 mg/L	0.00013	14.38%
Cu 324.752†	157669.9	0.4442 mg/L	0.00449	0.4442 mg/L	0.00449	1.01%
Ag 338.289†	4439.1	0.0205 mg/L	0.00111	0.0205 mg/L	0.00111	5.39%
Na 330.237†	17524.2	13.84 mg/L	0.245	13.84 mg/L	0.245	1.77%
Ca 227.546†	200451.3	331.9 mg/L	2.92	331.9 mg/L	2.92	0.88%
Al RADIAL†	201958.1	52.46 mg/L	0.523	52.46 mg/L	0.523	1.00%
Fe RADIAL†	106549.0	129.1 mg/L	1.44	129.1 mg/L	1.44	1.12%
Ca RADIAL†	3664701.0	356.5 mg/L	4.22	356.5 mg/L	4.22	1.18%
K RADIAL†	13627.3	6.807 mg/L	0.0829	6.807 mg/L	0.0829	1.22%
Mg RADIAL†	32467.9	38.74 mg/L	0.489	38.74 mg/L	0.489	1.26%
Na RADIAL†	23620.1	1.360 mg/L	0.0260	1.360 mg/L	0.0260	1.91%
Mo 202.031	6.2	0.000 mg/L	0.0002	0.000 mg/L	0.0002	132.07%

Sequence No.: 157

Sample ID: 16C0235-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 131

Date Collected: 3/9/2016 4:07:40 AM

Data Type: Reprocessed on 3/9/2016 6:16:05 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0235-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	18920874.8	4.753 mg/L	0.0522			1.10%
Y RADIAL	503526.0	5.261 mg/L	0.1143			2.17%
As 188.979†	-51.4	0.0147 mg/L	0.00030	0.0147 mg/L	0.00030	2.07%
Tl 190.801†	-759.2	-0.1139 mg/L	0.00532	-0.1139 mg/L	0.00532	4.67%
Se 196.026†	-140.8	0.0038 mg/L	0.00656	0.0038 mg/L	0.00656	171.28%
Zn 206.200†	45345.6	0.4494 mg/L	0.00123	0.4494 mg/L	0.00123	0.27%
Sb 206.836†	-223.4	-0.0282 mg/L	0.00270	-0.0282 mg/L	0.00270	9.57%
Pb 220.353†	1666.2	0.0731 mg/L	0.00234	0.0731 mg/L	0.00234	3.20%
Cd 226.502†	3960.2	0.0007 mg/L	0.00028	0.0007 mg/L	0.00028	39.88%
Ce 228.616†	10126.1	0.1209 mg/L	0.00168	0.1209 mg/L	0.00168	1.39%
Ni 232.003†	8872.3	0.2053 mg/L	0.00015	0.2053 mg/L	0.00015	0.07%
Ba 233.527†	109561.5	0.6395 mg/L	0.00262	0.6395 mg/L	0.00262	0.41%
Mn 257.610†	5924273.9	3.650 mg/L	0.0054	3.650 mg/L	0.0054	0.15%
Cr 267.716†	50443.9	0.2107 mg/L	0.00096	0.2107 mg/L	0.00096	0.46%
Fe 273.955†	9624276.1	189.1 mg/L	0.20	189.1 mg/L	0.20	0.11%
Mg 279.077†	2819240.5	63.10 mg/L	0.344	63.10 mg/L	0.344	0.54%
V 292.402†	135216.5	0.3024 mg/L	0.00177	0.3024 mg/L	0.00177	0.59%
Al 308.215†	3918777.2	101.4 mg/L	0.49	101.4 mg/L	0.49	0.49%
Be 313.107†	-16348.6	-0.0025 mg/L	0.00022	-0.0025 mg/L	0.00022	9.08%
Cu 324.752†	111957.0	0.3279 mg/L	0.00085	0.3279 mg/L	0.00085	0.26%
Ag 338.289†	-12844.9	-0.0602 mg/L	0.00124	-0.0602 mg/L	0.00124	2.07%
Na 330.237†	-2874.2	-1.216 mg/L	0.0211	-1.216 mg/L	0.0211	1.73%
Ca 227.546†	18711.6	32.56 mg/L	0.364	32.56 mg/L	0.364	1.12%
Al RADIAL†	362111.5	94.07 mg/L	0.300	94.07 mg/L	0.300	0.32%
Fe RADIAL†	154760.2	187.5 mg/L	0.46	187.5 mg/L	0.46	0.24%
Ca RADIAL†	316988.8	30.84 mg/L	0.034	30.84 mg/L	0.034	0.11%
K RADIAL†	47667.7	23.81 mg/L	0.128	23.81 mg/L	0.128	0.54%
Mg RADIAL†	49791.9	59.42 mg/L	0.251	59.42 mg/L	0.251	0.42%
Na RADIAL†	33660.8	1.938 mg/L	0.0602	1.938 mg/L	0.0602	3.11%
Mo 202.031	-285.7	-0.005 mg/L	0.0003	-0.005 mg/L	0.0003	5.68%

Sequence No.: 158

Sample ID: 16C0235-03

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 132

Date Collected: 3/9/2016 4:12:23 AM

Data Type: Reprocessed on 3/9/2016 6:16:06 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0235-03

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	18598227.0	4.672 mg/L	0.0224			0.48%
Y RADIAL	500119.8	5.225 mg/L	0.0818			1.57%
As 188.979†	77.9	0.0328 mg/L	0.00206	0.0328 mg/L	0.00206	6.29%
Tl 190.801†	-234.3	-0.0329 mg/L	0.00229	-0.0329 mg/L	0.00229	6.97%

Se	196.026†	-78.5	-0.0065 mg/L	0.00230	-0.0065 mg/L	0.00230	35.57%
Zn	206.200†	227552.2	2.264 mg/L	0.0302	2.264 mg/L	0.0302	1.34%
Sb	206.836†	-10.5	0.0016 mg/L	0.00152	0.0016 mg/L	0.00152	93.77%
Pb	220.353†	44097.0	1.950 mg/L	0.0243	1.950 mg/L	0.0243	1.25%
Cd	226.502†	2538.1	0.0030 mg/L	0.00012	0.0030 mg/L	0.00012	4.02%
Ce	228.616†	5818.8	0.0690 mg/L	0.00090	0.0690 mg/L	0.00090	1.30%
Ni	232.003†	36589.1	0.8672 mg/L	0.01053	0.8672 mg/L	0.01053	1.21%
Ba	233.527†	233981.8	1.366 mg/L	0.0179	1.366 mg/L	0.0179	1.31%
Mn	257.610†	2787739.6	1.717 mg/L	0.0193	1.717 mg/L	0.0193	1.12%
Cr	267.716†	115321.8	0.4711 mg/L	0.00515	0.4711 mg/L	0.00515	1.09%
Fe	273.955†	4324723.4	84.97 mg/L	0.361	84.97 mg/L	0.361	0.42%
Mg	279.077†	6696127.0	149.9 mg/L	0.55	149.9 mg/L	0.55	0.37%
V	292.402†	69544.6	0.1565 mg/L	0.00164	0.1565 mg/L	0.00164	1.05%
Al	308.215†	1509641.7	39.07 mg/L	0.497	39.07 mg/L	0.497	1.27%
Be	313.107†	357.1	0.0001 mg/L	0.00001	0.0001 mg/L	0.00001	21.24%
Cu	324.752†	93608.0	0.2646 mg/L	0.00293	0.2646 mg/L	0.00293	1.11%
Ag	338.289†	-1970.8	-0.0114 mg/L	0.00036	-0.0114 mg/L	0.00036	3.18%
Na	330.237†	5020.2	4.362 mg/L	0.1289	4.362 mg/L	0.1289	2.96%
Ca	227.546†	177749.8	294.0 mg/L	3.88	294.0 mg/L	3.88	1.32%
Al	RADIAL†	136390.8	35.43 mg/L	0.157	35.43 mg/L	0.157	0.44%
Fe	RADIAL†	68535.9	83.03 mg/L	0.273	83.03 mg/L	0.273	0.33%
Ca	RADIAL†	2963445.4	288.3 mg/L	4.88	288.3 mg/L	4.88	1.69%
K	RADIAL†	14298.2	7.142 mg/L	0.0689	7.142 mg/L	0.0689	0.96%
Mg	RADIAL†	117707.5	140.5 mg/L	0.59	140.5 mg/L	0.59	0.42%
Na	RADIAL†	40226.5	2.316 mg/L	0.0363	2.316 mg/L	0.0363	1.57%
Mo	202.031†	328.2	0.006 mg/L	0.0003	0.006 mg/L	0.0003	5.01%

Sequence No.: 159

Sample ID: 16C0235-04

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 133

Date Collected: 3/9/2016 4:17:06 AM

Data Type: Reprocessed on 3/9/2016 6:16:06 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0235-04

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y	371.029	19691221.1	4.947 mg/L	0.0650			1.31%
Y	RADIAL	484952.7	5.067 mg/L	0.0165			0.33%
As	188.979†	-96.4	0.0247 mg/L	0.00470	0.0247 mg/L	0.00470	18.99%
Te	190.801†	-228.1	-0.0093 mg/L	0.00146	-0.0093 mg/L	0.00146	15.62%
Se	196.026†	-212.6	0.0258 mg/L	0.00296	0.0258 mg/L	0.00296	11.46%
Zn	206.200†	489399.4	4.867 mg/L	0.0723	4.867 mg/L	0.0723	1.48%
Sb	206.836†	-160.7	-0.0124 mg/L	0.00046	-0.0124 mg/L	0.00046	3.70%
Pb	220.353†	73918.0	3.249 mg/L	0.0541	3.249 mg/L	0.0541	1.66%
Cd	226.502†	7079.3	0.0014 mg/L	0.00046	0.0014 mg/L	0.00046	32.78%
Ce	228.616†	2701.6	0.0382 mg/L	0.00033	0.0382 mg/L	0.00033	0.88%
Ni	232.003†	4045.3	0.0862 mg/L	0.00516	0.0862 mg/L	0.00516	5.99%
Ba	233.527†	825390.7	4.818 mg/L	0.0724	4.818 mg/L	0.0724	1.50%
Mn	257.610†	3879950.7	2.418 mg/L	0.0361	2.418 mg/L	0.0361	1.49%
Cr	267.716†	29266.5	0.1291 mg/L	0.00226	0.1291 mg/L	0.00226	1.75%
Fe	273.955†	15004715.9	294.8 mg/L	0.77	294.8 mg/L	0.77	0.26%
Mg	279.077†	1935385.3	43.28 mg/L	0.683	43.28 mg/L	0.683	1.58%
V	292.402†	59457.2	0.1154 mg/L	0.00194	0.1154 mg/L	0.00194	1.68%
Al	308.215†	1324751.7	34.31 mg/L	0.536	34.31 mg/L	0.536	1.56%
Be	313.107†	-2351.5	-0.0004 mg/L	0.00006	-0.0004 mg/L	0.00006	16.05%
Cu	324.752†	64899.5	0.2192 mg/L	0.00260	0.2192 mg/L	0.00260	1.19%
Ag	338.289†	-4108.9	-0.0165 mg/L	0.00072	-0.0165 mg/L	0.00072	4.38%
Na	330.237†	9928.9	9.091 mg/L	0.1540	9.091 mg/L	0.1540	1.69%
Ca	227.546†	139707.8	233.4 mg/L	3.57	233.4 mg/L	3.57	1.53%
Al	RADIAL†	132342.9	34.40 mg/L	0.116	34.40 mg/L	0.116	0.34%
Fe	RADIAL†	274989.1	333.2 mg/L	1.53	333.2 mg/L	1.53	0.46%
Ca	RADIAL†	2531007.4	246.2 mg/L	5.55	246.2 mg/L	5.55	2.25%
K	RADIAL†	22495.5	11.24 mg/L	0.065	11.24 mg/L	0.065	0.58%
Mg	RADIAL†	37316.5	44.51 mg/L	0.133	44.51 mg/L	0.133	0.30%
Na	RADIAL†	48495.5	2.792 mg/L	0.0713	2.792 mg/L	0.0713	2.55%
Mo	202.031†	43.8	0.001 mg/L	0.0004	0.001 mg/L	0.0004	44.96%

Sequence No.: 160

Autosampler Location: 134

Sample ID: 16C0235-05

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Date Collected: 3/9/2016 4:21:51 AM

Data Type: Reprocessed on 3/9/2016 6:16:07 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0235-05

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20474143.8	5.143 mg/L	0.0724			1.41%
Y RADIAL	534016.5	5.579 mg/L	0.1096			1.96%
As 188.979†	-4.5	0.0068 mg/L	0.00359	0.0068 mg/L	0.00359	52.79%
Tl 190.801†	-219.2	-0.0330 mg/L	0.00325	-0.0330 mg/L	0.00325	9.86%
Se 196.026†	-63.0	-0.0106 mg/L	0.00137	-0.0106 mg/L	0.00137	12.98%
Zn 206.200†	26609.9	0.2643 mg/L	0.00238	0.2643 mg/L	0.00238	0.90%
Sb 206.836†	-68.6	-0.0088 mg/L	0.00200	-0.0088 mg/L	0.00200	22.56%
Pb 220.353†	1993.9	0.0924 mg/L	0.00092	0.0924 mg/L	0.00092	0.99%
Cd 226.502†	1349.8	0.0010 mg/L	0.00008	0.0010 mg/L	0.00008	8.29%
Co 228.616†	2540.8	0.0305 mg/L	0.00003	0.0305 mg/L	0.00003	0.11%
Ni 232.003†	3138.9	0.0730 mg/L	0.00069	0.0730 mg/L	0.00069	0.95%
Ba 233.527†	37567.0	0.2193 mg/L	0.00341	0.2193 mg/L	0.00341	1.56%
Mn 257.610†	1959253.6	1.206 mg/L	0.0168	1.206 mg/L	0.0168	1.39%
Cr 267.716†	14881.1	0.0621 mg/L	0.00062	0.0621 mg/L	0.00062	1.00%
Fe 273.955†	2724980.6	53.54 mg/L	0.762	53.54 mg/L	0.762	1.42%
Mg 279.077†	8201605.0	183.6 mg/L	0.21	183.6 mg/L	0.21	0.11%
V 292.402†	37508.7	0.0838 mg/L	0.00104	0.0838 mg/L	0.00104	1.24%
Al 308.215†	1111336.7	28.75 mg/L	0.448	28.75 mg/L	0.448	1.56%
Be 313.107†	-1987.7	-0.0003 mg/L	0.00011	-0.0003 mg/L	0.00011	38.23%
Cu 324.752†	38847.1	0.1122 mg/L	0.00157	0.1122 mg/L	0.00157	1.40%
Ag 338.289†	-3420.3	-0.0196 mg/L	0.00052	-0.0196 mg/L	0.00052	2.67%
Na 330.237†	-857.9	-0.0644 mg/L	0.05337	-0.0644 mg/L	0.05337	82.94%
Ca 227.546†	193814.1	320.3 mg/L	4.76	320.3 mg/L	4.76	1.49%
Al RADIAL†	104564.3	27.16 mg/L	0.096	27.16 mg/L	0.096	0.35%
Fe RADIAL†	43955.8	53.25 mg/L	0.084	53.25 mg/L	0.084	0.16%
Ca RADIAL†	3347764.6	325.7 mg/L	7.82	325.7 mg/L	7.82	2.40%
K RADIAL†	15363.5	7.674 mg/L	0.0422	7.674 mg/L	0.0422	0.55%
Mg RADIAL†	148445.9	177.2 mg/L	0.30	177.2 mg/L	0.30	0.17%
Na RADIAL†	15277.6	0.8797 mg/L	0.02394	0.8797 mg/L	0.02394	2.72%
Mo 202.031	0.3	0.000 mg/L	0.0001	0.000 mg/L	0.0001	>999.9%

Sequence No.: 161

Sample ID: SEQ-SRD6

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 135

Date Collected: 3/9/2016 4:26:35 AM

Data Type: Reprocessed on 3/9/2016 6:16:08 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-SRD6

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21258627.9	5.340 mg/L	0.0784			1.47%
Y RADIAL	524505.3	5.480 mg/L	0.0540			0.99%
As 188.979†	-15.1	-0.0006 mg/L	0.00161	-0.0006 mg/L	0.00161	272.30%
Tl 190.801†	-49.7	-0.0065 mg/L	0.00226	-0.0065 mg/L	0.00226	34.49%
Se 196.026†	-19.6	-0.0009 mg/L	0.00158	-0.0009 mg/L	0.00158	173.37%
Zn 206.200†	4261.4	0.0422 mg/L	0.00048	0.0422 mg/L	0.00048	1.14%
Sb 206.836†	-34.0	-0.0045 mg/L	0.00188	-0.0045 mg/L	0.00188	41.59%
Pb 220.353†	333.2	0.0149 mg/L	0.00065	0.0149 mg/L	0.00065	4.33%
Cd 226.502†	434.5	-0.0001 mg/L	0.00005	-0.0001 mg/L	0.00005	87.35%
Co 228.616†	736.5	0.0090 mg/L	0.00009	0.0090 mg/L	0.00009	1.01%
Ni 232.003†	991.3	0.0229 mg/L	0.00110	0.0229 mg/L	0.00110	4.79%
Ba 233.527†	14254.0	0.0832 mg/L	0.00144	0.0832 mg/L	0.00144	1.73%
Mn 257.610†	703294.5	0.4333 mg/L	0.00748	0.4333 mg/L	0.00748	1.73%
Cr 267.716†	4397.6	0.0186 mg/L	0.00040	0.0186 mg/L	0.00040	2.14%
Fe 273.955†	1153774.3	22.67 mg/L	0.404	22.67 mg/L	0.404	1.78%
Mg 279.077†	218875.9	4.897 mg/L	0.0900	4.897 mg/L	0.0900	1.84%
V 292.402†	10909.5	0.0239 mg/L	0.00070	0.0239 mg/L	0.00070	2.94%
Al 308.215†	478253.6	12.38 mg/L	0.233	12.38 mg/L	0.233	1.88%
Be 313.107†	441.4	0.0001 mg/L	0.00004	0.0001 mg/L	0.00004	60.34%

Cu 324.752†	5175.4	0.0169 mg/L	0.00025	0.0169 mg/L	0.00025	1.49%
Ag 338.289†	-795.9	-0.0036 mg/L	0.00031	-0.0036 mg/L	0.00031	8.63%
Na 330.237†	-658.4	-0.3679 mg/L	0.06656	-0.3679 mg/L	0.06656	18.09%
Ca 227.546†	7185.0	12.06 mg/L	0.124	12.06 mg/L	0.124	1.03%
Al RADIAL†	47569.3	12.36 mg/L	0.012	12.36 mg/L	0.012	0.10%
Fe RADIAL†	18531.9	22.45 mg/L	0.081	22.45 mg/L	0.081	0.36%
Ca RADIAL†	132159.5	12.86 mg/L	0.022	12.86 mg/L	0.022	0.17%
K RADIAL†	4134.3	2.065 mg/L	0.0487	2.065 mg/L	0.0487	2.36%
Mg RADIAL†	4128.2	4.926 mg/L	0.0485	4.926 mg/L	0.0485	0.99%
Na RADIAL†	-3208.3	-0.1847 mg/L	0.02377	-0.1847 mg/L	0.02377	12.87%
Mo 202.031	-31.2	-0.001 mg/L	0.0002	-0.001 mg/L	0.0002	32.33%

Sequence No.: 162

Sample ID: SEQ-CCVE

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/9/2016 4:31:17 AM

Data Type: Reprocessed on 3/9/2016 6:16:09 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCVE

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21081712.4	5.296 mg/L	0.1464			2.76%
Y RADIAL	513669.2	5.367 mg/L	0.0268			0.50%
As 188.979†	952.9	0.2501 mg/L	0.00461	0.2501 mg/L	0.00461	1.84%
Tl 190.801†	1443.6	0.2492 mg/L	0.00398	0.2492 mg/L	0.00398	1.60%
Se 196.026†	475.5	0.2424 mg/L	0.00756	0.2424 mg/L	0.00756	3.12%
Zn 206.200†	245284.6	2.441 mg/L	0.0314	2.441 mg/L	0.0314	1.29%
Sb 206.836†	1461.4	0.2336 mg/L	0.00457	0.2336 mg/L	0.00457	1.96%
Pb 220.353†	5580.3	0.2476 mg/L	0.00416	0.2476 mg/L	0.00416	1.68%
Cd 226.502†	34425.0	0.1198 mg/L	0.00164	0.1198 mg/L	0.00164	1.37%
Co 228.616†	214122.5	2.473 mg/L	0.0344	2.473 mg/L	0.0344	1.39%
Ni 232.003†	102478.5	2.436 mg/L	0.0313	2.436 mg/L	0.0313	1.29%
Ba 233.527†	1714238.4	10.01 mg/L	0.132	10.01 mg/L	0.132	1.31%
Mn 257.610†	4129363.9	2.528 mg/L	0.0309	2.528 mg/L	0.0309	1.22%
Cr 267.716†	240652.6	0.9779 mg/L	0.01277	0.9779 mg/L	0.01277	1.31%
Fe 273.955†	250115.3	4.914 mg/L	0.0612	4.914 mg/L	0.0612	1.24%
Mg 279.077†	1092718.4	24.47 mg/L	0.313	24.47 mg/L	0.313	1.28%
V 292.402†	1033610.6	2.412 mg/L	0.0268	2.412 mg/L	0.0268	1.11%
Al 308.215†	361453.5	9.354 mg/L	0.1059	9.354 mg/L	0.1059	1.13%
Be 313.107†	1658244.0	0.2502 mg/L	0.00259	0.2502 mg/L	0.00259	1.04%
Cu 324.752†	446663.1	1.211 mg/L	0.0141	1.211 mg/L	0.0141	1.16%
Ag 338.289†	239620.6	1.187 mg/L	0.0158	1.187 mg/L	0.0158	1.33%
Na 330.237†	30211.9	22.28 mg/L	0.285	22.28 mg/L	0.285	1.28%
Ca 227.546†	14537.4	24.04 mg/L	0.352	24.04 mg/L	0.352	1.46%
Al RADIAL†	36271.6	9.421 mg/L	0.0414	9.421 mg/L	0.0414	0.44%
Fe RADIAL†	4135.2	5.010 mg/L	0.0902	5.010 mg/L	0.0902	1.80%
Ca RADIAL†	257565.2	25.06 mg/L	0.036	25.06 mg/L	0.036	0.15%
K RADIAL†	10133.1	5.061 mg/L	0.0766	5.061 mg/L	0.0766	1.51%
Mg RADIAL†	21220.6	25.33 mg/L	0.470	25.33 mg/L	0.470	1.86%
Na RADIAL†	432674.4	24.91 mg/L	0.124	24.91 mg/L	0.124	0.50%
Mo 202.031	63425.6	1.186 mg/L	0.0175	1.186 mg/L	0.0175	1.48%

Sequence No.: 163

Sample ID: SEQ-CCBE

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/9/2016 4:38:59 AM

Data Type: Reprocessed on 3/9/2016 6:16:09 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCBE

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	21595408.6	5.425 mg/L	0.0445			0.82%
Y RADIAL	523359.3	5.468 mg/L	0.0601			1.10%
As 188.979†	0.9	0.0002 mg/L	0.00079	0.0002 mg/L	0.00079	344.00%
Tl 190.801†	13.2	0.0023 mg/L	0.00124	0.0023 mg/L	0.00124	54.44%
Se 196.026†	-0.6	-0.0003 mg/L	0.00319	-0.0003 mg/L	0.00319	>999.9%

Zn	206.200†	49.0	0.0005 mg/L	0.00008	0.0005 mg/L	0.00008	16.51%
Sb	206.836†	4.9	0.0008 mg/L	0.00246	0.0008 mg/L	0.00246	313.82%
Pb	220.353†	12.6	0.0006 mg/L	0.00040	0.0006 mg/L	0.00040	71.15%
Cd	226.502†	20.6	0.0001 mg/L	0.00009	0.0001 mg/L	0.00009	122.83%
Co	228.616†	29.9	0.0003 mg/L	0.00012	0.0003 mg/L	0.00012	35.38%
Ni	232.003†	107.1	0.0025 mg/L	0.00044	0.0025 mg/L	0.00044	17.41%
Ba	233.527†	79.9	0.0005 mg/L	0.00005	0.0005 mg/L	0.00005	10.07%
Mn	257.610†	221.6	0.0001 mg/L	0.00003	0.0001 mg/L	0.00003	23.70%
Ce	267.716†	-54.2	-0.0002 mg/L	0.00022	-0.0002 mg/L	0.00022	100.72%
Fe	273.955†	191.3	0.0038 mg/L	0.00088	0.0038 mg/L	0.00088	23.45%
Mg	279.077†	222.2	0.0050 mg/L	0.00074	0.0050 mg/L	0.00074	14.91%
V	292.402†	38.3	0.0001 mg/L	0.00013	0.0001 mg/L	0.00013	147.61%
Al	308.215†	-354.3	-0.0092 mg/L	0.00092	-0.0092 mg/L	0.00092	10.01%
Be	313.107†	800.2	0.0001 mg/L	0.00002	0.0001 mg/L	0.00002	13.84%
Cu	324.752†	78.1	0.0002 mg/L	0.00028	0.0002 mg/L	0.00028	133.66%
Ag	338.289†	435.6	0.0022 mg/L	0.00024	0.0022 mg/L	0.00024	10.99%
Nd	330.237†	-568.6	-0.4184 mg/L	0.05590	-0.4184 mg/L	0.05590	13.36%
Ca	227.546†	71.7	0.1183 mg/L	0.05435	0.1183 mg/L	0.05435	45.94%
Al	RADIAL†	143.4	0.0373 mg/L	0.00812	0.0373 mg/L	0.00812	21.79%
Fe	RADIAL†	-1.1	-0.0013 mg/L	0.00996	-0.0013 mg/L	0.00996	755.22%
Ca	RADIAL†	67.5	0.0066 mg/L	0.00386	0.0066 mg/L	0.00386	58.83%
K	RADIAL†	-2.2	-0.0011 mg/L	0.03447	-0.0011 mg/L	0.03447	>999.9%
Mg	RADIAL†	6.3	0.0076 mg/L	0.00597	0.0076 mg/L	0.00597	78.83%
Na	RADIAL†	-8764.9	-0.5047 mg/L	0.01971	-0.5047 mg/L	0.01971	3.91%
Mo	202.031†	17.0	0.000 mg/L	0.0001	0.000 mg/L	0.0001	29.85%

York Analytical Laboratories, Inc.

SDG: 16C0235

CLASS: HG

METHOD: EPA 7473

DATA PACKAGE COVER PAGE

EPA 7473

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-1

02/LSB-1

03/LSB-2

04/LSB-2

Lab Sample Id:

16C0235-01

16C0235-02

16C0235-03

16C0235-04

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:

3/25/2016

Title:

Laboratory Director

FORM I

INORGANIC ANALYSIS DATA SHEET

01/LSB-1

EPA 7473

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0235-01File ID: QBHgDMA80-02 031016A-073Sampled: 03/04/16 11:45Prepared: 03/10/16 06:53Analyzed: 03/11/16 06:46Solids: 88.84Preparation: EPA 7473 soilInitial/Final: 0.2 g / 0.2 gBatch: BC60525

Sequence:

Calibration:

Instrument: MileStone

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7439-97-6	Mercurey	2.75	1		EPA 7473

FORM I

INORGANIC ANALYSIS DATA SHEET

02/LSB-1

EPA 7473

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0235-02File ID: QBHgDMA80-02 031016A-065Sampled: 03/04/16 12:20Prepared: 03/10/16 06:53Analyzed: 03/10/16 16:46Solids: 88.27Preparation: EPA 7473 soilInitial/Final: 0.2 g / 0.2 gBatch: BC60525

Sequence:

Calibration:

Instrument: MileStone

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7439-97-6	Mercury	0.0340	1	U	EPA 7473

FORM I

INORGANIC ANALYSIS DATA SHEET

03/LSB-2

EPA 7473

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0235-03File ID: QBHgDMA80-02 031016A-066Sampled: 03/04/16 13:15Prepared: 03/10/16 06:53Analyzed: 03/10/16 16:54Solids: 84.92Preparation: EPA 7473 soilInitial/Final: 0.2 g / 0.2 gBatch: BC60525

Sequence:

Calibration:

Instrument: MileStone

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7439-97-6	Mercury	0.218	1		EPA 7473

FORM I

INORGANIC ANALYSIS DATA SHEET

04/LSB-2

EPA 7473

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0235-04File ID: QBHgDMA80-02 031016A-067Sampled: 03/04/16 13:30Prepared: 03/10/16 06:53Analyzed: 03/10/16 17:03Solids: 70.08Preparation: EPA 7473 soilInitial/Final: 0.2 g / 0.2 gBatch: BC60525

Sequence:

Calibration:

Instrument: MileStone

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7439-97-6	Mercury	1.25	1		EPA 7473

Form 2A
CONTINUING CALIBRATION VERIFICATION (Hg)

Lab Name: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental
Services (NJ)

Project: 100433202

I Cal Source: Inorganic Ventures

Sequence: QBHg031016A

C Cal Source: Absolute Standards

Concentration units: ug/kG

Analyte	TRUE	CCV 3		TRUE	CCV 4		TRUE	CCV 5	
		FOUND	%R(1)		FOUND	% R(1)		FOUND	% R(1)
Mercury	20.0000	22.8503	114.3	20.0000	22.8021	114.0	20.0000	22.8453	114.2

(1) Control Limits Hg 80-120 %

**Form 3
BLANKS**

Lab Name: York Analytical Laboratories, Inc

SDG: 16C0235

Client: Langan Engineering &
Environmental Services (NJ)

Project: 100433202

Preparation Blank Matrix: Soil

Prep Blank ID: BC60525-BLK1

Prep. Blank Conc. Units: mg/kg

Sequence ID: QBHg031016A

Analyte	Continuing Calibration Blanks (mg/kg)								Preparation Blank		M
	3	C	4	C	5	C			Result	C	
Mercury	0.03	U	0.03	U	0.03	U			0.03	U	CV

FORM IV

PREPARATION BATCH SUMMARY

EPA 7473

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60525 Batch Matrix: Soil Preparation: EPA 7473 soil

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-1	16C0235-01	HgDMA80-02 031016A-	03/10/16 06:53	
02/LSB-1	16C0235-02	HgDMA80-02 031016A-	03/10/16 06:53	
03/LSB-2	16C0235-03	HgDMA80-02 031016A-	03/10/16 06:53	
04/LSB-2	16C0235-04	HgDMA80-02 031016A-	03/10/16 06:53	
Blank	BC60525-BLK1	HgDMA80-02 031016A-	03/10/16 06:53	
Reference	BC60525-SRM1	HgDMA80-02 031016A-	03/10/16 06:53	

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 7473**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202

Sequence:

Instrument:

Calibration:

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Blank	BC60525-BLK1	QBHgDMA80-02 031016A-03	03/10/16 12:51
Reference	BC60525-SRM1	QBHgDMA80-02 031016A-03	03/10/16 13:00
02/LSB-1	16C0235-02	QBHgDMA80-02 031016A-06	03/10/16 16:46
03/LSB-2	16C0235-03	QBHgDMA80-02 031016A-06	03/10/16 16:54
04/LSB-2	16C0235-04	QBHgDMA80-02 031016A-06	03/10/16 17:03
01/LSB-1	16C0235-01	QBHgDMA80-02 031016A-07	03/11/16 06:46

Sample listing "QBHgDMA80-02 031016A.d80"

Created by "Service"
11.03.2016 07:32:15

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 10.03.16 07:22	✓ 10.03.16 07:20	0.8437	22.8156	114.0782		1.0000
2 (2)	mb	0.1000 g 10.03.16 07:22	✓ 10.03.16 07:27	0.0135	0.0952	0.9518		1.0000
3 (3)	CCB-1	0.1000 g 10.03.16 07:23	✓ 10.03.16 07:36	0.0067	0.0472	0.4724		1.0000
4 (4)	BC60524-BLK1	0.2000 g 10.03.16 07:23	✓ 10.03.16 07:45	0.0045	0.0317	0.1586		1.0000
5 (5)	BC60524-SRM1	0.0244 g 10.03.16 08:13	✓ 10.03.16 08:10	0.1264	174.8476	7165.886		1.0000
- (6)	auto BV (1)	0.0000 g 10.03.16 08:20	✓ B 10.03.16 08:16	0.0109	0.0768			1.0000
6 (7)	mb	0.1000 g 10.03.16 08:24	✓ 10.03.16 08:21	0.0109	0.0768	0.7685		1.0000
7 (8)	16C0216-16	0.2238 g 10.03.16 08:24	✓ 10.03.16 08:29	0.0544	0.3835	1.7137		1.0000
8 (9)	BC60524-DUP1	0.2526 g 10.03.16 08:24	✓ 10.03.16 08:38	0.0569	0.4011	1.5881		1.0000
9 (10)	BC60524-MS1	0.2472 g 10.03.16 08:56	✓ 10.03.16 08:53	0.0859	115.0234	465.3050		1.0000
- (11)	auto BV (1)	0.0000 g 10.03.16 09:04	✓ B 10.03.16 09:00	0.0124	0.0871			1.0000
10 (12)	CCV-2	0.2000 g 10.03.16 09:09	✓ 10.03.16 09:05	0.0208	18.8614	94.3072		1.0000
11 (13)	mb	0.1000 g 10.03.16 09:09	✓ 10.03.16 09:12	0.0200	0.1410	1.4100		1.0000
12 (14)	CCB-2	0.1000 g 10.03.16 09:09	✓ 10.03.16 09:21	0.0109	0.0768	0.7685		1.0000
13 (15)	16C0216-13	0.2367 g 10.03.16 09:10	✓ 10.03.16 09:30	0.0200	0.1410	0.5957		1.0000
14 (16)	16C0216-14	0.2172 g 10.03.16 09:10	✓ 10.03.16 09:40	0.0131	0.0924	0.4252		1.0000
15 (17)	16C0216-18	0.2051 g 10.03.16 09:10	✓ 10.03.16 09:49	0.0199	0.1403	0.6840		1.0000
16 (18)	16C0216-19	0.2116 g 10.03.16 09:10	✓ 10.03.16 09:58	0.0190	0.1340	0.6330		1.0000
17 (19)	16C0216-21	0.2608 g 10.03.16 09:10	✓ 10.03.16 10:07	0.1172	0.8263	3.1682		1.0000
18 (20)	16C0228-01	0.2073 g 10.03.16 09:50	✓ 10.03.16 10:16	0.3012	7.6188	36.7526		1.0000
19 (21)	16C0228-02	0.2057 g 10.03.16 09:51	✓ 10.03.16 10:25	0.2385	5.8614	28.4951		1.0000
20 (22)	16C0228-03	0.2251 g 10.03.16 09:51	✓ 10.03.16 10:34	0.1816	1.2803	5.6876		1.0000
21 (23)	16C0225-01	0.2397 g 10.03.16 10:01	✓ 10.03.16 10:43	0.0473	58.0057	241.9929		1.0000
22 (24)	16C0225-02	0.2339 g 10.03.16 10:01	✓ 10.03.16 10:52	0.7884	21.2656	90.9173		1.0000
23 (25)	16C0225-03	0.2170 g 10.03.16 10:01	✓ 10.03.16 11:01	0.0243	24.0314	110.7440		1.0000
24 (26)	16C0225-04	0.2540 g 10.03.16 10:01	✓ 10.03.16 11:10	0.0301	32.5989	128.3420		1.0000
25 (27)	16C0225-05	0.2464 g 10.03.16 10:01	✓ 10.03.16 11:19	0.8325	22.5007	91.3176		1.0000
26 (28)	16C0225-06	0.2526 g 10.03.16 10:01	✓ 10.03.16 11:28	0.7694	20.7331	82.0788		1.0000

Sample listing "QBHgDMA80-02 031016A.d80"

Created by "Service"
11.03.2016 07:32:15

Page 2 of 3

Pos Nr.	Samplename Remark	Amount Date	State Date	Height	Hg [ng]	Concentr. [µg/kg]	Σ	Cal- Factor
27 (29)	16C0225-07	0.2397 g 10.03.16 10:01	✓ 10.03.16 11:38	0.2922	2.0600	8.5941		1.0000
28 (30)	16C0225-08	0.2385 g 10.03.16 10:01	✓ 10.03.16 11:47	0.4888	3.4461	14.4489		1.0000
29 (31)	16C0225-09	0.2188 g 10.03.16 10:01	✓ 10.03.16 11:56	0.7900	21.3117	97.4028		1.0000
30 (32)	16C0225-10	0.2316 g 10.03.16 10:02	✓ 10.03.16 12:05	0.7634	20.5663	88.8007		1.0000
31 (33)	16C0228-04	0.2016 g 10.03.16 10:09	✓ 10.03.16 12:14	0.3127	2.2045	10.9352		1.0000
32 (34)	CCV-3	0.2000 g 10.03.16 12:29	✓ 10.03.16 12:26	0.8450	22.8503	114.2517		1.0000
33 (35)	mb	0.1000 g 10.03.16 12:29	✓ 10.03.16 12:32	0.0147	0.1036	1.0364		1.0000
34 (36)	CCB-3	0.1000 g 10.03.16 12:29	✓ 10.03.16 12:42	0.0075	0.0529	0.5288		1.0000
35 (37)	BC60525-BLK1	0.2000 g 10.03.16 12:36	✓ 10.03.16 12:51	0.0051	0.0360	0.1798		1.0000
36 (38)	BC60525-SRM1	0.0200 g 10.03.16 12:37	✓ 10.03.16 13:00	0.1078	147.3728	7368.640		1.0000
- (39)	auto BV (1)	0.0000 g 10.03.16 13:14	✓ B 10.03.16 13:09	0.0166	0.1170			1.0000
37 (40)	mb	0.1000 g 10.03.16 13:15	✓ 10.03.16 13:13	0.0146	0.1029	1.0293		1.0000
38 (41)	16B0952-02	0.2622 g 10.03.16 13:15	✓ 10.03.16 13:21	0.1778	1.2535	4.7807		1.0000
39 (42)	BC60525-DUP1	0.2449 g 10.03.16 13:16	✓ 10.03.16 13:30	0.2045	1.4417	5.8870		1.0000
40 (43)	BC60525-MS1	0.2007 g 10.03.16 13:45	✓ 10.03.16 13:40	0.0959	129.7948	646.7105		1.0000
- (44)	auto BV (1)	0.0000 g 10.03.16 13:54	✓ B 10.03.16 13:48	0.0144	0.1015			1.0000
40 (45)	BC60525-MS1 re run	0.1956 g 10.03.16 13:56	✓ 10.03.16 13:52	0.0877	117.6822	601.6474		1.0000
- (46)	auto BV (1)	0.0000 g 10.03.16 14:06	✓ B 10.03.16 14:01	0.0213	0.1502			1.0000
1 (47)	CCV-4	0.2000 g 10.03.16 14:07	✓ 10.03.16 14:16	0.8432	22.8021	114.0103		1.0000
2 (48)	mb	0.1000 g 10.03.16 14:07	✓ 10.03.16 14:23	0.0196	0.1382	1.3818		1.0000
3 (49)	CCB-4	0.1000 g 10.03.16 14:07	✓ 10.03.16 14:32	0.0117	0.0825	0.8249		1.0000
4 (50)	16B0952-04	0.2088 g 10.03.16 14:24	✓ 10.03.16 14:41	0.1155	0.8143	3.8998		1.0000
5 (51)	16C0228-05	0.1993 g 10.03.16 14:30	✓ 10.03.16 14:50	0.1442	201.1408	1009.236		1.0000
- (52)	auto BV (1)	0.0000 g 10.03.16 15:05	✓ B 10.03.16 14:59	0.0083	0.0582			1.0000
6 (53)	16C0228-06	0.2728 g 10.03.16 14:30	✓ 10.03.16 15:03	0.0954	0.6726	2.4654		1.0000
7 (54)	16C0228-07	0.2358 g 10.03.16 14:30	✓ 10.03.16 15:11	0.0274	28.6106	121.3341		1.0000
8 (55)	16C0228-08	0.2555 g 10.03.16 14:30	✓ 10.03.16 15:20	0.2096	1.4777	5.7835		1.0000
9 (56)	16C0228-09	0.2312 g 10.03.16 14:30	✓ 10.03.16 15:29	0.2719	6.7981	29.4034		1.0000

Sample listing "QBHgDMA80-02 031016A.d80"

Created by "Service"
11.03.2016 07:32:15

Page 3 of 3

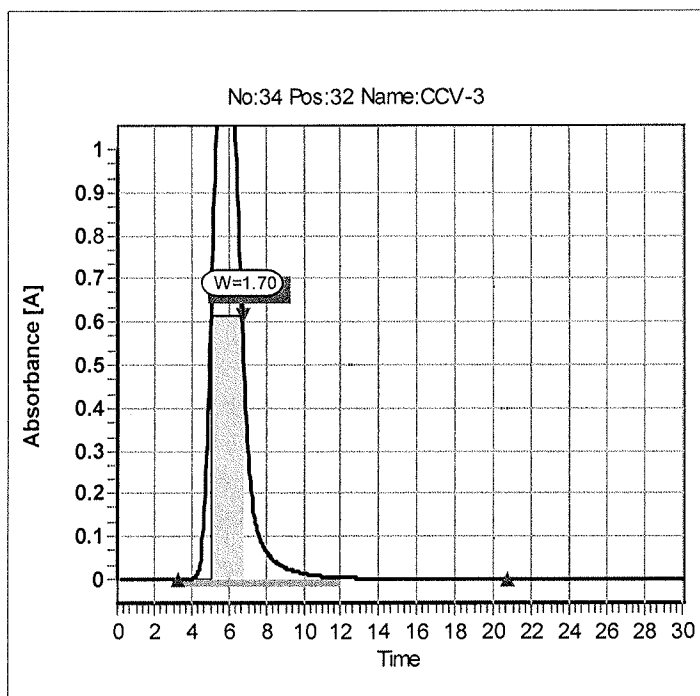
Pos Nr.	Samplename Remark	Amount Date	State Date	Height	Hg [ng]	Concentr. [µg/kg]	Σ	Cal- Factor
10 (57)	16C0228-10	0.2161 g 10.03.16 14:30	✓ 10.03.16 15:39	0.3589	9.2338	42.7294		1.0000
11 (58)	16C0228-11	0.2493 g 10.03.16 14:30	✓ 10.03.16 15:48	0.3746	9.6728	38.7997		1.0000
12 (59)	16C0228-12	0.2081 g 10.03.16 14:30	✓ 10.03.16 15:57	0.3867	10.0117	48.1099		1.0000
13 (60)	16C0228-13	0.2077 g 10.03.16 14:30	✓ 10.03.16 16:06	0.2529	6.2645	30.1613		1.0000
14 (61)	16C0228-14	0.2653 g 10.03.16 14:30	✓ 10.03.16 16:15	0.2256	1.5905	5.9950		1.0000
15 (62)	16C0228-15	0.2237 g 10.03.16 14:30	✓ 10.03.16 16:24	0.2508	1.7681	7.9041		1.0000
16 (63)	16C0235-01	0.2711 g 10.03.16 14:36	✓ 10.03.16 16:33	0.6679	974.7200	3595.425		1.0000
- (64)	auto BV (1)	0.0000 g 10.03.16 16:48	✓ B 10.03.16 16:42	0.0367	0.2587			1.0000
17 (65)	16C0235-02	0.2317 g 10.03.16 14:36	✓ 10.03.16 16:46	0.2555	1.8013	7.7742		1.0000
18 (66)	16C0235-03	0.2419 g 10.03.16 14:36	✓ 10.03.16 16:54	0.0384	44.8591	185.4450		1.0000
19 (67)	16C0235-04	0.2161 g 10.03.16 14:36	✓ 10.03.16 17:03	0.1367	190.0622	879.5103		1.0000
- (68)	auto BV (1)	0.0000 g 10.03.16 17:19	✓ B 10.03.16 17:12	0.0058	0.0409			1.0000
20 (69)	16C0240-02	0.2243 g 10.03.16 14:36	✓ 10.03.16 17:16	0.0263	26.9857	120.3109		1.0000
21 (70)	16C0247-01	0.2199 g 10.03.16 14:39	✓ 10.03.16 17:24	0.0362	41.6094	189.2198		1.0000
22 (71)	16C0263-03	0.2010 g 10.03.16 14:39	✓ 10.03.16 17:34	0.1861	1.3120	6.5274		1.0000
23 (72)	mb	0.1000 g 11.03.16 06:44	✓ 11.03.16 06:38	0.0790	0.5570	5.5695		1.0000
24 (73)	16C0235-01 re run	0.0655 g 11.03.16 06:52	✓ 11.03.16 06:46	0.1163	159.9285	2441.656		1.0000
- (74)	auto BV (1)	0.0000 g 11.03.16 07:00	✓ B 11.03.16 06:53	0.0126	0.0888			1.0000
25 (75)	CCV-5	0.2000 g 11.03.16 07:04	✓ 11.03.16 06:58	0.8448	22.8453	114.2267		1.0000
26 (76)	mb	0.1000 g 11.03.16 07:10	✓ 11.03.16 07:05	0.0155	0.1093	1.0928		1.0000
27 (77)	CCB-5	0.1000 g 11.03.16 07:10	✓ 11.03.16 07:15	0.0081	0.0571	0.5711		1.0000



DMA Result Report

Created by: Service
3/11/2016 3:31:05 PM

Signal curve C:\Documents and



Parameters

Position 34

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 0.8450

Concentration 114.2517 $\mu\text{g/kg}$

Absolute amount of Hg 22.8503 ng

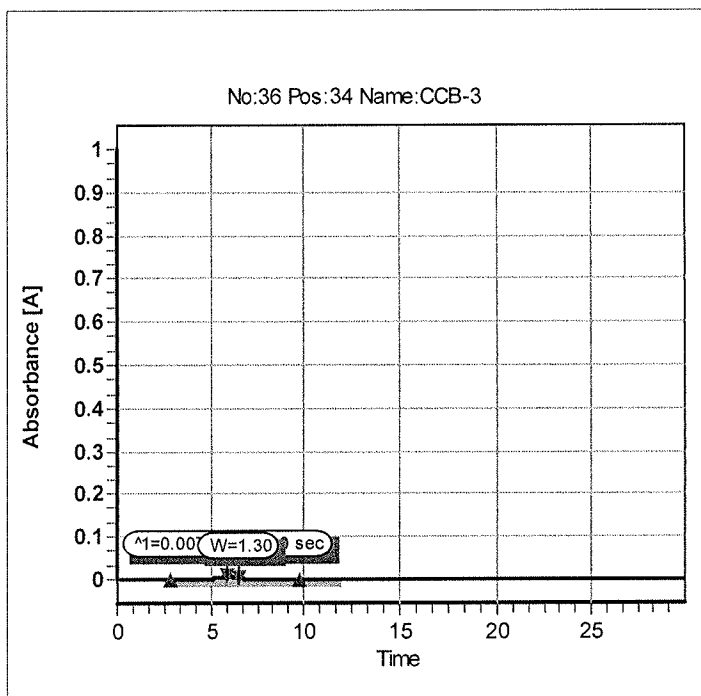
10.03.2016 12:29:27 704 of 746



DMA Result Report

Created by: Service
3/11/2016 3:31:11 PM

Signal curve C:\Documents and



Parameters

Position 36

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 0.0075

Concentration 0.5288 $\mu\text{g/kg}$

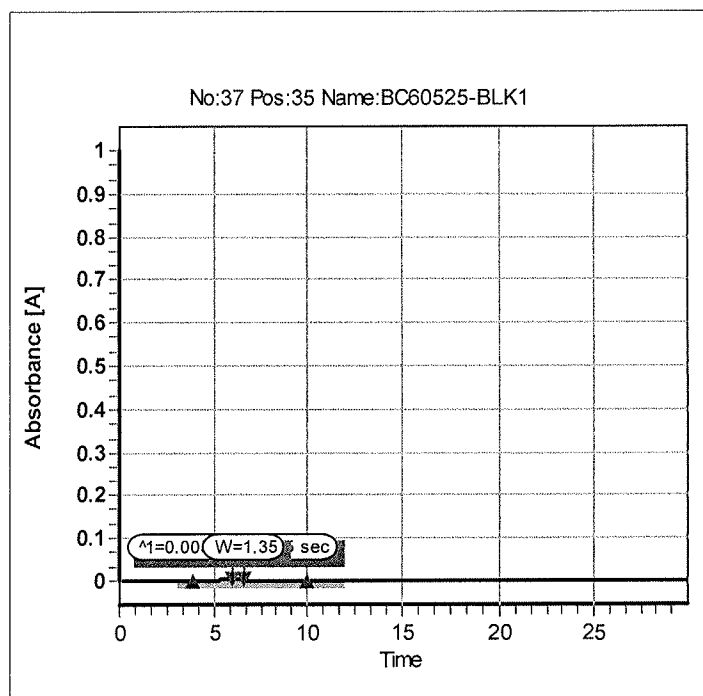
Absolute amount of Hg 0.0529 ng



DMA Result Report

Created by: Service
3/11/2016 3:31:18 PM

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 0.0051

Concentration 0.1798 $\mu\text{g/kg}$

Absolute amount of Hg 0.0360 ng

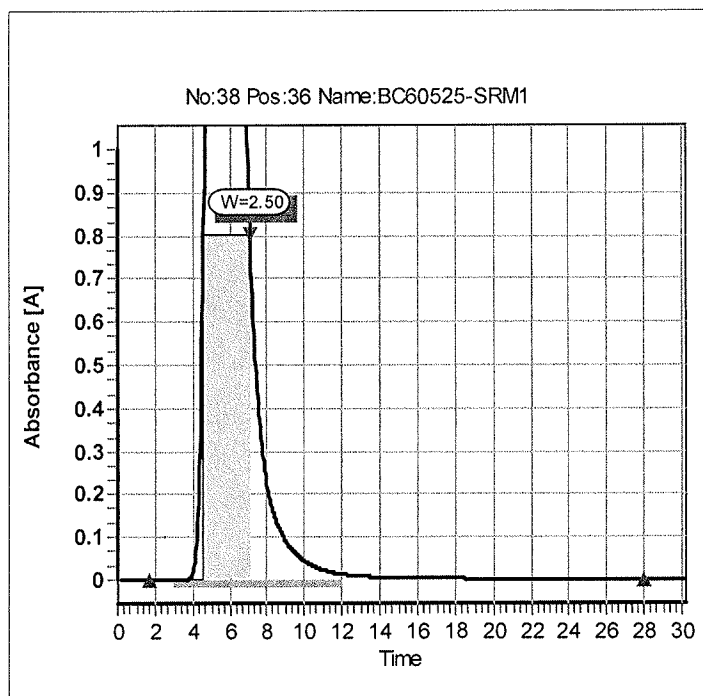
10.03.2016 12:36:49



DMA Result Report

Created by: Service
3/11/2016 3:31:24 PM

Signal curve C:\Documents and



Parameters

Position 38

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 0.0200 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.1078

Concentration 7,368.6401 $\mu\text{g/kg}$

Absolute amount of Hg 147.3728 ng

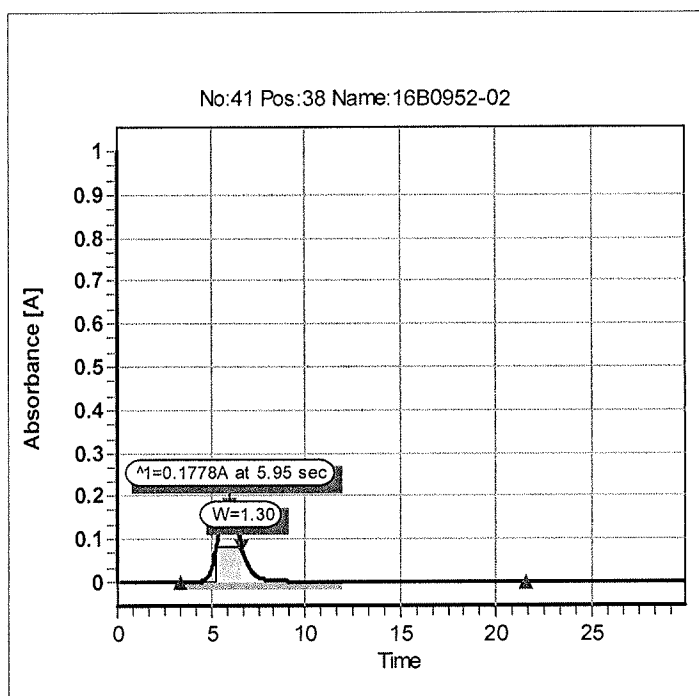
10.03.2016 12:37:06



DMA Result Report

Created by: Service
3/11/2016 3:31:34 PM

Signal curve C:\Documents and



Parameters

Position 41

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 0.2622 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.1778

Concentration 4.7807 $\mu\text{g/kg}$

Absolute amount of Hg 1.2535 ng

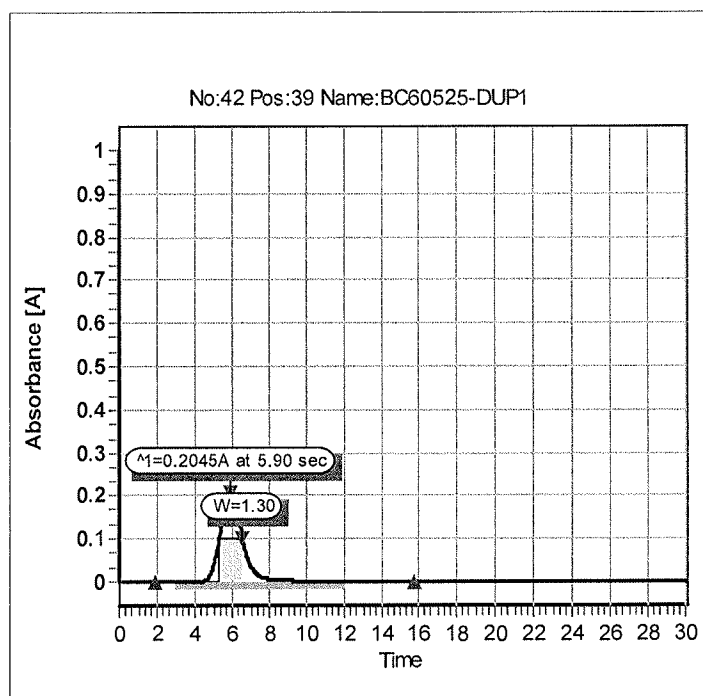
10.03.2016 13:15:51



DMA Result Report

Created by: Service
3/11/2016 3:31:39 PM

Signal curve C:\Documents and



Parameters

Position 42

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 0.2449 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.2045

Concentration 5.8870 $[\mu g/kg]$

Absolute amount of Hg 1.4417 ng

10.03.2016 13:16:02

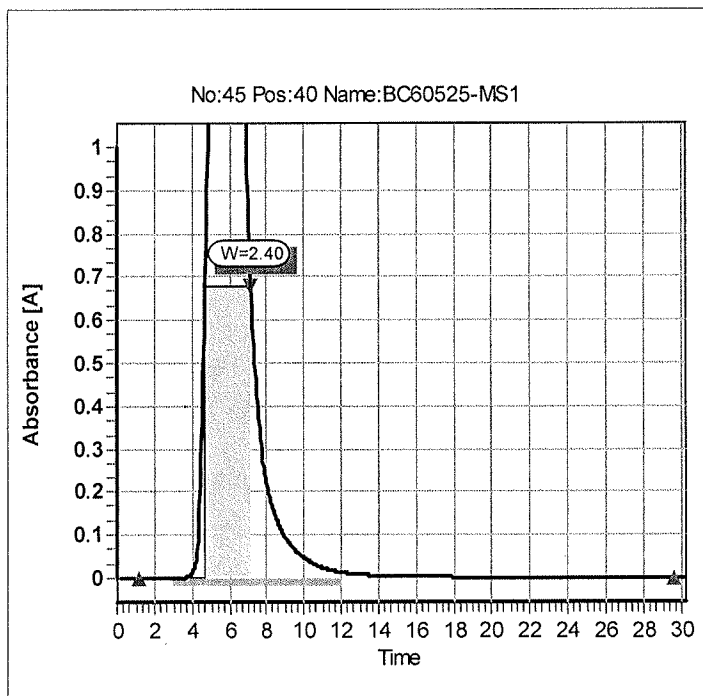


DMA Result Report

Created by: Service

3/11/2016 3:31:51 PM

Signal curve C:\Documents and



Parameters

Position 45

Remarks re run

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 0.1956 g

Calibration file ical Soil DMA80-01_102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.0877

Concentration 601.6474 $\mu\text{g/kg}$

Absolute amount of Hg 117.6822 ng

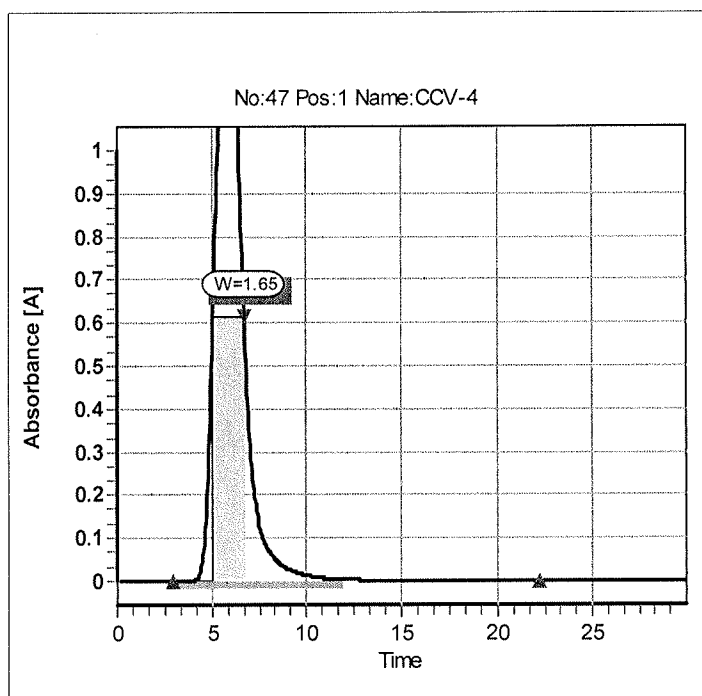
10.03.2016 13:56:29



DMA Result Report

Created by: Service
3/11/2016 3:31:58 PM

Signal curve C:\Documents and



Parameters

Position 47

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 0.8432

Concentration 114.0103 $\mu\text{g/kg}$

Absolute amount of Hg 22.8021 ng

10.03.2016 14:07:25

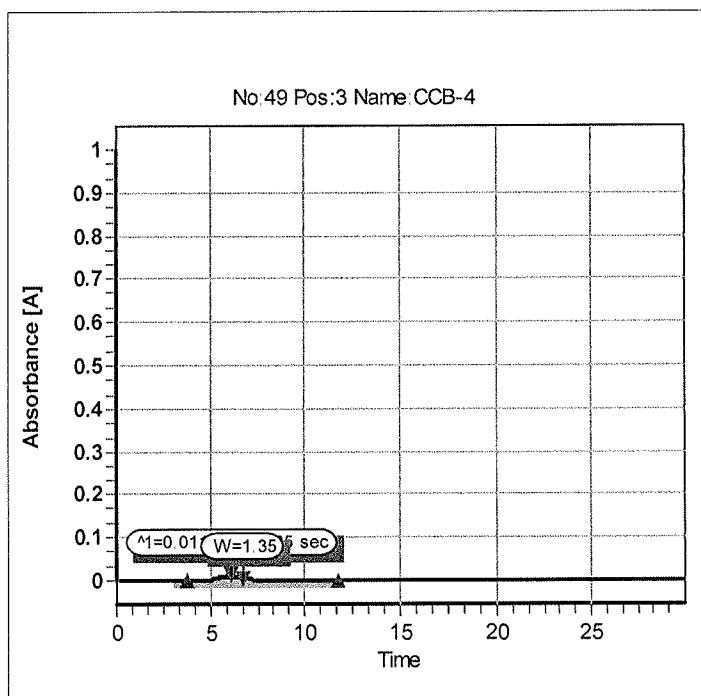


DMA Result Report

Created by: Service

3/11/2016 3:32:05 PM

Signal curve C:\Documents and



Parameters

Position 49

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 0.0117

Concentration 0.8249 $\mu\text{g/kg}$

Absolute amount of Hg 0.0825 ng

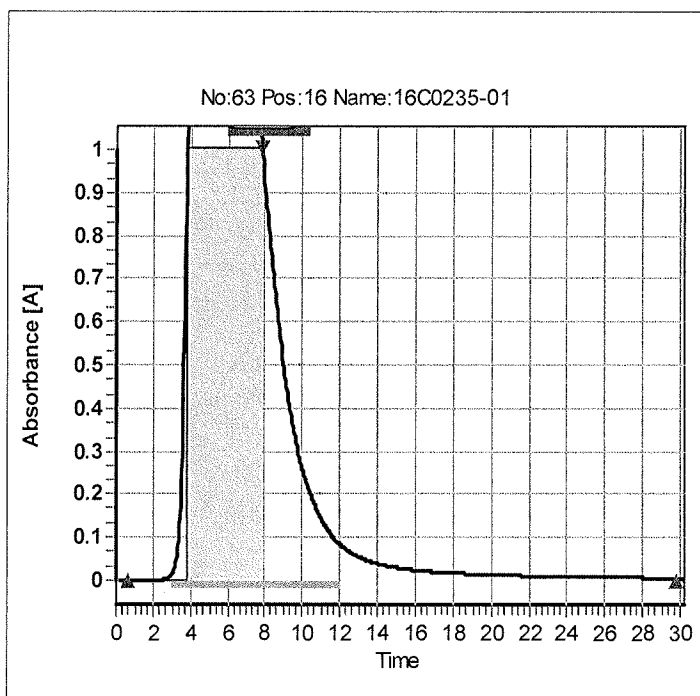
10.03.2016 14:07:30



DMA Result Report

Created by: Service
3/11/2016 3:32:16 PM

Signal curve C:\Documents and



Parameters

Position 63

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 0.2711 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.6679

Concentration 3,595.4258 [µg/kg]

Absolute amount of Hg 974.7200 ng

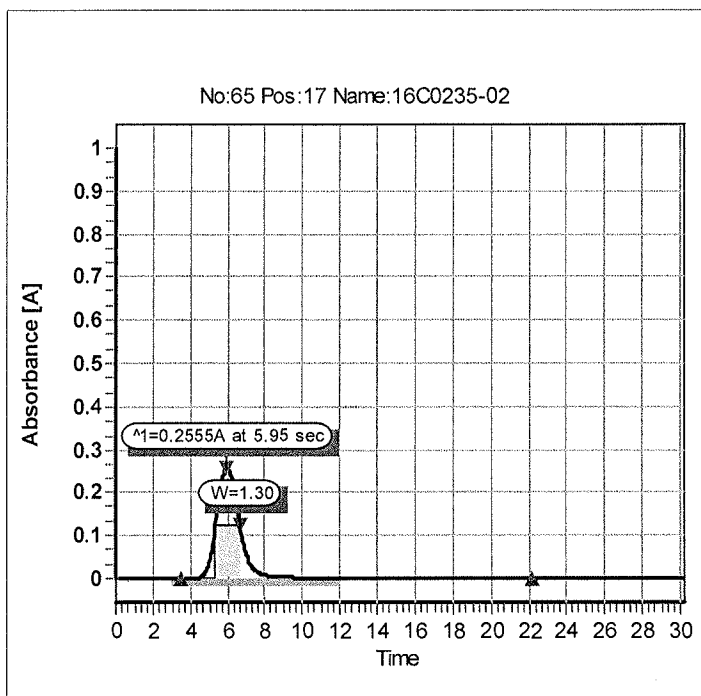


DMA Result Report

Created by: Service

3/11/2016 3:32:22 PM

Signal curve C:\Documents and



Parameters

Position 65

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 0.2317 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.2555

Concentration 7.7742 $\mu\text{g/kg}$

Absolute amount of Hg 1.8013 ng

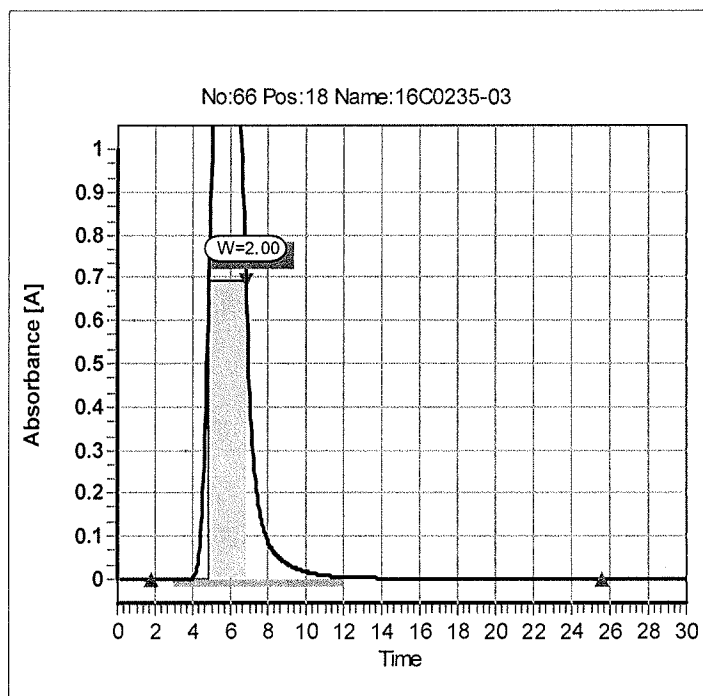
10.03.2016 14:36:40



DMA Result Report

Created by: Service
3/11/2016 3:32:28 PM

Signal curve C:\Documents and



Parameters

Position 66

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 0.2419 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.0384

Concentration 185.4450 $\mu\text{g/kg}$

Absolute amount of Hg 44.8591 ng

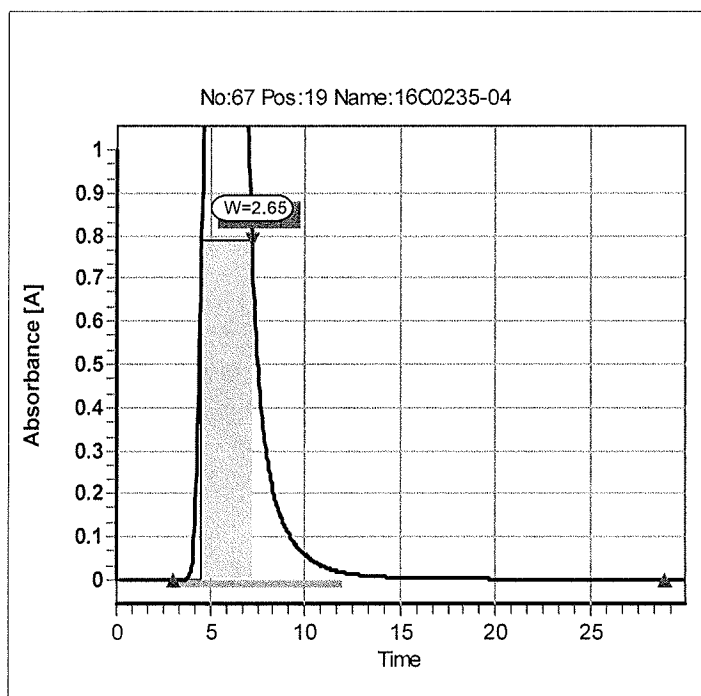
10.03.2016 14:36:41



DMA Result Report

Created by: Service
3/11/2016 3:32:34 PM

Signal curve C:\Documents and



Parameters

Position 67

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 0.2161 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.1367

Concentration 879.5103 [µg/kg]

Absolute amount of Hg 190.0622 ng

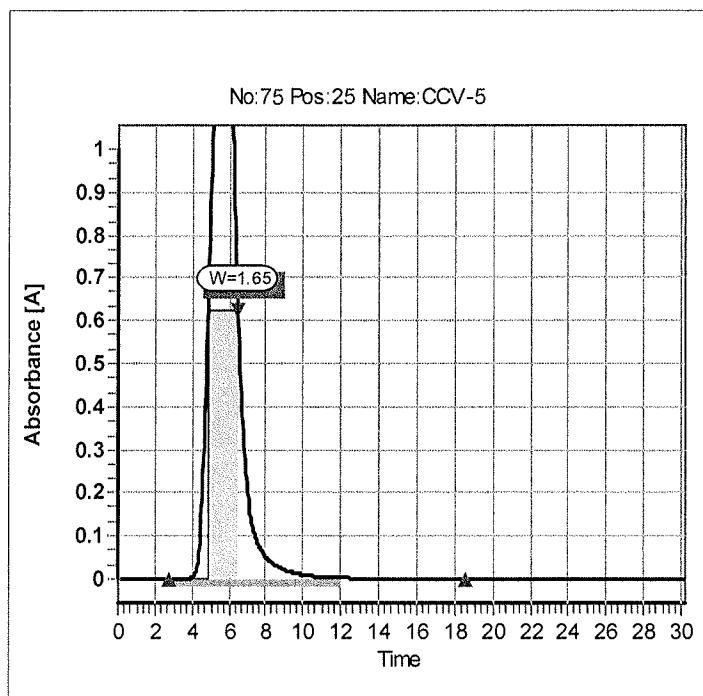
10.03.2016 14:36:43



DMA Result Report

Created by: Service
3/11/2016 3:32:40 PM

Signal curve C:\Documents and



Parameters

Position 75

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 0.8448

Concentration 114.2267 $\mu\text{g/kg}$

Absolute amount of Hg 22.8453 ng



DMA Result Report

Created by: Service
3/11/2016 3:32:46 PM

Signal curve C:\Documents and

Parameters

Position 77

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 0.0081

Concentration 0.5711 [µg/kg]

Absolute amount of Hg 0.0571 ng

11.03.2016 07:10:13

PREPARATION BENCH SHEET

BC60525

York Analytical Laboratories, Inc.

Printed: 3/11/2016 3:37:36PM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (g)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16B0952-02	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	On Hold
16B0952-04	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	On Hold
16C0228-05	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0228-06	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0228-07	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0228-08	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0228-09	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0228-10	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0228-11	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0228-12	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0228-13	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0228-14	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0228-15	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0235-01	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0235-02	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0235-03	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0235-04	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0240-02	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0247-01	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
16C0263-03	Mercury by 7473	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
BC60525-BLK1	QC	03/10/2016 06:5	ALD	0.2	0.2					EPA 7473 soil	
BC60525-DUP1	QC	03/10/2016 06:5	ALD	0.2	0.2		16B0952-02			EPA 7473 soil	
BC60525-MS1	QC	03/10/2016 06:5	ALD	0.2	0.2	Y151150	16B0952-02	100		EPA 7473 soil	

PREPARATION BENCH SHEET

BC60525

York Analytical Laboratories, Inc.

Printed: 3/11/2016 3:37:36PM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (g)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
BC60525-SRM1	QC	03/10/2016 06:5	ALD	0.02	0.02	Y14L104		0.02		EPA 7473 soil	

Batch Comments:

York Analytical Laboratories, Inc.

SDG: 16C0235

CLASS: WET

METHOD: EPA 7196A

DATA PACKAGE COVER PAGE

EPA 7196A

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-1

02/LSB-1

03/LSB-2

04/LSB-2

Lab Sample Id:

16C0235-01

16C0235-02

16C0235-03

16C0235-04

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:

3/25/2016

Title:

Laboratory Director

FORM I

INORGANIC ANALYSIS DATA SHEET

01/LSB-1

EPA 7196A

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0235-01

File ID:

Sampled: 03/04/16 11:45Prepared: 03/11/16 11:12Analyzed: 03/11/16 17:59Solids: 88.84Preparation: EPA SW846-3060Initial/Final: 2.5 g / 100 mLBatch: BC60638

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
18540-29-9	Chromium, Hexavalent	0.563	1	U	EPA 7196A

FORM I

INORGANIC ANALYSIS DATA SHEET

02/LSB-1

EPA 7196A

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0235-02

File ID:

Sampled: 03/04/16 12:20Prepared: 03/11/16 11:12Analyzed: 03/11/16 17:59Solids: 88.27Preparation: EPA SW846-3060Initial/Final: 2.5 g / 100 mLBatch: BC60638

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
18540-29-9	Chromium, Hexavalent	0.566	1	U	EPA 7196A

FORM I

INORGANIC ANALYSIS DATA SHEET

03/LSB-2

EPA 7196A

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0235-03

File ID:

Sampled: 03/04/16 13:15Prepared: 03/11/16 11:12Analyzed: 03/11/16 17:59Solids: 84.92Preparation: EPA SW846-3060Initial/Final: 2.5 g / 100 mLBatch: BC60638

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
18540-29-9	Chromium, Hexavalent	0.589	1	U	EPA 7196A

FORM I

INORGANIC ANALYSIS DATA SHEET

04/LSB-2

EPA 7196A

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0235-04

File ID:

Sampled: 03/04/16 13:30Prepared: 03/11/16 11:12Analyzed: 03/11/16 17:59Solids: 70.08Preparation: EPA SW846-3060Initial/Final: 2.5 g / 100 mLBatch: BC60638

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
18540-29-9	Chromium, Hexavalent	0.713	1	U	EPA 7196A

FORM I**METHOD BLANK DATA SHEET
EPA 7196A**

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil Laboratory ID: BC60638-BLK1 File ID:
Prepared: 03/11/16 11:12 Preparation: EPA SW846-3060 Initial/Final: 2.5 g / 100 mL
Analyzed: 03/11/16 17:59 Instrument: Inst
Batch: BC60638 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: 16C0235
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60638 Batch Matrix: Soil Preparation: EPA SW846-3060

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-1	16C0235-01		03/11/16 11:12	
02/LSB-1	16C0235-02		03/11/16 11:12	
03/LSB-2	16C0235-03		03/11/16 11:12	
04/LSB-2	16C0235-04		03/11/16 11:12	
Blank	BC60638-BLK1		03/11/16 11:12	
Reference	BC60638-SRM1		03/11/16 11:12	

HOLDING TIME SUMMARY

EPA 7196A

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

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-1	03/04/16 11:45	03/07/16 17:45	03/11/16 11:12	6.98	30.00	03/11/16 17:59	0.28	7.00	
02/LSB-1	03/04/16 12:20	03/07/16 17:45	03/11/16 11:12	6.95	30.00	03/11/16 17:59	0.28	7.00	
03/LSB-2	03/04/16 13:15	03/07/16 17:45	03/11/16 11:12	6.91	30.00	03/11/16 17:59	0.28	7.00	
04/LSB-2	03/04/16 13:30	03/07/16 17:45	03/11/16 11:12	6.90	30.00	03/11/16 17:59	0.28	7.00	

METHOD DETECTION AND REPORTING LIMITS

EPA 7196A

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument:

Analyte	LOD	LOQ	Units
Chromium, Hexavalent	0.350	0.500	mg/kg

PREPARATION BENCH SHEET

BC60638

York Analytical Laboratories, Inc.

Printed: 3/28/2016 10:56:05AM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0225-04	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	Lab Composite required for analysis
16C0225-05	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	Lab Composite required for analysis
16C0225-06	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	Lab Composite required for analysis
16C0225-07	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	Lab Composite required for analysis
16C0225-08	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	Lab Composite required for analysis
16C0225-09	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	Lab Composite required for analysis
16C0225-10	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	Lab Composite required for analysis
16C0233-01	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	
16C0233-04	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	
16C0235-01	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	
16C0235-02	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	
16C0235-03	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	
16C0235-04	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	
16C0409-01	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	
16C0409-02	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	
16C0409-03	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	
16C0409-04	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	
16C0409-05	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	
16C0409-06	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	
16C0409-07	Chromium, Hexavalent	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	
16C60638-BLK1	QC	03/11/2016 11:11	SC	2.5	100					EPA SW846-3060	
16C60638-DUP1	QC	03/11/2016 11:11	SC	2.5	100		16C0225-04			EPA SW846-3060	
16C60638-MS1	QC	03/11/2016 11:11	SC	2.5	100	Y15J123	16C0225-04	1000		EPA SW846-3060	

PREPARATION BENCH SHEET

BC60638

York Analytical Laboratories, Inc.

Printed: 3/28/2016 10:56:05AM

Matrix: Soil		(No Surrogate)									
Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
BC60638-SRM1	QC	03/11/2016 11:11	SC	0.5	100	Y15J134		1		EPA SW846-3060	

Batch Comments:

HEXAVALENT CHROMIUM (CR+6)

DATE: 031116

ANALYST: JC

BATCH: Bc60638

MATRIX: S

ENTER
IN LIMS ↓

SAMPLE I.D.	DIL	ABS	mg/l from Curve	mg/kg	QA/QC
Method Blank (<0.1mg/L _____)		0.042	0.00		
CCV (90-110%)		0.396	0.487		97.4 %
LCS (80-120%) 232-0159		0.392	0.482	96.4	87.6 %
1 16C0205-04		0.00	ND		
2 -05					
3 -06					
4 -07					
5 -08					
6 -09					
7 -10					
8 233-01					
9 -04					
10 235-01					
11 -02					
12 -03					
13 -04					
14 409-01					
15 -02 51031116	0.029	0.030	0.033	1.56	
16 -03		0.057	0.067	3.23	
17 -04		0.0231	0.025	1.16	
18 -05		0.077	0.092	4.34	
19 -06		0.00	ND		
20 -07					
DUP (≤35% RPD) 233-04		0.00	0		0
Spike (75-125%) -04		0.00	0		%
CCV (90-110%)		0.396	0.487		97.4 %
Calibration Date		Slope		y-intercept	
031715		1.239/81		-0.02769	

STANDARD/REAGENT	DATE PREPARED	EXPIRATION DATE	TRACEABILITY
CCV @ 0.15 mg/L	Make daily upon analysis		Page A
SPK @ ↓ mg/L	Make daily upon analysis		Page A
LCS @ 100 mg/kg	Make daily upon analysis		Page B
Diphenylcarbazide Solution	031016	6mes	Page C
Sulfuric Acid (Cone)	-	-	Page C
Digestion Solution	031116	6mes	Page D
Magnesium Chloride	-	-	Page D
Antifoam	-	-	Page D
Phosphate Buffer	031116	6mes	Page E
5M Nitric Acid	031116	6mes	Page E
Ottawa Sand -For Soil Method Blanks Only	-	-	Page E

SPK dup - 0.00

00098

York Analytical Laboratories, Inc.

SDG: 16C0235

CLASS: WET

METHOD: SM 2540G

DATA PACKAGE COVER PAGE

SM 2540G

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-1

02/LSB-1

03/LSB-2

04/LSB-2

Lab Sample Id:

16C0235-01

16C0235-02

16C0235-03

16C0235-04

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:

3/25/2016

Title:

Laboratory Director

FORM I

INORGANIC ANALYSIS DATA SHEET

SM 2540G

01/LSB-1

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235

Client: Langan Engineering & Environmental Services (NJ)Project: 100433202

Matrix: SoilLaboratory ID: 16C0235-01File ID:

Sampled: 03/04/16 11:45Prepared: 03/08/16 16:29Analyzed: 03/09/16 13:57

Solids: 88.84Preparation: % Solids PrepInitial/Final: 5 g / 5 g

Batch: BC60432Sequence:Calibration:Instrument: Inst

CAS NO.	Analyte	Concentration (%)	Dilution Factor	Q	Method
solids	% Solids	88.8	1		SM 2540G

FORM I

INORGANIC ANALYSIS DATA SHEET

02/LSB-1

SM 2540G

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0235-02

File ID:

Sampled: 03/04/16 12:20Prepared: 03/08/16 16:29Analyzed: 03/09/16 13:57Solids: 88.27Preparation: % Solids PrepInitial/Final: 5 g / 5 gBatch: BC60432

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (%)	Dilution Factor	Q	Method
solids	% Solids	88.3	I		SM 2540G

FORM I

INORGANIC ANALYSIS DATA SHEET

03/LSB-2

SM 2540G

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0235-03

File ID:

Sampled: 03/04/16 13:15Prepared: 03/08/16 16:29Analyzed: 03/09/16 13:57Solids: 84.92Preparation: % Solids PrepInitial/Final: 5 g / 5 gBatch: BC60432

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (%)	Dilution Factor	Q	Method
solids	% Solids	84.9	1		SM 2540G

FORM I

INORGANIC ANALYSIS DATA SHEET

04/LSB-2

SM 2540G

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0235Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0235-04

File ID:

Sampled: 03/04/16 13:30Prepared: 03/08/16 16:29Analyzed: 03/09/16 13:57Solids: 70.08Preparation: % Solids PrepInitial/Final: 5 g / 5 gBatch: BC60432

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (%)	Dilution Factor	Q	Method
solids	% Solids	70.1	I		SM 2540G

DUPLICATES

SM 2540G

04/LSB-2

Laboratory: York Analytical Laboratories, Inc.

SDG: I6C0235

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Laboratory ID: BC60432-DUP1

Batch: BC60432

Lab Source ID: I6C0235-04

Preparation: % Solids Prep

Initial/Final: 5 g / 5 g

Source Sample Name: 04/LSB-2

% Solids: 70.08

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (%)	C	DUPLICATE CONCENTRATION (%)	C	RPD %	Q	METHOD
% Solids	20	70.1		77.6		10.2		SM 2540G

* Values outside of QC limits

FORM IV**PREPARATION BATCH SUMMARY****SM 2540G**

Laboratory: York Analytical Laboratories, Inc. SDG: I6C0235
Client: Langan Engineering & Environmental Services (NJ) Project: I00433202
Batch: BC60432 Batch Matrix: Soil Preparation: % Solids Prep

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-1	16C0235-01		03/08/16 16:29	
02/LSB-1	16C0235-02		03/08/16 16:29	
03/LSB-2	16C0235-03		03/08/16 16:29	
04/LSB-2	16C0235-04		03/08/16 16:29	
04/LSB-2	BC60432-DUP1		03/08/16 16:29	

HOLDING TIME SUMMARY

SM 2540G

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

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-1	03/04/16 11:45	03/07/16 17:45	03/08/16 16:29	4.20	28.00	03/09/16 13:57	5.09	28.00	
02/LSB-1	03/04/16 12:20	03/07/16 17:45	03/08/16 16:29	4.17	28.00	03/09/16 13:57	5.07	28.00	
03/LSB-2	03/04/16 13:15	03/07/16 17:45	03/08/16 16:29	4.13	28.00	03/09/16 13:57	5.03	28.00	
04/LSB-2	03/04/16 13:30	03/07/16 17:45	03/08/16 16:29	4.12	28.00	03/09/16 13:57	5.02	28.00	

METHOD DETECTION AND REPORTING LIMITS

SM 2540G

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0235

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 10:55:01AM

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	
16C0432-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 10:55:01AM

Matrix: Soil

Lab Number	Analysis	Prepared	By	Initial (g)	Final (g)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
(No Surrogate)											

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