

**ANNUAL GROUNDWATER MONITORING REPORT
DECEMBER 2015**

**CARIBE GENERAL ELECTRIC
DISTRIBUTION TRANSFORMERS FACILITY
VIEQUES, PUERTO RICO**

Prepared For:
GE Global Remediation

Prepared By:
MWH Americas, Inc.

June 2016

**ANNUAL GROUNDWATER MONITORING REPORT
DECEMBER 2015**

**CARIBE GENERAL ELECTRIC
DISTRIBUTION TRANSFORMERS FACILITY**
PR-200, CORNER 201
MARTINO WARD, VIEQUES, PUERTO RICO 00765

FOR

GE GLOBAL REMEDIATION

Prepared by: Tom Paholak
Thomas Paholak
Environmental Engineer
MWH Americas, Inc.

June 7, 2016
Date

Reviewed by: Andrew Ferenc
Andrew Ferenc
Senior Environmental Engineer
MWH Americas, Inc.

June 7, 2016
Date

Reviewed by: Bradly R. Toth
Bradly R. Toth
Location Manager
MWH Americas, Inc.

June 7, 2016
Date

TABLE OF CONTENTS

SECTION	PAGE No.
1.0 INTRODUCTION	1-1
2.0 PROJECT BACKGROUND	2-1
3.0 FIELD ACTIVITIES	3-1
3.1 Depth-To-Groundwater Measurements	3-1
3.2 Groundwater Sampling Procedures and analysis	3-1
3.3 Decontamination Procedure.....	3-3
3.4 Investigation-Derived Waste Management	3-3
4.0 RESULTS AND DISCUSSION.....	4-1
4.1 Groundwater Elevations.....	4-1
4.2 Groundwater Sample Results and discussion.....	4-1
4.3 Summary.....	4-4

LIST OF TABLES

Table 1	Groundwater Elevations – October 2015
Table 2	Groundwater Sample Results – VOCs – October 2015
Table 3	Groundwater Sample Results – Natural Attenuation Parameters – October 2015

LIST OF FIGURES

Figure 1	Site Location Map
Figure 2	Site Layout Map
Figure 3	Groundwater Elevations – October 2015
Figure 4	VOC Concentrations in Groundwater – October 2015
Figure 5	Natural Attenuation Parameter Concentrations in Groundwater – October 2015

LIST OF APPENDICES

Appendix A	Groundwater Sampling Forms
Appendix B	Laboratory Analytical Reports (Included on CD)
Appendix C	Data Certification and Validation Package
Appendix D	Long-Term Hydrographs
Appendix E	Time Series Plots of Historical VOC Concentrations

LIST OF ACRONYMS

bgs	below ground surface
cDCE	Cis-1,2-dichloroethene
COC	constituents of concern
1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
EB	equipment blank
GE	General Electric
IDW	investigation derived waste
MCL	maximum contaminant level
mg/L	milligrams per liter
mV	millivolts
ORP	oxidation reduction potential
PCE	Tetrachloroethylene
PPE	personal protective equipment
PRIDCO	Puerto Rico Industrial Development Company
QA/QC	Quality Assurance/Quality Control
RSL	Regional Screening Level
SM	standard method
TB	trip blank
TCE	Trichloroethene
TOC	Total Organic Carbon
µg/L	micrograms per liter
USEPA	United States Environmental Protection Agency
VC	vinyl chloride
VOCs	volatile organic compounds

1.0 INTRODUCTION

This report presents the results of the October 2015 annual groundwater monitoring event conducted at the Caribe General Electric Distribution Transformers, Inc. (GE) facility located in Vieques, Puerto Rico (the Site). The purpose of the sampling effort was to evaluate the current extent of volatile organic compounds (VOCs) in groundwater beneath the Site and provide information on the historical concentration trends and natural attenuation of VOCs in groundwater beneath the Site. The following activities were performed during this sampling event:

- Measured depth-to-groundwater in 11 existing onsite monitoring wells.
- Collected groundwater samples from 11 existing onsite monitoring wells (C-1 through C-11) for analysis of VOCs and natural attenuation parameters including chloride, ethane, ethene, methane, total organic carbon (TOC), magnesium, calcium, and sodium.

These activities were conducted in anticipation of comments from the United States Environmental Protection Agency (USEPA) in response to the proposed remedy for the Site and in general accordance with industry standards for low-flow groundwater sample collection and analysis.

2.0 PROJECT BACKGROUND

The Site consists of 4 acres and includes a main plant building where GE manufactures power fuses, auxiliary relays, and switch gear accessories. The Site is located near the northern coast of the island of Vieques, Puerto Rico at the intersection of PR-200 and PR-201 in the Barrio Martino section of Isabel Segunda. Vieques is located approximately 10 miles east of mainland Puerto Rico. **Figure 1** shows the site location. The Site consists of the main manufacturing facility with associated parking and outbuildings. **Figure 2** shows the property boundaries and other site features.

The facility began operations in 1969 and is currently an active manufacturing facility. The property is owned by the Puerto Rico Industrial Development Company (PRIDCO) and leased by GE.

From 1988 through 2005, assessment and investigation of the Site took place under Resource Conservation and Recovery Act (RCRA). During this period, solid waste management units associated with degreasing solvents, acids, and associated rinse waters were identified and subsequently given RCRA closure in 2005. As part of the investigation related to RCRA closure, VOCs were detected in groundwater beneath the Site. By 2005, monitoring wells C-1 through C-10 had been installed at the Site. Groundwater monitoring sampling was conducted on a quarterly basis beginning in November 2005, and in 2008, continued on a semi-annual basis.

In 2012, USEPA approved a Focused Corrective Measures Study (CMS) Work Plan (Tetra Tech GEO, Inc., 2012) for the Site that included installation of monitoring well C-11 for additional delineation of groundwater impacts. Semi-annual sampling of monitoring wells C-1 through C-11 continued through 2013. Monitoring well locations are shown on **Figure 2**. As documented in the Focused CMS Work Plan the constituents of concern (COCs) in groundwater include trichloroethene (TCE), 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), cis-1,2,dichloroethene (cDCE), and vinyl chloride (VC). Concentrations of other compounds such as tetrachloroethene (PCE) have also been sporadically detected at concentrations below USEPA Maximum Contaminant Levels (MCLs).

A groundwater sampling event was conducted in December 2013, and following submission of the report, USEPA requested one additional round of groundwater sampling in anticipation of corrective measures selection. This additional round of groundwater sampling was conducted in October 2014, and is documented in the Groundwater Monitoring Report (MWH, 2014) submitted to the USEPA on January 8, 2015.

Selection of a corrective measure for the Site was discussed during a conference call between USEPA and GE on October 14, 2014, and was documented in GE's letter to USEPA dated November 12, 2014. The proposed corrective measure, yet to be confirmed as acceptable by the EPA, is Monitoring Natural Attenuation (MNA).

In anticipation of USEPA's comments on the above referenced letter and the proposed remedy (MNA), GE has implemented an annual groundwater monitoring program at the Site. This report describes the field activities and discusses the results of the first annual groundwater monitoring event conducted in October 2015.

3.0 FIELD ACTIVITIES

Groundwater monitoring activities were performed on October 19 and 20, 2015. The following field activities were performed during this monitoring event:

- Measurement of depth-to-groundwater in 11 existing onsite monitoring wells
- Collection of groundwater samples from monitoring wells for laboratory analysis

The procedures used during these activities are described in the following sections.

3.1 DEPTH-TO-GROUNDWATER MEASUREMENTS

Depth-to-groundwater measurements were collected from onsite monitoring wells C-1 through C-11. Depth-to-water measurements and groundwater elevations are presented in **Table 1**.

Water levels were measured by using a decontaminated water-level meter to record the depth-to-water below a surveyed reference point (top of well casing). The water level meter was slowly lowered into the monitoring well until the meter was activated (as indicated by an audible tone). The depth-to-water reading was then measured at 30 second intervals until two consecutive readings were recorded to the nearest 0.01 foot. This measurement was then recorded in the field notebook. Measurements were collected prior to the start of sampling.

3.2 GROUNDWATER SAMPLING PROCEDURES AND ANALYSIS

Samples were collected from 11 onsite monitoring wells (C-1 through C-11). Groundwater sampling forms were completed for each sample collected, and are included in **Appendix A**. The groundwater samples were collected in accordance with the following procedures:

- The depth to water was measured in the monitoring well.
- Prior to sample collection, the wells were purged using a submersible pump until field parameters stabilized, or the well was purged dry. Field parameters

included dissolved oxygen, oxidation reduction potential [ORP], temperature, pH, and conductivity.

- Samples were collected using a submersible pump fitted with disposable tubing in accordance with low-flow sampling practices, generally acceptable industry standards and current USEPA guidance.
- Sample bottles were labeled with date, time, sample identification, analytical parameters, and sampler initials, and the sample vials were immediately placed into a cooler filled with ice. Proper chain-of-custody documentation was maintained and the samples were shipped to Tri-Matrix Laboratories, Inc. in Grand Rapids, Michigan for analysis.

The groundwater samples were analyzed for VOCs by USEPA Method 8260B; TOC by standard method (SM) 5310C-2011; chloride by SM 4500; dissolved gases (ethane, ethane, methane) by USEPA Method RSK-175; and total calcium, magnesium, and sodium (wells C-4 and C-7 only) by USEPA Method 6010C. The following quality assurance/quality control (QA/QC) samples were collected:

- One field duplicate (collected from monitoring well C-4)
- Two equipment blanks (EB)
- Two trip blanks (TB)

The laboratory analytical and QA/QC results were validated in accordance with USEPA Region II quality control criteria and certified by a Puerto Rico certified chemist. The data were reviewed for general compliance with QA/QC procedures. The samples were received by Tri-Matrix chilled, in good condition, and within the allowable holding times. The laboratory quality control samples showed that the laboratory results were acceptable with some qualification. MWH did not identify QA/QC issues that would affect the usability of the data and the data were deemed to be of acceptable quality. A copy of the laboratory data reports and chain-of-custody documentation are included in **Appendix B**. Data validation and certification reports are included in **Appendix C**.

3.3 DECONTAMINATION PROCEDURE

Non-disposable equipment was cleaned before and between each use using an Alconox® wash and distilled water rinse. Disposable sampling equipment did not require decontamination for single use. Sampling containers were received from the laboratory pre-cleaned and did not require decontamination.

3.4 INVESTIGATION-DERIVED WASTE MANAGEMENT

Investigation-derived waste (IDW) was limited to purge water generated during sampling, decontamination water from the water-level meter, shipping packaging for the disposable sampling equipment, personal protective equipment (PPE), and used sample tubing. The IDW was handled according to waste stream characteristics as follows:

- Purge water and decontamination water was containerized in a 55-gallon drum and staged at a secure location at the facility as directed by GE for eventual offsite disposal by GE.
- Shipment packaging, PPE, and used sample tubing was contained in a plastic trash bag and disposed offsite with general refuse. Shipment packaging typically contained plastic bags, papers, twist ties, and zip ties. PPE consisted of nitrile gloves.

4.0 RESULTS AND DISCUSSION

The following sections present the groundwater monitoring results for the October 2015 annual groundwater monitoring event.

4.1 GROUNDWATER ELEVATIONS

The depth-to-water measurements and groundwater elevations for October 2015 are presented in **Table 1**. Groundwater onsite is generally 28 to 47 feet below ground surface (bgs), or 36 to 44 feet above mean sea level. Groundwater elevation contours are presented in **Figure 3** (October 2015). Groundwater flow direction is northwest, towards the Atlantic Ocean, which is approximately 2,000 feet north of the northern property boundary. The groundwater elevations and flow direction observed during this monitoring event are consistent with previous monitoring events and historical records. Long term hydrographs for each monitoring well are included in **Appendix D**. The hydrographs indicate long-term groundwater elevation trends which generally correlate with higher elevations during the rainy season (August to November) and lower elevations during the dry season (February to March).

4.2 GROUNDWATER SAMPLE RESULTS AND DISCUSSION

Laboratory analytical results for VOCs are presented in **Table 2**, and laboratory reports are included in **Appendix C**. The data were compared with USEPA Regional Screening Levels (RSLs) and Maximum Contaminant Levels (MCLs). The results are discussed in the sections below.

4.2.1 Current Distribution of VOCs in Groundwater

During the October 2015 monitoring event VOCs were detected at low levels in each of the monitoring wells sampled, with the exception of monitoring well C-3 which was non-detect for each analyte. Detections of VOCs above MCLs were limited to monitoring wells C-4, C-6, C-7, and C-8 (southeast corner of the Site) and C-11 (west of the main plant building). VOCs were either non-detect or below MCLs at downgradient wells C-1, C-2, C-3, C-9, and C-10. COCs detected at concentrations above groundwater criteria included TCE, 1,1-DCA, 1,1-DCE, and cDCE. In addition, 1,2-dichloroethene (1,2-DCE)

was detected at a concentration above its MCL in C-7. The highest concentrations of any individual VOCs were 370 ug/L of 1,2-DCE and 370 ug/L of cDCE at C-7. **Figure 4** shows the distribution of COCs in groundwater for the October 2015 sampling event. The groundwater plume appears to be stable with extents at or near the Site boundary.

4.2.2 Historical VOC Trends

Time series plots of groundwater monitoring data for COCs are included in **Appendix E**. During the October 2015 monitoring event, VOC concentrations in groundwater samples from downgradient monitoring wells were non-detect or below MCLs. This is consistent with historical results for the downgradient area; since 2005, concentrations of VOCs have been below MCLs in downgradient wells C-1, C-2, C-3, C-9, and C-10.

Concentrations of 1,1-DCA were observed to exhibit a decreasing historical trend, with the exception of those at monitoring well C-7, which remain relatively stable. Additional discussion regarding the presence and potential attenuation of 1,1-DCA is included in the section below.

A decrease in TCE concentrations from monitoring well C-7 was noted following the July 2013 sampling event, which is a trend that continued through 2015. This is most likely attributed to a destructive attenuation process (biodegradation or cometabolism) as evident by the slight increase in daughter products cDCE and VC at C-7 during the same time period, or it could be the result of increased hydrodynamic dispersion, dilution, or a combination of these processes.

A decrease in VOC concentrations was noted in samples from monitoring wells C-4 and C-11 since the previous monitoring event (October 2014). VOC concentrations at these wells continue to show an overall decreasing trend. Results from the remaining monitoring wells at the Site indicate an overall decreasing trend in VOC concentrations.

4.2.3 Natural Attenuation

Table 3 presents the analytical results for natural attenuation parameters, and laboratory reports are included in **Appendix C**. **Figure 5** illustrates the distribution of these parameters.

Natural attenuation parameters and geochemical data collected during this monitoring period were consistent with historical trends. The ethylene concentration detected in the sample from monitoring well C-7 returned to a level associated with active dechlorination (greater than 0.1 mg/L) after a non-detect result during the previous sampling event (October 2014). The measured dissolved oxygen concentration and ORP level for monitoring well C-7 also reflected values consistent with those that would be expected for dechlorination. Evidence of natural attenuation is also present downgradient of C-7 as indicated by the presence of ethene and lower dissolved oxygen concentrations in the range indicative of a likely reductive pathway at monitoring well C-10.

While the case for 1,1-DCA attenuation through dechlorination is not currently strong (chloroethane was not detected), the absence of 1,1,1-TCA could indicate that biodegradation or cometabolism attenuation processes may have been active in the past. Additionally, the decrease in concentrations of this compound support the thought that attenuation is occurring through dispersion or dilution. Although concentrations of 1,1-DCA have been relatively stable at C-7, the presence of 1,1-DCA in low concentrations in this well is not likely to have a pronounced inhibitory effect on dechlorination of TCE (if currently occurring).

The detection of biodegradation products continues to support the viability of monitored natural attenuation as a potential remedy for the Site. Elevated concentrations of the TCE degradation product cDCE were detected in C-7, indicating potential reductive dechlorination. TCE was detected at a low level, while the cDCE concentration was relatively high (above the MCL). Additionally, the higher concentrations of cDCE as opposed to trans-DCE in this monitoring well could indicate that some dechlorination has occurred or is possibly still occurring at C-7. Elevated methane concentrations at both C-7 and C-10 also support evidence that biodegradation is occurring or has occurred.

4.3 SUMMARY

Based on VOC concentrations in downgradient wells, the overall decreasing concentration trends and historical evidence of natural attenuation, and low migration rate of VOCs in groundwater beneath the Site, VOCs in groundwater are generally expected to remain within the boundaries of the Site. Eventually the VOCs will degrade naturally, likely through a combination of destructive attenuation processes (biodegradation or cometabolism), hydrodynamic dispersion, and dilution, but the time frame for this to occur has not been defined.

TABLES

**Table 1. Groundwater Elevations
October 2015
Caribe General Electric Distribution Transformers Inc.
Vieques, Puerto Rico**

Well ID	Depth to Water¹ (feet)	Depth to Bottom¹ (feet)	Top of Casing Elevation²	Ground Surface Elevation²	Groundwater Elevation²
C-1	28.72	57.55	70.49	70.16	41.77
C-2	30.81	61.10	68.78	68.45	37.97
C-3	32.89	60.45	71.00	70.44	38.11
C-4	34.15	50.66	77.04	76.15	42.89
C-5	47.19	69.70	90.06	87.46	42.87
C-6	48.09	52.51	91.69	90.51	43.60
C-7	33.48	112.00	76.38	74.74	42.90
C-8	32.28	51.57	75.13	72.90	42.85
C-9	43.34	63.75	79.80	77.41	36.46
C-10	42.39	80.05	78.33	76.03	35.94
C-11	36.63	102.43	80.65	78.22	44.02

¹ Depth to water and depth to bottom measured from the north side of the top of casing.

² Elevations reported in feet above mean sea level.

Table 2. Groundwater Sample Results - VOCs
October 2015
GE Vieques, Puerto Rico

Analyte	RSL or MCL*	Sample ID											
		C-1	C-2	C-3	Duplicate		C-5	C-6	C-7	C-8	C-9	C-10	C-11
					C-4	(C-4)							
1,1,1,2-Tetrachloroethane	0.57	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	200*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.076	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2.7	1.0 U	0.50 J	1.0 U	4.0	3.4	1.0 U	8.8	18	2.9	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	7*	1.0 U	0.78 J	1.0 U	5.0	3.8	1.0 U	4.2	29	1.7	1.0 U	1.0 U	7.0
1,1-Dichloropropene	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichloropropane	0.00075	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.05*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	600*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (Total)	170*	2.0 U	0.93 J	2.0 U	3.4	5.0	2.0 U	4.7	370	1.4 J	0.78 J	2.0 U	2.4
1,2-Dichloropropane	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	370	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	75*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
2,2-Dichloropropane	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (MEK)	5,600	10 U	10 U	10 U	10 U	10 U	10 U	10 U	25 U	10 U	10 U	30	10 U
2-Chlorotoluene	240	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	38	10 U	10 U	10 U	10 U	10 U	10 U	10 U	25 U	10 U	10 U	13	10 U
4-Chlorotoluene	250	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Isopropyltoluene	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Methyl-2-pentanone (MIBK)	1,200	10 U	10 U	10 U	10 U	10 U	10 U	10 U	25 U	10 U	10 U	10 U	10 U
Acetone	14,000	11	10 U	10 U	10 U	2.5 J	10 U	10 U	6.7 J	10 U	10 U	110	2.6 J
Benzene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	62	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	83	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	80 ^{*1}	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	80 ^{*1}	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	7.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	810	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.6 J	5.0 U	5.0 U	3.4 J	5.0 U
Carbon Tetrachloride	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	100*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	21,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	80 ^{*1}	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	70*	1.0 U	0.93 J	1.0 U	3.4	5.0	1.0 U	4.7	370	1.4	0.78 J	1.0 U	2.4
cis-1,3-Dichloropropene	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	80 ^{*1}	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	8.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	200	10 U	10 U	10 U	10 U	10 U	10 U	10 U	25 U	10 U	10 U	10 U	10 U
Ethylbenzene	700*	1.0 U	1.0 U	1.0 U	0.080 J	1.0 U	0.21 J	0.070 J	0.18 J	0.15 J	1.0 U	1.0 U	1.0 U
Isopropylbenzene	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert-Butyl Ether	14	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride	5*	5.0 U	0.23 J	5.0 U	0.44 J	5.0 U	0.31 J	5.0 U	1.4 J	5.0 U	5.0 U	0.27 J	5.0 U
n-Butylbenzene	1,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
n-Propylbenzene	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
sec-Butylbenzene	2,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	100*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	690	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5*	1.0 U	1.0 U	1.0 U	0.43 J	0.25 J	1.0 U	0.81 J	2.5 U	1.0 U	1.0 U	1.0 U	0.22 J
Toluene	1000*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	100*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.85 J	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5*	1.0 U	2.3	1.0 U	33	22	0.24 J	19	1.8 J	12	0.36 J	1.0 U	48
Trichlorofluoromethane	1,100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Acetate	410	10 U	10 U	10 U	10 U	10 U	10 U	10 U	25 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2*	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	0.38 J	2.0 U
Xylene (Total)	10,000*	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	7.5 U	3.0 U	3.0 U	3.0 U	3.0 U
Xylene, Meta + Para	190	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Xylene, Ortho	1,400	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U

RSL - USEPA Regional Screening Level

*MCL - Maximum contaminant level screening level

¹80 µg/L is the MCL for Total Trihalomethanes (bromodichloromethane, bromoform, dibromochloromethane, chloroform)

Results are reported in micrograms per liter (ug/L).

U - The compound was not detected above the indicated reporting limit.

J - Estimated. The analyte was detected below the reporting limit.

Detected compounds and results are bold.

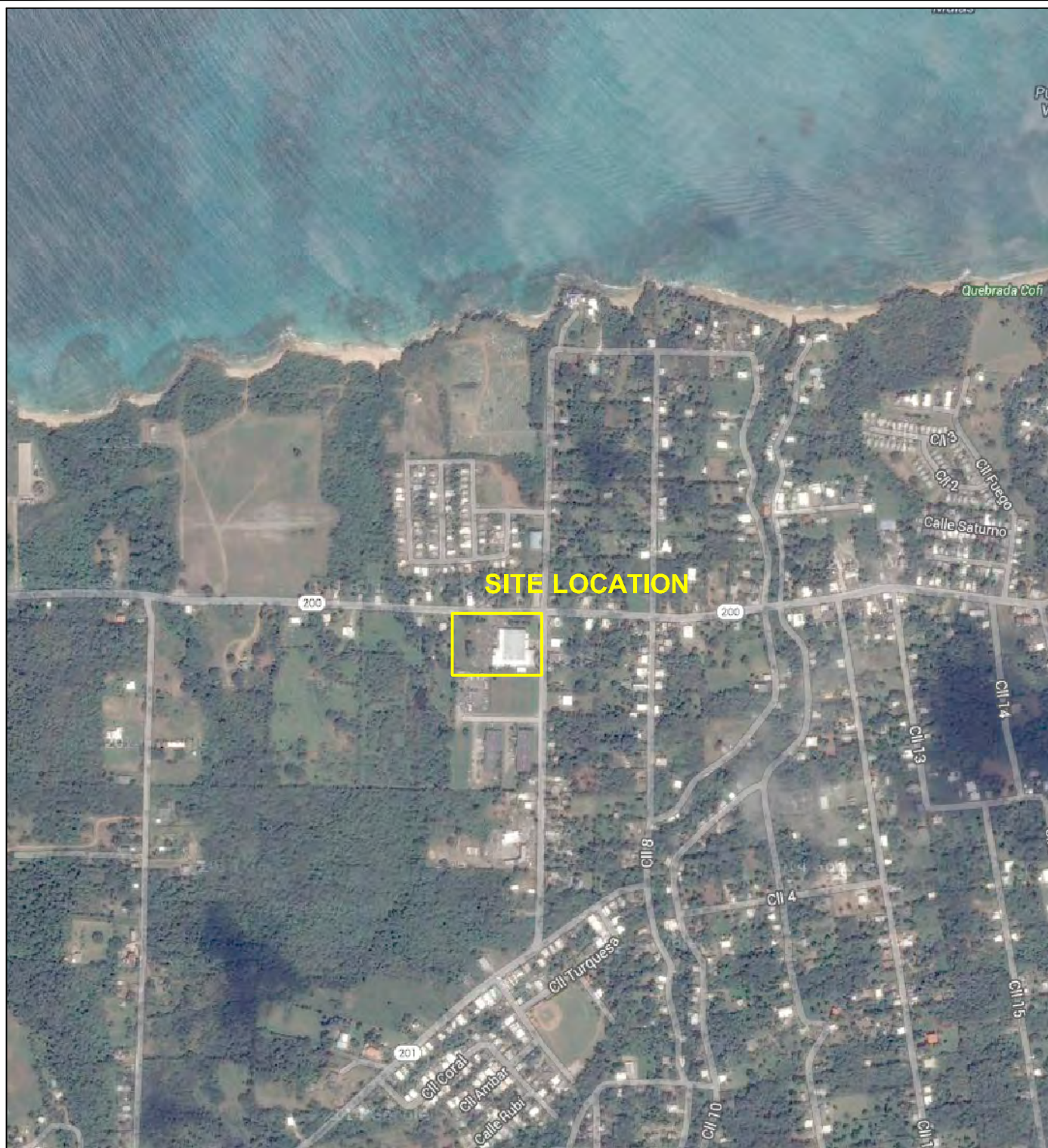
Results that exceed RSLs/MCLs are boxed.

Table 3. Groundwater Sample Results - Natural Attenuation Parameters
October 2015
GE Vieques, Puerto Rico

Analyte	Sample ID												Equipment Blank
	C-1	C-2	C-3	C-4	Duplicate (C-4)	C-5	C-6	C-7	C-8	C-9	C-10	C-11	
Dissolved Gases (ug/L)													
Ethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	9.9	1.0 U	1.0 U	6.0	1.0 U	1.0 U
Methane	5.7	0.50 U	0.50 U	5.7	2.7	0.50 U	4.6	4000	0.50 U	3.2	7100	0.50 U	0.50 U
Chloride (mg/L)	11	18	7.9	240	240	340	150	450	280	33	130	14	1.0
Total Organic Carbon (mg/L)	2.5	1.1	0.63	1.3	1.3	3.3	2.3	7.4	1.6	1.3	22	1.1	0.50
Total Metals (mg/L)													
Calcium	-	-	-	61	59	-	-	41	-	-	-	-	0.50 U
Magnesium	-	-	-	38	38	-	-	30	-	-	-	-	0.50 U
Sodium	-	-	-	340	330	-	-	480	-	-	-	-	0.59

Results are reported in micrograms per liter (ug/L) or milligrams per liter (mg/L) as indicated.
U - The compound was not detected above the indicated reporting limit.
J - Estimated. The analyte was detected below the reporting limit.
Detected compounds and results are bold.
"- " - Sample was not analyzed for this parameter.

FIGURES



SOURCE: <https://maps.google.com>

CARIBE GE PRODUCTS, INC.
VIEQUES, PUERTO RICO

SITE LOCATION MAP

FIGURE 1



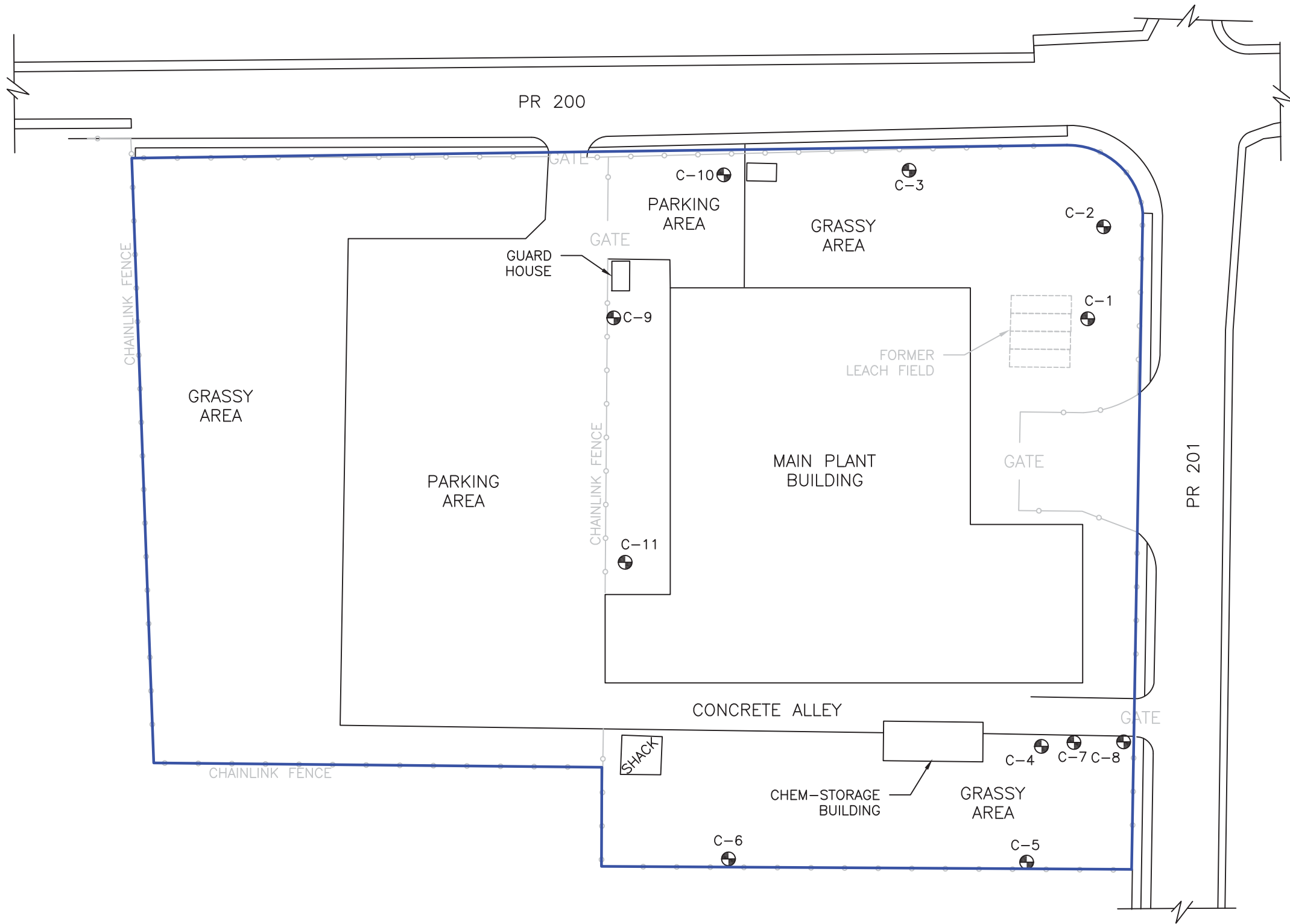
MWH

Approved By & Date:

Revised By & Date:

Approved By & Date:

Drawn By & Date: TLP 09/29/14



LEGEND

- C-6  MONITORING WELL LOCATION AND DESIGNATION
-  APPROXIMATE SITE BOUNDARY

CARIBE GE PRODUCTS, INC.
VIEQUES, PUERTO RICO

SITE LAYOUT MAP

FIGURE 2



MWH

Approved By & Date:

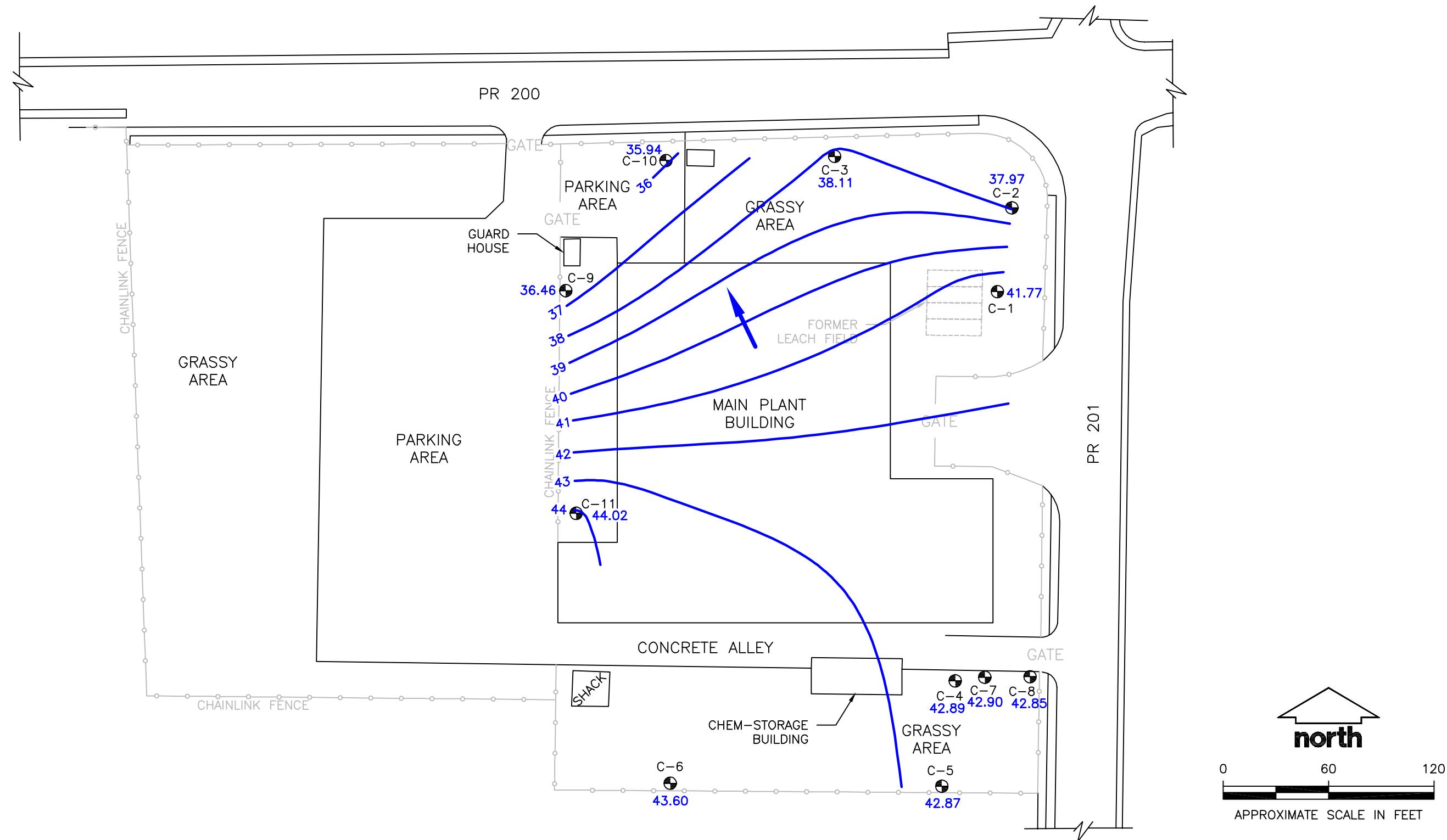
Revised By & Date:

Approved By & Date:

Drawn By & Date: TLP 11/04/15

LEGEND

- C-6  MONITORING WELL LOCATION AND DESIGNATION
- 44  GROUNDWATER ELEVATION CONTOUR (FT AMSL) (1 FT CONTOUR INTERVAL)
-  GROUNDWATER FLOW DIRECTION



CARIBE GE PRODUCTS, INC.
VIEQUES, PUERTO RICO

GROUNDWATER ELEVATIONS
OCTOBER 2015

FIGURE 3

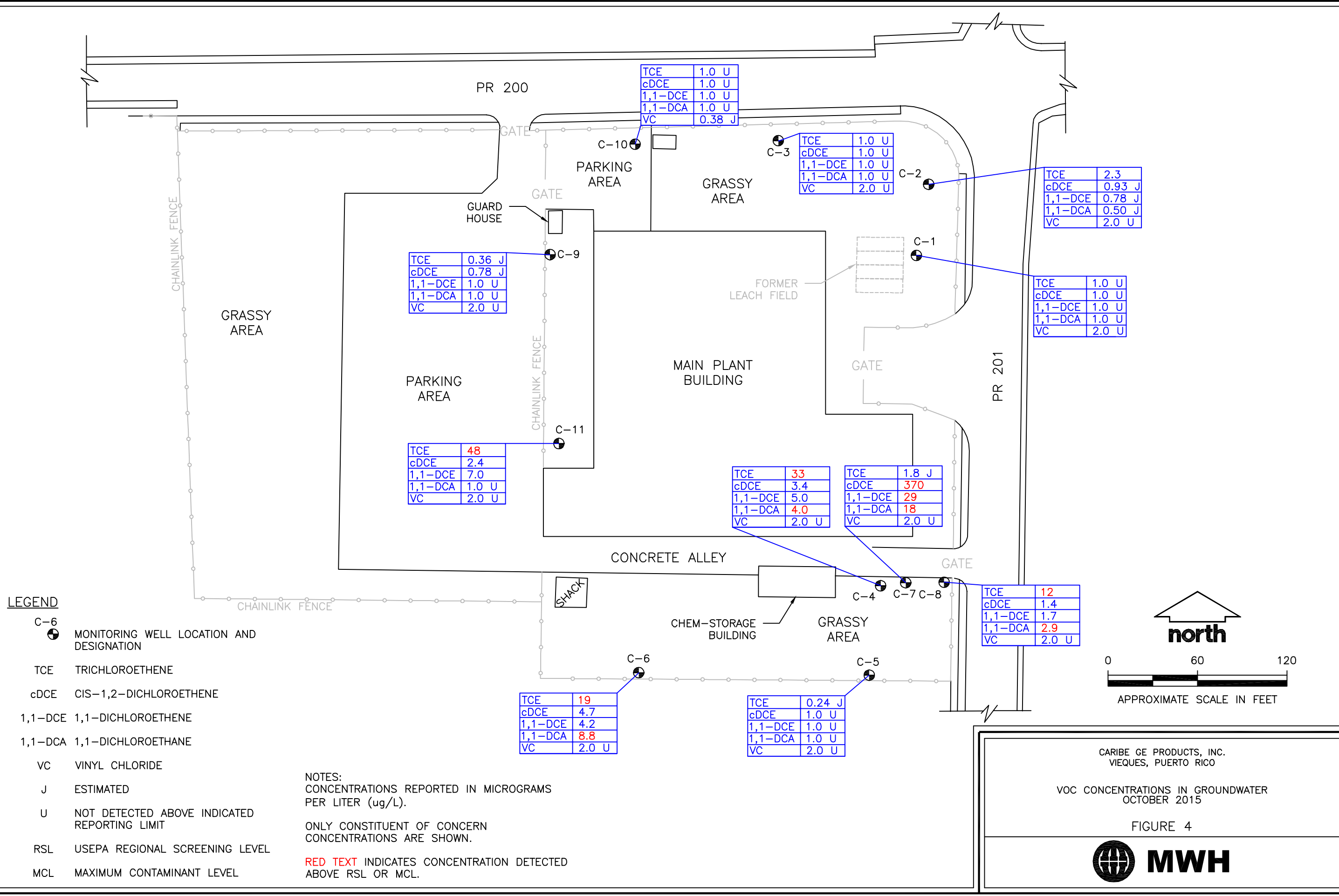


Approved By & Date:

Revised By & Date:

Approved By & Date:

Drawn By & Date: TLP 11/11/15

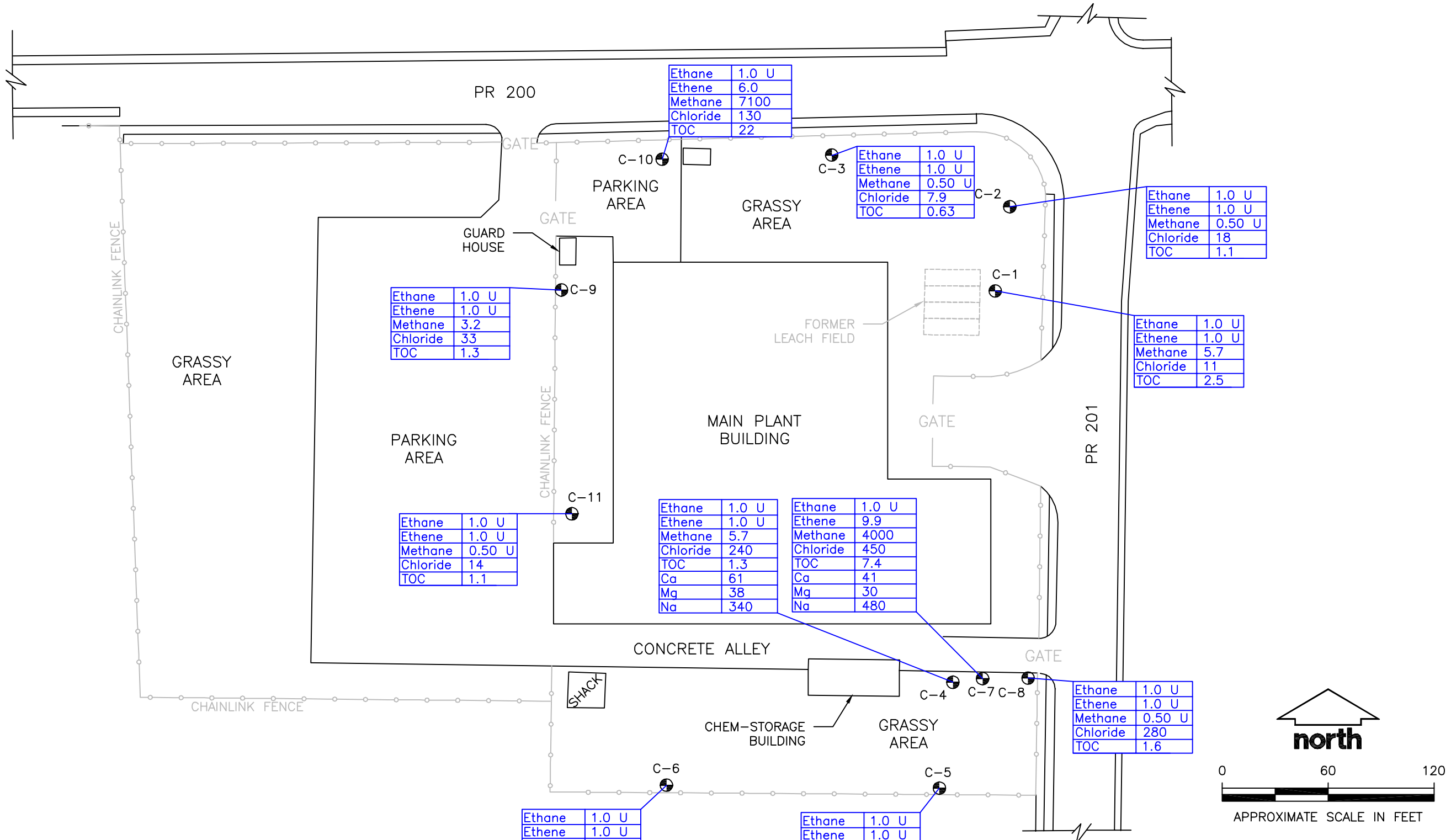


Approved By & Date:

Revised By & Date:

Approved By & Date:

Drawn By & Date: TLP 11/11/15



LEGEND

- C-6 MONITORING WELL LOCATION AND DESIGNATION
- J ESTIMATED
- U NOT DETECTED ABOVE INDICATED REPORTING LIMIT
- E CONCENTRATION EXCEEDS CALIBRATION RANGE

PARAMETER	UNITS
Ethane	ug/L
Ethene	ug/L
Methane	ug/L
Chloride	mg/L
Total Organic Carbon (TOC)	mg/L
Calcium (Ca)	mg/L
Magnesium (Mg)	mg/L
Sodium (Na)	mg/L

CARIBE GE PRODUCTS, INC.
VIEQUES, PUERTO RICO

NATURAL ATTENUATION PARAMETER
CONCENTRATIONS IN GROUNDWATER
OCTOBER 2015

FIGURE 5



APPENDIX A
GROUNDWATER SAMPLING FORMS



Groundwater & Environmental Services, Inc.

WATER SAMPLING LOG

Project - GE Vieques
 Site Location - Vieques, PR
 Job No. - 7100932
 Well ID - C-1

Sampling Date - October 19, 2015
 Time Sampling Began - 11:15 ←
 Time Sampling Completed - 11:20
 Coded/ Duplicate No. - NA
 Weather - Sunny few clouds ~85°F

EVACUATION DATA

Description of Measuring Point (MP) (ft) T0C Diameter of Casing 2"
 Total Sounded Depth of Well Below MP (ft) 58.13 Water Column in Well 0.16 BMR 29.41
 Depth to Water Below MP 15.62 BMR 28.72 Gallons per Foot 0.16
 Gallons per Well 4.71 Volume (ml) Pumped Prior to Sampling 600ml

Time 24hr	Pump Rate (ml/min)	Depth to Water (feet)	Temp. °C	Cond. µmhos/cm (±3%)	DO% (±10%)	DO (mg/L) (±10%)	pH (±0.10)	ORP (±10)
10:57	100	28.75	32.18	469	33.1	2.34	6.35	411.5
11:00	100	28.75 <u>30.53 BMR</u>	30.53	510	20.0	1.49	6.47	425.5
11:03	100	28.75	30.54	514	19.5	1.45	6.65	408.1
11:06	100	28.76	30.71	501	17.9	1.33	6.75	399.2
11:09	100	28.77	30.70	473	16.6	1.24	6.80	393.7
11:12	100		30.75	467	16.4	1.23	6.85	392.5
<u>BMR</u>								

SAMPLING DATA/FIELD PARAMETERS

Color clear Appearance clear Sampling Date 10/19/2015
 Sampling Method Low Flow Material Field Filtered N

Container Description**Constituents Sampled for**

VOCs
Dissolved Gases
TOLs

From Lab X GESPR

3 Vials - 40mL
2-40mL Vials
3-40mL Vials

Preservative

HCl
HCl
H₂SO₄

Analytical Laboratory TriMatrixSampling Personnel BMR

Well Capacity (Gal/ft): 1-1/4"=0.06; 1-1/2"=0.09; 2"=0.16; 2-1/2"=0.26; 3"=0.37; 3-1/2"=0.50; 4"=0.65; 6"=1.47; 12"=5.88

Stabilization Criteria for range of variation of last three consecutive readings: pH: ±0.1; Cond.=±3%; ORP=±10; DO%=±10%

Chlorideplastic bottleNone



Project - GE Vieques
Site Location - Vieques, PR
Job No. - 7100932
Well ID - C-2

Sampling Date - October 19, 2015
Time Sampling Began - 1130
Time Sampling Completed - 1155 ←
Coded/ Duplicate No. - N/A
Weather - Sunny

Description of Measuring Point (MP) (ft) PVC Diameter of Casing 2
Total Sounded Depth of Well Below MP (ft) 61.83 Water Column in Well 31.02
Depth to Water Below MP 30.81 Gallons per Foot 0.16
Gallons per Well 4.96 Volume (ml) Pumped Prior to Sampling 500 mL

[illegible]

Color clear Appearance clear Sampling Date 10/19/15
Sampling Method Low Flow Material Field Filtered N

Container Description		
Constituents Sampled for	From Lab <u>X</u> GESPR	Preservative
<u>VOCs</u>	<u>3 - 40mL Vials</u>	<u>HCl</u>
<u>Dissolved Gases</u>	<u>2 - 40mL Vials</u>	<u>HCl</u>
<u>TOLs</u>	<u>3 - 40mL Vials</u>	<u>H₂SO₄</u>
Analytical Laboratory <u>TriMatrix</u>	Sampling Personnel <u>FAO</u>	

Well Capacity (Gal/ft): 1-1/4"= 0.06; 1-1/2"=0.09; 2"=0.16; 2-1/2"=0.26; 3"=0.37; 3-1/2"=0.50; 4"=0.65; 6"=1.47; 12"=5.88
Stabilization Criteria for range of variation of last three consecutive readings: pH: ± 0.1 ; Cond. $\pm 3\%$; ORP ± 10 ; DO% $\pm 10\%$

Chloride

plastic bottle

None



WATER SAMPLING LOG

Project - GE Vieques
Site Location - Vieques, PR
Job No. - 7100932
Well ID - C-3

Sampling Date - October 19, 2015
Time Sampling Began - 13:04
Time Sampling Completed - 13:13 ←
Coded/ Duplicate No. - NA
Weather - Sunny few clouds ~85°F

EVACUATION DATA

Description of Measuring Point (MP) (ft) TOC Diameter of Casing 2"
Total Sounded Depth of Well Below MP (ft) 60.86 Water Column in Well 27.97
Depth to Water Below MP 32.89 Gallons per Foot 0.16
Gallons per Well 4.48 Volume (ml) Pumped Prior to Sampling 450 mL

Time 24hr	Pump Rate (ml/min)	Depth to Water (feet)	Temp. °C	Cond. µmhos/cm (±3%)	DO% (±10%)	DO (mg/L) (±10%)	pH (±0.10)	ORP (±10)
12:48	75	33.77	31.14	582	73.7	5.36	7.12	368.1
12:57	75	33.98	30.73	578	36.1	2.59	6.93	453.4
12:54	75	34.48	30.58	581	20.1	1.48	6.88	473.0
12:57	75	34.79	30.71	582	16.3	1.21	6.88	479.6
13:00	75	35.08	30.81	583	15.8	1.17	6.92	484.5
13:03	75		30.92	585	15.2	1.13	6.95	489.2
BMR								

SAMPLING DATA/FIELD PARAMETERS

Color Clear Appearance Clear Sampling Date 10/19/15
Sampling Method Low Flow Material Field Filtered N

Container Description
Constituents Sampled for From Lab X GESPR Preservative
VOCs 3-40 mL Vials HCl
Dissolved Gases 2-40 mL Vials HCl
TOCs 3-40 mL Vials H₂SO₄
Analytical Laboratory TriMatrix Sampling Personnel BMR

Well Capacity (Gal/ft): 1-1/4"=0.06; 1-1/2"=0.09; 2"=0.16; 2-1/2"=0.26; 3"=0.37; 3-1/2"=0.50; 4"=0.65; 6"=1.47; 12"=5.88
Stabilization Criteria for range of variation of last three consecutive readings: pH: ±0.1; Cond.=±3%; ORP=±10; DO%=±10%

Chloride

Plastic bottle

None



Groundwater & Environmental Services, Inc.

WATER SAMPLING LOG

Project - GE ViequesSampling Date - October 20, 2015Site Location - Vieques, PRTime Sampling Began - 1145Job No. - 7100932Time Sampling Completed - 1205Well ID - C-4Coded/ Duplicate No. - W-AWeather - Sunny

EVACUATION DATA

Description of Measuring Point (MP) (ft) PVC Diameter of Casing 2"Total Sounded Depth of Well Below MP (ft) 50.09 Water Column in Well 15.94Depth to Water Below MP 34.15 Gallons per Foot 0.16Gallons per Well 2.55 Volume (ml) Pumped Prior to Sampling 600 ml

Time 24hr	Pump Rate (ml/min)	Depth to Water (feet)	Temp. °C	Cond. µmhos/cm (±3%)	DO% (±10%)	DO (mg/L) (±10%)	pH (±0.10)	ORP (±10)
1147	100	34.20	31.58	1979	65.8	4.81	6.51	4.9
1150	100	34.20	32.50	2020	72.8	5.22	6.65	9.6
1153	100	33.20	33.07	2039	76.3	6.68	6.68	10.6
1156	100	33.24	33.65	2040	80.1	5.70	6.70	12.0
1200	100	33.20	33.68	2040	84.8	5.90	6.71	11.0
1203	100	33.20	33.70	2038	89.1	5.95	6.72	11.8
FAO								

SAMPLING DATA/FIELD PARAMETERS

Color clearAppearance clearSampling Date 10/20/15Sampling Method Low FlowMaterial Field Filtered N

Container Description

Constituents Sampled for

From Lab X GESPR

Preservative

VOCs2-40ml VialsHClDissolved Gases2-40ml VialsHClTOCs3-40ml VialsH₂SO₄Analytical Laboratory TriMatrixSampling Personnel FAO

Well Capacity (Gal/ft): 1-1/4"=0.06; 1-1/2"=0.09; 2"=0.16; 2-1/2"=0.26; 3"=0.37; 3-1/2"=0.50; 4"=0.65; 6"=1.47; 12"=5.88

Stabilization Criteria for range of variation of last three consecutive readings: pH: ±0.1; Cond.=±3%; ORP=±10; DO%=±10%

Chlorideplastic bottleNoneTotal Metalsplastic bottleHNO₃



WATER SAMPLING LOG

Project - GE Vieques
Site Location - Vieques, PR
Job No. - 7100432
Well ID - C-5

Sampling Date - October 20, 2015
Time Sampling Began - 0945
Time Sampling Completed - 1010
Coded/ Duplicate No. - N/A
Weather - SUNNY

EVACUATION DATA

Description of Measuring Point (MP) (ft) PVC Diameter of Casing 2"
Total Sounded Depth of Well Below MP (ft) 70.10 Water Column in Well 22.91
Depth to Water Below MP 47.19 Gallons per Foot 0.16
Gallons per Well 3.67 Volume (ml) Pumped Prior to Sampling 600ml

Time 24hr	Pump Rate (ml/min)	Depth to Water (feet)	Temp. °C	Cond. µmhos/cm (±3%)	DO% (±10%)	pH (±0.10)	ORP (±10)
0950	100	47.50	31.20	2223	58.8	6.99	446.7
0953	100	47.50	31.52	2323	52.7	6.87	468.0
0956	100	47.55	32.16	2400	50.9	6.90	463.7
0959	100	47.56	32.10	2413	50.0	6.91	469.8
1002	100	47.58	32.64	2415	49.1	6.91	468.7
1005	100	47.58	32.29	2410	49.8	6.91	462.9

SAMPLING DATA/FIELD PARAMETERS

Color clear Appearance clear Sampling Date 10/20/15
Sampling Method low flow Material PE Field Filtered N

Container Description

Constituents Sampled for

From Lab X GESPR

Preservative

VOCs
Dissolved Gases
TOCs

3-40ml Vials
2-40ml Vials
3-40ml Vials

HCl
HCl
H₂SO₄

Analytical Laboratory TriMatrix Sampling Personnel FAO

Well Capacity (Gal/ft): 1-1/4"=0.06; 1-1/2"=0.09; 2"=0.16; 2-1/2"=0.26; 3"=0.37; 3-1/2"=0.50; 4"=0.65; 6"=1.47; 12"=5.68

Stabilization Criteria for range of variation of last three consecutive readings: pH: ±0.1; Cond.=±3%; ORP=±10; DO%=±10%

Chloride

plastic bottle

None



Groundwater & Environmental Services, Inc.

WATER SAMPLING LOG

Project - GE ViequesSampling Date - October 20 2015Site Location - Vieques, PRTime Sampling Began - 0855Job No. - 7100932Time Sampling Completed - 0930Well ID - C-6Coded/ Duplicate No. - N/AWeather - Sunny

EVACUATION DATA

Description of Measuring Point (MP) (ft) PVC Diameter of Casing 2 "Total Sounded Depth of Well Below MP (ft) 57.18 Water Column in Well 3.09Depth to Water Below MP 48.09 Gallons per Foot 0.16Gallons per Well 0.49 Volume (ml) Pumped Prior to Sampling 700ml

Time 24hr	Pump Rate (ml/min)	Depth to Water (feet)	Temp. °C	Cond. µmhos/cm (±3%)	DO% (±10%)	DO (mg/L) (±10%)	pH (±0.10)	ORP (±10)
0907	100	48.50	30.89	1334	81.0	5.81	8.35	132.8
0910	100	^{48.55} 30.84 fms	30.04	1306	63.7	4.78	7.47	199.1
0913	100	48.51	29.87	1267	63.4	4.78	7.39	225.8
0916	100	48.52	31.40	1269	56.2	4.70	7.40	211.0
0919	100	48.52	31.41	1270	51.9	4.72	7.48	208.1
0922	100	48.52	31.40	1271	50.8	4.70	7.47	210.1
0925	100	48.59	31.35	1279	51.1	4.68	7.50	214.9

SAMPLING DATA/FIELD PARAMETERS

Color clear Appearance clear Sampling Date 10/20/15Sampling Method Low Flow Material Field Filtered N

Container Description

Constituents Sampled for

From Lab X GESPR

Preservative

VOCs
Dissolved Gases
TOCs3-40ml Vials
2-40ml Vials
3-40ml VialsHCl
HCl
H₂SO₄Analytical Laboratory TriMatrixSampling Personnel FAO

Well Capacity (Gal/ft): 1-1/4"=0.06; 1-1/2"=0.09; 2"=0.16; 2-1/2"=0.26; 3"=0.37; 3-1/2"=0.50; 4"=0.65; 6"=1.47; 12"=5.88

Stabilization Criteria for range of variation of last three consecutive readings: pH: ±0.1; Cond.=±3%; ORP=±10; DO%=±10%

Chlorideplastic bottleNone



Project - GE Vieques
Site Location - Vieques, PR
Job No. - 7100932
Well ID - C-7

Sampling Date - October 20, 2015
Time Sampling Began - 1400
Time Sampling Completed - 1640 *★*
Coded/ Duplicate No. - N/A
Weather - Sunny

Description of Measuring Point (MP) (ft) PVC Diameter of Casing 2
Total Sounded Depth of Well Below MP (ft) 111.64 Water Column in Well 78.16
Depth to Water Below MP 33.48 Gallons per Foot 0.16
Gallons per Well 12.57 Volume (ml) Pumped Prior to Sampling 800 mL

[illegible]

Color clear Appearance clear Sampling Date 10/20/15
Sampling Method Low Flow Material Field Filtered N

Container Description		
Constituents Sampled for	From Lab <u>X</u> GESPR	Preservative
~~BULK~~ VOCs	3-40mL Vials	HCl
Dissolved Gases	2-40mL Vials	HCl
TOCs	3-40mL Vials	H ₂ SO ₄
Analytical Laboratory <u>TriMatrix</u>	Sampling Personnel <u>EAO</u>	

Well Capacity (Gal/ft): 1-1/4"= 0.06; 1-1/2"=0.09; 2"=0.16; 2-1/2"=0.26; 3"=0.37; 3-1/2"=0.50; 4"=0.65; 6"=1.47; 12"=5.88
Stabilization Criteria for range of variation of last three consecutive readings: pH: ± 0.1 ; Cond. $\pm 3\%$; ORP ± 10 ; DO% $\pm 10\%$

Chloride	plastic bottle	None
Total Metals	plastic bottle	HNO ₃



Groundwater & Environmental Services, Inc.

WATER SAMPLING LOG

Project - GE ViequesSampling Date - October 20 2015Site Location - Vieques, PRTime Sampling Began - 1030Job No. - 7100932Time Sampling Completed - 1105Well ID - C-8Coded/ Duplicate No. - NAWeather - Sunny

EVACUATION DATA

Description of Measuring Point (MP) (ft) PVCDiameter of Casing 2" ^{FAC}Total Sounded Depth of Well Below MP (ft) 44.73Water Column in Well 17.45Depth to Water Below MP 32.28Gallons per Foot 0.16Gallons per Well 2.79Volume (ml) Pumped Prior to Sampling 600ml

Time 24hr	Pump Rate (ml/min)	Depth to Water (feet)	Temp. °C	Cond. µmhos/cm (±3%)	DO% (±10%)	DO (mg/L) (±10%)	pH (±0.10)	ORP (±10)
1040	100	32.35	30.19	2009	50.3	3.77	7.94	283.6
1043	100	32.35	30.53	2026	46.4	3.45	7.63	357.6
1046	100	32.35	30.74	2033	46.1	3.42	7.60	401.2
1049	100	32.38	30.81	2029	46.4	3.44	7.62	403.4
1052	100	32.38	30.87	2022	45.0	3.42	7.59	411.10
1055	100	32.90	30.90	2026	44.0	3.40	7.51	410.9

SAMPLING DATA/FIELD PARAMETERS

Color clearAppearance clearSampling Date 10/20/15Sampling Method Low FlowMaterial Field Filtered N

Container Description

Constituents Sampled for

From Lab X GESPR

Preservative

VOCs3-40ml VialsHClDissolved Gases2-40ml VialsHClTOCs3-40ml VialsH₂SO₄Analytical Laboratory TriMatrixSampling Personnel EAD

Well Capacity (Gal/ft): 1-1/4"= 0.06; 1-1/2"=0.09; 2"=0.16; 2-1/2"=0.26; 3"=0.37; 3-1/2"=0.50; 4"=0.65; 6"=1.47; 12"=5.88

Stabilization Criteria for range of variation of last three consecutive readings: pH: ±0.1; Cond.=±3%; ORP=±10; DO%=±10%

Chlorideplastic bottleNone



WATER SAMPLING LOG

Project - GE Vieques
Site Location - Vieques, PR
Job No. - 7100932
Well ID - C-9

Sampling Date - October 20, 2015
Time Sampling Began - 13:51
Time Sampling Completed - 13:55
Coded/ Duplicate No. - NA
Weather - SUNNY few clouds ~85°F

EVACUATION DATA

Description of Measuring Point (MP) (ft) TOL Diameter of Casing 2"
Total Sounded Depth of Well Below MP (ft) 64.09 Water Column in Well 20.75
Depth to Water Below MP 43.34 Gallons per Foot 0.16
Gallons per Well 3.32 Volume (ml) Pumped Prior to Sampling 900 mL

Time 24hr	Pump Rate (ml/min)	Depth to Water (feet)	Temp. °C	Cond. µmhos/cm (±3%)	DO% (±10%)	DO (mg/L) (±10%)	pH (±0.10)	ORP (±10)
13:29	100	43.91	34.30	806	82.4	5.90	7.30	292.2
13:32	100	44.02	33.94	787	82.4	5.81	7.18	435.2
13:35	100	44.35	32.55	757	81.3	5.95	6.95	481.4
13:38	100	44.70	31.65	753	78.9	5.78	6.90	504.9
13:41	100	45.16	32.26	762	77.9	5.66	7.03	522.8
13:44	100	45.61	32.13	760	77.7	5.65	6.98	538.6
13:46	100	45.81	32.10	759	77.7	5.65	6.94	544.7
13:48	100	46.06	32.04	760	77.5	5.65	6.96	538.1
13:50	100		32.04	762	77.4	5.65	6.95	566.9
BMR								

SAMPLING DATA/FIELD PARAMETERS

Color clear Appearance clear Sampling Date 10/20/15
Sampling Method Low Flow Material Field Filtered N

Container Description

Constituents Sampled for

From Lab X GESPR

Preservative

VOCs
Dissolved Gases
TOCs

3-40 mL Vials
2-40 mL Vials
3-40 mL Vials

HCl
HCl
H₂SO₄

Analytical Laboratory TriMatrix

Sampling Personnel BMR

Well Capacity (Gal/ft): 1-1/4"=0.06; 1-1/2"=0.09; 2"=0.16; 2-1/2"=0.26; 3"=0.37; 3-1/2"=0.50; 4"=0.65; 6"=1.47; 12"=5.88

Stabilization Criteria for range of variation of last three consecutive readings: pH: ±0.1; Cond.=±3%; ORP=±10; DO%=±10%

Chloride

plastic bottle

None



Groundwater & Environmental Services, Inc.

WATER SAMPLING LOG

Project - GE ViequesSampling Date - October 19, 2015Site Location - Vieques, PRTime Sampling Began - 13:59Job No. - 7100932Time Sampling Completed - 14:20Well ID - C-10Coded/ Duplicate No. - NAWeather - Sunny few clouds 28°F

EVACUATION DATA

Description of Measuring Point (MP) (ft) TOC Diameter of Casing 2"Total Sounded Depth of Well Below MP (ft) 50.09 Water Column in Well 15.94Depth to Water Below MP 34.15 Gallons per Foot 0.16Gallons per Well 2.55 Volume (ml) Pumped Prior to Sampling 350 mL

Time 24hr	Pump Rate (ml/min)	Depth to Water (feet)	Temp. °C	Cond. µmhos/cm (±3%)	DO% (±10%)	DO (mg/L) (±10%)	pH (±0.10)	ORP (±10)
13:47	100	43.94	31.61	3047	32.4	2.34	11.28	198.5
13:50	100	44.82	31.52	3038	20.8	1.57	11.28	241.5
13:53	50	45.17	32.24	3079	19.2	1.38	11.37	252.5
13:56	50	~~46.46~~ 45.50	32.70	3101	19.0	1.36	11.40	259.3
13:58	50		33.06	3116	19.0	1.35	11.38	261.4

SAMPLING DATA/FIELD PARAMETERS

Color clear Appearance clear Sampling Date 10/19/15Sampling Method Low Flow Material Field Filtered N

Container Description

Constituents Sampled for

From Lab X GESPR

Preservative

VOGs
Dissolved Gases
TOCs3-40ml Vials
2-40ml Vials
3-40ml VialsHCl
HCl
H₂SO₄Analytical Laboratory TriMatrixSampling Personnel BMR

Well Capacity (Gal/ft): 1-1/4"=0.06; 1-1/2"=0.09; 2"=0.16; 2-1/2"=0.26; 3"=0.37; 3-1/2"=0.50; 4"=0.65; 6"=1.47; 12"=5.88

Stabilization Criteria for range of variation of last three consecutive readings: pH: ±0.1; Cond.=±3%; ORP=±10; DO%=±10%

Chlorideplastic bottleNone



WATER SAMPLING LOG

Project - GE Vieques
Site Location - Vieques, PR
Job No. - 7100932
Well ID - C-11

Sampling Date - October 20, 2015

Time Sampling Began - 14:22

Time Sampling Completed - 14:30

Coded/ Duplicate No. - NA

Weather - Sunny few clouds ~90°F

EVACUATION DATA

Description of Measuring Point (MP) (ft) PVC Diameter of Casing 2 "
Total Sounded Depth of Well Below MP (ft) 102.43 Water Column in Well 65.80
Depth to Water Below MP 36.63 Gallons per Foot 0.16
Gallons per Well 10.53 Volume (ml) Pumped Prior to Sampling 400 mL

Time 24hr	Pump Rate (ml/min)	Depth to Water (feet)	Temp. °C	Cond. µmhos/cm (±3%)	DO% (±10%)	DO (mg/L) (±10%)	pH (±0.10)	ORP (±10)
1412	100	39.03	31.49	532	46.5	3.38	7.70	582.3
1415	100	39.03	33.02	547	42.8	3.02	7.59	510.2
1418	100	38.98	33.72	555	41.5	2.94	7.55	580.7
1421	100		33.70	551	42.4	3.02	7.57	590.2
BMR								

SAMPLING DATA/FIELD PARAMETERS

Color clear Appearance clear Sampling Date 10/20/15
Sampling Method Low Flow Material Field Filtered N

Container Description

Constituents Sampled for

VOLs
Dissolved Gases
TOCs

From Lab X GESPR

3-40mL Vials
2-40mL Vials
3-40mL Vials

Preservative

HCl
HCl
H₂SO₄

Analytical Laboratory TriMatrix

Sampling Personnel BMR

Well Capacity (Gal/ft): 1-1/4"=0.06; 1-1/2"=0.09; 2"=0.16; 2-1/2"=0.26; 3"=0.37; 3-1/2"=0.50; 4"=0.65; 6"=1.47; 12"=5.88

Stabilization Criteria for range of variation of last three consecutive readings: pH: ±0.1; Cond.=±3%; ORP=±10; DO%=±10%

Chloride

plastic bottle

None

APPENDIX B
LABORATORY ANALYTICAL REPORTS
(INCLUDED ON CD)



DATA VALIDATION PACKAGE

Prepared for:

**MWH Americas - Farmington Hills, MI
35055 W. Twelve Mile Rd.; Suite 140
Farmington Hills, MI 48331**

Project:

GE Caribe - Vieques, PR

Sample Delivery Group (SDG):

1510440

Prepared by:

**TriMatrix Laboratories, Inc.
5560 Corporate Exchange Court SE
Grand Rapids, MI 49512-5503**

Report Date:

November 09, 2015

A handwritten signature in blue ink, appearing to read "Gary L. Wood", is positioned above a horizontal line.

Gary L. Wood, Project Chemist
woodgl@trimatrixlabs.com

11/9/2015

Approval Date

TABLE OF CONTENTS

MWH Americas - Farmington Hills, MI
 GE Caribe - Vieques, PR

Section	Description	Pages
	Cover Page	0001
	Table of Contents	0002
	SDG Case Narrative	0003-0011
A	Field COC Records and Receiving Documentation	0012-0017
B	Internal COC Records	0018-0027
C	GC Semi-Volatile Organics RSK-175	0028-0134 0032-0134
D	GC/MS Volatile Organics USEPA-8260B	0135-0431 0138-0431
E	Inorganic - Metals USEPA-6010C	0432-0534 0435-0534
F	Inorganic - Wet Chemistry - SM 4500-Cl E-2011 - SM 5310 C-2011	0535-0663 0536-0580 0581-0663

SDG CASE NARRATIVE

MWH Americas - Farmington Hills, MI
GE Caribe - Vieques, PR

SDG Executive Summary

This case narrative applies to samples received on October 22, 2015. All samples were scheduled for analysis in accordance with parameters outlined on the field chain of custody record, the TriMatrix bid form, and/or oral and written correspondence between MWH Americas - Farmington Hills, MI and TriMatrix Laboratories, Inc.

Each sample receipt event was assigned a unique TriMatrix work order number. Sample receipt documentation is included in section A of this data package.

Project Technical Issues/Problems

Project-related data qualification designations, narrations, and reporting conventions are included in Attachment 1 - *Project Technical Narrative(s)*.

QA/QC Data Qualifications/Narrations

Quality assurance issues and/or quality control data qualifications and narrations related to the analysis and reporting of this SDG are presented in Attachment 2 - *Statement of Data Qualifications*. The absence of a statement page for a particular analyte group (e.g. Percent Solids) implies that no qualifying statements were generated for that analyte.

Data Review and Approval

All data was peer-reviewed by a second analyst, and then by appropriate data management staff against laboratory quality control requirements and project specifications. It was then reviewed and approved by the group supervisor/manager prior to further review by the project chemist.

Data Deliverables

This report relates only to the sample(s) as received. Estimates of analytical uncertainties for the test results contained within the report are available upon request. Test results are in compliance with the requirements of the National Environmental Laboratory Accreditation Conference (NELAC), and one or more of the following certification programs:

ANAB DoD-ELAP/ISO17025 (#ADE-1542); Arkansas DEP (#88-0730/13-049-0); Florida DEP (#E87622-24); Georgia EPD (#E87622-24); Illinois DEP (#200026/003329); Kentucky DEP (AL123065/#0021); Michigan DPH (#0034); Minnesota DPH (#491715); New York ELAP (#11776/53116); North Carolina DNRE (#659); Virginia DCLS (#460153/7952); Wisconsin DNR (#999472650); USDA Soil Import Permit (#P330-14-00305).



SDG CASE NARRATIVE

The data deliverables, both hardcopy and/or electronic (EDD), that comprise this data package are intended to comply with the documents referenced in the introductory section of this narrative. The EDD, if requested, will be issued separately from this hardcopy report. Hold time reports for each test procedure are presented following the CLP-like forms section of this report.

SDG CASE NARRATIVE

Sample Receipt and Login -- Work Order: 1510440

TriMatrix Laboratories received the cooler(s) for this work order on October 22, 2015, at 08:30am. Receiving documents include field chain-of-custody (COC) record(s), sample receipt form(s), and FedEx shipping document(s). The condition of the custody seals, the type and location of the coolant, and the temperatures recorded for each cooler are presented on the TriMatrix *Sample Receiving / Log-In Checklist* provided in section A of this package. The receipt temperature of the samples was determined by using an infrared thermometer to record the temperature of three random samples of varying container types and the accompanying temperature blank, if present.

Samples were scheduled for the analyses listed on the corresponding COC form. Field IDs and assigned laboratory identifiers are presented in the table below.

Field Sample Name	Laboratory Sample ID	Matrix	Date Sampled
C-1	1510440-01	Water	10/19/2015
C-2	1510440-02	Water	10/19/2015
C-3	1510440-03	Water	10/19/2015
C-4	1510440-04	Water	10/20/2015
C-5	1510440-05	Water	10/20/2015
C-6	1510440-06	Water	10/20/2015
C-7	1510440-07	Water	10/20/2015
C-8	1510440-08	Water	10/20/2015
C-9	1510440-09	Water	10/20/2015
C-10	1510440-10	Water	10/19/2015
C-11	1510440-11	Water	10/20/2015
EB-101915	1510440-12	Water	10/19/2015
EB-102015	1510440-13	Water	10/20/2015
Trip Blank TM 1266	1510440-14	Water	10/20/2015
Trip Blank TM 0093	1510440-15	Water	10/20/2015
W-A	1510440-16	Water	10/20/2015
Storage Blank	1510440-17	Water	10/22/2015

No administrative issues were encountered during the receipt and analysis of this work order.

SDG CASE NARRATIVE

Attachment 1 Project Technical Narrative(s)

Sample Result Reporting Convention

Sample results are reported as RL "U" (e.g. 0.001 U) if the target analyte was not detected above the MDL.

If a sample for an organic analyte is reanalyzed and also reported, the second analysis includes the suffix "REn" where *n* = the first, second, etc. reanalysis.

Percent Solids and Metals Data Reporting

Unless otherwise noted, all soil samples requiring metals analysis are dried at 50° to 60° C to a constant weight prior to acid digestion. In order to report results on a dry weight basis, correction for percent solids is not applicable.

Data Qualifier Designation

If applicable, sample results are qualified with:

a "J" flag if the analyte was detected, but the concentration is greater than the MDL and less than the RL;

a "B" flag if the analyte was also detected at or above the RL in the associated method blank, and the sample concentration was less than five times the method blank result;

a "E" flag if the analyte exceeded the instrument calibration range;

an asterisk (*) if a report-generated statement of qualification applies; qualifying statements, if any, will be found in Attachment 2 to this narrative.

QC Batch and Analytical Batch Designation

A Quality Control (QC) Batch is a seven-digit number that associates all samples that have been prepared together (or analyzed together if there is no preparation). Quality Control batches are limited to no more than twenty samples, excluding batch QC (method blanks, control spikes, etc.). Some batches may contain multiple sets of method blanks (BLK) and laboratory control samples (BS), where a set of method quality control analyses were prepared in concert with each set of samples on a given day.

An Analytical Batch (or Sequence) is a seven-digit number that associates all samples analyzed as a set under one analytical run.

SDG CASE NARRATIVE

Attachment 1 Project Technical Narrative(s)

Dissolved Gases in Water by RSK-175 Headspace Analysis

Narrative: Due to sample volumes, batch matrix quality control (QC) was not performed for this analysis. A Method Blank and Laboratory Control Sample comprise the batch QC.

Analysis: RSK-175

Sample/Analyte:	1510440-01	C-1
	1510440-01	C-1
	1510440-01	C-1
	1510440-02	C-2
	1510440-02	C-2
	1510440-02	C-2
	1510440-03	C-3
	1510440-03	C-3
	1510440-03	C-3
	1510440-04	C-4
	1510440-04	C-4
	1510440-04	C-4
	1510440-05	C-5
	1510440-05	C-5
	1510440-05	C-5
	1510440-06	C-6
	1510440-06	C-6
	1510440-06	C-6
	1510440-07	C-7
	1510440-07	C-7
	1510440-07	C-7
	1510440-08	C-8
	1510440-08	C-8
	1510440-08	C-8
	1510440-09	C-9
	1510440-09	C-9
	1510440-09	C-9
	1510440-10	C-10
	1510440-10	C-10
	1510440-10	C-10
	1510440-11	C-11
	1510440-11	C-11



SDG CASE NARRATIVE

Attachment 1 Project Technical Narrative(s)

Dissolved Gases in Water by RSK-175 Headspace Analysis (Continued)

Sample/Analyte:	1510440-11	C-11
	1510440-12	EB-101915
	1510440-12	EB-101915
	1510440-12	EB-101915
	1510440-13	EB-102015
	1510440-13	EB-102015
	1510440-13	EB-102015
	1510440-16	W-A
	1510440-16	W-A
	1510440-16	W-A



SDG CASE NARRATIVE

Attachment 1 Project Technical Narrative(s)

Total Metals by EPA 6000/7000 Series Methods

Narrative: The MS and/or MSD recovery was outside the laboratory or method control limit. The non-spiked sample concentration for this analyte was greater than or equal to 4 times the spiked amount and cannot be used to evaluate matrix quality control.

Analysis: USEPA-6010C

Sample/Analyte: 1510440-04 C-4

Sodium

SDG CASE NARRATIVE

Attachment 1 Project Technical Narrative(s)

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Narrative: The analyte concentration in the associated MB was greater than the MDL but less than the RL. The positive sample result, which was greater than 5 times the MB value, is not qualified.

Analysis: SM 4500-Cl E-2011

Sample/Analyte:	1510440-01	C-1	Chloride
	1510440-02	C-2	Chloride
	1510440-03	C-3	Chloride
	1510440-04	C-4	Chloride
	1510440-05	C-5	Chloride
	1510440-06	C-6	Chloride
	1510440-07	C-7	Chloride
	1510440-08	C-8	Chloride
	1510440-09	C-9	Chloride
	1510440-10	C-10	Chloride
	1510440-11	C-11	Chloride
	1510440-16	W-A	Chloride



SDG CASE NARRATIVE

Attachment 2 Statement of Data Qualifications

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Qualification: The analyte concentration in the associated MB was greater than the MDL but less than the RL. The positive sample result, which was less than 5 times the MB value, is considered estimated.

Analysis: SM 4500-Cl E-2011

Sample/Analyte: 1510440-12 EB-101915

Chloride

1510440-13 EB-102015

Chloride

SECTION - A

**FIELD COC RECORDS AND RECEIVING
DOCUMENTATION**

Chain of Custody Record

COC No.

152555

Analyses Requested

Pg. 2 of 2

[illegible]

TRIMATRIX
LABORATORIES

Recorded by (initials/date)	☒ Cooler ☐ Box ☐ Other	Qty Received	☒ IR Gun (#202) ☐ Digital Thermometer (#54) ☐ Other (#)	☐ See Additional Cooler Information Form
LR 10/22/15		2	Thermometer Used	

Cooler # TM0093	Time 11:07		
Custody Seals:			
☒ None ☐ Present / Intact ☐ Present / Not Intact			
Coolant Type:			
☐ Loose Ice ☒ Bagged Ice ☐ Blue Ice ☐ None			
Coolant Location:			
Dispersed / Top / Middle / Bottom			
Temp Blank Present: ☒ Yes ☐ No			
If Present, Temperature Blank Location is:			
☒ Representative ☐ Not Representative			
	Observed °C	Correction Factor °C	Actual °C
Temp Blank:	2.2	-	2.2
Sample 1:	3.9	-	3.9
Sample 2:	2.4	-	2.4
Sample 3:	3.6	-	3.6
3 Sample Average °C: <u>3.3</u>			
☐ Cooler ID on COC? ☒ VOC Trip Blank received?			

Cooler #	Tm1266		Time	11:21
Custody Seals:				
☒ None ☐ Present / Intact ☐ Present / Not Intact				
Coolant Type:				
☐ Loose Ice ☒ Bagged Ice ☐ Blue Ice ☐ None				
Coolant Location:				
Dispersed / Top / Middle / <u>Bottom</u>				
Temp Trip Blank Present: ☒ Yes ☐ No				
If Present, Temperature Blank Location is:				
☒ Representative ☐ Not Representative				
	Observed °C	Correction Factor °C	Actual °C	
Temp Blank:	2.3	-	2.3	
Sample 1:	5.1	-	5.1	
Sample 2:	2.9	-	2.9	
Sample 3:	4.7	-	4.7	
3 Sample Average °C:			4.2	
☐ Cooler ID on COC? ☒ VOC Trip Blank received?				

Cooler #	Time		
Custody Seals:			
☐ None ☐ Present / Intact ☐ Present / Not Intact			
Coolant Type:			
☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None			
Coolant Location:			
Dispersed / Top / Middle / Bottom			
Temp Blank Present: ☐ Yes ☐ No			
If Present, Temperature Blank Location is:			
☐ Representative ☐ Not Representative			
	Observed °C	Correction Factor °C	Actual °C
Temp Blank:			
Sample 1:			
Sample 2:			
Sample 3:			
3 Sample Average °C: _____			
☐ Cooler ID on COC? ☐ VOC Trip Blank received?			

Cooler #	Time		
Custody Seals:			
☐ None ☐ Present / Intact ☐ Present / Not Intact			
Coolant Type:			
☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None			
Coolant Location:			
Dispersed / Top / Middle / Bottom			
Temp Blank Present: ☐ Yes ☐ No			
If Present, Temperature Blank Location is:			
☐ Representative ☐ Not Representative			
	Observed °C	Correction Factor °C	Actual °C
Temp Blank:			
Sample 1:			
Sample 2:			
Sample 3:			
3 Sample Average °C: _____			
☐ Cooler ID on COC? ☐ VOC Trip Blank received?			

Paperwork Received

Yes No

☒ ☒ Chain of Custody record(s)? If No, Initiated By _____

☒ Received for Lab Signed/Date/Time?

☐ Shipping document?

☒ Other

COC Information

☒ TriMatrix COC ☐ Other 152556, 152555
COC ID Numbers:

Check COC for Accuracy

Yes	No	
☐	☐	Analysis Requested?
☐	☒	Sample ID matches COC?
☐	☒	Sample Date and Time matches COC?
☐	☐	Container type completed on COC?
☐	☒	All container types indicated are received?

Sample Condition Summary

N/A	Yes	No	
	☐	☒	Broken containers/lids?
	☐	☒	Missing or incomplete labels?
	☐	☒	Illegible information on labels?
	☐	☒	Low volume received?
	☐	☒	Inappropriate or non-TriMatrix containers received?
☐	☐	☒	VOC vials / TOX containers have headspace?
☐	☐	☒	Extra sample locations / containers not listed on COC?

Check Sample Preservation

N/A	Yes	No	
☒	☐	☒	Temperature Blank OR average sample temperature, $\geq 6^{\circ}\text{C}$?
☒	☒	☐	If either is 26°C , was thermal preservation required?
☒	☐		If "Yes", Project Chemist Approval Initials: _____
☐	☒		If "Yes" Completed Non Con Cooler - Cont Inventory Form?
☐	☒		Completed Sample Preservation Verification Form?
☐	☒	☒	Samples chemically preserved correctly?
☐	☒		If "No", added orange tag?
	☐	☒	Received pre-preserved VOC soils?
		☐	MeOH
		☐	Na ₂ SO ₄

Check for Short Hold-Time Prep/Analyses

☐ Bacteriological
☐ Air Bags
☐ EnCores / Methanol Pre-Preserved
☐ Formaldehyde/Aldehyde
☒ Green-tagged containers
☐ Yellow/White-tagged 1 L ambers (SV Prep-Lab)

AFTER HOURS ONLY:
COPIES OF COC TO LAB AREA(S)

☐ NONE RECEIVED
☒ RECEIVED, COCs TO LAB(S)

Notes

☐ Trip Blank received		☐ Trip Blank not listed on COC	
Cooler Received (Date/Time)	Paperwork Delivered (Date/Time)	≤1 Hour Goal Met?	
01/22/15 0830	10/22/15 1130	Yes	No

000015

Client MWH Americas Inc	Work Order # 1510440
Receipt Log # 41-12	Completed By (initials/date) AK 10/22/15

COC ID # 152556				Adjusted by: _____ Date: _____				DO NOT ADJUST pH FOR THESE CONTAINER TYPES			
Container Type	5 / 23	4	13	3	6	15					
Tag Color	Lt. Blue	Blue	Brown	Green	Red	Red Stripe					
Preservative	NaOH	H ₂ SO ₄	H ₂ SO ₄	None	HNO ₃	HNO ₃					
Expected pH	>12	<2	<2	6-8	<2	<2					
COC Line #1				✓							
COC Line #2				✓							
COC Line #3				✓							
COC Line #4				✓	✓						
COC Line #5				✓							
COC Line #6				✓							
COC Line #7				✓	✓						
COC Line #8				✓							
COC Line #9				✓							
COC Line #10				10							
Comments											

pH Strip Reagent #	
☒	5100128
☐	

Aqueous Samples: For each sample and container type, check the box if pH is acceptable. If pH is not acceptable for any sample container, record pH in box, and note on Sample Receiving Checklist and on Sample Receiving Non-Conformance Form. If approved by Project Chemist, add acid or base to the sample to achieve the correct pH. Add up to, but do not exceed 2x the volume initially added at container prep (see table below for initial volumes used). Add orange pH tag to sample container and record information requested. Record adjusted pH on this form. Do not adjust pH for container types 3, 6, and 15.

COC ID # 152555				Adjusted by: _____ Date: _____				DO NOT ADJUST pH FOR THESE CONTAINER TYPES			
Container Type	5 / 23	4	13	3	6	15					
Tag Color	Lt. Blue	Blue	Brown	Green	Red	Red Stripe					
Preservative	NaOH	H ₂ SO ₄	H ₂ SO ₄	None	HNO ₃	HNO ₃					
Expected pH	>12	<2	<2	6-8	<2	<2					
COC Line #1				✓							
COC Line #2				✓	✓						
COC Line #3				✓	✓						
COC Line #4											
COC Line #5											
COC Line #6				✓	✓						
COC Line #7											
COC Line #8											
COC Line #9											
COC Line #10											
Comments											

Container Size (mL)	Original Vol. of Preservative (mL)
Container Type 5	NaOH
500	2.5
1000	5.0
Container Type 4	H ₂ SO ₄
125	0.5
250	1.0
500	2.0
1000	4.0
Container Type 13	H ₂ SO ₄
500	2.5

Account Number
in Raciect
Phone 787-721-1418
ESPR
2 Ave Ponce De Leon
Apt 23, Pisco
Juan
to Risco
State Province 00909-1725
ZIP Postal Code PR
Phone 816-975-4501

Matrix Laboratory Inc.
8 Corporate Exchange Ct.
Dept./Floor

and Repairs
A
State Province MI
ZIP Postal Code 49512

Number for Customs Purposes
or as locally required.

Weight
Total Weight 10.4 lbs. 0.0 kg
DIM 20.15.15 in. cm

Commodity Description	Harmonized Code	Country of Manufacture	Value for Customs
Samples for analysis			\$1.00
Total Declared Value for Carriage			Total Value for Customs (Specify Currency)
1.00			1.00

1 ☐ FEDEX INTL. PRIORITY Available to select locations.

3 ☐ FedEx Intl. Economy
FedEx Envelope and FedEx Pak
rate not available.

5 **Packaging** *These unique brown boxes with special pricing are provided by FedEx for FedEx Intl. Priority only.

6 ☐ FedEx Envelope 2 ☐ FedEx Pak 3 ☐ FedEx Box 4 ☐ FedEx Tube
1 ☒ Other cardboard PW ☐ FedEx 10kg Box* PX ☐ FedEx 25kg Box*

6 **Special Handling**

1 ☐ HOLD at FedEx Location 3 ☐ SATURDAY Delivery
Available to select locations for FedEx Intl. Priority only.

Payment Complete payment options for both transportation charges and duties and taxes.

Bill transportation charges to:

Enter FedEx Acct. No. or Credit Card No. below.

1 ☐ Sender Acct. No. in Section 1 will be billed. 2 ☐ Recipient 3 ☒ Third Party 4 ☐ Credit Card 5 ☐ Cash Check/Cheque

FedEx Acct. No. 109530056

Credit Card Exp. Date

Bill duties and taxes to: ALL shipments may be subject to Customs charges, which FedEx does not estimate prior to clearance.

1 ☐ Sender Acct. No. in Section 1 will be billed. 2 ☐ Recipient 3 ☐ Third Party 5 ☐ Cash Check/Cheque

FedEx Acct. No.

8 **Your Internal Billing Reference** First 24 characters will appear on invoice.
1577987.010101

9 **Required Signature**

Use of this Air Waybill constitutes your agreement to the Conditions of Contract on the back of this Air Waybill, and you represent that this shipment does not require a U.S. State Department License or contain dangerous goods. Certain international treaties, including the Warsaw Convention, may apply to this shipment and limit our liability for damage, loss, or delay, as described in the Conditions of Contract.

WARNING: These commodities, technology, or software were exported from the United States in accordance with Export Administration Regulations. Diversion contrary to U.S. law prohibited.

Sender's Signature: BE MERT

This is not authorization to deliver this shipment without a recipient signature.

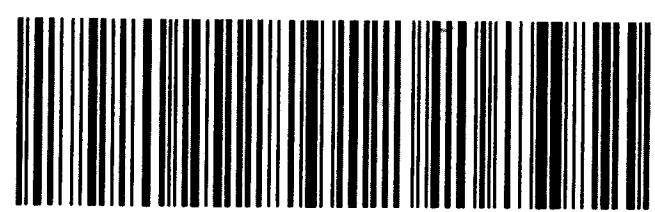
Received above shipment in good order and condition. We agree to pay all charges, including Customs duties and taxes as applicable, and we agree to the Conditions of Carriage as stated on the reverse side of the Recipient's Copy.

Recipient's Signature:

FedEx Tracking Number 8076 3878 1661 0402

Origin Station ID	Country Code/Destination Station ID	URSA Routing	Handling Units
UPRUE	GRRRA	XX GRRR	
Received At: 1 ☐ Reg. Stop 2 ☐ On-Call Stop 3 ☐ Drop Box 4 ☐ World Service Center 5 ☐ Station	Total Volume (cm)		
Base Charges FedEx Emp. # 17700	Declared Val. Chrg. Audit Exp. # 102	DDM/DPA Date 11/05	Form Attached: ☐ CI ☐ CO
Credit Card Auth. _____ Date _____ Time _____			

FedEx 2 of 2
MPS# 7815 5633 9486
Mstr# 8076 3878 1661 0402
XX GRRRA
THU - 22 OCT 10:30A
INTL PRIORITY
49512
MI-US GRR



#173208 10/21 539J3/401A/31D0

000017

SECTION - B

INTERNAL COC RECORDS

SDGID: 1510440

Work Order #: 1510440

Client: MWH Americas - Farmington Hills, MI
Project: GE Caribe - Vieques, PR

Project Manager: Gary L. Wood
Date Received: Oct-22-15 08:30

Department: Semivolatiles GC

Analysis: 45K-175

Lab Number / Sample Name	Container	Removed by (Signature)	Date & Time Removed	Date & Time Returned	Consumed?	Extract Container
1510440-01	A	Jeanne Stolt	10/21/15 8:00am	10/21/15 8:00pm	Yes	
C-1	A					
1510440-02	A					
C-2	A					
1510440-03	A					
C-3	A					
1510440-04	A					
C-4	A					
1510440-05	A					
C-5	A					
1510440-06	A					
C-6	A					
1510440-07	A					
C-7	A					
1510440-08	A					
C-8	A					
1510440-09	A					
C-9	A					
1510440-10	A					
C-10	A					
1510440-11	A					
C-11	A					
1510440-12	A					
EB-101915	A					
1510440-13	A					
EB-102015	A					
1510440-16	A					
W-A	A					

SDCID:

Work Order #: 1510440

Client: MWH Americas - Farmington Hills, MI
Project: GE Caribe - Vieques, PR

Project Manager: Gary L. Wood
Date Received: Oct-22-15 08:30

Department: Volatiles MS

Analysis: 82608

Lab Number / Sample Name	Container	Removed by (Signature)	Date & Time Removed	Date & Time Returned	Consumed?	Extract Container
1510440-01	P	BA	10-29-15 16:15	10-3-15 15:45		
C-1						
1510440-02						
C-2						
1510440-03						
C-3						
1510440-04						
C-4						
1510440-05						
C-5						
1510440-06	C		11-2-15 16:00			
C-6						
1510440-07	P		10-3-15 15:45			
C-7						
1510440-08						
C-8						
1510440-09						
C-9						
1510440-10						
C-10						
1510440-11						
C-11						
1510440-12						
EB-101915						
1510440-13						
EB-102015						
1510440-14	A		11-2-15 16:40			
Trip Blank TM 1266						

SDGID:

Work Order #: 1510440

Client: MWH Americas - Farmington Hills, MI
Project: GE Caribe - Vieques, PR

Project Manager: Gary L. Wood
Date Received: Oct-22-15 08:30

Department: Volatiles MS

Analysis: 82608

Lab Number / Sample Name	Container	Removed by (Signature)	Date & Time Removed	Date & Time Returned	Consumed?	Extract Container
1510440-15	A	68 [Signature]	10-22-15 16:15	10-30-15 15:45		
Trip Blank TM 0093	D					
1510440-16	A					
W-A						
1510440-17						
Storage Blank						

SDCID: 1510440

Work Order #: 1510440

Client: MWH Americas - Farmington Hills, MI
Project: GE Caribe - Vieques, PR

Project Manager: Gary L. Wood
Date Received: Oct-22-15 08:30

Department: Metals

Analysis: 3010A Digestion

Lab Number / Sample Name	Container	Removed by (Signature)	Date & Time Removed	Date & Time Returned	Consumed?	Extract Container
1510440-04	H	[Signature]	10/30/15 9:30 am	10/30/15 4:15 pm	NO	H01
C-4						
1510440-07	AMB	AMB	AMB	AMB	AMB	AMB
C-7						
1510440-12						
EB-101915						
1510440-13						
EB-102015						
1510440-16						
W-A	H	[Signature]	10/30/15 9:30 am	10/30/15 4:15 pm	NO	H01

SDGID: 1510440

Work Order #: 1510440

Client: MWH Americas - Farmington Hills, MI
Project: GE Caribe - Vieques, PR

Project Manager: Gary L. Wood
Date Received: Oct-22-15 08:30

Department: Metals

Analysis: ICP 10010C

Lab Number / Sample Name	Container	Removed by (Signature)	Date & Time Removed	Date & Time Returned	Consumed?	Extract Container
1510440-04	H01	<i>Charles D. Miller</i>	10-30-15 1615	11-03-15 1215	NO	
C-4						
1510440-07						
C-7						
1510440-12						
EB-101915						
1510440-13						
EB-102015						
1510440-16						
W-A						
	H01	<i>Charles D. Miller</i>	10-30-15 1615	11-03-15 1215	NO	

Client: MWH Americas - Farmington Hills, MI
Project: GE Caribe - Vieques, PR

Project Manager: Gary L. Wood
Date Received: Oct-22-15 08:30

SDGID: 1510440

Work Order #: 1510440

Department: Inorganic - Wet Chemistry

Analysis: Calcide 4500-CLE

Lab Number / Sample Name	Container	Removed by (Signature)	Date & Time Removed	Date & Time Returned	Consumed?	Extract Container
1510440-01	G1	Gary L. Wood	10/29/15 6:45am	10/29/15 12:45pm	NO	
C-1						
1510440-02	G1					
C-2						
1510440-03	G1					
C-3						
1510440-04	G1					
C-4						
1510440-05	G1					
C-5						
1510440-06	G1					
C-6						
1510440-07	G1					
C-7						
1510440-08	G1					
C-8						
1510440-09	G1					
C-9						
1510440-10	G1					
C-10						
1510440-11	G1					
C-11						
1510440-12	G1					
EB-101915						
1510440-13	G1					
EB-102015						
1510440-16	G1					
W-A						

SDCID: 1510440

Work Order #: 1510440

Client: MWH Americas - Farmington Hills, MI
Project: GE Caribe - Vieques, PR

Project Manager: Gary L. Wood
Date Received: Oct-22-15 08:30

Department: Inorganic - Wet Chemistry

Analysis: TDC 5316C

Lab Number / Sample Name	Container	Removed by (Signature)	Date & Time Removed	Date & Time Returned	Consumed?	Extract Container
1510440-01 C-1						
1510440-02 C-2						
1510440-03 C-3						
1510440-04 C-4						
1510440-05 C-5						
1510440-06 C-6						
1510440-07 C-7						
1510440-08 C-8						
1510440-09 C-9						
1510440-10 C-10	I	Barry Wood	10-29-15, 1300	10-29-15-1500		
1510440-11 C-11						
1510440-12 EB-101915						
1510440-13 EB-102015						
1510440-16 W-A						

SDGID: 1510440

Work Order #: 1510440

Client: MWH Americas - Farmington Hills, MI
 Project: GE Caribe - Vieques, PR

Project Manager: Gary L. Wood
 Date Received: Oct-22-15 08:30

Department: Inorganic - Wet Chemistry

Analysis: TOL 5310C

Lab Number / Sample Name	Container	Removed by (Signature)	Date & Time Removed	Date & Time Returned	Consumed?	Extract Container
1510440-01	I	David Wood	10-29-15, 1300	10-29-15, 1500		
C-1						
1510440-02	I					
C-2						
1510440-03	J					
C-3						
1510440-04	I					
C-4						
1510440-05	I					
C-5						
1510440-06	I	David Wood	10-29-15, 1300	10-29-15, 1500		
C-6						
1510440-07						
C-7						
1510440-08	I	David Wood	10-29-15, 1300	10-29-15, 1500		
C-8						
1510440-09	I	David Wood	10-29-15, 1300	10-29-15, 1500		
C-9						
1510440-10						
C-10						
1510440-11						
C-11						
1510440-12	J	David Wood	10-29-15, 1300	10-29-15, 1500		
EB-101915						
1510440-13	J	David Wood				
EB-102015						
1510440-16	J	David Wood	10-29-15, 1300	10-29-15, 1500		
W-A						

Project Manager: Gary L. Wood
Date Received: Oct-22-15 08:30

Work Order #: 1510440

Analysis: The side

wko_TriMatrix_custody.rpt

SECTION - C

GC SEMI-VOLATILE ORGANICS

STATEMENT OF DATA QUALIFICATIONS
RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington H

Project: GE Caribe - Vieques, PR

All analyses in this report section have been validated and comply with our Quality Control Program. No Qualifications are required.

PROJECT TECHNICAL NARRATIVE(S)
RSK-175
Dissolved Gases in Water by RSK-175 Headspace Analysis

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Narrative: Due to sample volumes, batch matrix quality control (QC) was not performed for this analysis. A Method Blank and Laboratory Control Sample comprise the batch QC.

Sample/Analyte: 1510440-01 C-1
1510440-01 C-1
1510440-01 C-1
1510440-02 C-2
1510440-02 C-2
1510440-02 C-2
1510440-03 C-3
1510440-03 C-3
1510440-03 C-3
1510440-04 C-4
1510440-04 C-4
1510440-04 C-4
1510440-05 C-5
1510440-05 C-5
1510440-05 C-5
1510440-06 C-6
1510440-06 C-6
1510440-06 C-6
1510440-07 C-7
1510440-07 C-7
1510440-07 C-7
1510440-08 C-8
1510440-08 C-8
1510440-08 C-8
1510440-09 C-9
1510440-09 C-9
1510440-09 C-9
1510440-10 C-10
1510440-10 C-10
1510440-10 C-10
1510440-11 C-11
1510440-11 C-11
1510440-11 C-11
1510440-12 EB-101915
1510440-12 EB-101915
1510440-12 EB-101915
1510440-13 EB-102015

PROJECT TECHNICAL NARRATIVE(S)

RSK-175

Dissolved Gases in Water by RSK-175 Headspace Analysis (Continued)

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Narrative: Due to sample volumes, batch matrix quality control (QC) was not performed for this analysis. A Method Blank and Laboratory Control Sample comprise the batch QC.

Sample/Analyte: 1510440-13 EB-102015
1510440-13 EB-102015
1510440-16 W-A
1510440-16 W-A
1510440-16 W-A

TriMatrix Laboratories, Inc.

MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

SDG: 1510440

RSK-175

SAMPLE ID SUMMARY

RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Client Sample Id:

Lab Sample Id:

<u>C-1</u>	<u>1510440-01</u>
<u>C-2</u>	<u>1510440-02</u>
<u>C-3</u>	<u>1510440-03</u>
<u>C-4</u>	<u>1510440-04</u>
<u>C-5</u>	<u>1510440-05</u>
<u>C-6</u>	<u>1510440-06</u>
<u>C-7</u>	<u>1510440-07</u>
<u>C-8</u>	<u>1510440-08</u>
<u>C-9</u>	<u>1510440-09</u>
<u>C-10</u>	<u>1510440-10</u>
<u>C-11</u>	<u>1510440-11</u>
<u>EB-101915</u>	<u>1510440-12</u>
<u>EB-102015</u>	<u>1510440-13</u>
<u>W-A</u>	<u>1510440-16</u>

ANALYSIS BATCH (SEQUENCE) SUMMARY

RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K02012

Calibration: 5I25004

Instrument: 333

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	5K02012-CCV1	CT290000004.D.Report.TX	10/29/15 11:43
Blank	1511649-BLK1	CT290000006.D.Report.TX	10/29/15 12:30
LCS	1511649-BS1	CT290000008.D.Report.TX	10/29/15 12:39
C-1	1510440-01	CT290000009.D.Report.TX	10/29/15 12:44
C-1	1510440-01	CT290000009.D.Report.TX	10/29/15 12:44
C-1	1510440-01	CT290000009.D.Report.TX	10/29/15 12:44
C-2	1510440-02	CT290000010.D.Report.TX	10/29/15 12:49
C-2	1510440-02	CT290000010.D.Report.TX	10/29/15 12:49
C-2	1510440-02	CT290000010.D.Report.TX	10/29/15 12:49
C-3	1510440-03	CT290000011.D.Report.TX	10/29/15 12:53
C-3	1510440-03	CT290000011.D.Report.TX	10/29/15 12:53
C-3	1510440-03	CT290000011.D.Report.TX	10/29/15 12:53
C-4	1510440-04	CT290000012.D.report.TX	10/29/15 12:57
C-4	1510440-04	CT290000012.D.report.TX	10/29/15 12:57
C-4	1510440-04	CT290000012.D.report.TX	10/29/15 12:57
C-5	1510440-05	CT290000013.D.report.TX	10/29/15 13:05
C-5	1510440-05	CT290000013.D.report.TX	10/29/15 13:05
C-5	1510440-05	CT290000013.D.report.TX	10/29/15 13:05
C-6	1510440-06	CT290000014.D.report.TX	10/29/15 13:11
C-6	1510440-06	CT290000014.D.report.TX	10/29/15 13:11
C-6	1510440-06	CT290000014.D.report.TX	10/29/15 13:11
C-7	1510440-07	CT290000015.D.Report.TX	10/29/15 13:14
C-7	1510440-07	CT290000015.D.Report.TX	10/29/15 13:14
Calibration Check	5K02012-CCV2	CT290000016.D.Report.TX	10/29/15 13:19
C-7	1510440-07	CT290000018.D.Report.TX	10/29/15 13:27
C-8	1510440-08	CT290000019.D.report.TX	10/29/15 13:32
C-8	1510440-08	CT290000019.D.report.TX	10/29/15 13:32
C-8	1510440-08	CT290000019.D.report.TX	10/29/15 13:32
C-9	1510440-09	CT290000020.D.report.TX	10/29/15 13:36
C-9	1510440-09	CT290000020.D.report.TX	10/29/15 13:36
C-9	1510440-09	CT290000020.D.report.TX	10/29/15 13:36
C-10	1510440-10	CT290000021.D.Report.TX	10/29/15 13:41

000034

ANALYSIS BATCH (SEQUENCE) SUMMARY
RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K02012

Calibration: 5125004

Instrument: 333

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
C-10	1510440-10	CT290000021.D.Report.TX	10/29/15 13:41
C-10	1510440-10	CT290000022.D.Report.TX	10/29/15 13:46
C-11	1510440-11	CT290000023.D.report.TX	10/29/15 13:50
C-11	1510440-11	CT290000023.D.report.TX	10/29/15 13:50
C-11	1510440-11	CT290000023.D.report.TX	10/29/15 13:50
EB-101915	1510440-12	CT290000024.D.report.TX	10/29/15 13:56
EB-101915	1510440-12	CT290000024.D.report.TX	10/29/15 13:56
EB-101915	1510440-12	CT290000024.D.report.TX	10/29/15 13:56
EB-102015	1510440-13	CT290000025.D.report.TX	10/29/15 14:00
EB-102015	1510440-13	CT290000025.D.report.TX	10/29/15 14:00
EB-102015	1510440-13	CT290000025.D.report.TX	10/29/15 14:00
W-A	1510440-16	CT290000026.D.report.TX	10/29/15 14:04
W-A	1510440-16	CT290000026.D.report.TX	10/29/15 14:04
W-A	1510440-16	CT290000026.D.report.TX	10/29/15 14:04
Calibration Check	5K02012-CCV3	CT290000027.D.Report.TX	10/29/15 14:08

LCS / LCS DUPLICATE RECOVERY

RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511649-BS1

Preparation: Method-Specific Extraction

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Ethane	65.1	47.1	72	67 - 122	ug/L
Methane	34.7	26.4	76	70 - 116	ug/L
Ethylene	60.4	43.1	71	67 - 121	ug/L

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

* Values outside of QC limits

000036

METHOD BLANK DATA SHEET
RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511649-BLK1

File ID: OCT290000006.D.Report.TX

Prepared: 10/29/15 08:18

Analyzed: 10/29/15 12:30

Preparation: Method-Specific Extractio

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

Calibration: 5I25004

Instrument: 333

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
74-84-0	Ethane	1.0	ug/L	0.21	1.0	U
74-82-8	Methane	0.50	ug/L	0.30	0.50	U
74-85-1	Ethylene	1.0	ug/L	0.11	1.0	U

QC BATCH SUMMARY

RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

QC Batch: 1511649

QC Batch Matrix: Water

Preparation: Method-Specific Extraction

Sample Name	Lab Sample ID	Date Prepared	Observations
C-1	1510440-01	10/29/15 09:37	Methane/Ethane/Ethene
C-2	1510440-02	10/29/15 09:37	Methane/Ethane/Ethene
C-3	1510440-03	10/29/15 09:37	Methane/Ethane/Ethene
C-4	1510440-04	10/29/15 09:37	Methane/Ethane/Ethene
C-5	1510440-05	10/29/15 09:37	Methane/Ethane/Ethene
C-6	1510440-06	10/29/15 09:37	Methane/Ethane/Ethene
C-7	1510440-07	10/29/15 09:37	Methane/Ethane/Ethene
C-8	1510440-08	10/29/15 09:37	Methane/Ethane/Ethene
C-9	1510440-09	10/29/15 09:37	Methane/Ethane/Ethene
C-10	1510440-10	10/29/15 09:37	Methane/Ethane/Ethene
C-11	1510440-11	10/29/15 09:37	Methane/Ethane/Ethene
EB-101915	1510440-12	10/29/15 09:37	Methane/Ethane/Ethene
EB-102015	1510440-13	10/29/15 09:37	Methane/Ethane/Ethene
W-A	1510440-16	10/29/15 09:37	Methane/Ethane/Ethene
Blank	1511649-BLK1	10/29/15 08:18	
LCS	1511649-BS1	10/29/15 08:18	

000038

HOLDING TIME SUMMARY

RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Analyte: Dissolved Gases in Water by RSK-175 Headspace Analysis

Sample Name	Date Collected	Date Received	Date Leached	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
C-1	10/19/15	10/22/15		10/29/15	10	NA	10/29/15	10	14	
C-2	10/19/15	10/22/15		10/29/15	10	NA	10/29/15	10	14	
C-3	10/19/15	10/22/15		10/29/15	10	NA	10/29/15	10	14	
C-4	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	14	
C-5	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	14	
C-6	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	14	
C-7	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	14	
C-7	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	14	
C-8	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	14	
C-9	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	14	
C-10	10/19/15	10/22/15		10/29/15	10	NA	10/29/15	10	14	
C-10	10/19/15	10/22/15		10/29/15	10	NA	10/29/15	10	14	
C-11	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	14	
EB-101915	10/19/15	10/22/15		10/29/15	10	NA	10/29/15	10	14	
EB-102015	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	14	
W-A	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	14	

000039

ORGANIC ANALYSIS DATA SHEET
RSK-175

C-1

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-01

File ID: OCT290000009.D.Report.TX

Sampled: 10/19/15 11:15

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 12:44

Solids: NA

Preparation: Method-Specific Extracti

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

Calibration: 5I25004

Instrument: 333

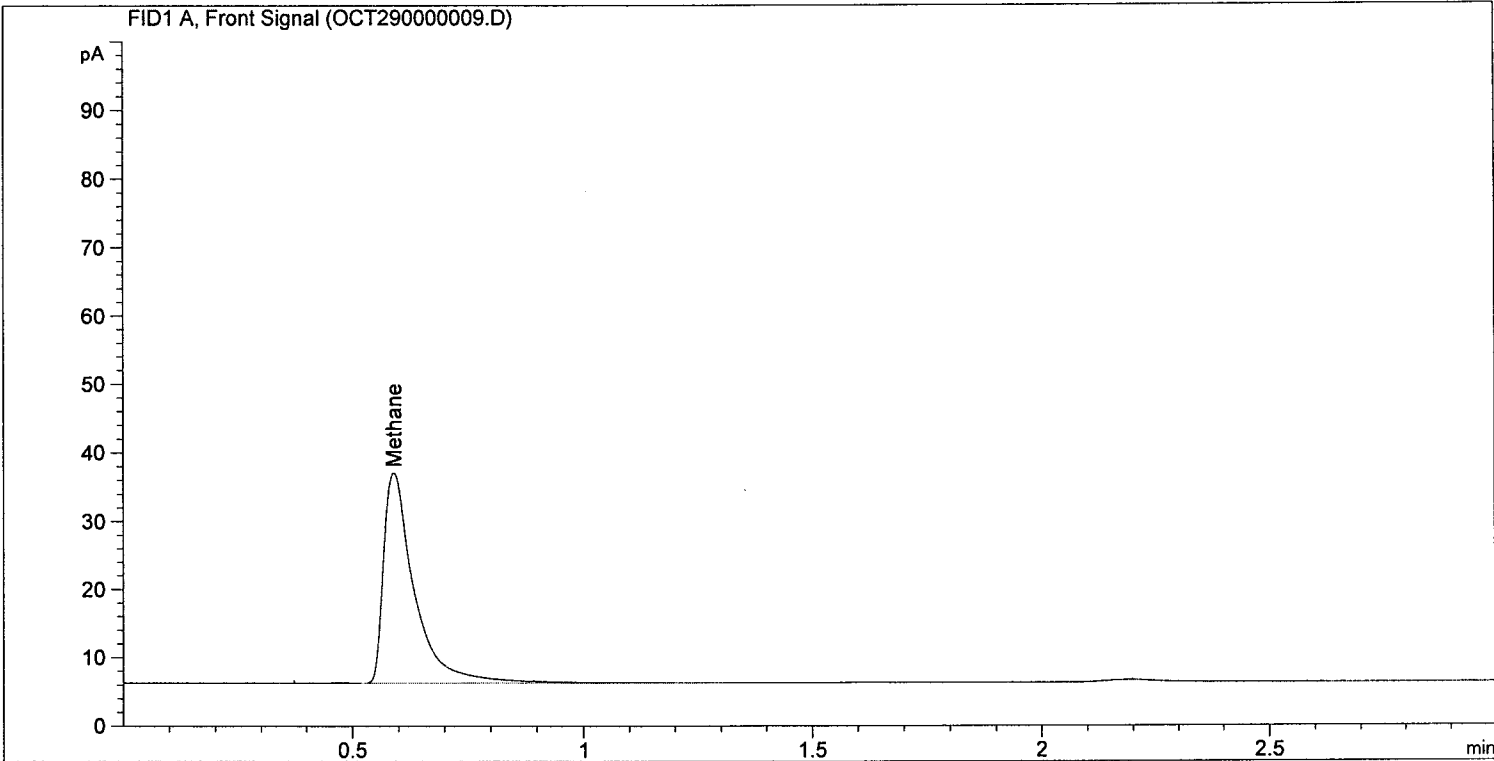
CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-84-0	Ethane	1	1.0	0.21	1.0	U
74-82-8	Methane	1	5.7	0.30	0.50	
74-85-1	Ethylene	1	1.0	0.11	1.0	U

000040

=====

Acq. Operator	: SYSTEM	Seq. Line	: 7
Acq. Instrument	: 333	Location	: Vial 9
Injection Date	: 10/29/2015 12:44:49 PM	Inj	: 1
		Inj Volume	: Manually

Sequence File : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S
Method : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-2015.M (Sequence Method)
Last changed : 10/29/2015 11:35:36 AM by SYSTEM



=====

External Standard Report

=====

Sorted By : Retention Time
Calib. Data Modified : Thursday, September 24, 2015 3:12:01 PM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.591	1	BB	144.65004	4.00307e-1	57.90448		Methane
1.636	1		-	-	-		Ethylene
2.155	1		-	-	-		Ethane

Totals : 57.90448

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

ORGANIC ANALYSIS DATA SHEET
RSK-175

C-2

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-02

File ID: OCT290000010.D.Report.TX

Sampled: 10/19/15 11:55

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 12:49

Solids: NA

Preparation: Method-Specific Extractio

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

Calibration: 5I25004

Instrument: 333

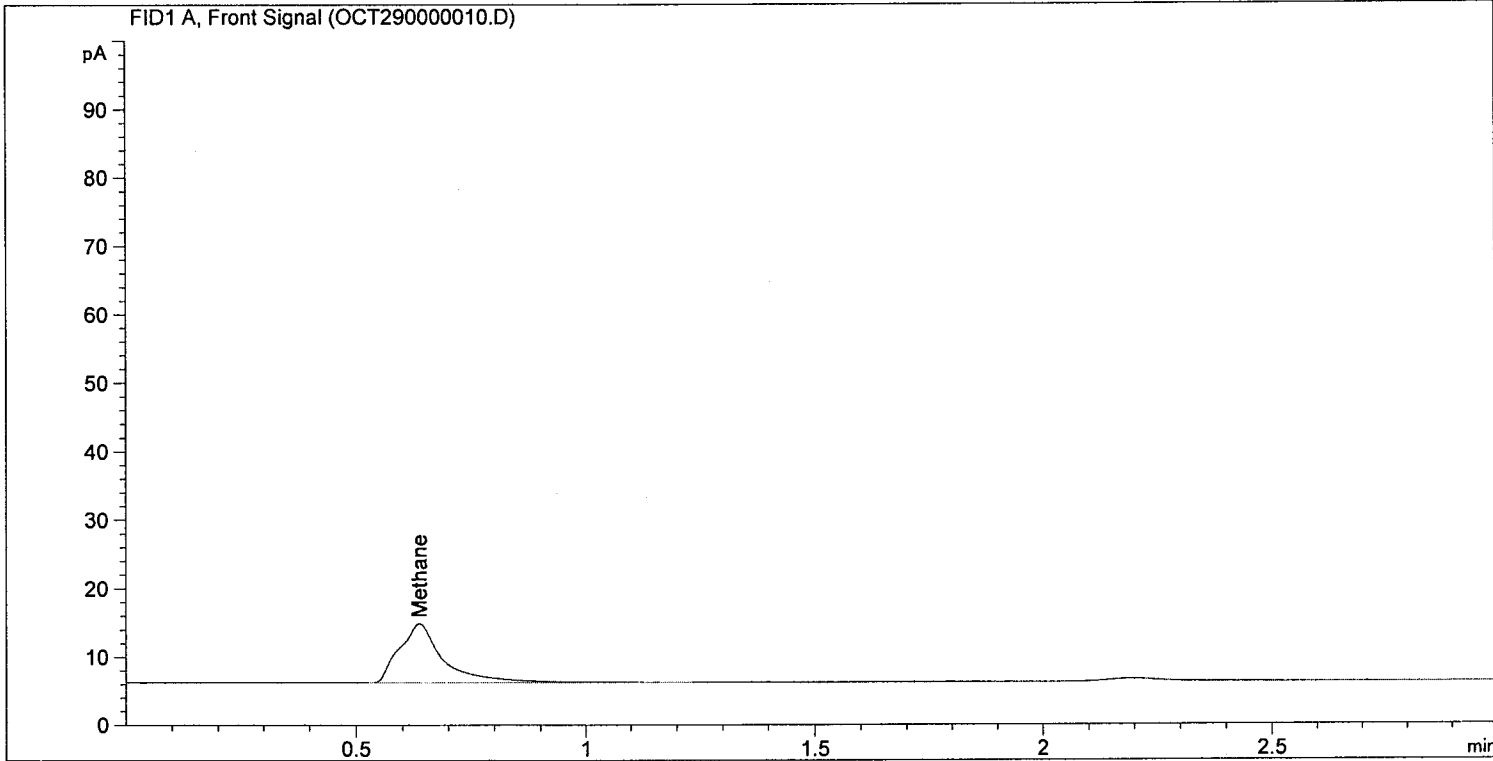
CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-84-0	Ethane	1	1.0	0.21	1.0	U
74-82-8	Methane	1	0.50	0.30	0.50	U
74-85-1	Ethylene	1	1.0	0.11	1.0	U

000043

=====

Acq. Operator	: SYSTEM	Seq. Line	: 8
Acq. Instrument	: 333	Location	: Vial 10
Injection Date	: 10/29/2015 12:49:22 PM	Inj	: 1
		Inj Volume	: Manually

Sequence File : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S
Method : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-2015.M (Sequence Method)
Last changed : 10/29/2015 11:35:36 AM by SYSTEM



=====

External Standard Report

=====

Sorted By : Retention Time
Calib. Data Modified : Thursday, September 24, 2015 3:12:01 PM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.637	1	BB	57.94197	3.70885e-1	21.48979		Methane
1.636	1		-	-	-		Ethylene
2.155	1		-	-	-		Ethane

Totals : 21.48979

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

ORGANIC ANALYSIS DATA SHEET
RSK-175

C-3

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-03

File ID: OCT290000011.D.Report.TX

Sampled: 10/19/15 13:13

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 12:53

Solids: NA

Preparation: Method-Specific Extraction

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

Calibration: 5I25004

Instrument: 333

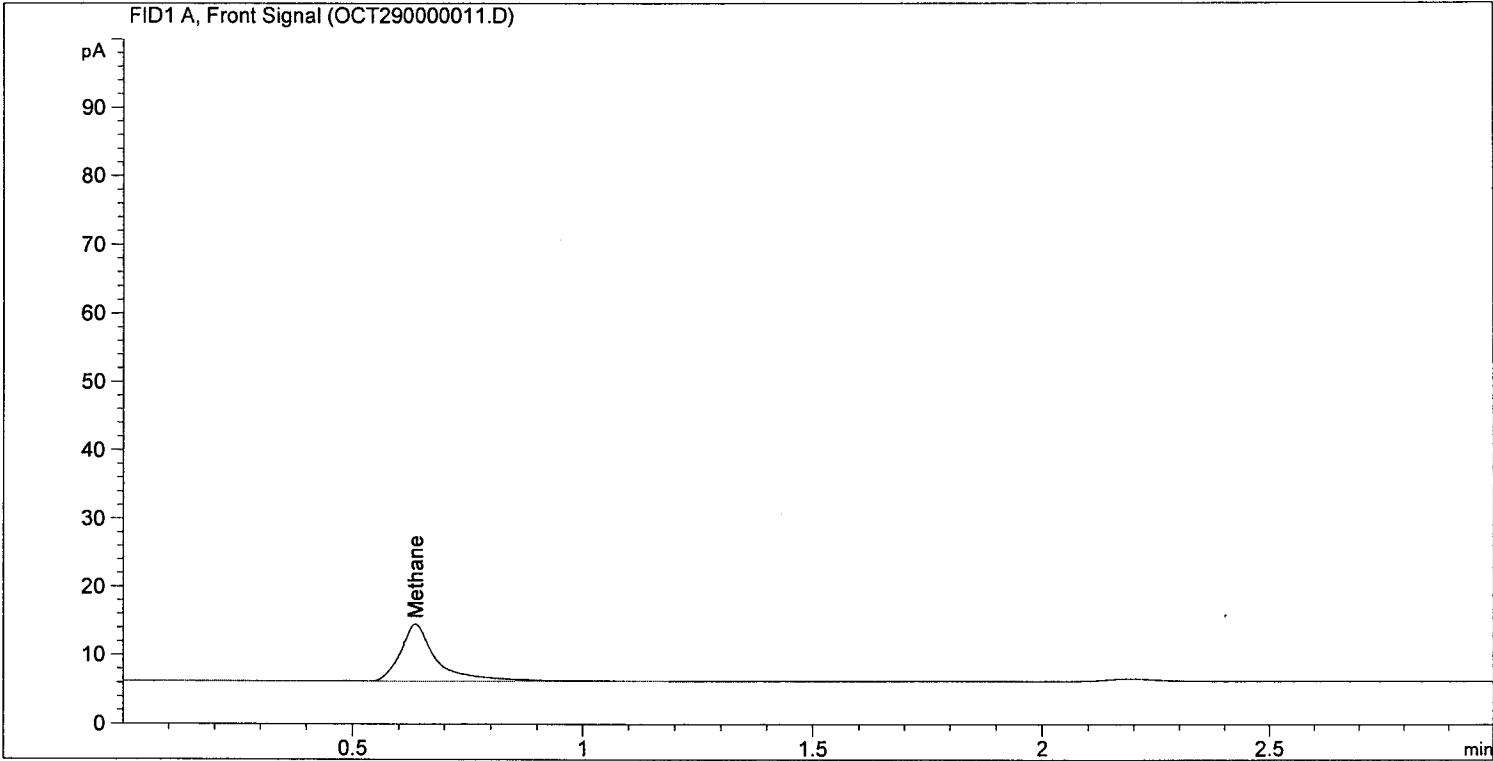
CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-84-0	Ethane	1	1.0	0.21	1.0	U
74-82-8	Methane	1	0.50	0.30	0.50	U
74-85-1	Ethylene	1	1.0	0.11	1.0	U

000046

=====

Acq. Operator	: SYSTEM	Seq. Line	: 9
Acq. Instrument	: 333	Location	: Vial 11
Injection Date	: 10/29/2015 12:53:31 PM	Inj	: 1
		Inj Volume	: Manually

Sequence File : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S
Method : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-2015.M (Sequence Method)
Last changed : 10/29/2015 11:35:36 AM by SYSTEM



=====

External Standard Report

=====

Sorted By : Retention Time
Calib. Data Modified : Thursday, September 24, 2015 3:12:01 PM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime	Sig	Type	Area	Amt/Area	Amount	Grp	Name
[min]			[pA*s]		[ug/l]		
0.637	1	BB	45.49485	3.57456e-1	16.26239		Methane
1.636	1		-	-	-		Ethylene
2.155	1		-	-	-		Ethane

Totals : 16.26239

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

ORGANIC ANALYSIS DATA SHEET
RSK-175

C-4

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-04

File ID: OCT290000012.D.report.TXT

Sampled: 10/20/15 12:05

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 12:57

Solids: NA

Preparation: Method-Specific Extractio

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

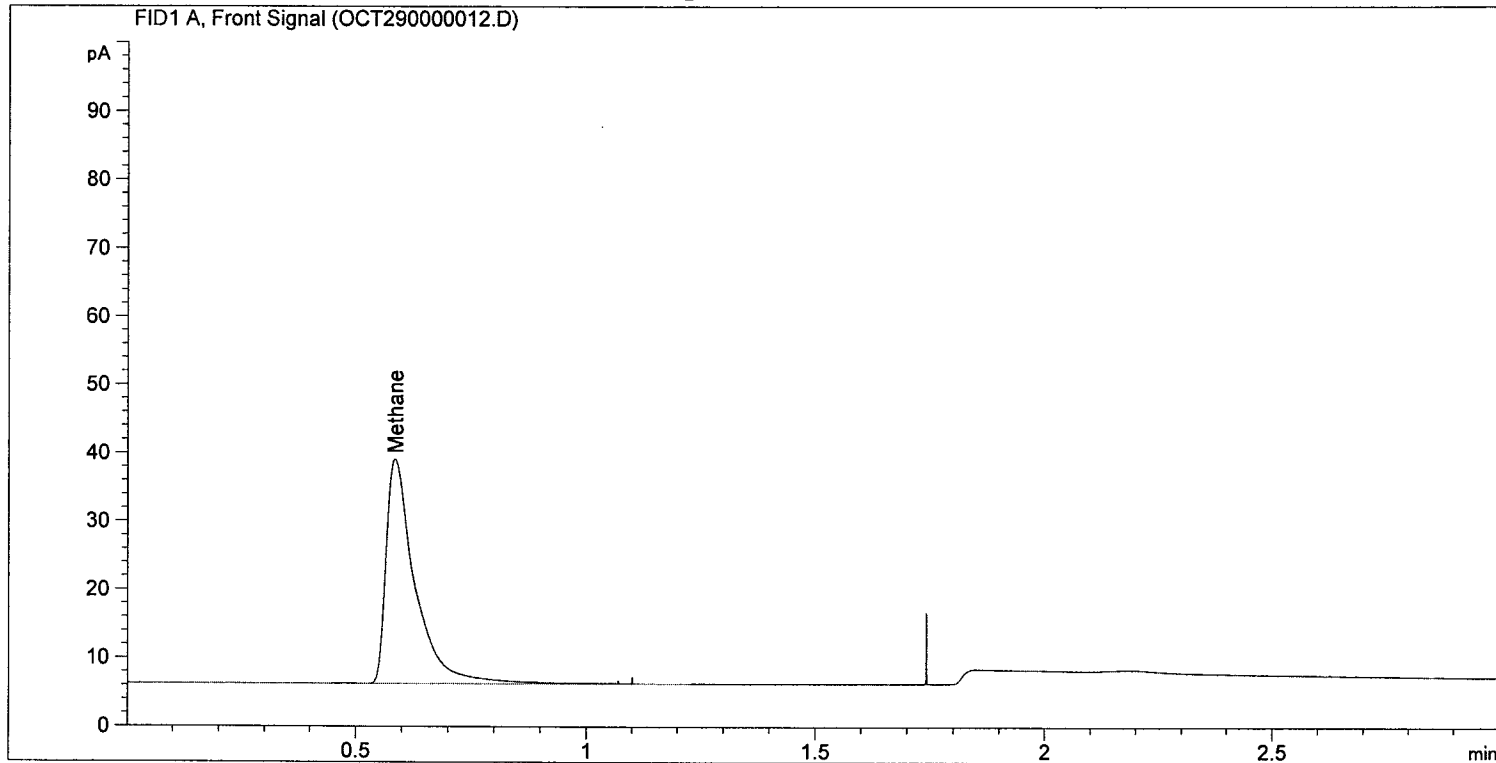
Calibration: 5I25004

Instrument: 333

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-84-0	Ethane	1	1.0	0.21	1.0	U
74-82-8	Methane	1	5.7	0.30	0.50	
74-85-1	Ethylene	1	1.0	0.11	1.0	U

000049

```
=====
Acq. Operator   : SYSTEM                      Seq. Line :   10
Acq. Instrument : 333                        Location  : Vial 12
Injection Date  : 10/29/2015 12:57:43 PM      Inj       :    1
                                           Inj Volume: Manually
Sequence File   : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S
Method          : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-
                  2015.M (Sequence Method)
Last changed    : 10/29/2015 11:35:36 AM by SYSTEM
=====
```



```
=====
                        External Standard Report
=====
```

```
Sorted By           :      Retention Time
Calib. Data Modified :      Thursday, September 24, 2015 3:12:01 PM
Multiplier          :      1.0000
Dilution            :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.586	1	BB	143.93875	4.00210e-1	57.60576		Methane
1.636	1		-	-	-		Ethylene
2.155	1		-	-	-		Ethane

Totals : 57.60576

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

ORGANIC ANALYSIS DATA SHEET
RSK-175

C-5

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-05

File ID: OCT290000013.D.report.TXT

Sampled: 10/20/15 10:10

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 13:05

Solids: NA

Preparation: Method-Specific Extracti

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

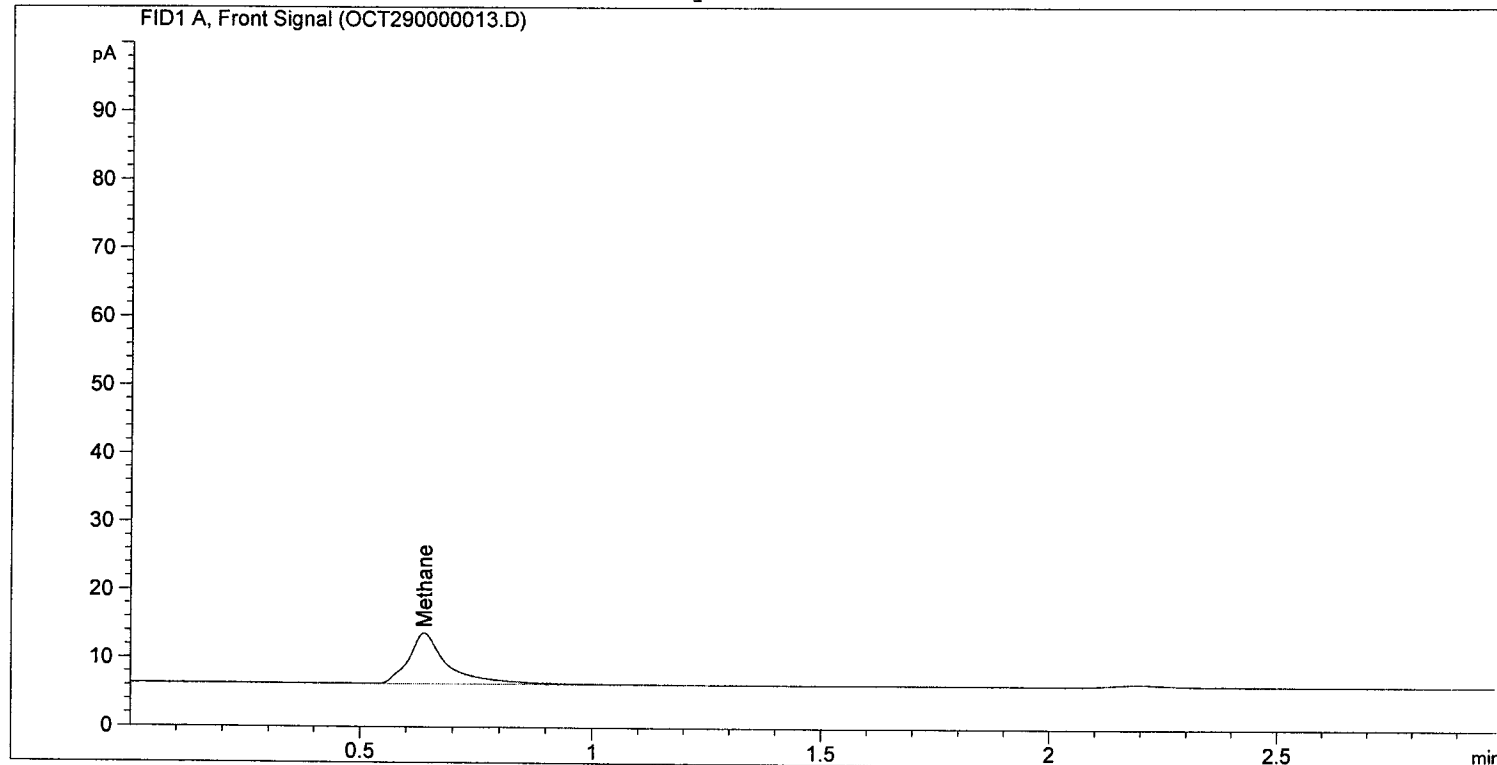
Calibration: 5125004

Instrument: 333

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-84-0	Ethane	1	1.0	0.21	1.0	U
74-82-8	Methane	1	0.50	0.30	0.50	U
74-85-1	Ethylene	1	1.0	0.11	1.0	U

000052

```
=====
Acq. Operator   : SYSTEM                      Seq. Line :   11
Acq. Instrument : 333                        Location  : Vial 13
Injection Date  : 10/29/2015 1:05:45 PM      Inj       :    1
                                           Inj Volume: Manually
Sequence File   : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S
Method          : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-
                  2015.M (Sequence Method)
Last changed    : 10/29/2015 11:35:36 AM by SYSTEM
=====
```



External Standard Report

```
Sorted By           :      Retention Time
Calib. Data Modified :      Thursday, September 24, 2015 3:12:01 PM
Multiplier          :      1.0000
Dilution            :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.638	1	BB	43.89169	3.55172e-1	15.58911		Methane
1.636	1		-	-	-		Ethylene
2.155	1		-	-	-		Ethane

Totals : 15.58911

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

ORGANIC ANALYSIS DATA SHEET
RSK-175

C-6

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-06

File ID: OCT290000014.D.report.TXT

Sampled: 10/20/15 09:30

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 13:11

Solids: NA

Preparation: Method-Specific Extractio

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

Calibration: 5I25004

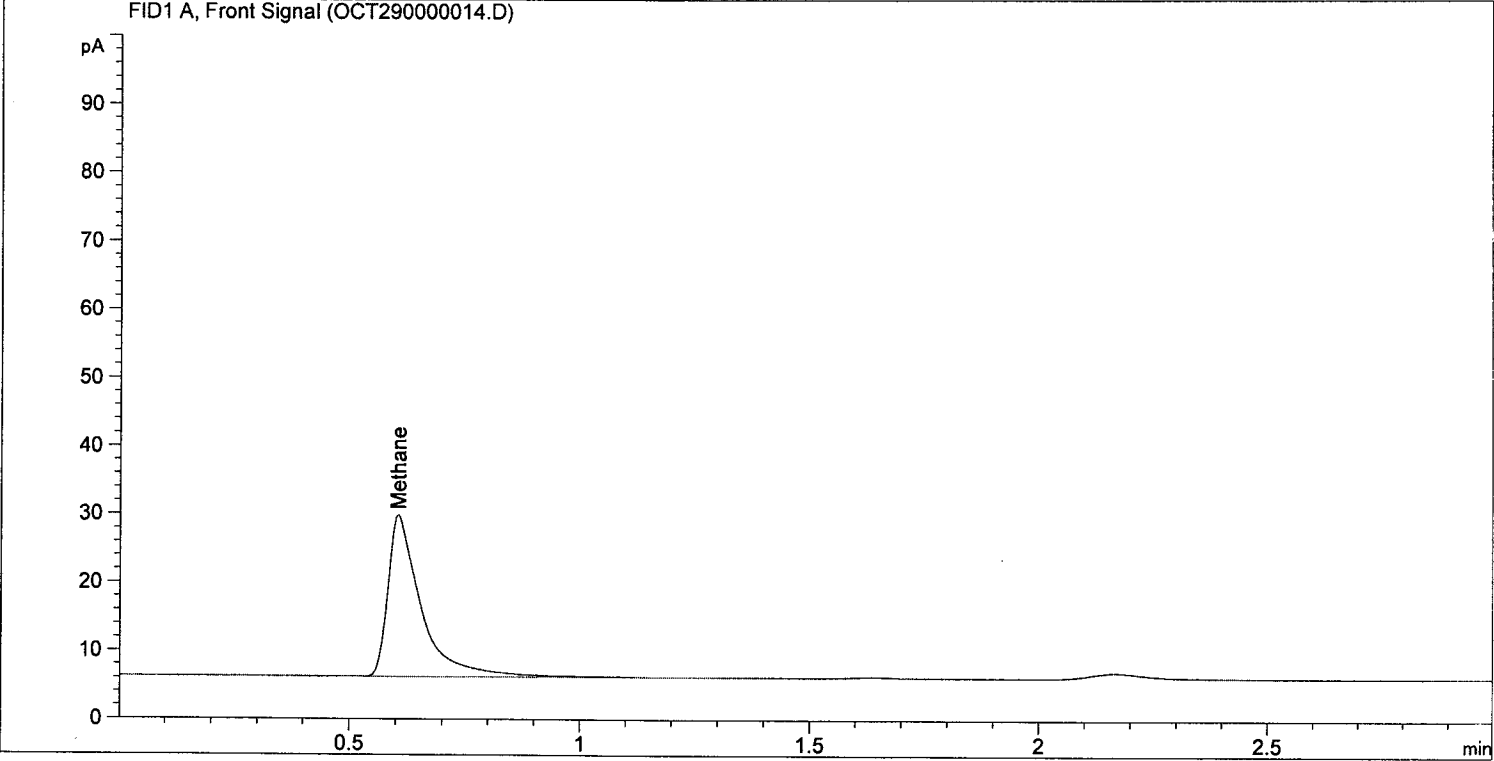
Instrument: 333

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-84-0	Ethane	1	1.0	0.21	1.0	U
74-82-8	Methane	1	4.6	0.30	0.50	
74-85-1	Ethylene	1	1.0	0.11	1.0	U

000055

=====

Acq. Operator	: SYSTEM	Seq. Line	: 12
Acq. Instrument	: 333	Location	: Vial 14
Injection Date	: 10/29/2015 1:11:01 PM	Inj	: 1
		Inj Volume	: Manually
Sequence File	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S		
Method	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-2015.M (Sequence Method)		
Last changed	: 10/29/2015 11:35:36 AM by SYSTEM		



=====

External Standard Report

=====

Sorted By : Retention Time
Calib. Data Modified : Thursday, September 24, 2015 3:12:01 PM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.605	1	BB	118.94995	3.96059e-1	47.11125		Methane
1.636	1		-	-	-		Ethylene
2.155	1		-	-	-		Ethane

Totals : 47.11125

1 Warnings or Errors :
Warning : Calibrated compound(s) not found

=====
*** End of Report ***

ORGANIC ANALYSIS DATA SHEET
RSK-175

C-7

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-07

File ID: OCT290000015.D.Report.TX

Sampled: 10/20/15 11:40

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 13:14

Solids: NA

Preparation: Method-Specific Extracti

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

Calibration: 5I25004

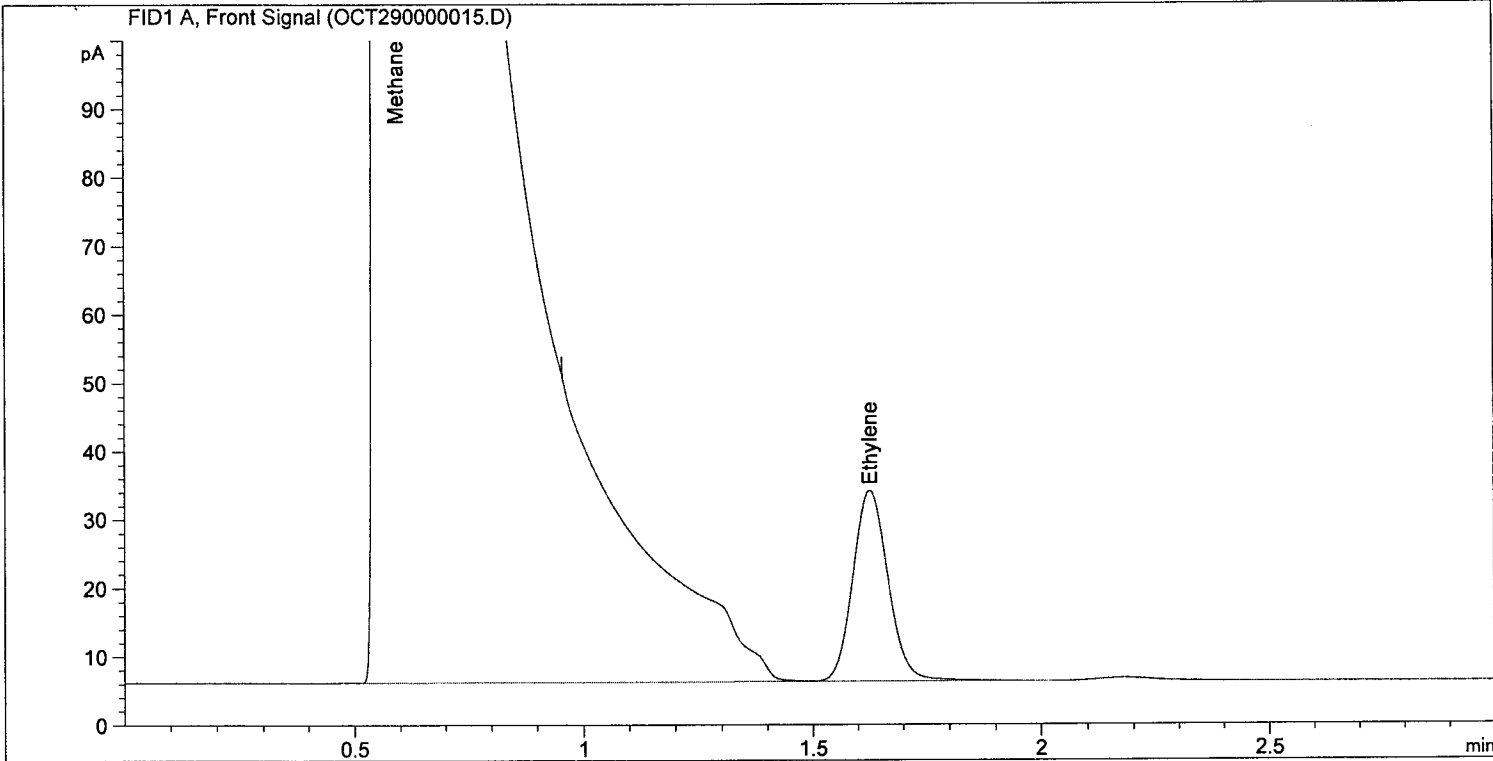
Instrument: 333

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-84-0	Ethane	1	1.0	0.21	1.0	U
74-85-1	Ethylene	1	9.9	0.11	1.0	

000058

=====

Acq. Operator	: SYSTEM	Seq. Line	: 13
Acq. Instrument	: 333	Location	: Vial 15
Injection Date	: 10/29/2015 1:14:58 PM	Inj	: 1
		Inj Volume	: Manually
Sequence File	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S		
Method	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-2015.M (Sequence Method)		
Last changed	: 10/29/2015 11:35:36 AM by SYSTEM		



=====

External Standard Report

=====

Sorted By : Retention Time
Calib. Data Modified : Thursday, September 24, 2015 3:12:01 PM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.594	1	BB	9.01405e4	4.19937e-1	3.78534e4		Methane
1.627	1	BB	151.16408	2.38689e-1	36.08120		Ethylene
2.155	1		-	-	-		Ethane

Totals : 3.78894e4

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

ORGANIC ANALYSIS DATA SHEET
RSK-175

C-7

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-07

File ID: OCT290000018.D.Report.TX

Sampled: 10/20/15 11:40

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 13:27

Solids: NA

Preparation: Method-Specific Extracti

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

Calibration: 5I25004

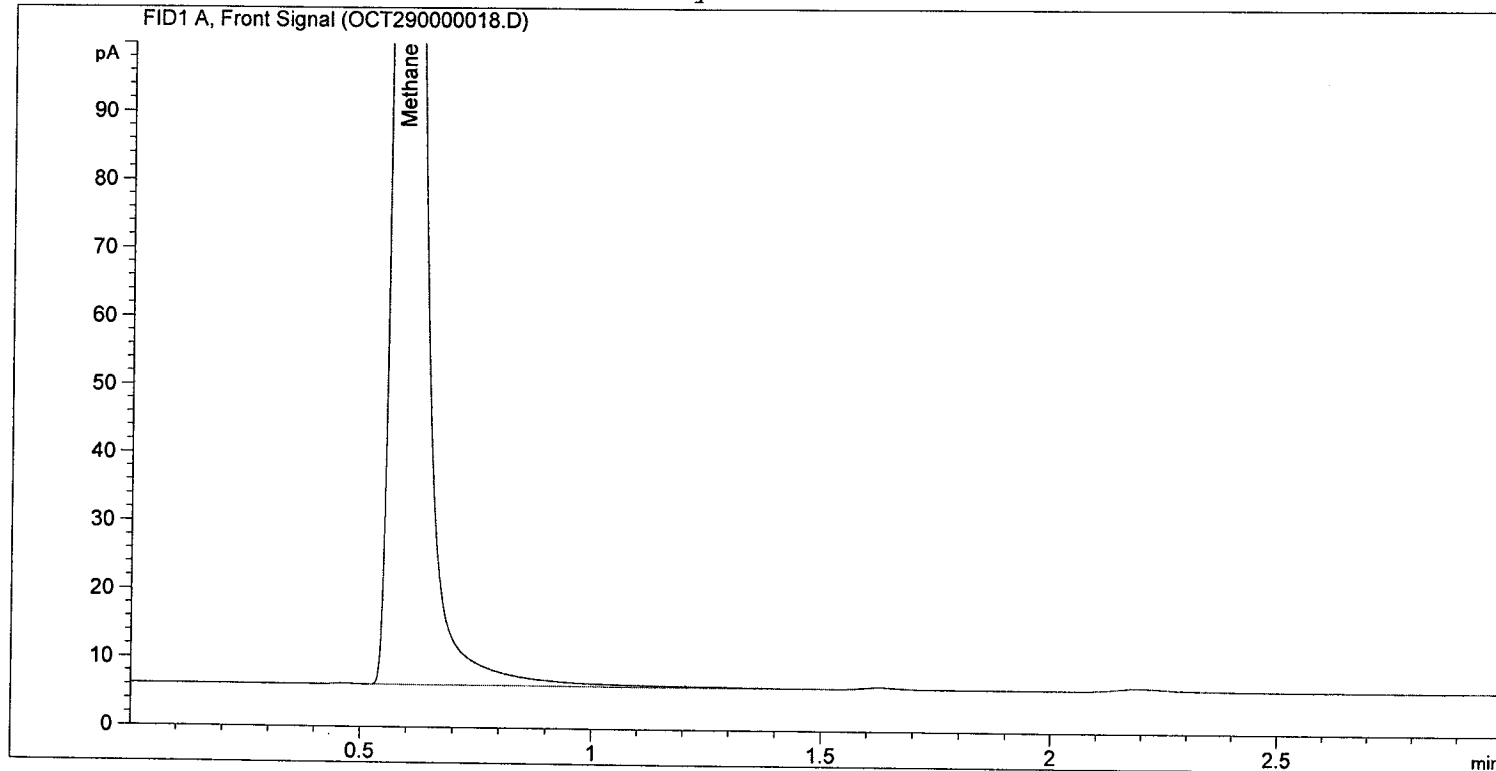
Instrument: 333

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-82-8	Methane	100	4000	30	50	

000061

=====

Acq. Operator	: SYSTEM	Seq. Line	: 16
Acq. Instrument	: 333	Location	: Vial 18
Injection Date	: 10/29/2015 1:27:41 PM	Inj	: 1
		Inj Volume	: Manually
Sequence File	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S		
Method	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-2015.M (Sequence Method)		
Last changed	: 10/29/2015 11:35:36 AM by SYSTEM		



=====

External Standard Report

=====

Sorted By : Retention Time
Calib. Data Modified : Thursday, September 24, 2015 3:12:01 PM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.595	1	BB	967.04974	4.17028e-1	403.28676		Methane
1.636	1		-	-	-		Ethylene
2.155	1		-	-	-		Ethane

Totals : 403.28676

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

ORGANIC ANALYSIS DATA SHEET
RSK-175

C-8

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-08

File ID: OCT290000019.D.report.TXT

Sampled: 10/20/15 11:05

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 13:32

Solids: NA

Preparation: Method-Specific Extraction

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

Calibration: 5I25004

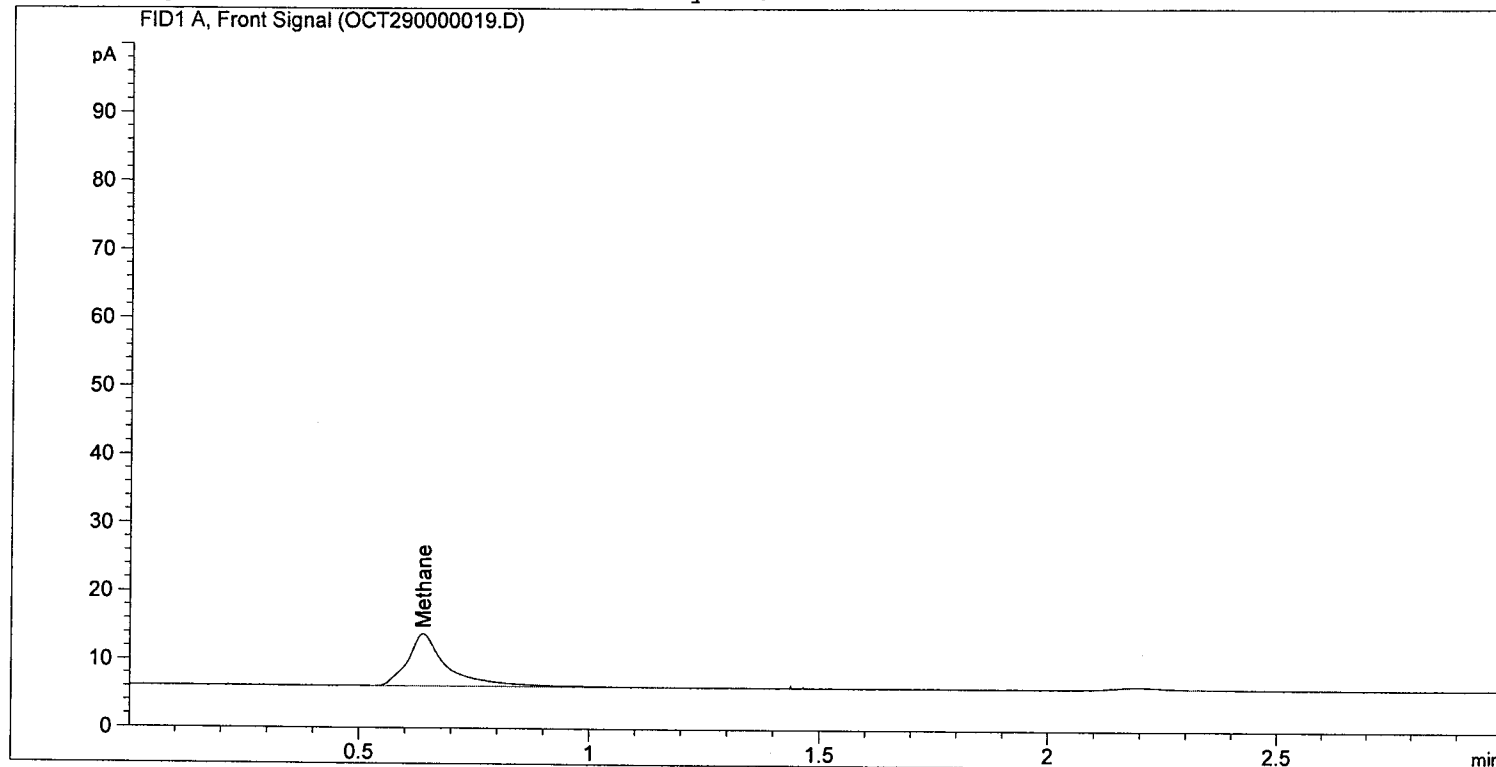
Instrument: 333

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-84-0	Ethane	1	1.0	0.21	1.0	U
74-82-8	Methane	1	0.50	0.30	0.50	U
74-85-1	Ethylene	1	1.0	0.11	1.0	U

000064

=====

Acq. Operator	: SYSTEM	Seq. Line	: 17
Acq. Instrument	: 333	Location	: Vial 19
Injection Date	: 10/29/2015 1:32:24 PM	Inj	: 1
		Inj Volume	: Manually
Sequence File	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S		
Method	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-2015.M (Sequence Method)		
Last changed	: 10/29/2015 11:35:36 AM by SYSTEM		



=====

External Standard Report

=====

Sorted By : Retention Time
Calib. Data Modified : Thursday, September 24, 2015 3:12:01 PM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.639	1	BB	46.30883	3.58554e-1	16.60424		Methane
1.636	1		-	-	-		Ethylene
2.155	1		-	-	-		Ethane

Totals : 16.60424

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

ORGANIC ANALYSIS DATA SHEET
RSK-175

C-9

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-09

File ID: OCT290000020.D.report.TXT

Sampled: 10/20/15 13:55

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 13:36

Solids: NA

Preparation: Method-Specific Extracti

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

Calibration: 5I25004

Instrument: 333

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-84-0	Ethane	1	1.0	0.21	1.0	U
74-82-8	Methane	1	3.2	0.30	0.50	
74-85-1	Ethylene	1	1.0	0.11	1.0	U

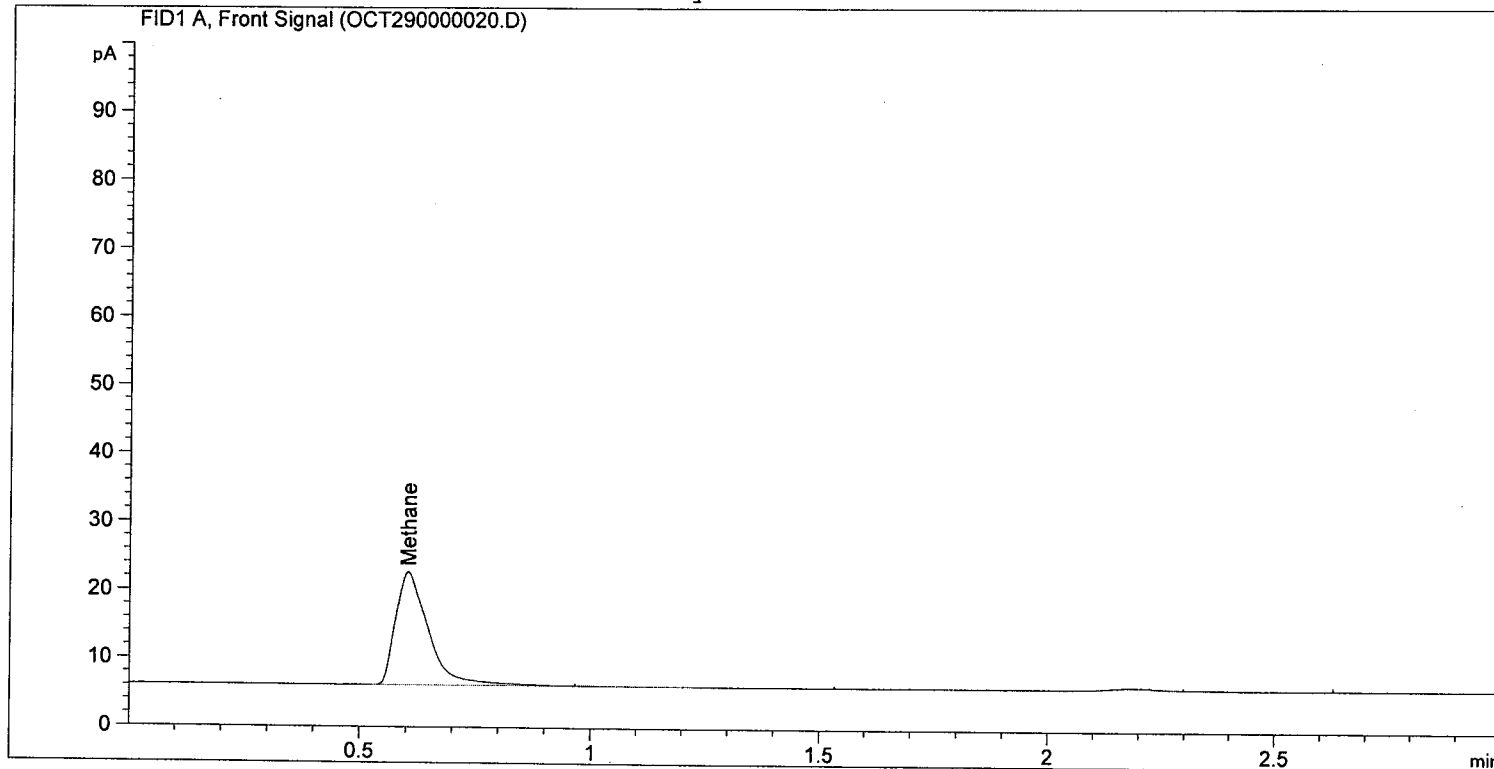
000067

Sample Name: 1510440-09

```

=====
Acq. Operator   : SYSTEM                      Seq. Line :   18
Acq. Instrument : 333                      Location  : Vial 20
Injection Date  : 10/29/2015 1:36:57 PM      Inj       :    1
                                           Inj Volume: Manually
Sequence File   : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S
Method          : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-
                  2015.M (Sequence Method)
Last changed    : 10/29/2015 11:35:36 AM by SYSTEM

```



```

=====
External Standard Report
=====

```

```

Sorted By           :      Retention Time
Calib. Data Modified :      Thursday, September 24, 2015 3:12:01 PM
Multiplier          :      1.0000
Dilution            :      1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.604	1	BB	83.07944	3.85736e-1	32.04675		Methane
1.636	1		-	-	-		Ethylene
2.155	1		-	-	-		Ethane

Totals : 32.04675

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

ORGANIC ANALYSIS DATA SHEET
RSK-175

C-10

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-10

File ID: OCT290000021.D.Report.TX

Sampled: 10/19/15 14:20

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 13:41

Solids: NA

Preparation: Method-Specific Extracti

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

Calibration: 5I25004

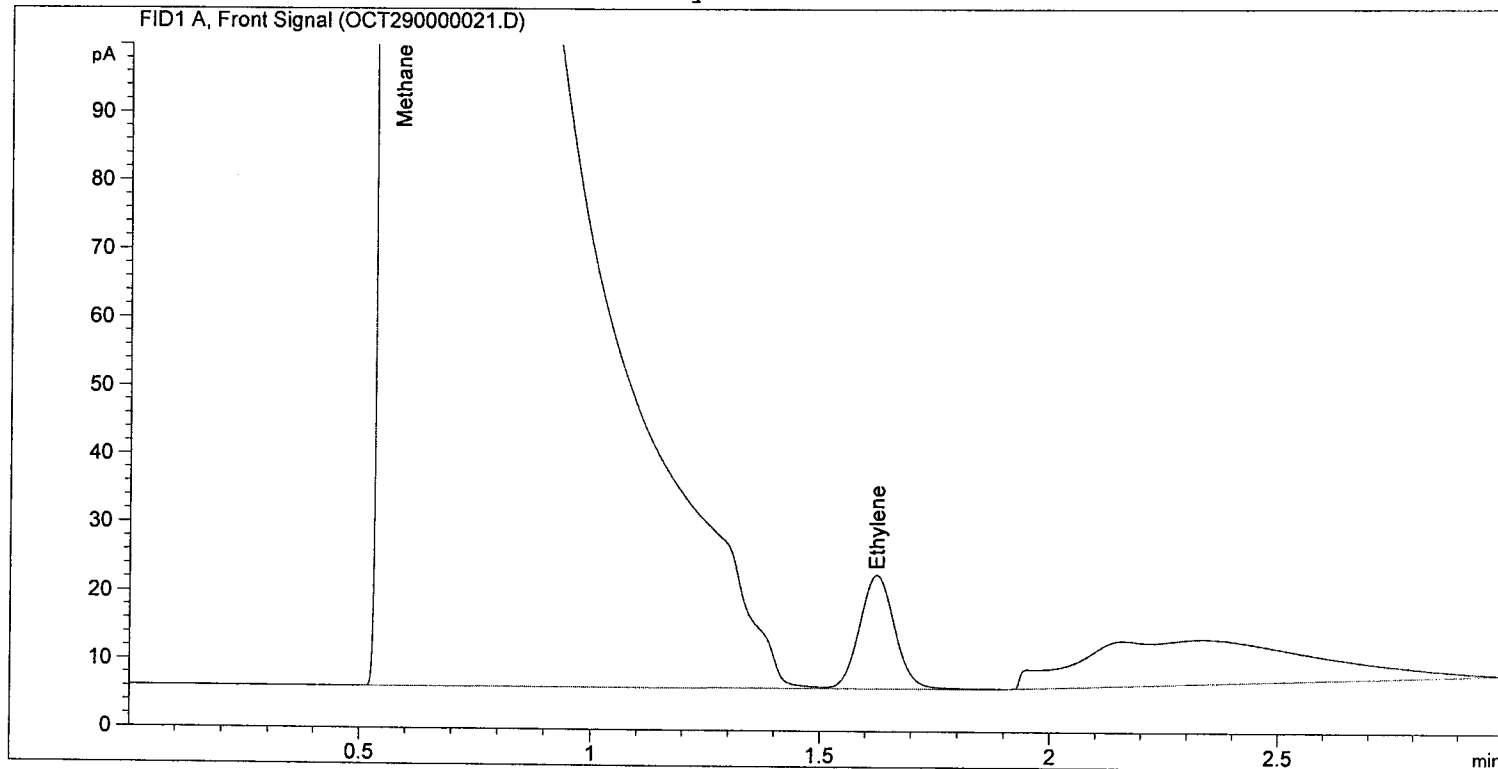
Instrument: 333

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-84-0	Ethane	1	1.0	0.21	1.0	U
74-85-1	Ethylene	1	6.0	0.11	1.0	

000070

=====

Acq. Operator	: SYSTEM	Seq. Line	: 19
Acq. Instrument	: 333	Location	: Vial 21
Injection Date	: 10/29/2015 1:41:00 PM	Inj	: 1
		Inj Volume	: Manually
Sequence File	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S		
Method	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-2015.M (Sequence Method)		
Last changed	: 10/29/2015 11:35:36 AM by SYSTEM		



=====

External Standard Report

=====

Sorted By : Retention Time
Calib. Data Modified : Thursday, September 24, 2015 3:12:01 PM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.591	1	BV	1.69251e5	4.19952e-1	7.10774e4		Methane
1.624	1	VB	89.17072	2.45297e-1	21.87328		Ethylene
2.155	1		-	-	-		Ethane

Totals : 7.10993e4

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

ORGANIC ANALYSIS DATA SHEET
RSK-175

C-10

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-10

File ID: OCT290000022.D.Report.TX

Sampled: 10/19/15 14:20

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 13:46

Solids: NA

Preparation: Method-Specific Extracti

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

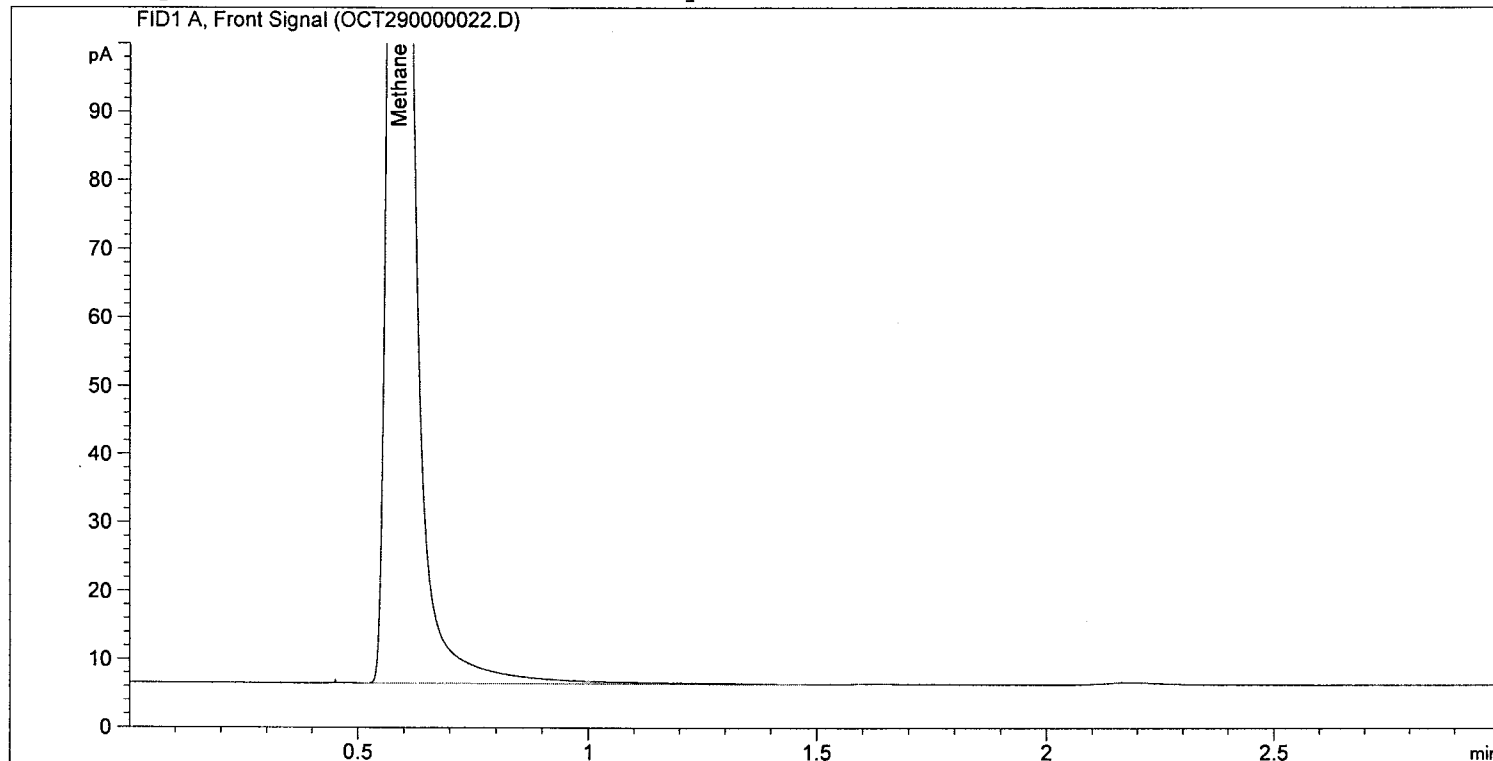
Calibration: 5I25004

Instrument: 333

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-82-8	Methane	200	7100	61	100	

000073

```
=====
Acq. Operator   : SYSTEM                      Seq. Line :   20
Acq. Instrument : 333                        Location  : Vial 22
Injection Date  : 10/29/2015 1:46:18 PM      Inj       :    1
                                           Inj Volume: Manually
Sequence File   : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S
Method          : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-
                  2015.M (Sequence Method)
Last changed    : 10/29/2015 11:35:36 AM by SYSTEM
=====
```



External Standard Report

```
Sorted By           :      Retention Time
Calib. Data Modified :      Thursday, September 24, 2015 3:12:01 PM
Multiplier          :      1.0000
Dilution            :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.588	1	BB	865.58844	4.16683e-1	360.67617		Methane
1.636	1		-	-	-		Ethylene
2.155	1		-	-	-		Ethane

Totals : 360.67617

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

ORGANIC ANALYSIS DATA SHEET
RSK-175

C-11

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-11

File ID: OCT290000023.D.report.TXT

Sampled: 10/20/15 14:30

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 13:50

Solids: NA

Preparation: Method-Specific Extractio

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

Calibration: 5I25004

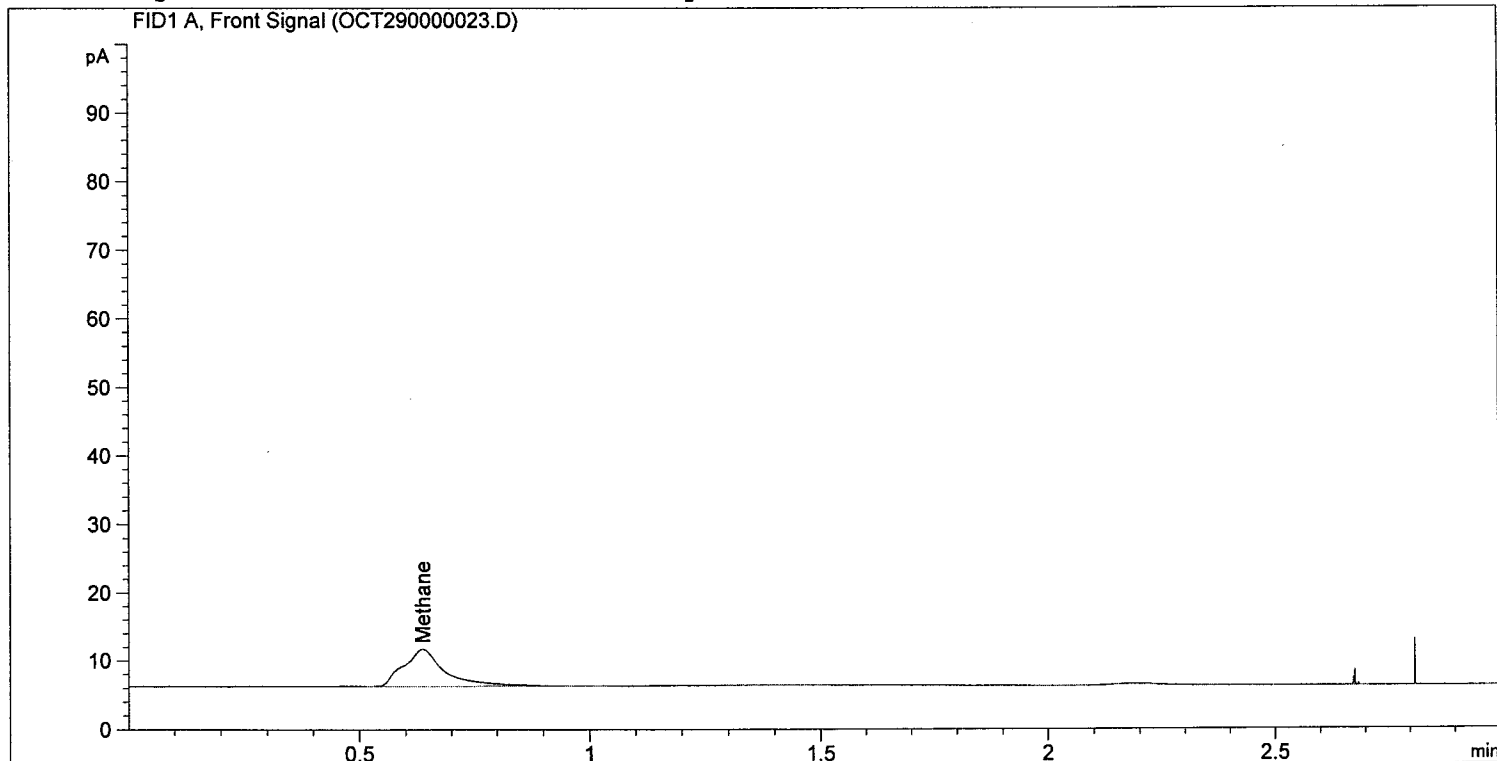
Instrument: 333

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-84-0	Ethane	1	1.0	0.21	1.0	U
74-82-8	Methane	1	0.50	0.30	0.50	U
74-85-1	Ethylene	1	1.0	0.11	1.0	U

000076

=====

Acq. Operator	: SYSTEM	Seq. Line	: 21
Acq. Instrument	: 333	Location	: Vial 23
Injection Date	: 10/29/2015 1:50:49 PM	Inj	: 1
		Inj Volume	: Manually
Sequence File	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S		
Method	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-2015.M (Sequence Method)		
Last changed	: 10/29/2015 11:35:36 AM by SYSTEM		



=====

External Standard Report

=====

Sorted By : Retention Time
Calib. Data Modified : Thursday, September 24, 2015 3:12:01 PM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.638	1	BB	34.41425	3.37328e-1	11.60888		Methane
1.636	1		-	-	-		Ethylene
2.155	1		-	-	-		Ethane

Totals : 11.60888

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

ORGANIC ANALYSIS DATA SHEET
RSK-175

EB-101915

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-12

File ID: OCT290000024.D.report.TXT

Sampled: 10/19/15 12:40

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 13:56

Solids: NA

Preparation: Method-Specific Extractio

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

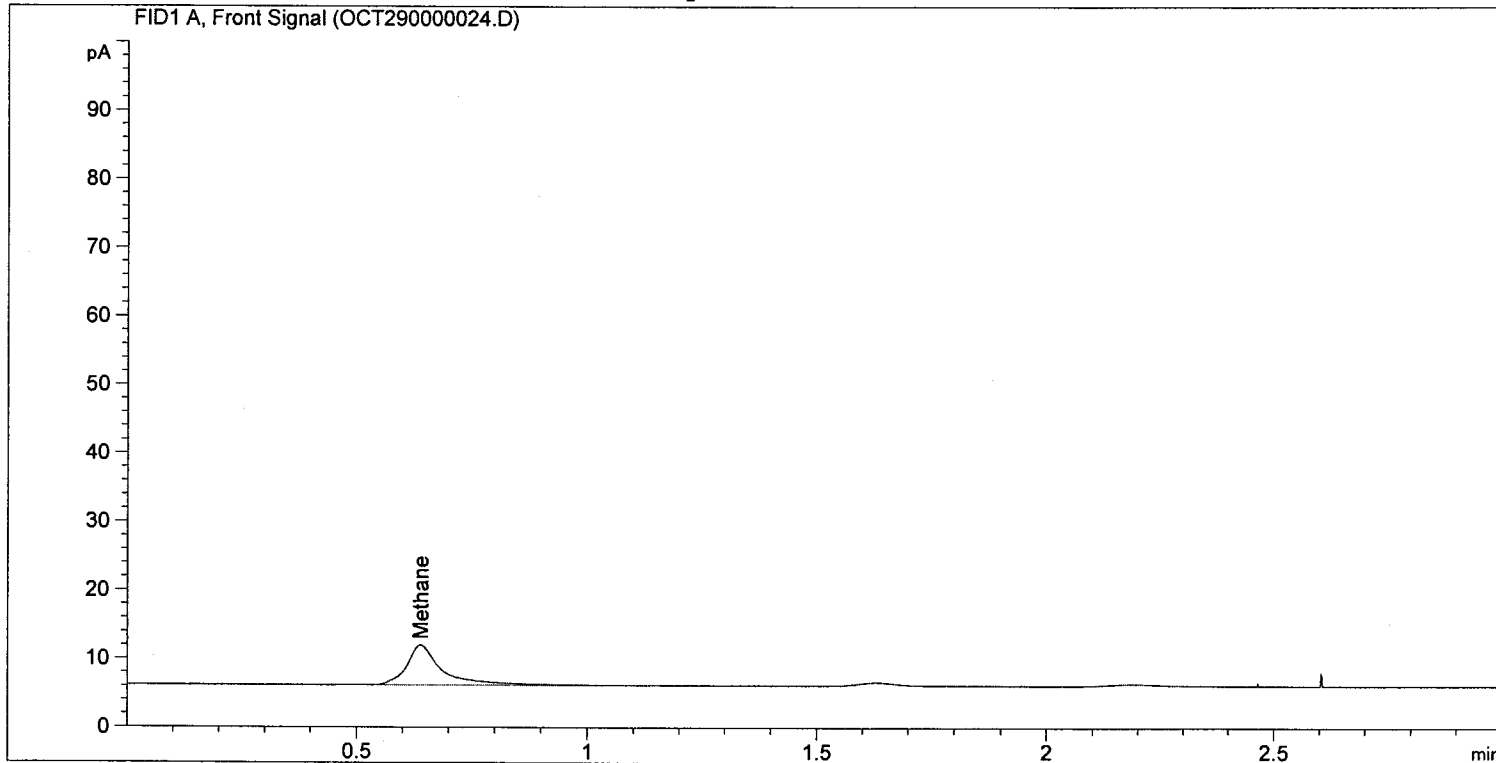
Calibration: 5I25004

Instrument: 333

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-84-0	Ethane	1	1.0	0.21	1.0	U
74-82-8	Methane	1	0.50	0.30	0.50	U
74-85-1	Ethylene	1	1.0	0.11	1.0	U

000079


```
=====
Acq. Operator   : SYSTEM                      Seq. Line :   22
Acq. Instrument : 333                        Location  : Vial 24
Injection Date  : 10/29/2015 1:56:03 PM      Inj       :    1
                                           Inj Volume: Manually
Sequence File   : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S
Method          : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-
                  2015.M (Sequence Method)
Last changed    : 10/29/2015 11:35:36 AM by SYSTEM
=====
```



```
=====
                        External Standard Report
=====
```

Sorted By : Retention Time
Calib. Data Modified : Thursday, September 24, 2015 3:12:01 PM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.639	1	BB	31.49518	3.29668e-1	10.38296		Methane
1.636	1		-	-	-		Ethylene
2.155	1		-	-	-		Ethane

Totals : 10.38296

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

ORGANIC ANALYSIS DATA SHEET
RSK-175

EB-102015

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-13

File ID: OCT290000025.D.report.TXT

Sampled: 10/20/15 09:05

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 14:00

Solids: NA

Preparation: Method-Specific Extracti

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

Calibration: 5I25004

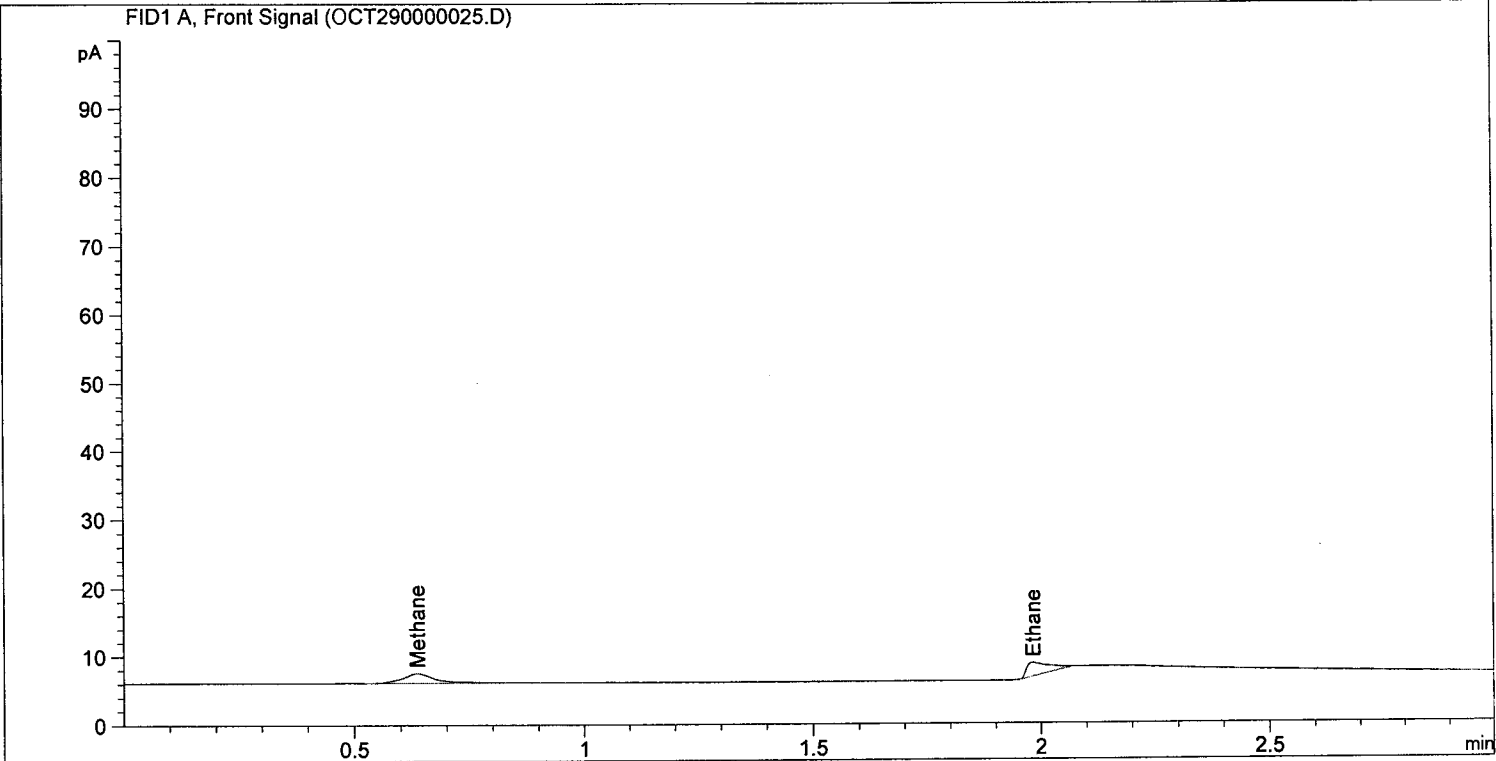
Instrument: 333

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-84-0	Ethane	1	1.0	0.21	1.0	U
74-82-8	Methane	1	0.50	0.30	0.50	U
74-85-1	Ethylene	1	1.0	0.11	1.0	U

000082

=====

Acq. Operator	: SYSTEM	Seq. Line	: 23
Acq. Instrument	: 333	Location	: Vial 25
Injection Date	: 10/29/2015 2:00:06 PM	Inj	: 1
		Inj Volume	: Manually
Sequence File	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S		
Method	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-2015.M (Sequence Method)		
Last changed	: 10/29/2015 11:35:36 AM by SYSTEM		



External Standard Report

Sorted By : Retention Time
Calib. Data Modified : Thursday, September 24, 2015 3:12:01 PM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.637	1	BB	7.71626	5.13924e-2	3.96557e-1		Methane <i>R₁</i>
1.636	1		-	-	-		Ethylene
1.983	1	BB	6.77236	4.24908e-1	2.87763		Ethane <i>R₁</i>
Totals :					3.27419		

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

ORGANIC ANALYSIS DATA SHEET
RSK-175

W-A

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-16

File ID: OCT290000026.D.report.TXT

Sampled: 10/20/15 12:00

Prepared: 10/29/15 09:37

Analyzed: 10/29/15 14:04

Solids: NA

Preparation: Method-Specific Extractio

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

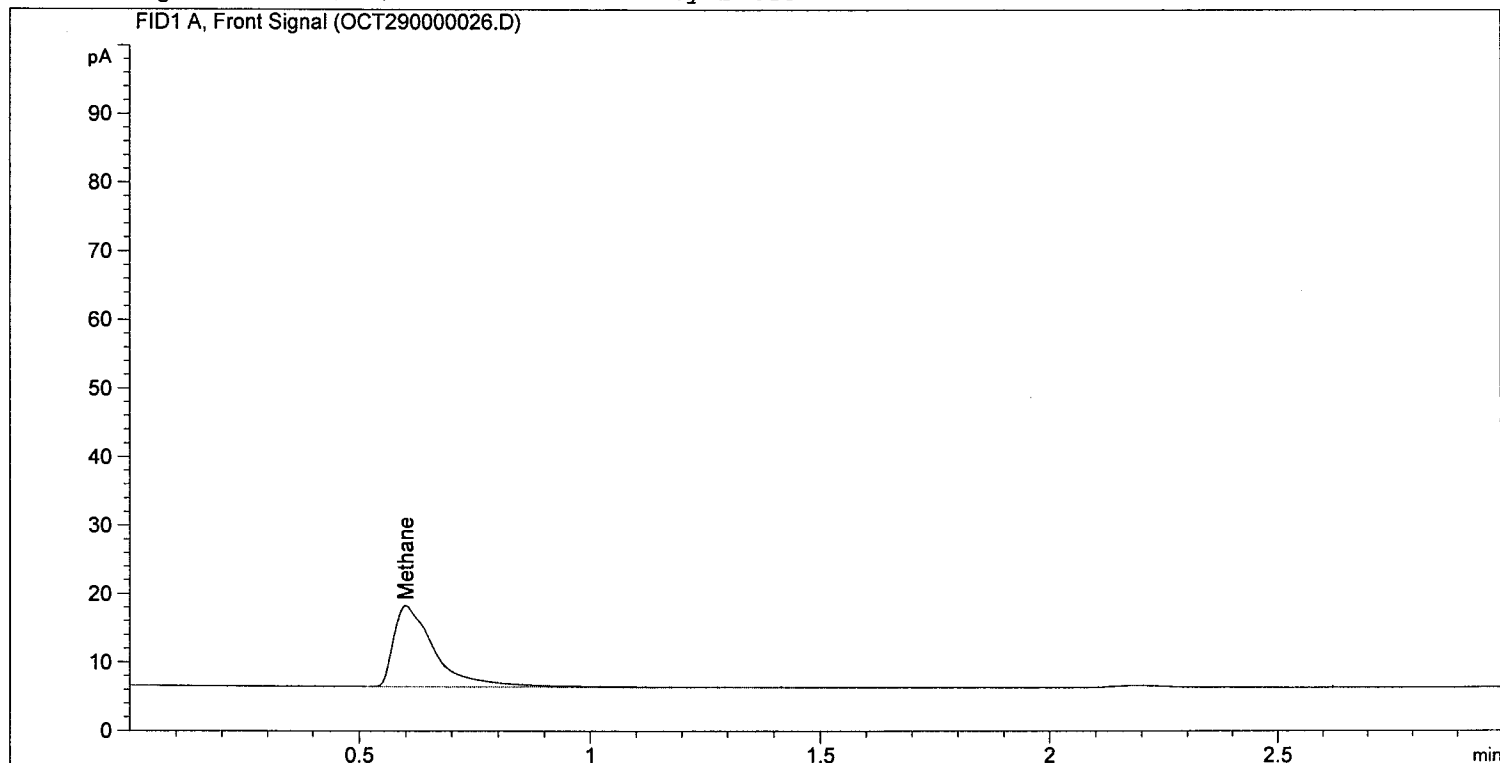
Calibration: 5I25004

Instrument: 333

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
74-84-0	Ethane	1	1.0	0.21	1.0	U
74-82-8	Methane	1	2.7	0.30	0.50	
74-85-1	Ethylene	1	1.0	0.11	1.0	U

000085

```
=====
Acq. Operator   : SYSTEM                      Seq. Line :   24
Acq. Instrument : 333                        Location  : Vial 26
Injection Date  : 10/29/2015 2:04:12 PM      Inj       :    1
                                           Inj Volume: Manually
Sequence File   : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S
Method          : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-
                  2015.M (Sequence Method)
Last changed    : 10/29/2015 11:35:36 AM by SYSTEM
=====
```



```
=====
                        External Standard Report
=====
```

```
Sorted By           :      Retention Time
Calib. Data Modified :      Thursday, September 24, 2015 3:12:01 PM
Multiplier          :      1.0000
Dilution            :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.600	1	BB	73.21468	3.81124e-1	27.90386		Methane
1.636	1		-	-	-		Ethylene
2.155	1		-	-	-		Ethane

Totals : 27.90386

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

INITIAL CALIBRATION STANDARDS

RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5I25021

Calibration: 5I25004

Instrument: 333

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
5061099	RSK-175 L1 (42.5mL)	5I25021-CAL1	P240000003.D.Report.T2	09/24/15 13:35
5061100	RSK-175 L2 (42.5mL)	5I25021-CAL2	P240000004.D.Report.T2	09/24/15 13:39
5061101	RSK-175 L3 (42.5mL)	5I25021-CAL3	P240000005.D.Report.T2	09/24/15 13:44
5061102	RSK-175 L4 (42.5mL)	5I25021-CAL4	P240000006.D.Report.T2	09/24/15 13:48
5061103	RSK-175 L5 (42.5mL)	5I25021-CAL5	P240000007.D.Report.T2	09/24/15 13:52
5061104	RSK-175 L6 (42.5mL)	5I25021-CAL6	P240000008.D.Report.T2	09/24/15 13:56
5061098	RSK-175 SCV	5I25021-SCV1	P240000009.D.Report.T2	09/24/15 14:16

INITIAL CALIBRATION DATA

RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Calibration: 5I25004

Calibration Date: 09/24/15 10:20

Instrument: 333

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	CF	ug/L	CF	ug/L	CF	ug/L	CF	ug/L	CF	ug/L	CF
Ethane	0.814	15.82322	2.04	18.71676	4.07	20.28074	10.2	20.44832	20.4	21.69513	102	21.62104
Methane	0.397	43.10315	0.993	29.77495	1.99	27.03799	4.97	26.01414	9.93	24.3637	49.7	24.09694
Ethylene	1.12	11.29903	2.79	13.34501	5.58	14.5018	13.9	14.75177	27.9	15.63415	139	15.64627

000089

INITIAL CALIBRATION DATA (Continued)

RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Calibration: 5I25004

Calibration Date: 09/24/15 10:20

Instrument: 333

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	Limit	Q
Ethane	19.7642	11.20907	2.150667	0.2467414	0.99998		0.99	
Methane	29.06514	24.70371	0.5913333	1.496132	0.99998		0.99	
Ethylene	14.19634	11.656	1.630333	0.3499564	0.99998		0.99	

000090

=====
Calibration Table
=====

RSK-175

Calib. Data Modified : Thursday, September 24, 2015 3:12:01 PM

Rel. Reference Window : 20.000 %
Abs. Reference Window : 0.500 min
Rel. Non-ref. Window : 5.000 %
Abs. Non-ref. Window : 0.250 min
Uncalibrated Peaks : not reported
Partial Calibration : No recalibration if peaks missing

Curve Type : Linear
Origin : Ignored
Weight : Equal

Recalibration Settings:
Average Response : No Update
Average Retention Time: No Update

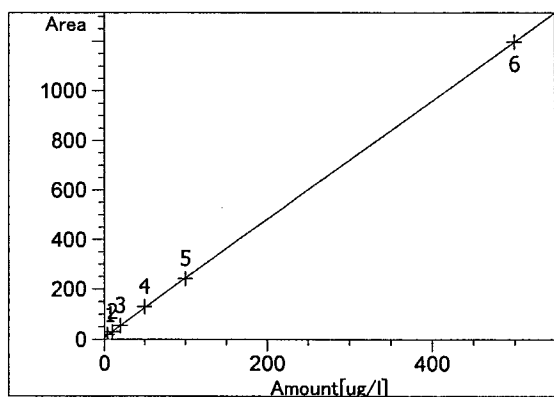
Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FID1 A, Front Signal

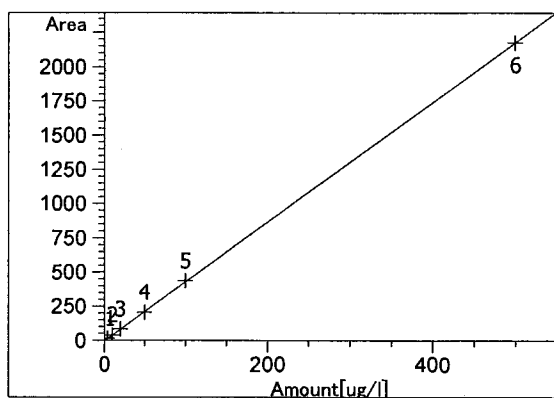
RetTime	Lvl	Amount	Area	Amt/Area	Ref Grp Name	
[min]	Sig	[ug/l]				
0.607	1	1	4.00000	17.11195	2.33755e-1	Methane
		2	10.00000	29.56652	3.38220e-1	
		3	20.00000	53.80560	3.71709e-1	
		4	50.00000	129.29028	3.86727e-1	
		5	100.00000	241.93152	4.13340e-1	
		6	500.00000	1197.61829	4.17495e-1	
1.636	1	1	4.00000	12.65491	3.16083e-1	Ethylene
		2	10.00000	37.23257	2.68582e-1	
		3	20.00000	80.92003	2.47158e-1	
		4	50.00000	205.04956	2.43843e-1	
		5	100.00000	436.19281	2.29256e-1	
		6	500.00000	2174.83105	2.29903e-1	
2.155	1	1	4.00000	12.88010	3.10556e-1	Ethane
		2	10.00000	38.18219	2.61902e-1	
		3	20.00000	82.54261	2.42299e-1	
		4	50.00000	208.57294	2.39724e-1	
		5	100.00000	442.58063	2.25948e-1	
		6	500.00000	2205.34619	2.26722e-1	

=====
Peak Sum Table
=====

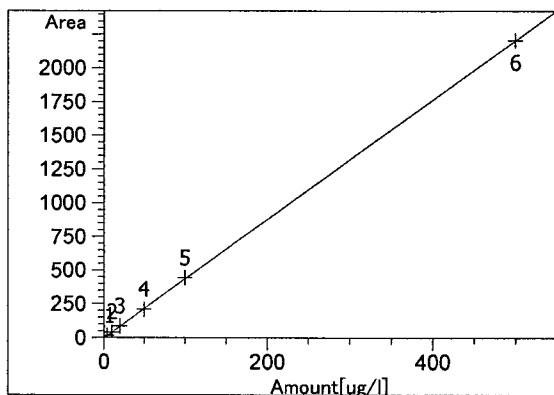
No Entries in table
=====

=====
Calibration Curves
=====

Methane at exp. RT: 0.607
FID1 A, Front Signal
Correlation: 0.99999
Residual Std. Dev.: 2.38913
Formula: $y = mx + b$
m: 2.38113
b: 6.77201
x: Amount
y: Area



Ethylene at exp. RT: 1.636
FID1 A, Front Signal
Correlation: 0.99999
Residual Std. Dev.: 4.66266
Formula: $y = mx + b$
m: 4.36330
b: -6.26887
x: Amount
y: Area



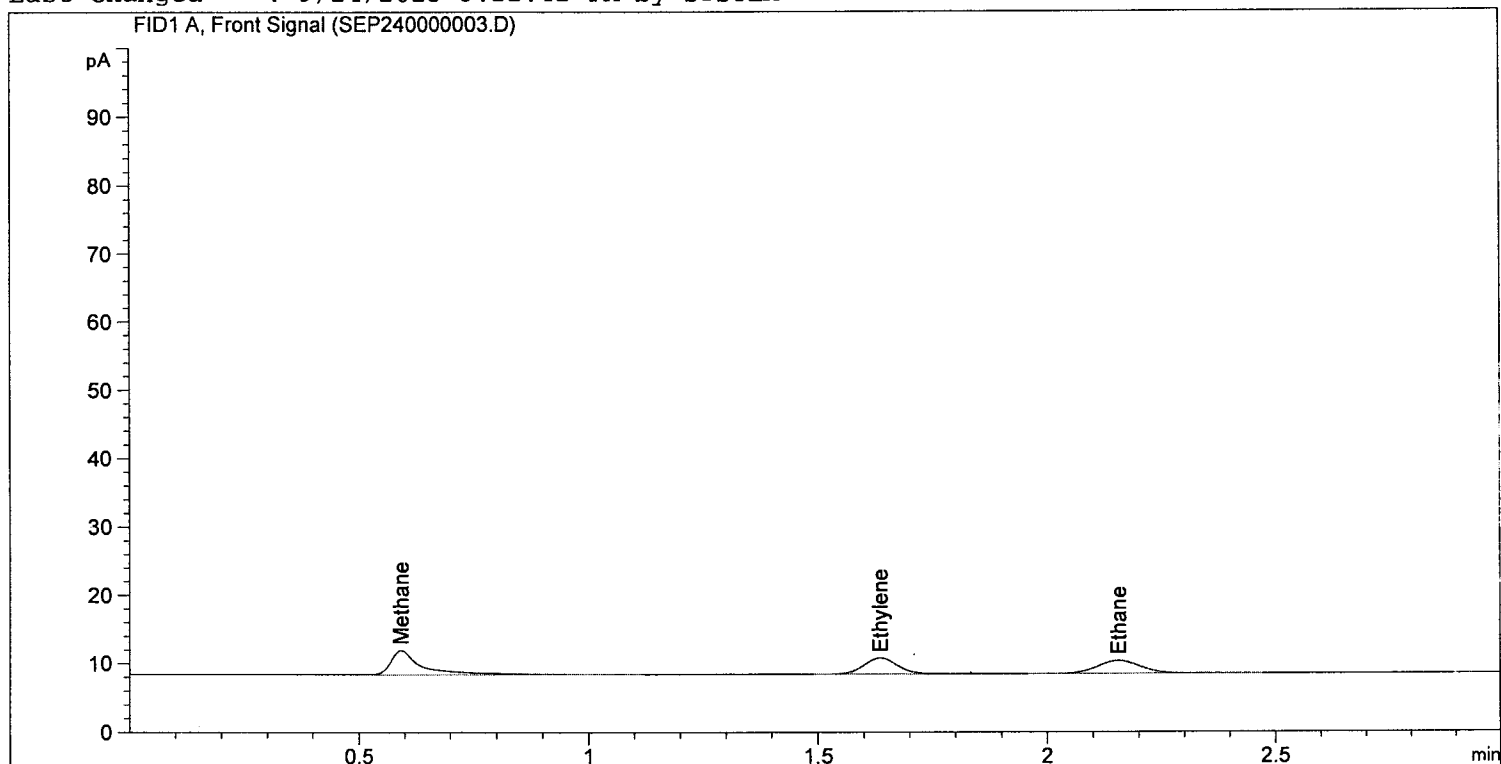
Ethane at exp. RT: 2.155
FID1 A, Front Signal
Correlation: 0.99999
Residual Std. Dev.: 4.58101
Formula: $y = mx + b$
m: 4.42376
b: -5.95757
x: Amount
y: Area

Sample Name: L1

```

=====
Acq. Operator   : SYSTEM                      Seq. Line :    3
Acq. Instrument : 333                        Location  : Vial 3
Injection Date  : 9/24/2015 1:35:11 PM        Inj       :    1
                                           Inj Volume: Manually
Sequence File   : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\09-24-2015.S
Acq. Method     : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\RSK-175 8-10-2015.M
Last changed    : 9/24/2015 1:17:10 PM by SYSTEM
Analysis Method : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\RSK-175 9-24-2015.M (Sequence Method)
Last changed    : 9/24/2015 3:22:42 PM by SYSTEM

```



```

=====
External Standard Report
=====

```

```

Sorted By           :      Retention Time
Calib. Data Modified :      Thursday, September 24, 2015 3:12:01 PM
Multiplier          :      1.0000
Dilution            :      1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.593	1	BB	17.11195	2.53767e-1	4.34246		Methane
1.635	1	BB	12.65491	3.42716e-1	4.33704		Ethylene
2.156	1	BB	12.88010	3.30610e-1	4.25830		Ethane

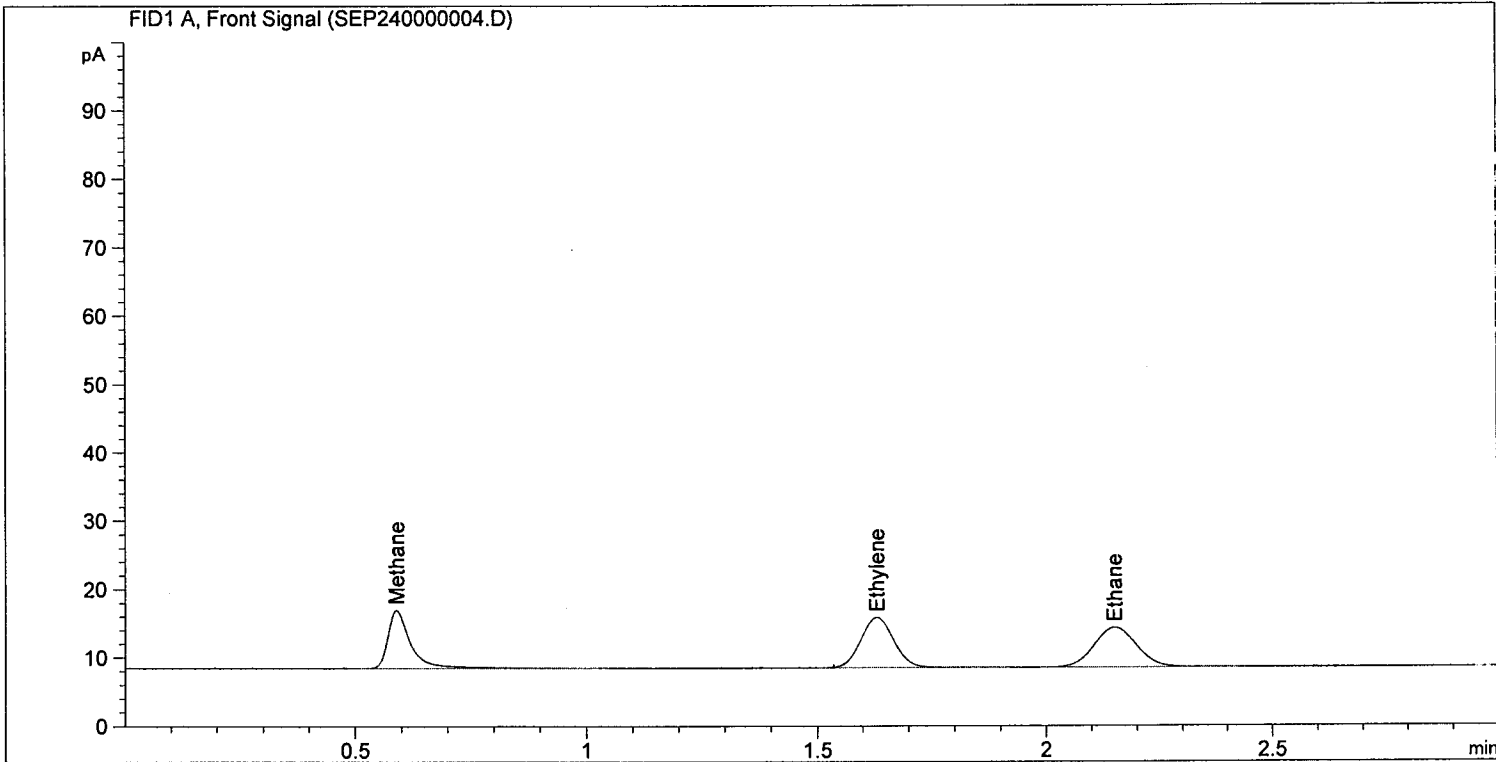
Totals : 12.93779

=====
*** End of Report ***

=====

Acq. Operator	: SYSTEM	Seq. Line	: 4
Acq. Instrument	: 333	Location	: Vial 4
Injection Date	: 9/24/2015 1:39:54 PM	Inj	: 1
		Inj Volume	: Manually

Sequence File : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\09-24-2015.S
Acq. Method : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\RSK-175 8-10-2015.M
Last changed : 9/24/2015 1:17:10 PM by SYSTEM
Analysis Method : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\RSK-175 9-24-2015.M (Sequence Method)
Last changed : 9/24/2015 3:22:42 PM by SYSTEM



External Standard Report

Sorted By : Retention Time
Calib. Data Modified : Thursday, September 24, 2015 3:12:01 PM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.590	1	BB	29.56652	3.23778e-1	9.57299		Methane
1.631	1	BB	37.23257	2.67773e-1	9.96986		Ethylene
2.151	1	BB	38.18219	2.61323e-1	9.97789		Ethane

Totals : 29.52073

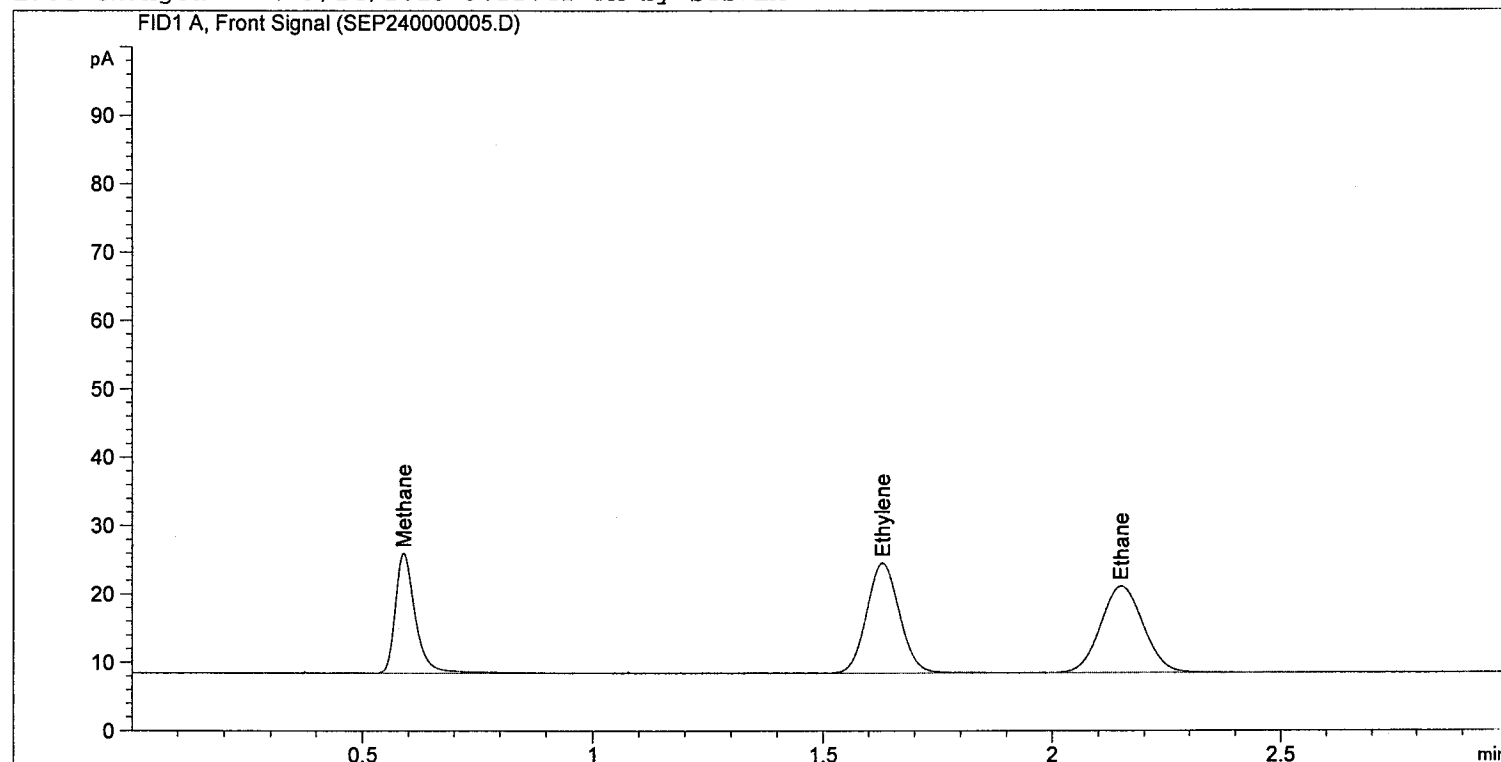
=====
*** End of Report ***

Sample Name: L3

```

=====
Acq. Operator   : SYSTEM                      Seq. Line :    5
Acq. Instrument : 333                        Location  : Vial 5
Injection Date  : 9/24/2015 1:44:26 PM       Inj       :    1
                                           Inj Volume: Manually
Sequence File   : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\09-24-2015.S
Acq. Method     : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\RSK-175 8-10-2015.M
Last changed    : 9/24/2015 1:17:10 PM by SYSTEM
Analysis Method : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\RSK-175 9-24-2015.M (Sequence Method)
Last changed    : 9/24/2015 3:22:42 PM by SYSTEM

```



```

=====
External Standard Report
=====

```

```

Sorted By           :      Retention Time
Calib. Data Modified :      Thursday, September 24, 2015 3:12:01 PM
Multiplier          :      1.0000
Dilution            :      1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.590	1	BB	53.80560	3.67111e-1	19.75265		Methane
1.631	1	BB	80.92003	2.46939e-1	19.98235		Ethylene
2.151	1	BB	82.54261	2.42368e-1	20.00566		Ethane

Totals : 59.74065

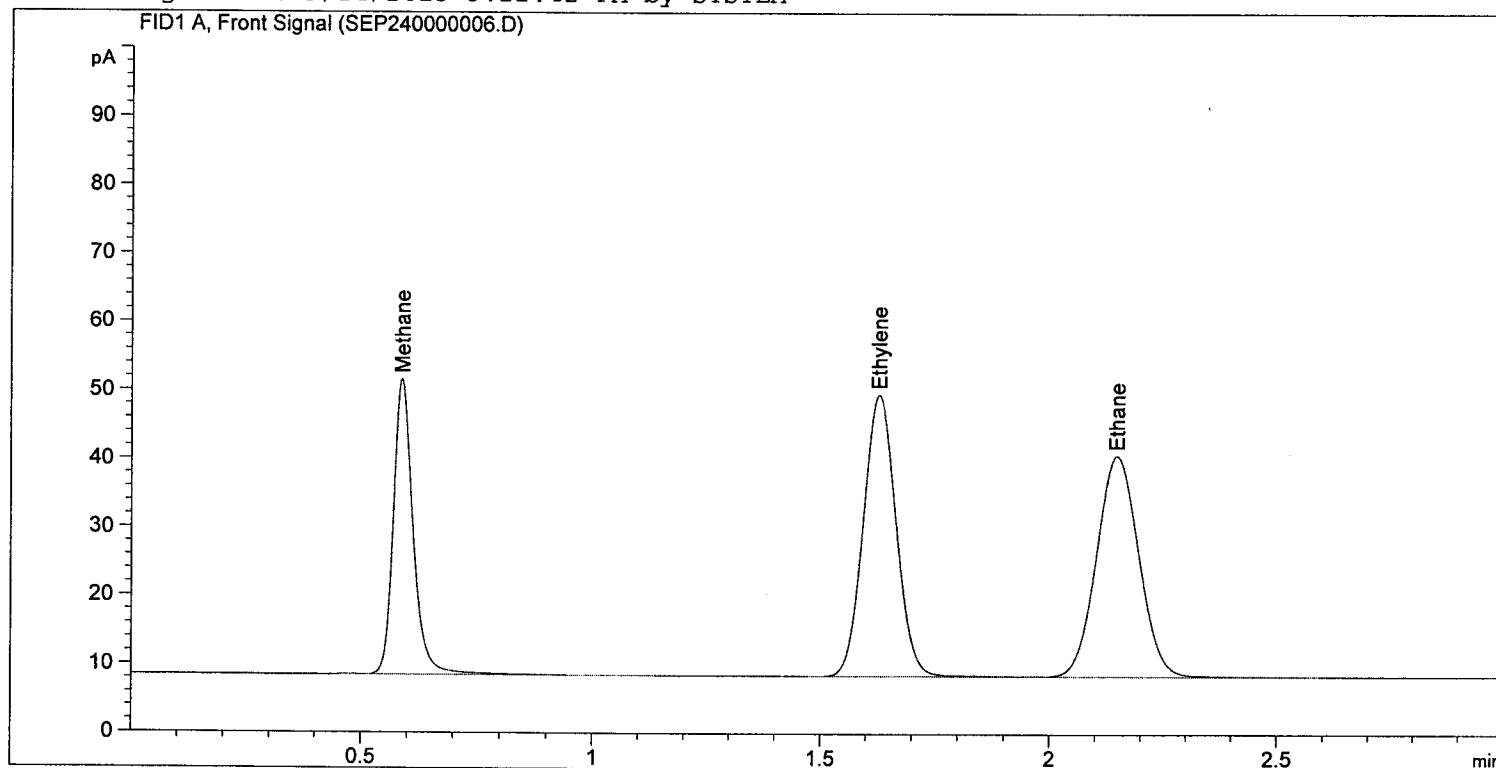
=====
*** End of Report ***

Sample Name: L4

```

=====
Acq. Operator   : SYSTEM                      Seq. Line :    6
Acq. Instrument : 333                        Location  : Vial 6
Injection Date  : 9/24/2015 1:48:31 PM        Inj       :    1
                                           Inj Volume: Manually
Sequence File   : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\09-24-2015.S
Acq. Method     : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\RSK-175 8-10-2015.M
Last changed    : 9/24/2015 1:17:10 PM by SYSTEM
Analysis Method : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\RSK-175 9-24-2015.M (Sequence Method)
Last changed    : 9/24/2015 3:22:42 PM by SYSTEM

```



```

=====
External Standard Report
=====

```

```

Sorted By           :      Retention Time
Calib. Data Modified :      Thursday, September 24, 2015 3:12:01 PM
Multiplier          :      1.0000
Dilution            :      1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.588	1	BB	129.29028	3.97972e-1	51.45386		Methane
1.629	1	BB	205.04956	2.36191e-1	48.43092		Ethylene
2.150	1	BB	208.57294	2.32509e-1	48.49509		Ethane

Totals : 148.37987

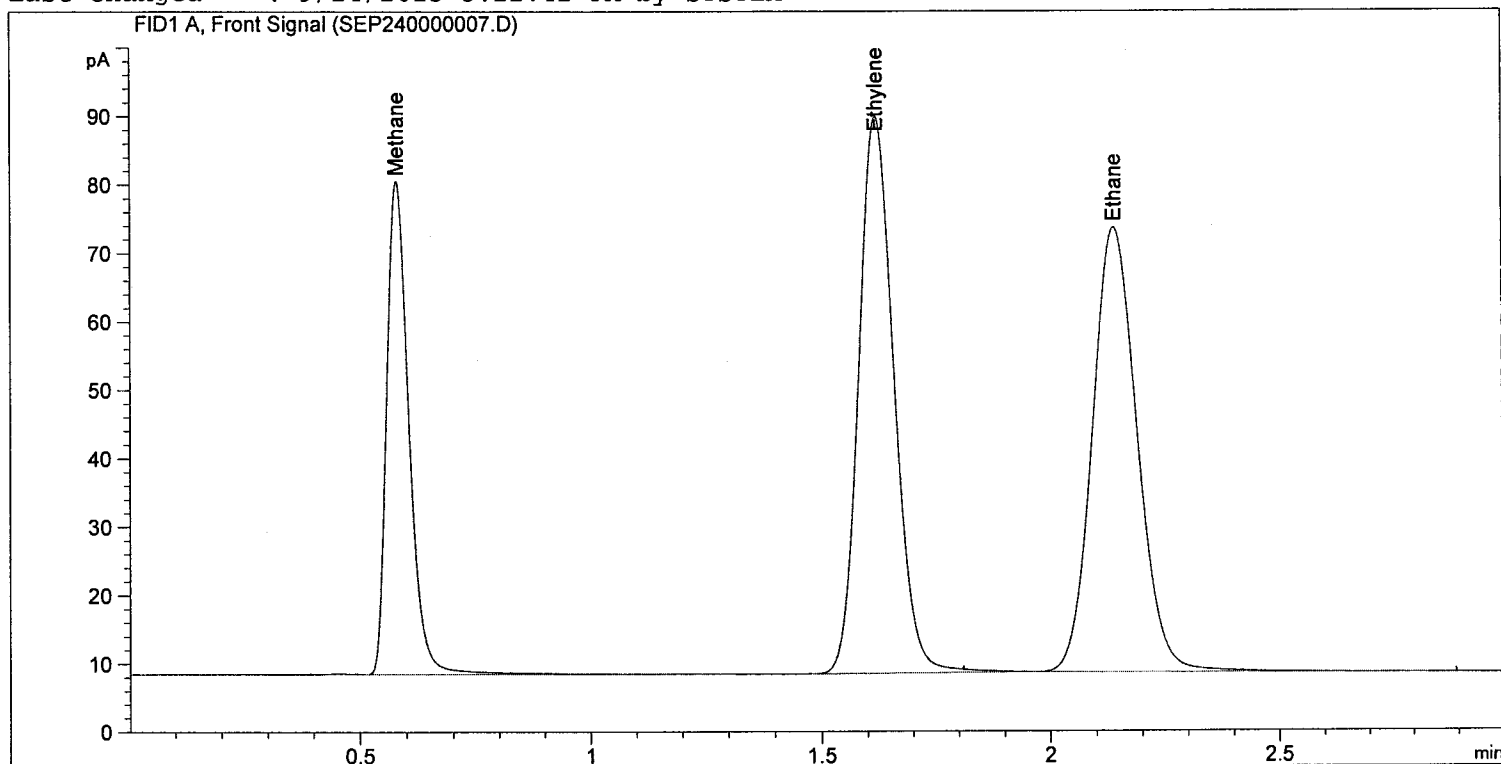
=====
*** End of Report ***

Sample Name: L5

```

=====
Acq. Operator   : SYSTEM                      Seq. Line :    7
Acq. Instrument : 333                        Location  : Vial 7
Injection Date  : 9/24/2015 1:52:41 PM        Inj       :    1
                                           Inj Volume: Manually
Sequence File   : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\09-24-2015.S
Acq. Method     : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\RSK-175 8-10-2015.M
Last changed    : 9/24/2015 1:17:10 PM by SYSTEM
Analysis Method : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\RSK-175 9-24-2015.M (Sequence Method)
Last changed    : 9/24/2015 3:22:42 PM by SYSTEM
=====

```



```

=====
External Standard Report
=====

```

```

Sorted By           :      Retention Time
Calib. Data Modified :      Thursday, September 24, 2015 3:12:01 PM
Multiplier          :      1.0000
Dilution            :      1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.580	1	BB	241.93152	4.08213e-1	98.75968		Methane
1.620	1	BB	436.19281	2.32478e-1	101.40539		Ethylene
2.141	1	BB	442.58063	2.29095e-1	101.39304		Ethane

Totals : 301.55810

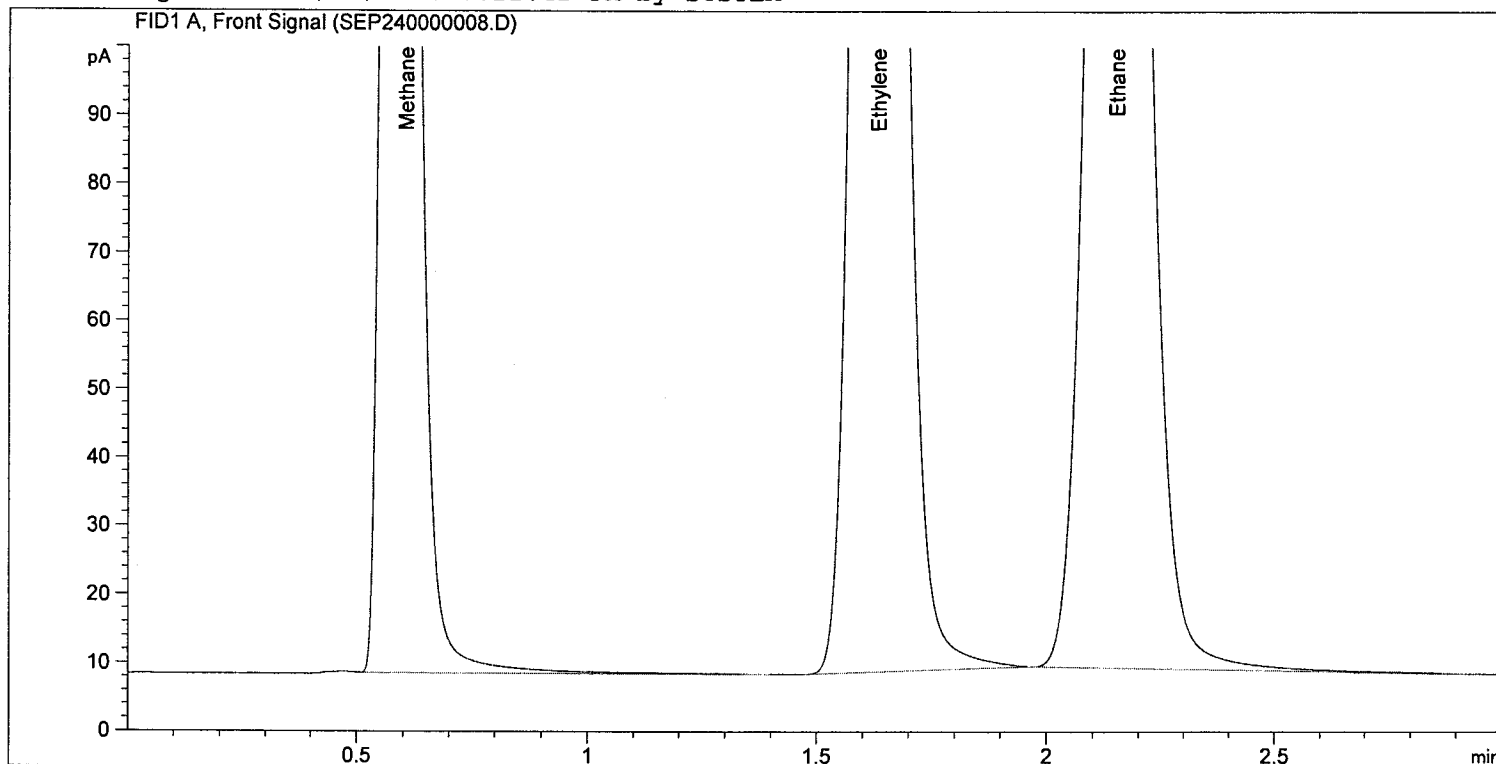
=====
*** End of Report ***

Sample Name: L6

```

=====
Acq. Operator   : SYSTEM                      Seq. Line :    8
Acq. Instrument : 333                        Location  : Vial 8
Injection Date  : 9/24/2015 1:56:44 PM       Inj       :    1
                                           Inj Volume: Manually
Sequence File   : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\09-24-2015.S
Acq. Method     : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\RSK-175 8-10-2015.M
Last changed    : 9/24/2015 1:17:10 PM by SYSTEM
Analysis Method : C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\RSK-175 9-24-2015.M (Sequence Method)
Last changed    : 9/24/2015 3:22:42 PM by SYSTEM
=====

```



```

=====
External Standard Report
=====

```

```

Sorted By           :      Retention Time
Calib. Data Modified :      Thursday, September 24, 2015 3:12:01 PM
Multiplier          :      1.0000
Dilution            :      1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.607	1	BB	1197.61829	4.17594e-1	500.11837		Methane
1.636	1	BB	2174.83105	2.29845e-1	499.87444		Ethylene
2.155	1	BBA	2205.34619	2.26663e-1	499.87003		Ethane

Totals : 1499.86285

=====
*** End of Report ***

SECOND-SOURCE CALIBRATION VERIFICATION

RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Laboratory ID: 5125021-SCV1

Standard ID: 5061098

Sequence: 5125021

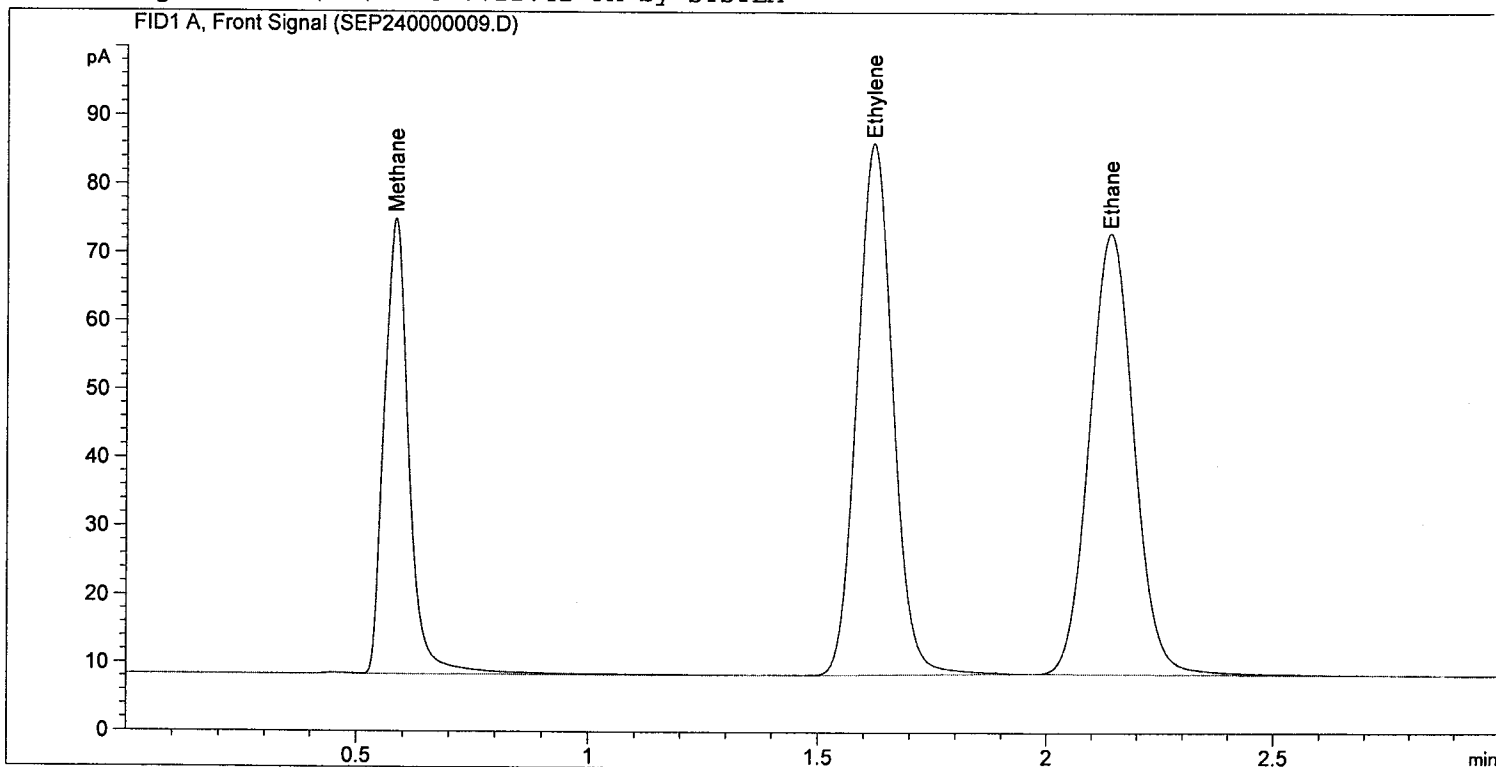
Calibration: 5125004

Analyte	Expected (ug/L)	Found (ug/L)	% Rec.	QC Limit
Ethane	21.6	20.8	96	75-125
Methane	9.77	10.1	103	75-125
Ethylene	28.0	27.6	99	75-125

* Values outside of QC limits

=====

Acq. Operator	: SYSTEM	Seq. Line	: 9
Acq. Instrument	: 333	Location	: Vial 9
Injection Date	: 9/24/2015 2:16:08 PM	Inj	: 1
		Inj Volume	: Manually
Sequence File	: C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\09-24-2015.S		
Acq. Method	: C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\RSK-175 8-10-2015.M		
Last changed	: 9/24/2015 1:17:10 PM by SYSTEM		
Analysis Method	: C:\CHEM32\2\DATA\09-24-2015\09-24-2015 2015-09-24 13-17-10\RSK-175 9-24-2015.M (Sequence Method)		
Last changed	: 9/24/2015 3:22:42 PM by SYSTEM		



=====

External Standard Report

=====

Sorted By : Retention Time
Calib. Data Modified : Thursday, September 24, 2015 3:12:01 PM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.585	1	BB	247.85060	4.08494e-1	101.24551		Methane
1.623	1	BB	424.12860	2.32572e-1	98.64046		Ethylene
2.143	1	BBA	445.49100	2.29075e-1	102.05093		Ethane

Totals : 301.93690

ASC
10/2/15

Pass 15%
↓

=====
*** End of Report ***

CONTINUING CALIBRATION CHECK

RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Lab Sample ID: 5K02012-CCV1

Lab File ID: OCT290000004.D.Report.TXT

Injection Date: 10/29/15

Injection Time: 11:43

Calibration Date: 09/24/15 10:20

Calibration: 5125004

Sequence: 5K02012

Instrument ID: 333

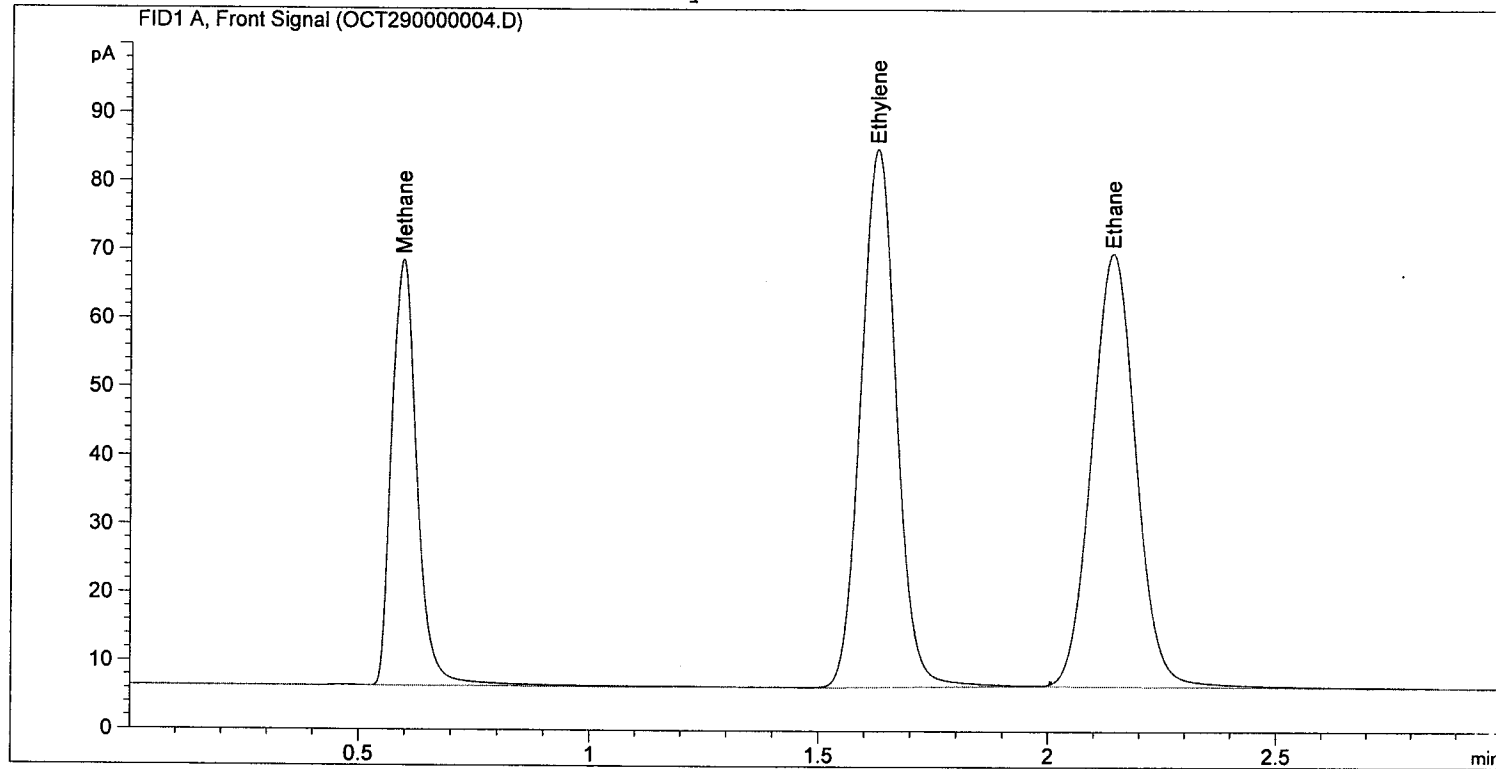
Analyte	Type	CONC. (ug/L)		Response Factor			% Diff. / Drift	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethane	L	20.3	19.9	19.7642	21.17865		-2.0	25
Methane	L	9.93	9.57	29.06514	23.90182		-3.6	25
Ethylene	L	27.9	27.2	14.19634	15.19699		-2.4	25

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

=====

Acq. Operator	: SYSTEM	Seq. Line	: 2
Acq. Instrument	: 333	Location	: Vial 4
Injection Date	: 10/29/2015 11:43:13 AM	Inj	: 1
		Inj Volume	: Manually
Sequence File	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S		
Method	: C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-2015.M (Sequence Method)		
Last changed	: 10/29/2015 11:35:36 AM by SYSTEM		



=====

External Standard Report

=====

Sorted By : Retention Time
Calib. Data Modified : Thursday, September 24, 2015 3:12:01 PM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.597	1	BB	237.34508	4.07986e-1	96.83351		Methane
1.629	1	BB	423.99597	2.32573e-1	98.61006		Ethylene
2.142	1	BBA	429.92645	2.29185e-1	98.53253		Ethane

Totals : 293.97611

=====

*** End of Report ***

ASC
11/3/15
pass
↓

CONTINUING CALIBRATION CHECK

RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Lab Sample ID: 5K02012-CCV2

Lab File ID: OCT290000016.D.Report.TXT

Injection Date: 10/29/15

Injection Time: 13:19

Calibration Date: 09/24/15 10:20

Calibration: 5I25004

Sequence: 5K02012

Instrument ID: 333

Analyte	Type	CONC. (ug/L)		Response Factor			% Diff. / Drift	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethane	L	20.3	20.2	19.7642	21.47313		-0.6	25
Methane	L	9.93	11.2	29.06514	27.93482		13.1	25
Ethylene	L	27.9	27.4	14.19634	15.32098		-1.6	25

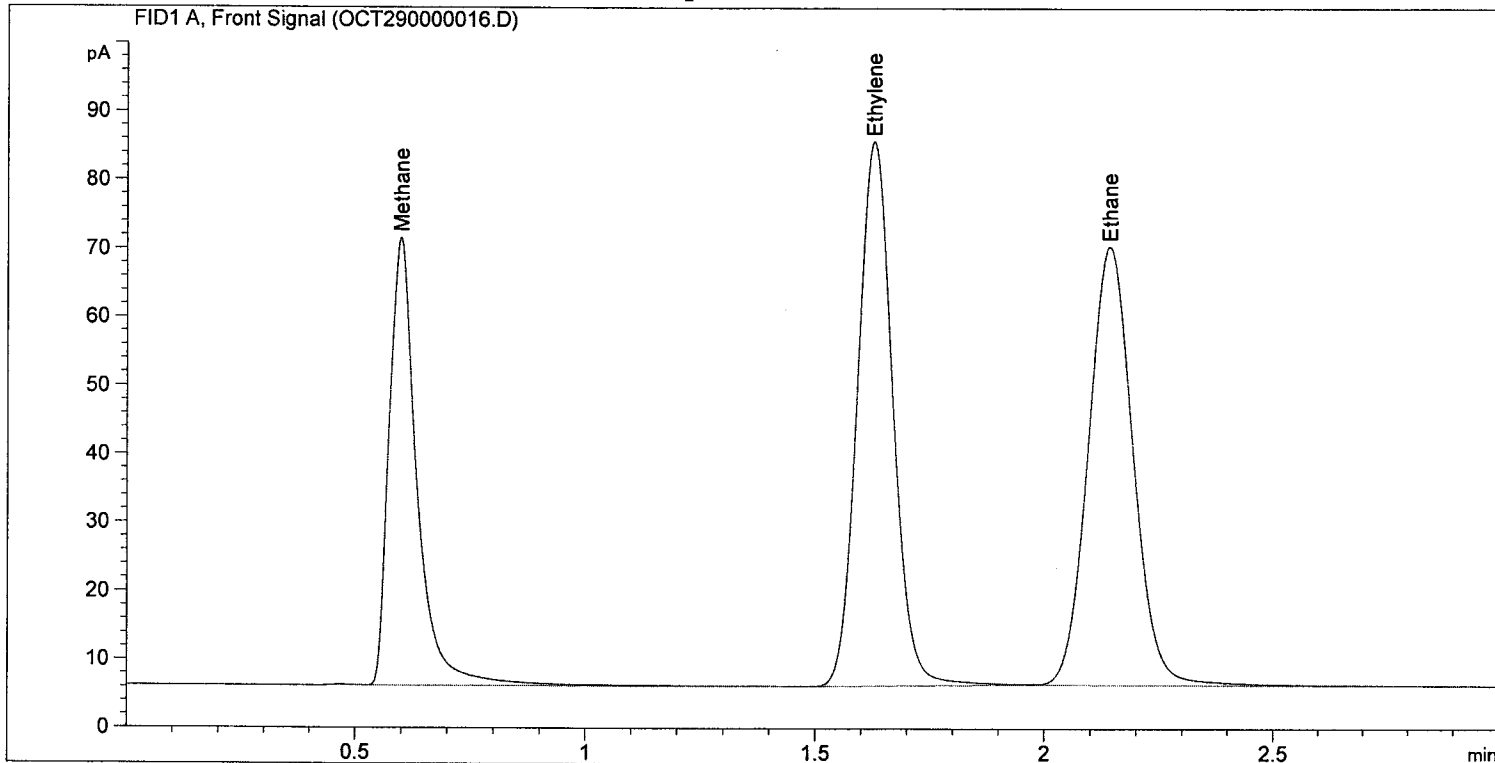
Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

000110

Sample Name: CCV2

```
=====
Acq. Operator   : SYSTEM                      Seq. Line :   14
Acq. Instrument : 333                      Location  : Vial 16
Injection Date  : 10/29/2015 1:19:23 PM      Inj       :    1
                                           Inj Volume: Manually
Sequence File   : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S
Method          : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-
                  2015.M (Sequence Method)
Last changed    : 10/29/2015 11:35:36 AM by SYSTEM
=====
```



```
=====
External Standard Report
=====
```

```
Sorted By           :      Retention Time
Calib. Data Modified :      Thursday, September 24, 2015 3:12:01 PM
Multiplier          :      1.0000
Dilution            :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.599	1	BB	277.39282	4.09716e-1	113.65232		Methane
1.629	1	BB	427.45526	2.32546e-1	99.40288		Ethylene
2.143	1	BBA	435.90454	2.29142e-1	99.88389		Ethane

Totals : 312.93909

```
=====
*** End of Report ***
=====
```

ASC
11/3/15PASS
↓

CONTINUING CALIBRATION CHECK

RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Lab Sample ID: 5K02012-CCV3

Lab File ID: OCT290000027.D.Report.TXT

Injection Date: 10/29/15

Injection Time: 14:08

Calibration Date: 09/24/15 10:20

Calibration: 5I25004

Sequence: 5K02012

Instrument ID: 333

Analyte	Type	CONC. (ug/L)		Response Factor			% Diff. / Drift	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethane	L	20.3	19.9	19.7642	21.18042		-2.0	25
Methane	L	9.93	10.7	29.06514	26.72478		8.2	25
Ethylene	L	27.9	27.1	14.19634	15.12775		-2.9	25

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

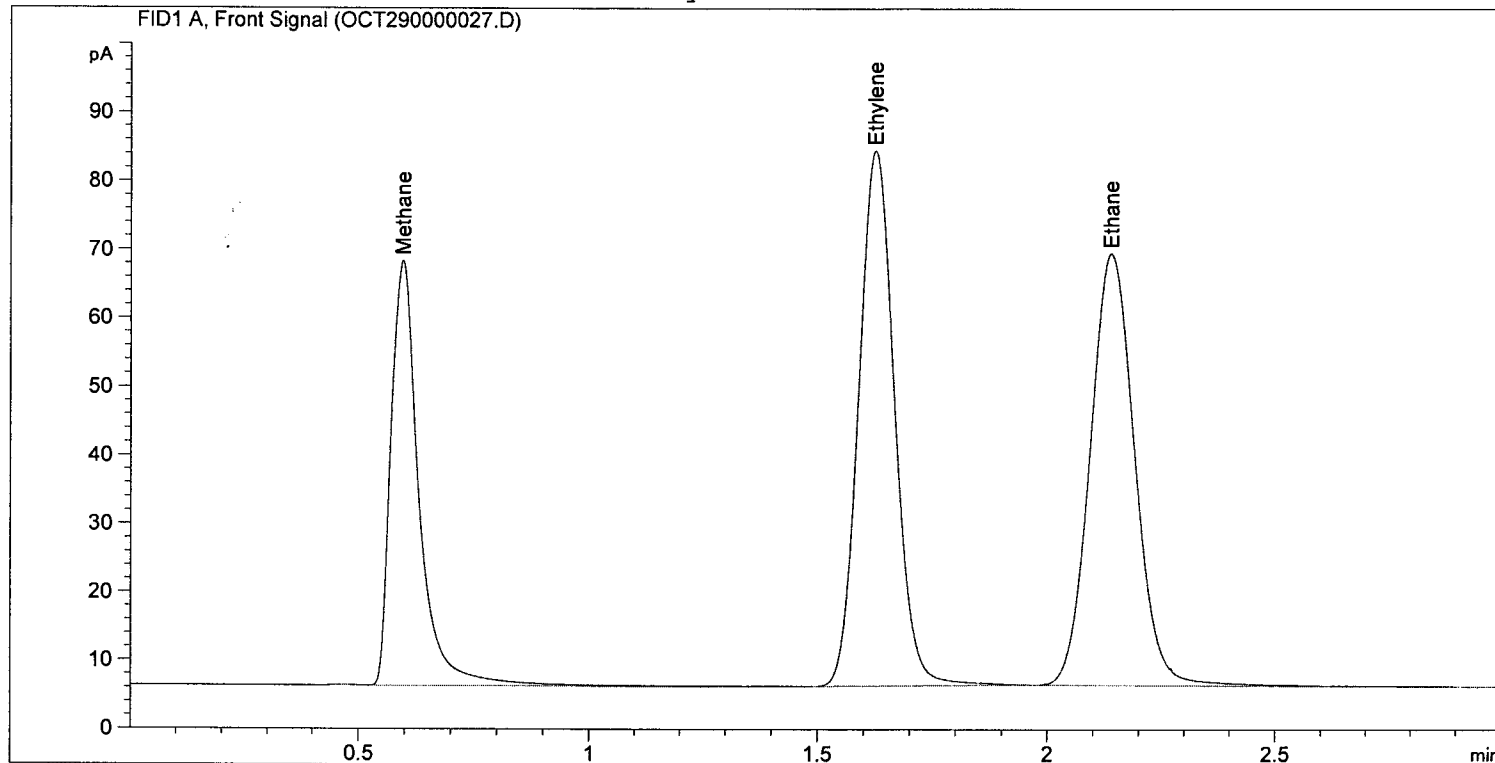
000112

Sample Name: CCV3

```

=====
Acq. Operator   : SYSTEM                      Seq. Line :   25
Acq. Instrument : 333                        Location  : Vial 27
Injection Date  : 10/29/2015 2:08:25 PM      Inj       :    1
                                           Inj Volume: Manually
Sequence File   : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S
Method          : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-
                  2015.M (Sequence Method)
Last changed    : 10/29/2015 11:35:36 AM by SYSTEM
=====

```



```

=====
External Standard Report
=====

```

```

Sorted By           :      Retention Time
Calib. Data Modified :      Thursday, September 24, 2015 3:12:01 PM
Multiplier          :      1.0000
Dilution            :      1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.596	1	BB	265.37714	4.09252e-1	108.60611		Methane
1.627	1	BB	422.06433	2.32589e-1	98.16736		Ethylene
2.141	1	BBA	429.96259	2.29184e-1	98.54070		Ethane

Handwritten notes: ASC 11/3/15, Pass (with arrow pointing to Ethane)

Totals : 305.31417

```

=====
*** End of Report ***
=====

```

METHOD BLANK DATA SHEET
RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511649-BLK1

File ID: OCT290000006.D.Report.TX

Prepared: 10/29/15 08:18

Analyzed: 10/29/15 12:30

Preparation: Method-Specific Extracti

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

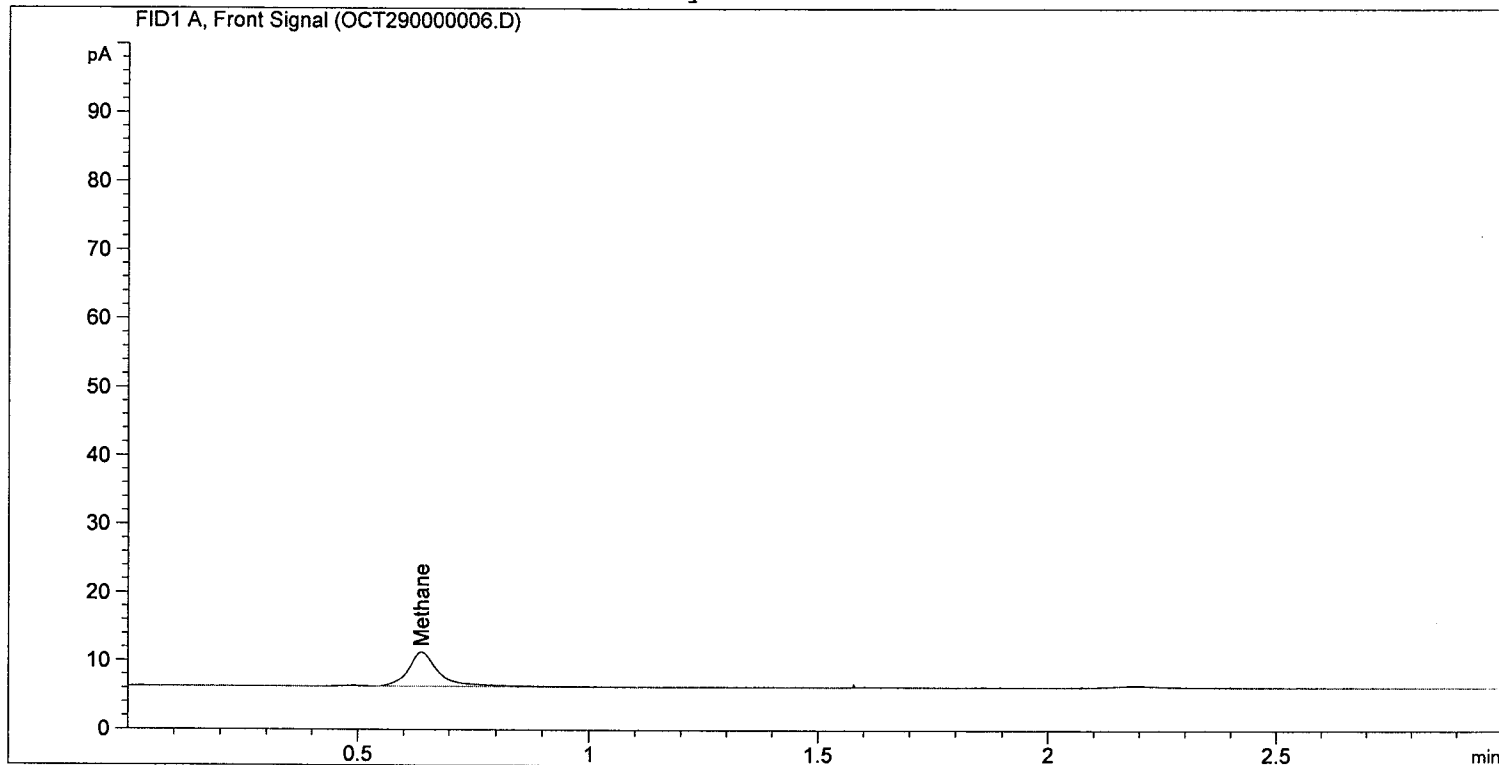
Sequence: 5K02012

Calibration: 5I25004

Instrument: 333

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
74-84-0	Ethane	1.0	ug/L	0.21	1.0	U
74-82-8	Methane	0.50	ug/L	0.30	0.50	U
74-85-1	Ethylene	1.0	ug/L	0.11	1.0	U

```
=====
Acq. Operator   : SYSTEM                      Seq. Line :    4
Acq. Instrument : 333                        Location  : Vial 6
Injection Date  : 10/29/2015 12:30:42 PM      Inj       :    1
                                           Inj Volume: Manually
Sequence File   : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S
Method          : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-
                  2015.M (Sequence Method)
Last changed    : 10/29/2015 11:35:36 AM by SYSTEM
=====
```



```
=====
                        External Standard Report
=====
```

```
Sorted By           :      Retention Time
Calib. Data Modified :      Thursday, September 24, 2015 3:12:01 PM
Multiplier          :      1.0000
Dilution            :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.639	1	BB	23.77849	3.00364e-1	7.14219		Methane <i>RI</i>
1.636	1		-	-	-		Ethylene
2.155	1		-	-	-		Ethane

Totals : 7.14219

1 Warnings or Errors :

Warning : Calibrated compound(s) not found

=====
*** End of Report ***

LCS / LCS DUPLICATE RECOVERY

RSK-175

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511649-BS1

Preparation: Method-Specific Extraction

Initial/Final: 1 mL / 1 mL

QC Batch: 1511649

Sequence: 5K02012

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Ethane	65.1	47.1	72	67 - 122	ug/L
Methane	34.7	26.4	76	70 - 116	ug/L
Ethylene	60.4	43.1	71	67 - 121	ug/L

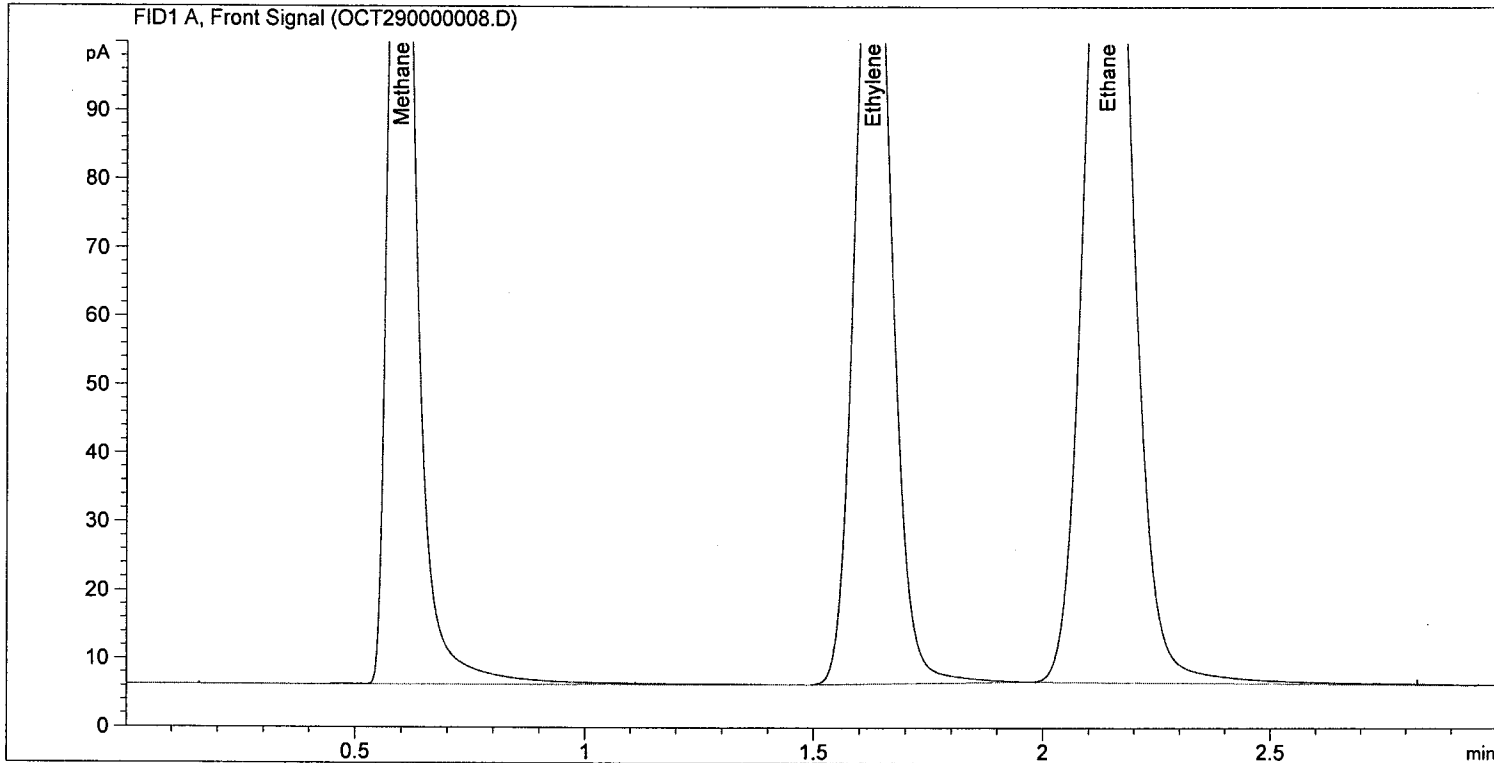
Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

```

=====
Acq. Operator   : SYSTEM                      Seq. Line :    6
Acq. Instrument : 333                        Location  : Vial 8
Injection Date  : 10/29/2015 12:39:05 PM      Inj       :    1
                                           Inj Volume: Manually
Sequence File   : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\10-29-2015.S
Method          : C:\CHEM32\2\DATA\10-29-2015\10-29-2015 2015-10-29 11-35-36\RSK-175 9-24-
                  2015.M (Sequence Method)
Last changed    : 10/29/2015 11:35:36 AM by SYSTEM
=====

```



External Standard Report

```

=====
Sorted By      :      Retention Time
Calib. Data Modified :      Thursday, September 24, 2015 3:12:01 PM
Multiplier     :      1.0000
Dilution       :      1.0000
Use Multiplier & Dilution Factor with ISTDs
=====

```

Signal 1: FID1 A, Front Signal

RetTime [min]	Sig	Type	Area [pA*s]	Amt/Area	Amount [ug/l]	Grp	Name
0.599	1	BB	648.74158	4.15585e-1	269.60724		Methane
1.629	1	BB	678.56976	2.31302e-1	156.95445		Ethylene
2.143	1	BBA	1032.56018	2.27356e-1	234.75920		Ethane

Totals : 661.32088

*** End of Report ***

Semivolatiles GC, Water, Method-Specific Extraction

(No Surrogate)

Batch Comments: (none)

Standard
5061105 RSK BS/MS (Tank 4050948)Solvent
naLotNum
1024601615AWork Order
1510440 Analysis
RSK-175 MethaneWork Order
1510440 Analysis
RSK-175 EthyleneWork Order
1510440 Analysis
RSK-175 Ethane

Balance ID: none

pH Meter: none

Lab Number	Contain	Prepared	By	Initial (mL)	Final (mL)	uL Surrogate	Source ID	Spike ID	uL Spike	Client/GC Type	Extraction Comments
1511649-BLK1		Oct-29-15 08:18	JMF	1	1					BLANK	
1511649-BS1		Oct-29-15 08:18	JMF	1	1			5061105	1000	LCS	
1510440-01	A	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-01	A	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-01	A	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-02	A	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-02	A	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-02	A	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-03	B	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-03	B	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-03	B	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-04	A	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-04	A	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-04	A	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-05	A	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-05	A	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-06	A	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-06	A	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-06	A	Oct-29-15 09:37	JMF	1	1					MMWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene

Comments:

Analyst
Initials:

PREPARATION BATCH 1511649

Page 2 of 2

Printed: 11/2/2015 9:14:40AM

SemiVolatiles GC, Water, Method-Specific Extraction

(No Surrogate)

Batch Comments: (none)

Balance ID: none

pH Meter: none

Lab Number	Container	Prepared	By	Initial (mL)	Final (mL)	Surrogate	Source ID	Spike ID	uL Spike	Client / QC Type	Extraction Comments
1510440-07	B	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-07	B	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-07	B	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-08	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-08	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-08	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-09	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-09	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-09	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-10	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-10	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-10	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-11	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-11	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-11	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-12	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-12	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-12	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-13	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-13	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-13	A	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-16	B	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-16	B	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-16	B	Oct-29-15 09:37	JMF	1	1					MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene

Comments:

Analyst
Initials:

Semivolatiles GC, Water, Oct-29-15

Instrument = 333, Calibration = 5I25004

Sequence Analyses:

RSK-175 Ethane

RSK-175 Methane

RSK-175 Ethylene

Lab Number	Analysis	Contain	STD ID	ISTD ID	Client / QC Type	Extraction Comments
5K02012-CCV1	QC		5061097		CALIBRATION CHECK	
1511649-BLK1	QC				BLANK	
1511649-BS1	QC				LCS	
1510440-01	RSK-175 Methane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-01	RSK-175 Ethylene	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-01	RSK-175 Ethane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-02	RSK-175 Methane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-02	RSK-175 Ethylene	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-02	RSK-175 Ethane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-03	RSK-175 Methane	B			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-03	RSK-175 Ethylene	B			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-03	RSK-175 Ethane	B			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-04	RSK-175 Methane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-04	RSK-175 Ethylene	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-04	RSK-175 Ethane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-05	RSK-175 Methane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-05	RSK-175 Ethylene	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-05	RSK-175 Ethane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-06	RSK-175 Methane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-06	RSK-175 Ethylene	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-06	RSK-175 Ethane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-07	RSK-175 Methane	B			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-07	RSK-175 Ethylene	B			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-07	RSK-175 Ethane	B			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
5K02012-CCV2	QC		5061097		CALIBRATION CHECK	
1510440-08	RSK-175 Methane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-08	RSK-175 Ethylene	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene

Comments:

Analyst
Initials:

Semivolatiles GC, Water, Oct-29-15

Instrument = 333, Calibration = 5I25004

1510440-08	RSK-175 Ethane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-09	RSK-175 Methane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-09	RSK-175 Ethylene	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-09	RSK-175 Ethane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-10	RSK-175 Methane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-10	RSK-175 Ethylene	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-10	RSK-175 Ethane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-11	RSK-175 Methane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-11	RSK-175 Ethylene	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-11	RSK-175 Ethane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-12	RSK-175 Methane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-12	RSK-175 Ethylene	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-12	RSK-175 Ethane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-13	RSK-175 Methane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-13	RSK-175 Ethylene	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-13	RSK-175 Ethane	A			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-16	RSK-175 Methane	B			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-16	RSK-175 Ethylene	B			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
1510440-16	RSK-175 Ethane	B			MWH Americas - Farmington Hills, MI	Methane/Ethane/Ethene
5K02012-CCV3	QC		5061097		CALIBRATION CHECK	

Comments:

Analyst
Initials:

[illegible]

[illegible]

000134					+/-		

~~000124~~



Instrument 333 HP7890

Date: 12-21-2015

Sequence#: _____

Date Archived: _____

Analyst: DMF

Instrument Settings / Injection Volume		GC Program		CCV Standards		Routine Maintenance Items	
Column Type: HP-5	Injection Volume	Initial:		Scale: 1		Column Clipped: Yes (No)	
Column Element #: 01002322		Hold:				New Injection Port Liner: Yes (No)	
Injection Volume: 1 uL		Rate:				New Septa: Yes (No)	
Injector / Detector: 270°C / 300°C		Final:				New Syringe: Yes (No)	
Default Temperature Program: Yes / No		Hold:					
Run ID	File ID	Analysis Method	Dilution	ICV/CCV Check (Pass or High/Low)	Sample Notes, Calibration Standards, Analytical Batch Information, etc.		
Test 81K	0100232201	Ref-175 9242015		Pass			
CEV 1				Low			
CEV 1				Pass			
CEV 1							
511649-81K1							
↓ - 831							
151649-01							
↓ - 02							
↓ - 03							
↓ - 04							
↓ - 05							
↓ - 06							
↓ - 07							
CEV 2				Pass			

Run ID	File ID	Analysis Method	Dilution	ICV/CCV Check (Pass or High/Low)	Sample Notes, Calibration Standards, PEM Injection Times, Analytical Batch Information, etc.
0222	0222000017	02-125 9-24-2015			
1544D-07	15		100X		1.4 min into 100X then 200X
-08	19				
-09	20				
-10	21				
-10	22		200X		
-11	23				
-12	24				
-13	25				
-14	26				
0222	27			pass	
0222	28				
0222	29				
0222	30				
0222	31				
0222	32				
0222	33				
0222	34				
0222	35				
0222	36				
0222	37				
0222	38				
0222	39				
0222	40				
0222	41				
0222	42				
0222	43				
0222	44				
0222	45				
0222	46				
0222	47				
0222	48				
0222	49				
0222	50				

0222

1.4 min into 100X then 200X

pass

Initial Cal ID:
RSK-175 9-24-2015

AREA (x)	CONC. (y)
12.65	0.000004
37.23	0.000010
80.92	0.000020
205.05	0.000050
436.19	0.000099
2174.83	0.000497
Slope:	2.278E-07
Y Intercept:	1.4309E-06
R:	0.999988

[illegible][illegible]

Dissolved Gases in Ground Water

ETHANE

Initial Cal ID:

RSK-175 9-24-2015

AREA (x)

CONC. (y)

Analyte: ETHANE

Molecular Weight (g/mol): 30

Henry's Law Constant: 28088

g-moles in 1 L water: 55.5

Sample Temperature(K): 295.45

Density Correction Factor: 1.238

Slope: 2.2582E-07

Y Intercept: 1.348E-06

R: 0.999988

Blank Area:

[illegible][illegible]

Dissolved Gases in Ground Water

ETHYLENE

RSK-175 9-24-2015

AREA (x)	CONC. (y)
10	10
20	20
30	30
40	40
50	50
60	60
70	70
80	80
90	90
100	100

12,65	0,000004

37.23	0.000010

80.92	0.000020

205.05	0.000050

436.19	0.000099

2174.83	0.000497

Slope: 2.278E-07

Y Intercept: 1.4309E-06

R: 0.999988

Analyte: ETHYLENE

Molecular Weight (g/mol): 28

Henry's Law Constant: 10764

g-moles in 1 L water: 55.5

Sample Temperature(K): 295.45

Density Correction Factor: 1.155

Blank Area:

[illegible][illegible]

Dissolved Gases in Ground Water

METHANE

Initial Cal ID:

RSK-175 9-24-2015

Blank Area:

AREA (x)	CONC. (y)
10	10
20	20
30	30
40	40
50	50
60	60
70	70
80	80
90	90
100	100

17.11	0.000004
29.57	0.000010
53.81	0.000020
129.29	0.000050
241.93	0.000100
1197.62	0.000500

Slope: 4.1996E-07

Y Intercept: -2.841E-06

R: 0.999989

Analyte: METHANE

Molecular Weight (g/mol): 16

Henry's Law Constant: 39246

g-moles in 1 L water: 55.5

Sample Temperature(K): 295.45

Density Correction Factor: 0.660

[illegible][illegible]

000132

RSK 10292015(42.5CAL)

bottle was completely filled, and several drops of 1:1 sulfuric acid were then added as a preservative. The bottle was capped and sealed using a 20-mm gray butyl rubber, Teflon-faced septum (Wheaton, Millville, NJ) and 20 mm aluminum crimp seal (Wheaton). The samples were kept cold in an ice chest in transit to the laboratory. Samples were kept at 4°C and analyzed within 14 days of collection.

GC analysis

The GC was calibrated by injecting 300 μL of each of the gas standards as listed in the *Materials* section. The Scotty II cylinders were sampled at atmospheric pressure. This was accomplished by attaching a short piece of $\frac{1}{4}$ -in. stainless steel tubing with appropriate fittings to the cylinder outlet. At the cylinder outlet, a $\frac{1}{4}$ -in. "tee" was fitted with a GC septum allowing for insertion of a gas-tight syringe needle into the gas stream. The exit end of the tubing was inserted into a 500-mL beaker of water. As gas "bubbled" through the water, 300 μL of the gas standard was removed and injected into the GC. The retention times for methane, ethene, and ethane were near 0.6, 1.9, and 2.5 min, respectively. Peak area counts generated for each sample were compared with a calibration standard curve.

Samples were allowed to reach room temperature prior to analysis. A headspace was prepared by replacing 10% of the bottled sample (in this case, 6 mL) with helium. To generate headspace in the sample bottle, the bottle was placed upside-down in a three-fingered clamp attached to a ring stand. Next, a 20-gauge needle attached to a 10-mL Luerlok glass syringe set for dead volume was inserted through the septum. Then an 8-cm 20-gauge needle attached to Teflon tubing and a needle valve was inserted through the septum up to the bottom of the bottle. The Teflon tubing was plumbed to a two-stage regulator on a cylinder of high-purity helium, and the helium was passed through the needle at 5 mL/min or less. The helium forced water out of the bottle and into the syringe. When the volume of water in the syringe reached 6 mL, the 8-cm needle was pulled out, followed by the syringe. The sample bottle was shaken on a rotary shaker at 1400 rpm for 5 min to allow the gases to equilibrate between the headspace and liquid phases.

A 500- μL gas-tight syringe with a sampling valve (Dynatech Precision Sampling, Baton Rouge, LA) and equipped with a side-port needle was used to withdraw 300 μL of headspace, which was subsequently injected into the GC. The temperature of the remaining sample was determined. The volume of the sample bottle was measured by filling the bottle with water and pouring the contents into a graduated cylinder.

For purposes of quality control, field trip blanks were included with samples, and 10% of samples were collected in duplicate and analyzed. Prior to analysis and at the end of the day, calibration of the GC was checked by analyzing at least one of the gas standards for each analyte. The GC was considered to be in calibration if the analyzed value was within 15% of that expected. Calibration standards for at least one of the gases were analyzed with a frequency of 10%. Control charts were maintained to monitor variability. In addition, a method blank consisting of a serum bottle of deionized, boiled water was analyzed on a daily basis. This was necessary to correct for background levels of methane. Quantitation limits for methane, ethane, and ethene

were 0.001, 0.002, and 0.003 mg/L, respectively. Normally, two samples could be prepared and analyzed per hour.

Calculations

The concentrations of the gases dissolved in the water sample were calculated using the partial pressure of the gas, Henry's Law constant, the temperature of the sample, the volume of the sample bottle, and the molecular weight of the gas. Values for Henry's Law constant were obtained from Perry's *Chemical Engineer's Handbook* (7).

The linear regression equation of the standard curve was used to determine the partial pressure (p_g) of the gas. The concentrations of the gas standards should be converted to their decimal equivalent before generating the curve (i.e., 10 ppm is equivalent to 0.00001, as is 1% to .01). The sample's area count obtained from the chromatogram peak for the analyzed gas was "inserted" into the equation to determine its partial pressure. For methane, it was necessary to subtract the area count obtained from the analysis of a method blank. The following sequence of equations were used to determine the concentration of the dissolved gas.

For the equilibrium mole fraction of the dissolved gas:

$$x_g = p_g/H \quad \text{Eq 1}$$

where H is Henry's Law constant for the gas. Let n_g represent the moles of gas and n_w the moles of water. Then:

$$x_g = n_g/(n_g + n_w) \text{ and } n_g = x_g(n_g + n_w) \quad \text{Eq 2}$$

Because 1 L of water equals 55.5 g-moles:

$$n_g = x_g(n_g + 55.5) \quad \text{Eq 3}$$

and because:

$$n_g x_g \ll n_g \quad \text{Eq 4}$$

therefore:

$$n_g = x_g(55.5) \text{ or } n_g = 55.5(p_g/H) \quad \text{Eq 5}$$

For the saturation concentration of the gas:

$$C = n_g(MW)(1000 \text{ mg/g}) \quad \text{Eq 6}$$

where MW is the molecular weight of the gas. To correct gas density for temperature:

$$D = MW/(22.4 \text{ L/mole})(ST^\circ\text{K}/273^\circ\text{K}) \quad \text{Eq 7}$$

where ST is the sample temperature. Then:

$$A_h = (\text{mL of headspace})(p_g) = 6(p_g) \quad \text{Eq 8}$$

where A_h is the milliliters of analyte in the headspace. Then:

$$A_l = (A_h/V)(D)(1000 \text{ mg/g})(1 \text{ L}/1000 \text{ mL}) \quad \text{Eq 9}$$

where A_1 is the analyte in liquid phase and V is the volume of water (bottle volume-headspace volume) in L; using a 60-mL serum bottle with 6 mL of headspace, V equals 0.054 L. Then:

$$TC = A_1 + C \quad \text{Eq 10}$$

where TC is the total concentration of analyte in the original sample, in milligrams of gas per liter of water.

Example calculation for methane

Methane will be used as an example of the calculations used for the analysis of dissolved gases. From the analysis of a sample, an area count was determined. This area count was used in the equation for the linear regression of the calibration curve to give its partial pressure (p_g). Parameters used for this example are as follows: the sample area count was 978264, the method blank area count was 2766, Henry's Law constant was $4.13\text{E}+4$ (at 25°C), the sample temperature was 25°C (298°K), the bottle volume was 60 mL, and the headspace volume was 6 mL.

From the equation of a straight line ($y = mx + b$), the calibration standard responses generated the following curve:

$$p_g = (1.814\text{E}-9)x - 6.716\text{E}-6 \quad \text{Eq 11}$$

Therefore, for this sample:

$$\begin{aligned} p_g &= (1.814\text{E}-9)(978264 - 2766) - 6.716\text{E}-6 \\ &= 0.0018 \end{aligned} \quad \text{Eq 12}$$

Then, using the previous equations:

$$x_g = 0.0018 / 4.13\text{E}+4 = 4.269\text{E}-8 \quad (\text{from Eq 1})$$

$$n_g = 55.5(4.269\text{E}-8) = 2.37\text{E}-6 \quad (\text{from Eq 5})$$

$$C = (2.37\text{E}-6)(16)(1000) = 0.038 \text{ mg methane/L water} \quad (\text{from Eq 6})$$

$$D = (16\text{g/mole}) / ([22.4 \text{ L/mole}][298/273]) = 0.654 \text{ g methane/L} \quad (\text{from Eq 7})$$

$$A_h = 6(0.0018) = 0.0108 \text{ mL methane} \quad (\text{from Eq 8})$$

$$A_1 = (0.0108 \text{ mL} / 0.054 \text{ L})(0.654 \text{ g/L})(1 \text{ L} / 1000 \text{ mL})(1000 \text{ mg/g}) = 0.1308 \text{ mg methane/L} \quad (\text{from Eq 9})$$

$$TC = 0.1308 + 0.038 = 0.169 \text{ mg methane/L water} \quad (\text{from Eq 10})$$

Results and Discussion

Water samples collected at field sites have been analyzed by the described procedure for over eight years. The method is relatively simple and reliable for the analyses of water samples.

A typical chromatogram of a ground water sample from a contaminated site is shown in Figure 1. Table I lists the analytical data for several water samples. Calibration curves were generated using linear regression on a calculator or computer; area counts of the standards were plotted versus their concentrations.

Saturated solutions of methane and ethene in water were prepared with expected concentrations of 22.7 and 131 mg/L, respectively. They were analyzed to determine precision and accuracy. For methane, an average recovery of 87% was obtained for six replicates, the standard deviation was 0.64 mg/L, and the relative standard deviation (RSD) was 3.25%. For ethene, the

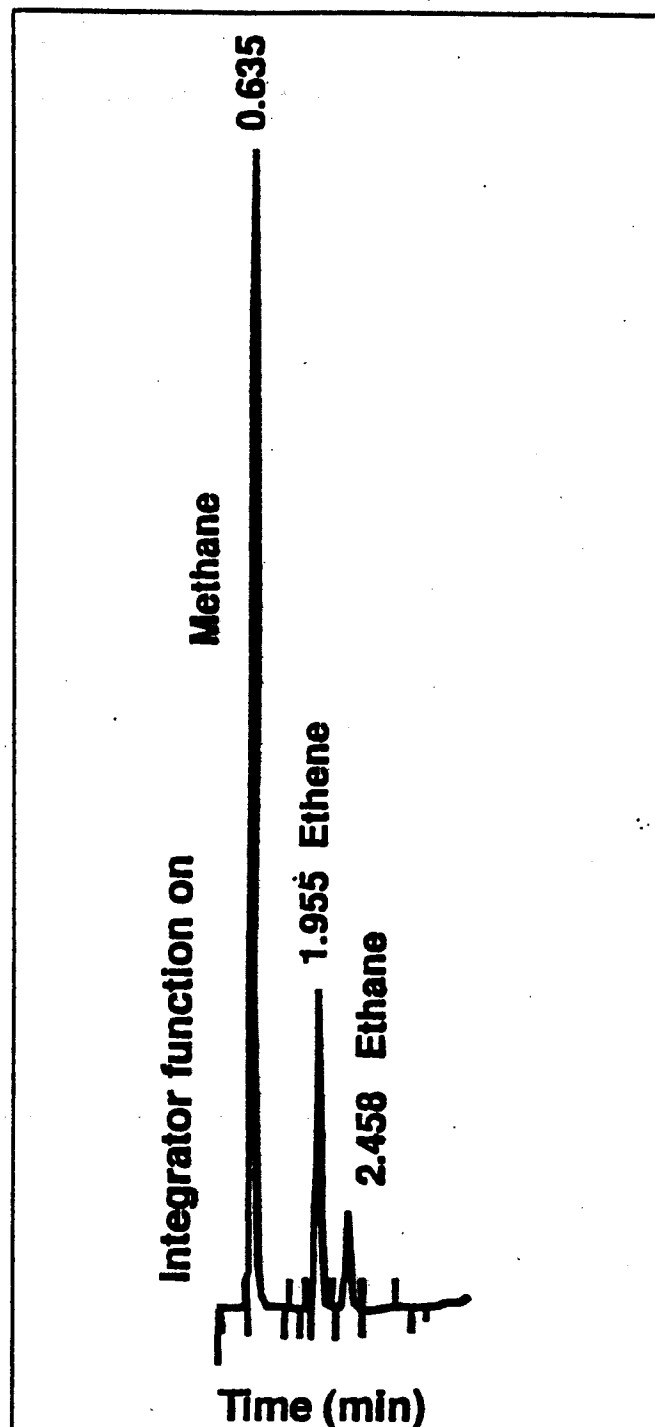


Figure 1. Typical chromatogram of a field sample. Retention times for methane, ethene, and ethane were 0.635, 1.955, and 2.458 min, respectively.

SECTION - D

GC/MS VOLATILE ORGANICS

STATEMENT OF DATA QUALIFICATIONS
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington H

Project: GE Caribe - Vieques, PR

All analyses in this report section have been validated and comply with our Quality Control Program. No Qualifications are required.

PROJECT TECHNICAL NARRATIVE(S)
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

No Project Narratives are associated with this report section.

TriMatrix Laboratories, Inc.

MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

SDG: 1510440

USEPA-8260B

SAMPLE ID SUMMARY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Client Sample Id:

Lab Sample Id:

<u>C-1</u>	<u>1510440-01</u>
<u>C-2</u>	<u>1510440-02</u>
<u>C-3</u>	<u>1510440-03</u>
<u>C-4</u>	<u>1510440-04</u>
<u>C-5</u>	<u>1510440-05</u>
<u>C-6</u>	<u>1510440-06</u>
<u>C-7</u>	<u>1510440-07</u>
<u>C-8</u>	<u>1510440-08</u>
<u>C-9</u>	<u>1510440-09</u>
<u>C-10</u>	<u>1510440-10</u>
<u>C-11</u>	<u>1510440-11</u>
<u>EB-101915</u>	<u>1510440-12</u>
<u>EB-102015</u>	<u>1510440-13</u>
<u>Trip Blank TM 1266</u>	<u>1510440-14</u>
<u>Trip Blank TM 0093</u>	<u>1510440-15</u>
<u>W-A</u>	<u>1510440-16</u>
<u>Storage Blank</u>	<u>1510440-17</u>

ANALYSIS BATCH (SEQUENCE) SUMMARY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	5J30014-TUN1	BFB1029BB.D	10/29/15 18:49
Calibration Check	5J30014-CCV1	CCV1029B.D	10/29/15 19:17
LCS	1511719-BS1	BS1029B.D	10/29/15 19:46
Blank	1511719-BLK1	BLK1029B.D	10/29/15 21:11
EB-101915	1510440-12	1510440-12.D	10/29/15 21:40
EB-102015	1510440-13	1510440-13.D	10/29/15 22:08
Trip Blank TM 0093	1510440-15	1510440-15.D	10/29/15 22:36
Storage Blank	1510440-17	1510440-17.D	10/29/15 23:05
C-1	1510440-01	1510440-01.D	10/29/15 23:33
C-2	1510440-02	1510440-02.D	10/30/15 00:02
C-3	1510440-03	1510440-03.D	10/30/15 00:30
C-6	1510440-06	1510440-06.D	10/30/15 00:58
C-8	1510440-08	1510440-08.D	10/30/15 01:27
C-9	1510440-09	1510440-09.D	10/30/15 01:55
C-10	1510440-10	1510440-10.D	10/30/15 02:24
C-11	1510440-11	1510440-11.D	10/30/15 02:52
W-A	1510440-16	1510440-16.D	10/30/15 03:20
C-7	1510440-07	1510440-07.D	10/30/15 03:49
C-4	1510440-04	1510440-04.D	10/30/15 04:17

SURROGATE STANDARD RECOVERY AND RT SUMMARY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Calibration: SJ30003

Sequence: SJ30014

Instrument: 328

Lab Sample Id Surrogate Compound Name	RT	Calibration Mean RT	RT Diff	RT Diff Limit	% Recovery	Recovery Limits	Q
Calibration Check (5J30014-CCV1) Lab File ID: CCV1029B.D Analyzed: 10/29/15 19:17							
Dibromofluoromethane	4.73	4.74	-0.01	+/-1.0	99	80 - 120	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	96	80 - 120	
Toluene-d8	8.35	8.36	-0.01	+/-1.0	100	80 - 120	
4-Bromofluorobenzene	11.83	11.85	-0.01	+/-1.0	99	80 - 120	
LCS (1511719-BS1) Lab File ID: BS1029B.D Analyzed: 10/29/15 19:46							
Dibromofluoromethane	4.73	4.74	-0.01	+/-1.0	100	85 - 118	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	96	87 - 122	
Toluene-d8	8.35	8.36	-0.01	+/-1.0	100	85 - 113	
4-Bromofluorobenzene	11.84	11.85	-0.01	+/-1.0	99	82 - 110	
Blank (1511719-BLK1) Lab File ID: BLK1029B.D Analyzed: 10/29/15 21:11							
Dibromofluoromethane	4.72	4.74	-0.02	+/-1.0	97	85 - 118	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	100	87 - 122	
Toluene-d8	8.35	8.36	-0.01	+/-1.0	98	85 - 113	
4-Bromofluorobenzene	11.84	11.85	-0.01	+/-1.0	100	82 - 110	
EB-101915 (1510440-12) Lab File ID: 1510440-12.D Analyzed: 10/29/15 21:40							
Dibromofluoromethane	4.72	4.74	-0.02	+/-1.0	99	85 - 118	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	100	87 - 122	
Toluene-d8	8.35	8.36	-0.01	+/-1.0	98	85 - 113	
4-Bromofluorobenzene	11.84	11.85	-0.01	+/-1.0	99	82 - 110	
EB-102015 (1510440-13) Lab File ID: 1510440-13.D Analyzed: 10/29/15 22:08							
Dibromofluoromethane	4.72	4.74	-0.02	+/-1.0	98	85 - 118	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	100	87 - 122	
Toluene-d8	8.35	8.36	-0.01	+/-1.0	99	85 - 113	
4-Bromofluorobenzene	11.84	11.85	-0.01	+/-1.0	99	82 - 110	
Trip Blank TM 0093 (1510440-15) Lab File ID: 1510440-15.D Analyzed: 10/29/15 22:36							
Dibromofluoromethane	4.72	4.74	-0.02	+/-1.0	99	85 - 118	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	100	87 - 122	
Toluene-d8	8.35	8.36	-0.01	+/-1.0	99	85 - 113	
4-Bromofluorobenzene	11.84	11.85	-0.01	+/-1.0	99	82 - 110	
Storage Blank (1510440-17) Lab File ID: 1510440-17.D Analyzed: 10/29/15 23:05							
Dibromofluoromethane	4.72	4.74	-0.02	+/-1.0	98	85 - 118	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	101	87 - 122	
Toluene-d8	8.35	8.36	-0.01	+/-1.0	98	85 - 113	
4-Bromofluorobenzene	11.84	11.85	-0.01	+/-1.0	99	82 - 110	

000141

SURROGATE STANDARD RECOVERY AND RT SUMMARY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Calibration: 5J30003

Sequence: 5J30014

Instrument: 328

Lab Sample Id Surrogate Compound Name	RT	Calibration Mean RT	RT Diff	RT Diff Limit	% Recovery	Recovery Limits	Q
C-1 (1510440-01) Lab File ID: 1510440-01.D Analyzed: 10/29/15 23:33							
Dibromofluoromethane	4.71	4.74	-0.02	+/-1.0	99	85 - 118	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	100	87 - 122	
Toluene-d8	8.35	8.36	-0.01	+/-1.0	99	85 - 113	
4-Bromofluorobenzene	11.84	11.85	-0.01	+/-1.0	99	82 - 110	
C-2 (1510440-02) Lab File ID: 1510440-02.D Analyzed: 10/30/15 00:02							
Dibromofluoromethane	4.71	4.74	-0.02	+/-1.0	98	85 - 118	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	100	87 - 122	
Toluene-d8	8.34	8.36	-0.02	+/-1.0	98	85 - 113	
4-Bromofluorobenzene	11.84	11.85	-0.01	+/-1.0	99	82 - 110	
C-3 (1510440-03) Lab File ID: 1510440-03.D Analyzed: 10/30/15 00:30							
Dibromofluoromethane	4.71	4.74	-0.02	+/-1.0	98	85 - 118	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	100	87 - 122	
Toluene-d8	8.34	8.36	-0.02	+/-1.0	99	85 - 113	
4-Bromofluorobenzene	11.84	11.85	-0.01	+/-1.0	99	82 - 110	
C-6 (1510440-06) Lab File ID: 1510440-06.D Analyzed: 10/30/15 00:58							
Dibromofluoromethane	4.71	4.74	-0.02	+/-1.0	99	85 - 118	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	101	87 - 122	
Toluene-d8	8.34	8.36	-0.02	+/-1.0	99	85 - 113	
4-Bromofluorobenzene	11.84	11.85	-0.01	+/-1.0	99	82 - 110	
C-8 (1510440-08) Lab File ID: 1510440-08.D Analyzed: 10/30/15 01:27							
Dibromofluoromethane	4.71	4.74	-0.02	+/-1.0	98	85 - 118	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	100	87 - 122	
Toluene-d8	8.34	8.36	-0.02	+/-1.0	98	85 - 113	
4-Bromofluorobenzene	11.84	11.85	-0.01	+/-1.0	99	82 - 110	
C-9 (1510440-09) Lab File ID: 1510440-09.D Analyzed: 10/30/15 01:55							
Dibromofluoromethane	4.71	4.74	-0.02	+/-1.0	99	85 - 118	
1,2-Dichloroethane-d4	5.31	5.34	-0.03	+/-1.0	100	87 - 122	
Toluene-d8	8.34	8.36	-0.02	+/-1.0	99	85 - 113	
4-Bromofluorobenzene	11.83	11.85	-0.02	+/-1.0	99	82 - 110	
C-10 (1510440-10) Lab File ID: 1510440-10.D Analyzed: 10/30/15 02:24							
Dibromofluoromethane	4.71	4.74	-0.02	+/-1.0	100	85 - 118	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	100	87 - 122	
Toluene-d8	8.34	8.36	-0.02	+/-1.0	98	85 - 113	
4-Bromofluorobenzene	11.83	11.85	-0.02	+/-1.0	101	82 - 110	

000142

SURROGATE STANDARD RECOVERY AND RT SUMMARY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Calibration: 5J30003

Sequence: 5J30014

Instrument: 328

Lab Sample Id Surrogate Compound Name	RT	Calibration Mean RT	RT Diff	RT Diff Limit	% Recovery	Recovery Limits	Q
C-11 (1510440-11) Lab File ID: 1510440-11.D Analyzed: 10/30/15 02:52							
Dibromofluoromethane	4.71	4.74	-0.02	+/-1.0	99	85 - 118	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	100	87 - 122	
Toluene-d8	8.34	8.36	-0.02	+/-1.0	98	85 - 113	
4-Bromofluorobenzene	11.83	11.85	-0.02	+/-1.0	100	82 - 110	
W-A (1510440-16) Lab File ID: 1510440-16.D Analyzed: 10/30/15 03:20							
Dibromofluoromethane	4.71	4.74	-0.02	+/-1.0	99	85 - 118	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	100	87 - 122	
Toluene-d8	8.34	8.36	-0.02	+/-1.0	99	85 - 113	
4-Bromofluorobenzene	11.83	11.85	-0.02	+/-1.0	99	82 - 110	
C-7 (1510440-07) Lab File ID: 1510440-07.D Analyzed: 10/30/15 03:49							
Dibromofluoromethane	4.71	4.74	-0.02	+/-1.0	99	85 - 118	
1,2-Dichloroethane-d4	5.32	5.34	-0.02	+/-1.0	100	87 - 122	
Toluene-d8	8.34	8.36	-0.02	+/-1.0	97	85 - 113	
4-Bromofluorobenzene	11.83	11.85	-0.02	+/-1.0	99	82 - 110	
C-4 (1510440-04) Lab File ID: 1510440-04.D Analyzed: 10/30/15 04:17							
Dibromofluoromethane	4.71	4.74	-0.02	+/-1.0	99	85 - 118	
1,2-Dichloroethane-d4	5.31	5.34	-0.03	+/-1.0	100	87 - 122	
Toluene-d8	8.34	8.36	-0.02	+/-1.0	99	85 - 113	
4-Bromofluorobenzene	11.83	11.85	-0.02	+/-1.0	99	82 - 110	

ANALYSIS BATCH (SEQUENCE) SUMMARY
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	5K02029-TUN1	BFB1030A.D	10/30/15 11:26
Calibration Check	5K02029-CCV1	CCV1030.D	10/30/15 11:54
LCS	1511821-BS1	BS1030.D	10/30/15 12:23
Blank	1511821-BLK1	BLK1030.D	10/30/15 14:16
Trip Blank TM 1266	1510440-14	1510440-14.D	10/30/15 14:44
C-5	1510440-05	1510440-05.D	10/30/15 15:13

SURROGATE STANDARD RECOVERY AND RT SUMMARY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Calibration: 5J30003

Sequence: 5K02029

Instrument: 328

Lab Sample Id Surrogate Compound Name	RT	Calibration Mean RT	RT Diff	RT Diff Limit	% Recovery	Recovery Limits	Q
Calibration Check (5K02029-CCV1) Lab File ID: CCV1030.D Analyzed: 10/30/15 11:54							
Dibromofluoromethane	4.71	4.74	-0.03	+/-1.0	100	80 - 120	
1,2-Dichloroethane-d4	5.31	5.34	-0.04	+/-1.0	99	80 - 120	
Toluene-d8	8.34	8.36	-0.02	+/-1.0	101	80 - 120	
4-Bromofluorobenzene	11.83	11.85	-0.02	+/-1.0	100	80 - 120	
LCS (1511821-BS1) Lab File ID: BS1030.D Analyzed: 10/30/15 12:23							
Dibromofluoromethane	4.71	4.74	-0.03	+/-1.0	101	85 - 118	
1,2-Dichloroethane-d4	5.31	5.34	-0.03	+/-1.0	98	87 - 122	
Toluene-d8	8.34	8.36	-0.02	+/-1.0	101	85 - 113	
4-Bromofluorobenzene	11.83	11.85	-0.02	+/-1.0	99	82 - 110	
Blank (1511821-BLK1) Lab File ID: BLK1030.D Analyzed: 10/30/15 14:16							
Dibromofluoromethane	4.71	4.74	-0.03	+/-1.0	99	85 - 118	
1,2-Dichloroethane-d4	5.31	5.34	-0.04	+/-1.0	101	87 - 122	
Toluene-d8	8.34	8.36	-0.02	+/-1.0	100	85 - 113	
4-Bromofluorobenzene	11.83	11.85	-0.02	+/-1.0	100	82 - 110	
Trip Blank TM 1266 (1510440-14) Lab File ID: 1510440-14.D Analyzed: 10/30/15 14:44							
Dibromofluoromethane	4.71	4.74	-0.03	+/-1.0	98	85 - 118	
1,2-Dichloroethane-d4	5.31	5.34	-0.03	+/-1.0	100	87 - 122	
Toluene-d8	8.34	8.36	-0.02	+/-1.0	98	85 - 113	
4-Bromofluorobenzene	11.83	11.85	-0.02	+/-1.0	98	82 - 110	
C-5 (1510440-05) Lab File ID: 1510440-05.D Analyzed: 10/30/15 15:13							
Dibromofluoromethane	4.71	4.74	-0.03	+/-1.0	99	85 - 118	
1,2-Dichloroethane-d4	5.31	5.34	-0.03	+/-1.0	100	87 - 122	
Toluene-d8	8.34	8.36	-0.02	+/-1.0	98	85 - 113	
4-Bromofluorobenzene	11.83	11.85	-0.02	+/-1.0	99	82 - 110	

LCS / LCS DUPLICATE RECOVERY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511719-BS1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Acetone	40.0	34.0	85	53 - 138	ug/L
Benzene	40.0	41.4	103	84 - 119	ug/L
Bromobenzene	40.0	41.2	103	79 - 127	ug/L
Bromochloromethane	40.0	41.2	103	77 - 126	ug/L
Bromodichloromethane	40.0	42.4	106	82 - 124	ug/L
Bromoform	40.0	36.3	91	65 - 123	ug/L
Bromomethane	40.0	52.9	132	55 - 142	ug/L
n-Butylbenzene	40.0	43.8	110	79 - 123	ug/L
sec-Butylbenzene	40.0	42.6	107	81 - 122	ug/L
tert-Butylbenzene	40.0	42.3	106	80 - 122	ug/L
Carbon Disulfide	40.0	46.6	117	70 - 131	ug/L
Carbon Tetrachloride	40.0	42.2	105	79 - 127	ug/L
Chlorobenzene	40.0	40.9	102	84 - 118	ug/L
Chloroethane	40.0	40.5	101	76 - 124	ug/L
Chloroform	40.0	40.6	101	82 - 119	ug/L
Chloromethane	40.0	42.3	106	73 - 125	ug/L
2-Chlorotoluene	40.0	41.7	104	82 - 123	ug/L
4-Chlorotoluene	40.0	41.6	104	82 - 125	ug/L
Dibromochloromethane	40.0	38.6	97	74 - 121	ug/L
1,2-Dibromoethane	40.0	42.1	105	84 - 125	ug/L
Dibromomethane	40.0	40.3	101	83 - 120	ug/L
1,2-Dichlorobenzene	40.0	41.5	104	81 - 124	ug/L
1,3-Dichlorobenzene	40.0	41.6	104	81 - 124	ug/L
1,4-Dichlorobenzene	40.0	40.9	102	79 - 122	ug/L
Dichlorodifluoromethane	40.0	40.1	100	68 - 130	ug/L
1,1-Dichloroethane	40.0	41.6	104	80 - 118	ug/L
1,2-Dichloroethane	40.0	39.8	100	81 - 122	ug/L
1,1-Dichloroethene	40.0	40.7	102	77 - 123	ug/L
cis-1,2-Dichloroethene	40.0	41.4	104	84 - 119	ug/L

000146

LCS / LCS DUPLICATE RECOVERY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511719-BS1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
trans-1,2-Dichloroethene	40.0	42.0	105	76 - 126	ug/L
1,2-Dichloroethene (Total)	80.0	83.4	104	82 - 119	ug/L
1,2-Dichloropropane	40.0	42.4	106	82 - 122	ug/L
1,3-Dichloropropane	40.0	41.1	103	84 - 125	ug/L
2,2-Dichloropropane	40.0	42.2	105	55 - 141	ug/L
1,1-Dichloropropene	40.0	41.6	104	84 - 122	ug/L
cis-1,3-Dichloropropene	40.0	39.3	98	77 - 120	ug/L
trans-1,3-Dichloropropene	40.0	38.5	96	73 - 116	ug/L
Ethylbenzene	40.0	42.1	105	87 - 119	ug/L
2-Hexanone	40.0	39.6	99	55 - 141	ug/L
Isopropylbenzene	40.0	42.1	105	76 - 126	ug/L
4-Isopropyltoluene	40.0	42.7	107	80 - 126	ug/L
Methyl tert-Butyl Ether	40.0	41.6	104	72 - 128	ug/L
Methylene Chloride	40.0	40.1	100	75 - 129	ug/L
2-Butanone (MEK)	40.0	34.9	87	52 - 142	ug/L
4-Methyl-2-pentanone (MIBK)	40.0	40.5	101	60 - 142	ug/L
n-Propylbenzene	40.0	42.3	106	82 - 123	ug/L
Styrene	40.0	42.8	107	84 - 120	ug/L
1,1,1,2-Tetrachloroethane	40.0	43.4	108	84 - 122	ug/L
1,1,2,2-Tetrachloroethane	40.0	40.5	101	70 - 137	ug/L
Tetrachloroethene	40.0	41.9	105	81 - 117	ug/L
Toluene	40.0	41.7	104	85 - 118	ug/L
1,1,1-Trichloroethane	40.0	42.4	106	81 - 122	ug/L
1,1,2-Trichloroethane	40.0	41.6	104	83 - 121	ug/L
Trichloroethene	40.0	41.4	103	82 - 119	ug/L
Trichlorofluoromethane	40.0	40.3	101	76 - 128	ug/L
1,2,3-Trichloropropane	40.0	40.0	100	78 - 134	ug/L
1,2,4-Trimethylbenzene	40.0	42.4	106	83 - 124	ug/L
1,3,5-Trimethylbenzene	40.0	42.1	105	82 - 125	ug/L

000147

LCS / LCS DUPLICATE RECOVERY
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511719-BS1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Vinyl Acetate	40.0	39.9	100	45 - 155	ug/L
Vinyl Chloride	40.0	41.1	103	77 - 123	ug/L
Xylene, Meta + Para	80.0	84.7	106	86 - 119	ug/L
Xylene, Ortho	40.0	42.8	107	86 - 120	ug/L
Xylene (Total)	120	128	106	86 - 119	ug/L

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

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511821-BS1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Acetone	40.0	39.6	99	53 - 138	ug/L
Benzene	40.0	41.2	103	84 - 119	ug/L
Bromobenzene	40.0	40.4	101	79 - 127	ug/L
Bromochloromethane	40.0	40.4	101	77 - 126	ug/L
Bromodichloromethane	40.0	42.4	106	82 - 124	ug/L
Bromoform	40.0	36.3	91	65 - 123	ug/L
Bromomethane	40.0	50.9	127	55 - 142	ug/L
n-Butylbenzene	40.0	43.7	109	79 - 123	ug/L
sec-Butylbenzene	40.0	42.7	107	81 - 122	ug/L
tert-Butylbenzene	40.0	42.4	106	80 - 122	ug/L
Carbon Disulfide	40.0	45.1	113	70 - 131	ug/L
Carbon Tetrachloride	40.0	43.0	108	79 - 127	ug/L
Chlorobenzene	40.0	40.4	101	84 - 118	ug/L
Chloroethane	40.0	40.6	102	76 - 124	ug/L
Chloroform	40.0	40.6	101	82 - 119	ug/L
Chloromethane	40.0	41.9	105	73 - 125	ug/L
2-Chlorotoluene	40.0	41.4	103	82 - 123	ug/L
4-Chlorotoluene	40.0	41.1	103	82 - 125	ug/L
Dibromochloromethane	40.0	38.0	95	74 - 121	ug/L
1,2-Dibromoethane	40.0	41.3	103	84 - 125	ug/L
Dibromomethane	40.0	40.5	101	83 - 120	ug/L
1,2-Dichlorobenzene	40.0	41.0	103	81 - 124	ug/L
1,3-Dichlorobenzene	40.0	41.3	103	81 - 124	ug/L
1,4-Dichlorobenzene	40.0	40.9	102	79 - 122	ug/L
Dichlorodifluoromethane	40.0	40.6	102	68 - 130	ug/L
1,1-Dichloroethane	40.0	41.3	103	80 - 118	ug/L
1,2-Dichloroethane	40.0	40.0	100	81 - 122	ug/L
1,1-Dichloroethene	40.0	41.8	105	77 - 123	ug/L
cis-1,2-Dichloroethene	40.0	41.6	104	84 - 119	ug/L

000149

LCS / LCS DUPLICATE RECOVERY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511821-BS1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
trans-1,2-Dichloroethene	40.0	42.0	105	76 - 126	ug/L
1,2-Dichloroethene (Total)	80.0	83.6	104	82 - 119	ug/L
1,2-Dichloropropane	40.0	41.9	105	82 - 122	ug/L
1,3-Dichloropropane	40.0	40.5	101	84 - 125	ug/L
2,2-Dichloropropane	40.0	41.2	103	55 - 141	ug/L
1,1-Dichloropropene	40.0	41.7	104	84 - 122	ug/L
cis-1,3-Dichloropropene	40.0	38.9	97	77 - 120	ug/L
trans-1,3-Dichloropropene	40.0	38.1	95	73 - 116	ug/L
Ethylbenzene	40.0	41.8	105	87 - 119	ug/L
2-Hexanone	40.0	44.1	110	55 - 141	ug/L
Isopropylbenzene	40.0	42.0	105	76 - 126	ug/L
4-Isopropyltoluene	40.0	42.9	107	80 - 126	ug/L
Methyl tert-Butyl Ether	40.0	41.3	103	72 - 128	ug/L
Methylene Chloride	40.0	39.6	99	75 - 129	ug/L
2-Butanone (MEK)	40.0	39.6	99	52 - 142	ug/L
4-Methyl-2-pentanone (MIBK)	40.0	44.8	112	60 - 142	ug/L
n-Propylbenzene	40.0	42.0	105	82 - 123	ug/L
Styrene	40.0	42.4	106	84 - 120	ug/L
1,1,1,2-Tetrachloroethane	40.0	43.3	108	84 - 122	ug/L
1,1,2,2-Tetrachloroethane	40.0	39.8	100	70 - 137	ug/L
Tetrachloroethene	40.0	42.4	106	81 - 117	ug/L
Toluene	40.0	41.8	105	85 - 118	ug/L
1,1,1-Trichloroethane	40.0	42.8	107	81 - 122	ug/L
1,1,2-Trichloroethane	40.0	41.7	104	83 - 121	ug/L
Trichloroethene	40.0	42.1	105	82 - 119	ug/L
Trichlorofluoromethane	40.0	41.8	104	76 - 128	ug/L
1,2,3-Trichloropropane	40.0	39.9	100	78 - 134	ug/L
1,2,4-Trimethylbenzene	40.0	42.1	105	83 - 124	ug/L
1,3,5-Trimethylbenzene	40.0	42.1	105	82 - 125	ug/L

000150

LCS / LCS DUPLICATE RECOVERY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511821-BS1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Vinyl Acetate	40.0	38.6	97	45 - 155	ug/L
Vinyl Chloride	40.0	41.0	103	77 - 123	ug/L
Xylene, Meta + Para	80.0	84.1	105	86 - 119	ug/L
Xylene, Ortho	40.0	42.0	105	86 - 120	ug/L
Xylene (Total)	120	126	105	86 - 119	ug/L

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

* Values outside of QC limits

METHOD BLANK DATA SHEET

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511719-BLK1

File ID: BLK1029B.D

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 21:11

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
67-64-1	Acetone	10	ug/L	2.4	10	U
71-43-2	Benzene	1.0	ug/L	0.27	1.0	U
108-86-1	Bromobenzene	1.0	ug/L	0.21	1.0	U
74-97-5	Bromochloromethane	1.0	ug/L	0.22	1.0	U
75-27-4	Bromodichloromethane	1.0	ug/L	0.26	1.0	U
75-25-2	Bromoform	1.0	ug/L	0.14	1.0	U
74-83-9	Bromomethane	1.0	ug/L	0.18	1.0	U
104-51-8	n-Butylbenzene	1.0	ug/L	0.28	1.0	U
135-98-8	sec-Butylbenzene	1.0	ug/L	0.10	1.0	U
98-06-6	tert-Butylbenzene	1.0	ug/L	0.11	1.0	U
75-15-0	Carbon Disulfide	5.0	ug/L	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1.0	ug/L	0.30	1.0	U
108-90-7	Chlorobenzene	1.0	ug/L	0.24	1.0	U
75-00-3	Chloroethane	1.0	ug/L	0.22	1.0	U
67-66-3	Chloroform	1.0	ug/L	0.21	1.0	U
74-87-3	Chloromethane	1.0	ug/L	0.18	1.0	U
95-49-8	2-Chlorotoluene	1.0	ug/L	0.16	1.0	U
106-43-4	4-Chlorotoluene	1.0	ug/L	0.30	1.0	U
124-48-1	Dibromochloromethane	1.0	ug/L	0.29	1.0	U
106-93-4	1,2-Dibromoethane	5.0	ug/L	0.14	5.0	U
74-95-3	Dibromomethane	1.0	ug/L	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	ug/L	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	ug/L	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	ug/L	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	10	ug/L	0.29	10	U
75-34-3	1,1-Dichloroethane	1.0	ug/L	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1.0	ug/L	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1.0	ug/L	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	ug/L	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	ug/L	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	2.0	ug/L	0.37	2.0	U
78-87-5	1,2-Dichloropropane	1.0	ug/L	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1.0	ug/L	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1.0	ug/L	0.27	1.0	U
563-58-6	1,1-Dichloropropene	1.0	ug/L	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	ug/L	0.21	1.0	U

000152

METHOD BLANK DATA SHEET

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511719-BLK1

File ID: BLK1029B.D

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 21:11

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
10061-02-6	trans-1,3-Dichloropropene	1.0	ug/L	0.22	1.0	U
100-41-4	Ethylbenzene	1.0	ug/L	0.065	1.0	U
591-78-6	2-Hexanone	10	ug/L	0.55	10	U
98-82-8	Isopropylbenzene	1.0	ug/L	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1.0	ug/L	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	ug/L	0.25	5.0	U
75-09-2	Methylene Chloride	5.0	ug/L	0.23	5.0	U
78-93-3	2-Butanone (MEK)	10	ug/L	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	10	ug/L	0.35	10	U
103-65-1	n-Propylbenzene	1.0	ug/L	0.23	1.0	U
100-42-5	Styrene	1.0	ug/L	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	ug/L	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	ug/L	0.26	1.0	U
127-18-4	Tetrachloroethene	1.0	ug/L	0.15	1.0	U
108-88-3	Toluene	1.0	ug/L	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	ug/L	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	ug/L	0.27	1.0	U
79-01-6	Trichloroethene	1.0	ug/L	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1.0	ug/L	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	ug/L	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	ug/L	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	ug/L	0.060	1.0	U
108-05-4	Vinyl Acetate	10	ug/L	0.32	10	U
75-01-4	Vinyl Chloride	2.0	ug/L	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	2.0	ug/L	0.24	2.0	U
95-47-6	Xylene, Ortho	1.0	ug/L	0.12	1.0	U
1330-20-7	Xylene (Total)	3.0	ug/L	0.36	3.0	U

System Monitoring Compound	Added (ug/L)	Conc. (ug/L)	% REC	QC Limits	Q
Dibromofluoromethane	40.0	38.6	97	85 - 118	
1,2-Dichloroethane-d4	40.0	39.9	100	87 - 122	
Toluene-d8	40.0	39.1	98	85 - 113	
4-Bromofluorobenzene	40.0	39.8	100	82 - 110	

Internal Standard	Area	RT	% REC	Ref. RT	Q
Fluorobenzene	1000803	5.903	100	5.915	

000153

METHOD BLANK DATA SHEET
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511719-BLK1

File ID: BLK1029B.D

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 21:11

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

Internal Standard	Area	RT	% REC	Ref. RT	Q
Chlorobenzene-d5	691287	10.292	99	10.305	
1,4-Dichlorobenzene-d4	334941	13.286	97	13.292	

QC BATCH SUMMARY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

QC Batch: 1511719

QC Batch Matrix: Water

Preparation: 5030B Aqueous Purge & Trap

Sample Name	Lab Sample ID	Date Prepared	Observations
C-1	1510440-01	10/29/15 18:00	GE Vieques VOCs
C-2	1510440-02	10/29/15 18:00	GE Vieques VOCs
C-3	1510440-03	10/29/15 18:00	GE Vieques VOCs
C-4	1510440-04	10/29/15 18:00	GE Vieques VOCs
C-6	1510440-06	10/29/15 18:00	GE Vieques VOCs
C-7	1510440-07	10/29/15 18:00	GE Vieques VOCs
C-8	1510440-08	10/29/15 18:00	GE Vieques VOCs
C-9	1510440-09	10/29/15 18:00	GE Vieques VOCs
C-10	1510440-10	10/29/15 18:00	GE Vieques VOCs
C-11	1510440-11	10/29/15 18:00	GE Vieques VOCs
EB-101915	1510440-12	10/29/15 18:00	GE Vieques VOCs
EB-102015	1510440-13	10/29/15 18:00	GE Vieques VOCs
Trip Blank TM 0093	1510440-15	10/29/15 18:00	GE Vieques VOCs
W-A	1510440-16	10/29/15 18:00	GE Vieques VOCs
Storage Blank	1510440-17	10/29/15 18:00	GE Vieques VOCs
Blank	1511719-BLK1	10/29/15 18:00	
LCS	1511719-BS1	10/29/15 18:00	

METHOD BLANK DATA SHEET

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511821-BLK1

File ID: BLK1030.D

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 14:16

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
67-64-1	Acetone	10	ug/L	2.4	10	U
71-43-2	Benzene	1.0	ug/L	0.27	1.0	U
108-86-1	Bromobenzene	1.0	ug/L	0.21	1.0	U
74-97-5	Bromochloromethane	1.0	ug/L	0.22	1.0	U
75-27-4	Bromodichloromethane	1.0	ug/L	0.26	1.0	U
75-25-2	Bromoform	1.0	ug/L	0.14	1.0	U
74-83-9	Bromomethane	1.0	ug/L	0.18	1.0	U
104-51-8	n-Butylbenzene	1.0	ug/L	0.28	1.0	U
135-98-8	sec-Butylbenzene	1.0	ug/L	0.10	1.0	U
98-06-6	tert-Butylbenzene	1.0	ug/L	0.11	1.0	U
75-15-0	Carbon Disulfide	5.0	ug/L	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1.0	ug/L	0.30	1.0	U
108-90-7	Chlorobenzene	1.0	ug/L	0.24	1.0	U
75-00-3	Chloroethane	1.0	ug/L	0.22	1.0	U
67-66-3	Chloroform	1.0	ug/L	0.21	1.0	U
74-87-3	Chloromethane	1.0	ug/L	0.18	1.0	U
95-49-8	2-Chlorotoluene	1.0	ug/L	0.16	1.0	U
106-43-4	4-Chlorotoluene	1.0	ug/L	0.30	1.0	U
124-48-1	Dibromochloromethane	1.0	ug/L	0.29	1.0	U
106-93-4	1,2-Dibromoethane	5.0	ug/L	0.14	5.0	U
74-95-3	Dibromomethane	1.0	ug/L	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	ug/L	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	ug/L	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	ug/L	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	10	ug/L	0.29	10	U
75-34-3	1,1-Dichloroethane	1.0	ug/L	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1.0	ug/L	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1.0	ug/L	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	ug/L	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	ug/L	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	2.0	ug/L	0.37	2.0	U
78-87-5	1,2-Dichloropropane	1.0	ug/L	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1.0	ug/L	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1.0	ug/L	0.27	1.0	U
563-58-6	1,1-Dichloropropene	1.0	ug/L	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	ug/L	0.21	1.0	U

000156

METHOD BLANK DATA SHEET

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511821-BLK1

File ID: BLK1030.D

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 14:16

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
10061-02-6	trans-1,3-Dichloropropene	1.0	ug/L	0.22	1.0	U
100-41-4	Ethylbenzene	1.0	ug/L	0.065	1.0	U
591-78-6	2-Hexanone	10	ug/L	0.55	10	U
98-82-8	Isopropylbenzene	1.0	ug/L	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1.0	ug/L	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	ug/L	0.25	5.0	U
75-09-2	Methylene Chloride	5.0	ug/L	0.23	5.0	U
78-93-3	2-Butanone (MEK)	10	ug/L	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	10	ug/L	0.35	10	U
103-65-1	n-Propylbenzene	1.0	ug/L	0.23	1.0	U
100-42-5	Styrene	1.0	ug/L	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	ug/L	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	ug/L	0.26	1.0	U
127-18-4	Tetrachloroethene	1.0	ug/L	0.15	1.0	U
108-88-3	Toluene	1.0	ug/L	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	ug/L	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	ug/L	0.27	1.0	U
79-01-6	Trichloroethene	1.0	ug/L	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1.0	ug/L	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	ug/L	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	ug/L	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	ug/L	0.060	1.0	U
108-05-4	Vinyl Acetate	10	ug/L	0.32	10	U
75-01-4	Vinyl Chloride	2.0	ug/L	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	2.0	ug/L	0.24	2.0	U
95-47-6	Xylene, Ortho	1.0	ug/L	0.12	1.0	U
1330-20-7	Xylene (Total)	3.0	ug/L	0.36	3.0	U

System Monitoring Compound	Added (ug/L)	Conc. (ug/L)	% REC	QC Limits	Q
Dibromofluoromethane	40.0	39.6	99	85 - 118	
1,2-Dichloroethane-d4	40.0	40.4	101	87 - 122	
Toluene-d8	40.0	40.0	100	85 - 113	
4-Bromofluorobenzene	40.0	39.9	100	82 - 110	

Internal Standard	Area	RT	% REC	Ref. RT	Q
Fluorobenzene	962350	5.891	99	5.915	

000157

METHOD BLANK DATA SHEET
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511821-BLK1

File ID: BLK1030.D

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 14:16

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

Internal Standard	Area	RT	% REC	Ref. RT	Q
Chlorobenzene-d5	671648	10.286	98	10.305	
1,4-Dichlorobenzene-d4	329831	13.28	96	13.292	

QC BATCH SUMMARY
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

QC Batch: 1511821

QC Batch Matrix: Water

Preparation: 5030B Aqueous Purge & Trap

Sample Name	Lab Sample ID	Date Prepared	Observations
C-5	1510440-05	10/30/15 07:00	GE Vieques VOCs
Trip Blank TM 1266	1510440-14	10/30/15 07:00	GE Vieques VOCs
Blank	1511821-BLK1	10/30/15 07:00	
LCS	1511821-BS1	10/30/15 07:00	

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Lab Sample ID: 5J30009-TUN1

Lab File ID: BFB1029A.D

Injection Date: 10/29/15

Injection Time: 09:41

Sequence: 5J30009

Calibration: 5J30003

Instrument ID: 328

m/z	Ion Abundance Criteria	% Relative Abundance	
50	15 - 40% of 95	25	PASS
75	30 - 60% of 95	56.1	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.6	PASS
173	Less than 2% of 174	0.641	PASS
174	50 - 100% of 95	68.1	PASS
175	5 - 9% of 174	7.19	PASS
176	95 - 101% of 174	97.4	PASS
177	5 - 9% of 176	6.72	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Lab Sample ID: 5J30014-TUN1

Lab File ID: BFB1029BB.D

Injection Date: 10/29/15

Injection Time: 18:49

Sequence: 5J30014

Instrument ID: 328

m/z	Ion Abundance Criteria	% Relative Abundance	
50	15 - 40% of 95	27	PASS
75	30 - 60% of 95	58.2	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.8	PASS
173	Less than 2% of 174	0.539	PASS
174	50 - 100% of 95	65.8	PASS
175	5 - 9% of 174	7.56	PASS
176	95 - 101% of 174	95.9	PASS
177	5 - 9% of 176	6.76	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Lab Sample ID: 5K02029-TUN1

Lab File ID: BFB1030A.D

Injection Date: 10/30/15

Injection Time: 11:26

Sequence: 5K02029

Instrument ID: 328

m/z	Ion Abundance Criteria	% Relative Abundance	
50	15 - 40% of 95	25.7	PASS
75	30 - 60% of 95	58	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.78	PASS
173	Less than 2% of 174	0.594	PASS
174	50 - 100% of 95	68.2	PASS
175	5 - 9% of 174	7.28	PASS
176	95 - 101% of 174	96.1	PASS
177	5 - 9% of 176	6.31	PASS

INTERNAL STANDARD AREA AND RT SUMMARY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Calibration: 5J30003

Sequence: 5J30014

Instrument: 328

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (5J30014-CCV1)			Lab File ID: CCV1029B.D			Analyzed: 10/29/15 19:17			
Fluorobenzene	1005202	5.903	1028811	5.915	98	50 - 200	-0.0120	+/-0.50	
Chlorobenzene-d5	700206	10.292	717873	10.305	98	50 - 200	-0.0130	+/-0.50	
1,4-Dichlorobenzene-d4	346505	13.285	357696	13.292	97	50 - 200	-0.0070	+/-0.50	
LCS (1511719-BS1)			Lab File ID: BS1029B.D			Analyzed: 10/29/15 19:46			
Fluorobenzene	992894	5.903	1005202	5.915	99	50 - 200	-0.0120	+/-0.50	
Chlorobenzene-d5	694146	10.292	700206	10.305	99	50 - 200	-0.0130	+/-0.50	
1,4-Dichlorobenzene-d4	346098	13.286	346505	13.292	100	50 - 200	-0.0060	+/-0.50	
Blank (1511719-BLK1)			Lab File ID: BLK1029B.D			Analyzed: 10/29/15 21:11			
Fluorobenzene	1000803	5.903	1005202	5.915	100	50 - 200	-0.0120	+/-0.50	
Chlorobenzene-d5	691287	10.292	700206	10.305	99	50 - 200	-0.0130	+/-0.50	
1,4-Dichlorobenzene-d4	334941	13.286	346505	13.292	97	50 - 200	-0.0060	+/-0.50	
EB-101915 (1510440-12)			Lab File ID: 1510440-12.D			Analyzed: 10/29/15 21:40			
Fluorobenzene	1005809	5.903	1005202	5.915	100	50 - 200	-0.0120	+/-0.50	
Chlorobenzene-d5	696516	10.292	700206	10.305	99	50 - 200	-0.0130	+/-0.50	
1,4-Dichlorobenzene-d4	338691	13.286	346505	13.292	98	50 - 200	-0.0060	+/-0.50	
EB-102015 (1510440-13)			Lab File ID: 1510440-13.D			Analyzed: 10/29/15 22:08			
Fluorobenzene	1006686	5.903	1005202	5.915	100	50 - 200	-0.0120	+/-0.50	
Chlorobenzene-d5	695547	10.292	700206	10.305	99	50 - 200	-0.0130	+/-0.50	
1,4-Dichlorobenzene-d4	339315	13.286	346505	13.292	98	50 - 200	-0.0060	+/-0.50	
Trip Blank TM 0093 (1510440-15)			Lab File ID: 1510440-15.D			Analyzed: 10/29/15 22:36			
Fluorobenzene	1007322	5.897	1005202	5.915	100	50 - 200	-0.0180	+/-0.50	
Chlorobenzene-d5	698413	10.292	700206	10.305	100	50 - 200	-0.0130	+/-0.50	
1,4-Dichlorobenzene-d4	339775	13.286	346505	13.292	98	50 - 200	-0.0060	+/-0.50	
Storage Blank (1510440-17)			Lab File ID: 1510440-17.D			Analyzed: 10/29/15 23:05			
Fluorobenzene	1014161	5.897	1005202	5.915	101	50 - 200	-0.0180	+/-0.50	
Chlorobenzene-d5	700813	10.292	700206	10.305	100	50 - 200	-0.0130	+/-0.50	
1,4-Dichlorobenzene-d4	340425	13.286	346505	13.292	98	50 - 200	-0.0060	+/-0.50	
C-1 (1510440-01)			Lab File ID: 1510440-01.D			Analyzed: 10/29/15 23:33			
Fluorobenzene	1006028	5.897	1005202	5.915	100	50 - 200	-0.0180	+/-0.50	
Chlorobenzene-d5	698754	10.292	700206	10.305	100	50 - 200	-0.0130	+/-0.50	
1,4-Dichlorobenzene-d4	341913	13.285	346505	13.292	99	50 - 200	-0.0070	+/-0.50	
C-2 (1510440-02)			Lab File ID: 1510440-02.D			Analyzed: 10/30/15 00:02			
Fluorobenzene	1006851	5.897	1005202	5.915	100	50 - 200	-0.0180	+/-0.50	
Chlorobenzene-d5	699254	10.292	700206	10.305	100	50 - 200	-0.0130	+/-0.50	
1,4-Dichlorobenzene-d4	338509	13.286	346505	13.292	98	50 - 200	-0.0060	+/-0.50	

000163

INTERNAL STANDARD AREA AND RT SUMMARY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Calibration: 5J30003

Sequence: 5J30014

Instrument: 328

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
C-3 (1510440-03)			Lab File ID: 1510440-03.D			Analyzed: 10/30/15 00:30			
Fluorobenzene	1012212	5.897	1005202	5.915	101	50 - 200	-0.0180	+/-0.50	
Chlorobenzene-d5	703326	10.292	700206	10.305	100	50 - 200	-0.0130	+/-0.50	
1,4-Dichlorobenzene-d4	343090	13.286	346505	13.292	99	50 - 200	-0.0060	+/-0.50	
C-6 (1510440-06)			Lab File ID: 1510440-06.D			Analyzed: 10/30/15 00:58			
Fluorobenzene	1001040	5.897	1005202	5.915	100	50 - 200	-0.0180	+/-0.50	
Chlorobenzene-d5	695874	10.286	700206	10.305	99	50 - 200	-0.0190	+/-0.50	
1,4-Dichlorobenzene-d4	339802	13.28	346505	13.292	98	50 - 200	-0.0120	+/-0.50	
C-8 (1510440-08)			Lab File ID: 1510440-08.D			Analyzed: 10/30/15 01:27			
Fluorobenzene	998366	5.897	1005202	5.915	99	50 - 200	-0.0180	+/-0.50	
Chlorobenzene-d5	692962	10.286	700206	10.305	99	50 - 200	-0.0190	+/-0.50	
1,4-Dichlorobenzene-d4	339667	13.279	346505	13.292	98	50 - 200	-0.0130	+/-0.50	
C-9 (1510440-09)			Lab File ID: 1510440-09.D			Analyzed: 10/30/15 01:55			
Fluorobenzene	1018662	5.897	1005202	5.915	101	50 - 200	-0.0180	+/-0.50	
Chlorobenzene-d5	711446	10.286	700206	10.305	102	50 - 200	-0.0190	+/-0.50	
1,4-Dichlorobenzene-d4	344168	13.28	346505	13.292	99	50 - 200	-0.0120	+/-0.50	
C-10 (1510440-10)			Lab File ID: 1510440-10.D			Analyzed: 10/30/15 02:24			
Fluorobenzene	976004	5.897	1005202	5.915	97	50 - 200	-0.0180	+/-0.50	
Chlorobenzene-d5	681311	10.286	700206	10.305	97	50 - 200	-0.0190	+/-0.50	
1,4-Dichlorobenzene-d4	339645	13.279	346505	13.292	98	50 - 200	-0.0130	+/-0.50	
C-11 (1510440-11)			Lab File ID: 1510440-11.D			Analyzed: 10/30/15 02:52			
Fluorobenzene	995728	5.897	1005202	5.915	99	50 - 200	-0.0180	+/-0.50	
Chlorobenzene-d5	688834	10.286	700206	10.305	98	50 - 200	-0.0190	+/-0.50	
1,4-Dichlorobenzene-d4	340210	13.279	346505	13.292	98	50 - 200	-0.0130	+/-0.50	
W-A (1510440-16)			Lab File ID: 1510440-16.D			Analyzed: 10/30/15 03:20			
Fluorobenzene	1009396	5.897	1005202	5.915	100	50 - 200	-0.0180	+/-0.50	
Chlorobenzene-d5	702492	10.286	700206	10.305	100	50 - 200	-0.0190	+/-0.50	
1,4-Dichlorobenzene-d4	343025	13.28	346505	13.292	99	50 - 200	-0.0120	+/-0.50	
C-7 (1510440-07)			Lab File ID: 1510440-07.D			Analyzed: 10/30/15 03:49			
Fluorobenzene	1018042	5.897	1005202	5.915	101	50 - 200	-0.0180	+/-0.50	
Chlorobenzene-d5	704213	10.286	700206	10.305	101	50 - 200	-0.0190	+/-0.50	
1,4-Dichlorobenzene-d4	348398	13.28	346505	13.292	101	50 - 200	-0.0120	+/-0.50	
C-4 (1510440-04)			Lab File ID: 1510440-04.D			Analyzed: 10/30/15 04:17			
Fluorobenzene	1017279	5.897	1005202	5.915	101	50 - 200	-0.0180	+/-0.50	
Chlorobenzene-d5	706784	10.286	700206	10.305	101	50 - 200	-0.0190	+/-0.50	
1,4-Dichlorobenzene-d4	345943	13.279	346505	13.292	100	50 - 200	-0.0130	+/-0.50	

000164

INTERNAL STANDARD AREA AND RT SUMMARY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Calibration: 5J30003

Sequence: 5K02029

Instrument: 328

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (5K02029-CCV1)			Lab File ID: CCV1030.D			Analyzed: 10/30/15 11:54			
Fluorobenzene	968531	5.884	1028811	5.915	94	50 - 200	-0.0310	+/-0.50	
Chlorobenzene-d5	683646	10.286	717873	10.305	95	50 - 200	-0.0190	+/-0.50	
1,4-Dichlorobenzene-d4	343452	13.279	357696	13.292	96	50 - 200	-0.0130	+/-0.50	
LCS (1511821-BS1)			Lab File ID: BS1030.D			Analyzed: 10/30/15 12:23			
Fluorobenzene	979294	5.885	968531	5.915	101	50 - 200	-0.0300	+/-0.50	
Chlorobenzene-d5	690946	10.28	683646	10.305	101	50 - 200	-0.0250	+/-0.50	
1,4-Dichlorobenzene-d4	345153	13.28	343452	13.292	100	50 - 200	-0.0120	+/-0.50	
Blank (1511821-BLK1)			Lab File ID: BLK1030.D			Analyzed: 10/30/15 14:16			
Fluorobenzene	962350	5.891	968531	5.915	99	50 - 200	-0.0240	+/-0.50	
Chlorobenzene-d5	671648	10.286	683646	10.305	98	50 - 200	-0.0190	+/-0.50	
1,4-Dichlorobenzene-d4	329831	13.28	343452	13.292	96	50 - 200	-0.0120	+/-0.50	
Trip Blank TM 1266 (1510440-14)			Lab File ID: 1510440-14.D			Analyzed: 10/30/15 14:44			
Fluorobenzene	971550	5.891	968531	5.915	100	50 - 200	-0.0240	+/-0.50	
Chlorobenzene-d5	676012	10.286	683646	10.305	99	50 - 200	-0.0190	+/-0.50	
1,4-Dichlorobenzene-d4	333033	13.28	343452	13.292	97	50 - 200	-0.0120	+/-0.50	
C-5 (1510440-05)			Lab File ID: 1510440-05.D			Analyzed: 10/30/15 15:13			
Fluorobenzene	992025	5.891	968531	5.915	102	50 - 200	-0.0240	+/-0.50	
Chlorobenzene-d5	693011	10.286	683646	10.305	101	50 - 200	-0.0190	+/-0.50	
1,4-Dichlorobenzene-d4	339780	13.279	343452	13.292	99	50 - 200	-0.0130	+/-0.50	

HOLDING TIME SUMMARY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Method: Volatile Organic Compounds by EPA Method 8260B

Sample Name	Date Collected	Date Received	Date Leached	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
C-1	10/19/15	10/22/15		10/29/15	10	NA	10/29/15	11	14	
C-2	10/19/15	10/22/15		10/29/15	10	NA	10/30/15	11	14	
C-3	10/19/15	10/22/15		10/29/15	10	NA	10/30/15	10	14	
C-4	10/20/15	10/22/15		10/29/15	9	NA	10/30/15	10	14	
C-5	10/20/15	10/22/15		10/30/15	10	NA	10/30/15	10	14	
C-6	10/20/15	10/22/15		10/29/15	9	NA	10/30/15	10	14	
C-7	10/20/15	10/22/15		10/29/15	9	NA	10/30/15	10	14	
C-8	10/20/15	10/22/15		10/29/15	9	NA	10/30/15	10	14	
C-9	10/20/15	10/22/15		10/29/15	9	NA	10/30/15	10	14	
C-10	10/19/15	10/22/15		10/29/15	10	NA	10/30/15	11	14	
C-11	10/20/15	10/22/15		10/29/15	9	NA	10/30/15	10	14	
EB-101915	10/19/15	10/22/15		10/29/15	10	NA	10/29/15	10	14	
EB-102015	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	10	14	
Trip Blank TM 1266	10/20/15	10/22/15		10/30/15	10	NA	10/30/15	11	14	
Trip Blank TM 0093	10/20/15	10/22/15		10/29/15	10	NA	10/29/15	10	14	
W-A	10/20/15	10/22/15		10/29/15	9	NA	10/30/15	10	14	
Storage Blank	10/22/15	10/22/15		10/29/15	7	NA	10/29/15	7	14	

000166

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-1

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-01

File ID: 1510440-01.D

Sampled: 10/19/15 11:15

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 23:33

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	11	2.4	10	
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37	2.0	U
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000167

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-1

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-01

File ID: 1510440-01.D

Sampled: 10/19/15 11:15

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 23:33

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.5	99	85 - 118	
1,2-Dichloroethane-d4	40.0	39.8	100	87 - 122	
Toluene-d8	40.0	39.4	99	85 - 113	

000168

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-1

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-01

File ID: 1510440-01.D

Sampled: 10/19/15 11:15

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 23:33

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.7	99	82 - 110	

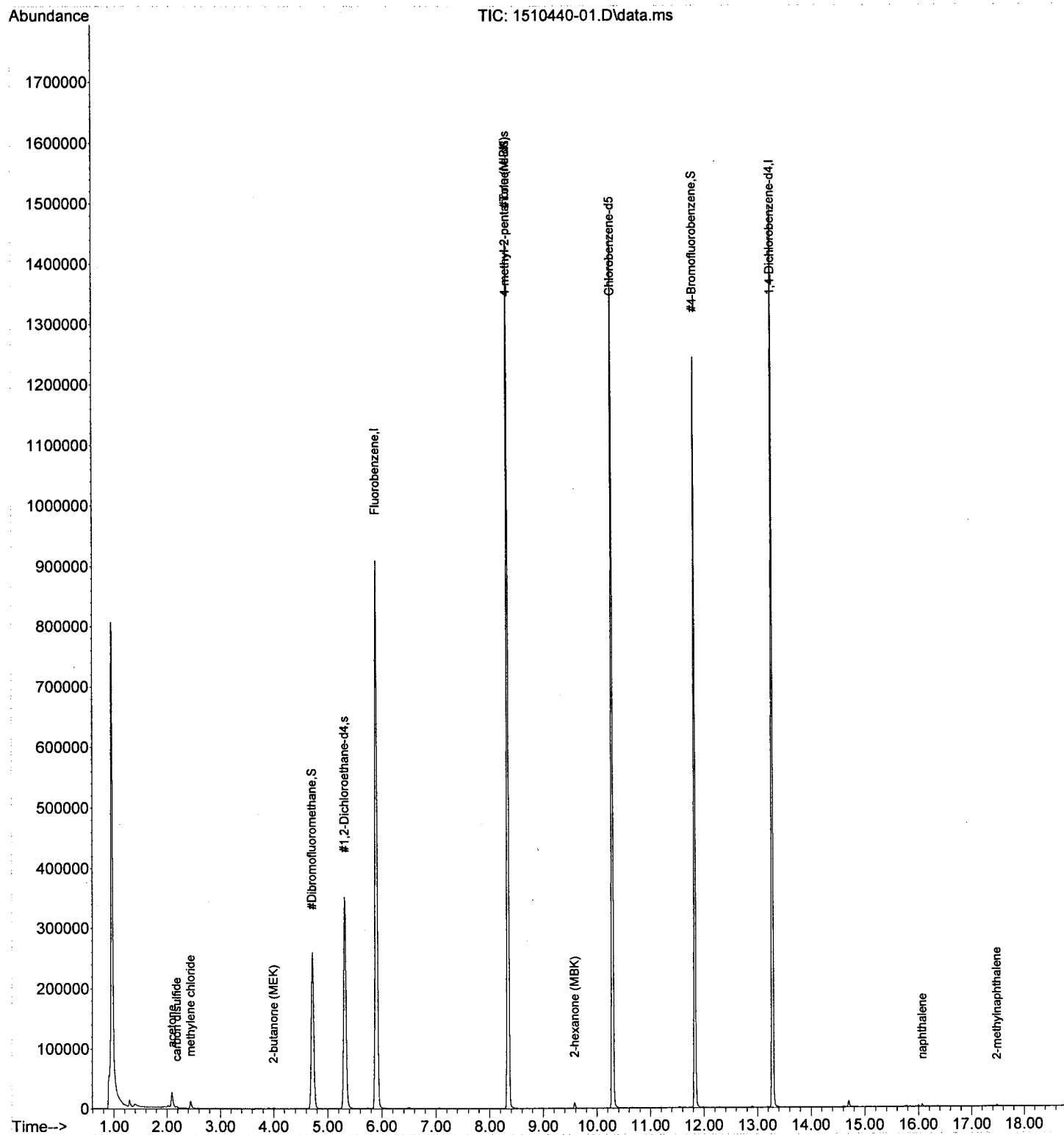
* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1006028	5.897	100	5.915	
Chlorobenzene-d5	698754	10.292	100	10.305	
1,4-Dichlorobenzene-d4	341913	13.285	99	13.292	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-01.D
Acq On : 29 Oct 2015 23:33
Operator : BAG
Sample : 1510440-01
Misc : MWH
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 30 08:16:28 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-01.D
 Acq On : 29 Oct 2015 23:33
 Operator : BAG
 Sample : 1510440-01
 Misc : MWH
 ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 30 08:16:28 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.897	96	1006028	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.292	117	698754	40.00	ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.285	152	341913	40.00	ug/L	# 0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.714	111	249074	39.53	ug/L	-0.03
Spiked Amount	40.000		Recovery	=	98.83%	
37) #1,2-Dichloroethane-d4	5.318	67	194023	39.83	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	99.57%	
47) #Toluene-d8	8.347	98	955296	39.45	ug/L	-0.01
Spiked Amount	40.000		Recovery	=	98.63%	
65) #4-Bromofluorobenzene	11.835	95	401689	39.69	ug/L	-0.01
Spiked Amount	40.000		Recovery	=	99.22%	
Target Compounds						
						Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	0.000		0	N.D.		
13) acetone	2.093	43	34396	10.76	ug/L	99
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.184	76	2066	0.09	ug/L #	75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.446	49	9506	0.10	ug/L	98
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	0.000		0	N.D.		
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	0.000		0	N.D.		
25) 2-butanone (MEK)	3.995	43	2396	0.64	ug/L #	58
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	0.000		0	N.D.		
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.897	57	45472	No Calib		
38) trichloroethene	0.000		0	N.D.		
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000171

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-01.D
 Acq On : 29 Oct 2015 23:33
 Operator : BAG
 Sample : 1510440-01
 Misc : MWH
 ALS Vial : 34 Sample Multiplier: 1

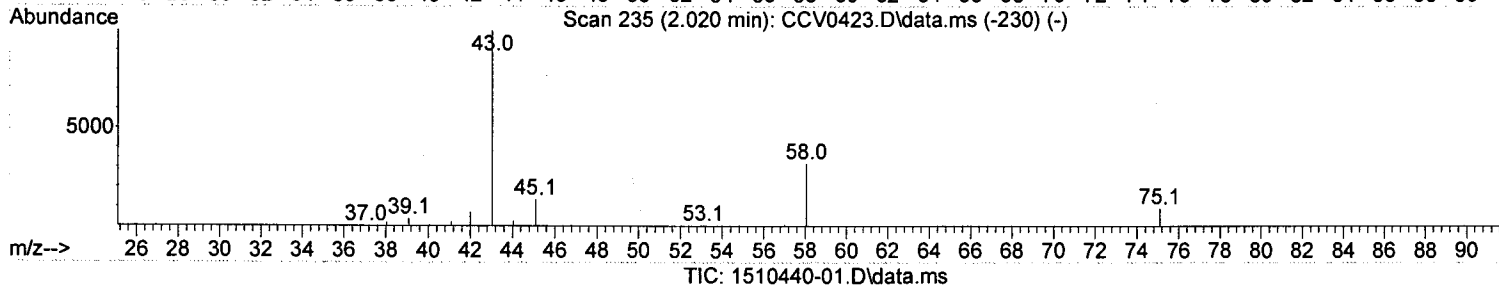
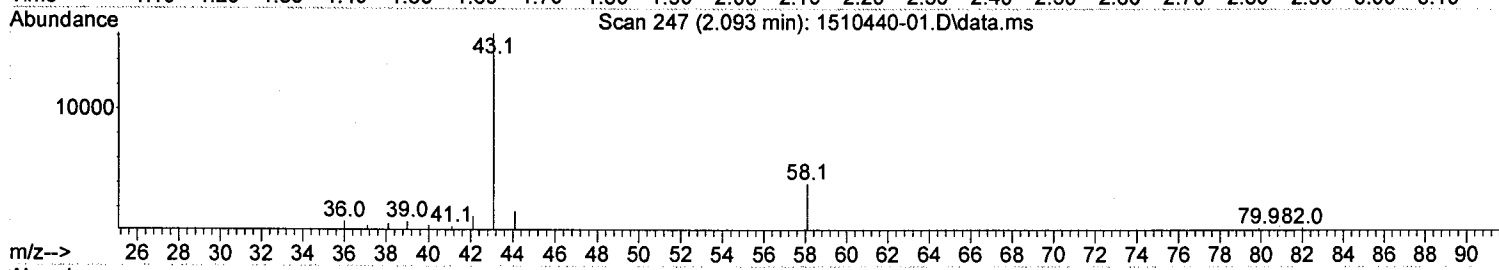
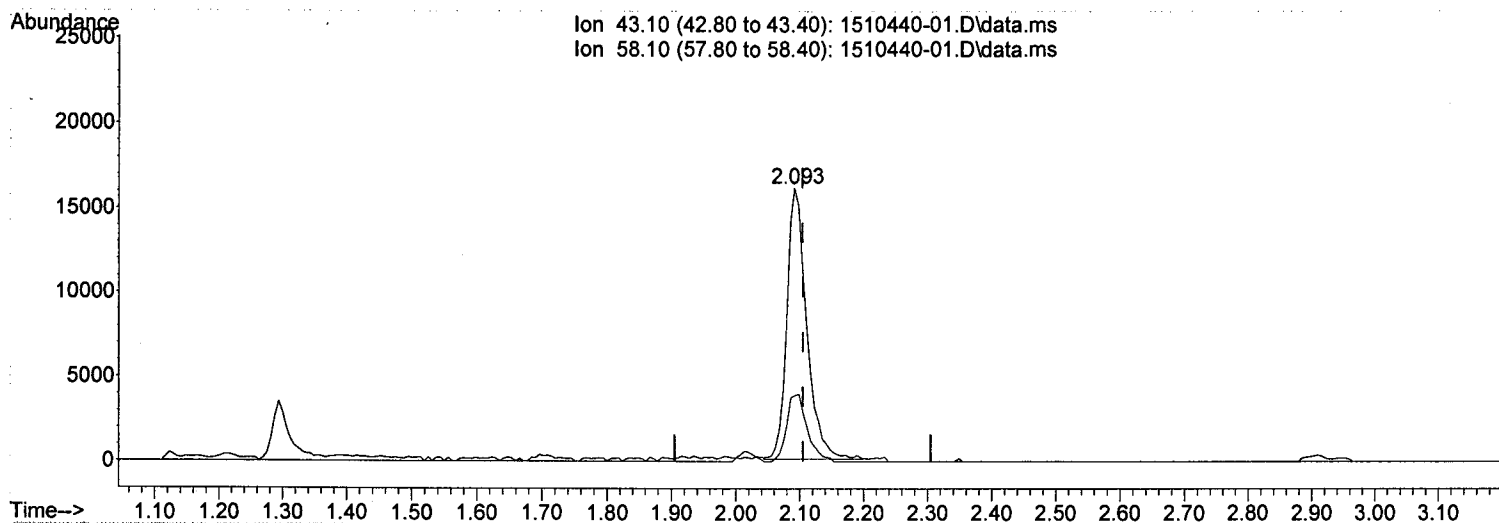
Quant Time: Oct 30 08:16:28 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.341	43	5982	2.7 ug/L #		1
48) toluene	0.000		0	N.D.		
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	0.000		0	N.D.		
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	9.585	43	1806	0.31 ug/L #		12
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	0.000		0	N.D.		
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	0.000		0	N.D.		
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	0.000		0	N.D.		
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	0.000		0	N.D.		
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	0.000		0	N.D.		
87) hexachlorobutadiene	0.000		0	N.D.		
88) naphthalene	16.072	128	3473	0.19 ug/L #		72
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	17.480	142	1382	3.13 ug/L #		16

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-01.D
Acq On : 29 Oct 2015 23:33
Operator : BAG
Sample : 1510440-01
Misc : MWH
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 30 08:16:28 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(13) acetone

2.093min (-0.012) 10.76 ug/L

response 34396

Ion	Exp%	Act%
43.10	100	100
58.10	25.50	25.91
0.00	0.00	0.00
0.00	0.00	0.00

000173

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-2

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-02

File ID: 1510440-02.D

Sampled: 10/19/15 11:55

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:02

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	0.50	0.27	1.0	J
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	0.78	0.24	1.0	J
156-59-2	cis-1,2-Dichloroethene	1	0.93	0.21	1.0	J
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	0.93	0.37	2.0	J
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000174

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-2

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-02

File ID: 1510440-02.D

Sampled: 10/19/15 11:55

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:02

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	0.23	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	2.3	0.23	1.0	
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.1	98	85 - 118	
1,2-Dichloroethane-d4	40.0	39.8	100	87 - 122	
Toluene-d8	40.0	39.2	98	85 - 113	

000175

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-2

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-02

File ID: 1510440-02.D

Sampled: 10/19/15 11:55

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:02

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.6	99	82 - 110	

* Values outside of QC limits

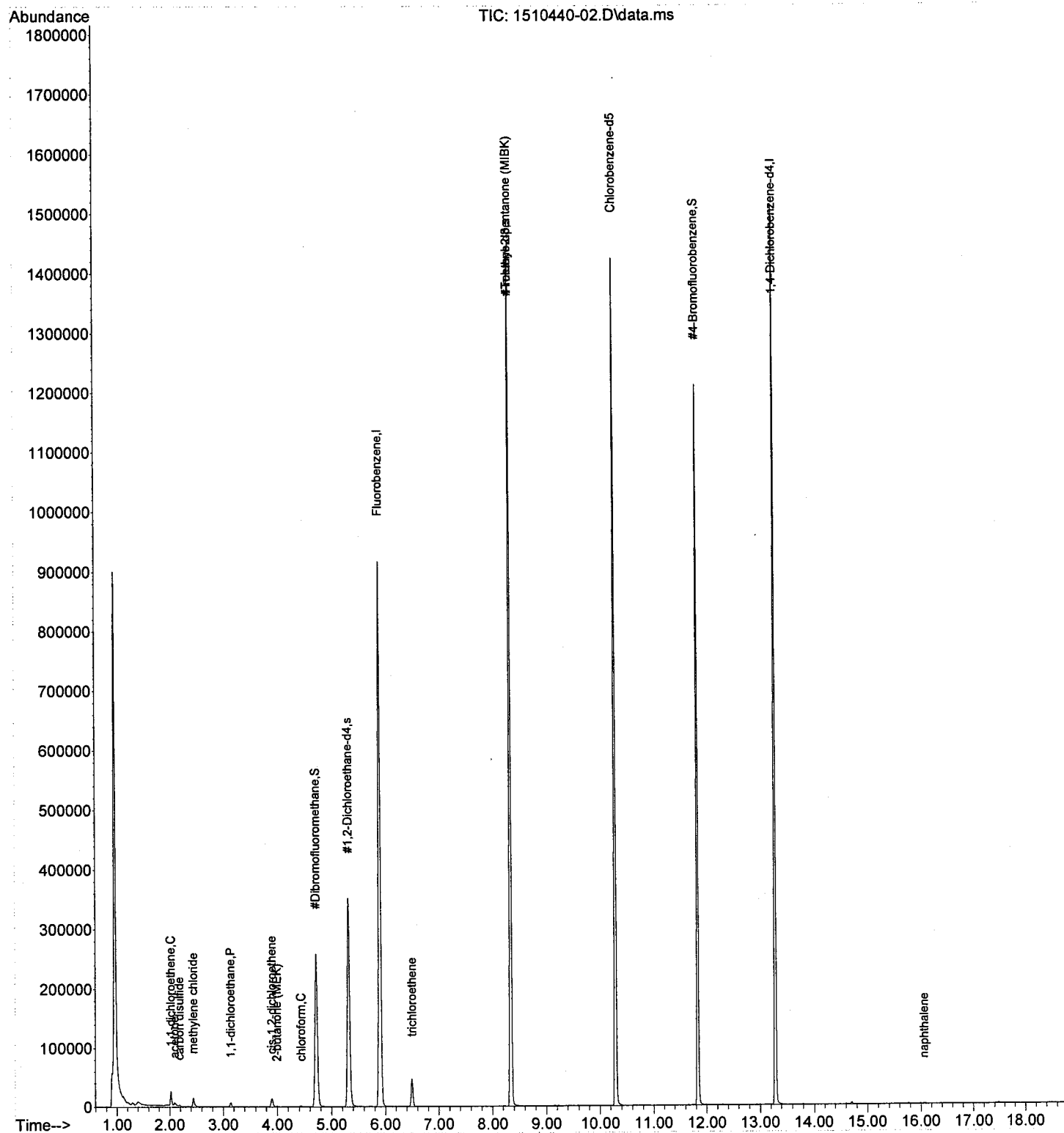
Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1006851	5.897	100	5.915	
Chlorobenzene-d5	699254	10.292	100	10.305	
1,4-Dichlorobenzene-d4	338509	13.286	98	13.292	

* Values outside of QC limits

000176

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-02.D
Acq On : 30 Oct 2015 00:02
Operator : BAG
Sample : 1510440-02
Misc : MWH
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 30 08:16:31 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-02.D
 Acq On : 30 Oct 2015 00:02
 Operator : BAG
 Sample : 1510440-02
 Misc : MWH
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 30 08:16:31 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.897	96	1006851	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.292	117	699254	40.00	ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.286	152	338509	40.00	ug/L	# 0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.714	111	246436	39.08	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	97.70%	
37) #1,2-Dichloroethane-d4	5.318	67	194146	39.82	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	99.55%	
47) #Toluene-d8	8.341	98	951380	39.25	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	98.13%	
65) #4-Bromofluorobenzene	11.835	95	401422	39.63	ug/L	-0.01
Spiked Amount 40.000			Recovery	=	99.08%	
Target Compounds						Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	2.019	96	6464	0.78	ug/L	93
13) acetone	2.093	43	6040	2.09	ug/L #	50
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.184	76	1774	0.08	ug/L #	75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.446	49	11214	0.23	ug/L	97
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	3.141	63	8327	0.50	ug/L #	89
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	3.903	96	7738	0.93	ug/L #	88
25) 2-butanone (MEK)	3.995	43	2082	0.56	ug/L #	58
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	4.440	83	1788	0.12	ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.897	57	44666	No Calib		
38) trichloroethene	6.500	130	17042	2.29	ug/L	99
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000178

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-02.D
 Acq On : 30 Oct 2015 00:02
 Operator : BAG
 Sample : 1510440-02
 Misc : MWH
 ALS Vial : 35 Sample Multiplier: 1

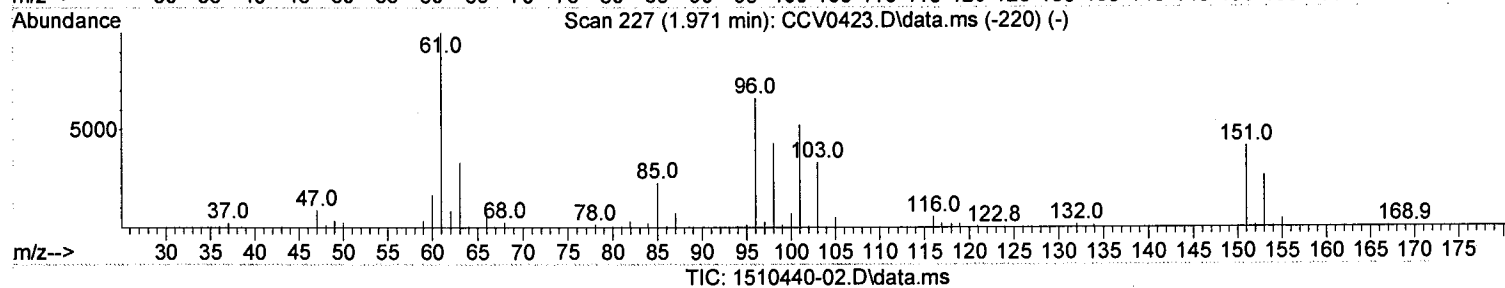
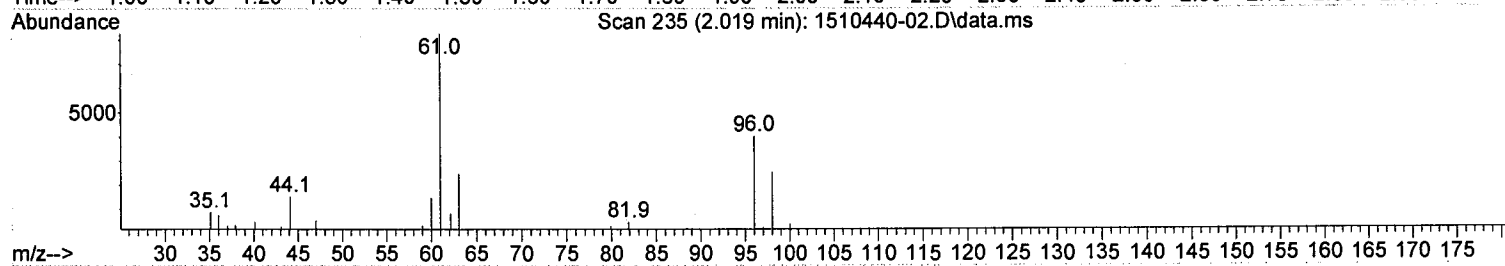
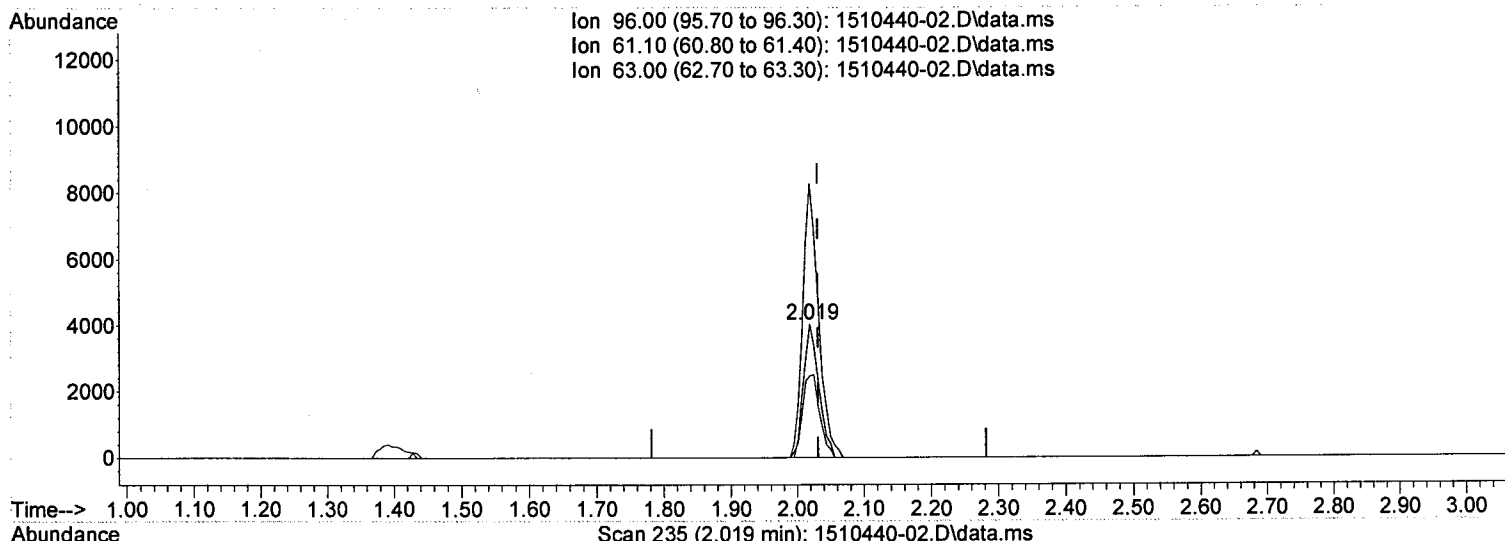
Quant Time: Oct 30 08:16:31 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.341	43	6281	~~270.73~~ ug/L #		1
48) toluene	0.000		0	N.D.		
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	0.000		0	N.D.		
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	0.000		0	N.D.		
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	0.000		0	N.D.		
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	0.000		0	N.D.		
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	0.000		0	N.D.		
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	0.000		0	N.D.		
87) hexachlorobutadiene	0.000		0	N.D.		
88) naphthalene	16.066	128	1671	0.09 ug/L #		72
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	0.000		0	N.D.		

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-02.D
Acq On : 30 Oct 2015 00:02
Operator : BAG
Sample : 1510440-02
Misc : MWH
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 30 08:16:31 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(12) 1,1-dichloroethene (C)

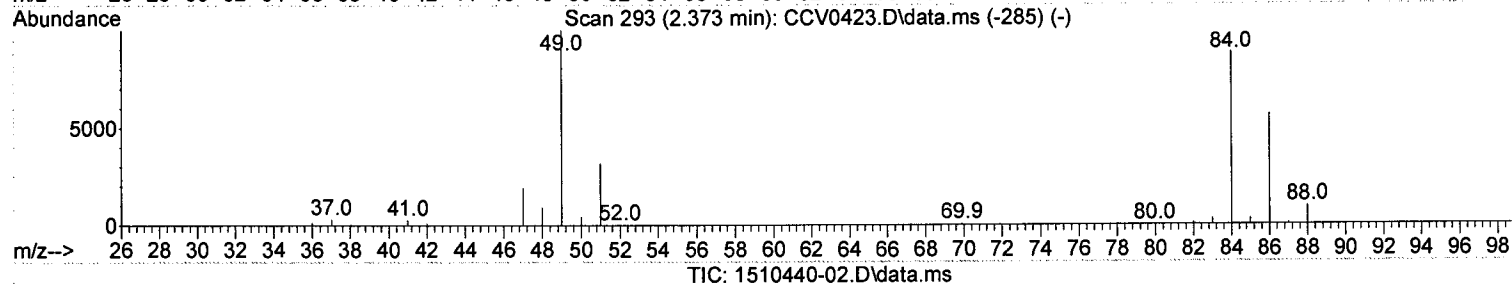
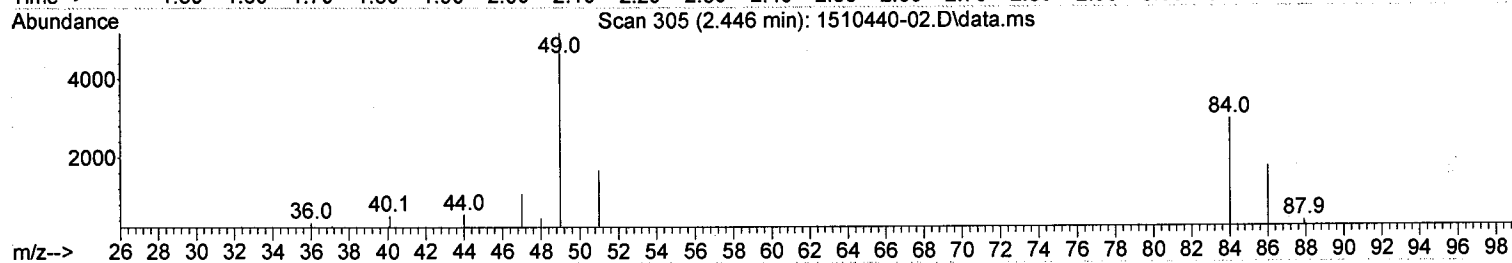
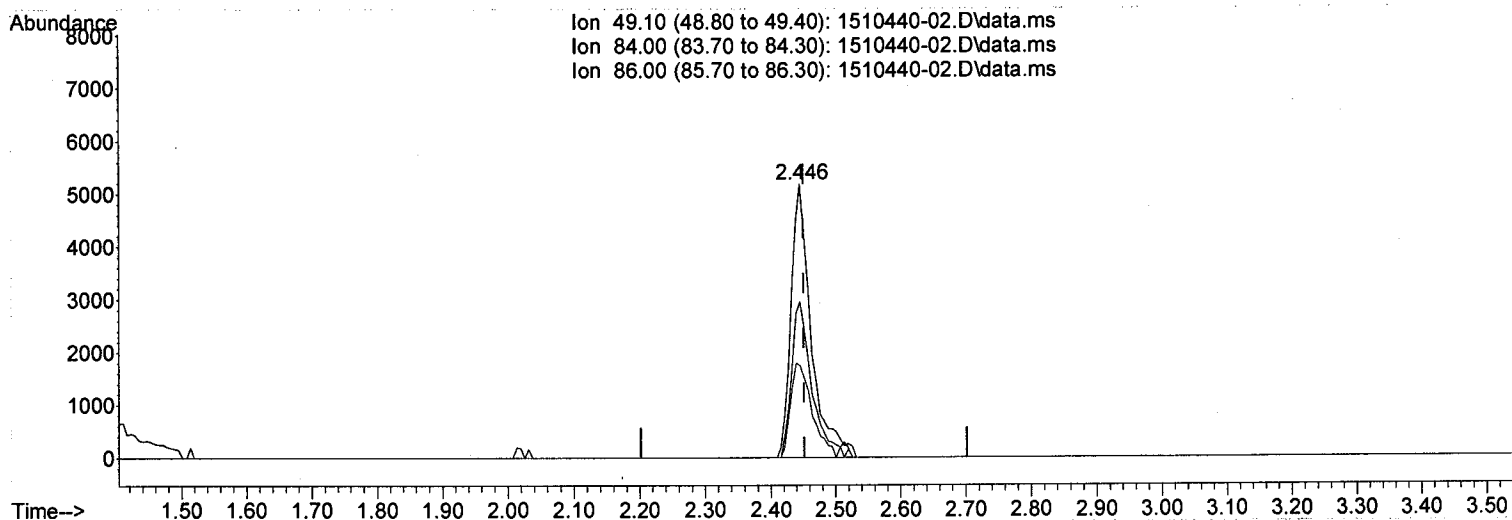
2.019min (-0.013) 0.78 ug/L

response 6464

Ion	Exp%	Act%
96.00	100	100
61.10	199.80	211.46
63.00	64.10	69.42
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-02.D
Acq On : 30 Oct 2015 00:02
Operator : BAG
Sample : 1510440-02
Misc : MWH
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 30 08:16:31 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(17) methylene chloride

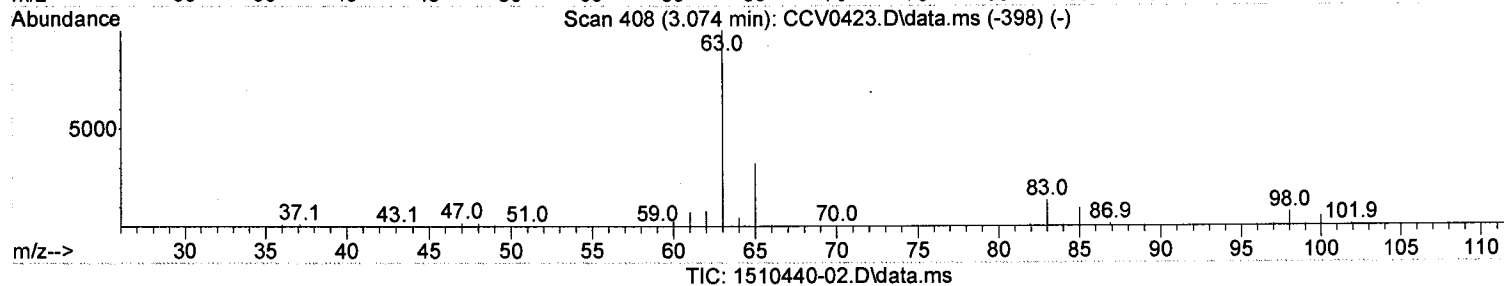
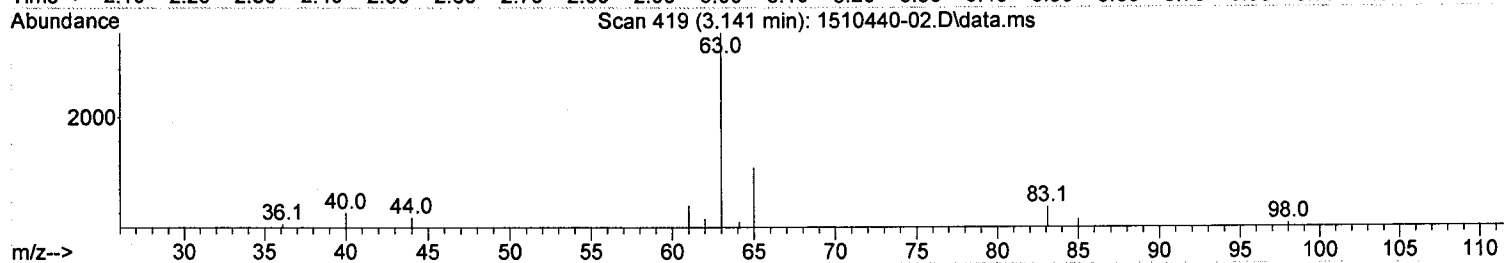
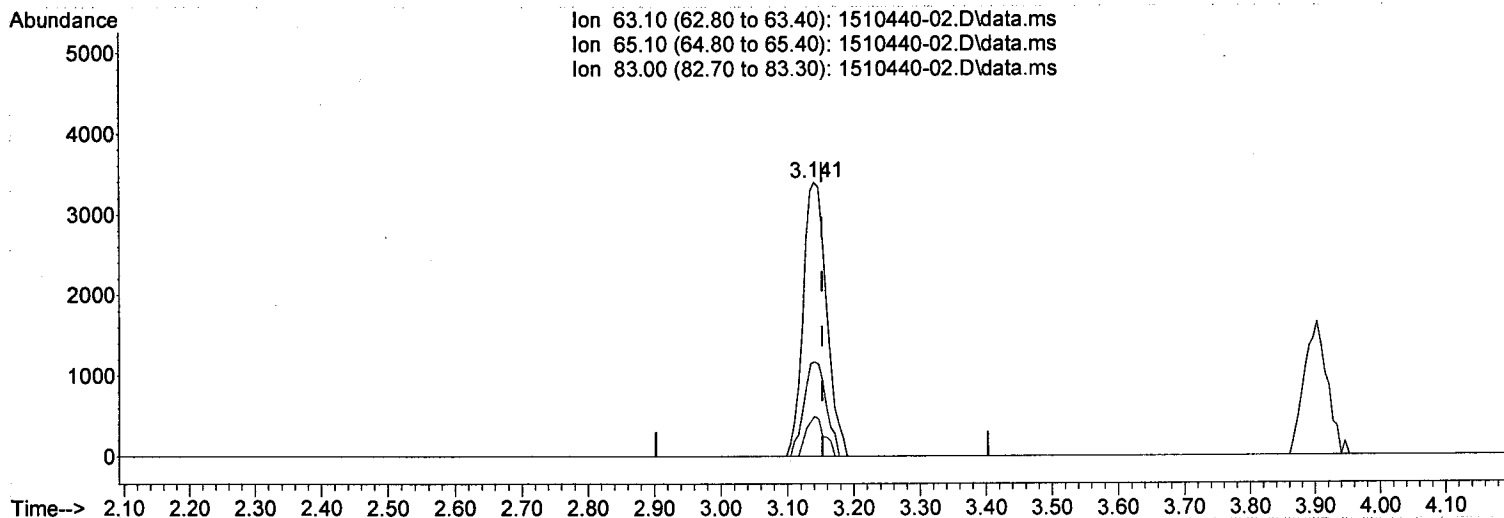
2.446min (-0.006) 0.23 ug/L

response 11214

Ion	Exp%	Act%
49.10	100	100
84.00	60.60	58.16
86.00	38.40	36.57
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-02.D
Acq On : 30 Oct 2015 00:02
Operator : BAG
Sample : 1510440-02
Misc : MWH
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 30 08:16:31 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(21) 1,1-dichloroethane (P)

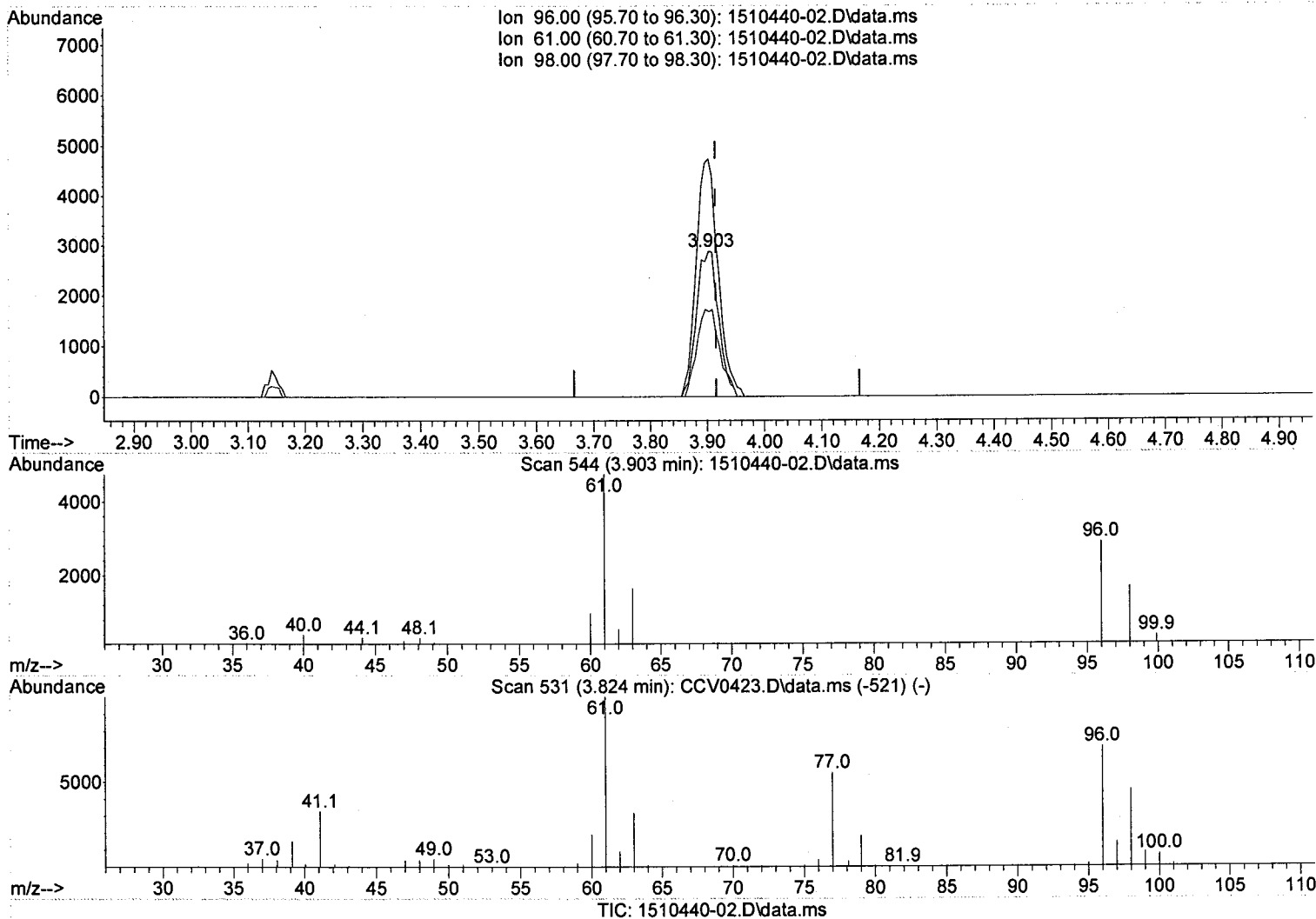
3.141min (-0.012) 0.50 ug/L

response 8327

Ion	Exp%	Act%
63.10	100	100
65.10	30.90	32.92
83.00	11.90	0.00
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-02.D
Acq On : 30 Oct 2015 00:02
Operator : BAG
Sample : 1510440-02
Misc : MWH
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 30 08:16:31 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(24) cis-1,2-dichloroethene

3.903min (-0.013) 0.93 ug/L

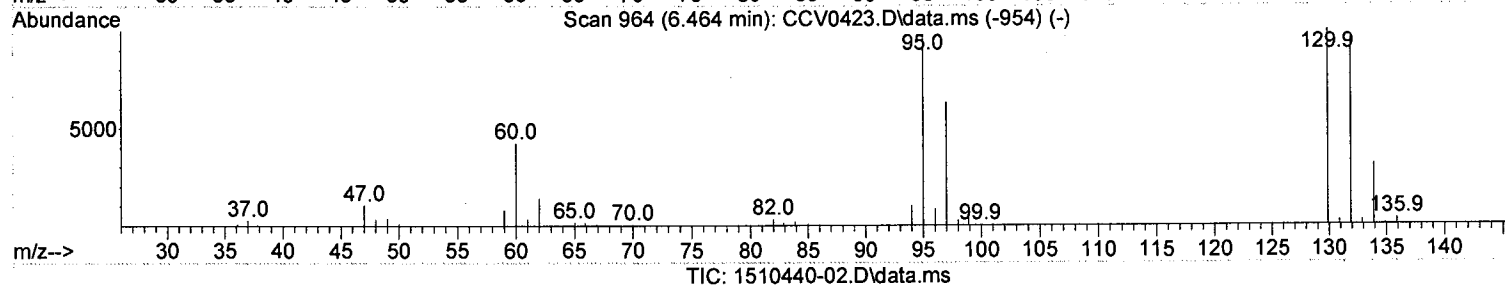
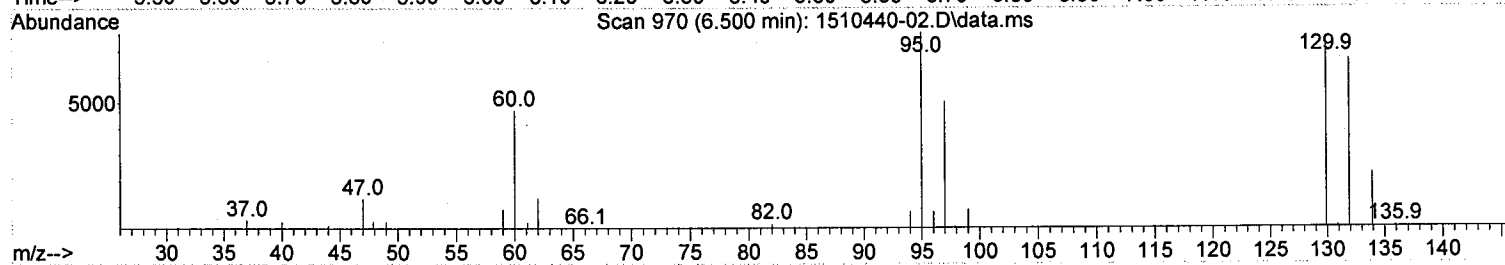
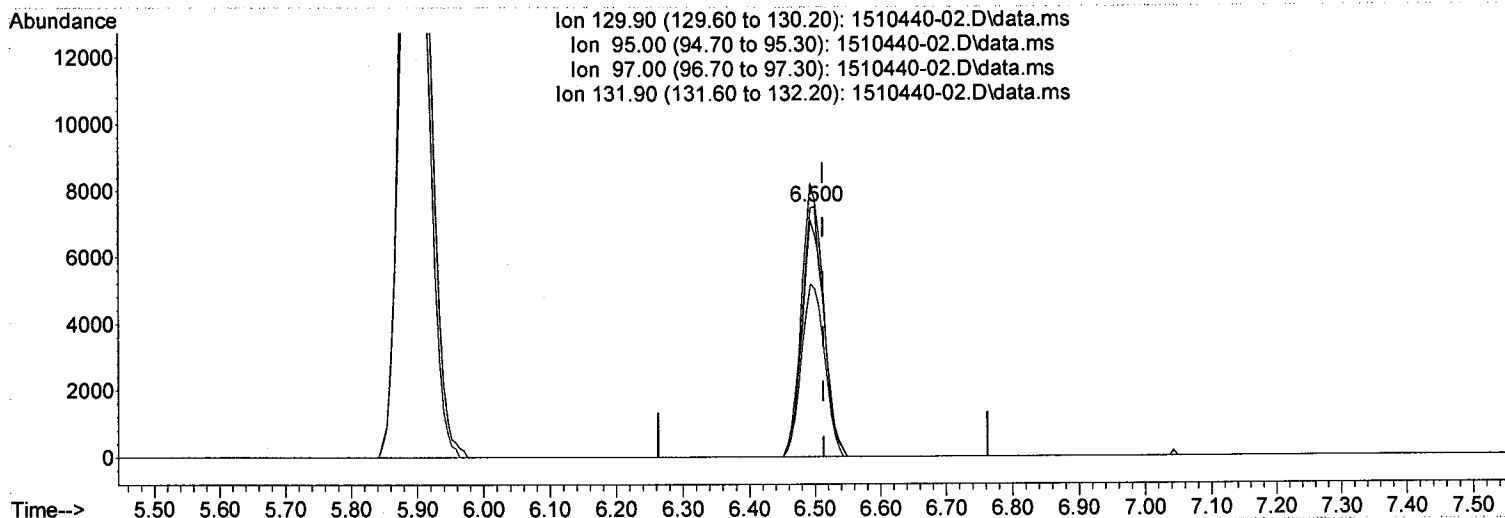
response 7738

Ion	Exp%	Act%
96.00	100	100
61.00	185.80	163.30#
98.00	63.60	62.03
0.00	0.00	0.00

000183

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-02.D
Acq On : 30 Oct 2015 00:02
Operator : BAG
Sample : 1510440-02
Misc : MWH
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 30 08:16:31 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(38) trichloroethene

6.500min (-0.013) 2.29 ug/L

response 17042

Ion	Exp%	Act%
129.90	100	100
95.00	112.20	110.85
97.00	71.70	73.37
131.90	96.70	95.97

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-3

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-03

File ID: 1510440-03.D

Sampled: 10/19/15 13:13

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:30

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37	2.0	U
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000185

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-3

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-03

File ID: 1510440-03.D

Sampled: 10/19/15 13:13

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:30

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.2	98	85 - 118	
1,2-Dichloroethane-d4	40.0	39.9	100	87 - 122	
Toluene-d8	40.0	39.4	99	85 - 113	

000186

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-3

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-03

File ID: 1510440-03.D

Sampled: 10/19/15 13:13

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:30

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.4	99	82 - 110	

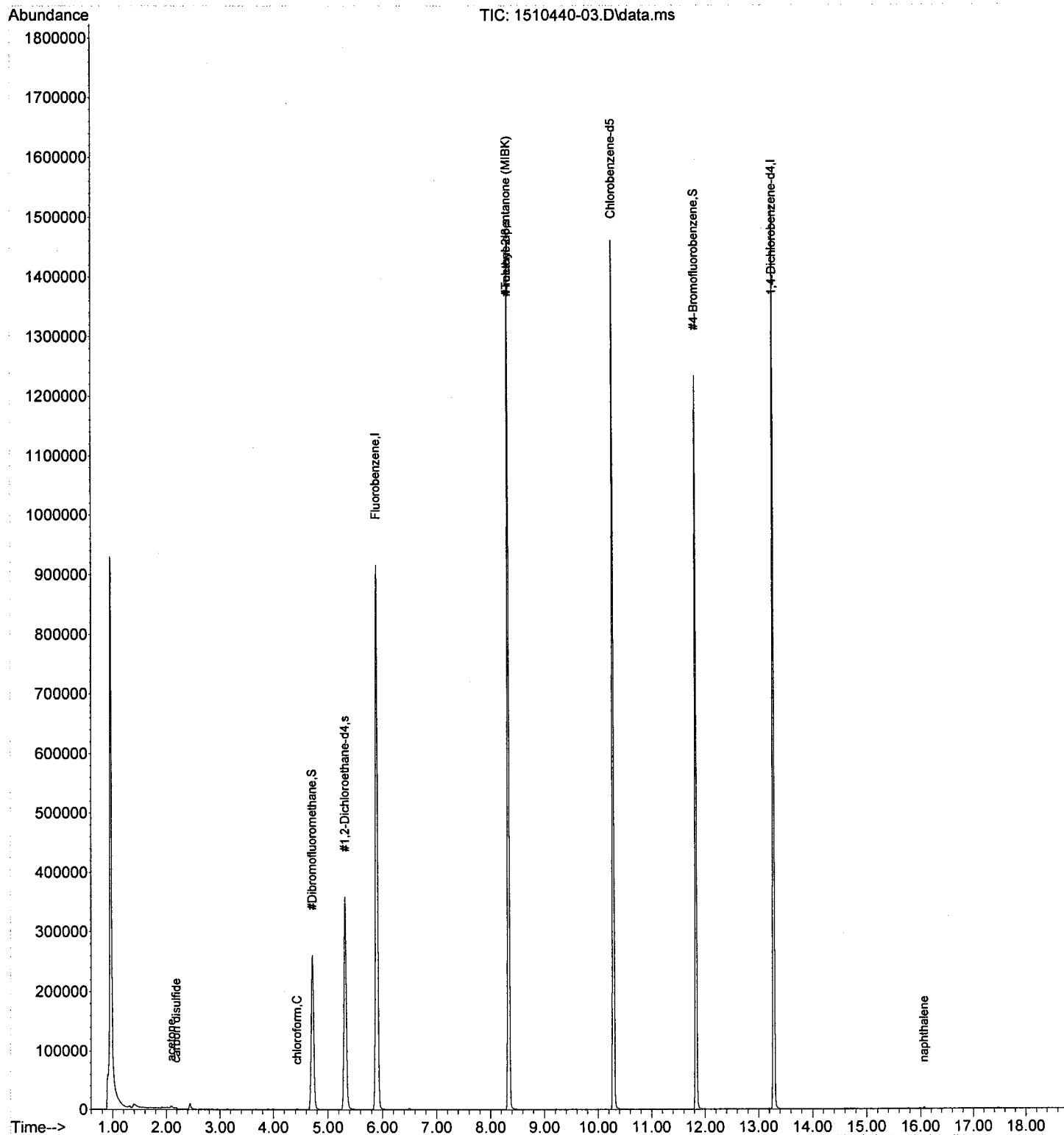
* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1012212	5.897	101	5.915	
Chlorobenzene-d5	703326	10.292	100	10.305	
1,4-Dichlorobenzene-d4	343090	13.286	99	13.292	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-03.D
Acq On : 30 Oct 2015 00:30
Operator : BAG
Sample : 1510440-03
Misc : MWH
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Oct 30 08:16:34 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-03.D
 Acq On : 30 Oct 2015 00:30
 Operator : BAG
 Sample : 1510440-03
 Misc : MWH
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Oct 30 08:16:34 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.897	96	1012212	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.292	117	703326	40.00	ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.286	152	343090	40.00	ug/L	# 0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.714	111	248786	39.25	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	98.13%	
37) #1,2-Dichloroethane-d4	5.318	67	195509	39.89	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	99.72%	
47) #Toluene-d8	8.341	98	960188	39.41	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	98.52%	
65) #4-Bromofluorobenzene	11.835	95	401609	39.42	ug/L	-0.01
Spiked Amount 40.000			Recovery	=	98.55%	
Target Compounds						
						Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	0.000		0	N.D.		
13) acetone	2.093	43	4371	1.58	ug/L #	50
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.184	76	1737	0.08	ug/L #	75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.446	49	7568	Below Cal		96
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	0.000		0	N.D.		
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	0.000		0	N.D.		
25) 2-butanone (MEK)	0.000		0	N.D.		
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	4.434	83	1248	0.08	ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.897	57	45660	No Calib		
38) trichloroethene	0.000		0	N.D.		
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000189

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-03.D
 Acq On : 30 Oct 2015 00:30
 Operator : BAG
 Sample : 1510440-03
 Misc : MWH
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Oct 30 08:16:34 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.341	43	5970	1.70 ug/L	#	1
48) toluene	0.000		0	N.D.		
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	0.000		0	N.D.		
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	0.000		0	N.D.		
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	0.000		0	N.D.		
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	0.000		0	N.D.		
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	0.000		0	N.D.		
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	0.000		0	N.D.		
87) hexachlorobutadiene	0.000		0	N.D.		
88) naphthalene	16.066	128	2716	0.15 ug/L	#	72
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	0.000		0	N.D.		

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

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-4

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-04

File ID: 1510440-04.D

Sampled: 10/20/15 12:05

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 04:17

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	4.0	0.27	1.0	
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	5.0	0.24	1.0	
156-59-2	cis-1,2-Dichloroethene	1	3.4	0.21	1.0	
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	3.4	0.37	2.0	
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000191

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-4

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-04

File ID: 1510440-04.D

Sampled: 10/20/15 12:05

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 04:17

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	0.080	0.065	1.0	J
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	0.44	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	0.43	0.15	1.0	J
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	33	0.23	1.0	
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.6	99	85 - 118	
1,2-Dichloroethane-d4	40.0	40.1	100	87 - 122	
Toluene-d8	40.0	39.5	99	85 - 113	

000192

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-4

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-04

File ID: 1510440-04.D

Sampled: 10/20/15 12:05

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 04:17

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.6	99	82 - 110	

* Values outside of QC limits

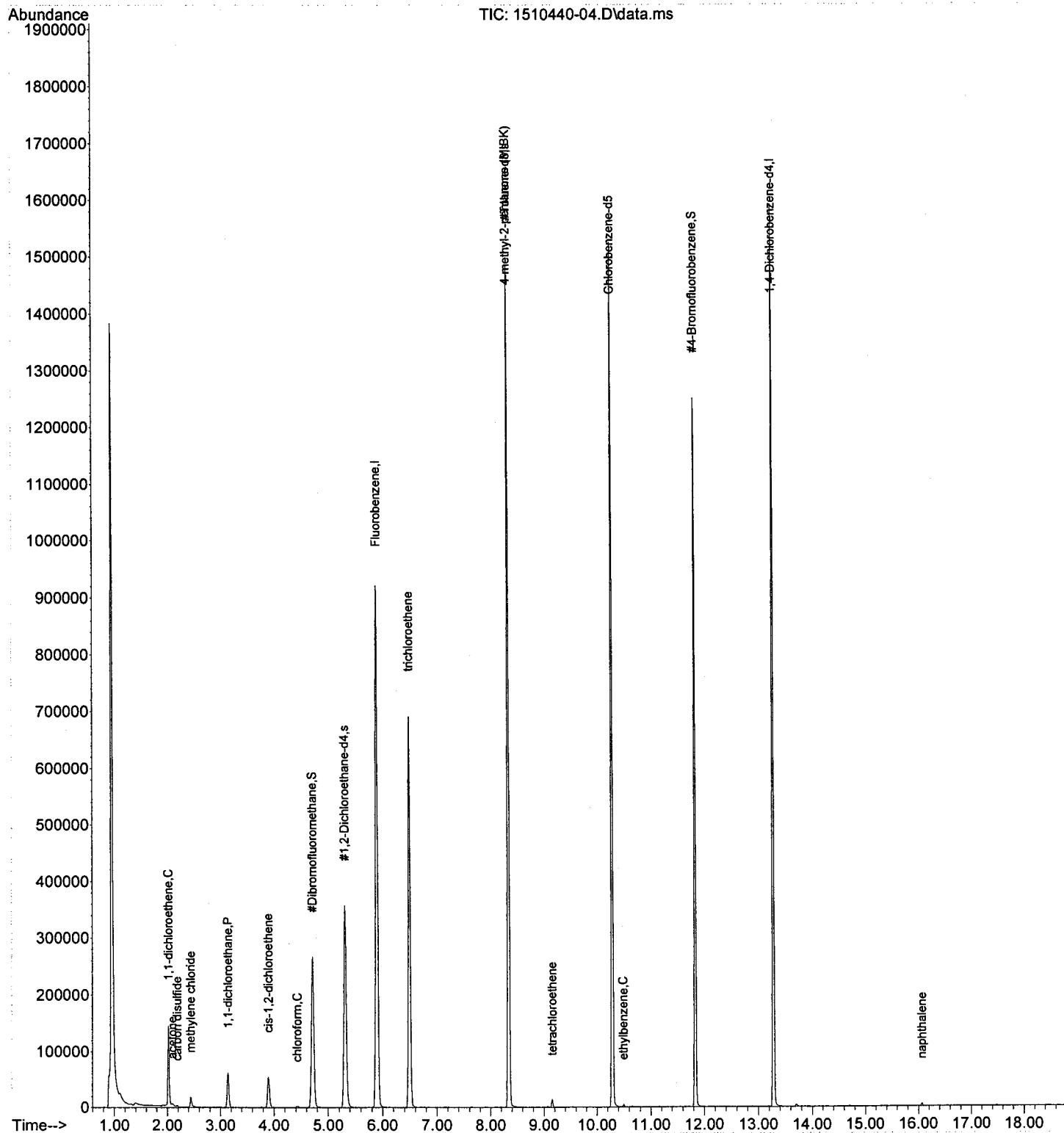
Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1017279	5.897	101	5.915	
Chlorobenzene-d5	706784	10.286	101	10.305	
1,4-Dichlorobenzene-d4	345943	13.279	100	13.292	

* Values outside of QC limits

000193

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-04.D
Acq On : 30 Oct 2015 4:17
Operator : BAG
Sample : 1510440-04
Misc : MWH
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Oct 30 08:16:37 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



000194

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-04.D
 Acq On : 30 Oct 2015 4:17
 Operator : BAG
 Sample : 1510440-04
 Misc : MWH
 ALS Vial : 44 Sample Multiplier: 1

Quant Time: Oct 30 08:16:37 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.897	96	1017279	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.286	117	706784	40.00	ug/L	-0.02
66) 1,4-Dichlorobenzene-d4	13.279	152	345943	40.00	ug/L	#-0.01
System Monitoring Compounds						
29) #Dibromofluoromethane	4.714	111	252046	39.56	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	98.90%	
37) #1,2-Dichloroethane-d4	5.312	67	197637	40.12	ug/L	-0.03
Spiked Amount 40.000			Recovery	=	100.30%	
47) #Toluene-d8	8.341	98	966432	39.47	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	98.67%	
65) #4-Bromofluorobenzene	11.829	95	404907	39.55	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	98.87%	
Target Compounds						
						Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	2.019	96	41940	4.98 ug/L		98
13) acetone	2.093	43	5737	1.98 ug/L #		50
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.184	76	2095	0.09 ug/L #		75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.440	49	14309	0.44 ug/L		98
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	3.141	63	66941	3.99 ug/L		99
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	3.897	96	28401	3.37 ug/L		90
25) 2-butanone (MEK)	0.000		0	N.D.		
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	4.428	83	2553	0.16 ug/L		93
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.897	57	45998	No Calib		
38) trichloroethene	6.494	130	250433	83.33 ug/L		100
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000195

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-04.D
 Acq On : 30 Oct 2015 4:17
 Operator : BAG
 Sample : 1510440-04
 Misc : MWH
 ALS Vial : 44 Sample Multiplier: 1

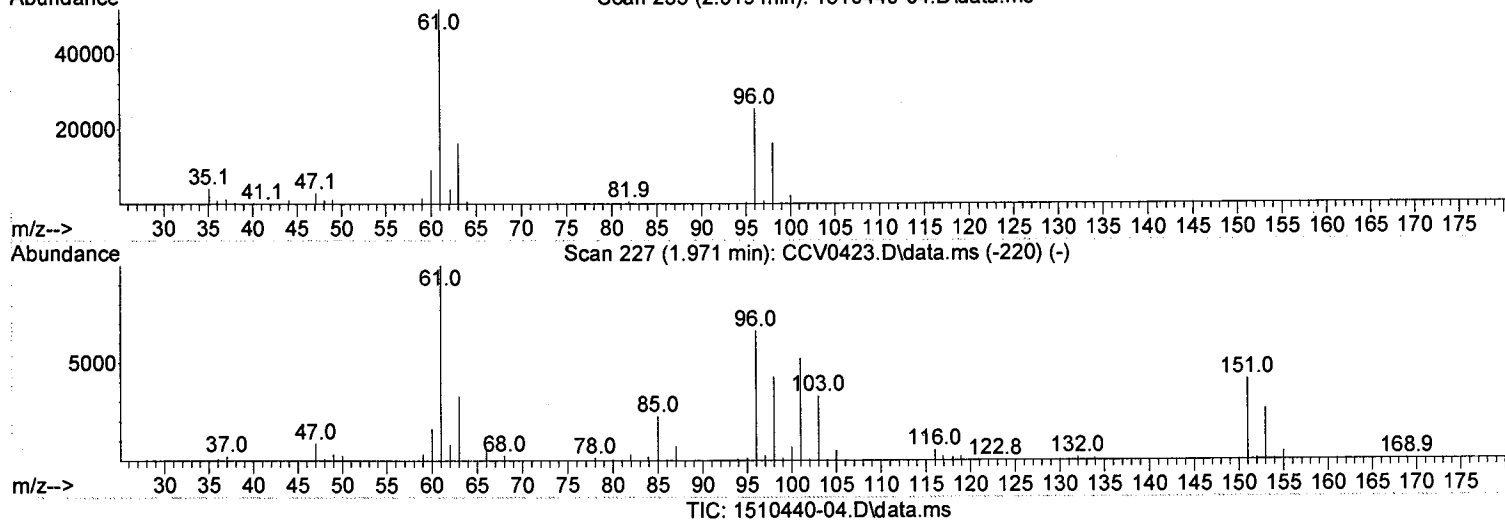
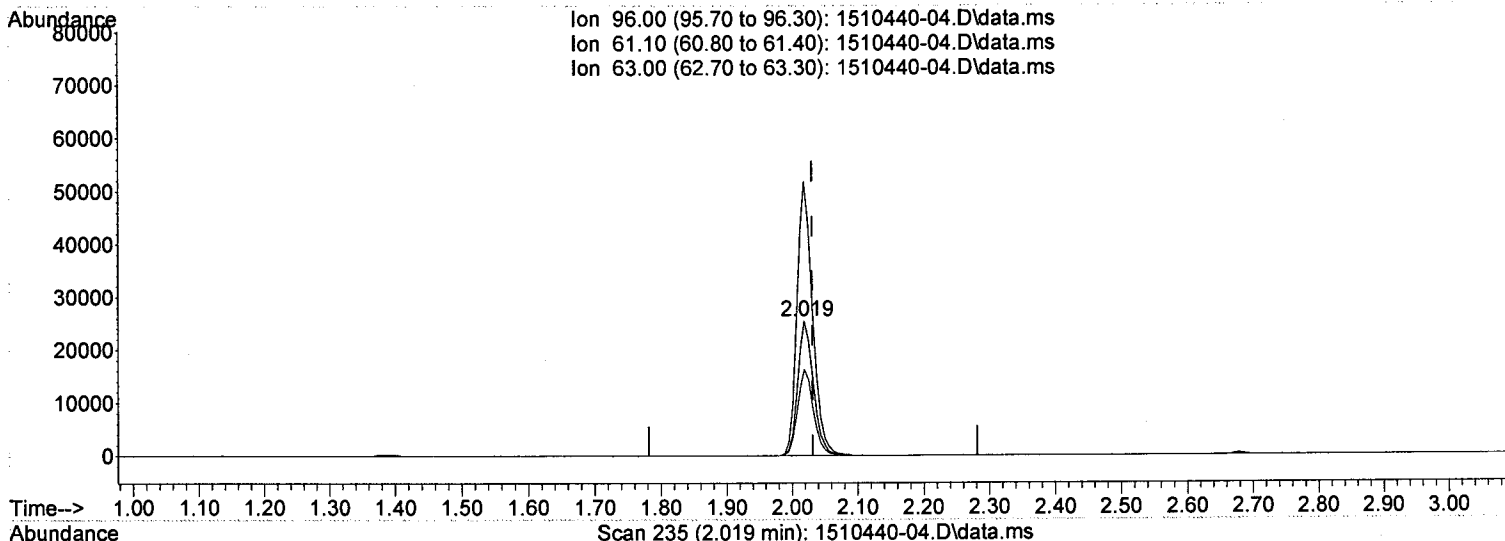
Quant Time: Oct 30 08:16:37 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.335	43	6077	~~0.70~~ ug/L #		1
48) toluene	0.000		0	N.D.		
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	9.158	166	3295	0.43 ug/L		93
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	10.493	91	3356	0.08 ug/L #		46
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	0.000		0	N.D.		
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	0.000		0	N.D.		
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	0.000		0	N.D.		
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	0.000		0	N.D.		
87) hexachlorobutadiene	0.000		0	N.D.		
88) naphthalene	16.066	128	4189	0.22 ug/L #		72
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	0.000		0	N.D.		

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-04.D
Acq On : 30 Oct 2015 4:17
Operator : BAG
Sample : 1510440-04
Misc : MWH
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Oct 30 08:16:37 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(12) 1,1-dichloroethene (C)

2.019min (-0.013) 4.98 ug/L

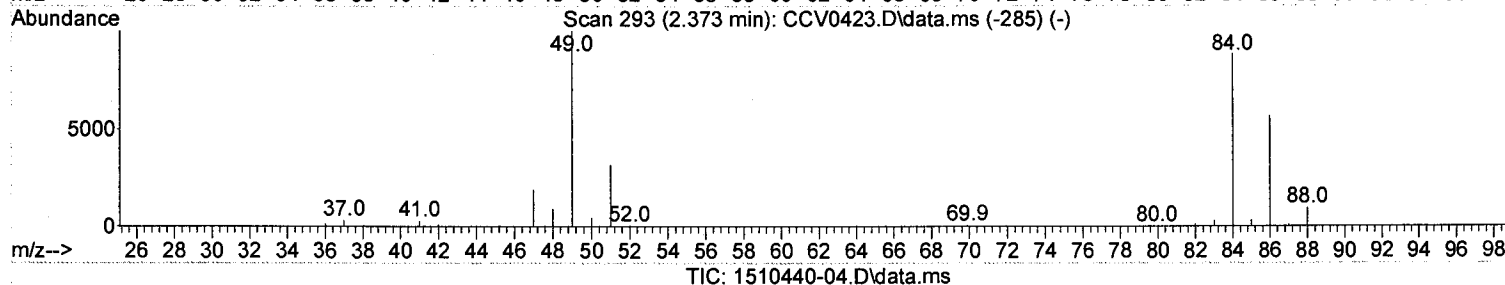
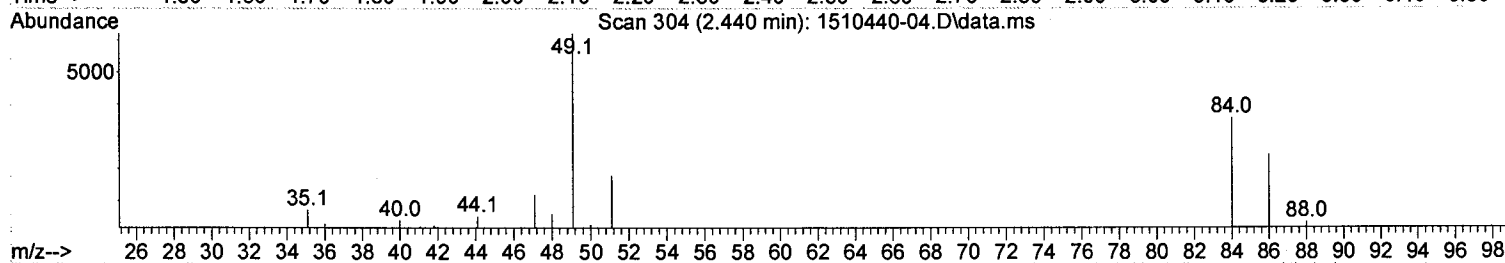
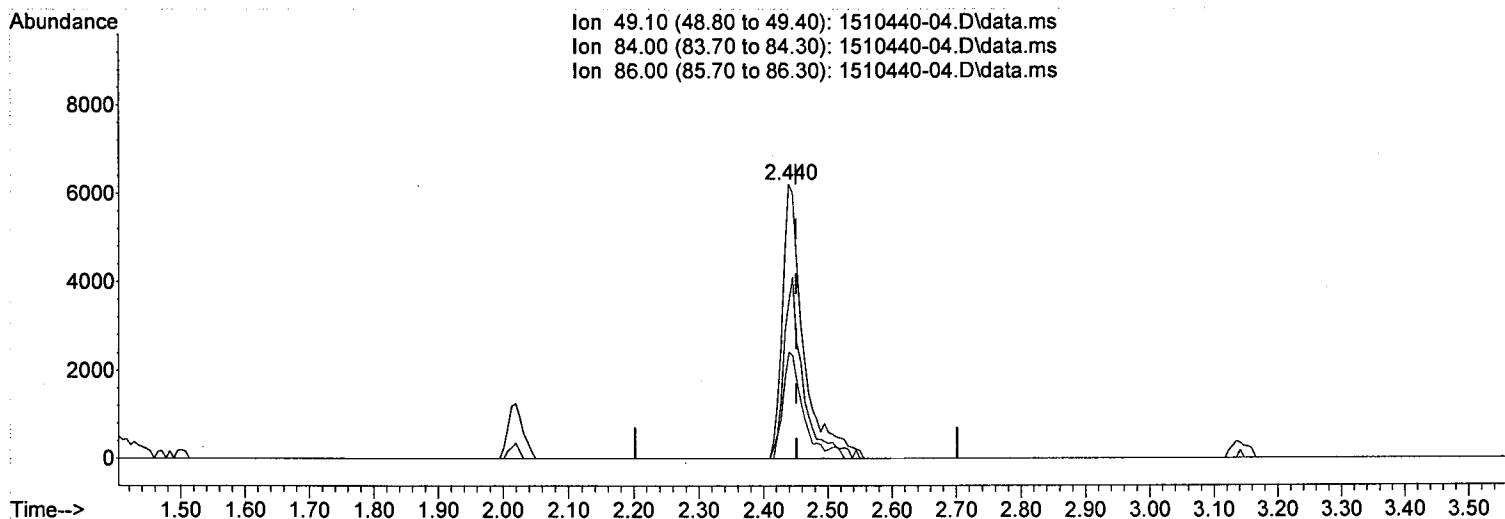
response 41940

Ion	Exp%	Act%
96.00	100	100
61.10	199.80	202.73
63.00	64.10	64.49
0.00	0.00	0.00

000197

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-04.D
Acq On : 30 Oct 2015 4:17
Operator : BAG
Sample : 1510440-04
Misc : MWH
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Oct 30 08:16:37 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(17) methylene chloride

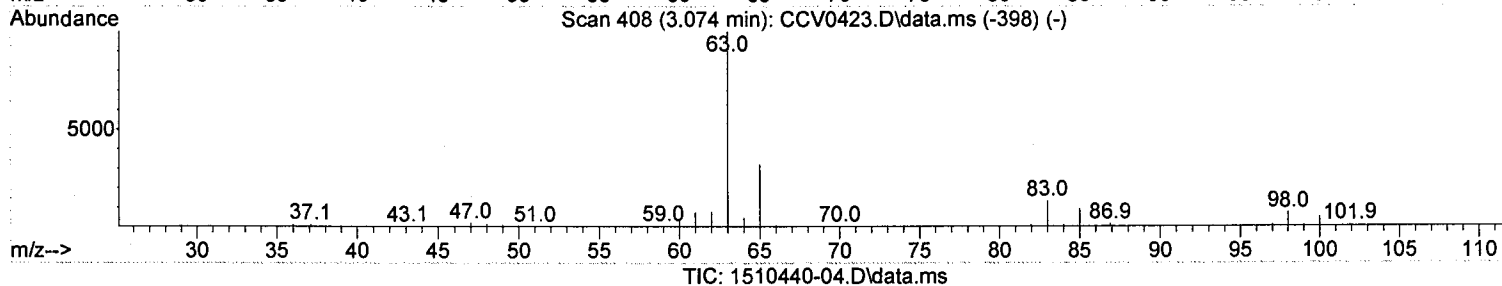
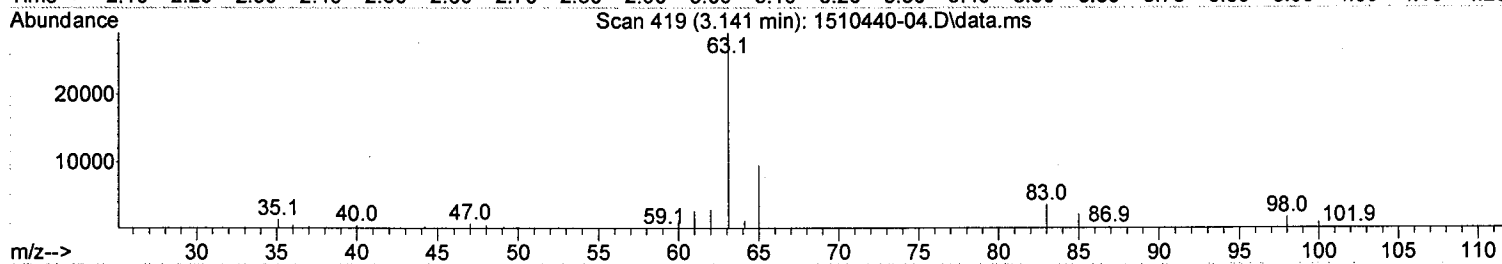
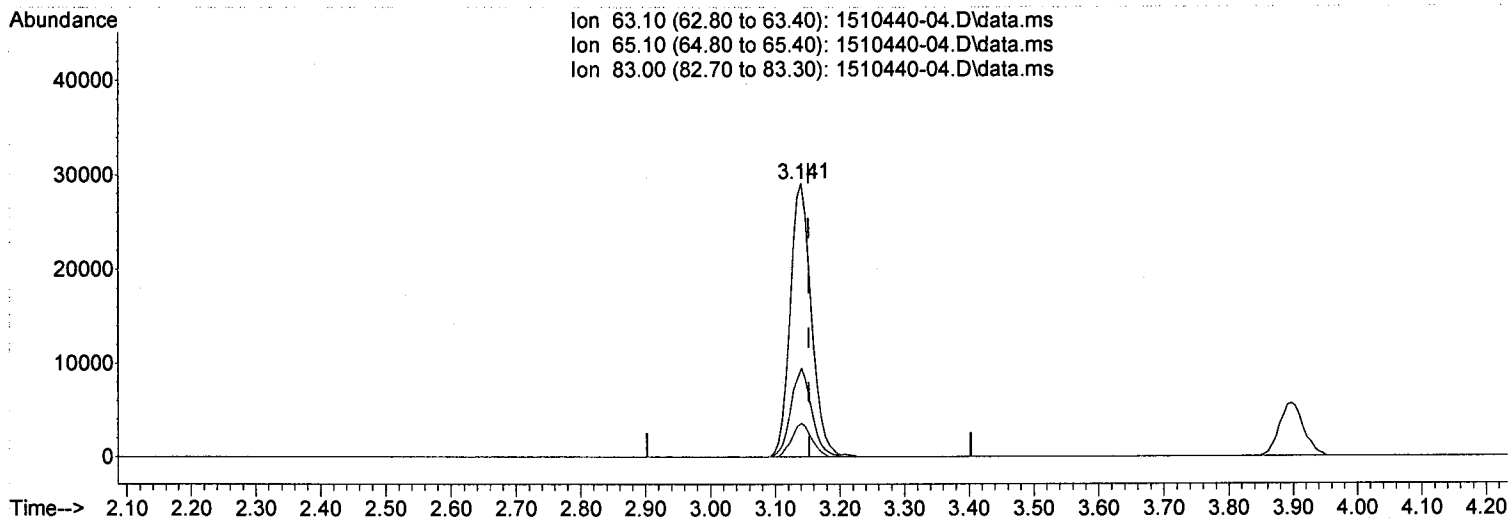
2.440min (-0.012) 0.44 ug/L

response 14309

Ion	Exp%	Act%
49.10	100	100
84.00	60.60	59.82
86.00	38.40	35.50
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-04.D
Acq On : 30 Oct 2015 4:17
Operator : BAG
Sample : 1510440-04
Misc : MWH
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Oct 30 08:16:37 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(21) 1,1-dichloroethane (P)

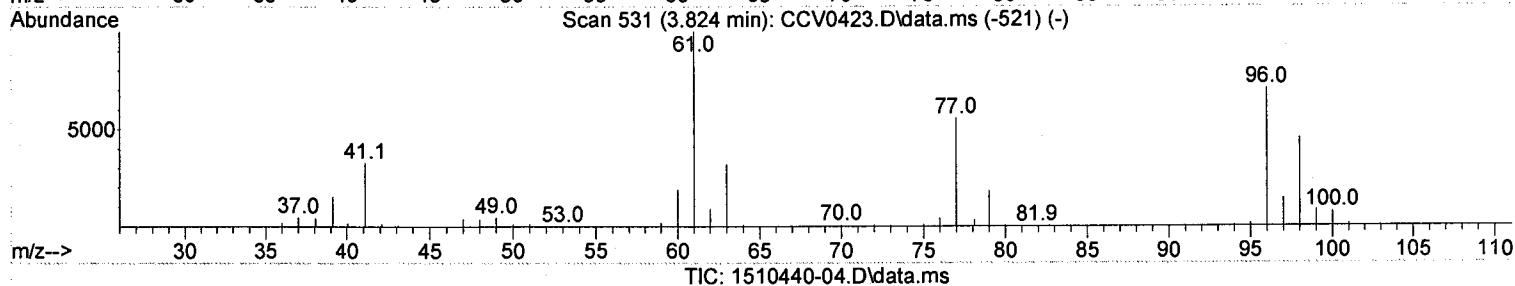
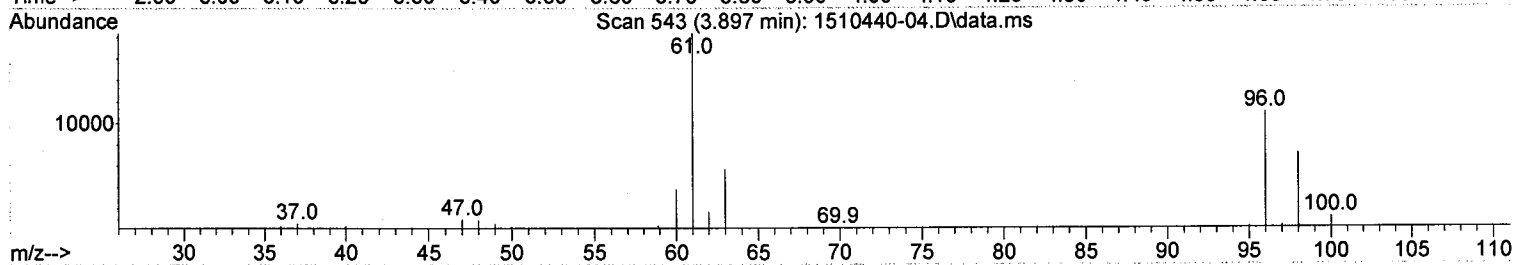
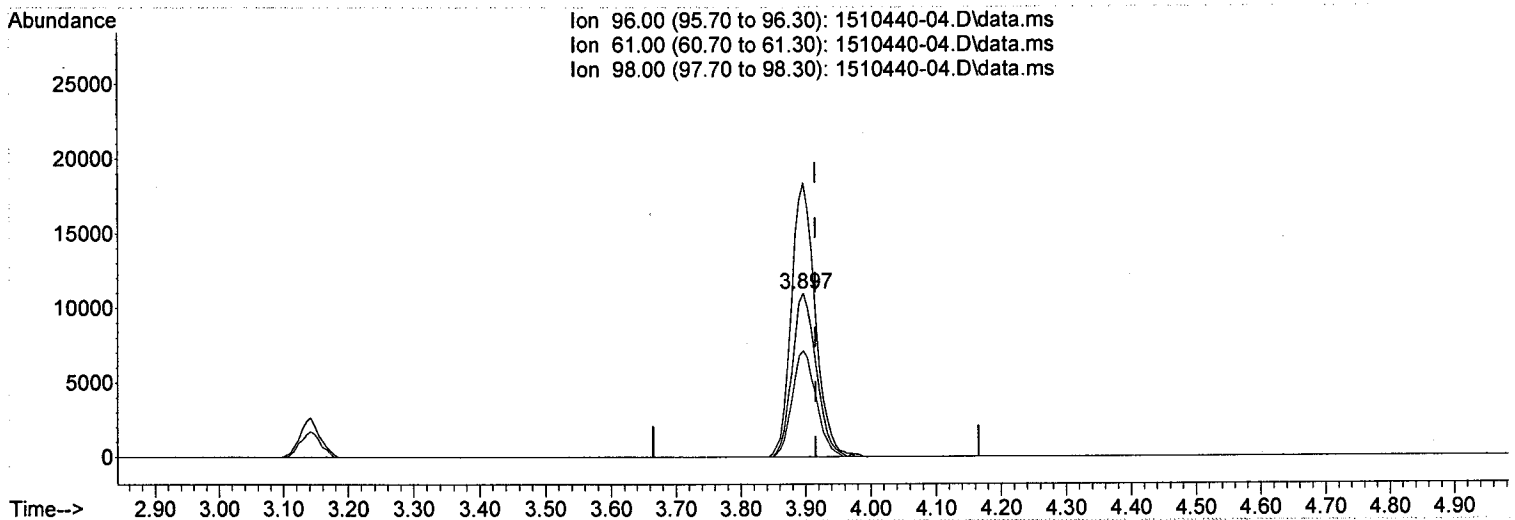
3.141min (-0.012) 3.99 ug/L

response 66941

Ion	Exp%	Act%
63.10	100	100
65.10	30.90	31.72
83.00	11.90	11.54
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-04.D
Acq On : 30 Oct 2015 4:17
Operator : BAG
Sample : 1510440-04
Misc : MWH
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Oct 30 08:16:37 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(24) cis-1,2-dichloroethene

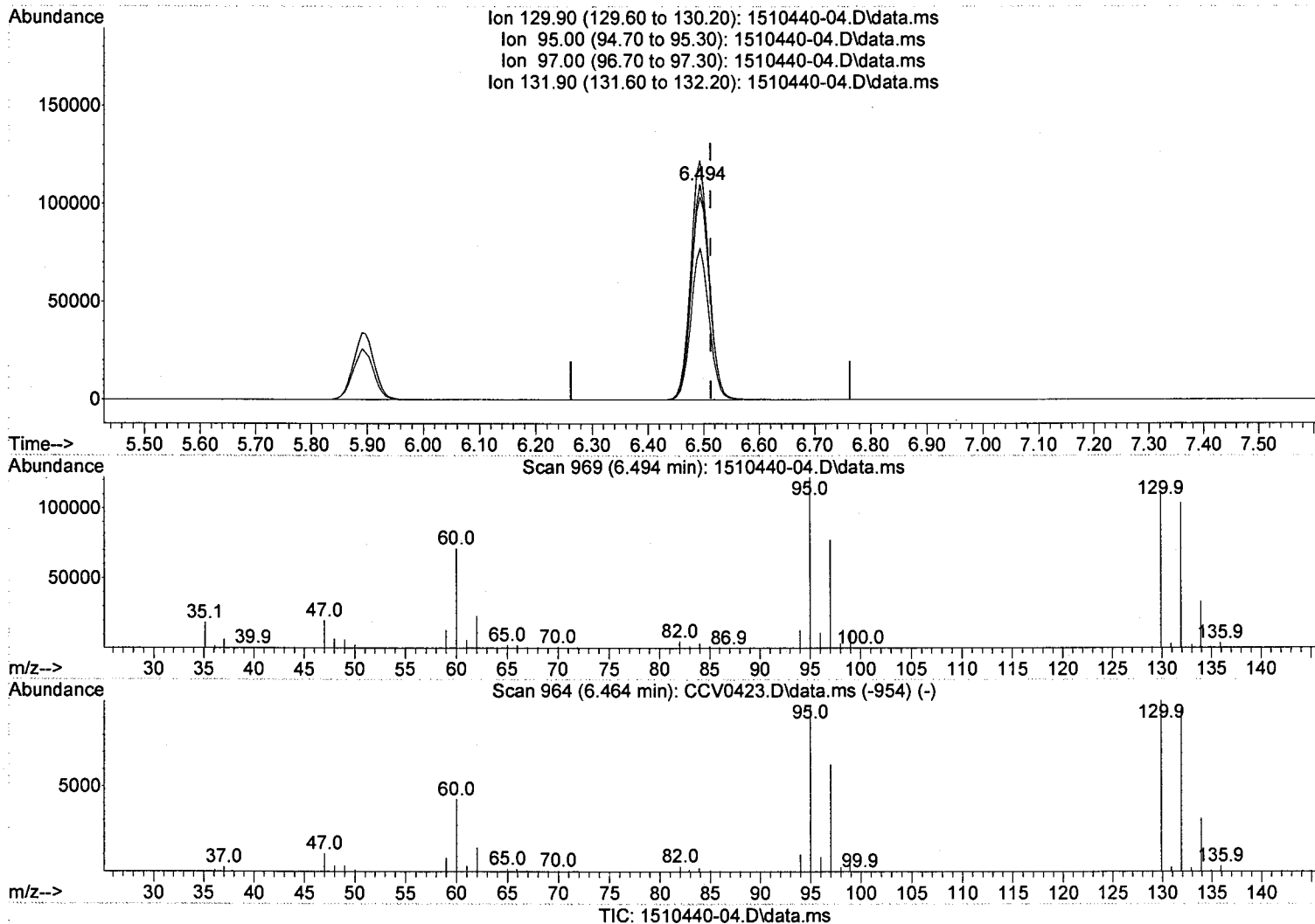
3.897min (-0.019) 3.37 ug/L

response 28401

Ion	Exp%	Act%
96.00	100	100
61.00	185.80	166.07
98.00	63.60	64.50
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-04.D
Acq On : 30 Oct 2015 4:17
Operator : BAG
Sample : 1510440-04
Misc : MWH
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Oct 30 08:16:37 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(38) trichloroethene

6.494min (-0.019) 33.33 ug/L

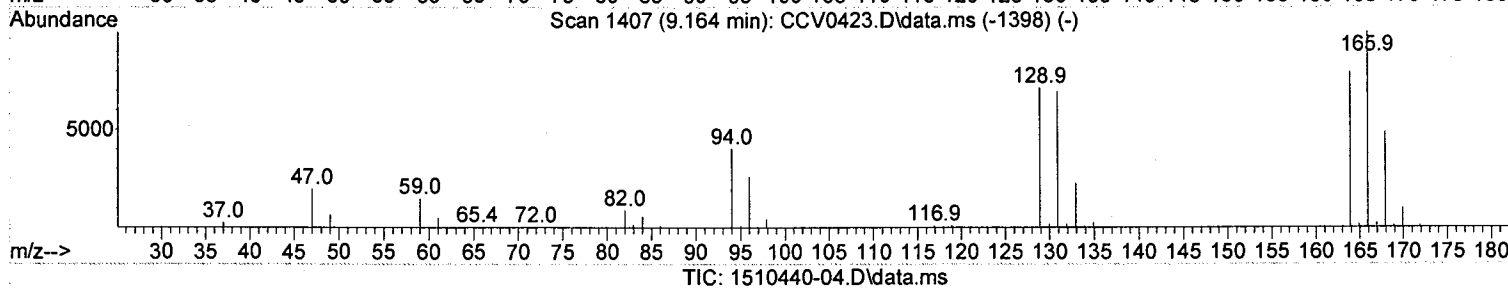
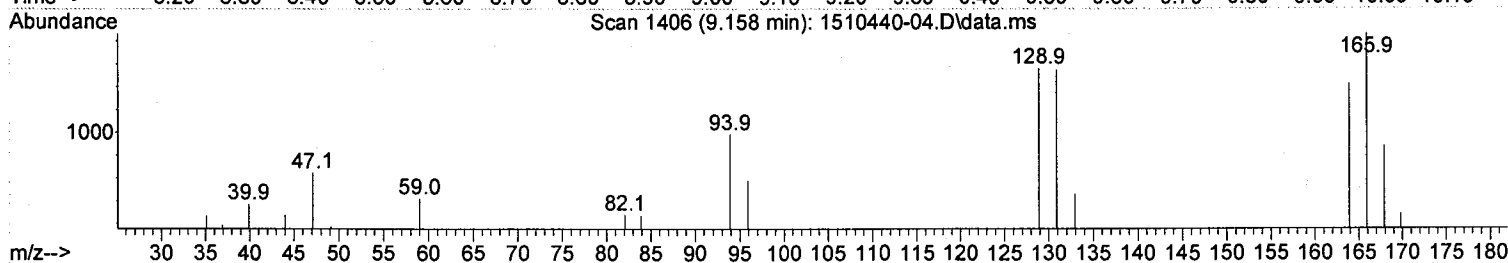
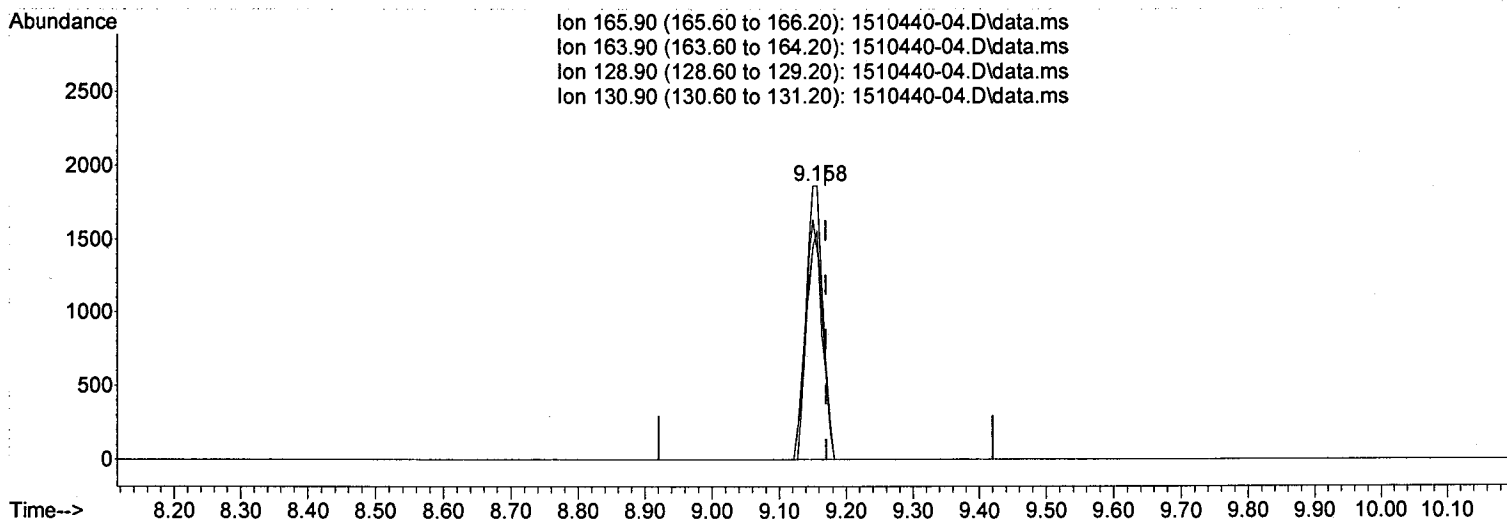
response 250433

Ion	Exp%	Act%
129.90	100	100
95.00	112.20	112.00
97.00	71.70	70.94
131.90	96.70	96.78

000201

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-04.D
Acq On : 30 Oct 2015 4:17
Operator : BAG
Sample : 1510440-04
Misc : MWH
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Oct 30 08:16:37 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(52) tetrachloroethene

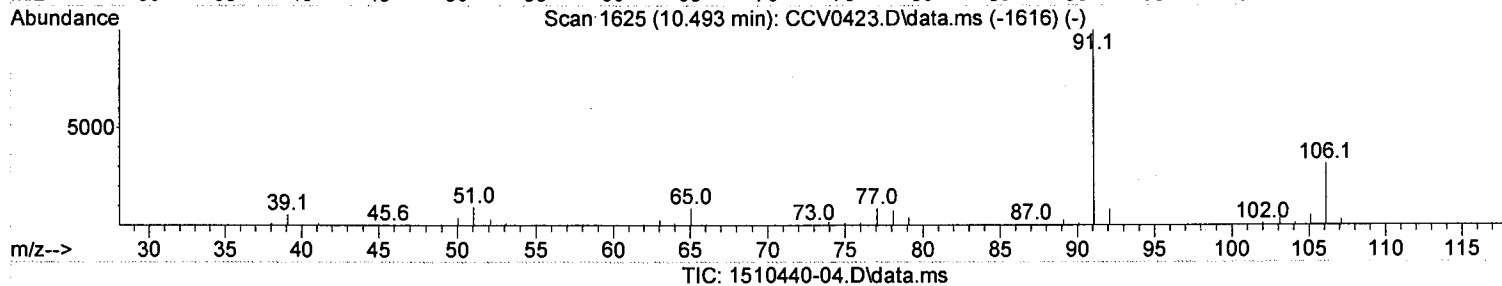
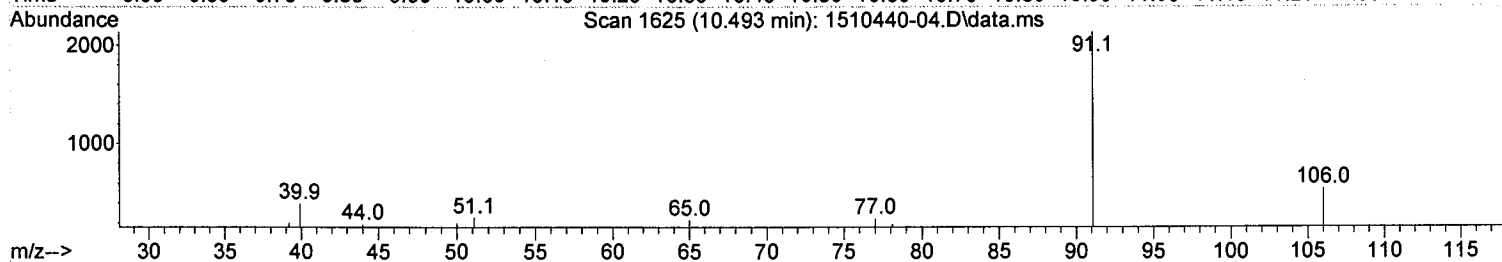
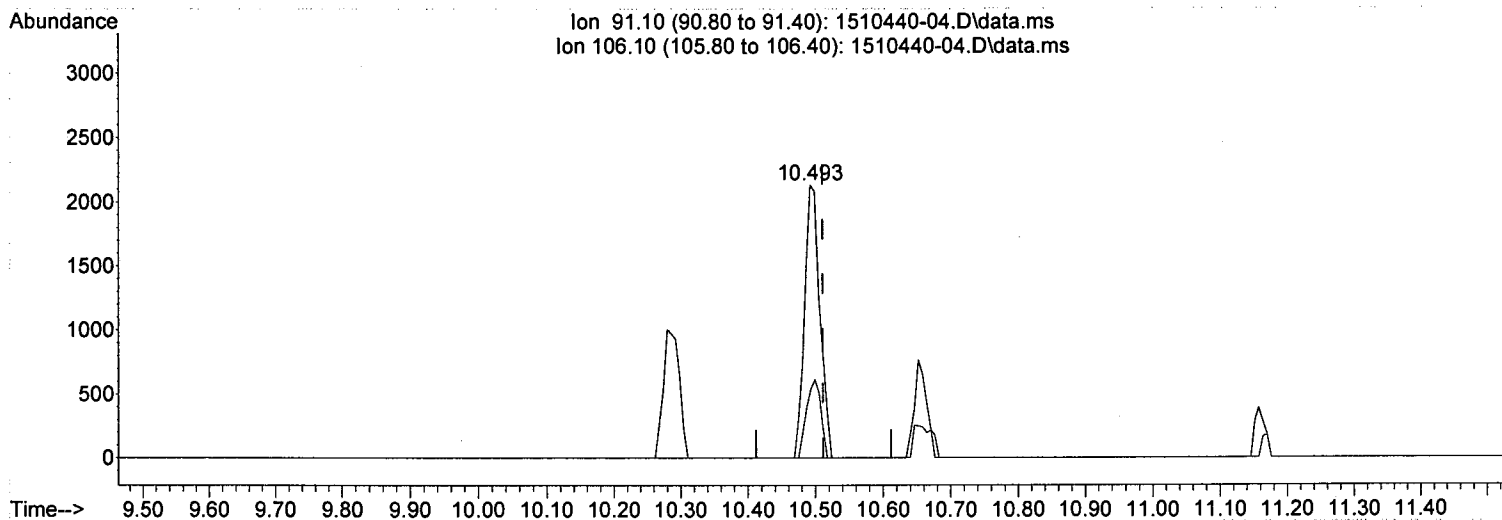
9.158min (-0.013) 0.43 ug/L

response 3295

Ion	Exp%	Act%
165.90	100	100
163.90	78.80	84.49
128.90	76.90	82.06
130.90	73.90	82.19

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-04.D
Acq On : 30 Oct 2015 4:17
Operator : BAG
Sample : 1510440-04
Misc : MWH
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Oct 30 08:16:37 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(60) ethylbenzene (C)

10.493min (-0.019) 0.08 ug/L

response 3356

Ion	Exp%	Act%
91.10	100	100
106.10	28.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

000203

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-5

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-05

File ID: 1510440-05.D

Sampled: 10/20/15 10:10

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 15:13

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37	2.0	U
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000204

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-5

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-05

File ID: 1510440-05.D

Sampled: 10/20/15 10:10

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 15:13

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	0.21	0.065	1.0	J
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	0.31	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	0.24	0.23	1.0	J
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.5	99	85 - 118	
1,2-Dichloroethane-d4	40.0	40.0	100	87 - 122	
Toluene-d8	40.0	39.2	98	85 - 113	

000205

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-5

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-05

File ID: 1510440-05.D

Sampled: 10/20/15 10:10

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 15:13

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.4	99	82 - 110	

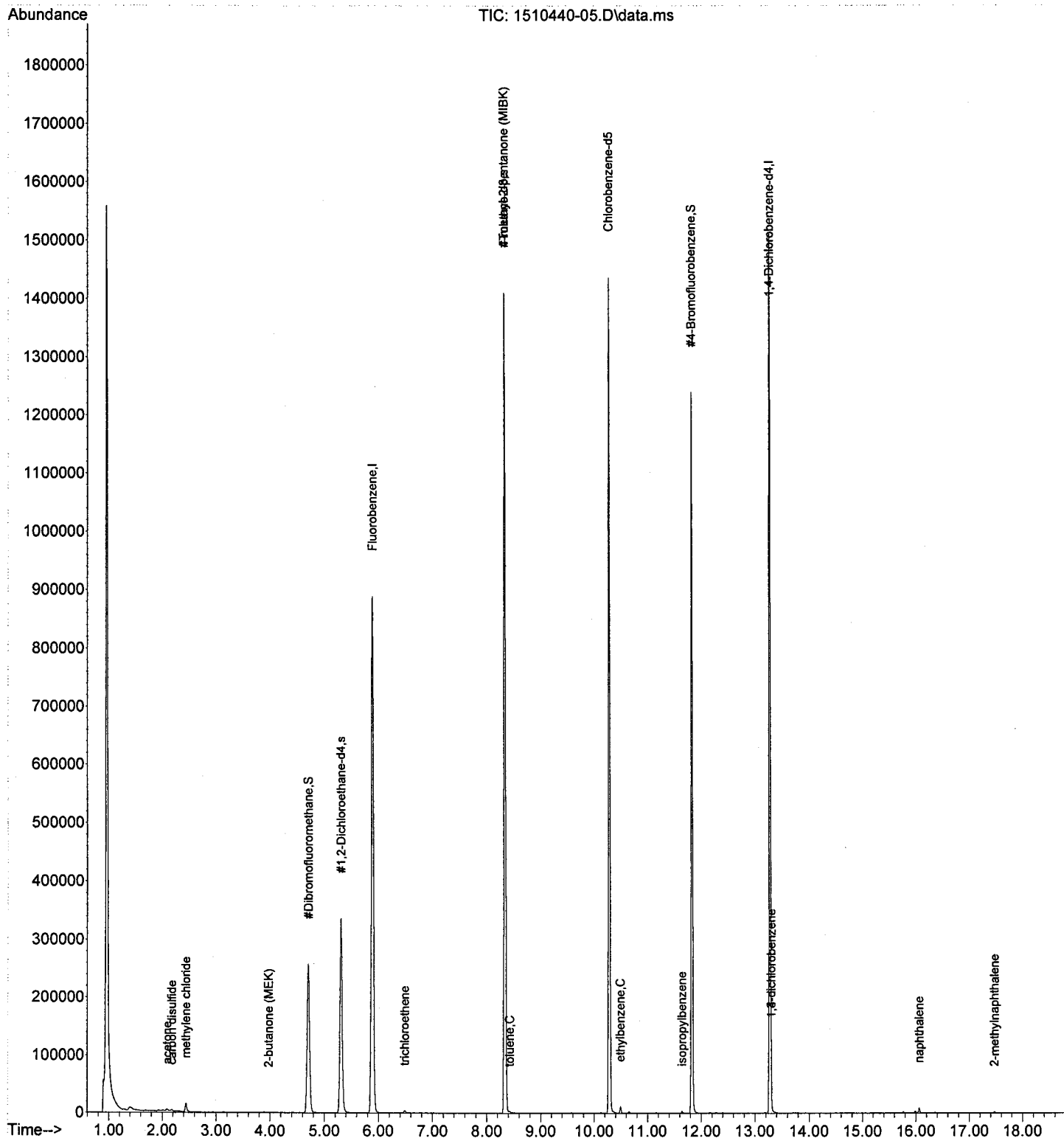
* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	992025	5.891	102	5.915	
Chlorobenzene-d5	693011	10.286	101	10.305	
1,4-Dichlorobenzene-d4	339780	13.279	99	13.292	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\10-30-15\
InstName : 328
Data File : 1510440-05.D
Acq On : 30 Oct 2015 15:13
Operator : BAG
Sample : 1510440-05
Misc : MWH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 02 10:11:38 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



000207

Data Path : C:\msdchem\1\DATA\10-30-15\
 InstName : 328
 Data File : 1510440-05.D
 Acq On : 30 Oct 2015 15:13
 Operator : BAG
 Sample : 1510440-05
 Misc : MWH
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 02 10:11:38 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.891	96	992025	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.286	117	693011	40.00	ug/L	-0.02
66) 1,4-Dichlorobenzene-d4	13.279	152	339780	40.00	ug/L	#-0.01
System Monitoring Compounds						
29) #Dibromofluoromethane	4.708	111	245637	39.54	ug/L	-0.03
Spiked Amount 40.000			Recovery	=	98.85%	
37) #1,2-Dichloroethane-d4	5.312	67	192082	39.99	ug/L	-0.03
Spiked Amount 40.000			Recovery	=	99.98%	
47) #Toluene-d8	8.335	98	936839	39.23	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	98.07%	
65) #4-Bromofluorobenzene	11.829	95	395662	39.41	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	98.52%	
Target Compounds						
						Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	0.000		0	N.D.		
13) acetone	2.093	43	4128	1.53	ug/L #	50
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.178	76	2023	0.09	ug/L #	75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.440	49	12165	0.31	ug/L	97
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	0.000		0	N.D.		
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	0.000		0	N.D.		
25) 2-butanone (MEK)	3.976	43	1828	0.50	ug/L #	58
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	0.000		0	N.D.		
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.891	57	43747	No Calib		
38) trichloroethene	6.488	130	1753	0.24	ug/L	99
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000208

Data Path : C:\msdchem\1\DATA\10-30-15\
 InstName : 328
 Data File : 1510440-05.D
 Acq On : 30 Oct 2015 15:13
 Operator : BAG
 Sample : 1510440-05
 Misc : MWH
 ALS Vial : 6 Sample Multiplier: 1

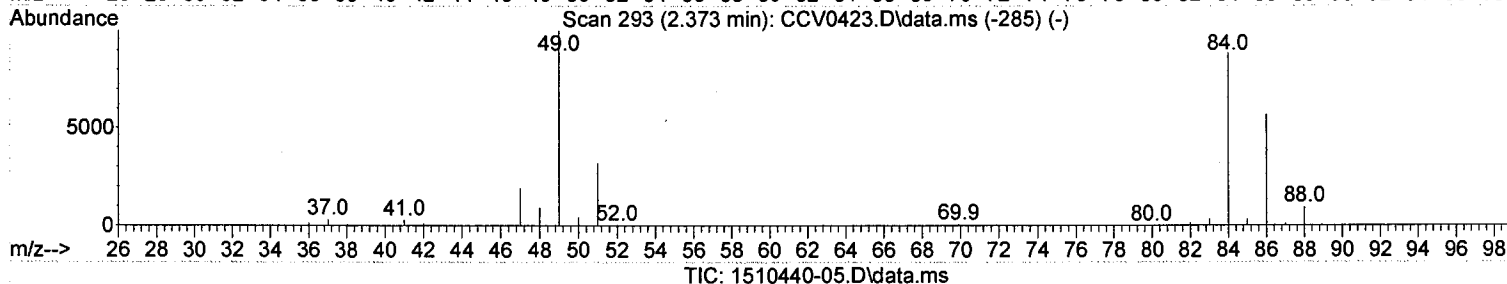
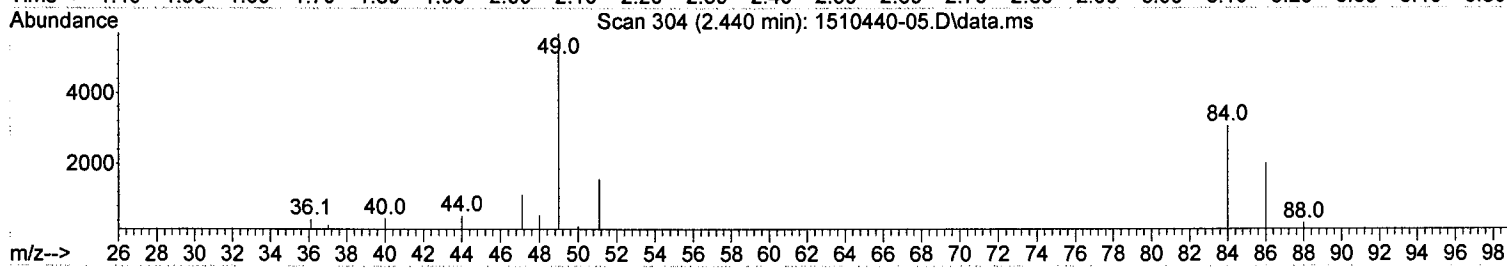
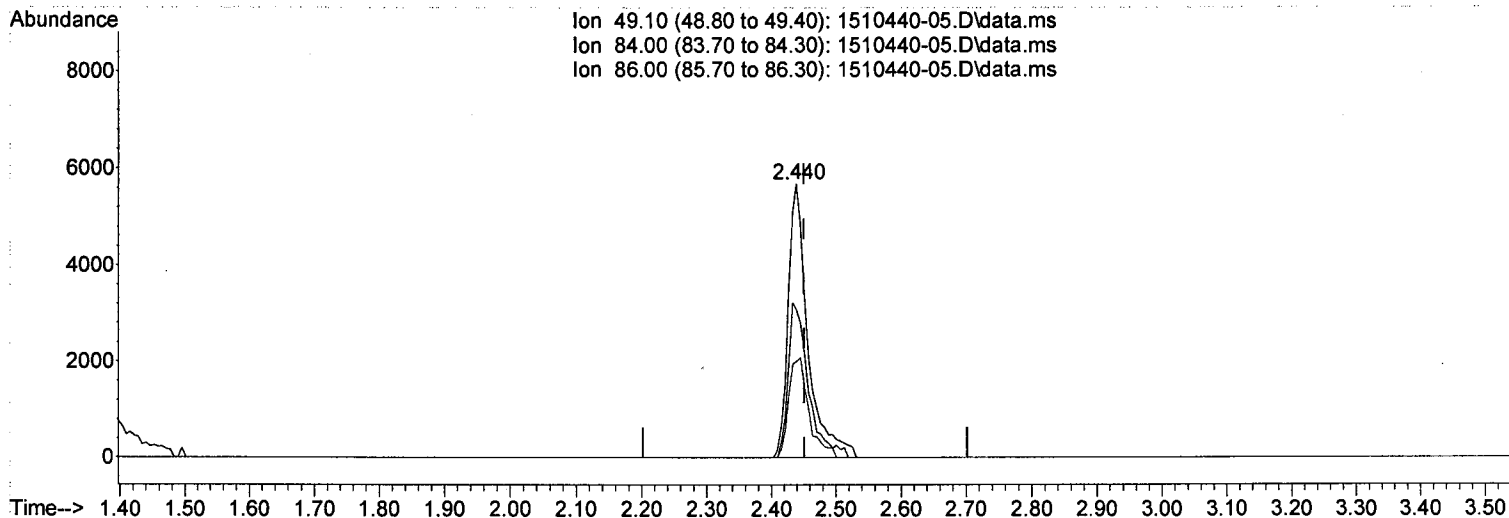
Quant Time: Nov 02 10:11:38 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.335	43	5895	~~1.7~~ 0.70 ug/L #		1
48) toluene	8.427	91	1591	0.05 ug/L #		21
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	0.000		0	N.D.		
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	10.493	91	8160	0.21 ug/L		99
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	11.646	105	2432	0.07 ug/L #		50
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	13.304	146	1254	0.09 ug/L #		1
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	13.304	146	1254	0.09 ug/L #		1
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	0.000		0	N.D.		
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	0.000		0	N.D.		
87) hexachlorobutadiene	0.000		0	N.D.		
88) naphthalene	16.066	128	7087	0.38 ug/L #		72
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	17.474	142	1436	3.14 ug/L #		78

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

Data Path : C:\msdchem\1\DATA\10-30-15\
InstName : 328
Data File : 1510440-05.D
Acq On : 30 Oct 2015 15:13
Operator : BAG
Sample : 1510440-05
Misc : MWH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 02 10:11:38 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(17) methylene chloride

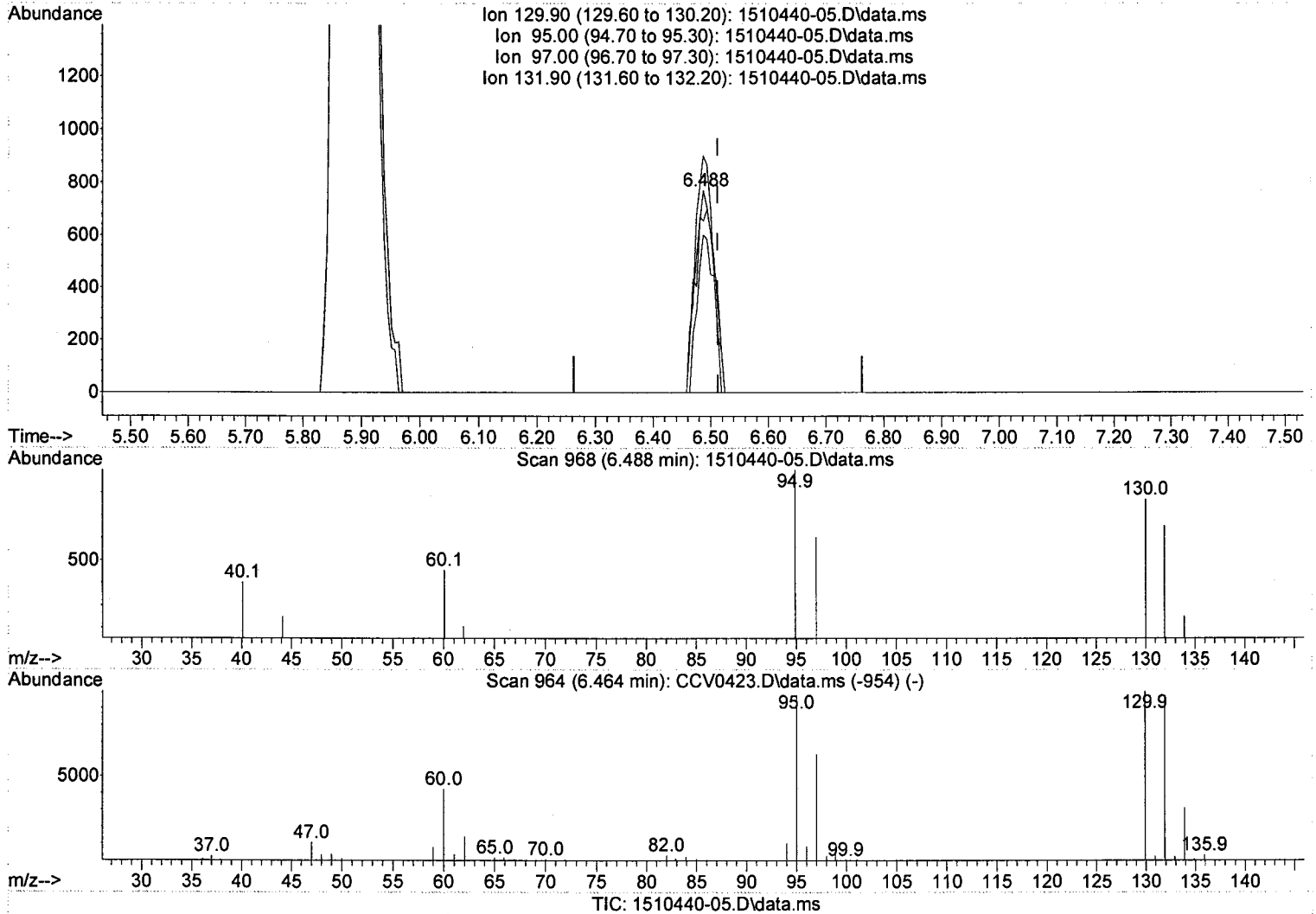
2.440min (-0.012) 0.31 ug/L

response 12165

Ion	Exp%	Act%
49.10	100	100
84.00	60.60	58.16
86.00	38.40	37.35
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-30-15\
InstName : 328
Data File : 1510440-05.D
Acq On : 30 Oct 2015 15:13
Operator : BAG
Sample : 1510440-05
Misc : MWH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 02 10:11:38 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(38) trichloroethene

6.488min (-0.025) 0.24 ug/L

response 1753

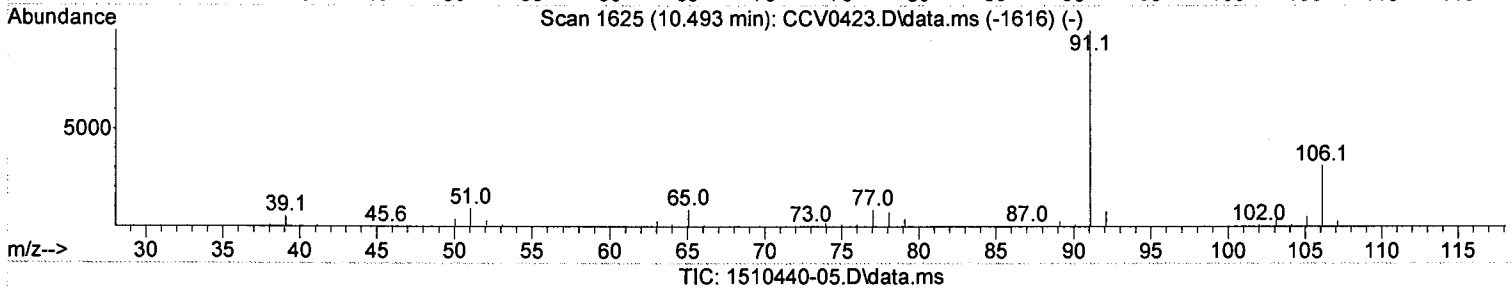
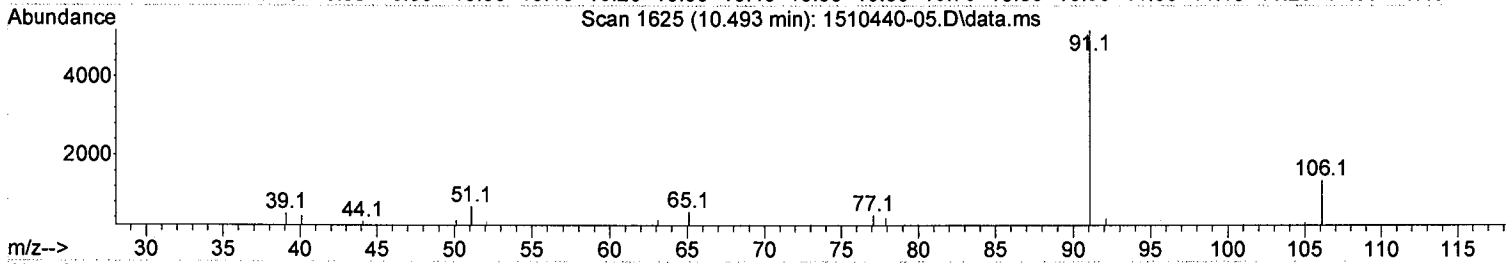
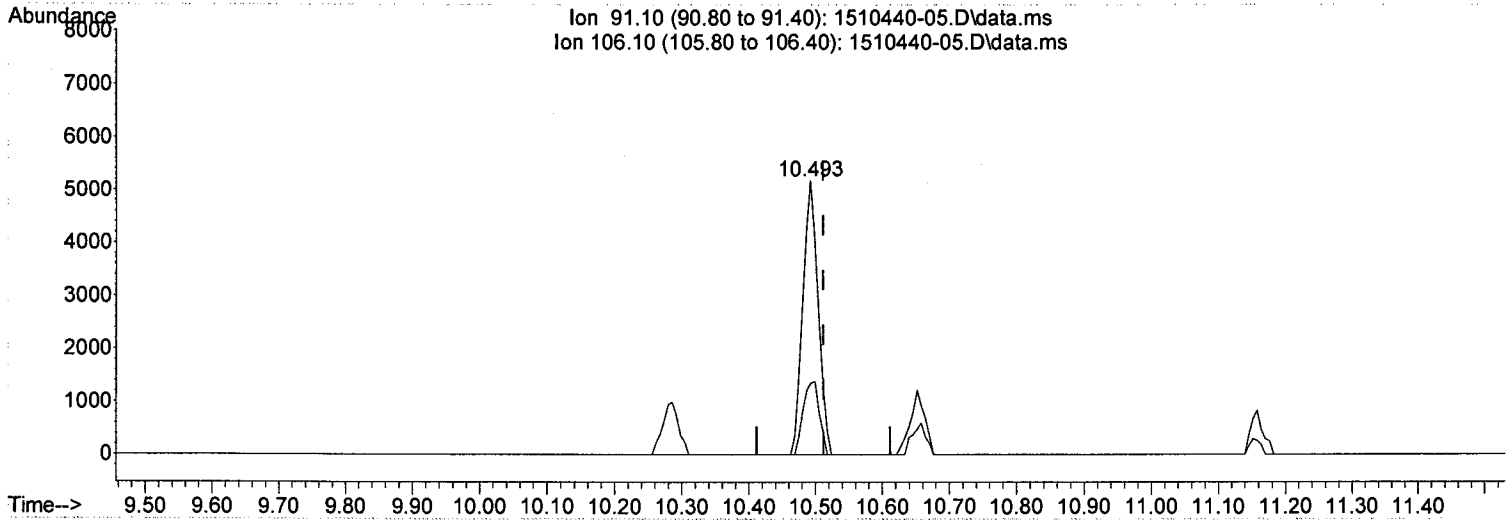
Ion	Exp%	Act%
129.90	100	100
95.00	112.20	111.75
97.00	71.70	69.65
131.90	96.70	98.40

000211

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-30-15\
 InstName : 328
 Data File : 1510440-05.D
 Acq On : 30 Oct 2015 15:13
 Operator : BAG
 Sample : 1510440-05
 Misc : MWH
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 02 10:11:38 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration



(60) ethylbenzene (C)

10.493min (-0.019) 0.21 ug/L

response 8160

Ion	Exp%	Act%
91.10	100	100
106.10	28.80	28.14
0.00	0.00	0.00
0.00	0.00	0.00

000212

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-6

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-06

File ID: 1510440-06.D

Sampled: 10/20/15 09:30

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:58

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	8.8	0.27	1.0	
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	4.2	0.24	1.0	
156-59-2	cis-1,2-Dichloroethene	1	4.7	0.21	1.0	
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	4.7	0.37	2.0	
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000213

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-6

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-06

File ID: 1510440-06.D

Sampled: 10/20/15 09:30

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:58

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	0.070	0.065	1.0	J
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	0.81	0.15	1.0	J
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	19	0.23	1.0	
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.8	99	85 - 118	
1,2-Dichloroethane-d4	40.0	40.2	101	87 - 122	
Toluene-d8	40.0	39.5	99	85 - 113	

000214

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-6

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-06

File ID: 1510440-06.D

Sampled: 10/20/15 09:30

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:58

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.6	99	82 - 110	

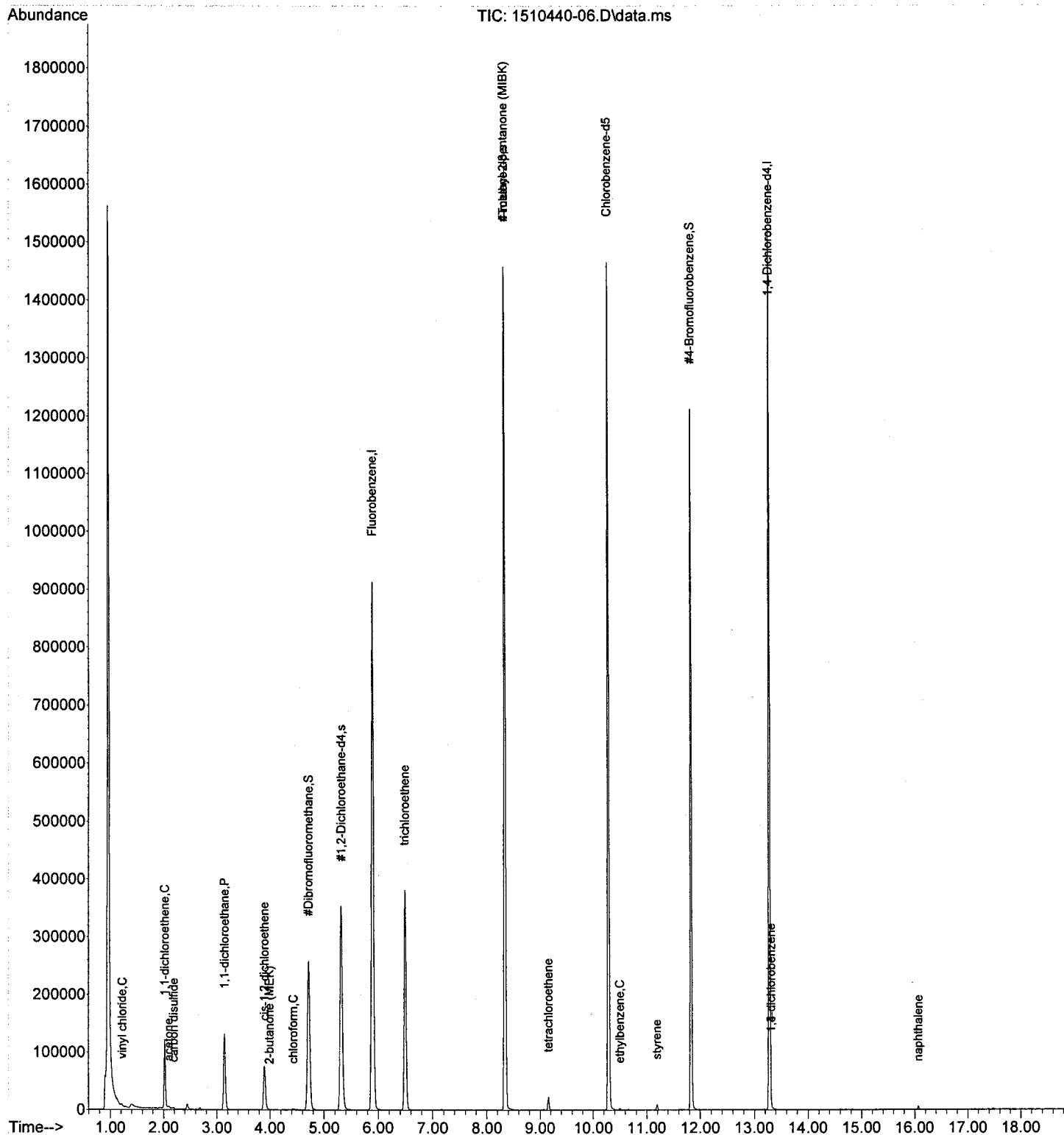
* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1001040	5.897	100	5.915	
Chlorobenzene-d5	695874	10.286	99	10.305	
1,4-Dichlorobenzene-d4	339802	13.28	98	13.292	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-06.D
Acq On : 30 Oct 2015 00:58
Operator : BAG
Sample : 1510440-06
Misc : MWH
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 30 08:16:43 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



000216

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-06.D
 Acq On : 30 Oct 2015 00:58
 Operator : BAG
 Sample : 1510440-06
 Misc : MWH
 ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 30 08:16:43 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.897	96	1001040	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.286	117	695874	40.00	ug/L	-0.02
66) 1,4-Dichlorobenzene-d4	13.280	152	339802	40.00	ug/L	#-0.01
System Monitoring Compounds						
29) #Dibromofluoromethane	4.714	111	249255	39.76	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	99.40%	
37) #1,2-Dichloroethane-d4	5.318	67	194887	40.21	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	100.52%	
47) #Toluene-d8	8.342	98	950902	39.46	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	98.65%	
65) #4-Bromofluorobenzene	11.835	95	398681	39.55	ug/L	-0.01
Spiked Amount 40.000			Recovery	=	98.87%	
Target Compounds						Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	1.221	62	1435	0.14	ug/L #	1
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	2.020	96	35160	4.24	ug/L	99
13) acetone	2.093	43	4330	1.58	ug/L #	50
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.190	76	2062	0.09	ug/L #	75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.446	49	6629	Below Cal		96
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	3.141	63	146133	8.85	ug/L	100
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	3.897	96	39236	4.73	ug/L #	89
25) 2-butanone (MEK)	3.989	43	1908	0.51	ug/L #	58
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	4.434	83	2180	0.14	ug/L	90
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.897	57	45240	No Calib		
38) trichloroethene	6.494	130	142116	19.22	ug/L	100
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000217

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-06.D
 Acq On : 30 Oct 2015 00:58
 Operator : BAG
 Sample : 1510440-06
 Misc : MWH
 ALS Vial : 37 Sample Multiplier: 1

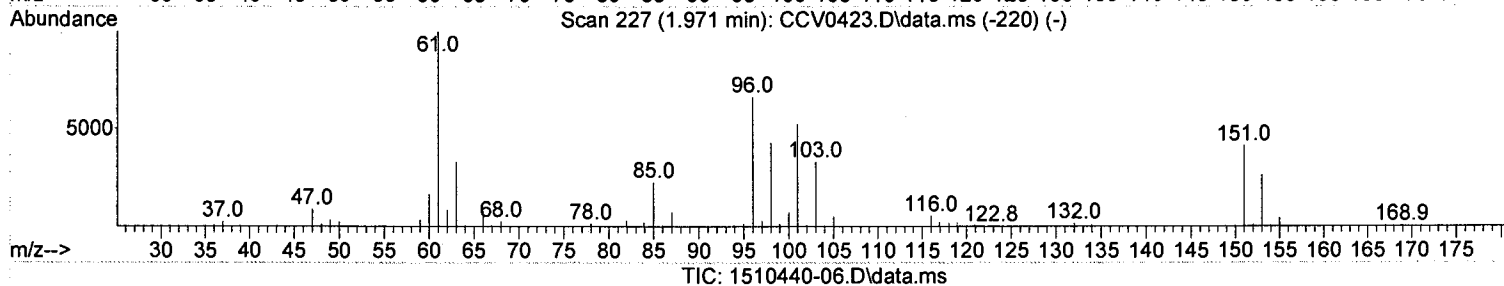
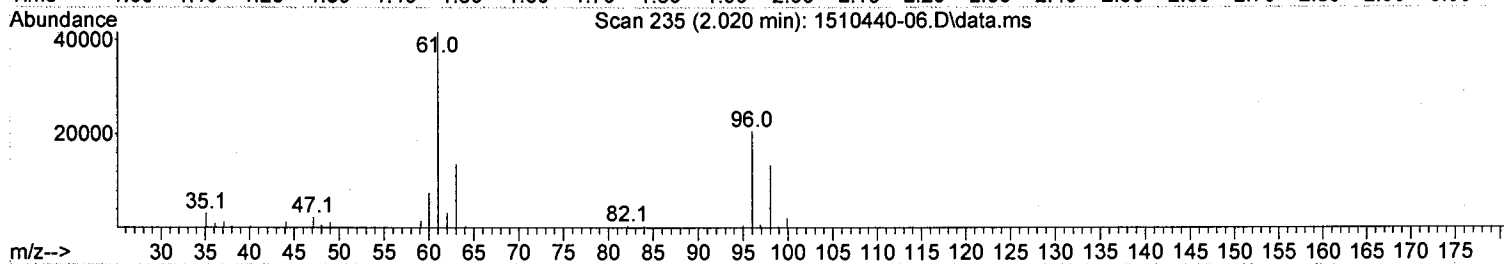
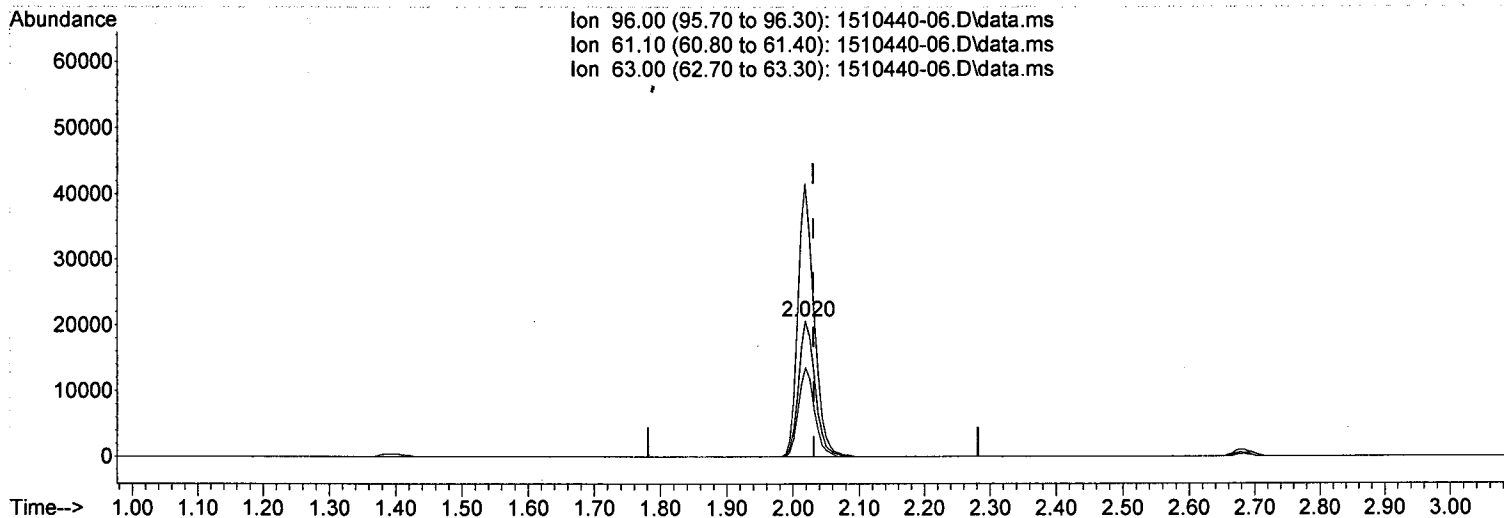
Quant Time: Oct 30 08:16:43 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.342	43	5997	1.7 0.70 ug/L #		1
48) toluene	0.000		0	N.D.		
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	9.158	166	6189	0.81 ug/L		98
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	10.500	91	2730	0.07 ug/L #		46
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	11.195	104	4291	0.19 ug/L		83
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	13.310	146	1267	0.09 ug/L #		24
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	13.310	146	1267	0.09 ug/L #		24
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	0.000		0	N.D.		
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	0.000		0	N.D.		
87) hexachlorobutadiene	0.000		0	N.D.		
88) naphthalene	16.066	128	4785	0.26 ug/L #		72
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	0.000		0	N.D.		

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-06.D
Acq On : 30 Oct 2015 00:58
Operator : BAG
Sample : 1510440-06
Misc : MWH
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 30 08:16:43 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



TIC: 1510440-06.D\data.ms

(12) 1,1-dichloroethene (C)

2.020min (-0.012) 4.24 ug/L

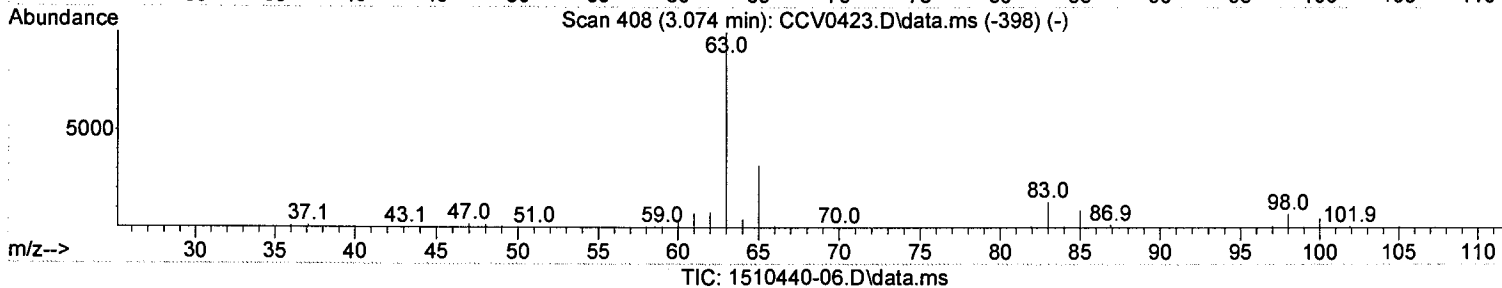
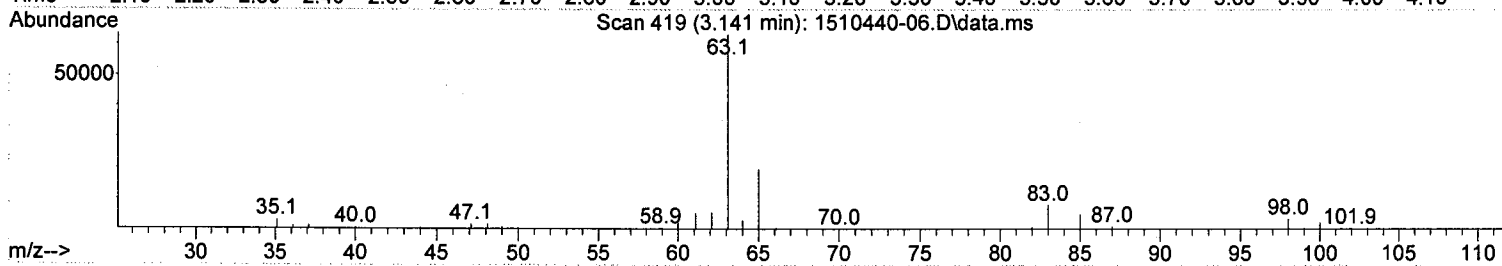
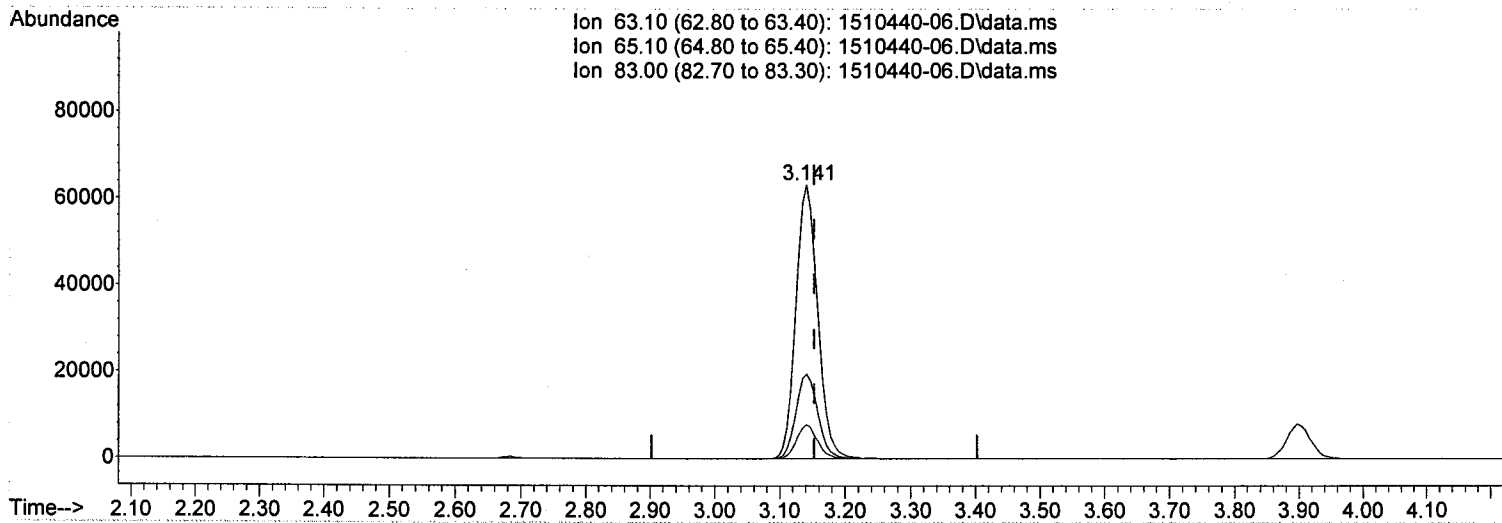
response 35160

Ion	Exp%	Act%
96.00	100	100
61.10	199.80	197.78
63.00	64.10	63.36
0.00	0.00	0.00

000219

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-06.D
Acq On : 30 Oct 2015 00:58
Operator : BAG
Sample : 1510440-06
Misc : MWH
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 30 08:16:43 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



TIC: 1510440-06.D\data.ms

(21) 1,1-dichloroethane (P)

3.141min (-0.012) 8.85 ug/L

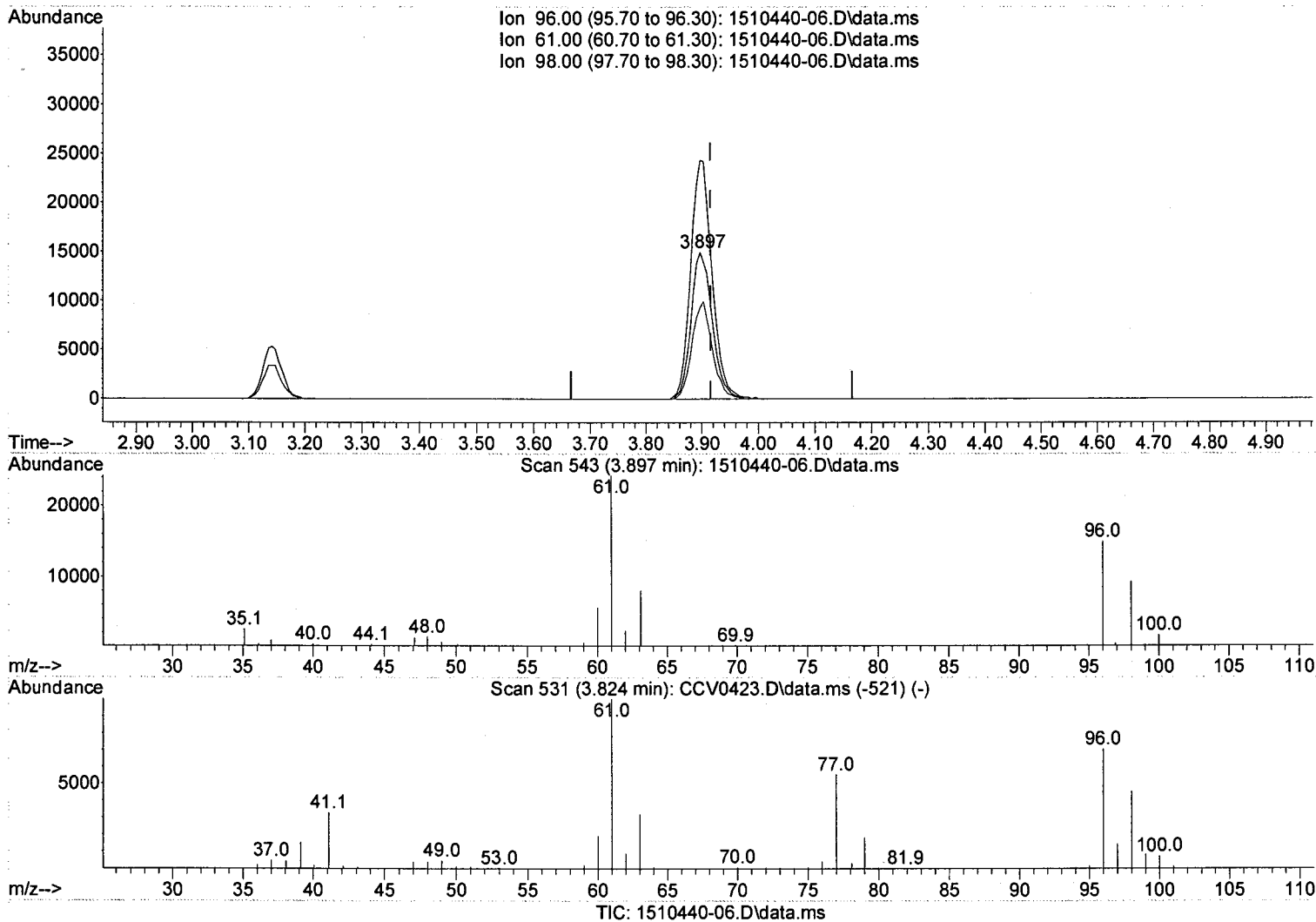
response 146133

Ion	Exp%	Act%
63.10	100	100
65.10	30.90	31.14
83.00	11.90	11.97
0.00	0.00	0.00

000220

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-06.D
Acq On : 30 Oct 2015 00:58
Operator : BAG
Sample : 1510440-06
Misc : MWH
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 30 08:16:43 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(24) cis-1,2-dichloroethene

3.897min (-0.019) 4.73 ug/L

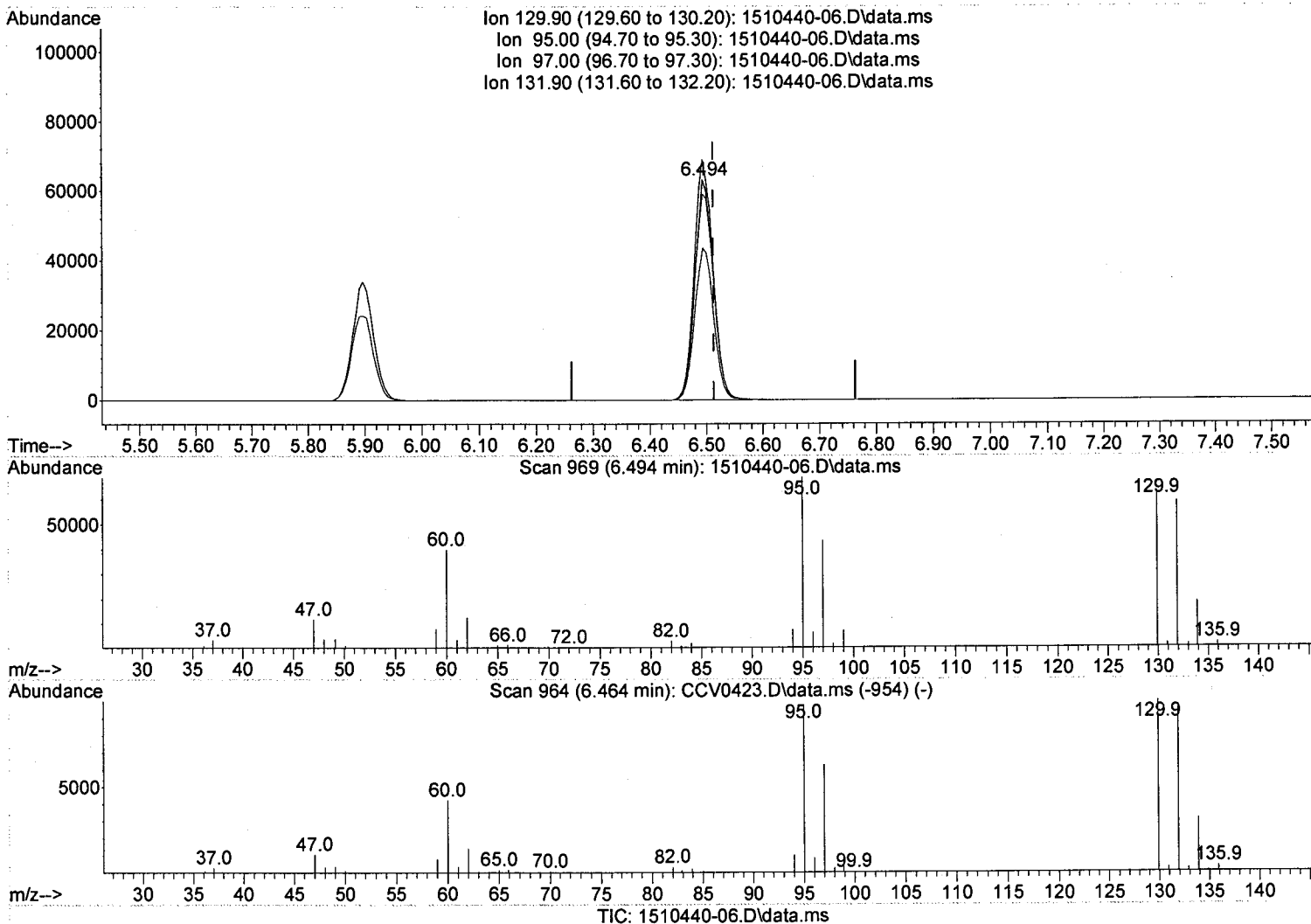
response 39236

Ion	Exp%	Act%
96.00	100	100
61.00	185.80	164.83#
98.00	63.60	63.62
0.00	0.00	0.00

000221

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-06.D
Acq On : 30 Oct 2015 00:58
Operator : BAG
Sample : 1510440-06
Misc : MWH
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 30 08:16:43 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(38) trichloroethene

6.494min (-0.019) 19.22 ug/L

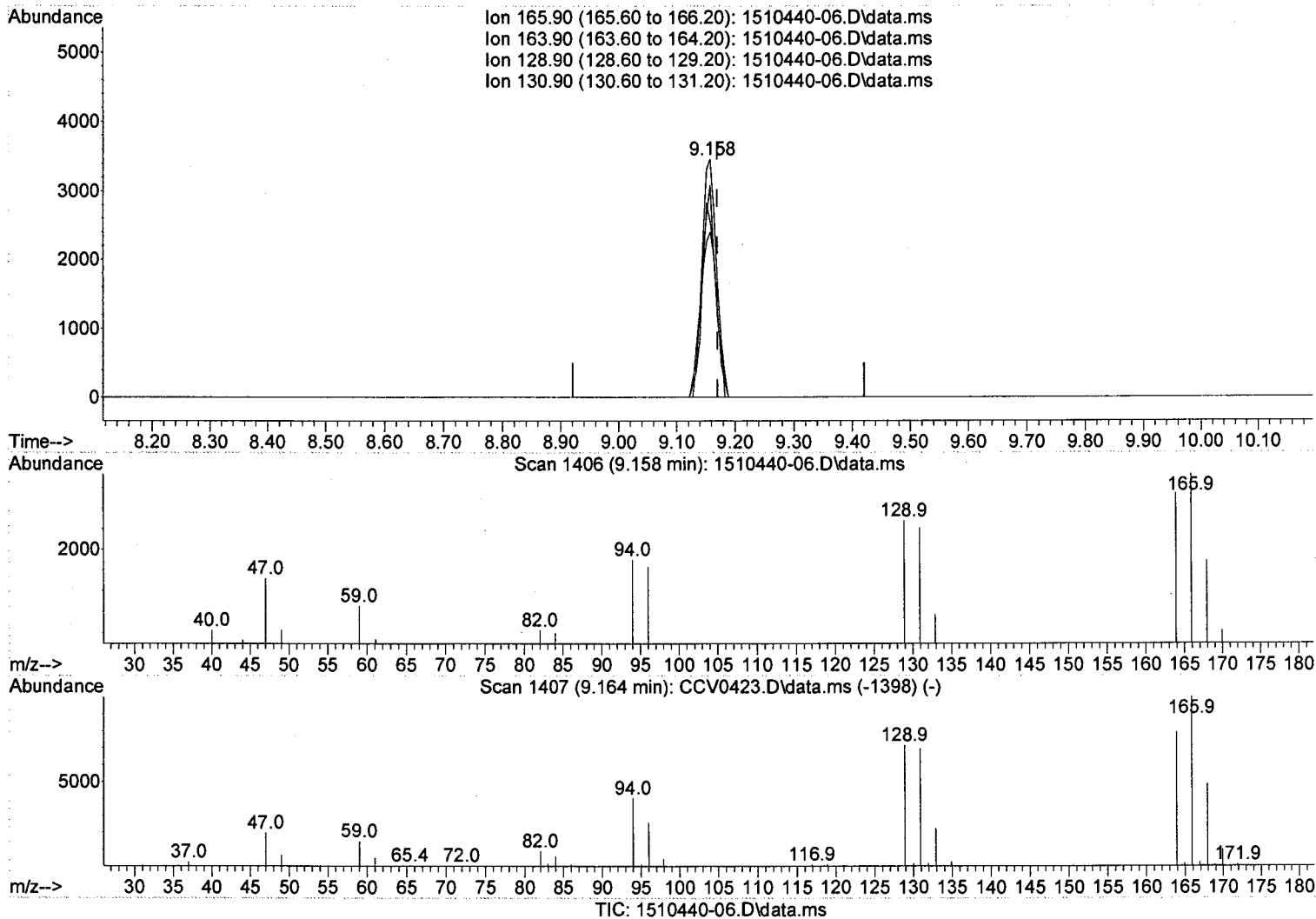
response 142116

Ion	Exp%	Act%
129.90	100	100
95.00	112.20	111.68
97.00	71.70	71.42
131.90	96.70	97.32

000222

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-06.D
Acq On : 30 Oct 2015 00:58
Operator : BAG
Sample : 1510440-06
Misc : MWH
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 30 08:16:43 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(52) tetrachloroethene

9.158min (-0.013) 0.81 ug/L

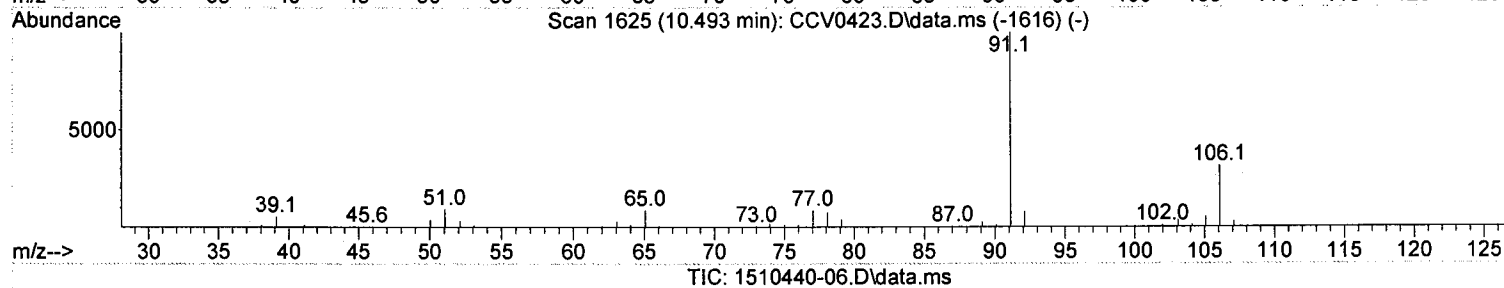
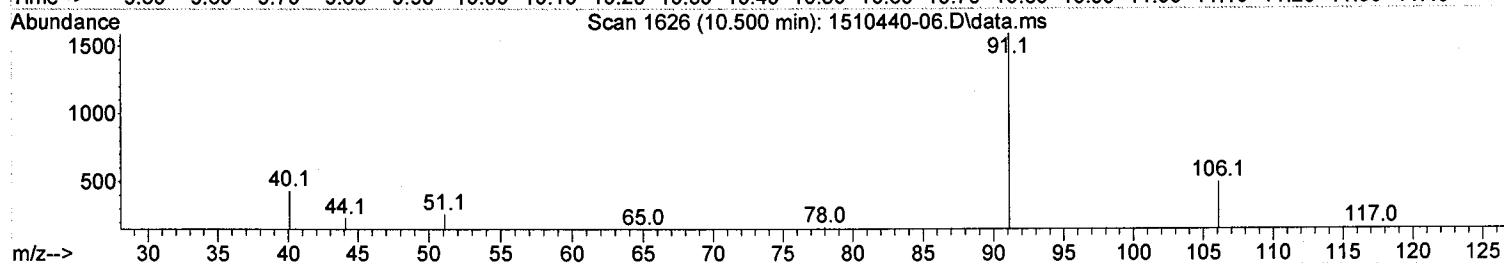
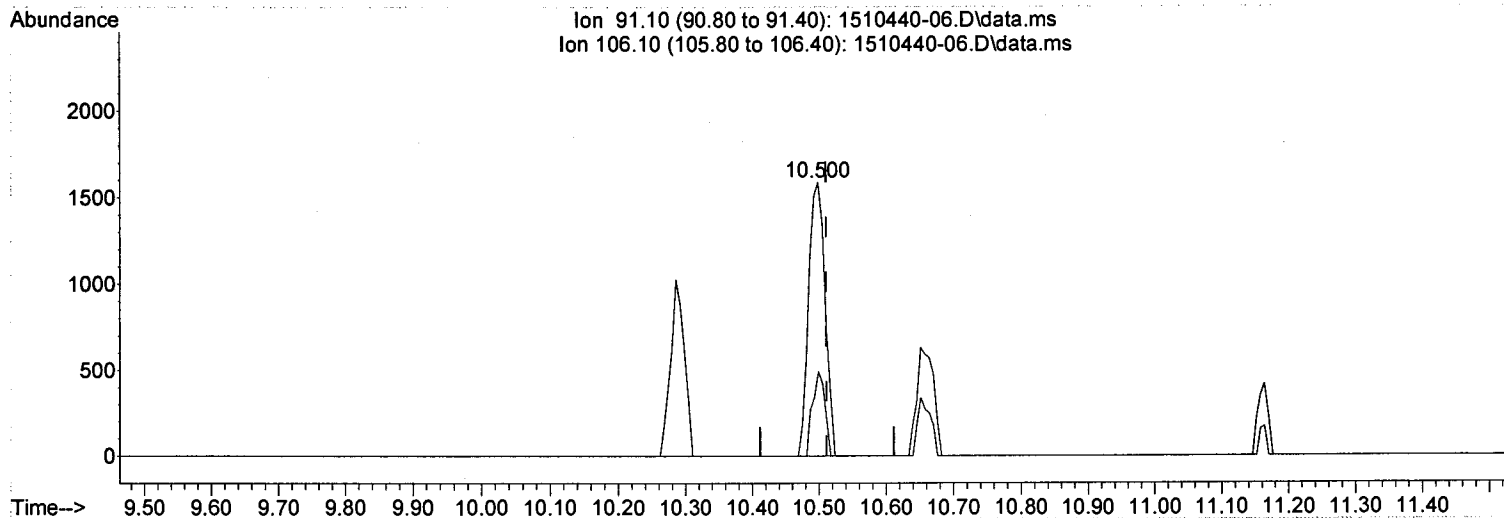
response 6189

Ion	Exp%	Act%
165.90	100	100
163.90	78.80	78.77
128.90	76.90	78.67
130.90	73.90	71.47

000223

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-06.D
Acq On : 30 Oct 2015 00:58
Operator : BAG
Sample : 1510440-06
Misc : MWH
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 30 08:16:43 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(60) ethylbenzene (C)

10.500min (-0.012) 0.07 ug/L

response 2730

Ion	Exp%	Act%
91.10	100	100
106.10	28.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-7

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-07

File ID: 1510440-07.D

Sampled: 10/20/15 11:40

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 03:49

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	2.5	6.7	6.0	25	J
71-43-2	Benzene	2.5	2.5	0.68	2.5	U
108-86-1	Bromobenzene	2.5	2.5	0.52	2.5	U
74-97-5	Bromochloromethane	2.5	2.5	0.55	2.5	U
75-27-4	Bromodichloromethane	2.5	2.5	0.65	2.5	U
75-25-2	Bromoform	2.5	2.5	0.35	2.5	U
74-83-9	Bromomethane	2.5	2.5	0.45	2.5	U
104-51-8	n-Butylbenzene	2.5	2.5	0.70	2.5	U
135-98-8	sec-Butylbenzene	2.5	2.5	0.25	2.5	U
98-06-6	tert-Butylbenzene	2.5	2.5	0.28	2.5	U
75-15-0	Carbon Disulfide	2.5	3.6	0.35	12	J
56-23-5	Carbon Tetrachloride	2.5	2.5	0.75	2.5	U
108-90-7	Chlorobenzene	2.5	2.5	0.60	2.5	U
75-00-3	Chloroethane	2.5	2.5	0.55	2.5	U
67-66-3	Chloroform	2.5	2.5	0.52	2.5	U
74-87-3	Chloromethane	2.5	2.5	0.45	2.5	U
95-49-8	2-Chlorotoluene	2.5	2.5	0.40	2.5	U
106-43-4	4-Chlorotoluene	2.5	2.5	0.75	2.5	U
124-48-1	Dibromochloromethane	2.5	2.5	0.72	2.5	U
106-93-4	1,2-Dibromoethane	2.5	12	0.35	12	U
74-95-3	Dibromomethane	2.5	2.5	0.52	2.5	U
95-50-1	1,2-Dichlorobenzene	2.5	2.5	0.55	2.5	U
541-73-1	1,3-Dichlorobenzene	2.5	2.5	0.32	2.5	U
106-46-7	1,4-Dichlorobenzene	2.5	2.5	0.52	2.5	U
75-71-8	Dichlorodifluoromethane	2.5	25	0.72	25	U
75-34-3	1,1-Dichloroethane	2.5	18	0.68	2.5	
107-06-2	1,2-Dichloroethane	2.5	2.5	0.45	2.5	U
75-35-4	1,1-Dichloroethene	2.5	29	0.60	2.5	
156-59-2	cis-1,2-Dichloroethene	2.5	370	0.52	2.5	
156-60-5	trans-1,2-Dichloroethene	2.5	0.85	0.40	2.5	J
540-59-0	1,2-Dichloroethene (Total)	2.5	370	0.92	5.0	
78-87-5	1,2-Dichloropropane	2.5	2.5	0.65	2.5	U
142-28-9	1,3-Dichloropropane	2.5	2.5	0.58	2.5	U
594-20-7	2,2-Dichloropropane	2.5	2.5	0.68	2.5	U

000225

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-7

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-07

File ID: 1510440-07.D

Sampled: 10/20/15 11:40

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 03:49

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	2.5	2.5	0.58	2.5	U
10061-01-5	cis-1,3-Dichloropropene	2.5	2.5	0.52	2.5	U
10061-02-6	trans-1,3-Dichloropropene	2.5	2.5	0.55	2.5	U
100-41-4	Ethylbenzene	2.5	0.18	0.16	2.5	J
591-78-6	2-Hexanone	2.5	25	1.4	25	U
98-82-8	Isopropylbenzene	2.5	2.5	0.28	2.5	U
99-87-6	4-Isopropyltoluene	2.5	2.5	0.78	2.5	U
1634-04-4	Methyl tert-Butyl Ether	2.5	12	0.62	12	U
75-09-2	Methylene Chloride	2.5	1.4	0.58	12	J
78-93-3	2-Butanone (MEK)	2.5	25	2.4	25	U
108-10-1	4-Methyl-2-pentanone (MIBK)	2.5	25	0.88	25	U
103-65-1	n-Propylbenzene	2.5	2.5	0.58	2.5	U
100-42-5	Styrene	2.5	2.5	0.58	2.5	U
630-20-6	1,1,1,2-Tetrachloroethane	2.5	2.5	0.62	2.5	U
79-34-5	1,1,2,2-Tetrachloroethane	2.5	2.5	0.65	2.5	U
127-18-4	Tetrachloroethene	2.5	2.5	0.38	2.5	U
108-88-3	Toluene	2.5	2.5	0.72	2.5	U
71-55-6	1,1,1-Trichloroethane	2.5	2.5	0.48	2.5	U
79-00-5	1,1,2-Trichloroethane	2.5	2.5	0.68	2.5	U
79-01-6	Trichloroethene	2.5	1.8	0.58	2.5	J
75-69-4	Trichlorofluoromethane	2.5	2.5	0.58	2.5	U
96-18-4	1,2,3-Trichloropropane	2.5	2.5	0.35	2.5	U
95-63-6	1,2,4-Trimethylbenzene	2.5	2.5	0.65	2.5	U
108-67-8	1,3,5-Trimethylbenzene	2.5	2.5	0.15	2.5	U
108-05-4	Vinyl Acetate	2.5	25	0.80	25	U
75-01-4	Vinyl Chloride	2.5	5.0	0.52	5.0	U
179601-23-1	Xylene, Meta + Para	2.5	5.0	0.60	5.0	U
95-47-6	Xylene, Ortho	2.5	2.5	0.30	2.5	U
1330-20-7	Xylene (Total)	2.5	7.5	0.90	7.5	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.7	99	85 - 118	
1,2-Dichloroethane-d4	40.0	39.9	100	87 - 122	
Toluene-d8	40.0	39.0	97	85 - 113	

000226

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-7

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-07

File ID: 1510440-07.D

Sampled: 10/20/15 11:40

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 03:49

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.6	99	82 - 110	

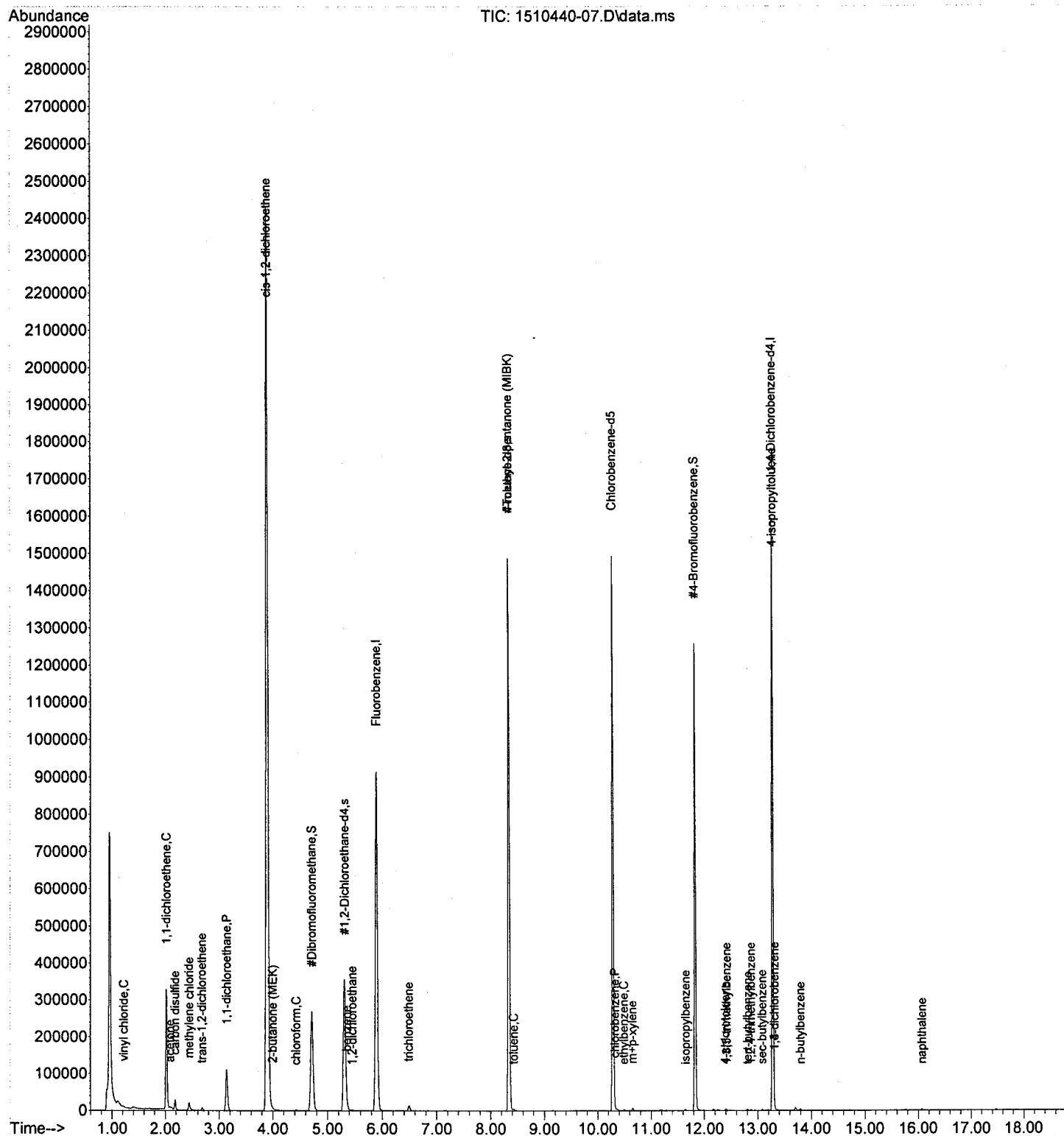
* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1018042	5.897	101	5.915	
Chlorobenzene-d5	704213	10.286	101	10.305	
1,4-Dichlorobenzene-d4	348398	13.28	101	13.292	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-07.D
Acq On : 30 Oct 2015 3:49
Operator : BAG
Sample : 1510440-07
Misc : MWH 20mL:50mL=2.5X
ALS Vial : 43 Sample Multiplier: 2.5

Quant Time: Oct 30 08:16:46 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-07.D
 Acq On : 30 Oct 2015 3:49
 Operator : BAG
 Sample : 1510440-07
 Misc : MWH 20mL:50mL=2.5X
 ALS Vial : 43 Sample Multiplier: 2.5

Quant Time: Oct 30 08:16:46 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.897	96	1018042	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.286	117	704213	40.00	ug/L	-0.02
66) 1,4-Dichlorobenzene-d4	13.280	152	348398	40.00	ug/L	#-0.01
System Monitoring Compounds						
29) #Dibromofluoromethane	4.714	111	252968	39.68	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	99.20%	
37) #1,2-Dichloroethane-d4	5.318	67	196492	39.86	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	99.65%	
47) #Toluene-d8	8.342	98	954863	38.97	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	97.42%	
65) #4-Bromofluorobenzene	11.829	95	404464	39.65	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	99.13%	
Target Compounds						
						Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	1.221	62	2195	0.20	ug/L #	43
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	2.020	96	97175	11.54	ug/L	99
13) acetone	2.093	43	8077	2.69	ug/L	91
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.184	76	32166	1.46	ug/L	100
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.446	49	16096	0.57	ug/L	99
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	2.678	96	2584	0.34	ug/L	89
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	3.141	63	123414	7.35	ug/L	100
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	3.897	96	1237976	146.70	ug/L #	88
25) 2-butanone (MEK)	4.001	43	1320	0.35	ug/L #	58
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	4.428	83	1762	0.11	ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	5.360	78	3922	0.11	ug/L #	40
35) 1,2-dichloroethane	5.458	62	1289	0.10	ug/L #	48
36) heptane	5.891	57	44890	No Calib		
38) trichloroethene	6.488	130	5244	0.70	ug/L	95
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000229

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-07.D
 Acq On : 30 Oct 2015 3:49
 Operator : BAG
 Sample : 1510440-07
 Misc : MWH 20mL:50mL=2.5X
 ALS Vial : 43 Sample Multiplier: 2.5

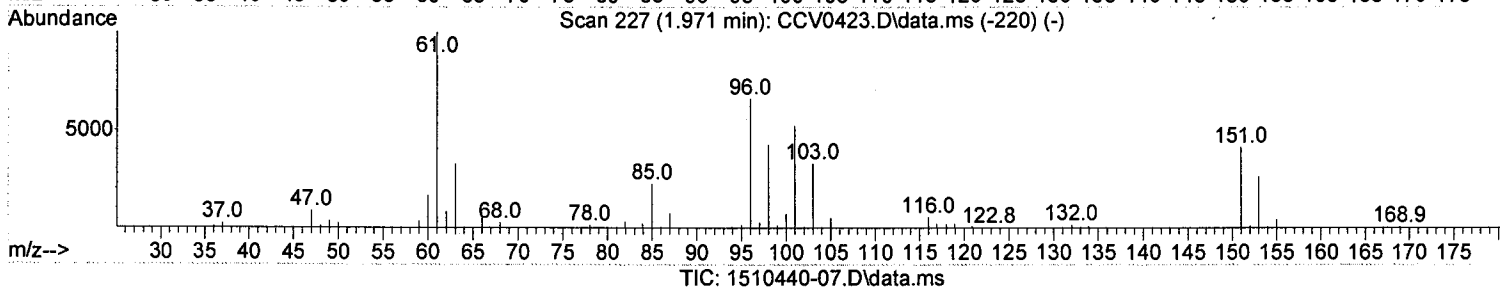
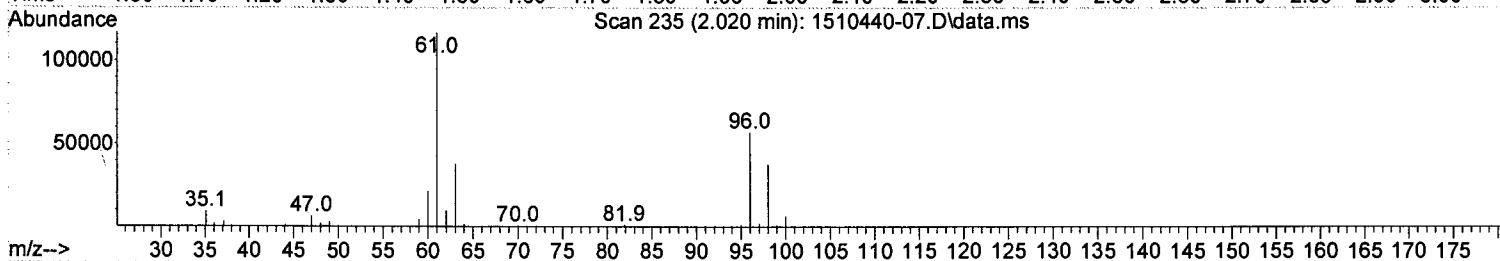
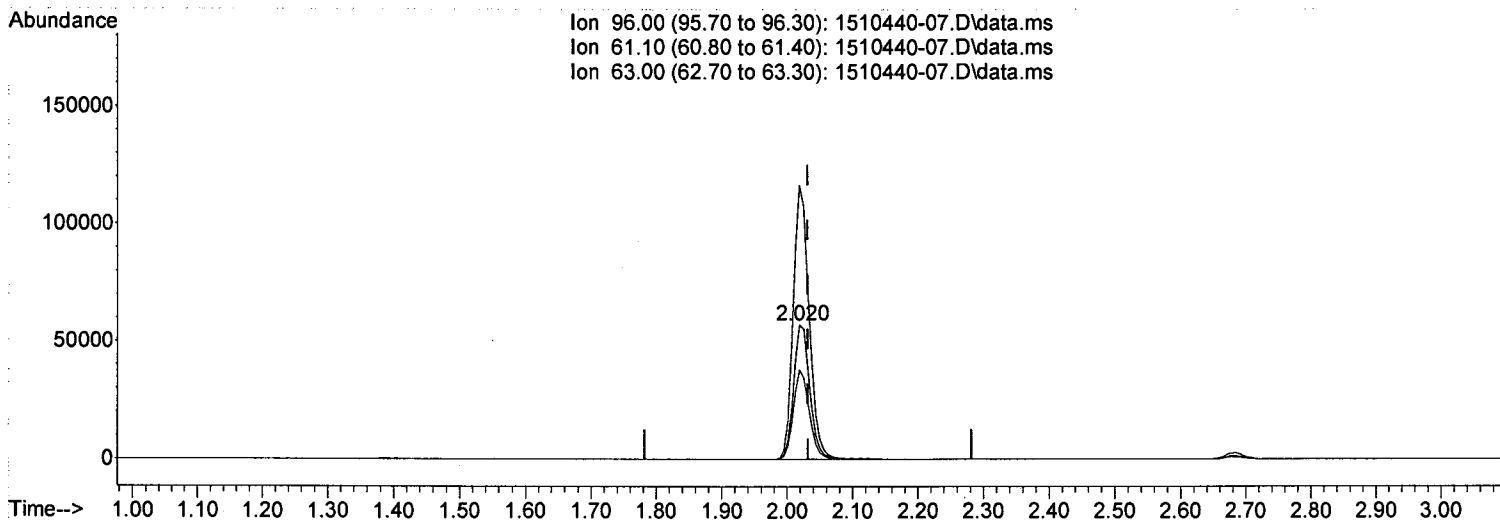
Quant Time: Oct 30 08:16:46 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.342	43	6522	~~0.75~~ ug/L #		1
48) toluene	8.433	91	3002	0.09 ug/L		100
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	0.000		0	N.D.		
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	10.323	112	1548	0.08 ug/L #		22
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	10.494	91	2869	0.07 ug/L #		46
61) m+p-xylene	10.652	106	1833	0.13 ug/L		94
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	11.652	105	2687	0.07 ug/L #		50
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	12.414	105	2116	~~0.07~~ ug/L #		30
75) 4-chlorotoluene	12.396	91	1987	0.06 ug/L #		50
76) tert-butylbenzene	12.810	119	1912	0.08 ug/L #		86
77) 1,2,4-trimethylbenzene	12.871	105	1853	0.06 ug/L #		33
78) sec-butylbenzene	13.085	105	2652	0.07 ug/L #		58
79) 1,3-dichlorobenzene	13.310	146	1385	0.10 ug/L #		1
80) 4-isopropyltoluene	13.286	119	2624	0.09 ug/L #		40
81) 1,4-dichlorobenzene	13.310	146	1385	0.10 ug/L #		1
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	13.798	91	2362	0.09 ug/L #		33
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	0.000		0	N.D.		
87) hexachlorobutadiene	0.000		0	N.D.		
88) naphthalene	16.066	128	2704	0.14 ug/L #		72
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	0.000		0	N.D.		

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-07.D
Acq On : 30 Oct 2015 3:49
Operator : BAG
Sample : 1510440-07
Misc : MWH 20mL:50mL=2.5X
ALS Vial : 43 Sample Multiplier: 2.5

Quant Time: Oct 30 08:16:46 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(12) 1,1-dichloroethene (C)

2.020min (-0.012) 11.54 ug/L

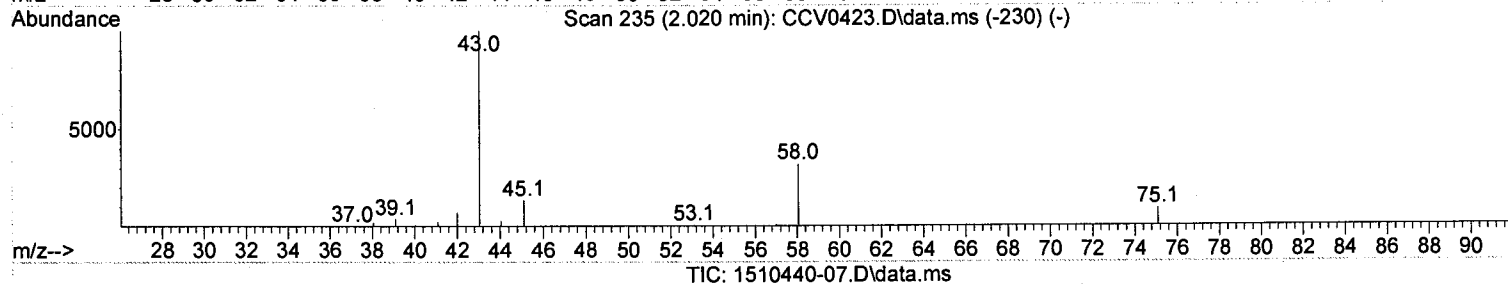
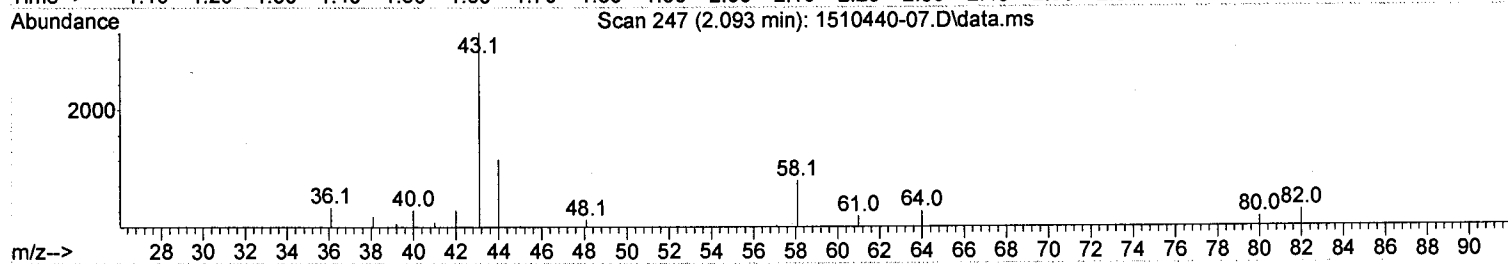
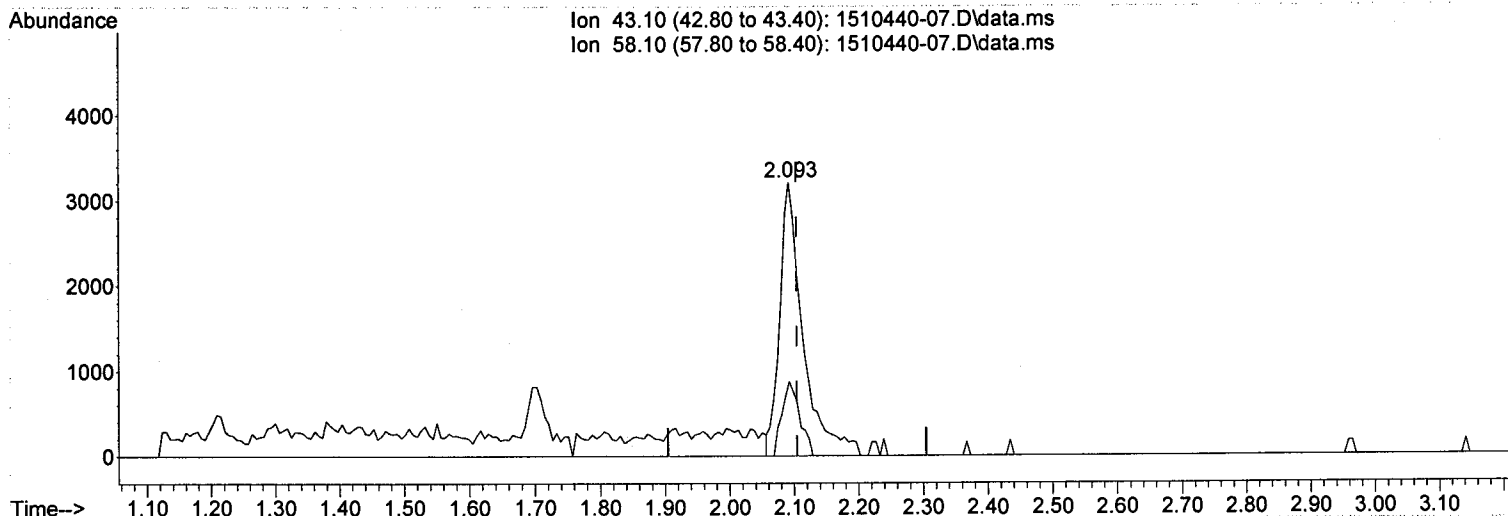
response 97175

Ion	Exp%	Act%
96.00	100	100
61.10	199.80	201.19
63.00	64.10	65.42
0.00	0.00	0.00

000231

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-07.D
Acq On : 30 Oct 2015 3:49
Operator : BAG
Sample : 1510440-07
Misc : MWH 20mL:50mL=2.5X
ALS Vial : 43 Sample Multiplier: 2.5

Quant Time: Oct 30 08:16:46 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(13) acetone

2.093min (-0.012) 2.69 ug/L

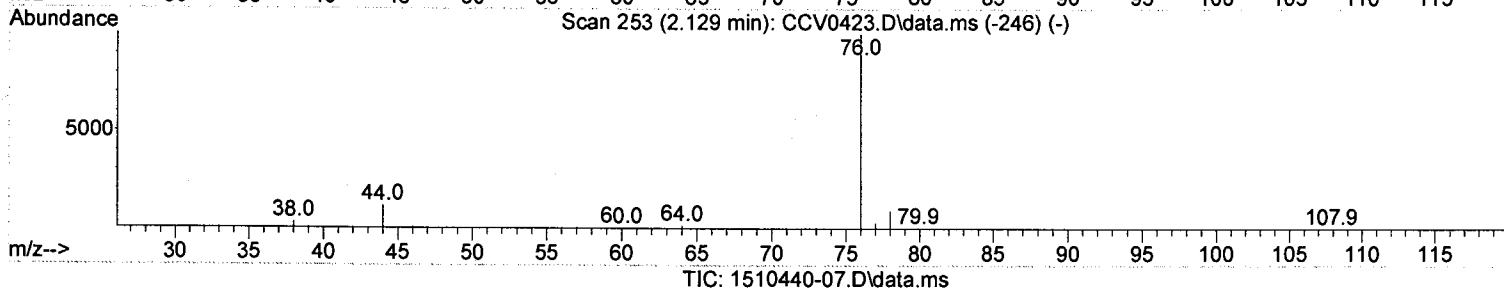
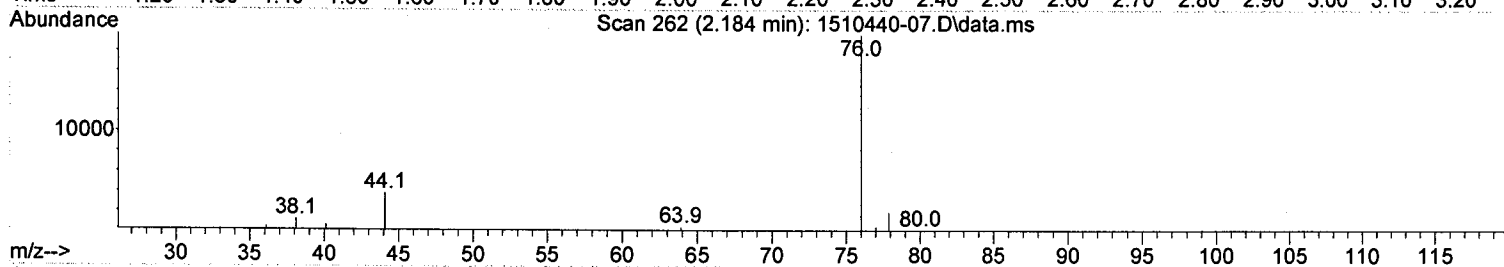
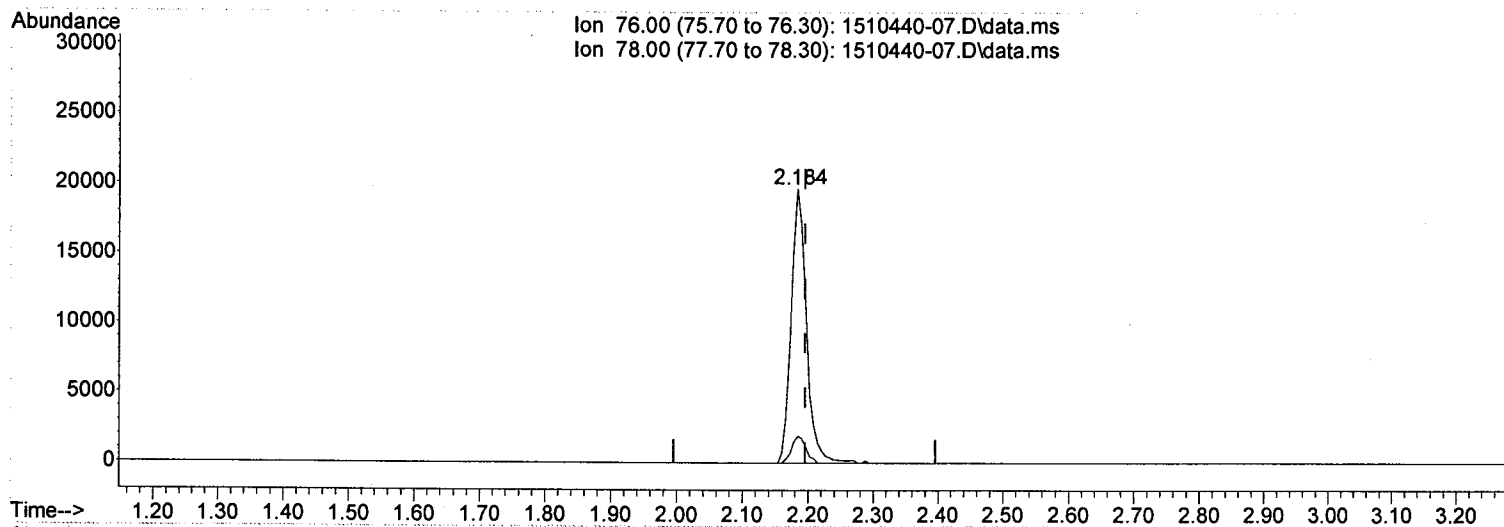
response 8077

Ion	Exp%	Act%
43.10	100	100
58.10	25.50	20.80
0.00	0.00	0.00
0.00	0.00	0.00

000232

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-07.D
Acq On : 30 Oct 2015 3:49
Operator : BAG
Sample : 1510440-07
Misc : MWH 20mL:50mL=2.5X
ALS Vial : 43 Sample Multiplier: 2.5

Quant Time: Oct 30 08:16:46 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(15) carbon disulfide

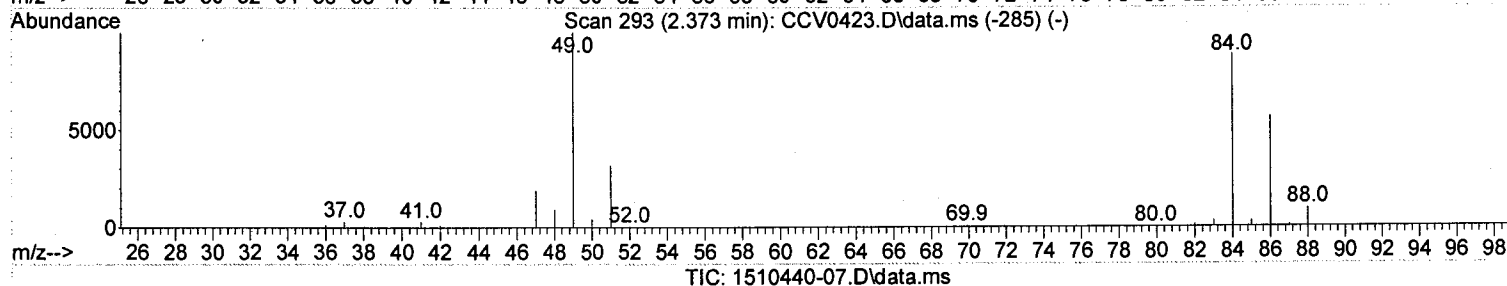
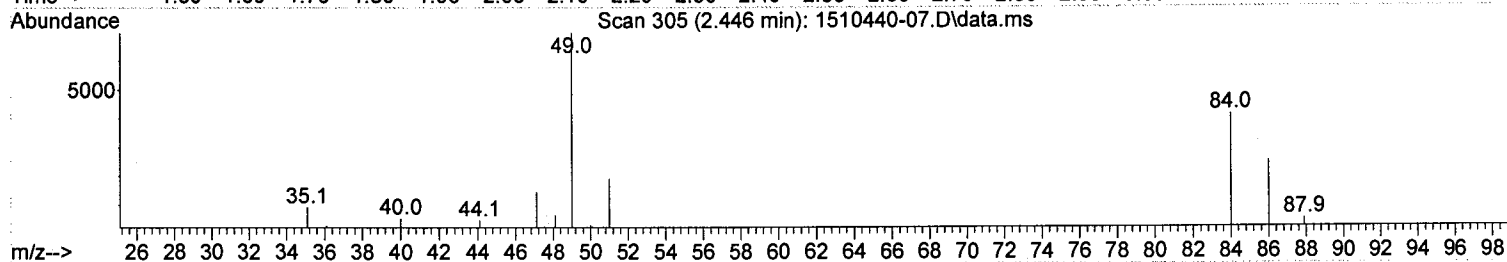
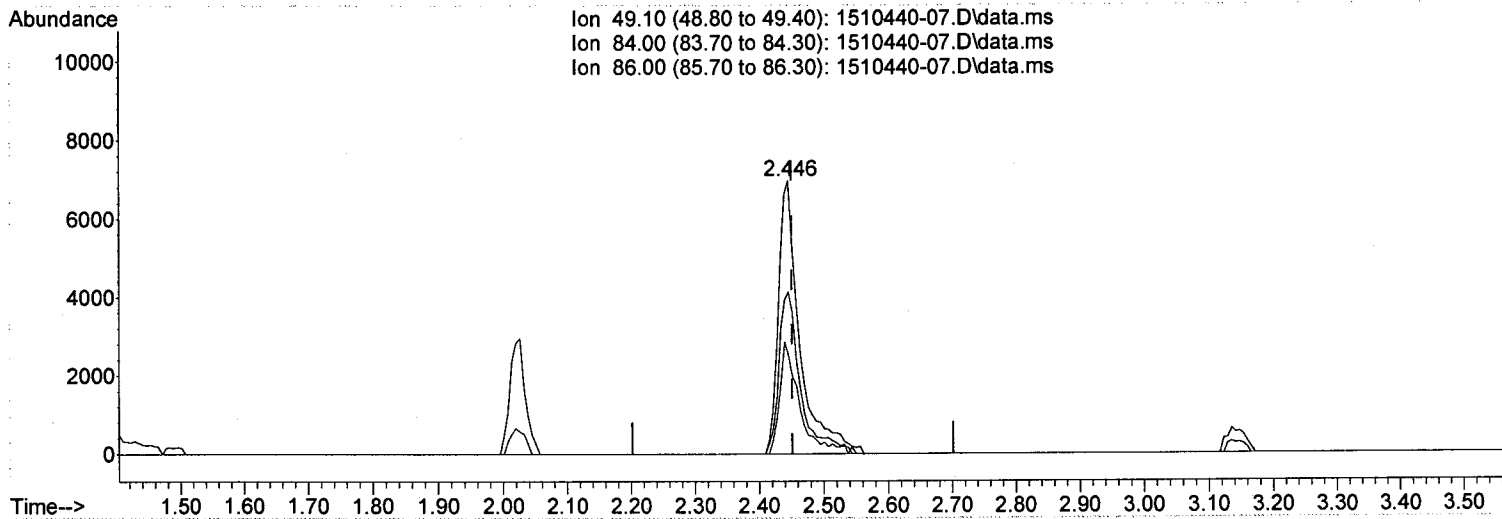
2.184min (-0.012) 1.46 ug/L

response 32166

Ion	Exp%	Act%
76.00	100	100
78.00	9.00	9.13
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-07.D
Acq On : 30 Oct 2015 3:49
Operator : BAG
Sample : 1510440-07
Misc : MWH 20mL:50mL=2.5X
ALS Vial : 43 Sample Multiplier: 2.5

Quant Time: Oct 30 08:16:46 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(17) methylene chloride

2.446min (-0.006) 0.57 ug/L

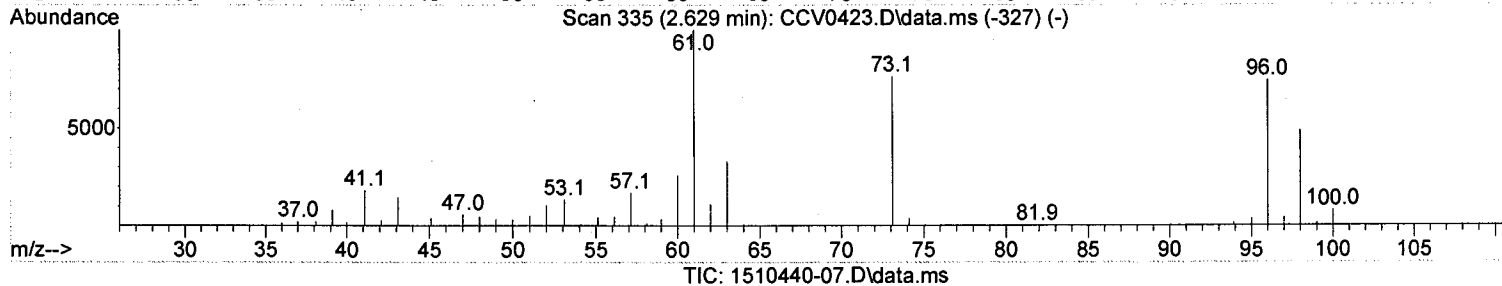
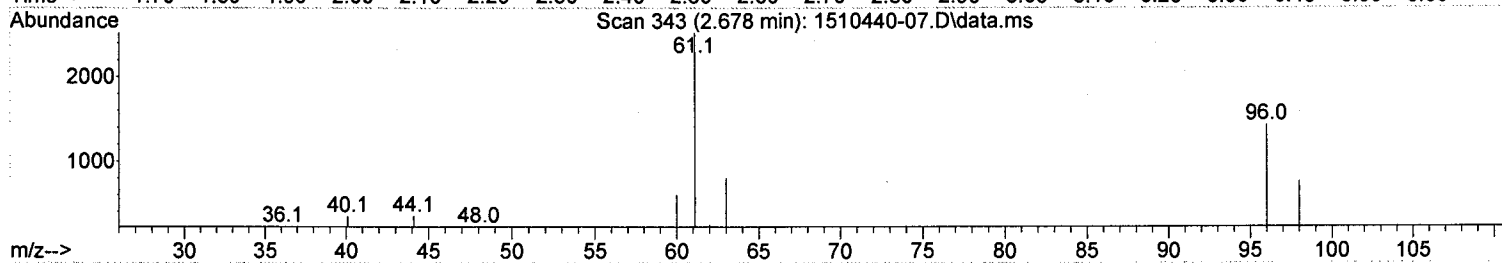
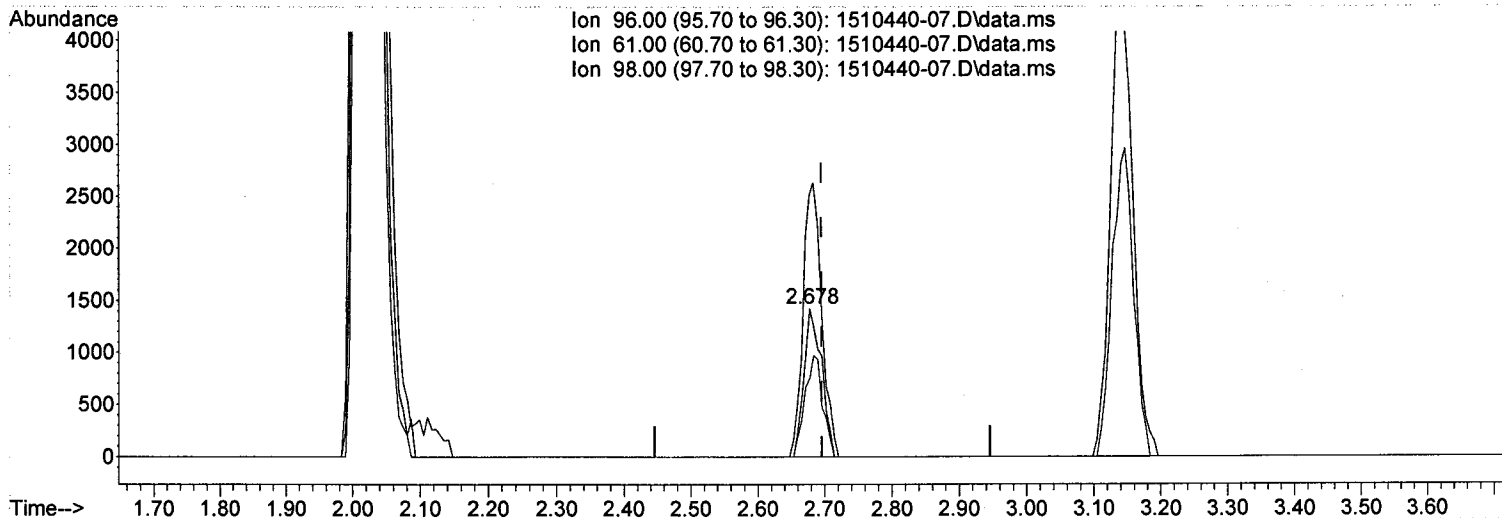
response 16096

Ion	Exp%	Act%
49.10	100	100
84.00	60.60	59.78
86.00	38.40	38.25
0.00	0.00	0.00

000234

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-07.D
Acq On : 30 Oct 2015 3:49
Operator : BAG
Sample : 1510440-07
Misc : MWH 20mL:50mL=2.5X
ALS Vial : 43 Sample Multiplier: 2.5

Quant Time: Oct 30 08:16:46 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(19) trans-1,2-dichloroethene

2.678min (-0.018) 0.34 ug/L

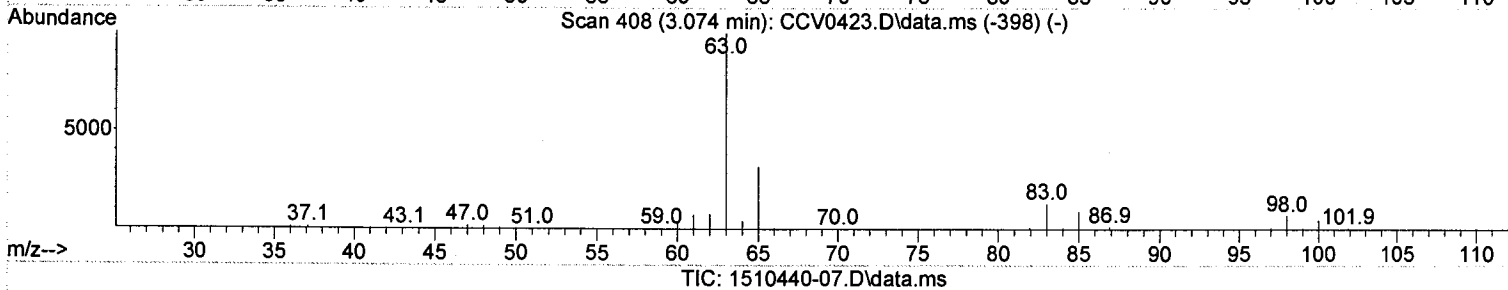
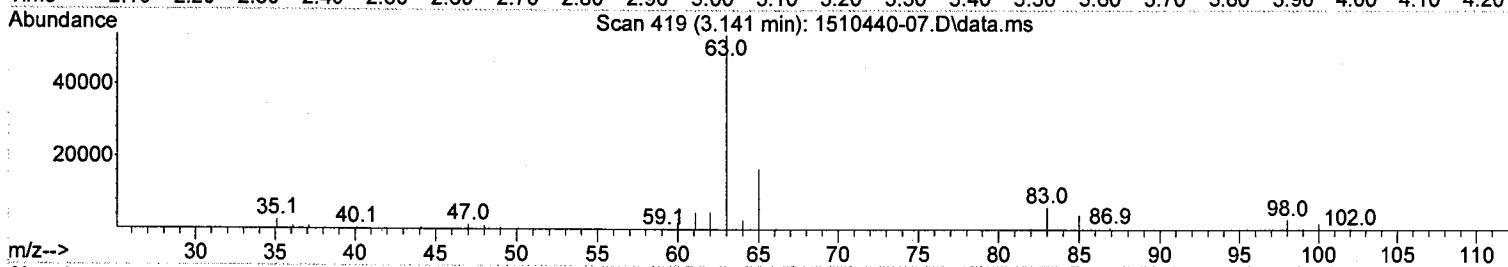
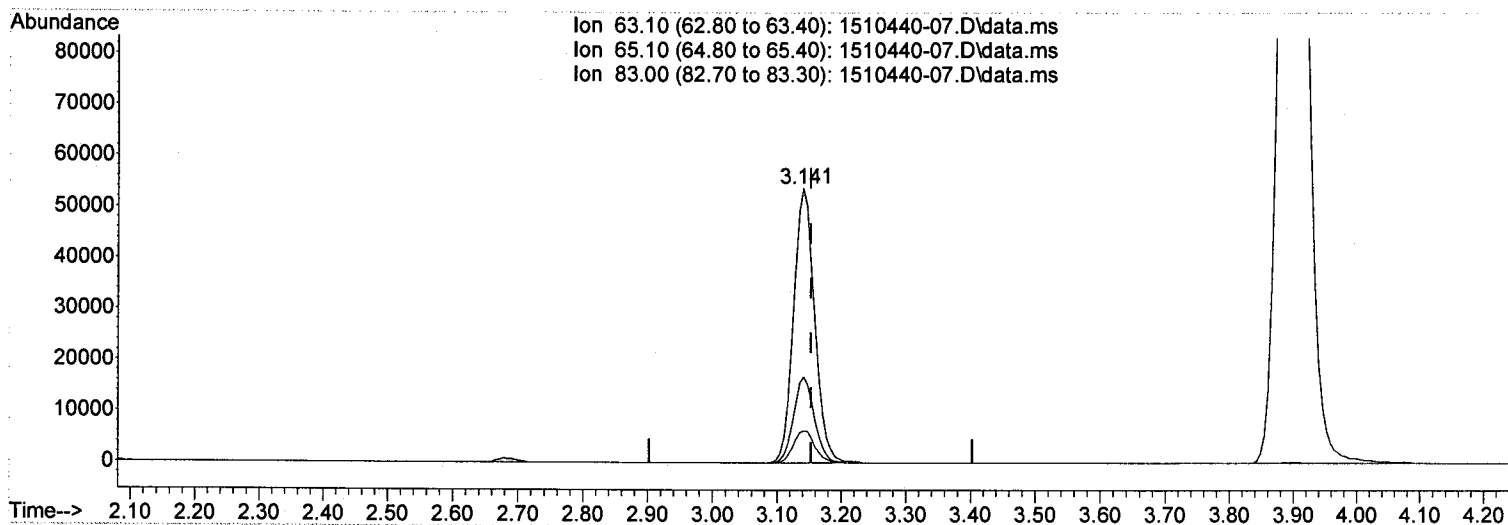
response 2584

Ion	Exp%	Act%
96.00	100	100
61.00	178.10	195.59
98.00	63.50	68.69
0.00	0.00	0.00

000235

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-07.D
Acq On : 30 Oct 2015 3:49
Operator : BAG
Sample : 1510440-07
Misc : MWH 20mL:50mL=2.5X
ALS Vial : 43 Sample Multiplier: 2.5

Quant Time: Oct 30 08:16:46 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(21) 1,1-dichloroethane (P)

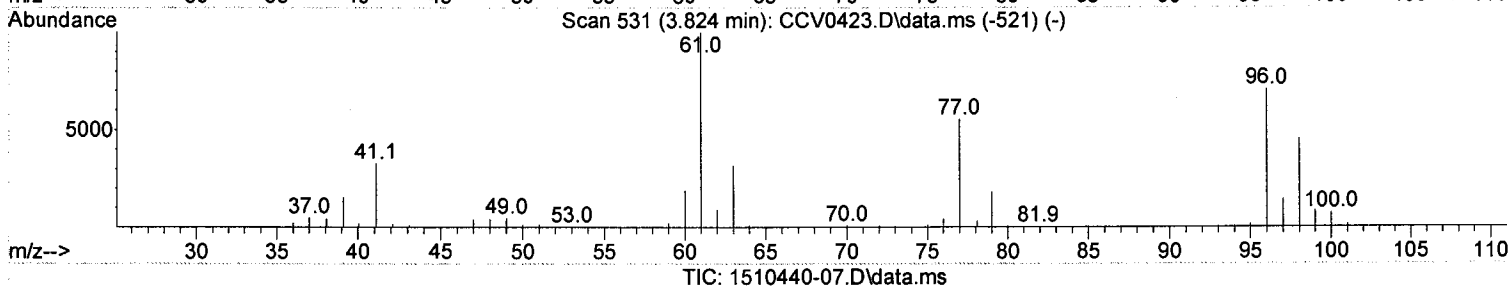
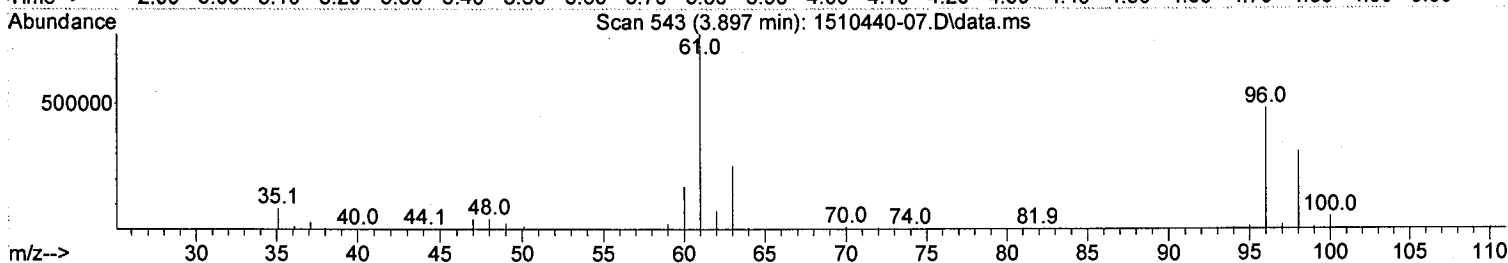
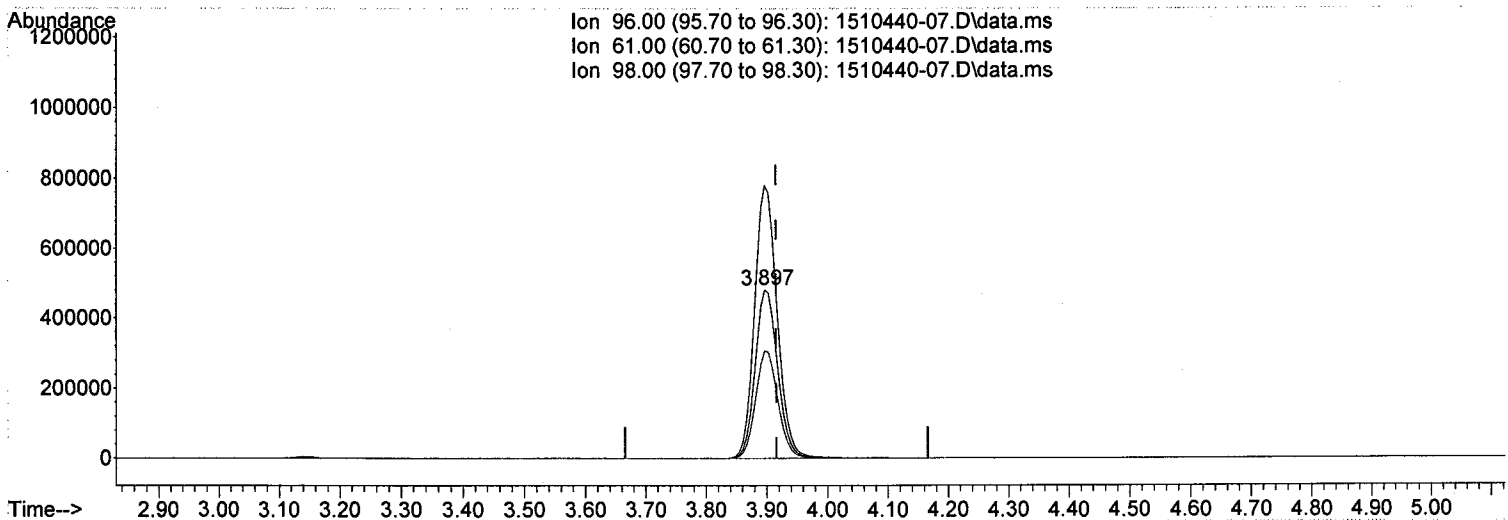
3.141min (-0.012) 7.35 ug/L

response 123414

Ion	Exp%	Act%
63.10	100	100
65.10	30.90	30.94
83.00	11.90	11.97
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-07.D
Acq On : 30 Oct 2015 3:49
Operator : BAG
Sample : 1510440-07
Misc : MWH 20mL:50mL=2.5X
ALS Vial : 43 Sample Multiplier: 2.5

Quant Time: Oct 30 08:16:46 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(24) cis-1,2-dichloroethene

3.897min (-0.019) 146.70 ug/L

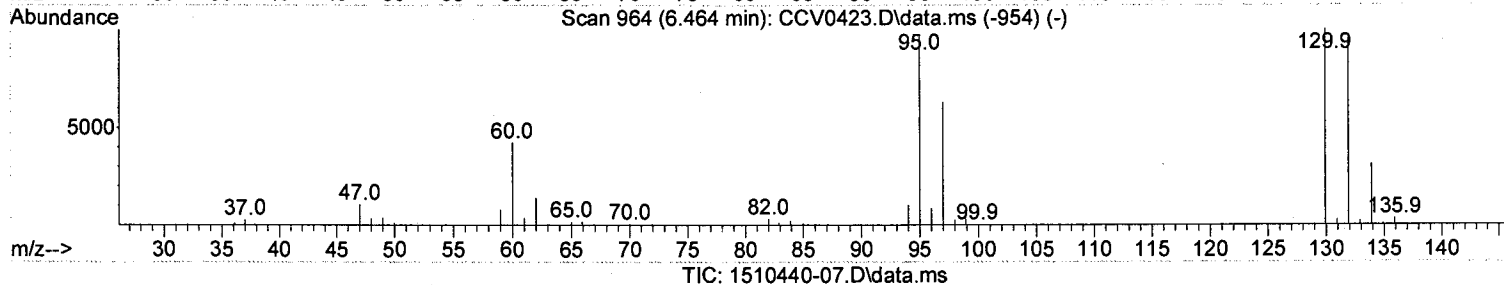
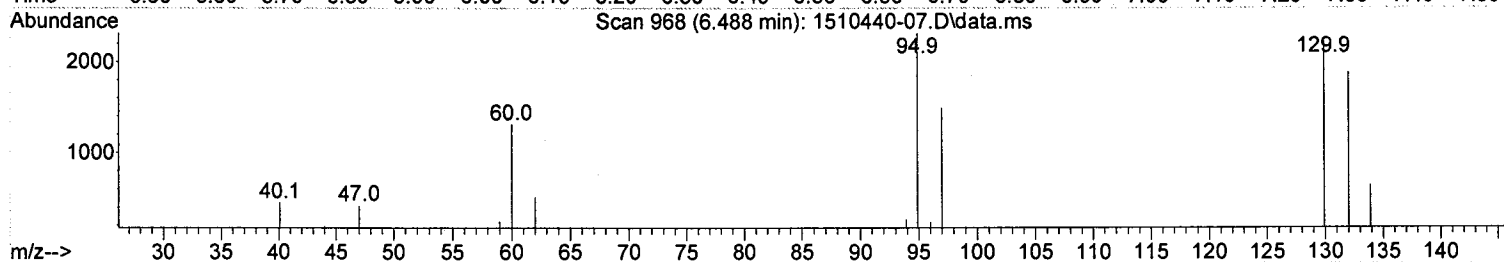
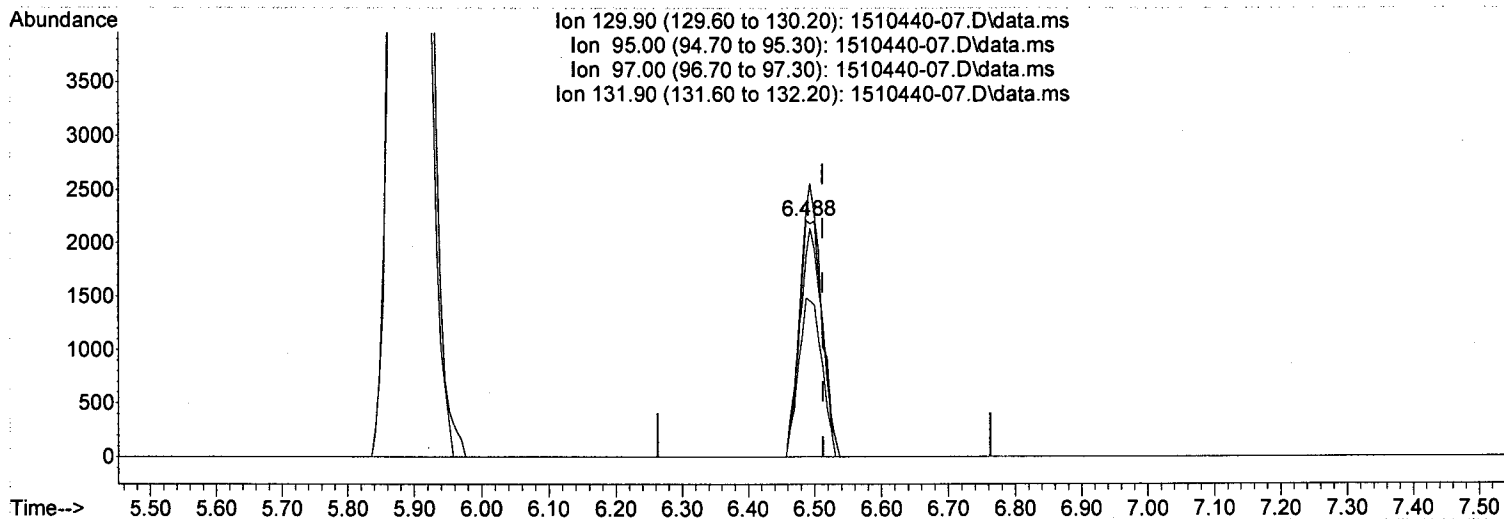
response 1237976

Ion	Exp%	Act%
96.00	100	100
61.00	185.80	162.67#
98.00	63.60	63.55
0.00	0.00	0.00

000237

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-07.D
Acq On : 30 Oct 2015 3:49
Operator : BAG
Sample : 1510440-07
Misc : MWH 20mL:50mL=2.5X
ALS Vial : 43 Sample Multiplier: 2.5

Quant Time: Oct 30 08:16:46 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(38) trichloroethene

6.488min (-0.025) 0.70 ug/L

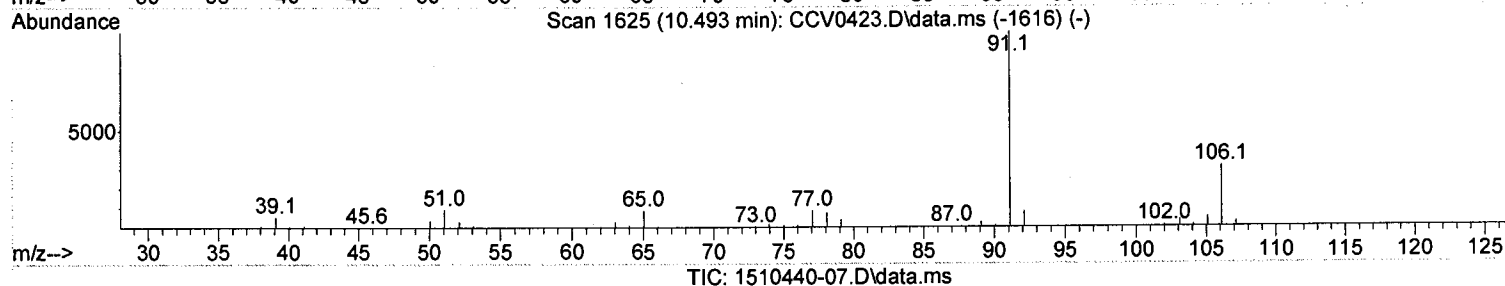
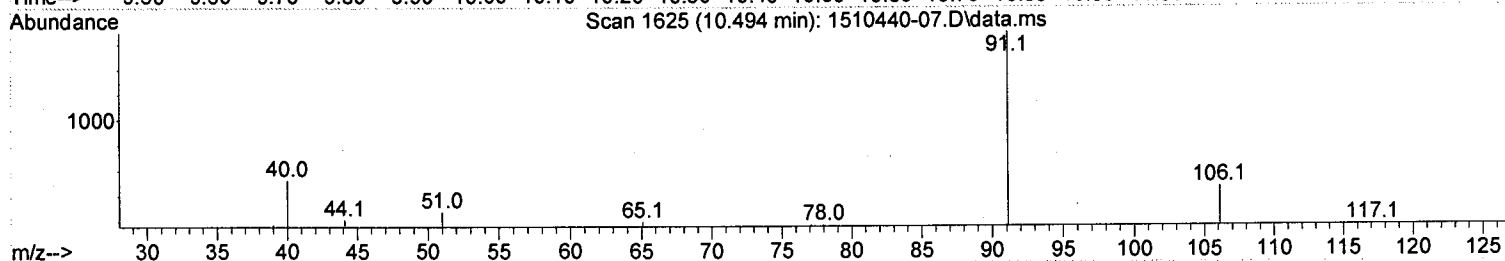
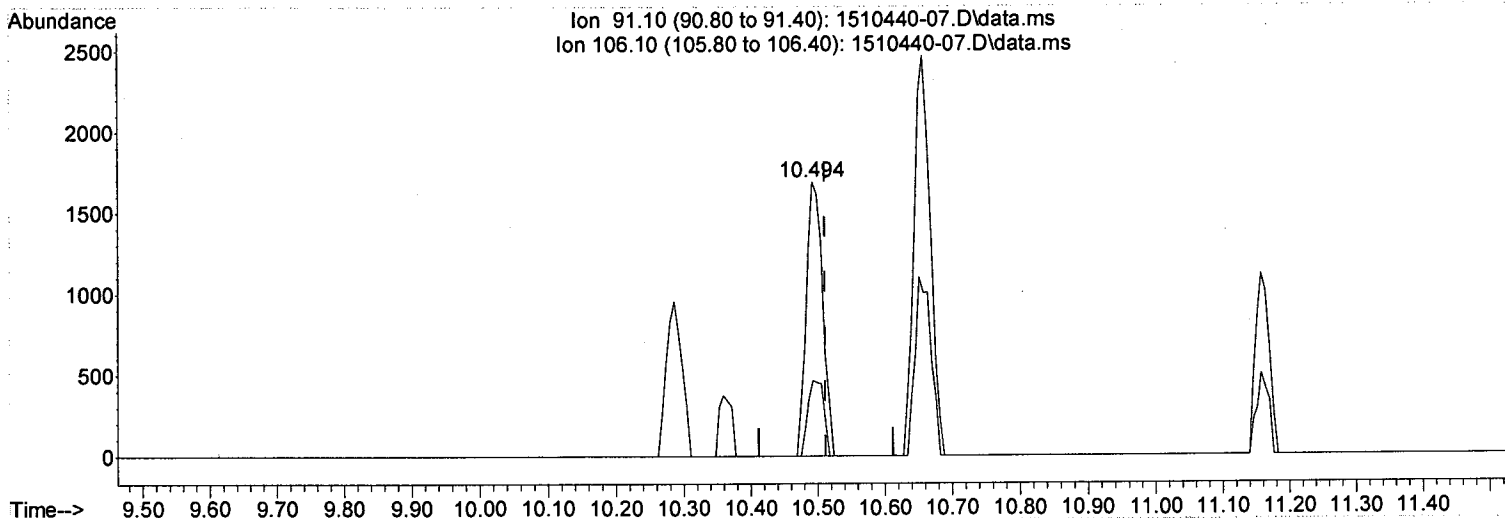
response 5244

Ion	Exp%	Act%
129.90	100	100
95.00	112.20	106.98
97.00	71.70	67.18
131.90	96.70	93.08

000238

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-07.D
Acq On : 30 Oct 2015 3:49
Operator : BAG
Sample : 1510440-07
Misc : MWH 20mL:50mL=2.5X
ALS Vial : 43 Sample Multiplier: 2.5

Quant Time: Oct 30 08:16:46 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(60) ethylbenzene (C)

10.494min (-0.018) 0.07 ug/L

response 2869

Ion	Exp%	Act%
91.10	100	100
106.10	28.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-8

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-08

File ID: 1510440-08.D

Sampled: 10/20/15 11:05

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 01:27

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	2.9	0.27	1.0	
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.7	0.24	1.0	
156-59-2	cis-1,2-Dichloroethene	1	1.4	0.21	1.0	
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	1.4	0.37	2.0	J
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000240

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-8

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-08

File ID: 1510440-08.D

Sampled: 10/20/15 11:05

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 01:27

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	0.15	0.065	1.0	J
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	12	0.23	1.0	
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.3	98	85 - 118	
1,2-Dichloroethane-d4	40.0	39.8	100	87 - 122	
Toluene-d8	40.0	39.4	98	85 - 113	

000241

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-8

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-08

File ID: 1510440-08.D

Sampled: 10/20/15 11:05

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 01:27

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.5	99	82 - 110	

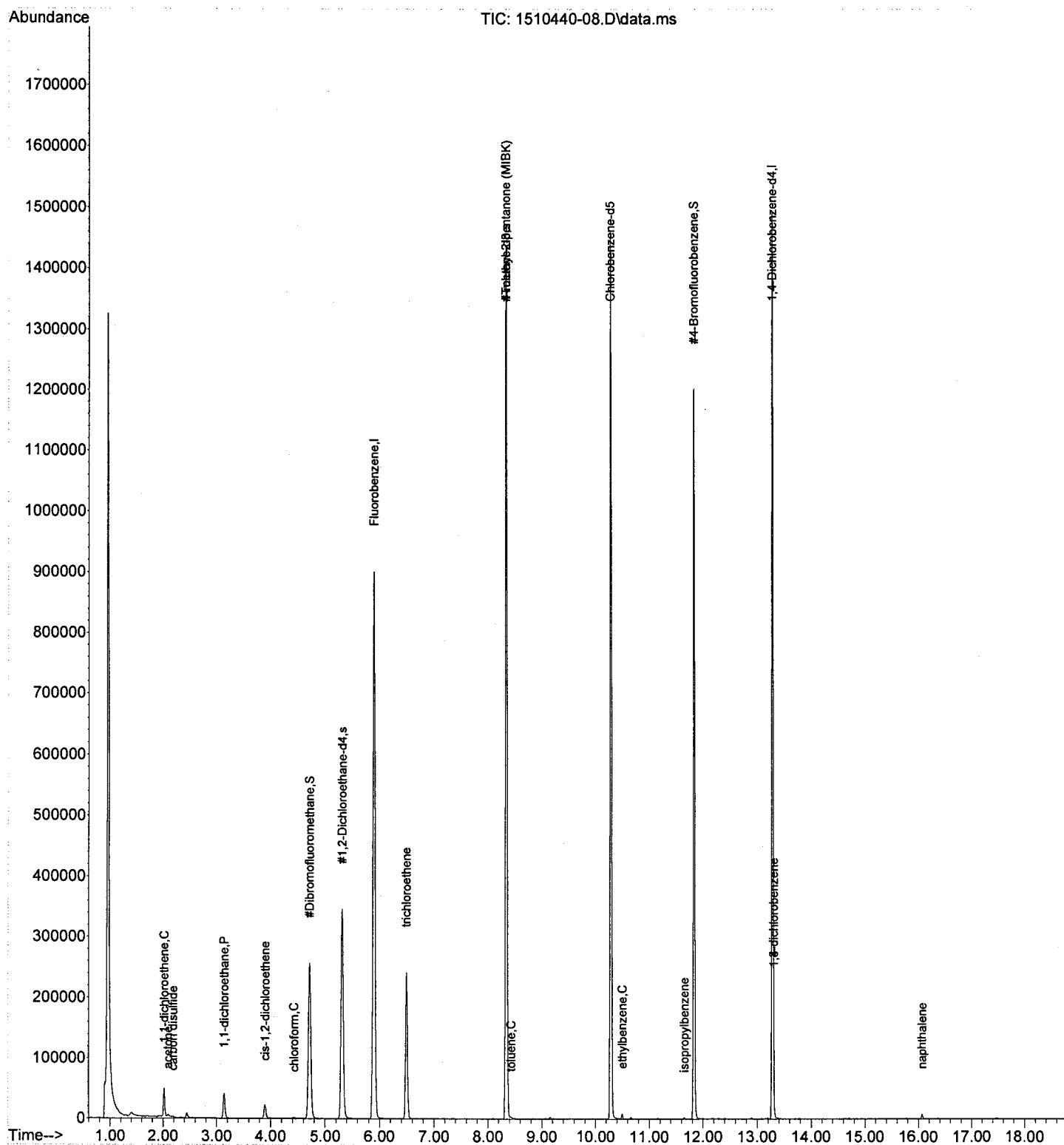
* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	998366	5.897	99	5.915	
Chlorobenzene-d5	692962	10.286	99	10.305	
1,4-Dichlorobenzene-d4	339667	13.279	98	13.292	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-08.D
Acq On : 30 Oct 2015 1:27
Operator : BAG
Sample : 1510440-08
Misc : MWH
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 30 08:16:49 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-08.D
 Acq On : 30 Oct 2015 1:27
 Operator : BAG
 Sample : 1510440-08
 Misc : MWH
 ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 30 08:16:49 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.897	96	998366	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.286	117	692962	40.00	ug/L	-0.02
66) 1,4-Dichlorobenzene-d4	13.279	152	339667	40.00	ug/L	#-0.01
System Monitoring Compounds						
29) #Dibromofluoromethane	4.714	111	245706	39.30	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	98.25%	
37) #1,2-Dichloroethane-d4	5.318	67	192389	39.80	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	99.50%	
47) #Toluene-d8	8.341	98	946413	39.38	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	98.45%	
65) #4-Bromofluorobenzene	11.835	95	396787	39.53	ug/L	-0.01
Spiked Amount	40.000		Recovery	=	98.83%	
Target Compounds						
						Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	2.019	96	13748	1.66 ug/L		96
13) acetone	2.093	43	4084	1.51 ug/L #		50
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.184	76	1724	0.08 ug/L #		75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.446	49	6111	Below Cal		96
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	3.141	63	47028	2.86 ug/L		99
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	3.903	96	11616	1.40 ug/L #		89
25) 2-butanone (MEK)	0.000		0	N.D.		
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	4.434	83	2222	0.14 ug/L		99
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.891	57	44674	No Calib		
38) trichloroethene	6.494	130	87670	11.89 ug/L		100
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000244

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-08.D
 Acq On : 30 Oct 2015 1:27
 Operator : BAG
 Sample : 1510440-08
 Misc : MWH
 ALS Vial : 38 Sample Multiplier: 1

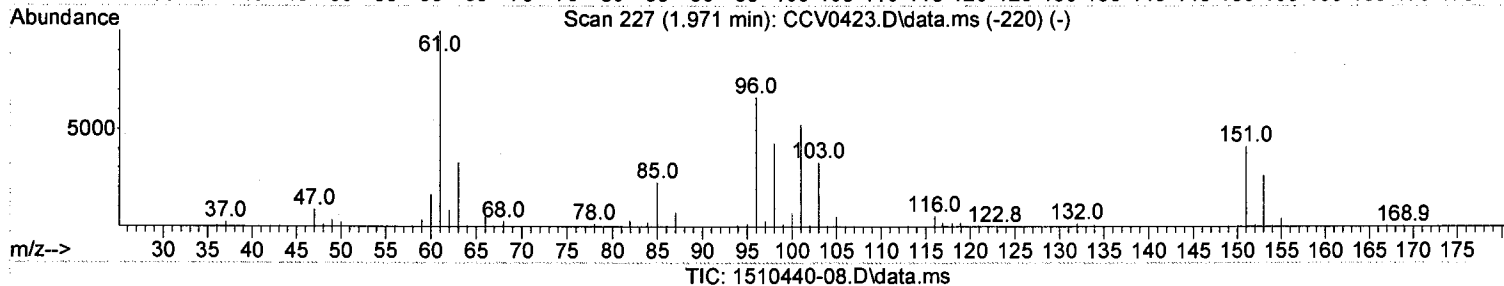
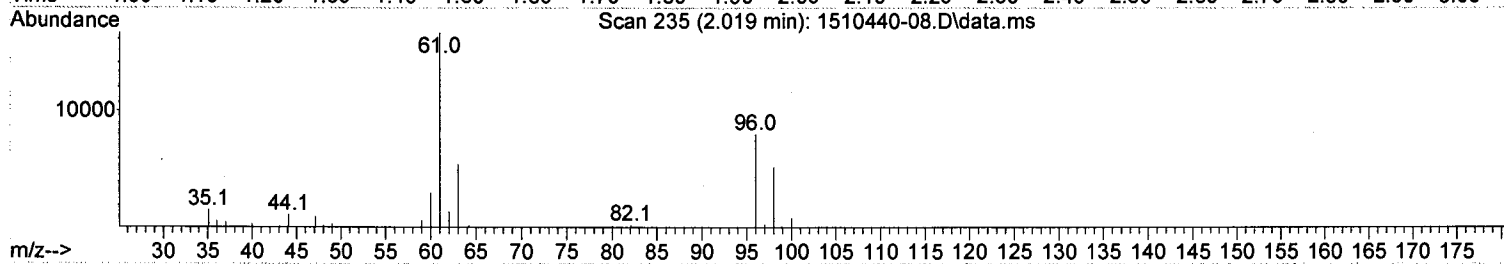
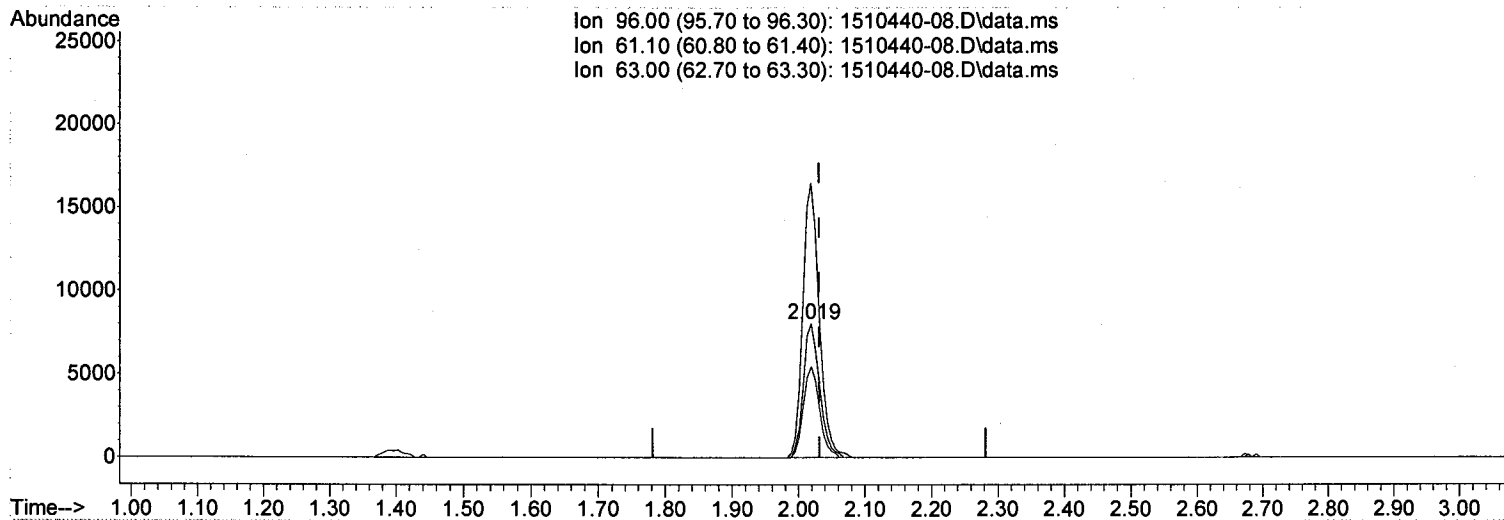
Quant Time: Oct 30 08:16:49 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.341	43	6103	~~0.72~~ ug/L #	1	
48) toluene	8.433	91	1502	0.04 ug/L #	21	
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	0.000		0	N.D.		
53) 1,3-dichloropropene	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	10.499	91	6018	0.15 ug/L	95	
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	11.652	105	1689	0.05 ug/L #	50	
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	13.304	146	1312	0.09 ug/L #	1	
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	13.304	146	1312	0.09 ug/L #	1	
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	0.000		0	N.D.		
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	0.000		0	N.D.		
87) hexachlorobutadiene	0.000		0	N.D.		
88) naphthalene	16.065	128	6226	0.34 ug/L #	72	
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	0.000		0	N.D.		

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-08.D
Acq On : 30 Oct 2015 1:27
Operator : BAG
Sample : 1510440-08
Misc : MWH
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 30 08:16:49 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(12) 1,1-dichloroethene (C)

2.019min (-0.013) 1.66 ug/L

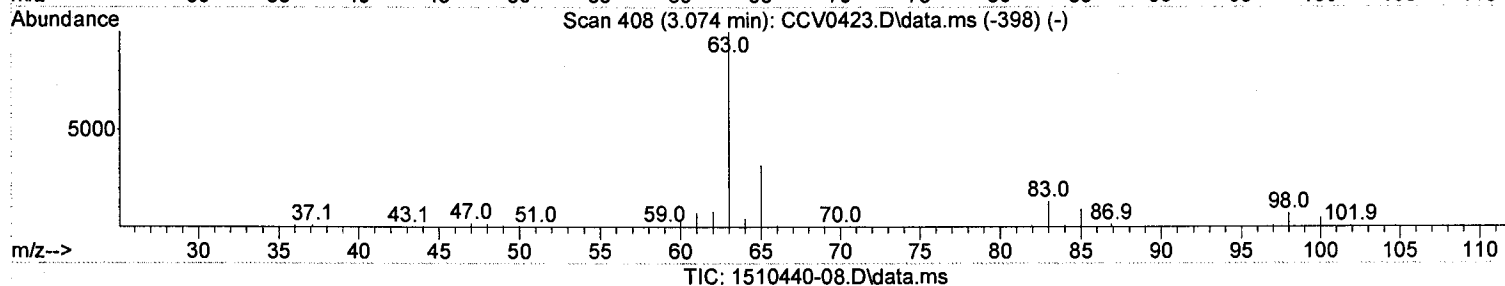
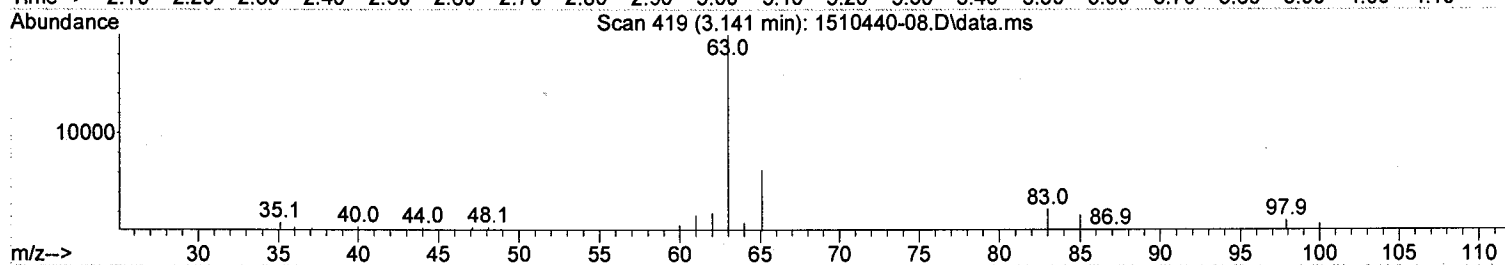
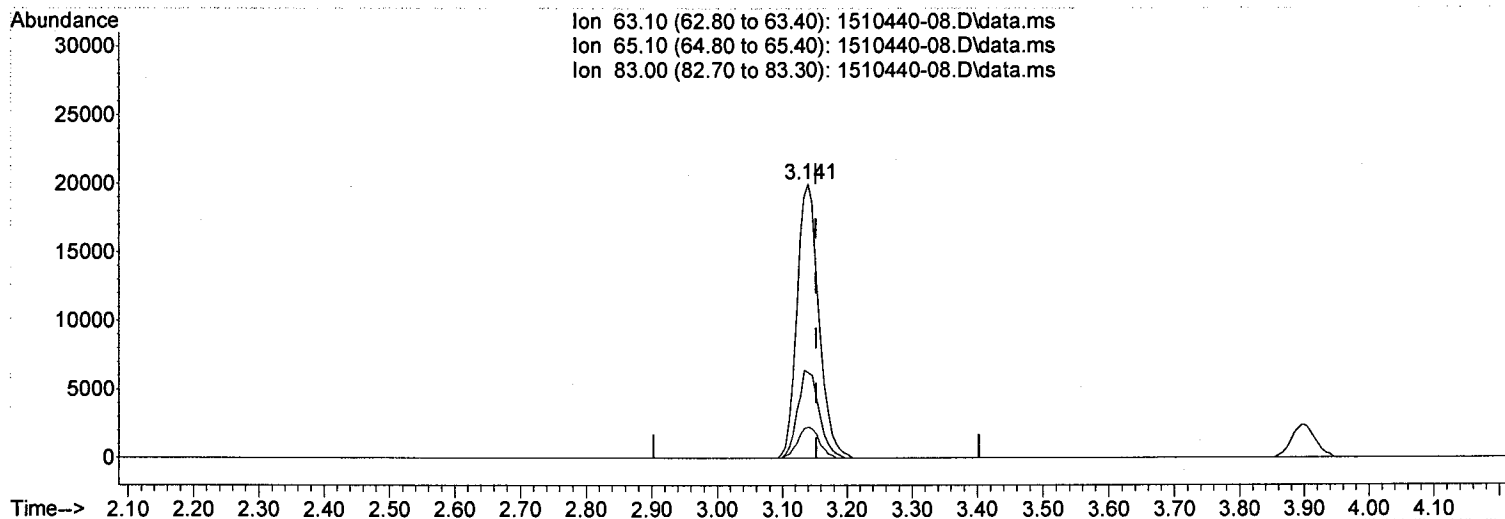
response 13748

Ion	Exp%	Act%
96.00	100	100
61.10	199.80	206.04
63.00	64.10	66.96
0.00	0.00	0.00

000246

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-08.D
Acq On : 30 Oct 2015 1:27
Operator : BAG
Sample : 1510440-08
Misc : MWH
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 30 08:16:49 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(21) 1,1-dichloroethane (P)

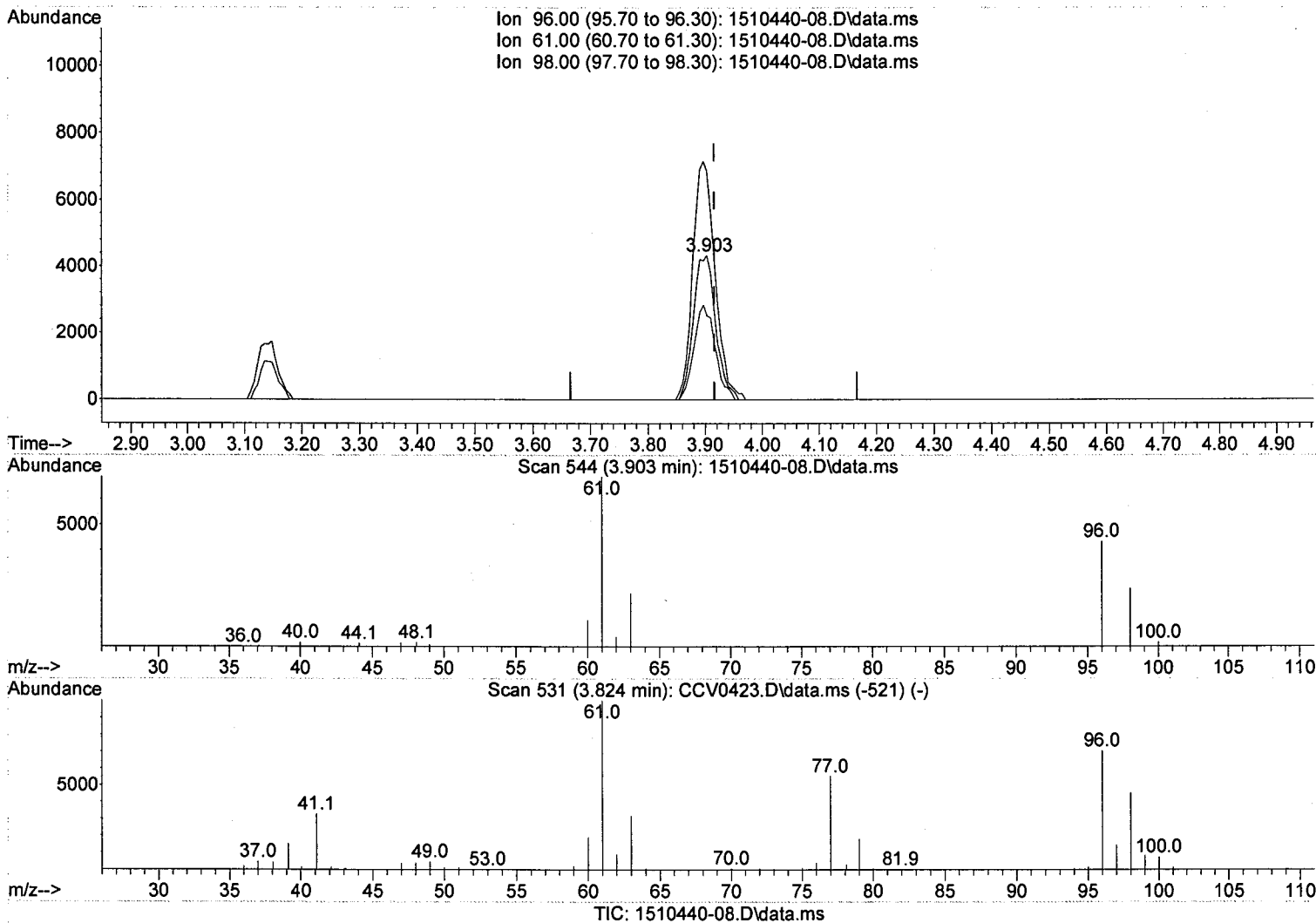
3.141min (-0.012) 2.86 ug/L

response 47028

Ion	Exp%	Act%
63.10	100	100
65.10	30.90	31.57
83.00	11.90	11.20
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-08.D
Acq On : 30 Oct 2015 1:27
Operator : BAG
Sample : 1510440-08
Misc : MWH
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 30 08:16:49 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(24) cis-1,2-dichloroethene

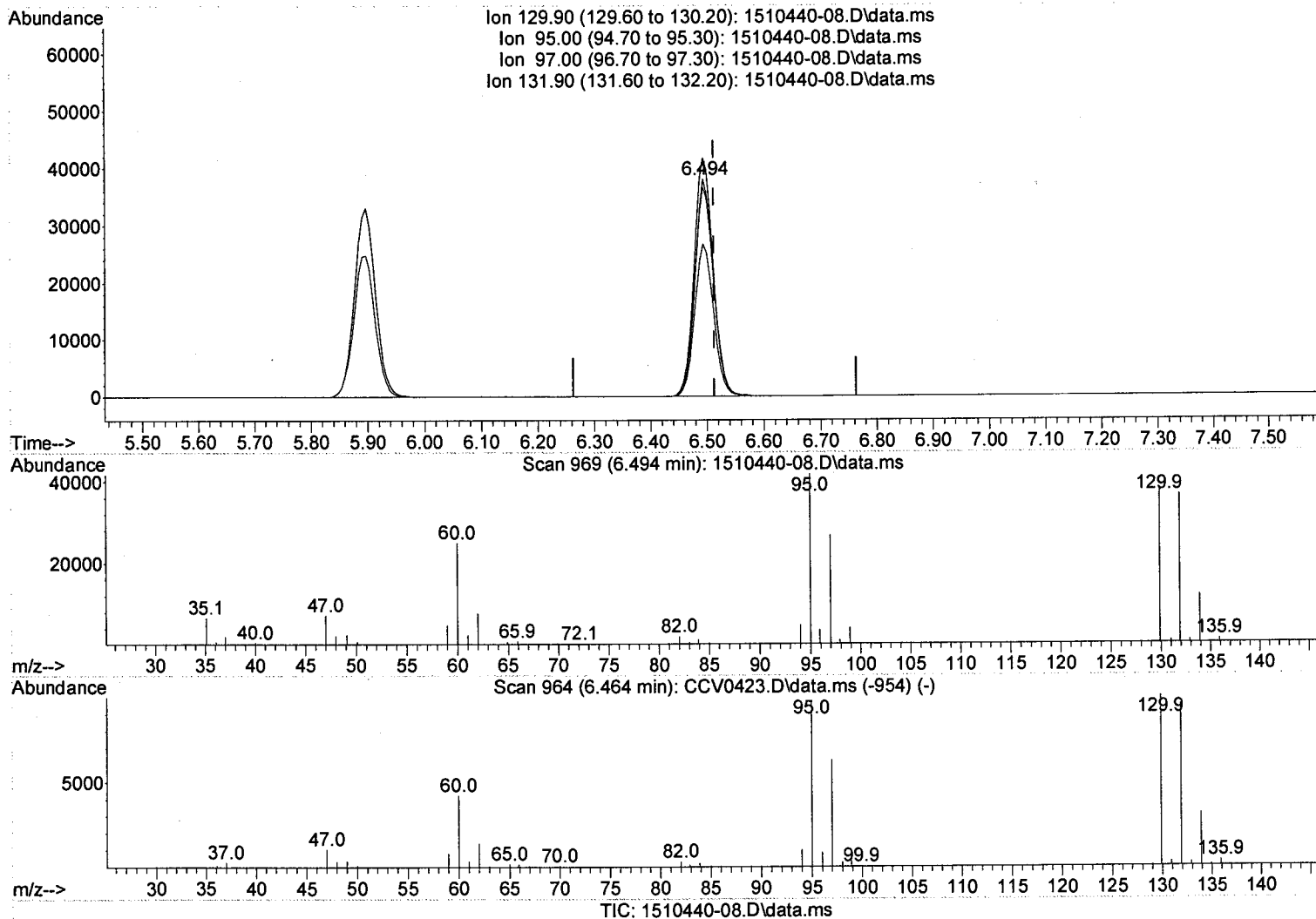
3.903min (-0.013) 1.40 ug/L

response 11616

Ion	Exp%	Act%
96.00	100	100
61.00	185.80	164.69#
98.00	63.60	62.20
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-08.D
Acq On : 30 Oct 2015 1:27
Operator : BAG
Sample : 1510440-08
Misc : MWH
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 30 08:16:49 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(38) trichloroethene

6.494min (-0.019) 11.89 ug/L

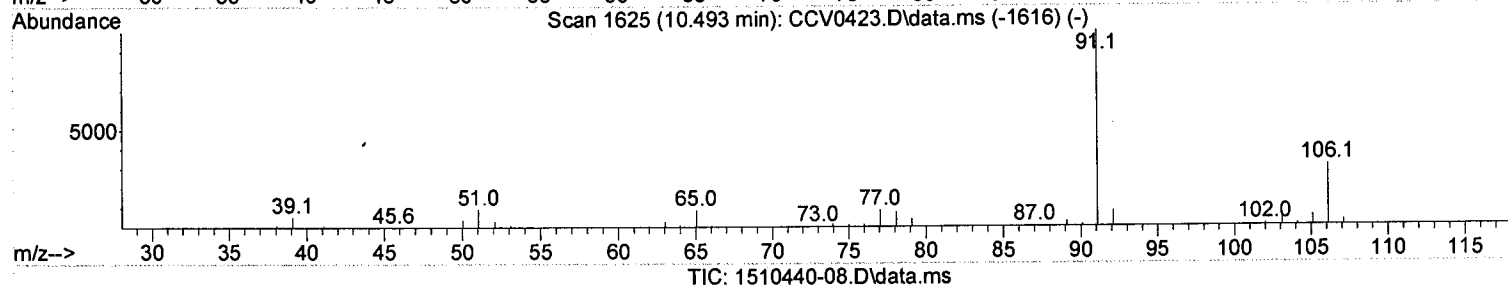
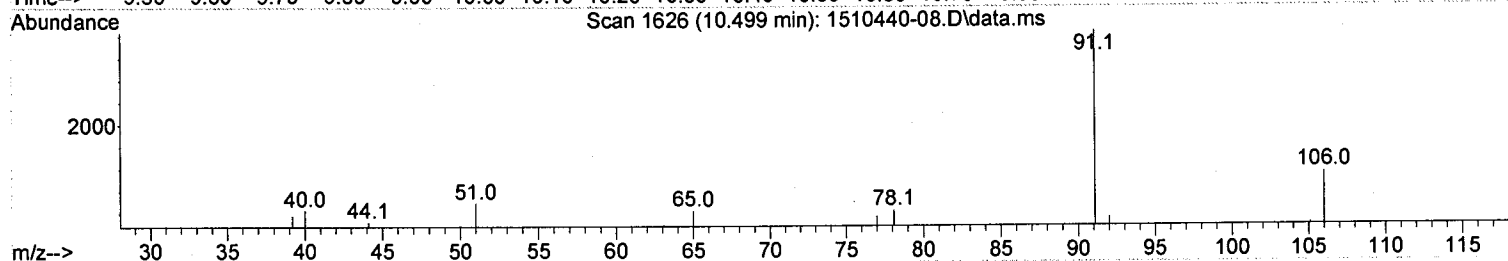
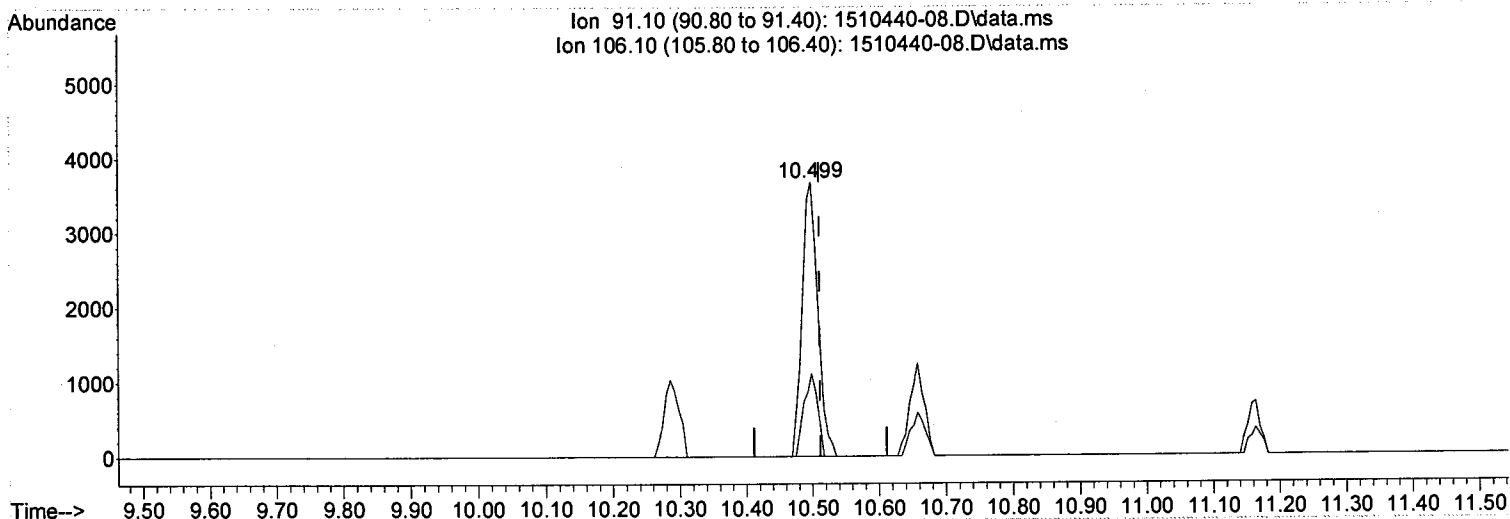
response 87670

Ion	Exp%	Act%
129.90	100	100
95.00	112.20	112.90
97.00	71.70	71.42
131.90	96.70	96.95

000249

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-08.D
Acq On : 30 Oct 2015 1:27
Operator : BAG
Sample : 1510440-08
Misc : MWH
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 30 08:16:49 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(60) ethylbenzene (C)

10.499min (-0.013) 0.15 ug/L

response 6018

Ion	Exp%	Act%
91.10	100	100
106.10	28.80	26.11
0.00	0.00	0.00
0.00	0.00	0.00

000250

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-9

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-09

File ID: 1510440-09.D

Sampled: 10/20/15 13:55

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 01:55

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	0.78	0.21	1.0	J
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	0.78	0.37	2.0	J
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000251

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-9

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-09

File ID: 1510440-09.D

Sampled: 10/20/15 13:55

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 01:55

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	0.36	0.23	1.0	J
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.5	99	85 - 118	
1,2-Dichloroethane-d4	40.0	39.9	100	87 - 122	
Toluene-d8	40.0	39.6	99	85 - 113	

000252

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-9

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-09

File ID: 1510440-09.D

Sampled: 10/20/15 13:55

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 01:55

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.6	99	82 - 110	

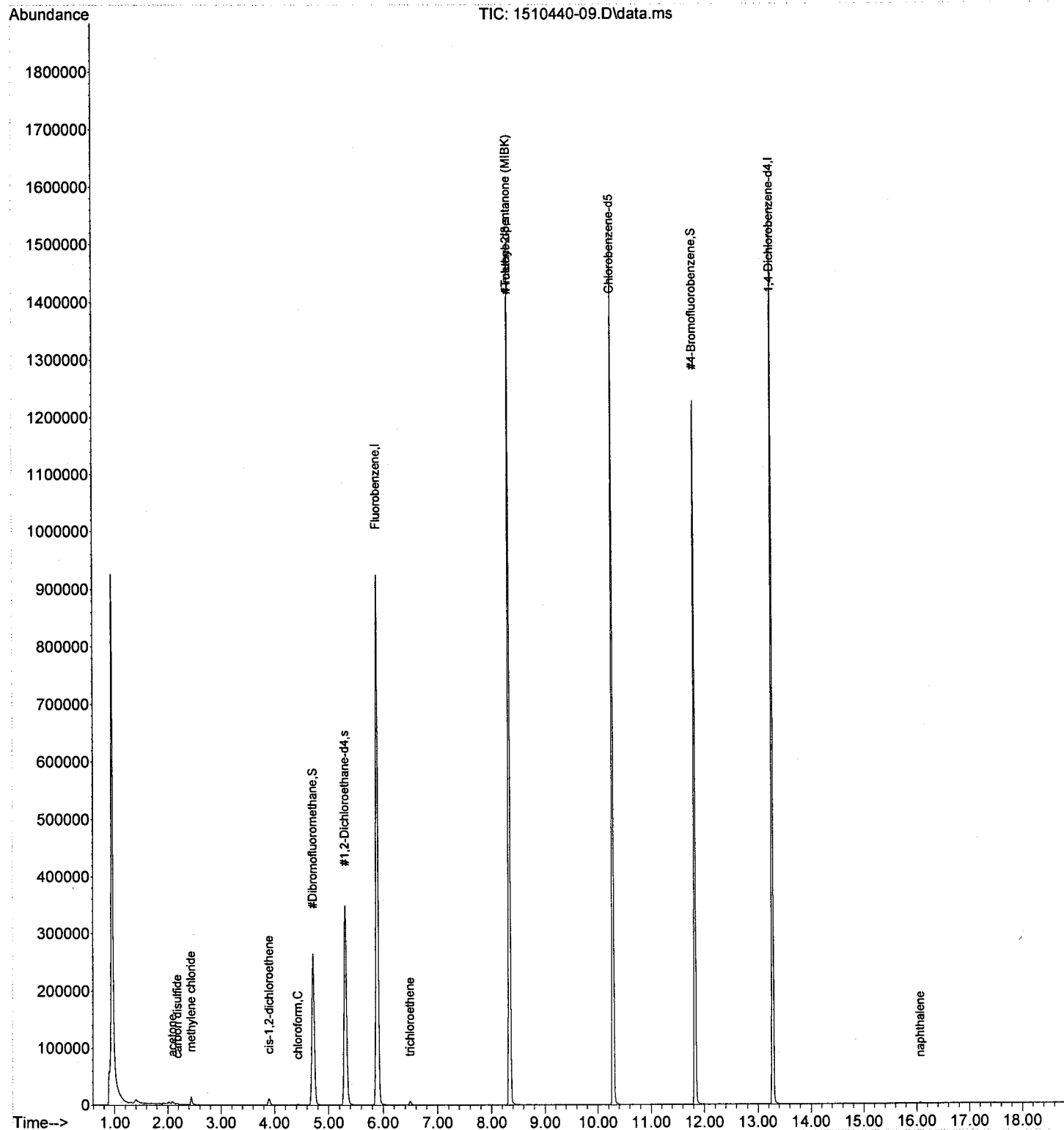
* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1018662	5.897	101	5.915	
Chlorobenzene-d5	711446	10.286	102	10.305	
1,4-Dichlorobenzene-d4	344168	13.28	99	13.292	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-09.D
Acq On : 30 Oct 2015 1:55
Operator : BAG
Sample : 1510440-09
Misc : MWH
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 30 08:16:52 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



000254

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-09.D
 Acq On : 30 Oct 2015 1:55
 Operator : BAG
 Sample : 1510440-09
 Misc : MWH
 ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 30 08:16:52 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.897	96	1018662	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.286	117	711446	40.00	ug/L	-0.02
66) 1,4-Dichlorobenzene-d4	13.280	152	344168	40.00	ug/L	#-0.01
System Monitoring Compounds						
29) #Dibromofluoromethane	4.714	111	251864	39.48	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	98.70%	
37) #1,2-Dichloroethane-d4	5.312	67	196809	39.90	ug/L	-0.03
Spiked Amount	40.000		Recovery	=	99.75%	
47) #Toluene-d8	8.342	98	970011	39.56	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	98.90%	
65) #4-Bromofluorobenzene	11.829	95	408185	39.61	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	99.02%	
Target Compounds						
						Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	0.000		0	N.D.		
13) acetone	2.087	43	4352	1.56	ug/L #	50
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.184	76	1666	0.08	ug/L #	75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.440	49	10501	0.16	ug/L	98
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	0.000		0	N.D.		
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	3.903	96	6571	0.78	ug/L #	88
25) 2-butanone (MEK)	0.000		0	N.D.		
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	4.434	83	1979	0.13	ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.891	57	45665	No Calib		
38) trichloroethene	6.494	130	2684	0.36	ug/L	96
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000255

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-09.D
 Acq On : 30 Oct 2015 1:55
 Operator : BAG
 Sample : 1510440-09
 Misc : MWH
 ALS Vial : 39 Sample Multiplier: 1

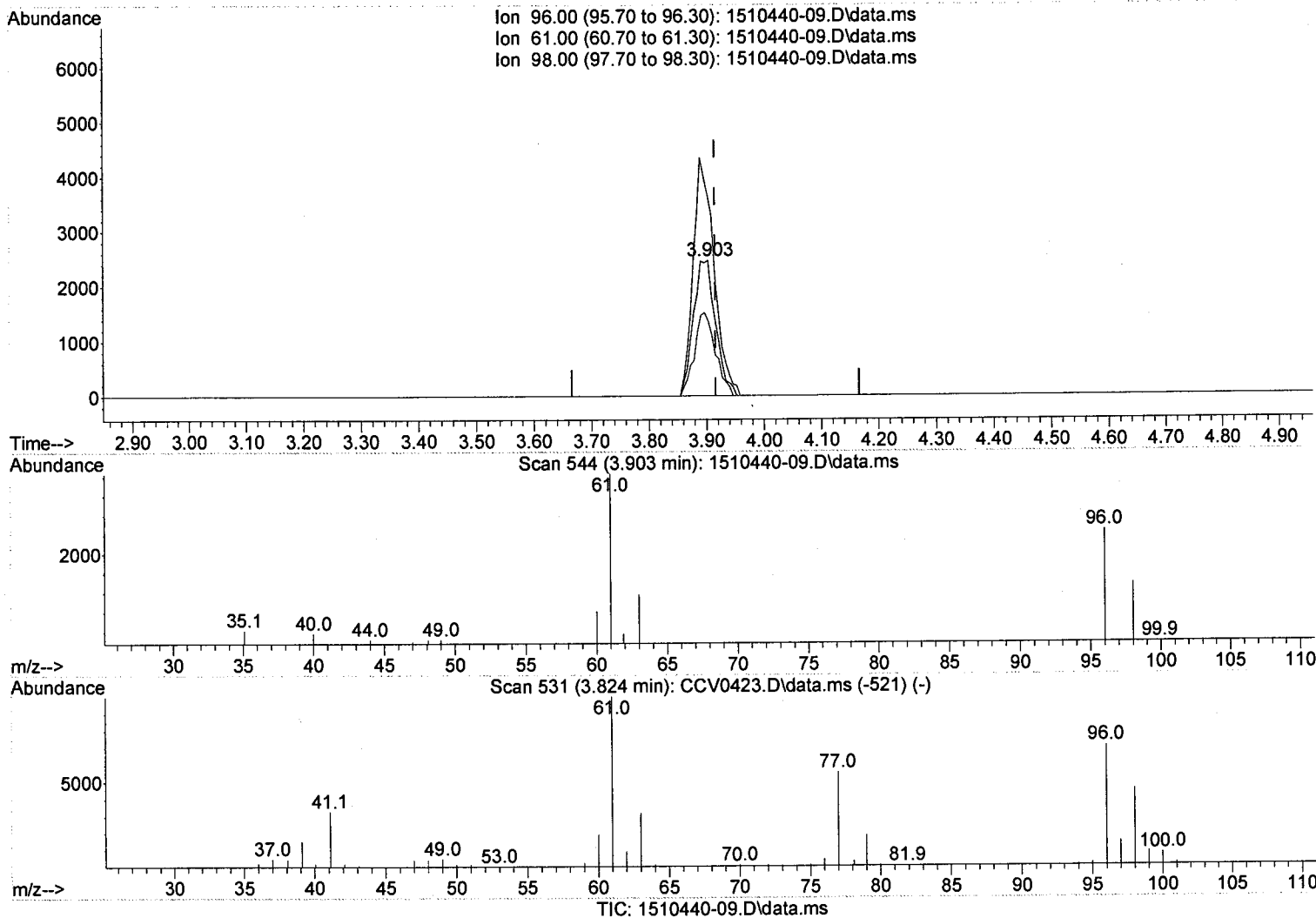
Quant Time: Oct 30 08:16:52 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.342	43	6261	2.7 0.72 ug/L #		1
48) toluene	0.000		0	N.D.		
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	0.000		0	N.D.		
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	0.000		0	N.D.		
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	0.000		0	N.D.		
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	0.000		0	N.D.		
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	0.000		0	N.D.		
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	0.000		0	N.D.		
87) hexachlorobutadiene	0.000		0	N.D.		
88) naphthalene	16.066	128	2344	0.13 ug/L #		72
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	0.000		0	N.D.		

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-09.D
Acq On : 30 Oct 2015 1:55
Operator : BAG
Sample : 1510440-09
Misc : MWH
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 30 08:16:52 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(24) cis-1,2-dichloroethene

3.903min (-0.013) 0.78 ug/L

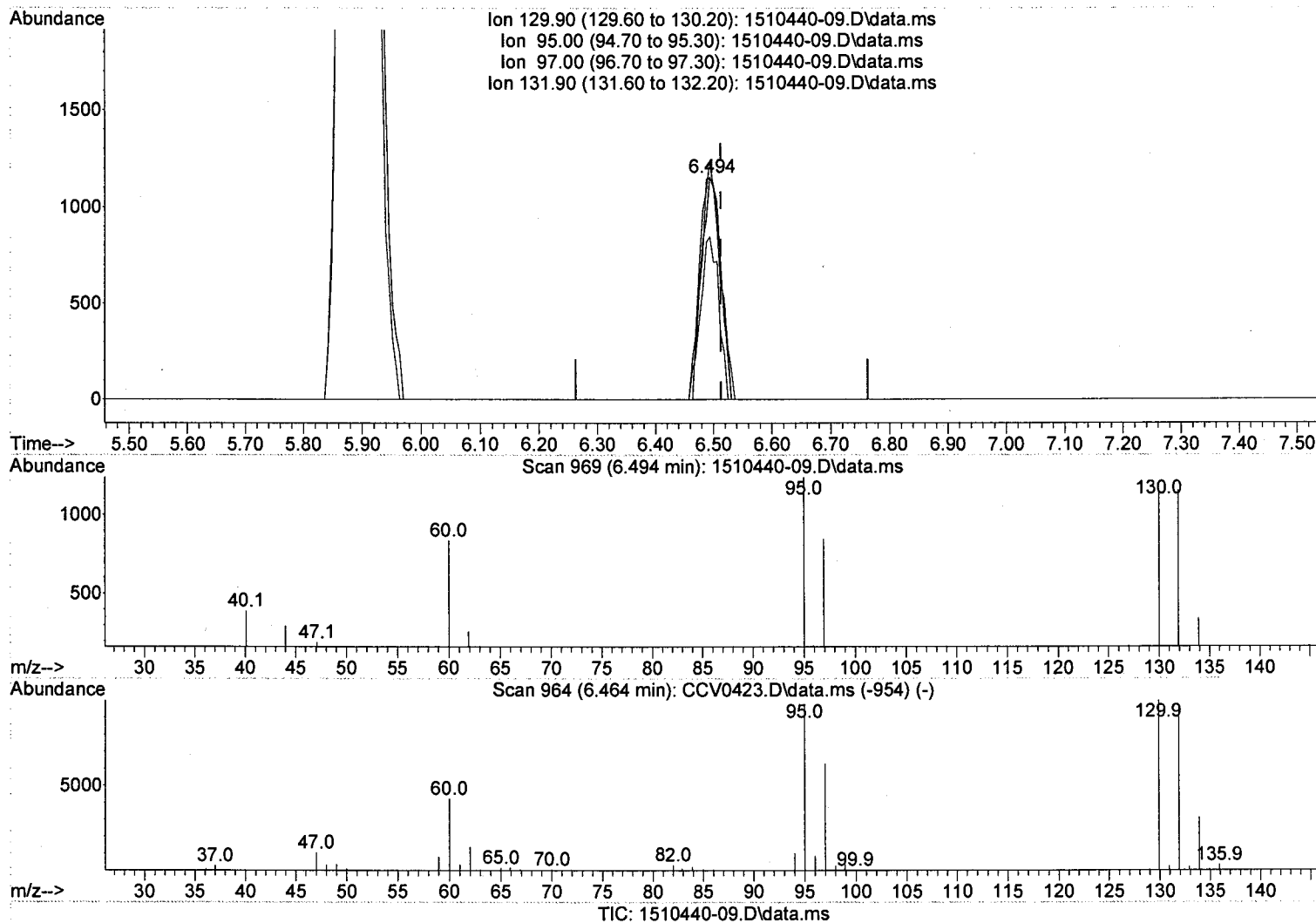
response 6571

Ion	Exp%	Act%
96.00	100	100
61.00	185.80	165.15#
98.00	63.60	58.29
0.00	0.00	0.00

000257

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-09.D
Acq On : 30 Oct 2015 1:55
Operator : BAG
Sample : 1510440-09
Misc : MWH
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 30 08:16:52 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(38) trichloroethene

6.494min (-0.019) 0.36 ug/L

response 2684

Ion	Exp%	Act%
129.90	100	100
95.00	112.20	109.61
97.00	71.70	68.78
131.90	96.70	102.83

000258

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-10

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-10

File ID: 1510440-10.D

Sampled: 10/19/15 14:20

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 02:24

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	110	2.4	10	
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	3.4	0.14	5.0	J
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37	2.0	U
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000259

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-10

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-10

File ID: 1510440-10.D

Sampled: 10/19/15 14:20

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 02:24

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	13	0.55	10	
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	0.27	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	30	0.96	10	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	0.38	0.21	2.0	J
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	40.1	100	85 - 118	
1,2-Dichloroethane-d4	40.0	40.0	100	87 - 122	
Toluene-d8	40.0	39.4	98	85 - 113	

000260

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-10

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-10

File ID: 1510440-10.D

Sampled: 10/19/15 14:20

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 02:24

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	40.2	101	82 - 110	

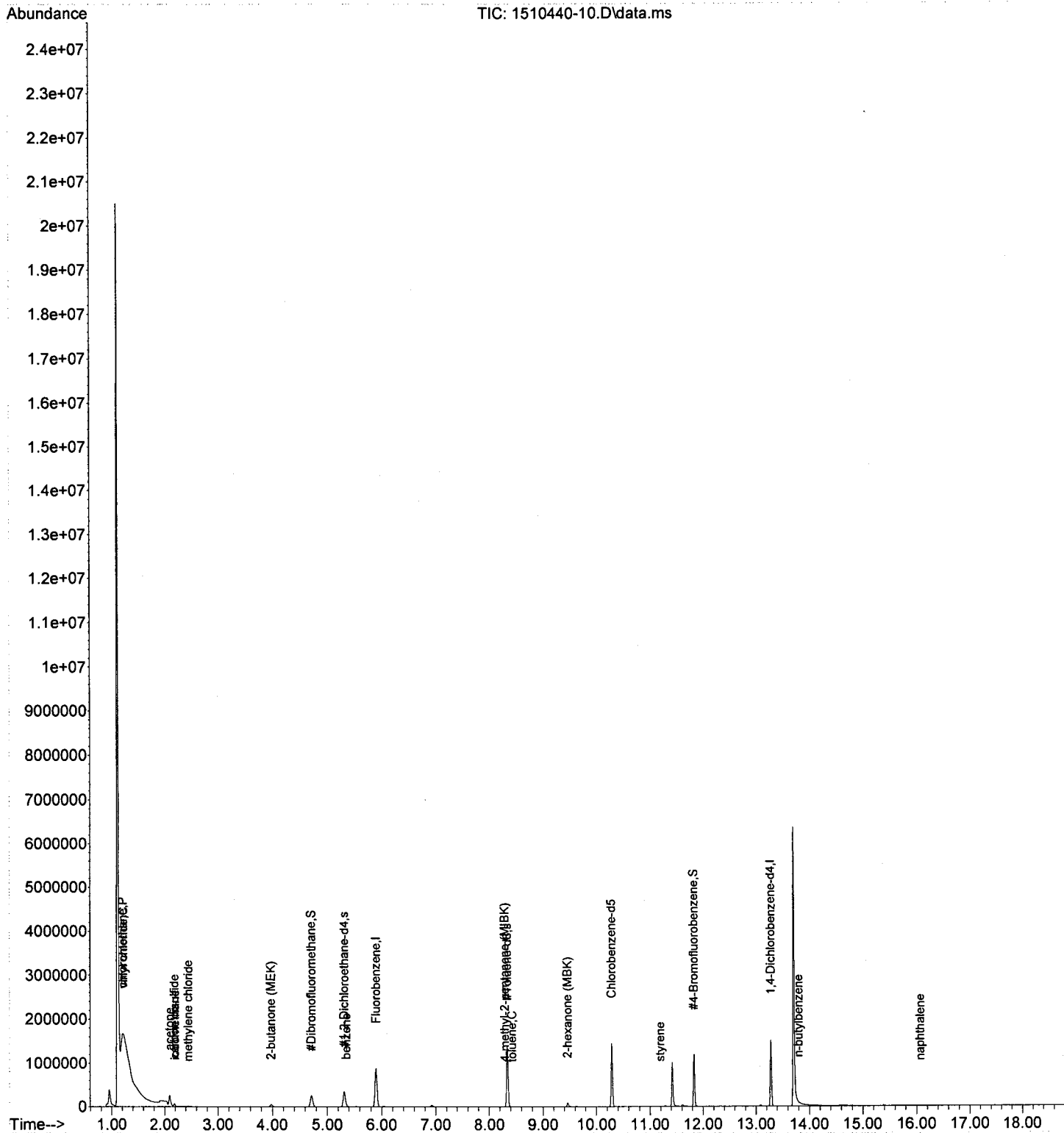
* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	976004	5.897	97	5.915	
Chlorobenzene-d5	681311	10.286	97	10.305	
1,4-Dichlorobenzene-d4	339645	13.279	98	13.292	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-10.D
Acq On : 30 Oct 2015 2:24
Operator : BAG
Sample : 1510440-10
Misc : MWH
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 30 08:16:55 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



000262

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-10.D
 Acq On : 30 Oct 2015 2:24
 Operator : BAG
 Sample : 1510440-10
 Misc : MWH
 ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 30 08:16:55 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.897	96	976004	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.286	117	681311	40.00	ug/L	-0.02
66) 1,4-Dichlorobenzene-d4	13.279	152	339645	40.00	ug/L	#-0.01
System Monitoring Compounds						
29) #Dibromofluoromethane	4.714	111	245069	40.09	ug/L	-0.03
Spiked Amount 40.000			Recovery	=	100.23%	
37) #1,2-Dichloroethane-d4	5.317	67	189250	40.05	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	100.13%	
47) #Toluene-d8	8.341	98	925375	39.39	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	98.47%	
65) #4-Bromofluorobenzene	11.828	95	397067	40.23	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	100.57%	
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	1.215	50	164200	46.84	ug/L #	44
4) vinyl chloride	1.221	62	3870	0.38	ug/L #	43
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	0.000		0	N.D.		
13) acetone	2.093	43	362797	114.48	ug/L	100
14) iodomethane	2.196	142	7317	5.48	ug/L #	91
15) carbon disulfide	2.184	76	71392	3.37	ug/L	100
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.446	49	11482	0.27	ug/L	98
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	0.000		0	N.D.		
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	0.000		0	N.D.		
25) 2-butanone (MEK)	3.976	43	107312	29.57	ug/L	100
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	0.000		0	N.D.		
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	5.354	78	1946	0.06	ug/L #	21
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.897	57	43223	No Calib		
38) trichloroethene	0.000		0	N.D.		
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000263

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-10.D
 Acq On : 30 Oct 2015 2:24
 Operator : BAG
 Sample : 1510440-10
 Misc : MWH
 ALS Vial : 40 Sample Multiplier: 1

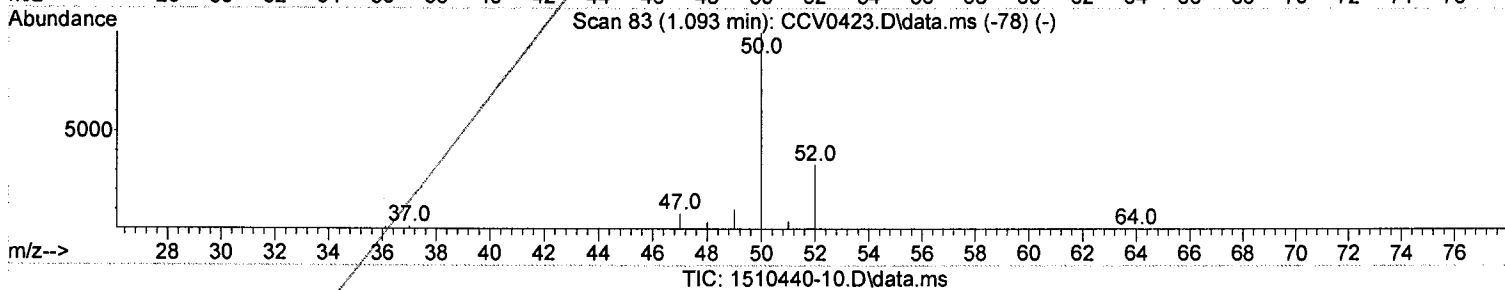
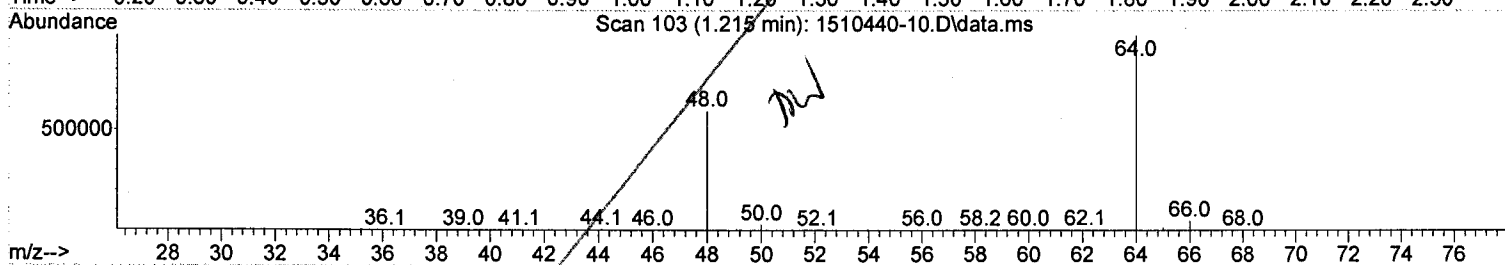
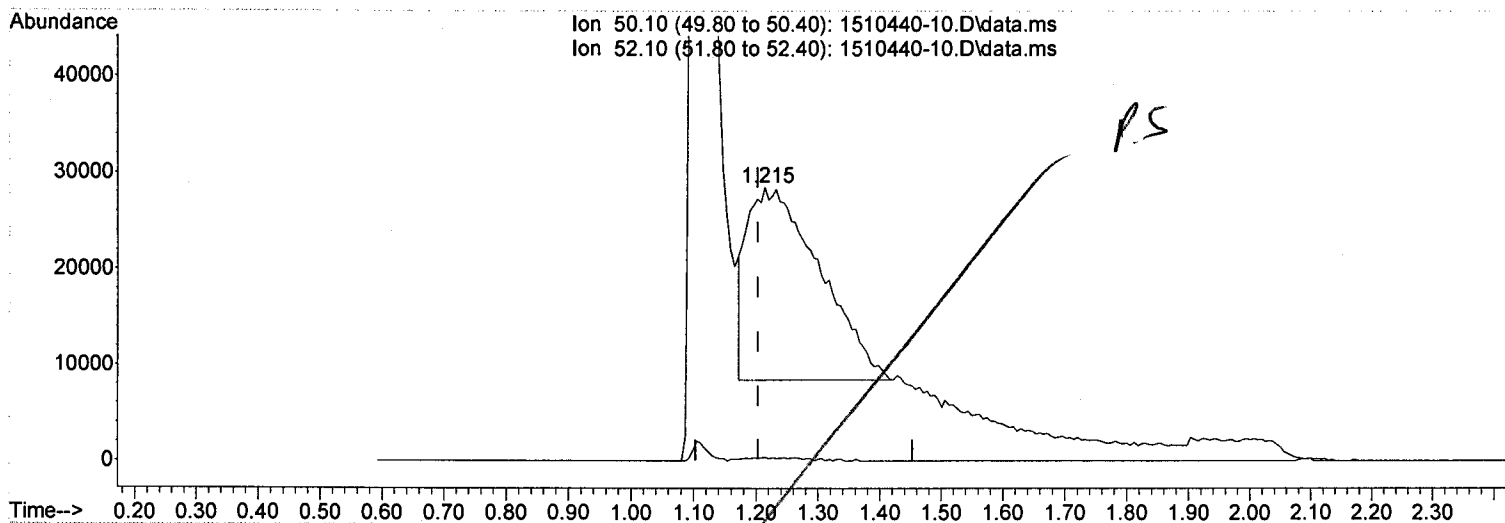
Quant Time: Oct 30 08:16:55 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.299	43	5476	~~2.70~~ 0.66 ug/L #		47
48) toluene	8.433	91	2461	0.07 ug/L		98
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	0.000		0	N.D.		
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	9.463	43	72935	12.68 ug/L		98
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	0.000		0	N.D.		
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	11.194	104	1377	0.06 ug/L #		22
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	0.000		0	N.D.		
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	0.000		0	N.D.		
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	13.798	91	2472	0.09 ug/L #		33
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	0.000		0	N.D.		
87) hexachlorobutadiene	0.000		0	N.D.		
88) naphthalene	16.065	128	5946	0.32 ug/L #		72
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	0.000		0	N.D.		

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

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-10.D
 Acq On : 30 Oct 2015 2:24
 Operator : BAG
 Sample : 1510440-10
 Misc : MWH
 ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 30 08:16:55 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration



(3) chloromethane (P)

1.215min (+0.012) 16.84 ug/L

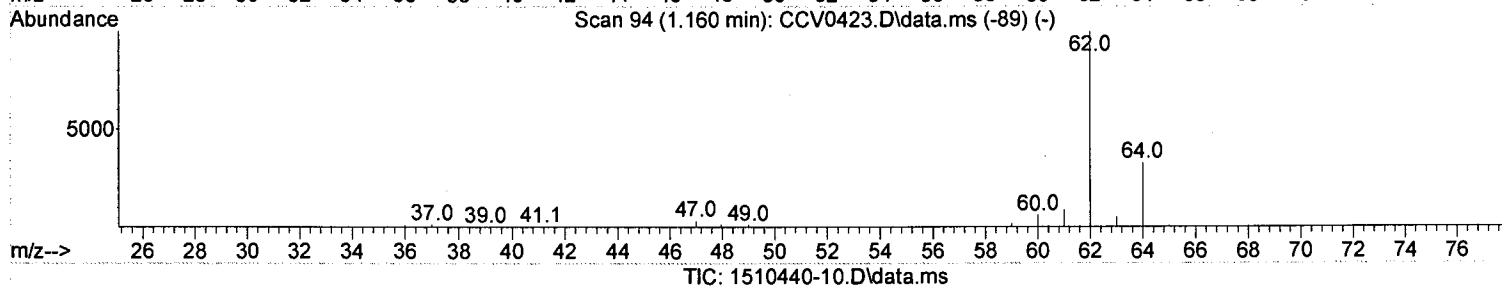
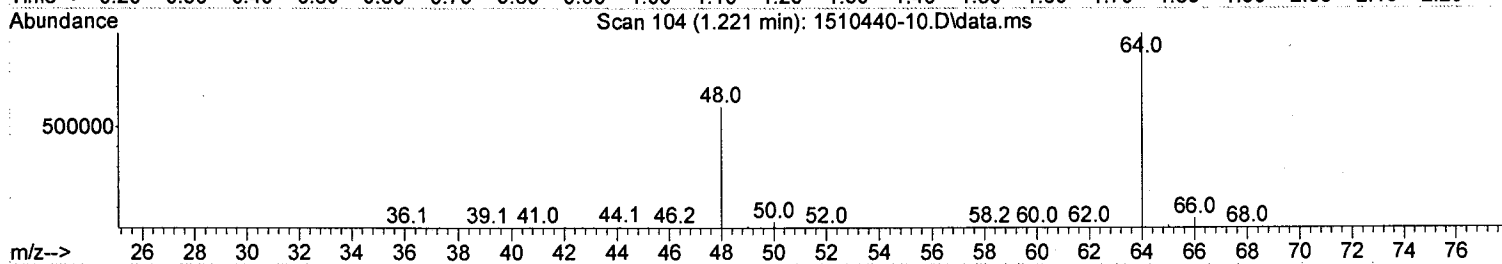
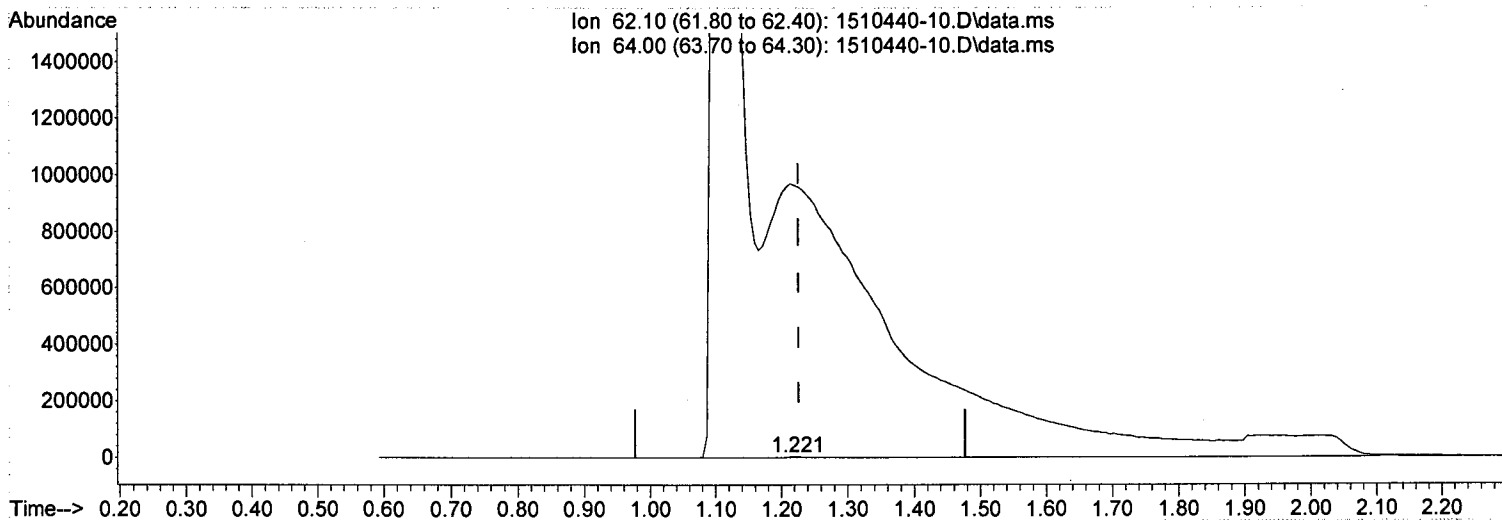
response 164200

Ion	Exp%	Act%
50.10	100	100
52.10	31.80	0.81#
0.00	0.00	0.00
0.00	0.00	0.00

000265

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-10.D
Acq On : 30 Oct 2015 2:24
Operator : BAG
Sample : 1510440-10
Misc : MWH
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 30 08:16:55 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(4) vinyl chloride (C)

1.221min (-0.006) 0.38 ug/L

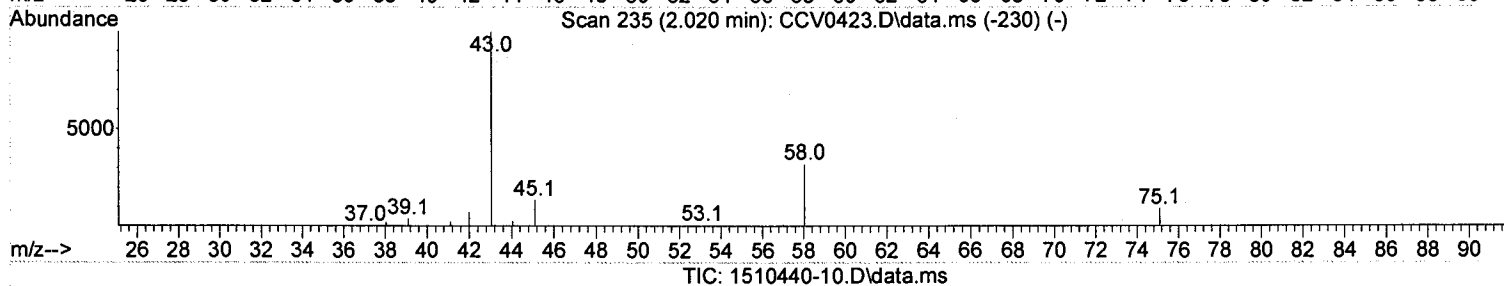
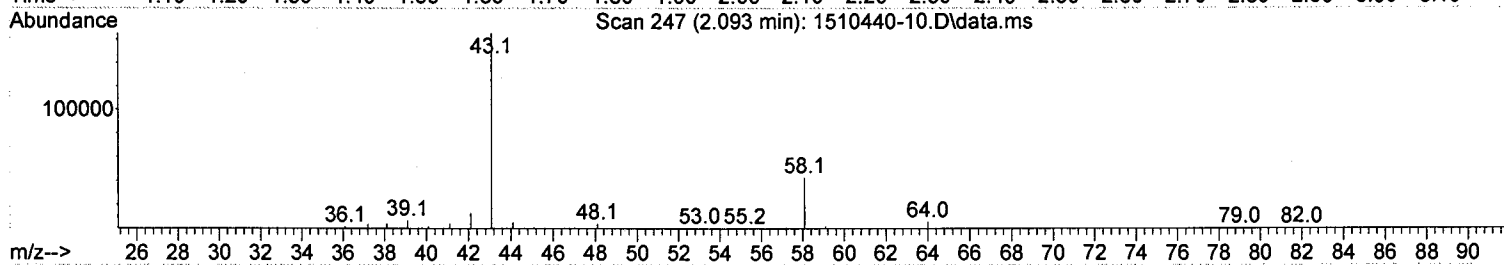
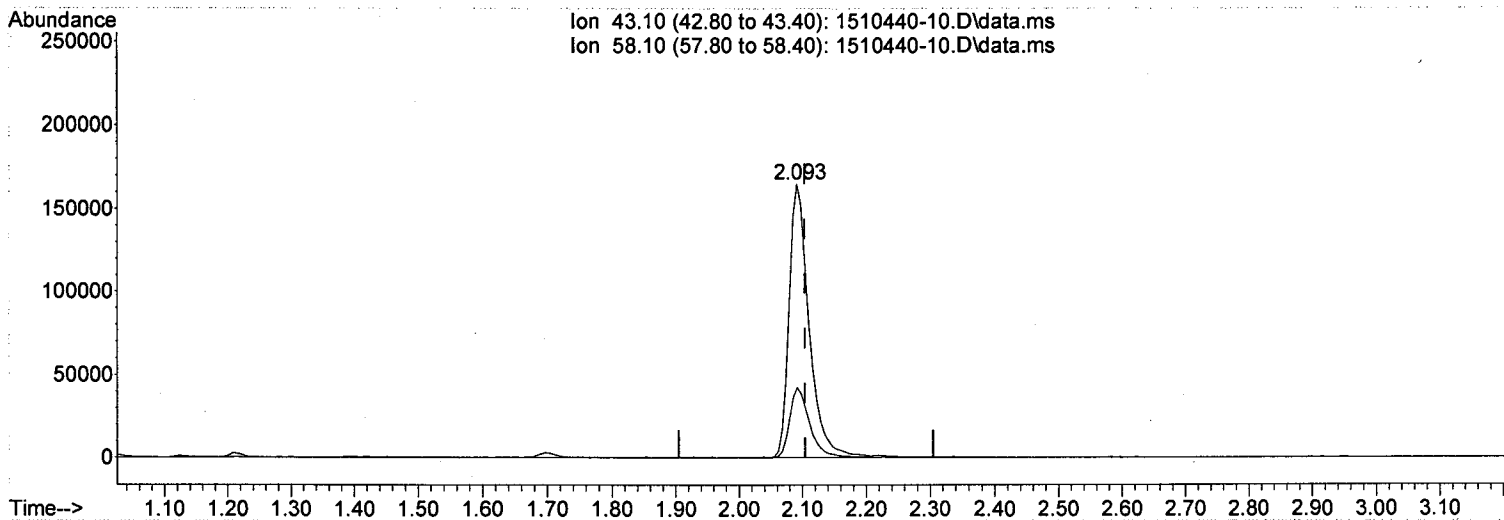
response 3870

Ion	Exp%	Act%
62.10	100	100
64.00	31.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

000266

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-10.D
Acq On : 30 Oct 2015 2:24
Operator : BAG
Sample : 1510440-10
Misc : MWH
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 30 08:16:55 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(13) acetone

2.093min (-0.012) 114.48 ug/L

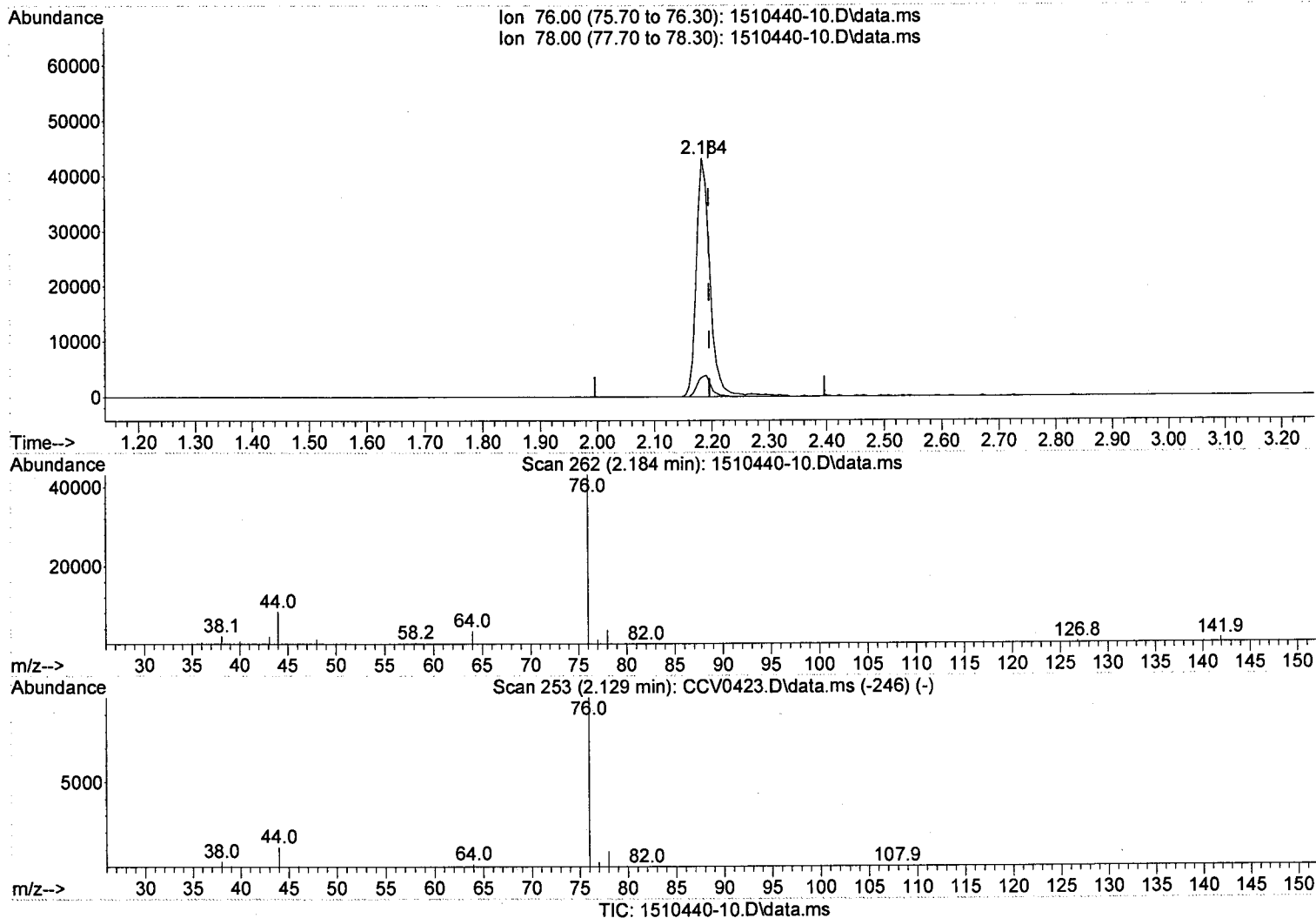
response 362797

Ion	Exp%	Act%
43.10	100	100
58.10	25.50	25.74
0.00	0.00	0.00
0.00	0.00	0.00

000267

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-10.D
Acq On : 30 Oct 2015 2:24
Operator : BAG
Sample : 1510440-10
Misc : MWH
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 30 08:16:55 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(15) carbon disulfide

2.184min (-0.012) 3.37 ug/L

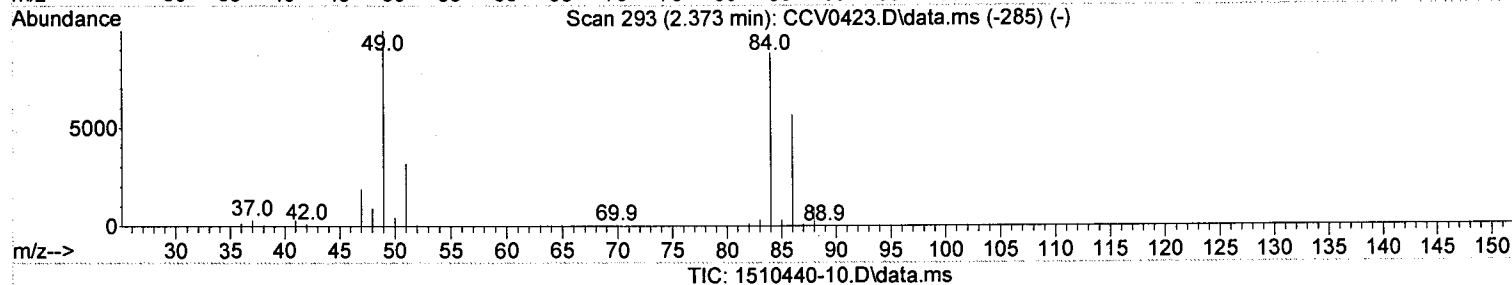
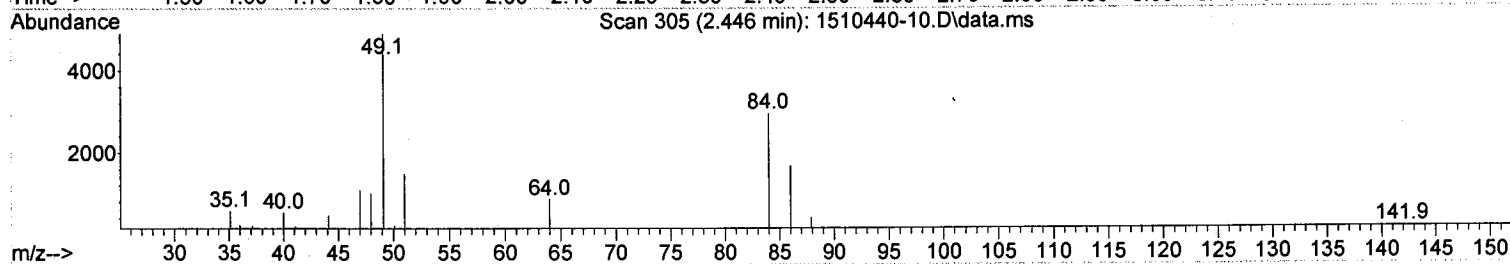
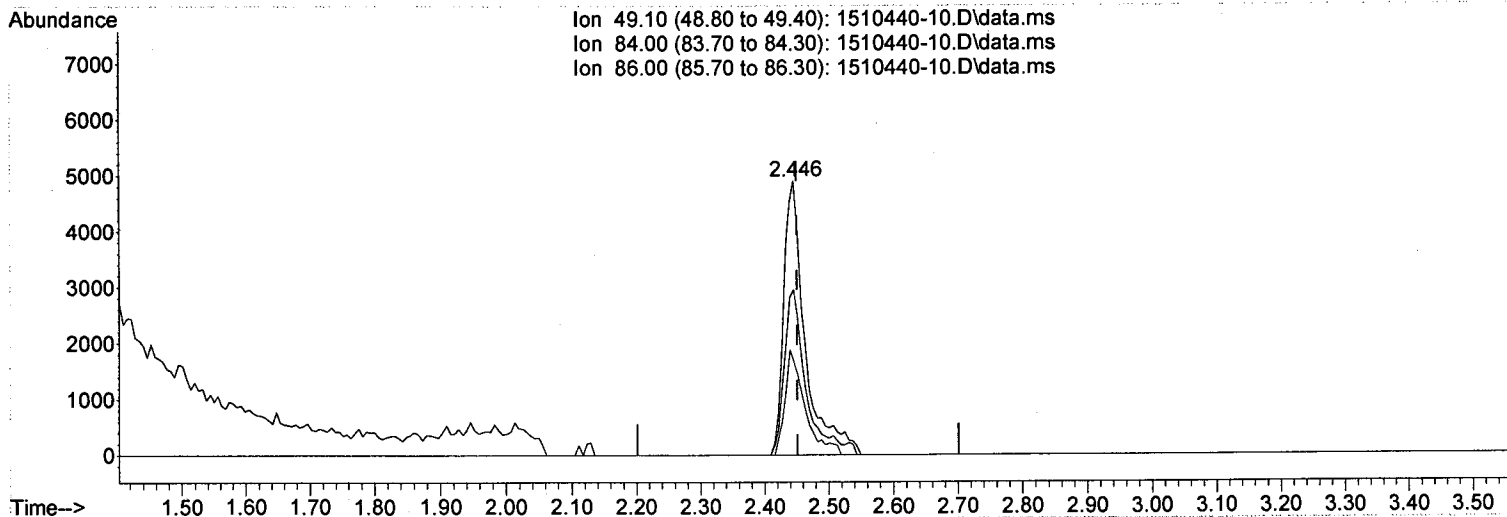
response 71392

Ion	Exp%	Act%
76.00	100	100
78.00	9.00	8.84
0.00	0.00	0.00
0.00	0.00	0.00

000268

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-10.D
Acq On : 30 Oct 2015 2:24
Operator : BAG
Sample : 1510440-10
Misc : MWH
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 30 08:16:55 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(17) methylene chloride

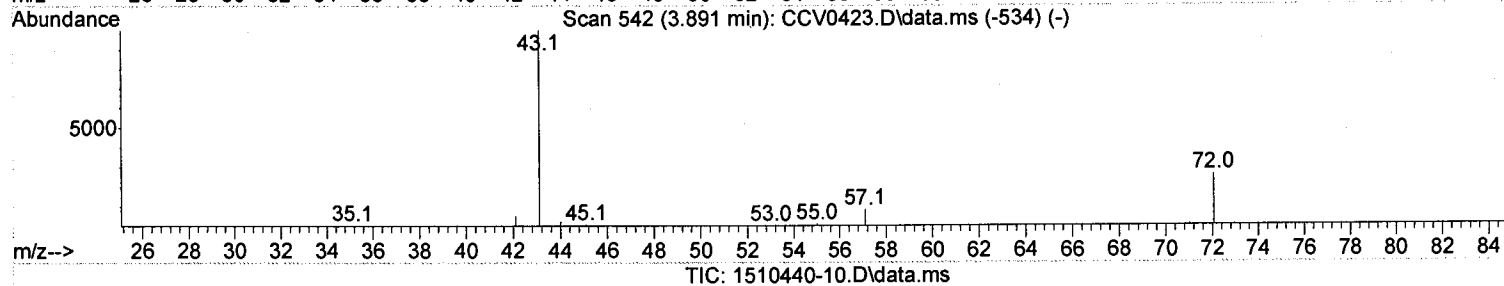
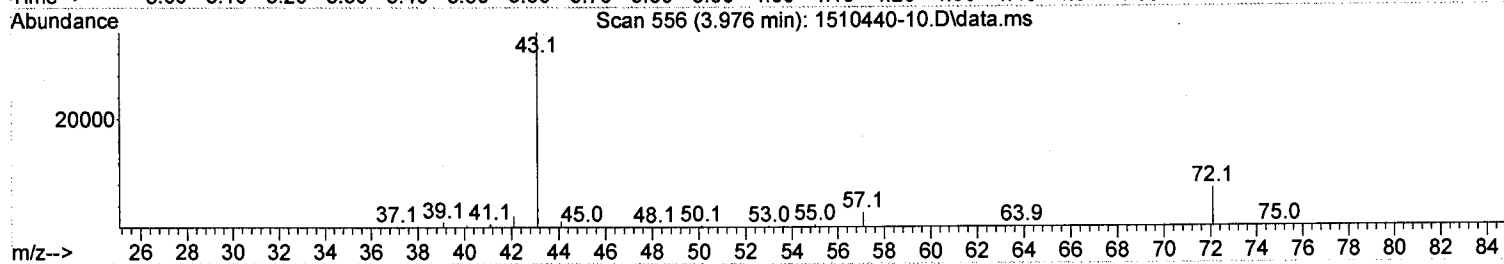
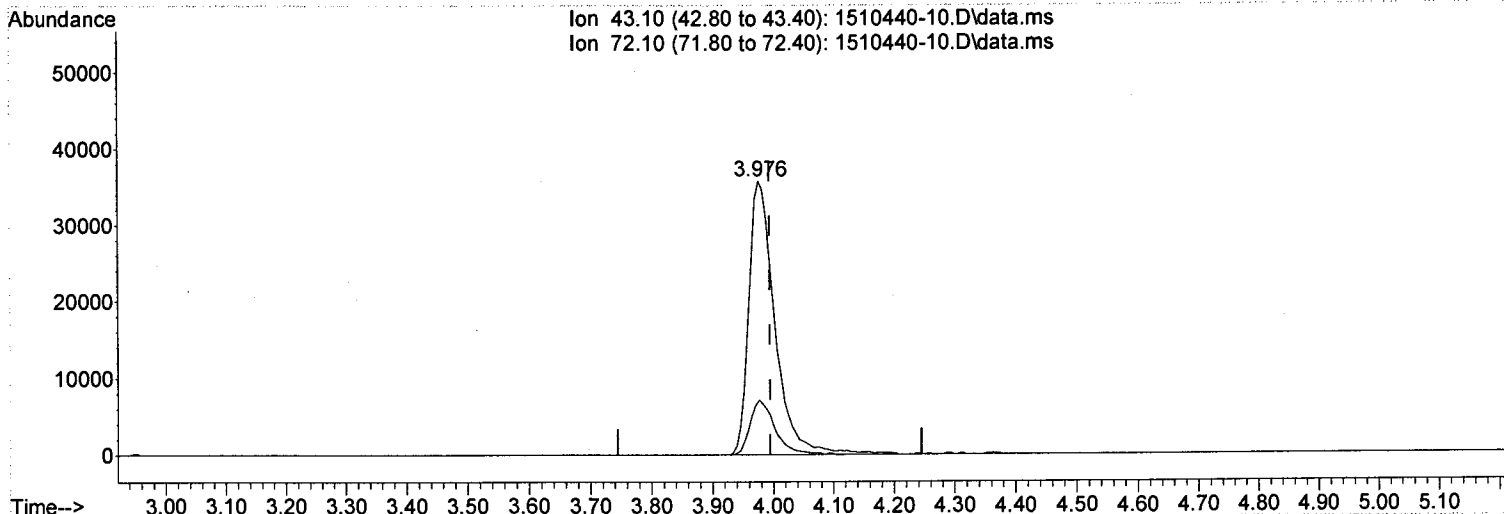
2.446min (-0.006) 0.27 ug/L

response 11482

Ion	Exp%	Act%
49.10	100	100
84.00	60.60	61.17
86.00	38.40	35.46
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-10.D
Acq On : 30 Oct 2015 2:24
Operator : BAG
Sample : 1510440-10
Misc : MWH
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 30 08:16:55 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(25) 2-butanone (MEK)

3.976min (-0.019) 29.57 ug/L

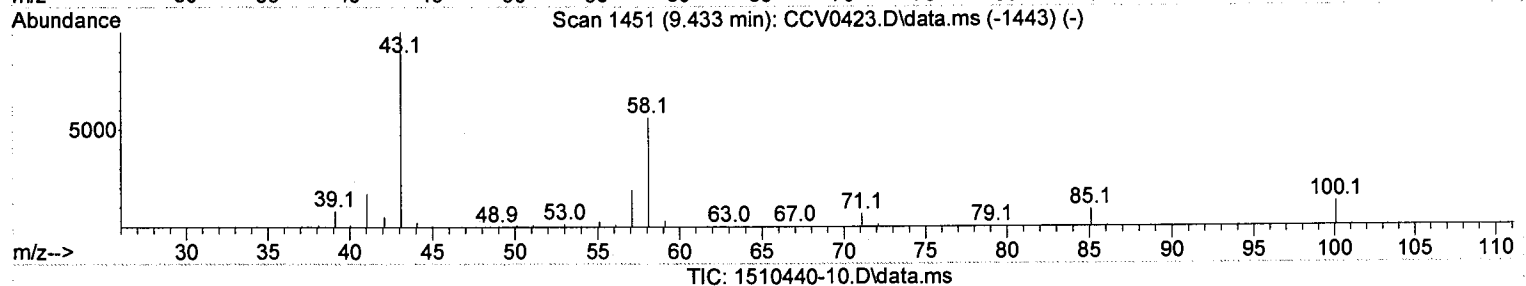
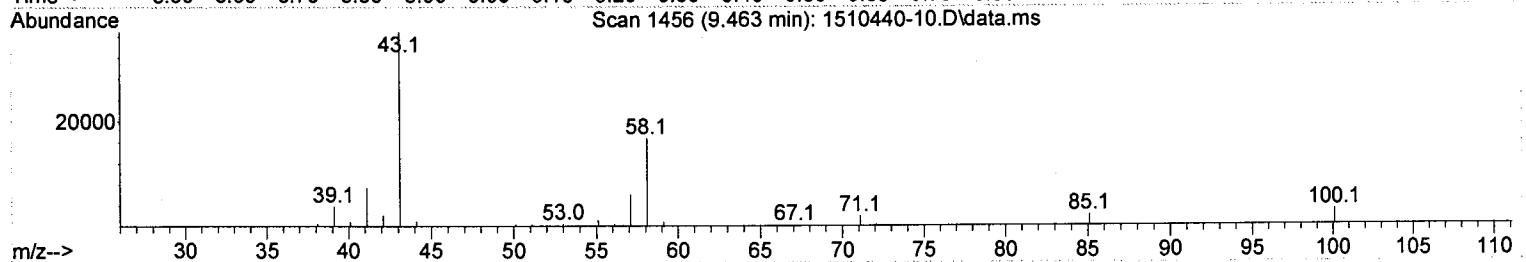
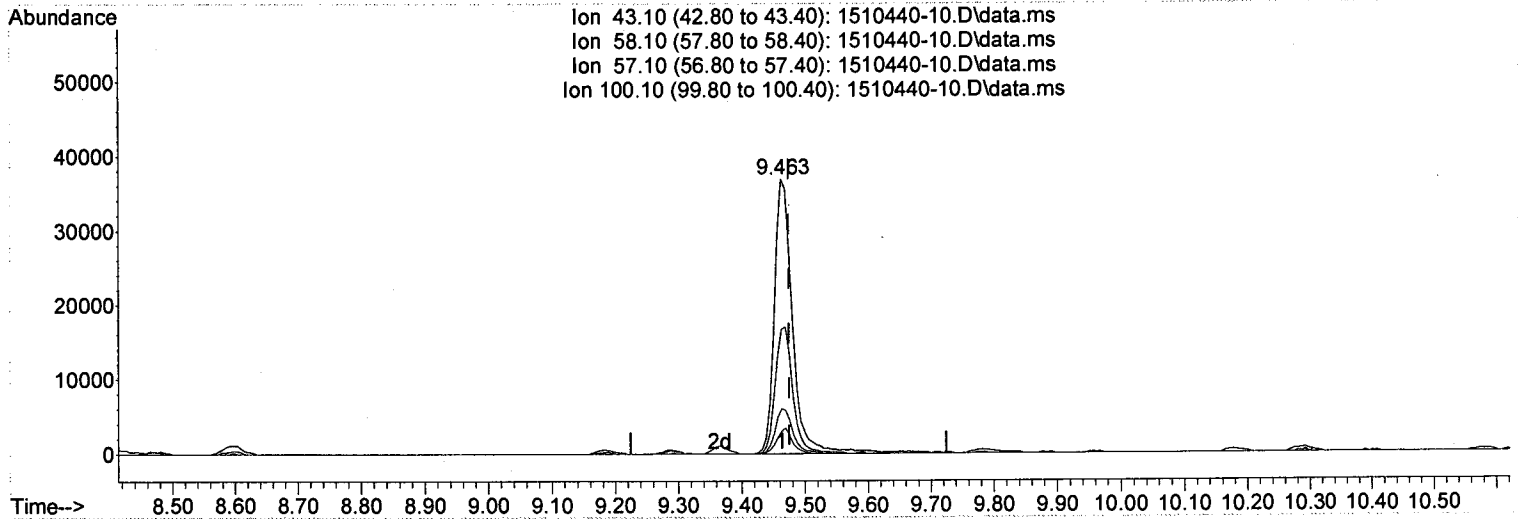
response 107312

Ion	Exp%	Act%
43.10	100	100
72.10	19.00	19.03
0.00	0.00	0.00
0.00	0.00	0.00

000270

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-10.D
Acq On : 30 Oct 2015 2:24
Operator : BAG
Sample : 1510440-10
Misc : MWH
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 30 08:16:55 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(54) 2-hexanone (MBK)

9.463min (-0.012) 12.68 ug/L

response 72935

Ion	Exp%	Act%
43.10	100	100
58.10	46.30	44.85
57.10	16.10	15.86
100.10	7.90	7.81

000271

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-11

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-11

File ID: 1510440-11.D

Sampled: 10/20/15 14:30

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 02:52

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	2.6	2.4	10	J
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	7.0	0.24	1.0	
156-59-2	cis-1,2-Dichloroethene	1	2.4	0.21	1.0	
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	2.4	0.37	2.0	
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000272

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-11

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-11

File ID: 1510440-11.D

Sampled: 10/20/15 14:30

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 02:52

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	0.22	0.15	1.0	J
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	48	0.23	1.0	
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.6	99	85 - 118	
1,2-Dichloroethane-d4	40.0	40.1	100	87 - 122	
Toluene-d8	40.0	39.2	98	85 - 113	

000273

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-11

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-11

File ID: 1510440-11.D

Sampled: 10/20/15 14:30

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 02:52

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	40.1	100	82 - 110	

* Values outside of QC limits

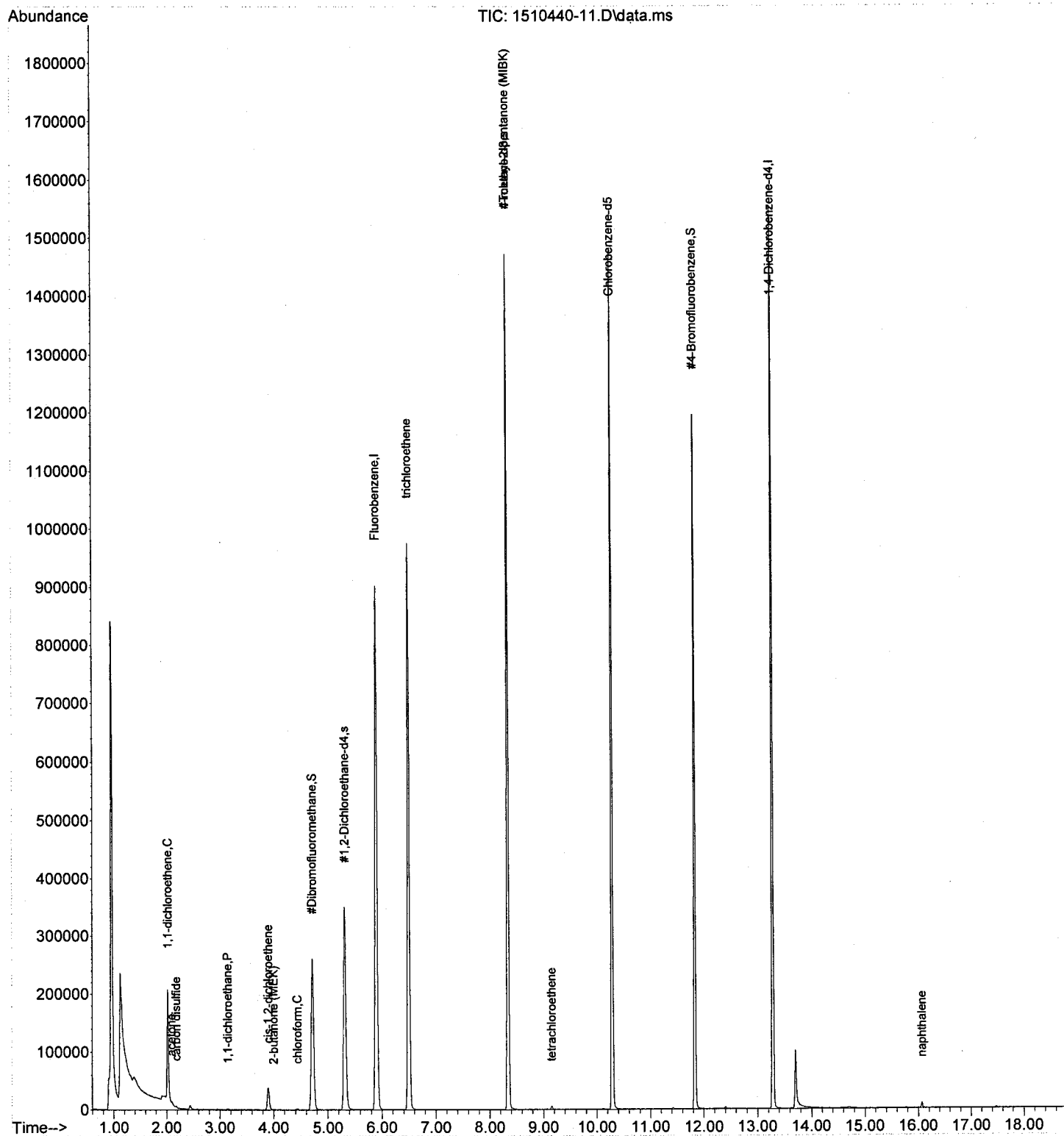
Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	995728	5.897	99	5.915	
Chlorobenzene-d5	688834	10.286	98	10.305	
1,4-Dichlorobenzene-d4	340210	13.279	98	13.292	

* Values outside of QC limits

000274

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-11.D
Acq On : 30 Oct 2015 2:52
Operator : BAG
Sample : 1510440-11
Misc : MWH
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 30 08:16:58 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



000275

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-11.D
 Acq On : 30 Oct 2015 2:52
 Operator : BAG
 Sample : 1510440-11
 Misc : MWH
 ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 30 08:16:58 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.897	96	995728	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.286	117	688834	40.00	ug/L	-0.02
66) 1,4-Dichlorobenzene-d4	13.279	152	340210	40.00	ug/L	#-0.01
System Monitoring Compounds						
29) #Dibromofluoromethane	4.714	111	246616	39.55	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	98.87%	
37) #1,2-Dichloroethane-d4	5.318	67	193317	40.10	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	100.25%	
47) #Toluene-d8	8.341	98	940610	39.24	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	98.10%	
65) #4-Bromofluorobenzene	11.828	95	399709	40.06	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	100.15%	
Target Compounds						
						Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	2.026	96	57424	6.97	ug/L	99
13) acetone	2.093	43	7500	2.56	ug/L #	87
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.184	76	2343	0.11	ug/L #	75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.440	49	4905	Below Cal		97
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	3.147	63	2263	0.14	ug/L #	51
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	3.903	96	20004	2.42	ug/L #	89
25) 2-butanone (MEK)	4.001	43	1630	0.44	ug/L #	58
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	4.440	83	2116	0.14	ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.891	57	44606	No Calib		
38) trichloroethene	6.494	130	352554	47.94	ug/L	100
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000276

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-11.D
 Acq On : 30 Oct 2015 2:52
 Operator : BAG
 Sample : 1510440-11
 Misc : MWH
 ALS Vial : 41 Sample Multiplier: 1

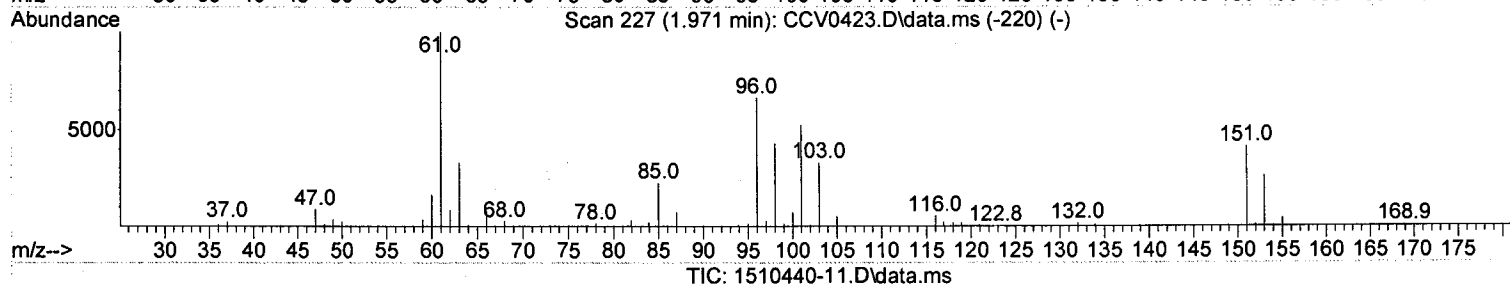
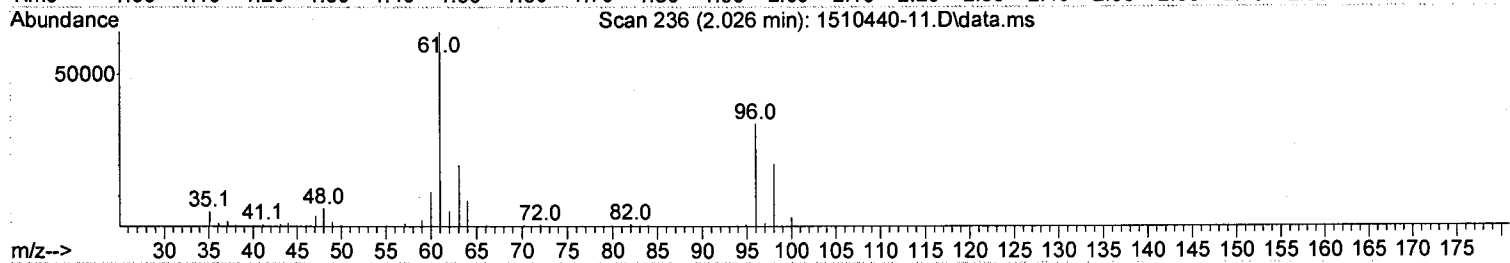
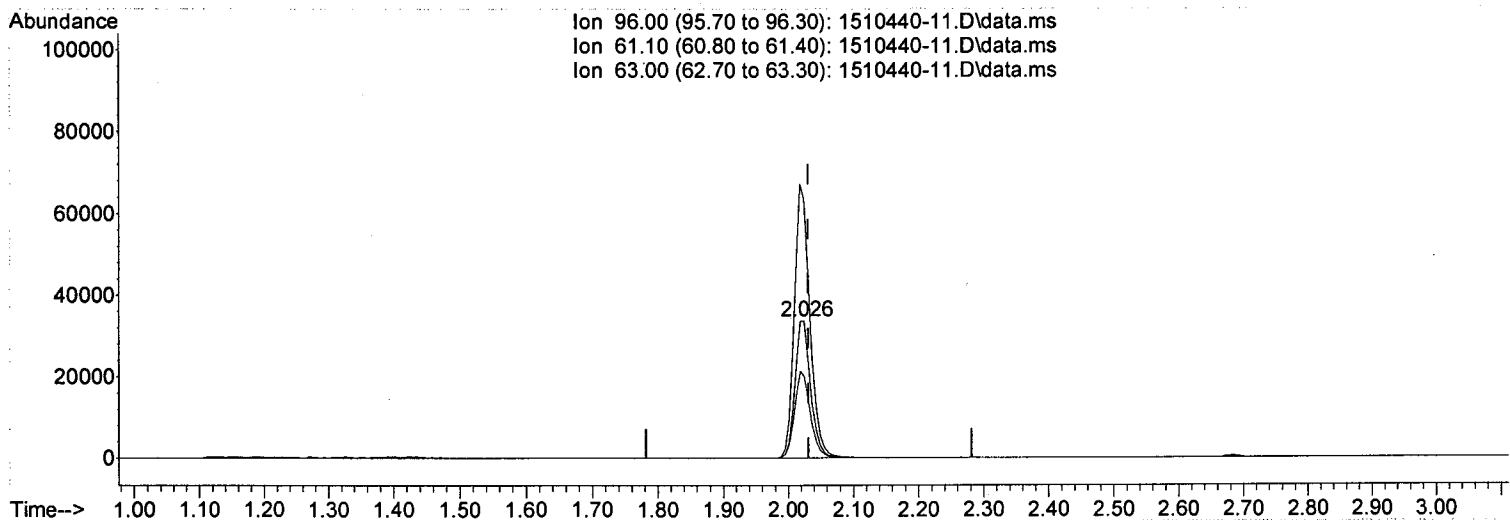
Quant Time: Oct 30 08:16:58 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.341	43	6103	~~4.7~~ 0.72 ug/L #		1
48) toluene	0.000		0	N.D.		
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	9.152	166	1624	0.22 ug/L #		66
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	0.000		0	N.D.		
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	0.000		0	N.D.		
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	0.000		0	N.D.		
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	0.000		0	N.D.		
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	0.000		0	N.D.		
87) hexachlorobutadiene	0.000		0	N.D.		
88) naphthalene	16.065	128	6885	0.37 ug/L #		72
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	0.000		0	N.D.		

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-11.D
Acq On : 30 Oct 2015 2:52
Operator : BAG
Sample : 1510440-11
Misc : MWH
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 30 08:16:58 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(12) 1,1-dichloroethene (C)

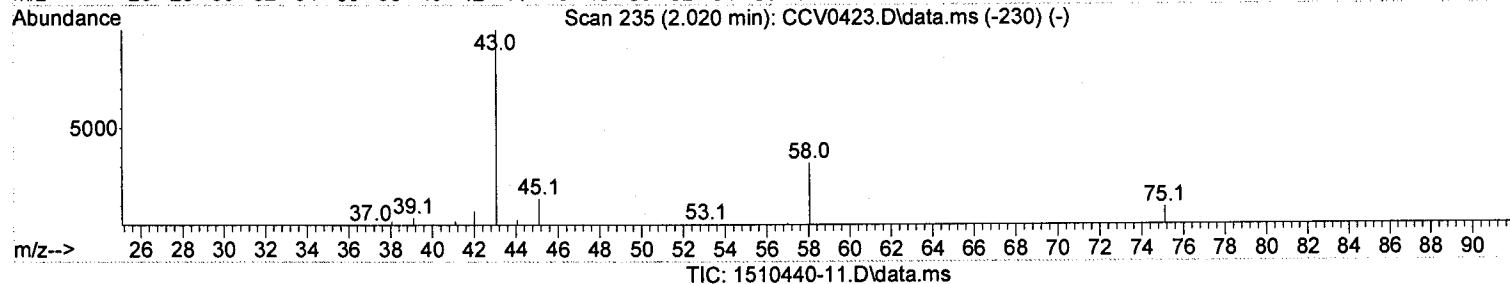
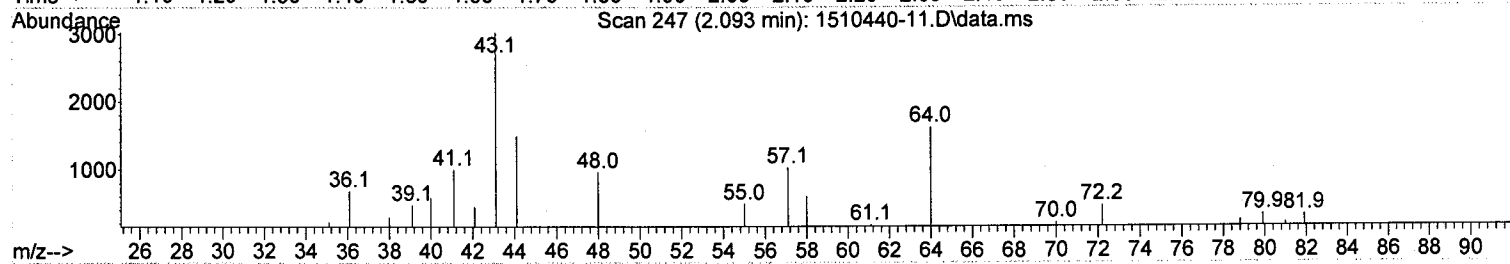
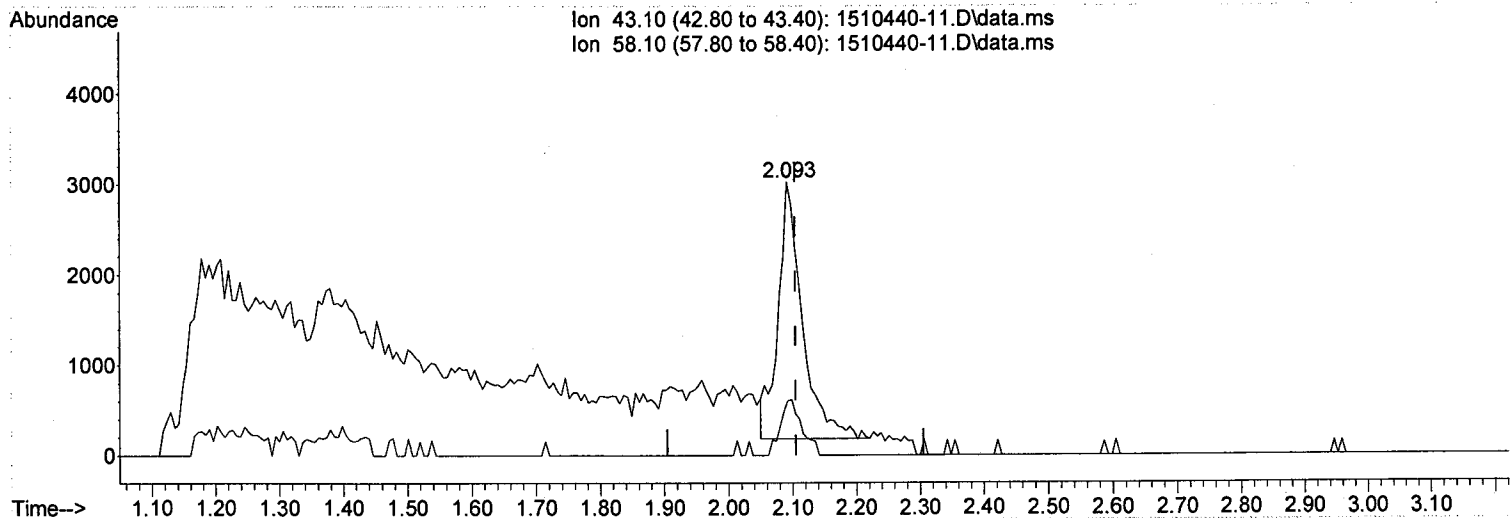
2.026min (-0.006) 6.97 ug/L

response 57424

Ion	Exp%	Act%
96.00	100	100
61.10	199.80	197.74
63.00	64.10	63.36
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-11.D
Acq On : 30 Oct 2015 2:52
Operator : BAG
Sample : 1510440-11
Misc : MWH
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 30 08:16:58 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(13) acetone

2.093min (-0.012) 2.56 ug/L

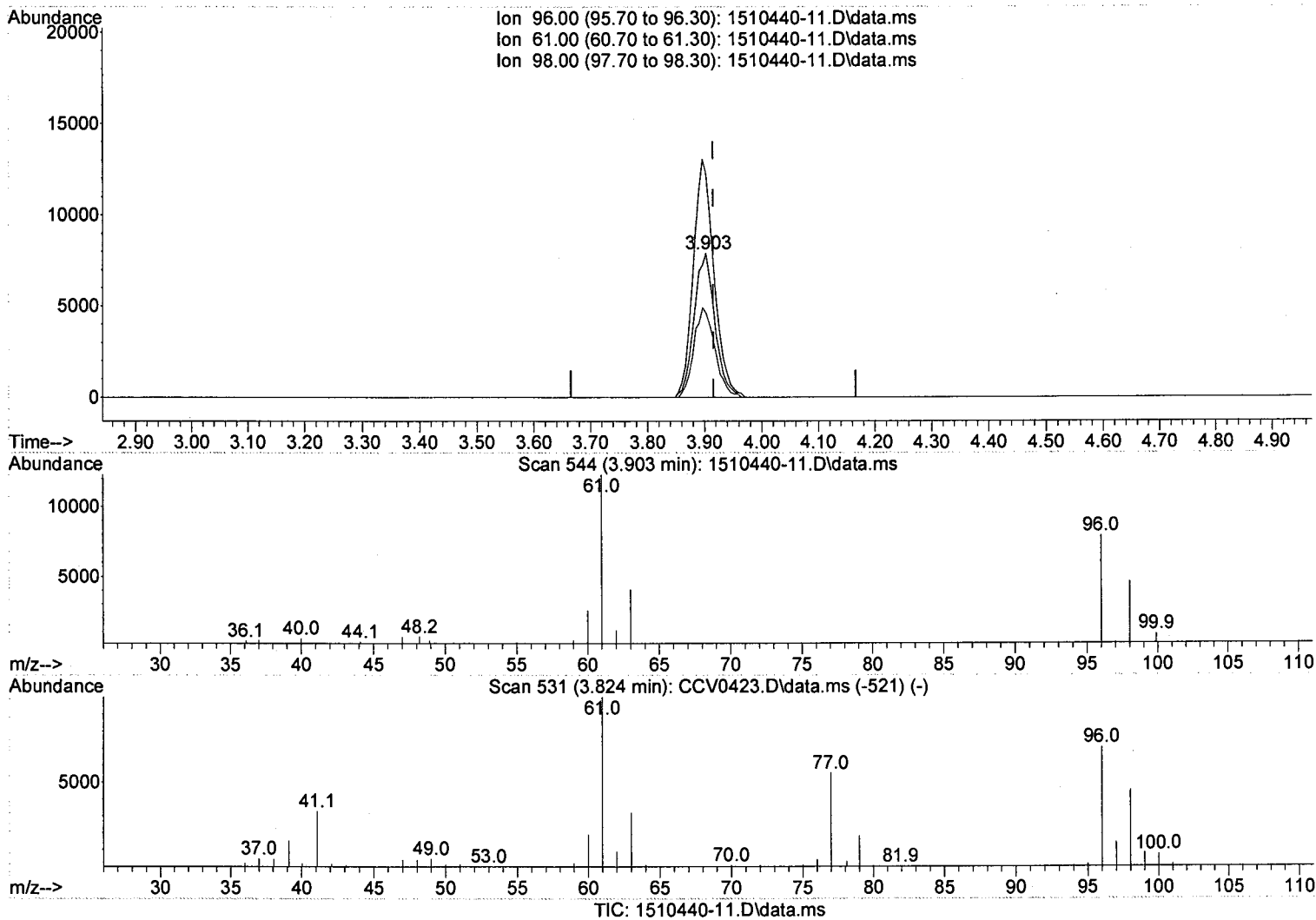
response 7500

Ion	Exp%	Act%
43.10	100	100
58.10	25.50	19.17#
0.00	0.00	0.00
0.00	0.00	0.00

000279

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-11.D
Acq On : 30 Oct 2015 2:52
Operator : BAG
Sample : 1510440-11
Misc : MWH
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 30 08:16:58 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(24) cis-1,2-dichloroethene

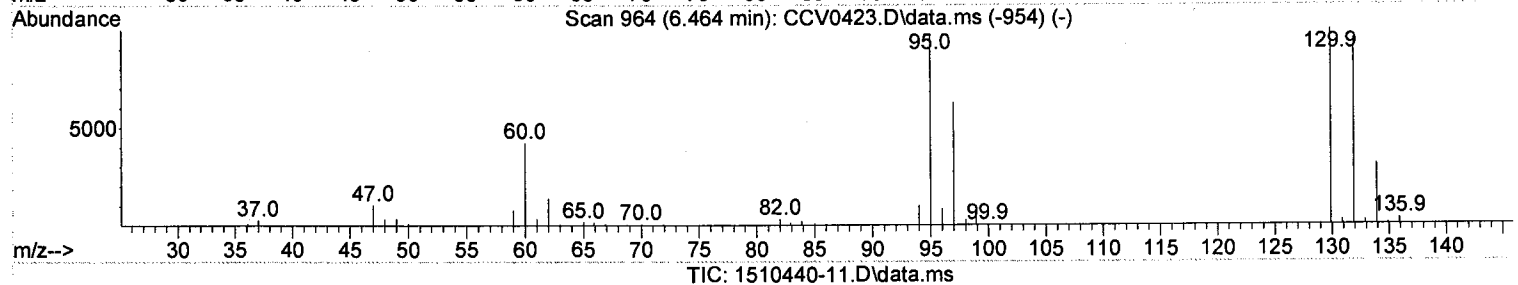
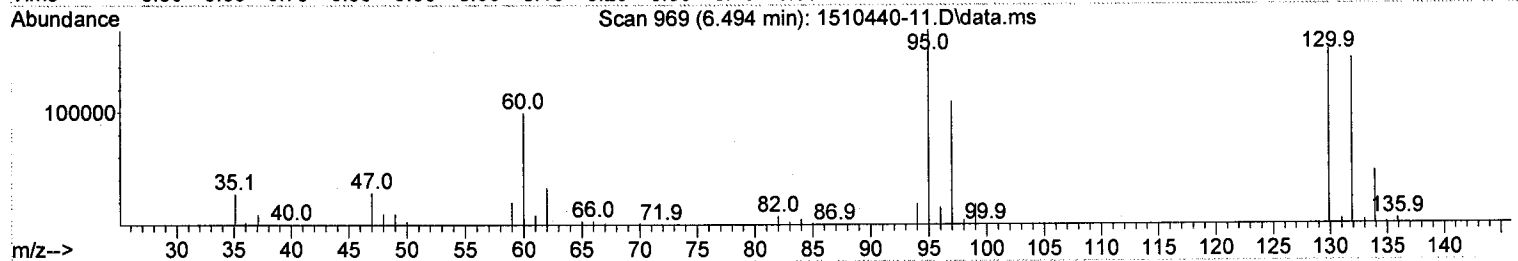
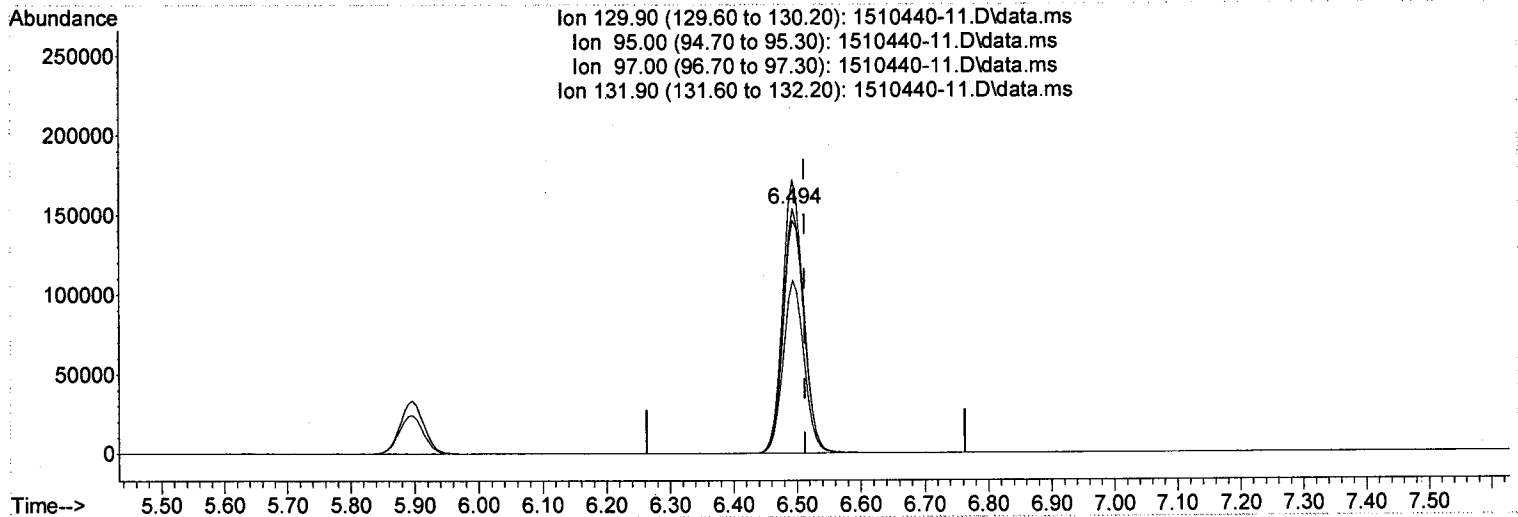
3.903min (-0.013) 2.42 ug/L

response 20004

Ion	Exp%	Act%
96.00	100	100
61.00	185.80	164.40#
98.00	63.60	62.90
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-11.D
Acq On : 30 Oct 2015 2:52
Operator : BAG
Sample : 1510440-11
Misc : MWH
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 30 08:16:58 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(38) trichloroethene

6.494min (-0.019) 47.94 ug/L

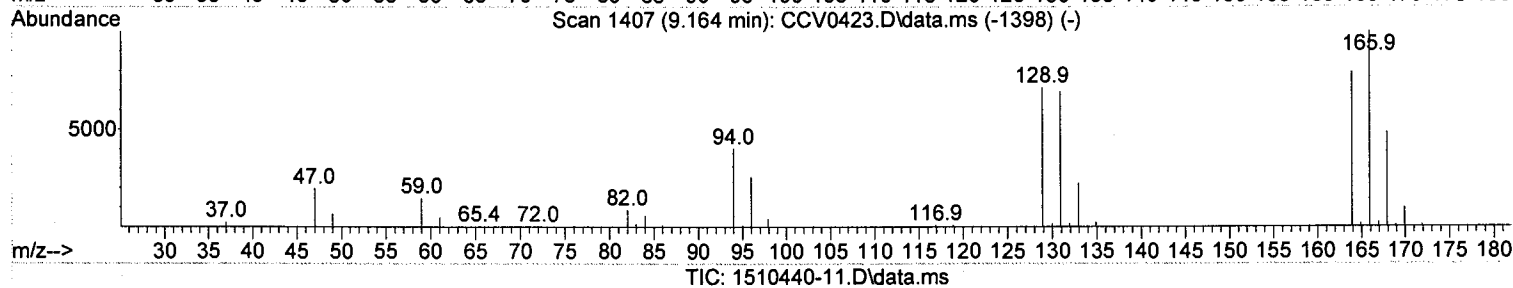
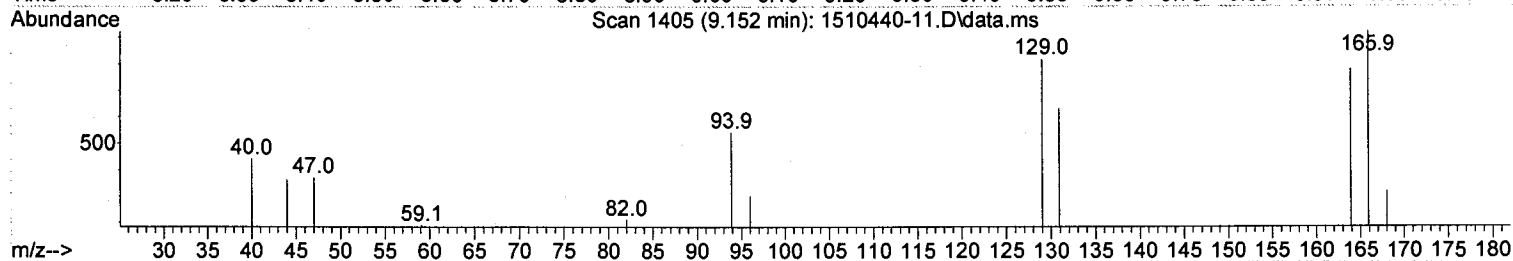
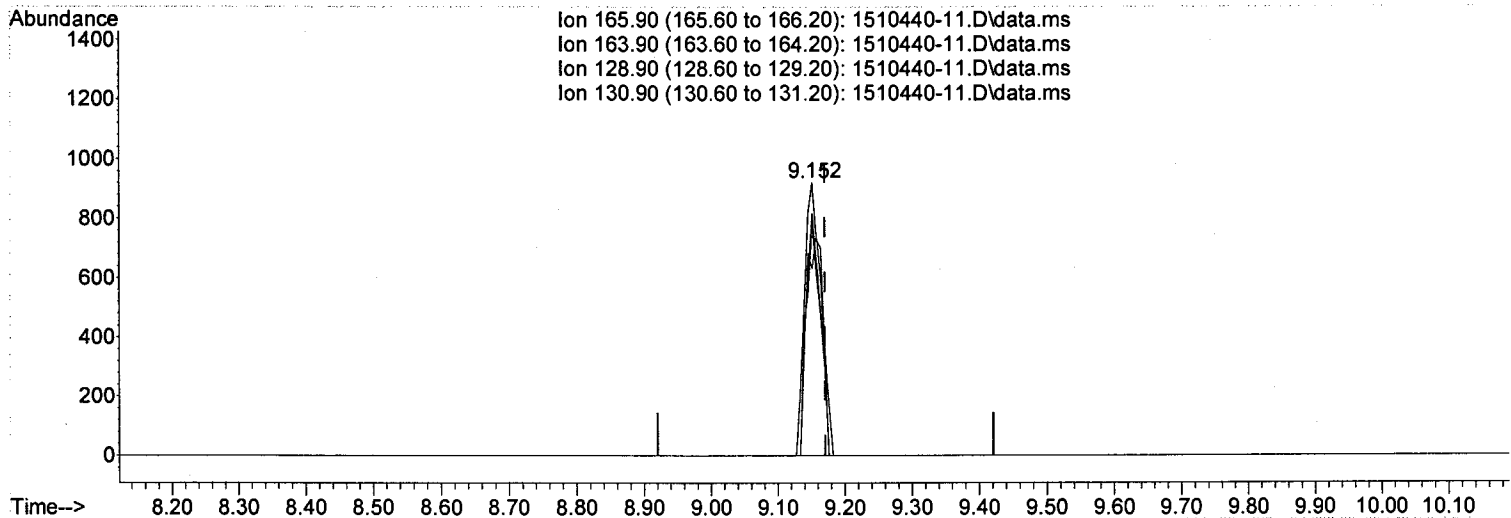
response 352554

Ion	Exp%	Act%
129.90	100	100
95.00	112.20	112.55
97.00	71.70	71.29
131.90	96.70	97.07

000281

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-11.D
Acq On : 30 Oct 2015 2:52
Operator : BAG
Sample : 1510440-11
Misc : MWH
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 30 08:16:58 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(52) tetrachloroethene

9.152min (-0.019) 0.22 ug/L

response 1624

Ion	Exp%	Act%
165.90	100	100
163.90	78.80	0.00#
128.90	76.90	73.95
130.90	73.90	78.63

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

EB-101915

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-12

File ID: 1510440-12.D

Sampled: 10/19/15 12:40

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 21:40

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	4.2	0.21	1.0	
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37	2.0	U
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000283

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

EB-101915

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-12

File ID: 1510440-12.D

Sampled: 10/19/15 12:40

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 21:40

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	0.29	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.5	99	85 - 118	
1,2-Dichloroethane-d4	40.0	40.0	100	87 - 122	
Toluene-d8	40.0	39.4	98	85 - 113	

000284

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

EB-101915

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-12

File ID: 1510440-12.D

Sampled: 10/19/15 12:40

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 21:40

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.5	99	82 - 110	

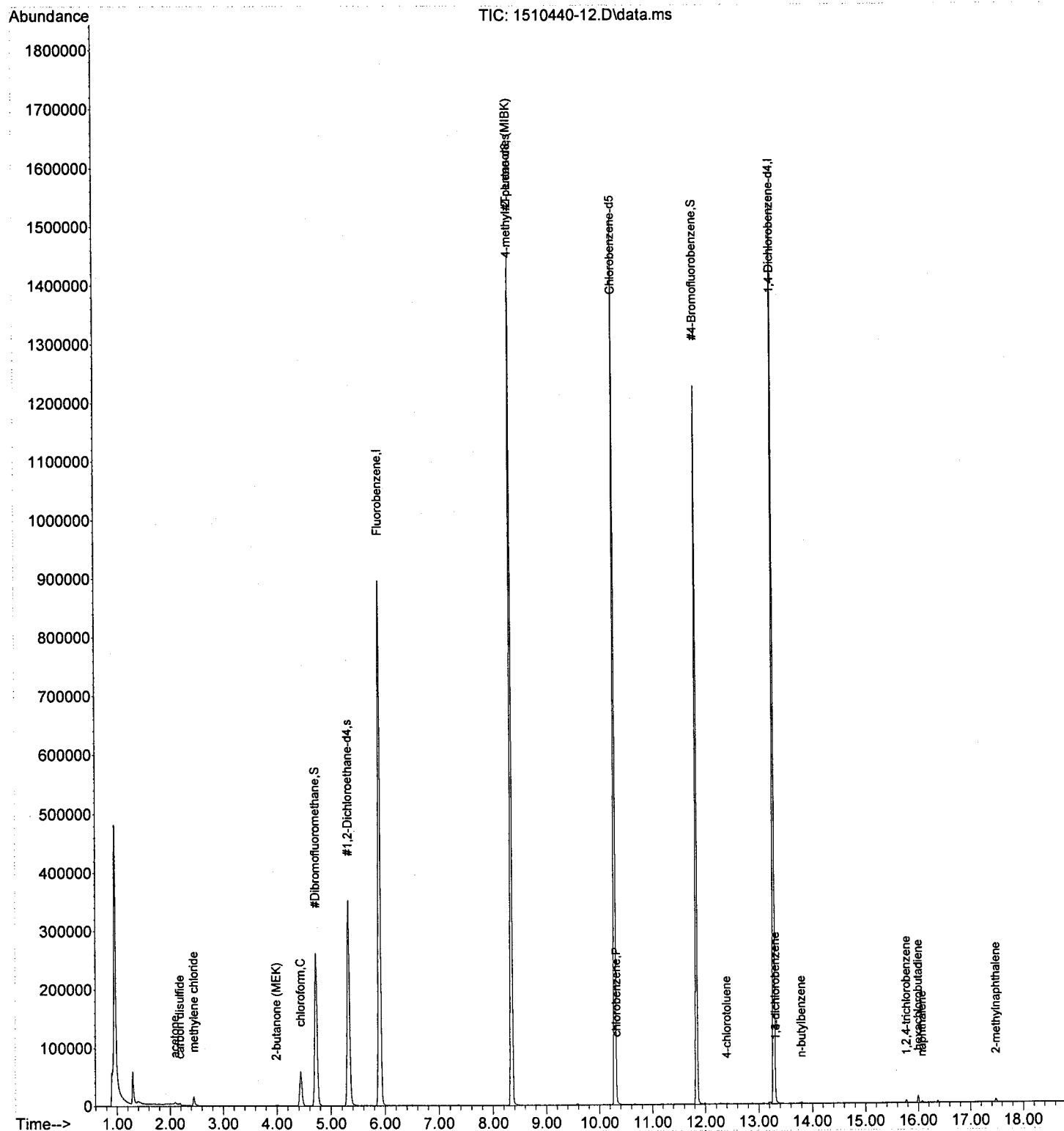
* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1005809	5.903	100	5.915	
Chlorobenzene-d5	696516	10.292	100	10.305	
1,4-Dichlorobenzene-d4	338691	13.286	98	13.292	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-12.D
Acq On : 29 Oct 2015 21:40
Operator : BAG
Sample : 1510440-12
Misc : MWH
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 30 08:17:01 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-12.D
 Acq On : 29 Oct 2015 21:40
 Operator : BAG
 Sample : 1510440-12
 Misc : MWH
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 30 08:17:01 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.903	96	1005809	40.00	ug/L	-0.01
51) Chlorobenzene-d5	10.292	117	696516	40.00	ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.286	152	338691	40.00	ug/L	# 0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.720	111	248706	39.48	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	98.70%	
37) #1,2-Dichloroethane-d4	5.324	67	194692	39.98	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	99.95%	
47) #Toluene-d8	8.348	98	953645	39.39	ug/L	-0.01
Spiked Amount	40.000		Recovery	=	98.47%	
65) #4-Bromofluorobenzene	11.835	95	398499	39.50	ug/L	-0.01
Spiked Amount	40.000		Recovery	=	98.75%	
Target Compounds						
						Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	0.000		0	N.D.		
13) acetone	2.093	43	4089	1.50	ug/L #	50
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.190	76	2824	0.13	ug/L #	75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.452	49	12044	0.29	ug/L	98
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	0.000		0	N.D.		
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	0.000		0	N.D.		
25) 2-butanone (MEK)	3.995	43	2816	0.75	ug/L #	58
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	4.440	83	64386	4.16	ug/L	99
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.903	57	45625	No Calib		
38) trichloroethene	0.000		0	N.D.		
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000287

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-12.D
 Acq On : 29 Oct 2015 21:40
 Operator : BAG
 Sample : 1510440-12
 Misc : MWH
 ALS Vial : 30 Sample Multiplier: 1

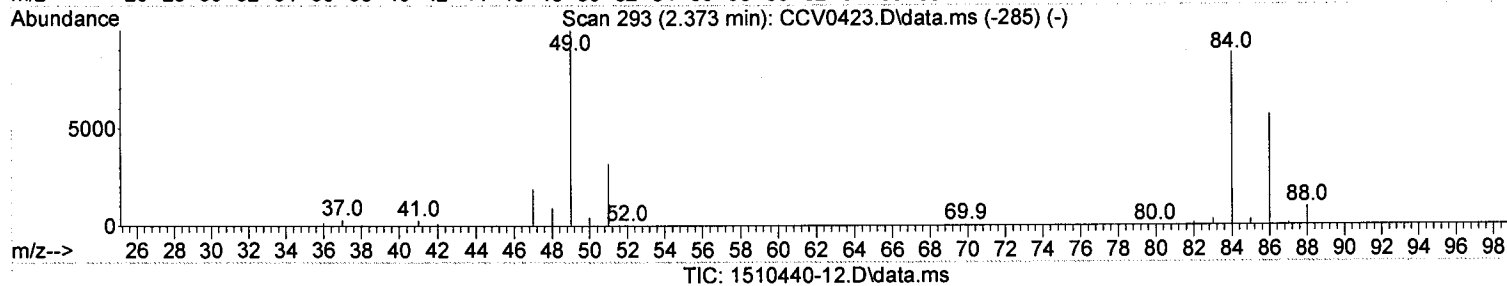
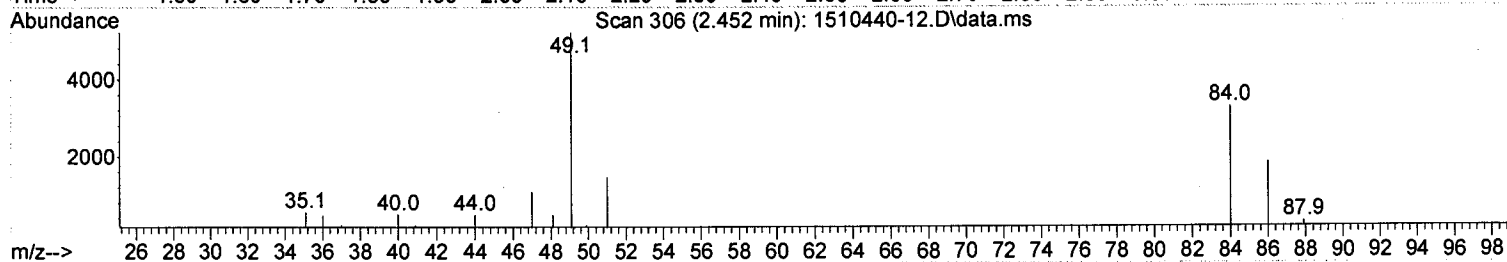
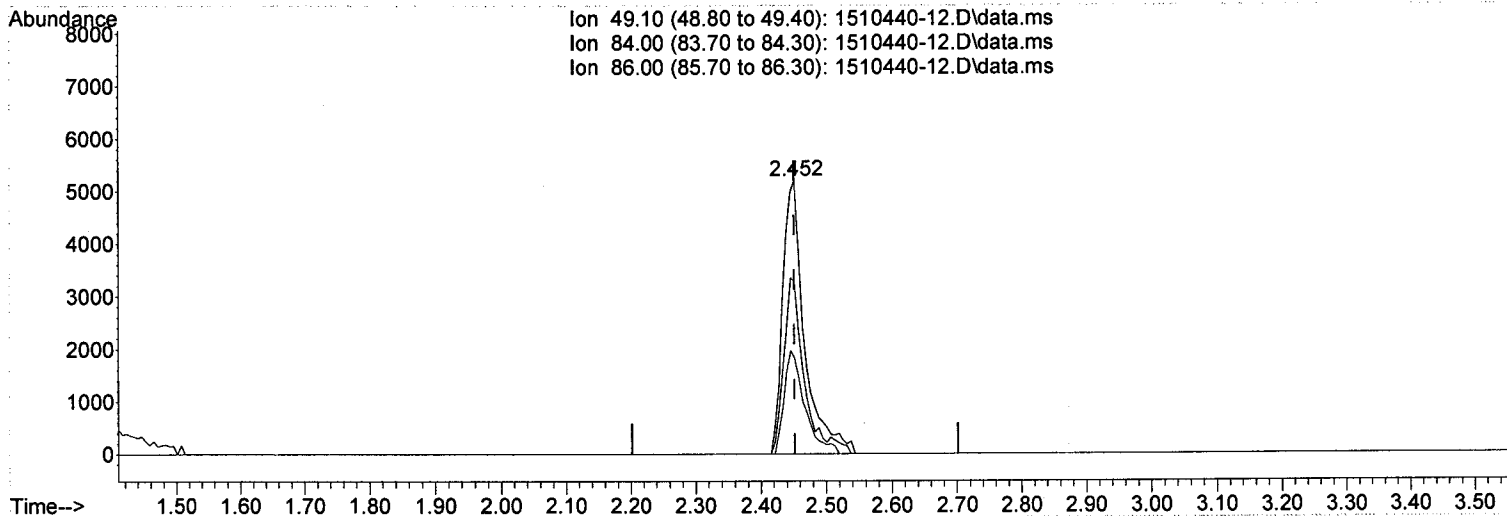
Quant Time: Oct 30 08:17:01 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.341	43	6066	~~2.7~~ 0.71 ug/L #		1
48) toluene	0.000		0	N.D.		
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	0.000		0	N.D.		
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	10.323	112	1203	0.06 ug/L #		22
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	0.000		0	N.D.		
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	12.402	91	1278	0.04 ug/L #		50
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	13.316	146	1869	~~1.7~~ 0.14 ug/L #		19
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	13.316	146	1869	0.13 ug/L #		19
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	13.798	91	1690	0.06 ug/L #		33
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	15.773	180	1689	0.22 ug/L #		85
87) hexachlorobutadiene	15.999	225	2330	0.58 ug/L		97
88) naphthalene	16.072	128	2651	< 0.14 ug/L #		72
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	17.480	142	3633	3.34 ug/L #		78

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-12.D
Acq On : 29 Oct 2015 21:40
Operator : BAG
Sample : 1510440-12
Misc : MWH
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 30 08:17:01 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(17) methylene chloride

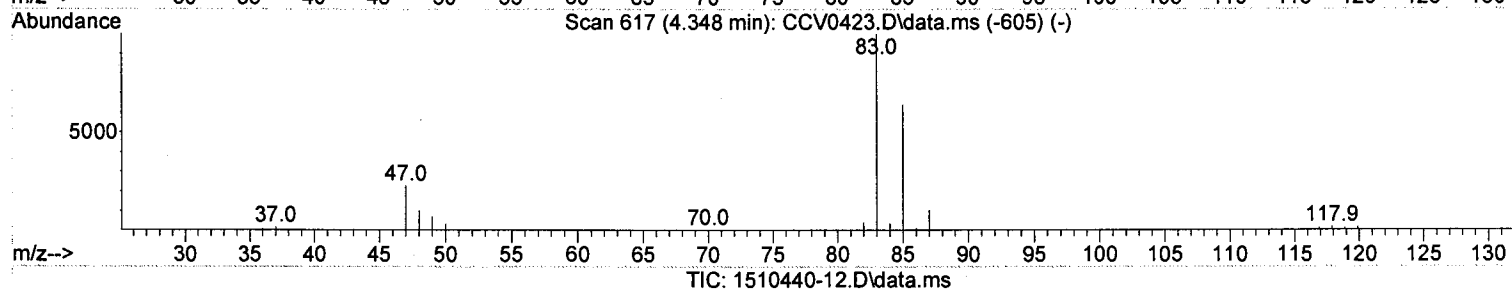
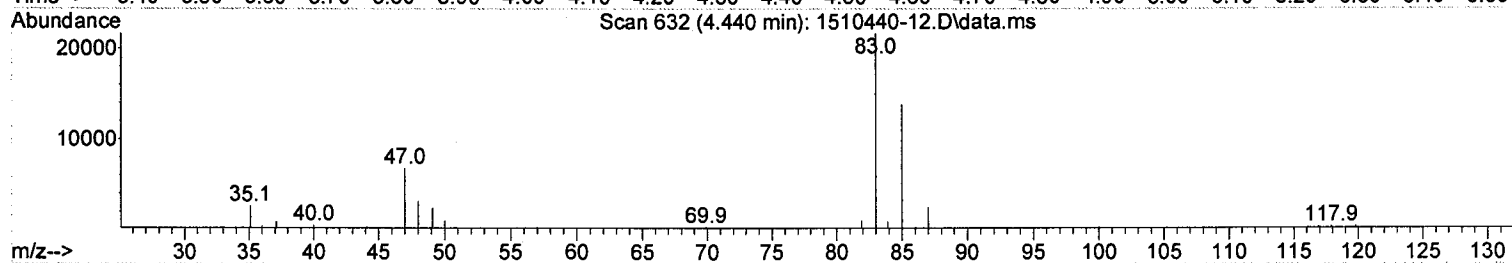
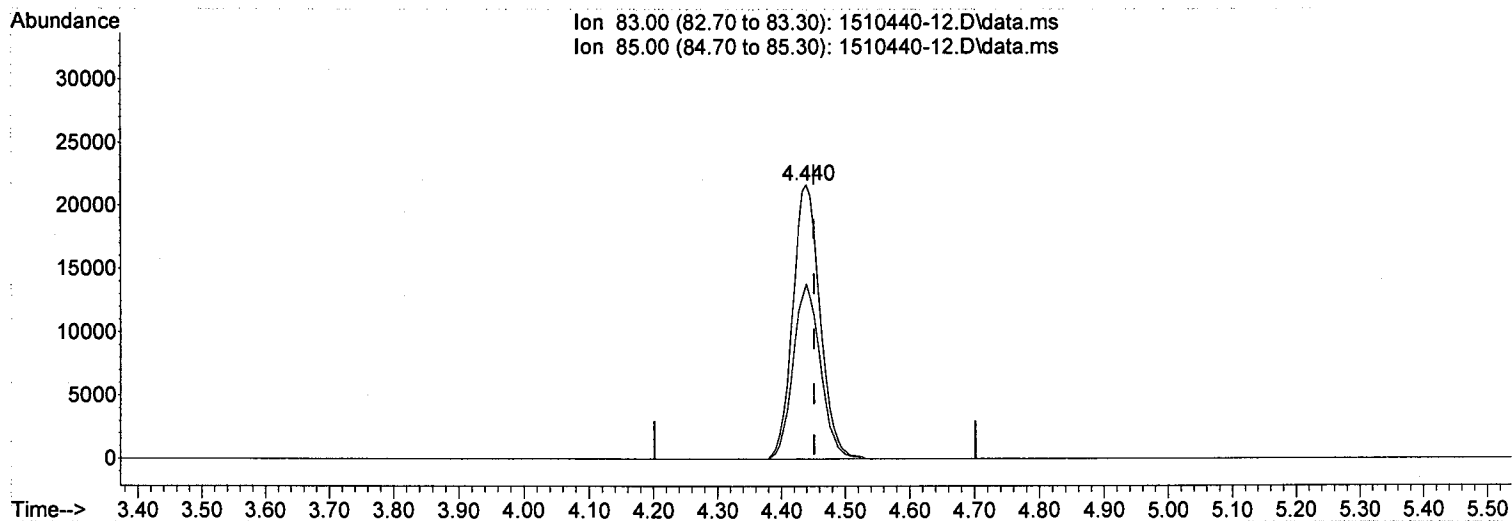
2.452min (+0.000) 0.29 ug/L

response 12044

Ion	Exp%	Act%
49.10	100	100
84.00	60.60	60.46
86.00	38.40	35.73
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-12.D
Acq On : 29 Oct 2015 21:40
Operator : BAG
Sample : 1510440-12
Misc : MWH
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 30 08:17:01 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(28) chloroform (C)

4.440min (-0.012) 4.16 ug/L

response 64386

Ion	Exp%	Act%
83.00	100	100
85.00	64.20	63.77
0.00	0.00	0.00
0.00	0.00	0.00

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

EB-102015

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-13

File ID: 1510440-13.D

Sampled: 10/20/15 09:05

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 22:08

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	4.0	2.4	10	J
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	0.44	0.26	1.0	J
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.5	0.21	1.0	
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37	2.0	U
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000291

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

EB-102015

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-13

File ID: 1510440-13.D

Sampled: 10/20/15 09:05

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 22:08

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.3	98	85 - 118	
1,2-Dichloroethane-d4	40.0	39.9	100	87 - 122	
Toluene-d8	40.0	39.4	99	85 - 113	

000292

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

EB-102015

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-13

File ID: 1510440-13.D

Sampled: 10/20/15 09:05

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 22:08

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.7	99	82 - 110	

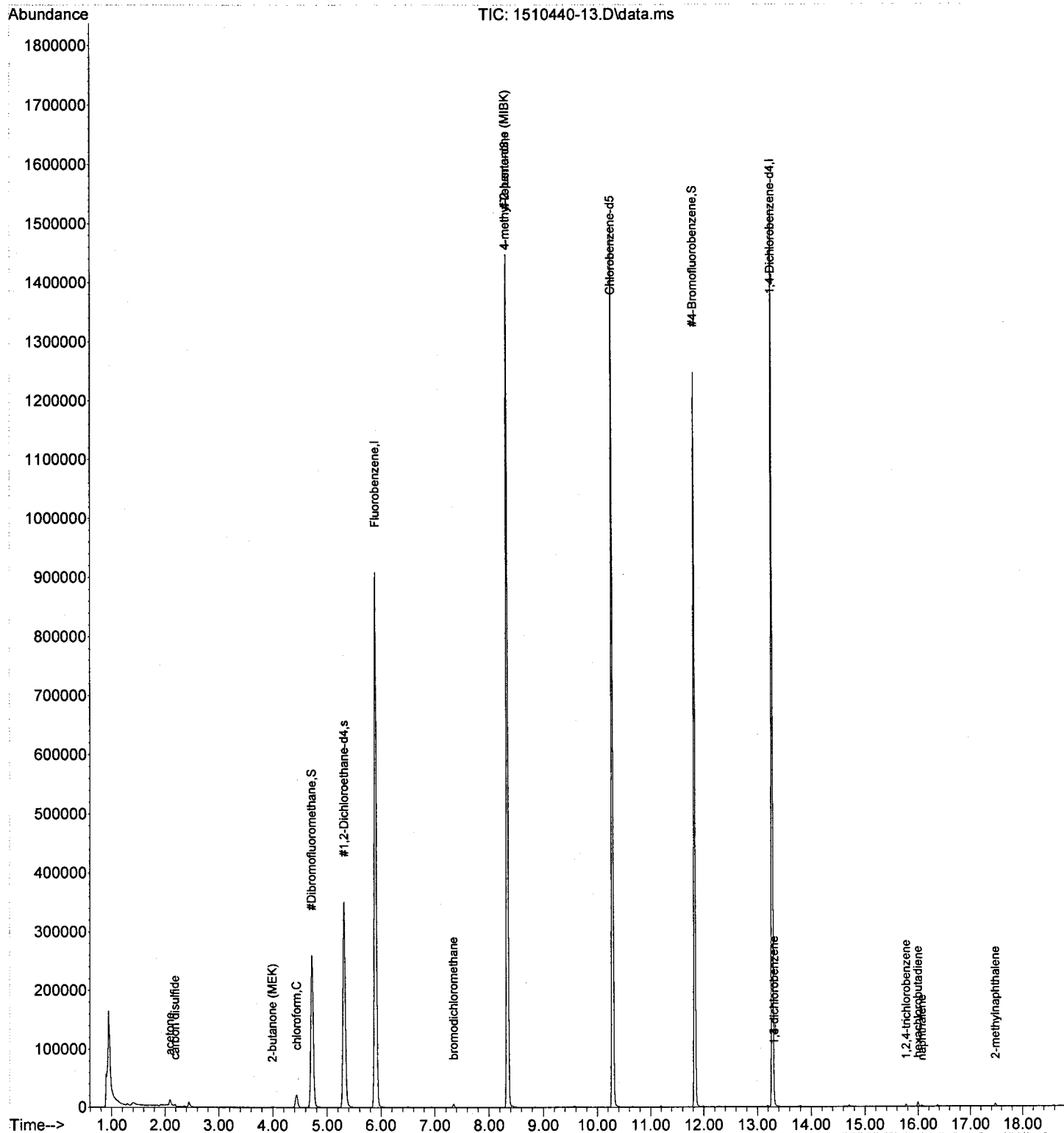
* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1006686	5.903	100	5.915	
Chlorobenzene-d5	695547	10.292	99	10.305	
1,4-Dichlorobenzene-d4	339315	13.286	98	13.292	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-13.D
Acq On : 29 Oct 2015 22:08
Operator : BAG
Sample : 1510440-13
Misc : MWH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 30 08:17:04 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



000294

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-13.D
 Acq On : 29 Oct 2015 22:08
 Operator : BAG
 Sample : 1510440-13
 Misc : MWH
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 30 08:17:04 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.903	96	1006686	40.00	ug/L	-0.01
51) Chlorobenzene-d5	10.292	117	695547	40.00	ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.286	152	339315	40.00	ug/L	# 0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.720	111	248048	39.34	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	98.35%	
37) #1,2-Dichloroethane-d4	5.324	67	194580	39.92	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	99.80%	
47) #Toluene-d8	8.348	98	954879	39.41	ug/L	-0.01
Spiked Amount	40.000		Recovery	=	98.52%	
65) #4-Bromofluorobenzene	11.835	95	399742	39.68	ug/L	-0.01
Spiked Amount	40.000		Recovery	=	99.20%	
Target Compounds						
						Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	0.000		0	N.D.		
13) acetone	2.093	43	12464	4.05	ug/L	99
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.190	76	2718	0.12	ug/L #	75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.446	49	6725	Below Cal		97
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	0.000		0	N.D.		
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	0.000		0	N.D.		
25) 2-butanone (MEK)	3.995	43	2075	0.55	ug/L #	58
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	4.440	83	23453	1.52	ug/L	99
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.897	57	44730	No Calib		
38) trichloroethene	0.000		0	N.D.		
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000295

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-13.D
 Acq On : 29 Oct 2015 22:08
 Operator : BAG
 Sample : 1510440-13
 Misc : MWH
 ALS Vial : 31 Sample Multiplier: 1

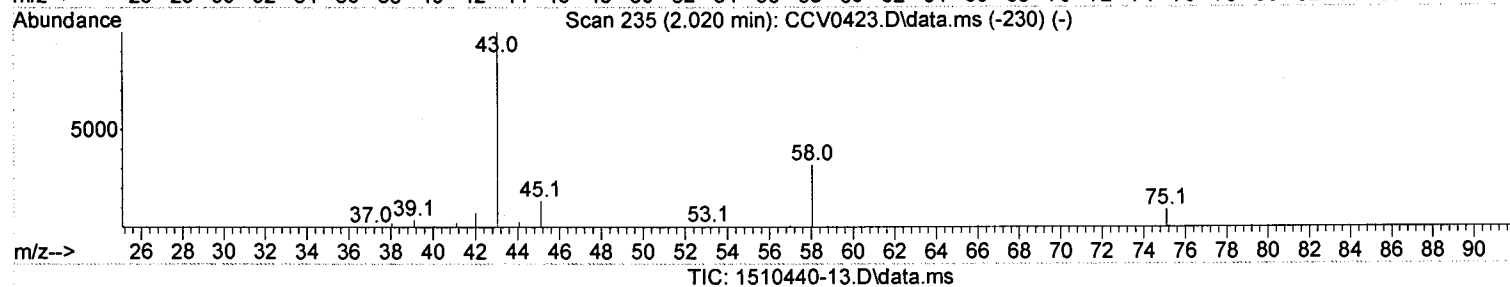
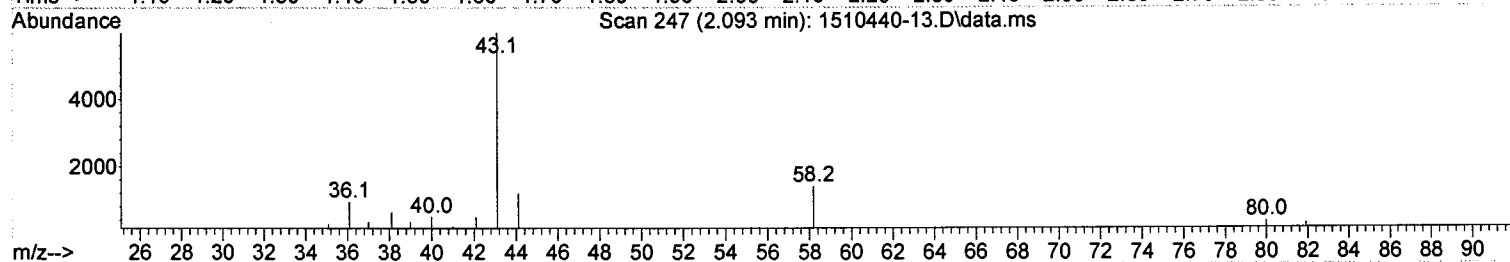
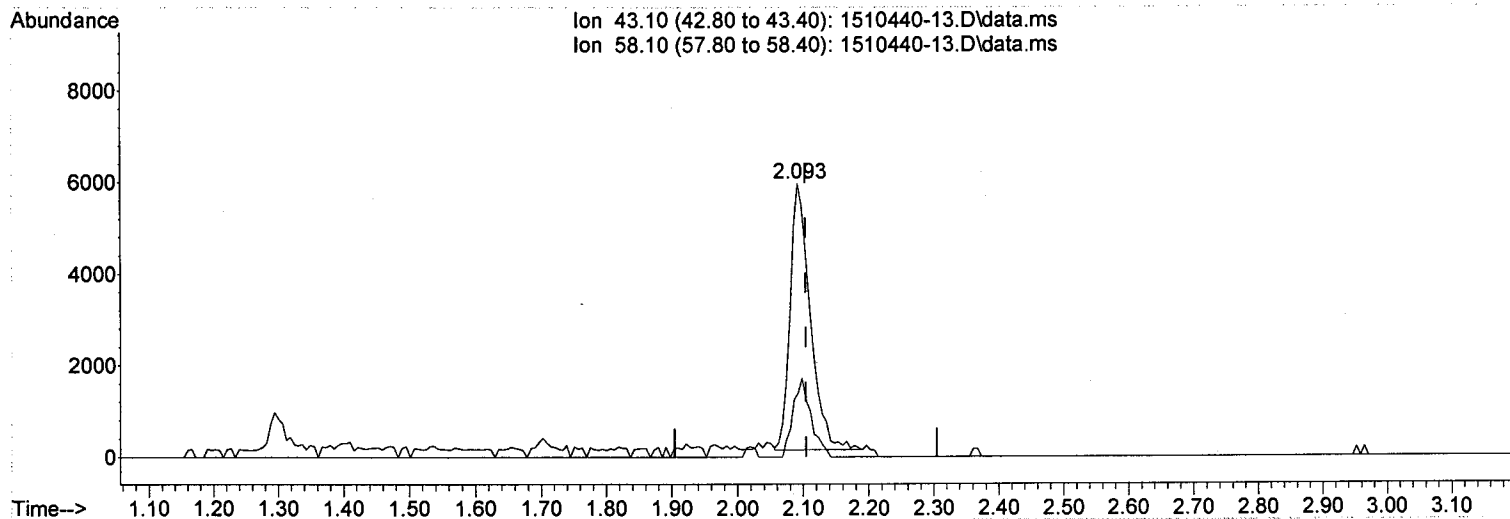
Quant Time: Oct 30 08:17:04 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	7.348	83	4437	0.44	ug/L #	98
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.342	43	6420	R.T. 0.75	ug/L #	1
48) toluene	0.000		0	N.D.		
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	0.000		0	N.D.		
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	0.000		0	N.D.		
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	13.316	146	1905	R.T. 0.14	ug/L #	24
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	13.316	146	1905	< 0.14	ug/L #	24
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	0.000		0	N.D.		
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	15.773	180	1416	0.18	ug/L #	13
87) hexachlorobutadiene	15.999	225	1561	0.38	ug/L #	19
88) naphthalene	16.072	128	1965	0.11	ug/L #	72
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	17.480	142	2586	3.24	ug/L #	79

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-13.D
Acq On : 29 Oct 2015 22:08
Operator : BAG
Sample : 1510440-13
Misc : MWH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 30 08:17:04 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(13) acetone

2.093min (-0.012) 4.05 ug/L

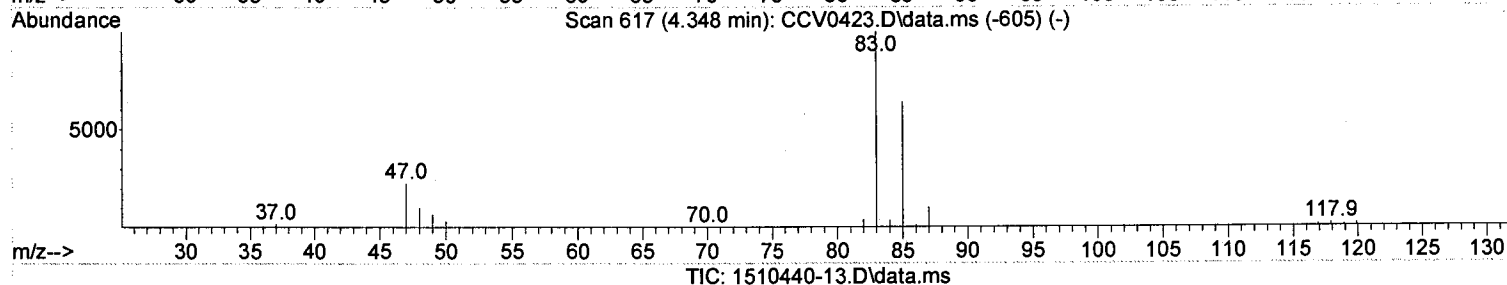
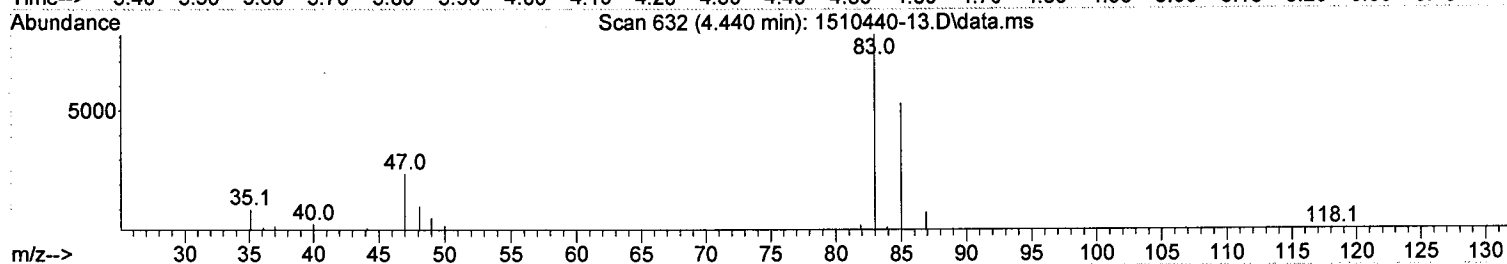
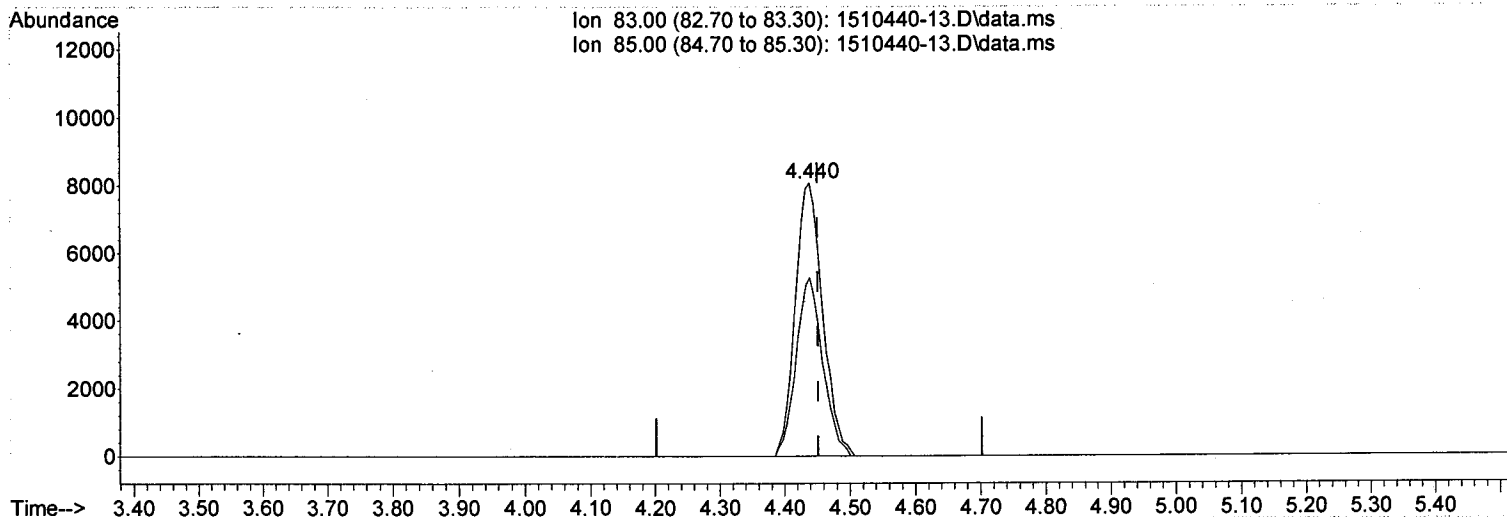
response 12464

Ion	Exp%	Act%
43.10	100	100
58.10	25.50	26.24
0.00	0.00	0.00
0.00	0.00	0.00

000297

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-13.D
Acq On : 29 Oct 2015 22:08
Operator : BAG
Sample : 1510440-13
Misc : MWH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 30 08:17:04 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(28) chloroform (C)

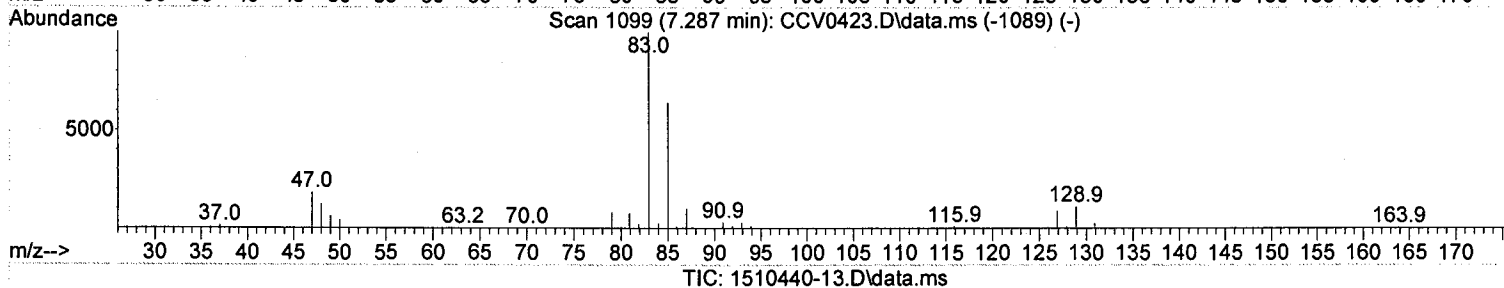
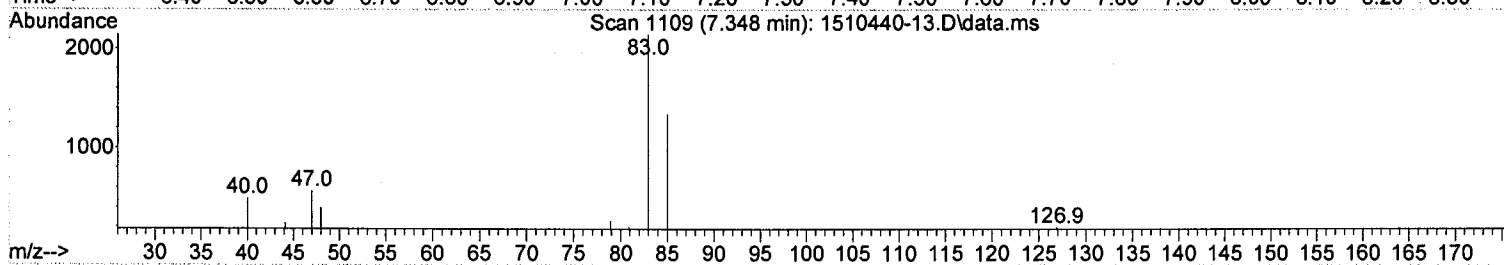
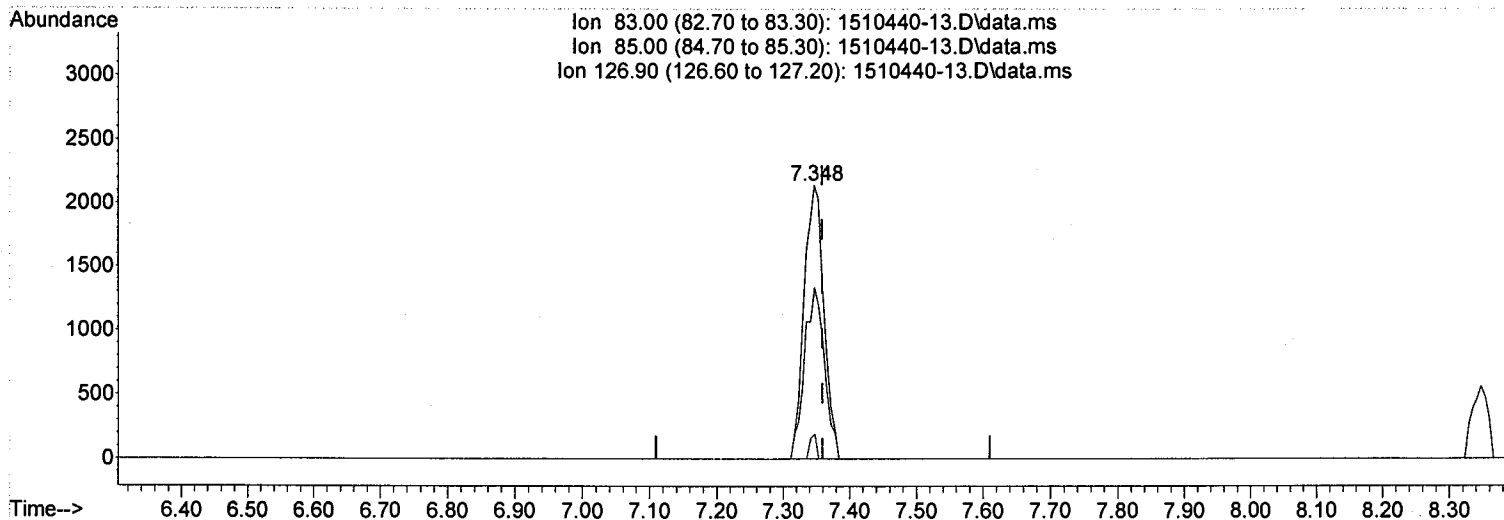
4.440min (-0.012) 1.52 ug/L

response 23453

Ion	Exp%	Act%
83.00	100	100
85.00	64.20	63.46
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-13.D
Acq On : 29 Oct 2015 22:08
Operator : BAG
Sample : 1510440-13
Misc : MWH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 30 08:17:04 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(43) bromodichloromethane

7.348min (-0.012) 0.44 ug/L

response 4437

Ion	Exp%	Act%
83.00	100	100
85.00	63.20	63.08
126.90	7.30	0.00
0.00	0.00	0.00

000299

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

Trip Blank TM 1266

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-14

File ID: 1510440-14.D

Sampled: 10/20/15 00:00

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 14:44

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	11	2.4	10	
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37	2.0	U
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000300

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

Trip Blank TM 1266

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-14

File ID: 1510440-14.D

Sampled: 10/20/15 00:00

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 14:44

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	1.0	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.3	98	85 - 118	
1,2-Dichloroethane-d4	40.0	40.1	100	87 - 122	
Toluene-d8	40.0	39.3	98	85 - 113	

000301

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

Trip Blank TM 1266

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-14

File ID: 1510440-14.D

Sampled: 10/20/15 00:00

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 14:44

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.2	98	82 - 110	

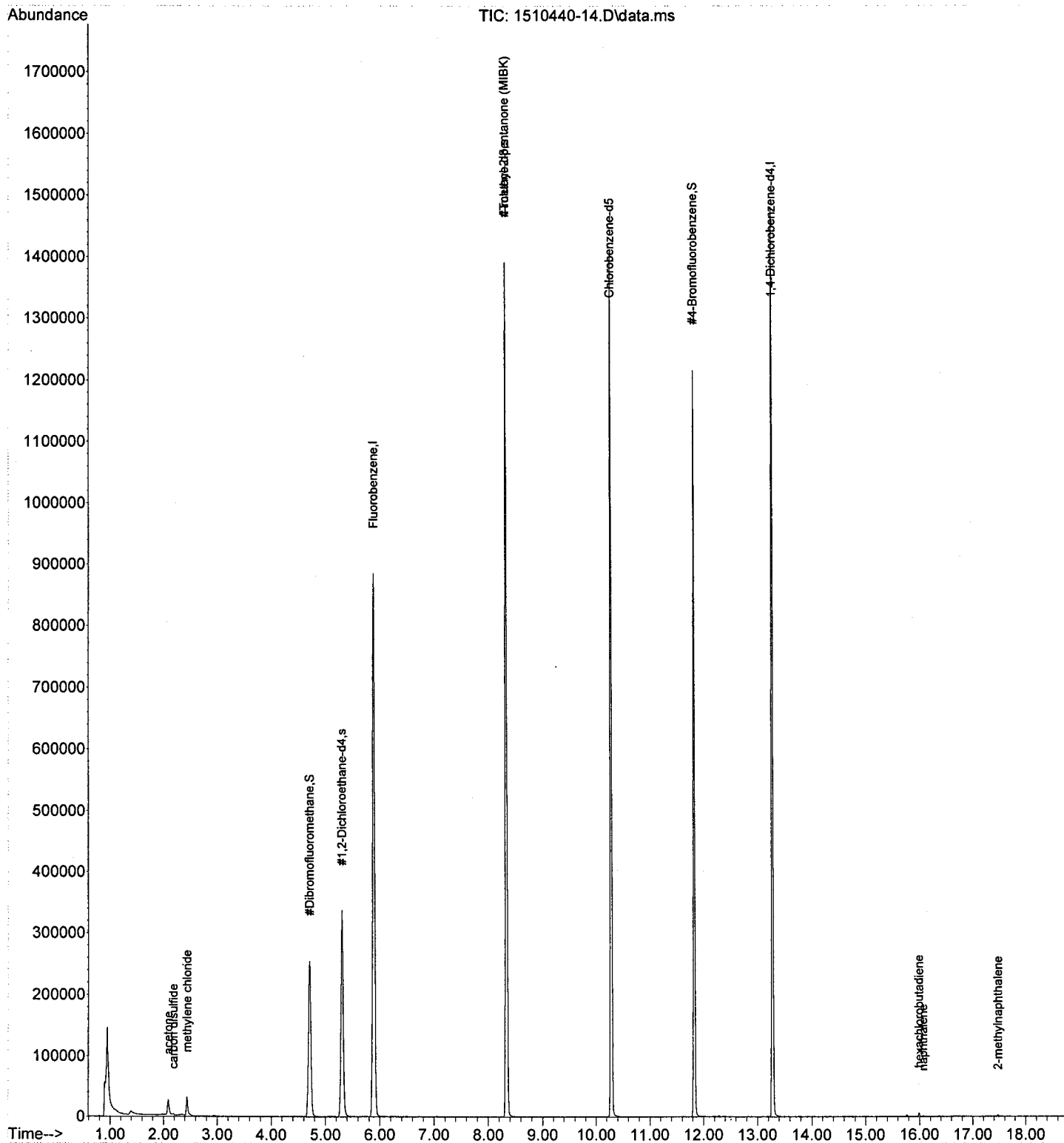
* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	971550	5.891	100	5.915	
Chlorobenzene-d5	676012	10.286	99	10.305	
1,4-Dichlorobenzene-d4	333033	13.28	97	13.292	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\10-30-15\
InstName : 328
Data File : 1510440-14.D
Acq On : 30 Oct 2015 14:44
Operator : BAG
Sample : 1510440-14
Misc : MWH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 02 07:56:55 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



000303

Data Path : C:\msdchem\1\DATA\10-30-15\
 InstName : 328
 Data File : 1510440-14.D
 Acq On : 30 Oct 2015 14:44
 Operator : BAG
 Sample : 1510440-14
 Misc : MWH
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 02 07:56:55 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.891	96	971550	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.286	117	676012	40.00	ug/L	-0.02
66) 1,4-Dichlorobenzene-d4	13.280	152	333033	40.00	ug/L	#-0.01
System Monitoring Compounds						
29) #Dibromofluoromethane	4.708	111	239041	39.29	ug/L	-0.03
Spiked Amount	40.000		Recovery	=	98.22%	
37) #1,2-Dichloroethane-d4	5.312	67	188433	40.06	ug/L	-0.03
Spiked Amount	40.000		Recovery	=	100.15%	
47) #Toluene-d8	8.335	98	919673	39.33	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	98.32%	
65) #4-Bromofluorobenzene	11.829	95	383816	39.20	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	98.00%	
Target Compounds						
						Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	0.000		0	N.D.		
13) acetone	2.087	43	35371	11.44	ug/L	99
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.184	76	1327	0.06	ug/L #	75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.440	49	21766	1.05	ug/L	99
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	0.000		0	N.D.		
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	0.000		0	N.D.		
25) 2-butanone (MEK)	0.000		0	N.D.		
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	0.000		0	N.D.		
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.891	57	43049	No Calib		
38) trichloroethene	0.000		0	N.D.		
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000304

Data Path : C:\msdchem\1\DATA\10-30-15\
 InstName : 328
 Data File : 1510440-14.D
 Acq On : 30 Oct 2015 14:44
 Operator : BAG
 Sample : 1510440-14
 Misc : MWH
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 02 07:56:55 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

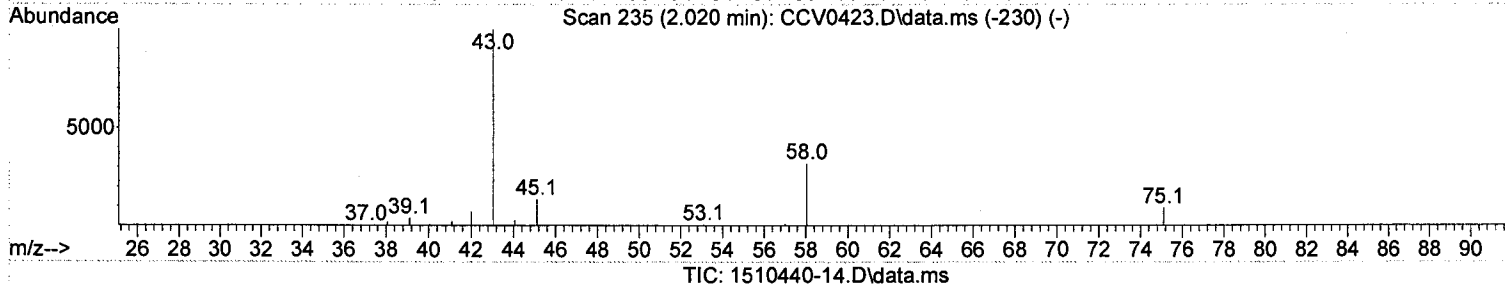
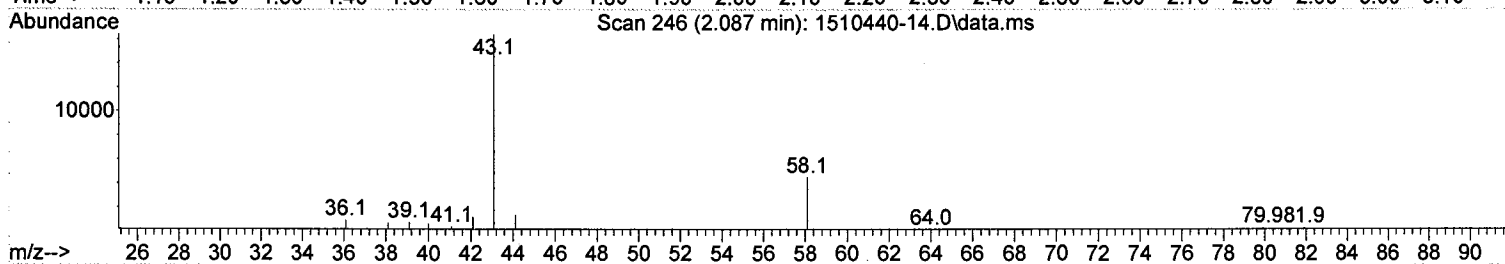
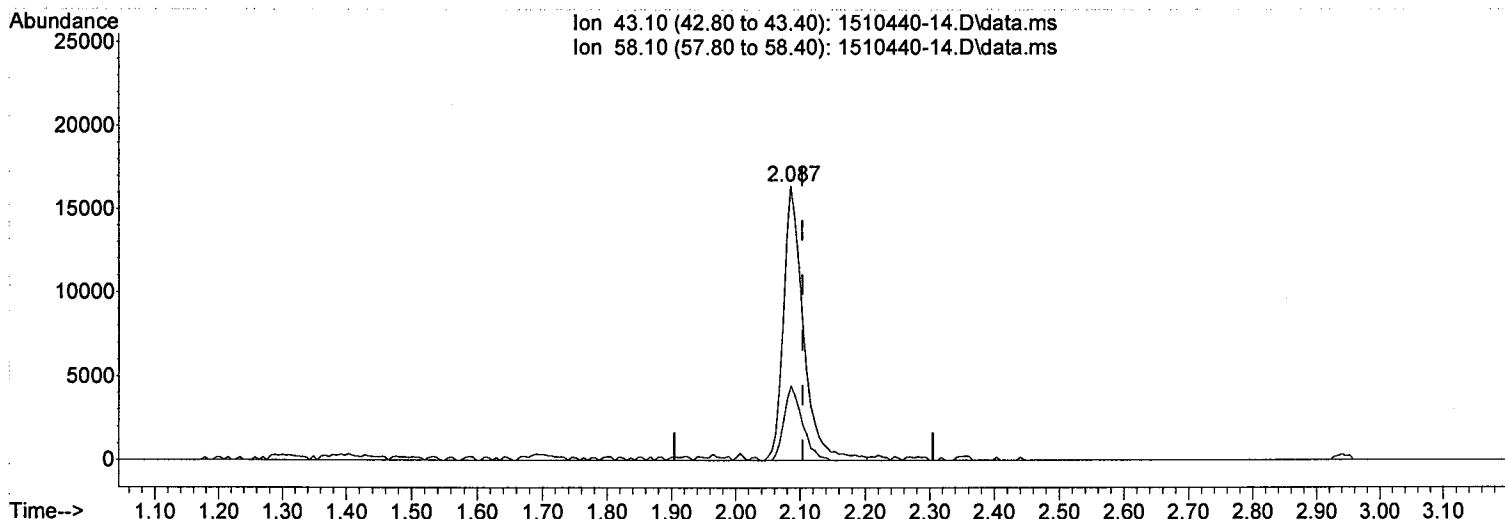
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.335	43	6056	~~2.7~~ 0.73 ug/L	#	1
48) toluene	0.000		0	N.D.		
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	0.000		0	N.D.		
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	0.000		0	N.D.		
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	0.000		0	N.D.		
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	0.000		0	N.D.		
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	0.000		0	N.D.		
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	0.000		0	N.D.		
87) hexachlorobutadiene	15.992	225	1286	0.32 ug/L	#	19
88) naphthalene	16.066	128	1285	0.07 ug/L	#	72
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	17.474	142	1501	3.15 ug/L	#	76

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-30-15\
 InstName : 328
 Data File : 1510440-14.D
 Acq On : 30 Oct 2015 14:44
 Operator : BAG
 Sample : 1510440-14
 Misc : MWH
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 02 07:56:55 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration



(13) acetone

2.087min (-0.018) 11.44 ug/L

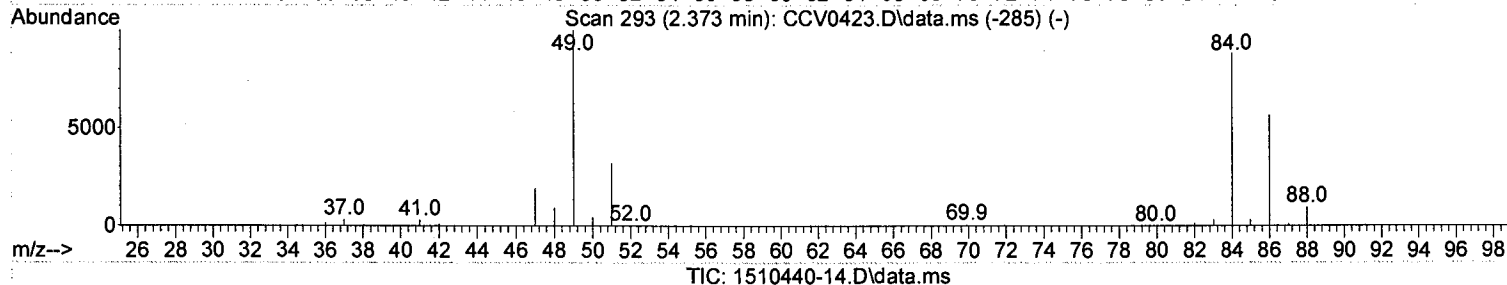
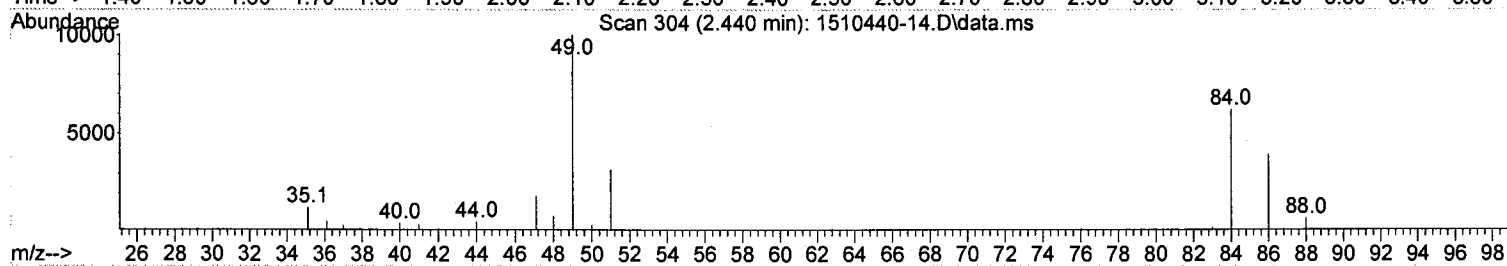
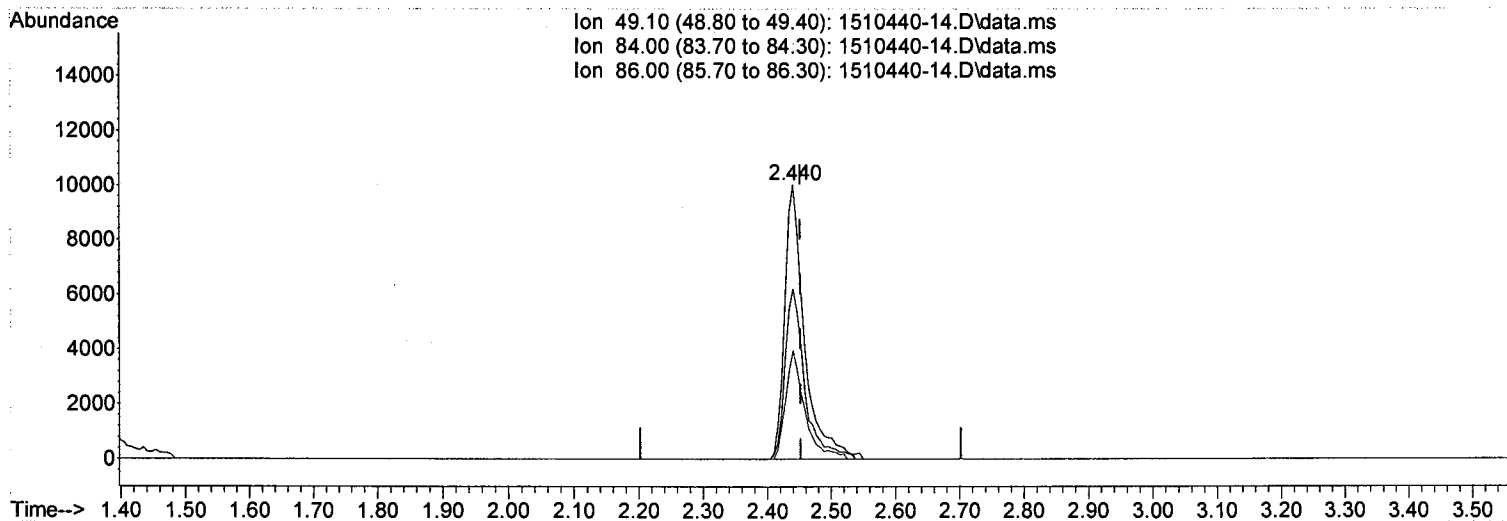
response 35371

Ion	Exp%	Act%
43.10	100	100
58.10	25.50	25.10
0.00	0.00	0.00
0.00	0.00	0.00

000306

Data Path : C:\msdchem\1\DATA\10-30-15\
InstName : 328
Data File : 1510440-14.D
Acq On : 30 Oct 2015 14:44
Operator : BAG
Sample : 1510440-14
Misc : MWH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 02 07:56:55 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(17) methylene chloride

2.440min (-0.012) 1.05 ug/L

response 21766

Ion	Exp%	Act%
49.10	100	100
84.00	60.60	61.74
86.00	38.40	38.21
0.00	0.00	0.00

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

Trip Blank TM 0093

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-15

File ID: 1510440-15.D

Sampled: 10/20/15 00:00

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 22:36

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	11	2.4	10	
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37	2.0	U
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000308

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

Trip Blank TM 0093

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-15

File ID: 1510440-15.D

Sampled: 10/20/15 00:00

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 22:36

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	0.36	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.5	99	85 - 118	
1,2-Dichloroethane-d4	40.0	40.1	100	87 - 122	
Toluene-d8	40.0	39.5	99	85 - 113	

000309

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

Trip Blank TM 0093

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-15

File ID: 1510440-15.D

Sampled: 10/20/15 00:00

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 22:36

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.7	99	82 - 110	

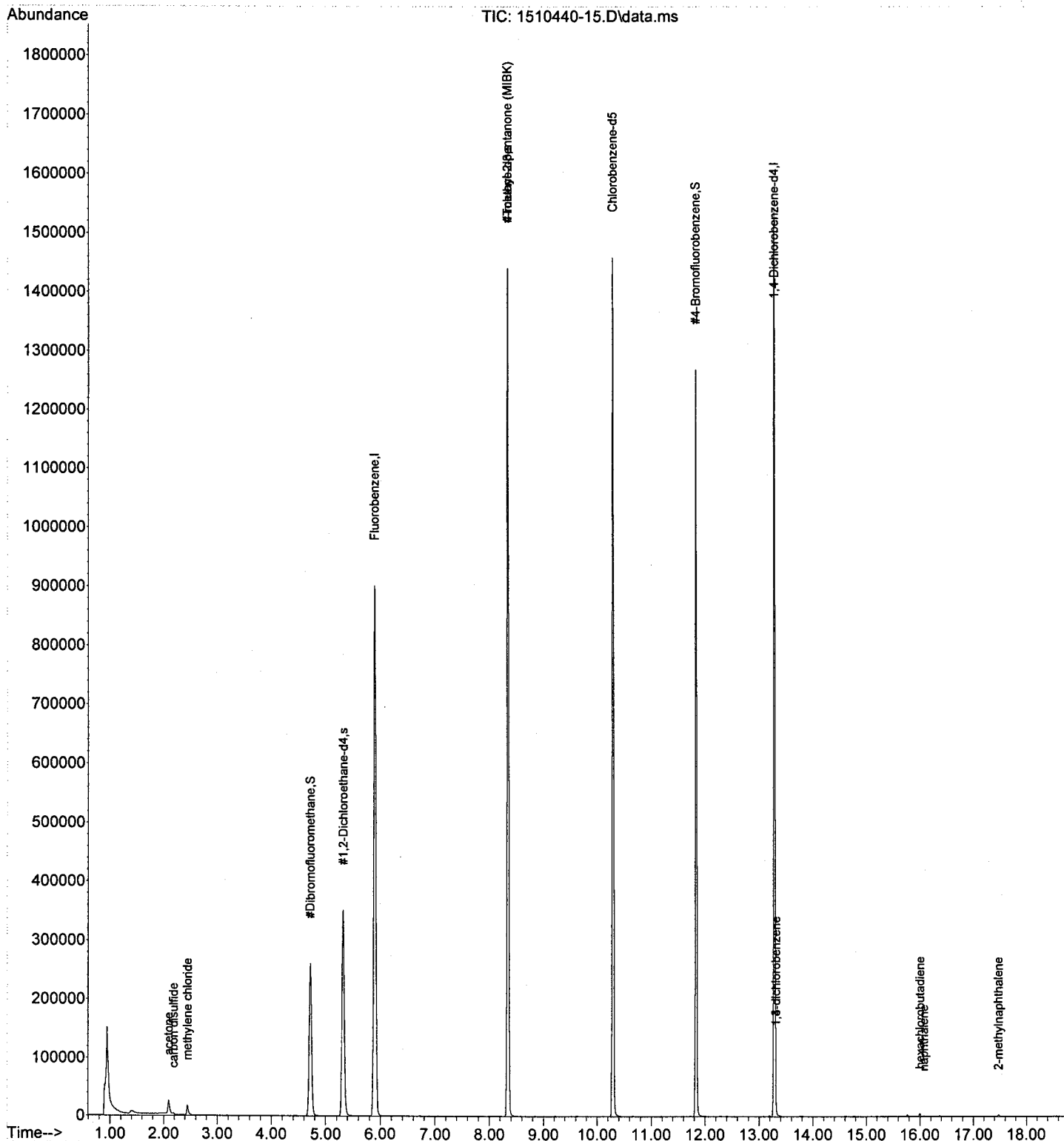
* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1007322	5.897	100	5.915	
Chlorobenzene-d5	698413	10.292	100	10.305	
1,4-Dichlorobenzene-d4	339775	13.286	98	13.292	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-15.D
Acq On : 29 Oct 2015 22:36
Operator : BAG
Sample : 1510440-15
Misc : MWH
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 30 08:17:07 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



000311

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-15.D
 Acq On : 29 Oct 2015 22:36
 Operator : BAG
 Sample : 1510440-15
 Misc : MWH
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 30 08:17:07 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.897	96	1007322	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.292	117	698413	40.00	ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.286	152	339775	40.00	ug/L	# 0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.720	111	249362	39.53	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	98.83%	
37) #1,2-Dichloroethane-d4	5.324	67	195417	40.07	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	100.18%	
47) #Toluene-d8	8.348	98	957138	39.47	ug/L	-0.01
Spiked Amount	40.000		Recovery	=	98.67%	
65) #4-Bromofluorobenzene	11.835	95	402077	39.74	ug/L	-0.01
Spiked Amount	40.000		Recovery	=	99.35%	
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	0.000		0	N.D.		
13) acetone	2.093	43	34061	10.64	ug/L	96
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.184	76	2116	0.10	ug/L #	75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.446	49	13127	0.36	ug/L	99
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	0.000		0	N.D.		
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	0.000		0	N.D.		
25) 2-butanone (MEK)	0.000		0	N.D.		
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	0.000		0	N.D.		
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.903	57	44549	No	Calib	
38) trichloroethene	0.000		0	N.D.		
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000312

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-15.D
 Acq On : 29 Oct 2015 22:36
 Operator : BAG
 Sample : 1510440-15
 Misc : MWH
 ALS Vial : 32 Sample Multiplier: 1

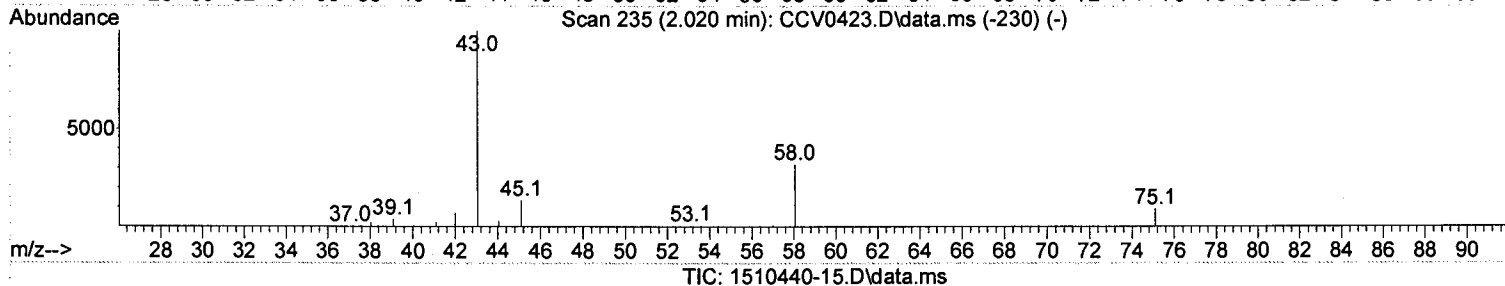
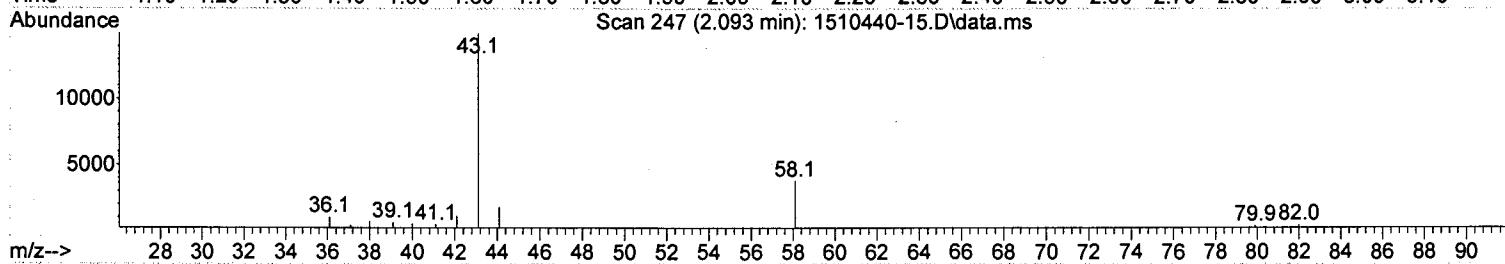
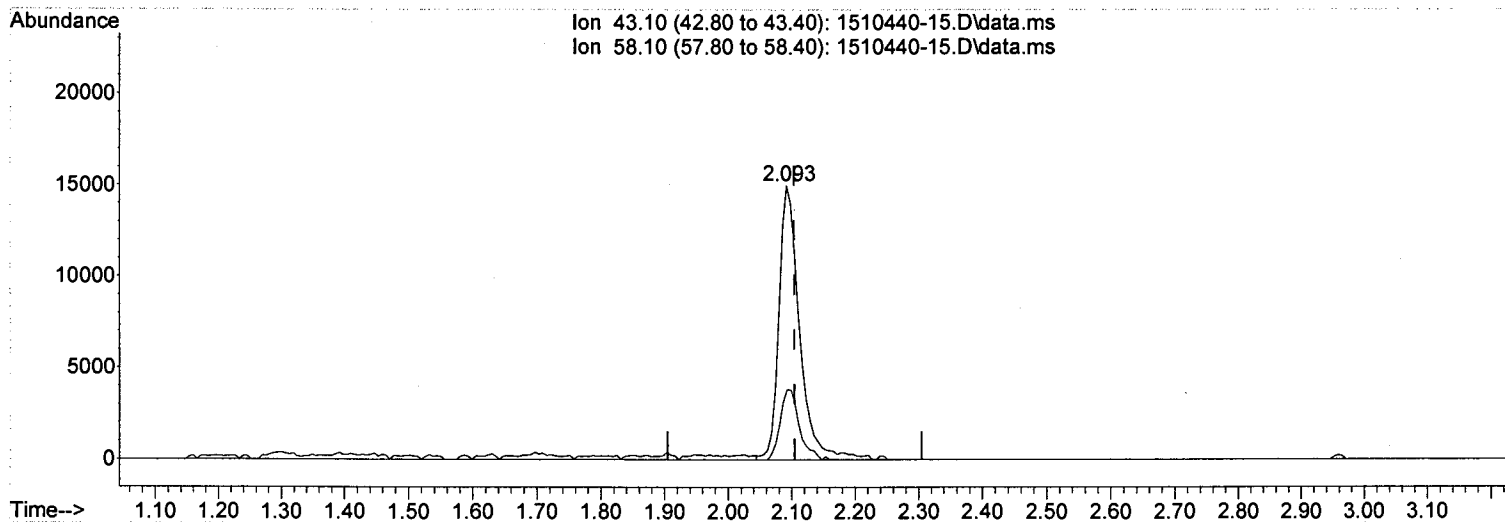
Quant Time: Oct 30 08:17:07 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.348	43	6057	1.7	0.70 ug/L #	1
48) toluene	0.000		0	N.D.		
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	0.000		0	N.D.		
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	0.000		0	N.D.		
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	13.310	146	1302	0.09	ug/L #	1
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	13.310	146	1302	0.09	ug/L #	1
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	0.000		0	N.D.		
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	0.000		0	N.D.		
87) hexachlorobutadiene	15.999	225	1245	0.31	ug/L #	19
88) naphthalene	16.072	128	1635	0.09	ug/L #	72
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	17.474	142	1725	3.16	ug/L #	77

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-15.D
Acq On : 29 Oct 2015 22:36
Operator : BAG
Sample : 1510440-15
Misc : MWH
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 30 08:17:07 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



TIC: 1510440-15.D\data.ms

(13) acetone

2.093min (-0.012) 10.64 ug/L

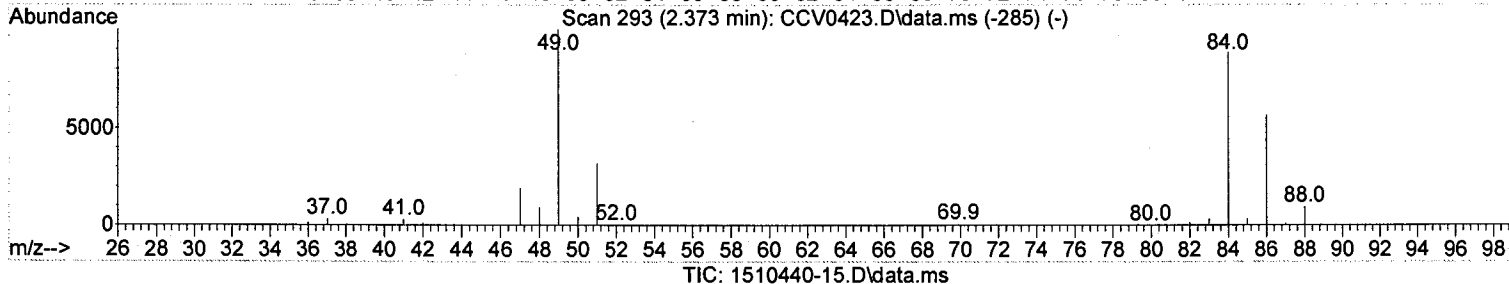
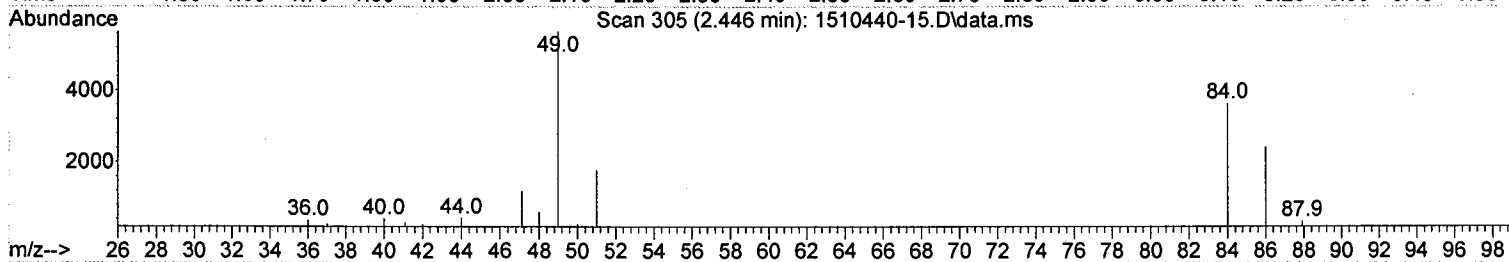
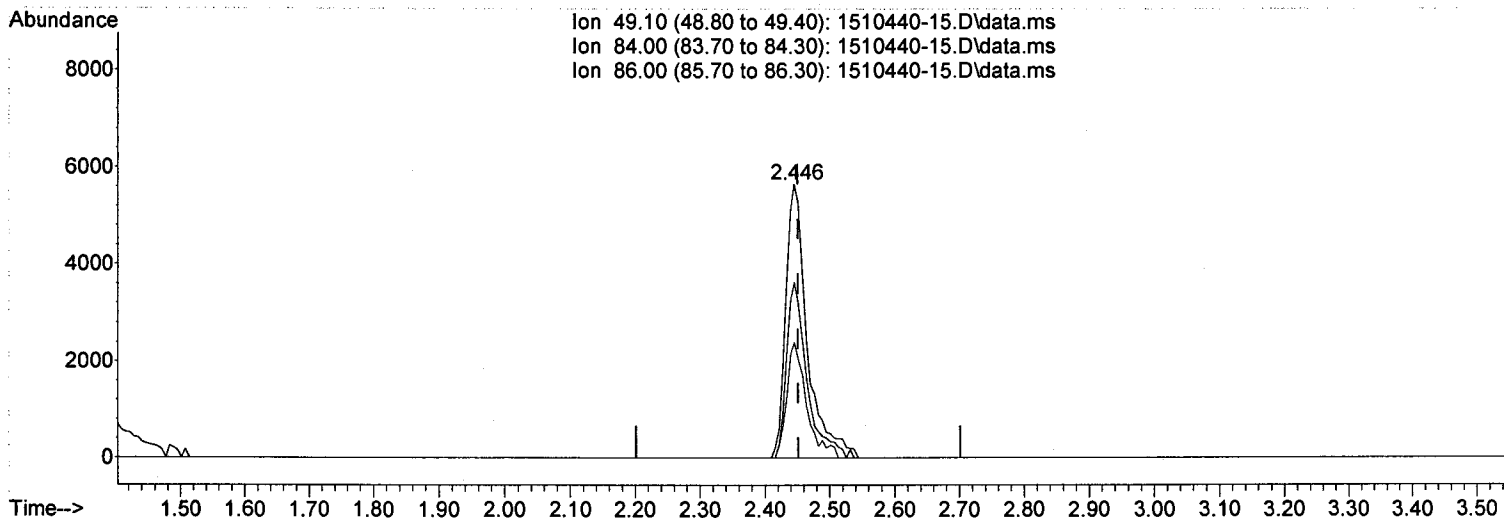
response 34061

Ion	Exp%	Act%
43.10	100	100
58.10	25.50	23.59
0.00	0.00	0.00
0.00	0.00	0.00

000314

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-15.D
Acq On : 29 Oct 2015 22:36
Operator : BAG
Sample : 1510440-15
Misc : MWH
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 30 08:17:07 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(17) methylene chloride

2.446min (-0.006) 0.36 ug/L

response 13127

Ion	Exp%	Act%
49.10	100	100
84.00	60.60	60.97
86.00	38.40	38.94
0.00	0.00	0.00

000315

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

W-A

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-16

File ID: 1510440-16.D

Sampled: 10/20/15 12:00

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 03:20

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	2.5	2.4	10	J
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	3.4	0.27	1.0	
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	3.8	0.24	1.0	
156-59-2	cis-1,2-Dichloroethene	1	5.0	0.21	1.0	
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	5.0	0.37	2.0	
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000316

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

W-A

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-16

File ID: 1510440-16.D

Sampled: 10/20/15 12:00

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 03:20

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	0.25	0.15	1.0	J
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	22	0.23	1.0	
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.7	99	85 - 118	
1,2-Dichloroethane-d4	40.0	40.2	100	87 - 122	
Toluene-d8	40.0	39.6	99	85 - 113	

000317

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

W-A

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-16

File ID: 1510440-16.D

Sampled: 10/20/15 12:00

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 03:20

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.8	99	82 - 110	

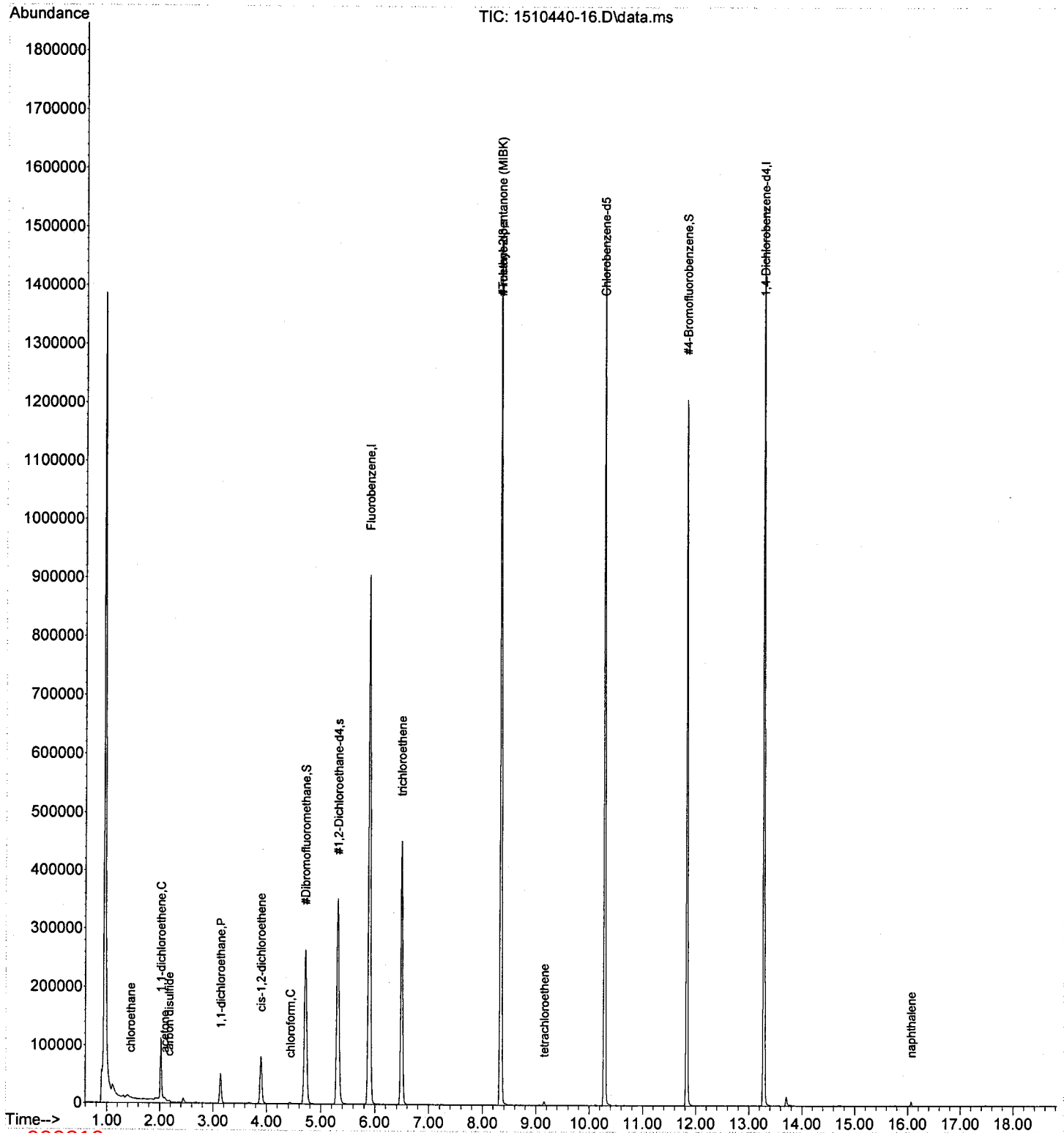
* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1009396	5.897	100	5.915	
Chlorobenzene-d5	702492	10.286	100	10.305	
1,4-Dichlorobenzene-d4	343025	13.28	99	13.292	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-16.D
Acq On : 30 Oct 2015 3:20
Operator : BAG
Sample : 1510440-16
Misc : MWH
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Oct 30 08:17:10 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



000319

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-16.D
 Acq On : 30 Oct 2015 3:20
 Operator : BAG
 Sample : 1510440-16
 Misc : MWH
 ALS Vial : 42 Sample Multiplier: 1

Quant Time: Oct 30 08:17:10 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.897	96	1009396	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.286	117	702492	40.00	ug/L	-0.02
66) 1,4-Dichlorobenzene-d4	13.280	152	343025	40.00	ug/L	#-0.01
System Monitoring Compounds						
29) #Dibromofluoromethane	4.714	111	251070	39.72	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	99.30%	
37) #1,2-Dichloroethane-d4	5.318	67	196380	40.18	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	100.45%	
47) #Toluene-d8	8.341	98	962085	39.60	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	99.00%	
65) #4-Bromofluorobenzene	11.829	95	404915	39.79	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	99.48%	
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	1.459	64	1369	~~0.23~~ ug/L	#	43
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	2.020	96	31604	3.78 ug/L		99
13) acetone	2.093	43	7356	2.49 ug/L	#	50
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.178	76	2056	0.09 ug/L	#	75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.446	49	6631	Below Cal		92
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	3.141	63	56693	3.41 ug/L		99
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	3.897	96	41513	4.96 ug/L	#	89
25) 2-butanone (MEK)	0.000		0	N.D.		
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	4.440	83	2664	0.17 ug/L		98
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.897	57	45126	No Calib		
38) trichloroethene	6.494	130	165375	22.18 ug/L		100
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000320

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-16.D
 Acq On : 30 Oct 2015 3:20
 Operator : BAG
 Sample : 1510440-16
 Misc : MWH
 ALS Vial : 42 Sample Multiplier: 1

Quant Time: Oct 30 08:17:10 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

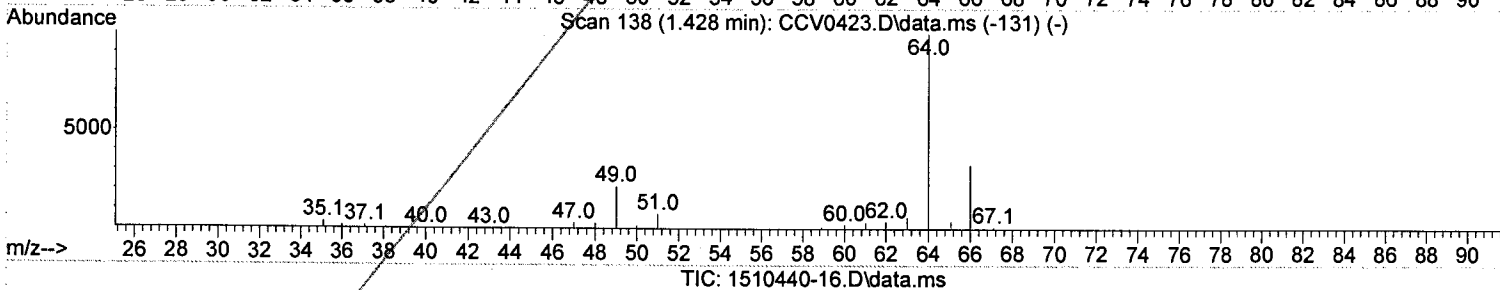
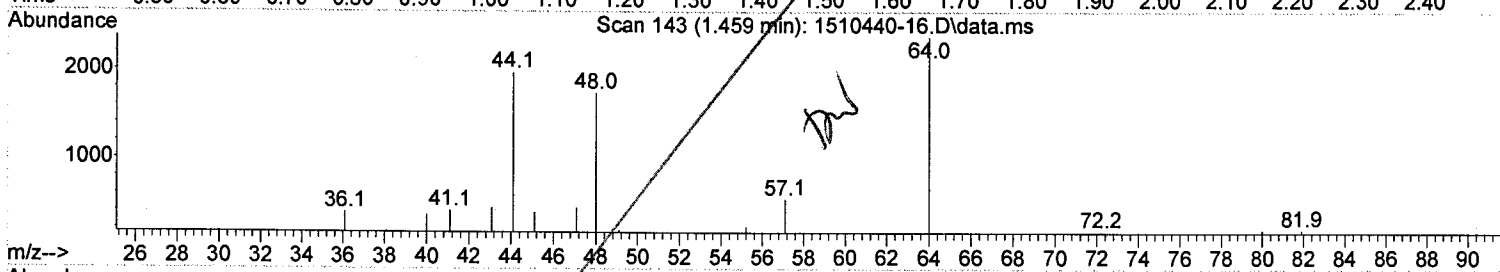
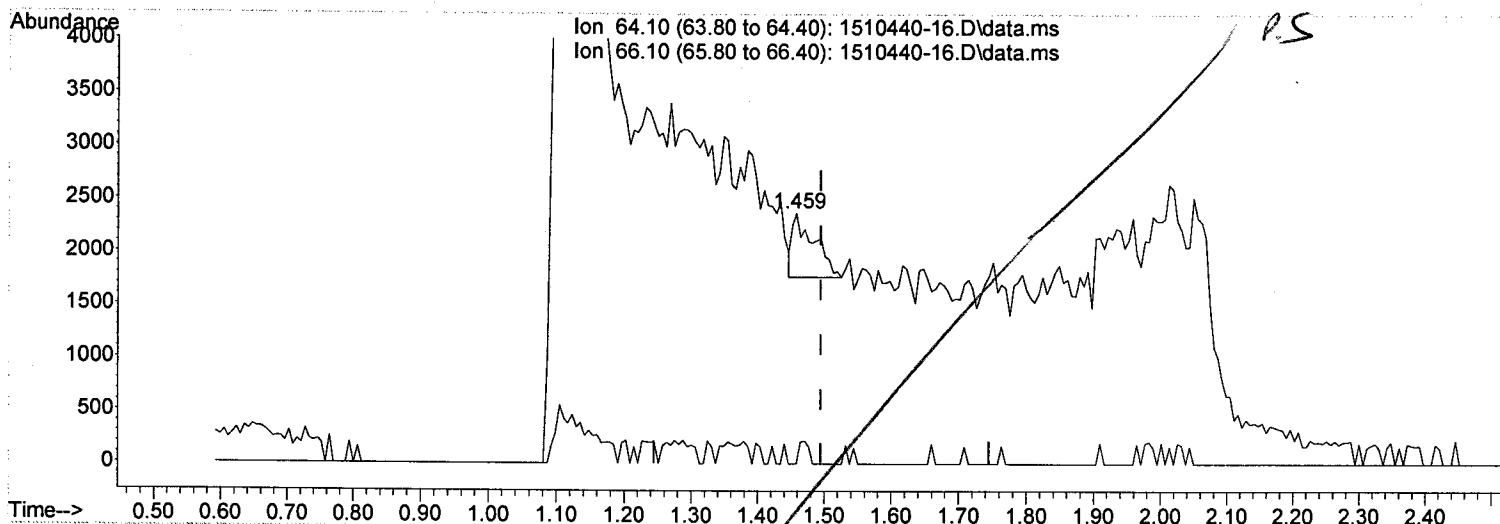
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.341	43	6030	4.10 ug/L #		1
48) toluene	0.000		0	N.D.		
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	9.158	166	1885	0.25 ug/L		98
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	0.000		0	N.D.		
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	0.000		0	N.D.		
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	0.000		0	N.D.		
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	0.000		0	N.D.		
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	0.000		0	N.D.		
87) hexachlorobutadiene	0.000		0	N.D.		
88) naphthalene	16.066	128	5705	0.31 ug/L #		72
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	0.000		0	N.D.		

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-16.D
 Acq On : 30 Oct 2015 3:20
 Operator : BAG
 Sample : 1510440-16
 Misc : MWH
 ALS Vial : 42 Sample Multiplier: 1

Quant Time: Oct 30 08:17:10 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration



(6) chloroethane

1.459min (-0.036) 0.23 ug/L

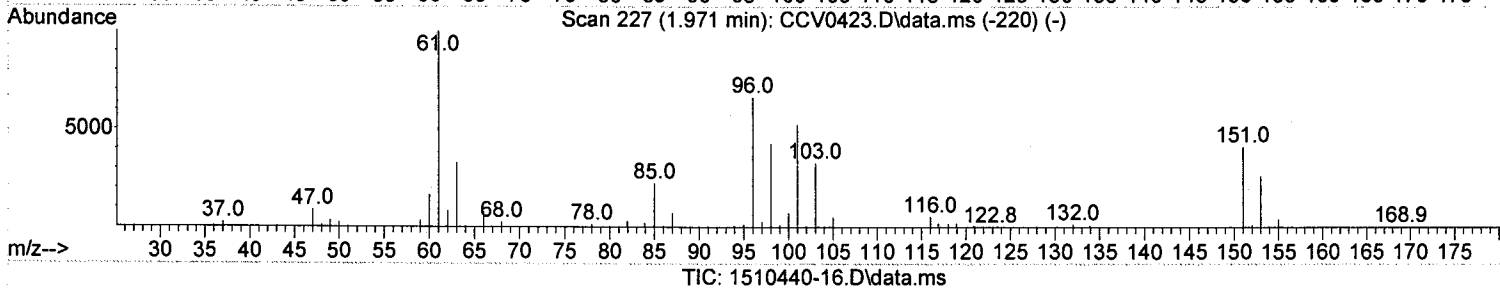
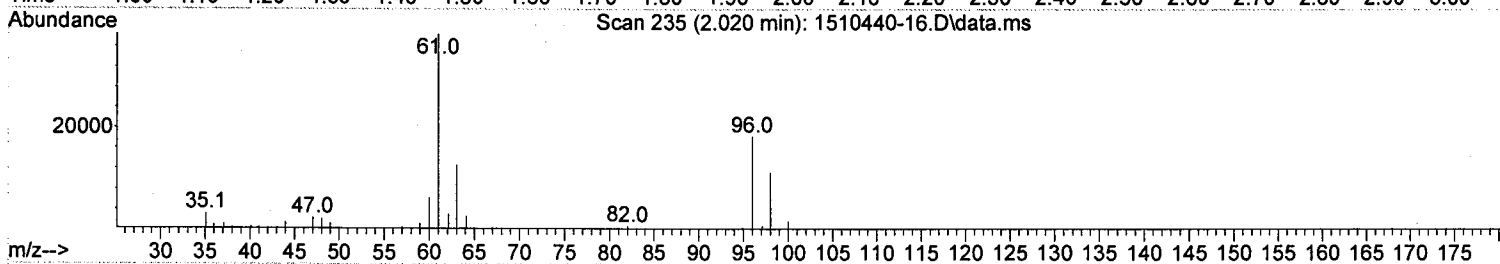
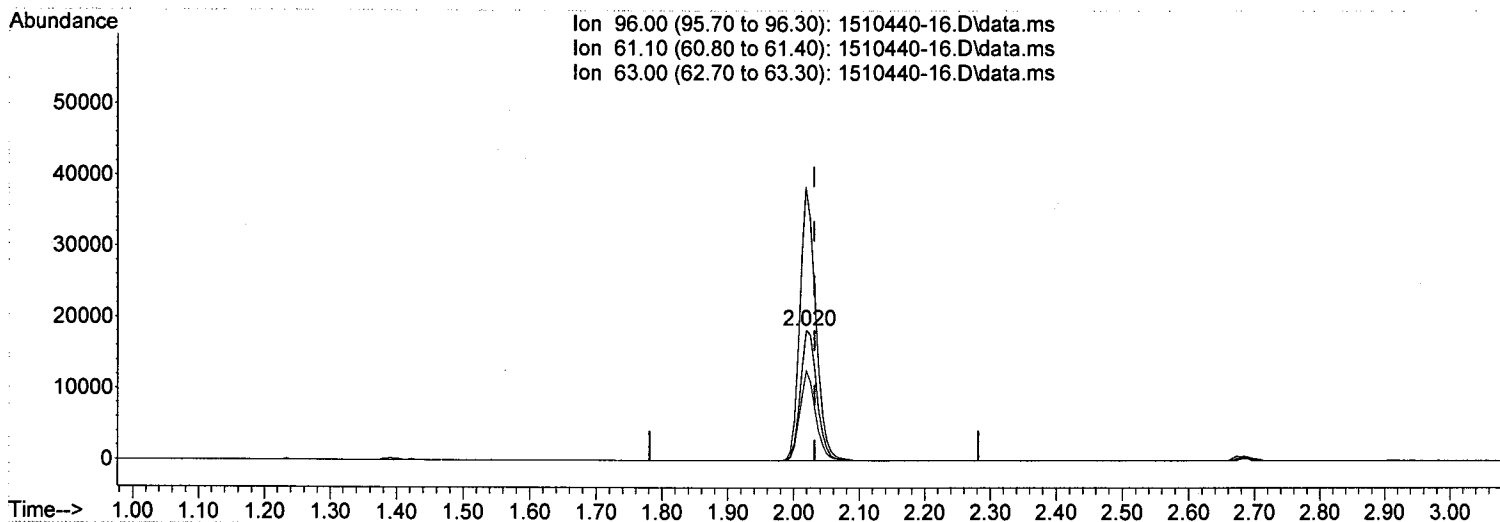
response 1369

Ion	Exp%	Act%
64.10	100	100
66.10	31.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

000322

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-16.D
Acq On : 30 Oct 2015 3:20
Operator : BAG
Sample : 1510440-16
Misc : MWH
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Oct 30 08:17:10 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(12) 1,1-dichloroethene (C)

2.020min (-0.012) 3.78 ug/L

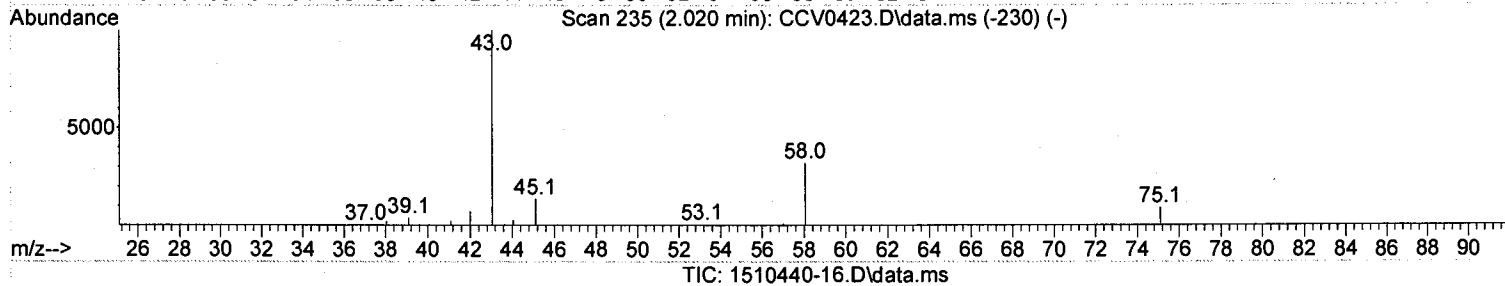
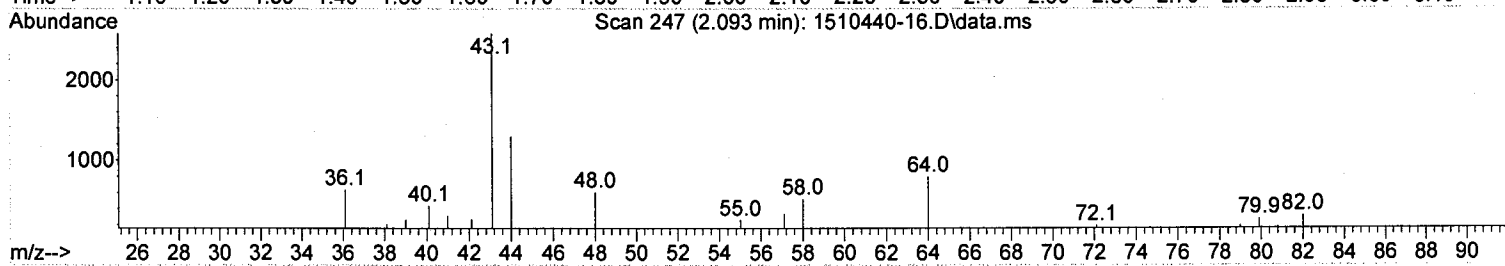
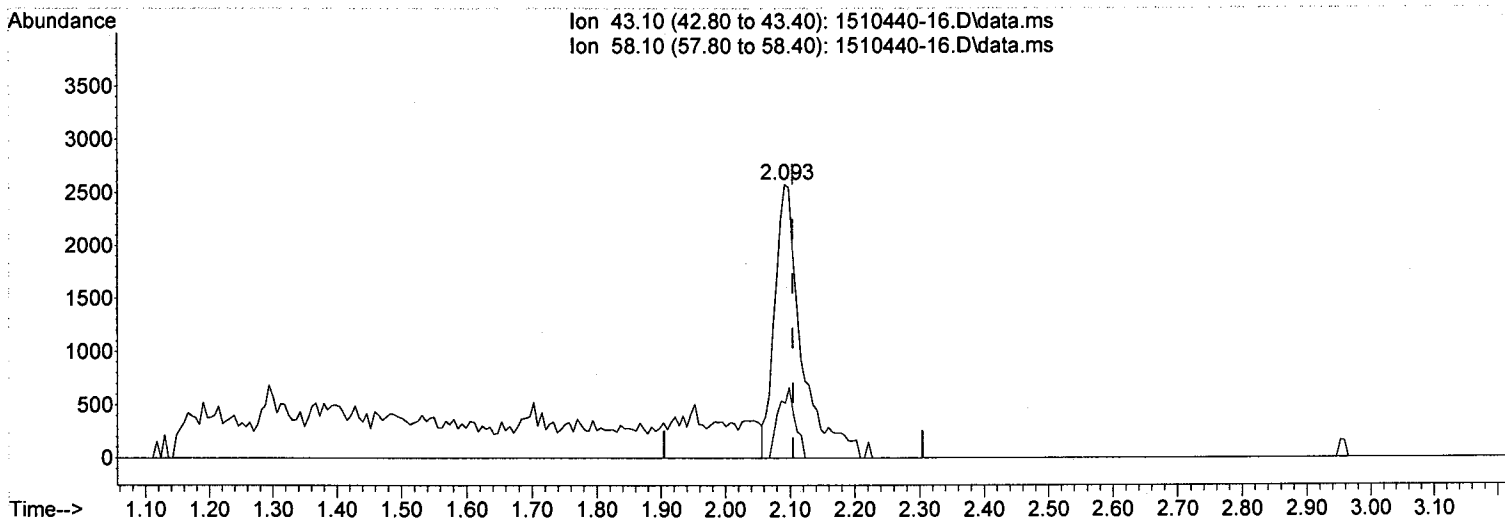
response 31604

Ion	Exp%	Act%
96.00	100	100
61.10	199.80	201.71
63.00	64.10	65.07
0.00	0.00	0.00

000323

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-16.D
Acq On : 30 Oct 2015 3:20
Operator : BAG
Sample : 1510440-16
Misc : MWH
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Oct 30 08:17:10 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(13) acetone

2.093min (-0.012) 2.49 ug/L

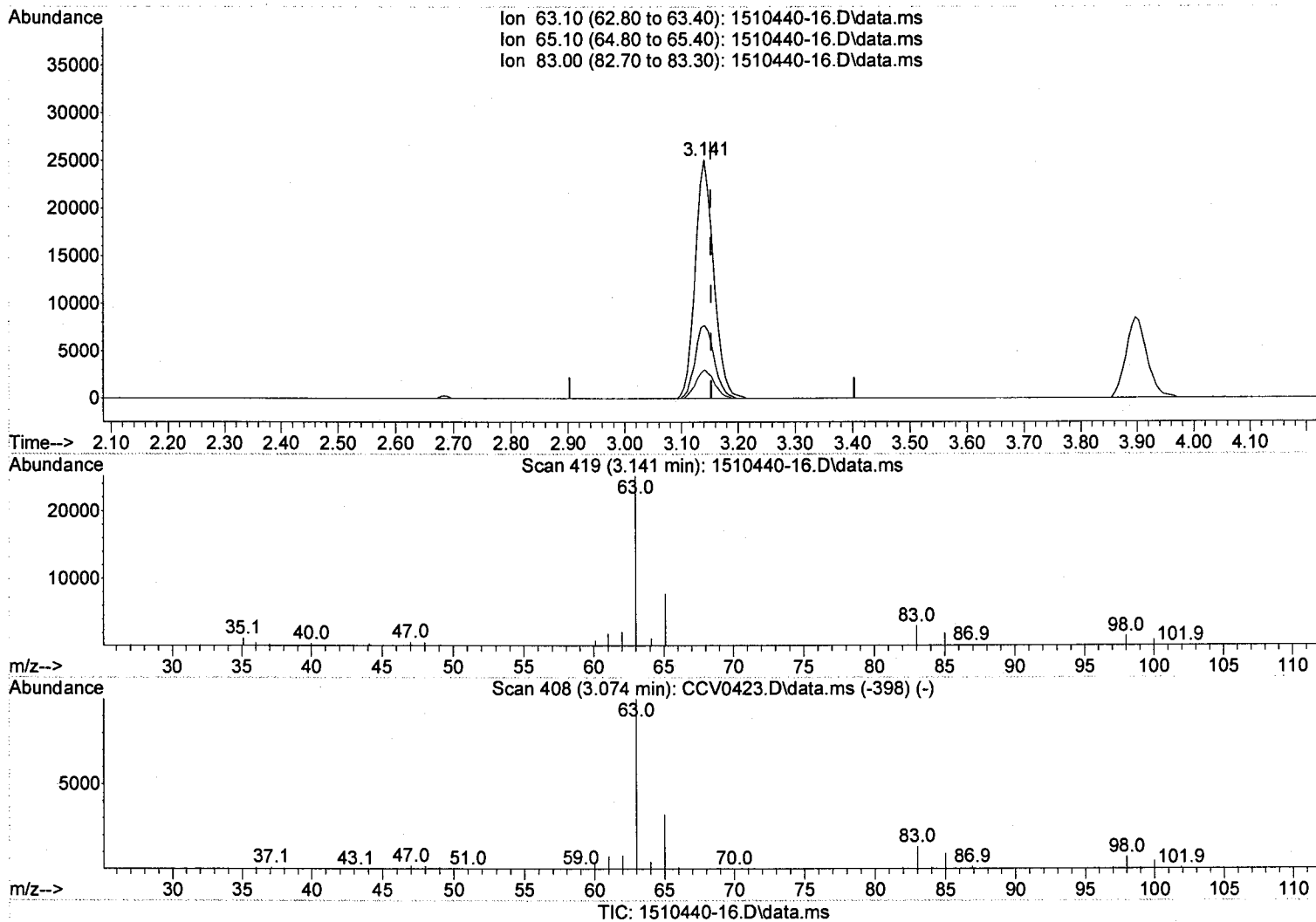
response 7356

Ion	Exp%	Act%
43.10	100	100
58.10	25.50	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

000324

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-16.D
Acq On : 30 Oct 2015 3:20
Operator : BAG
Sample : 1510440-16
Misc : MWH
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Oct 30 08:17:10 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(21) 1,1-dichloroethane (P)

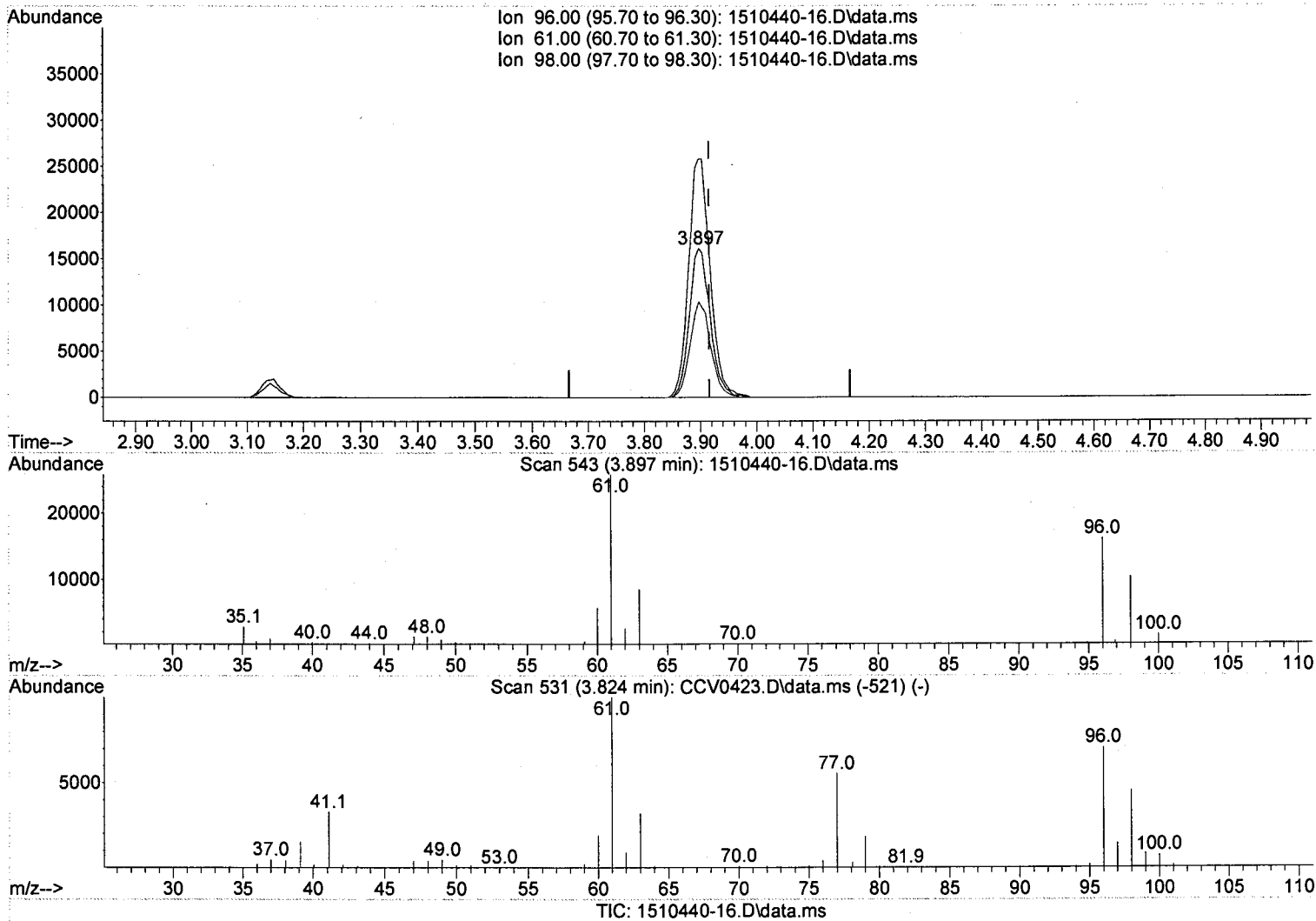
3.141min (-0.012) 3.41 ug/L

response 56693

Ion	Exp%	Act%
63.10	100	100
65.10	30.90	31.73
83.00	11.90	11.89
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-16.D
Acq On : 30 Oct 2015 3:20
Operator : BAG
Sample : 1510440-16
Misc : MWH
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Oct 30 08:17:10 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(24) cis-1,2-dichloroethene

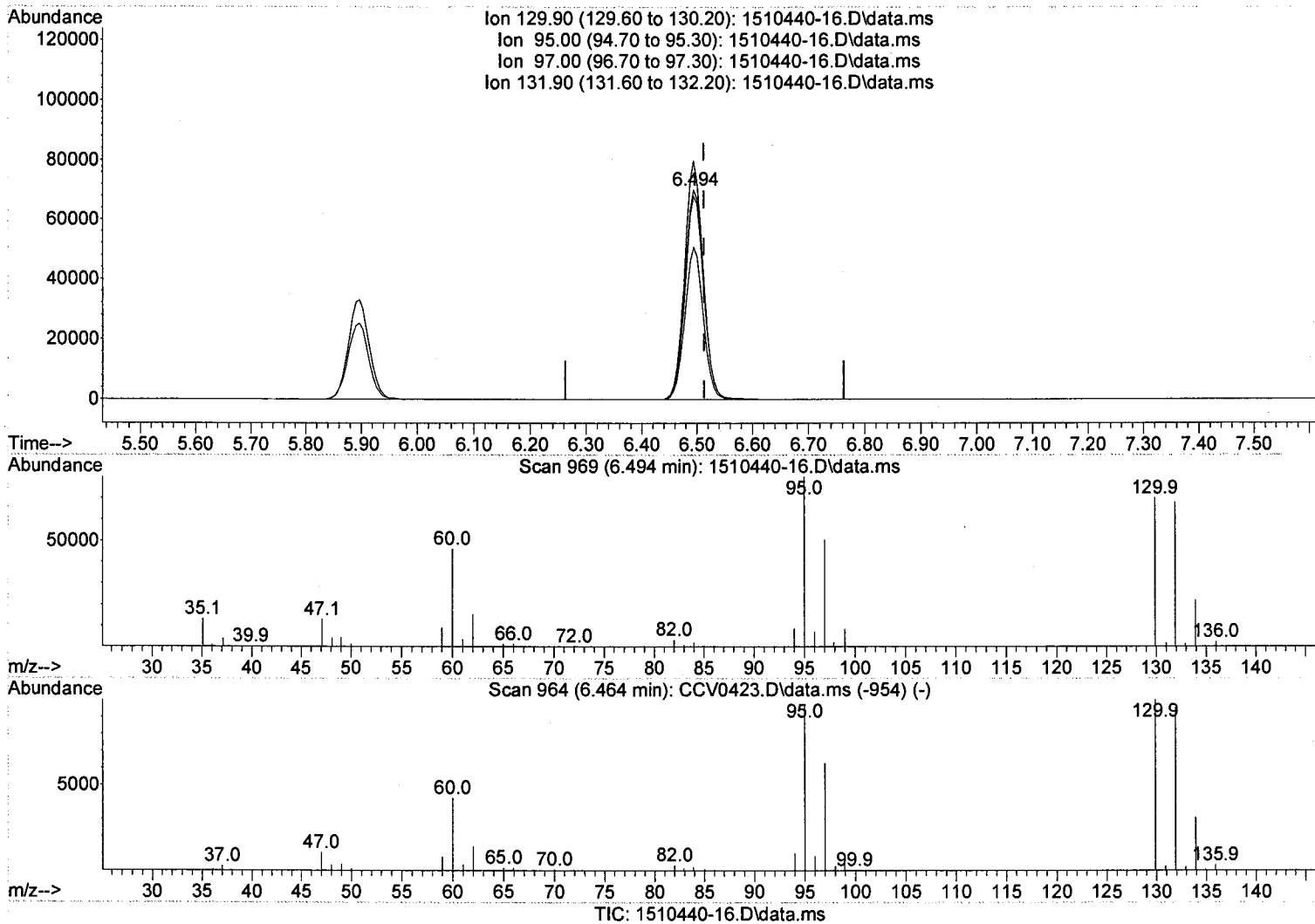
3.897min (-0.019) 4.96 ug/L

response 41513

Ion	Exp%	Act%
96.00	100	100
61.00	185.80	164.70#
98.00	63.60	63.36
0.00	0.00	0.00

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-16.D
Acq On : 30 Oct 2015 3:20
Operator : BAG
Sample : 1510440-16
Misc : MWH
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Oct 30 08:17:10 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(38) trichloroethene

6.494min (-0.019) 22.18 ug/L

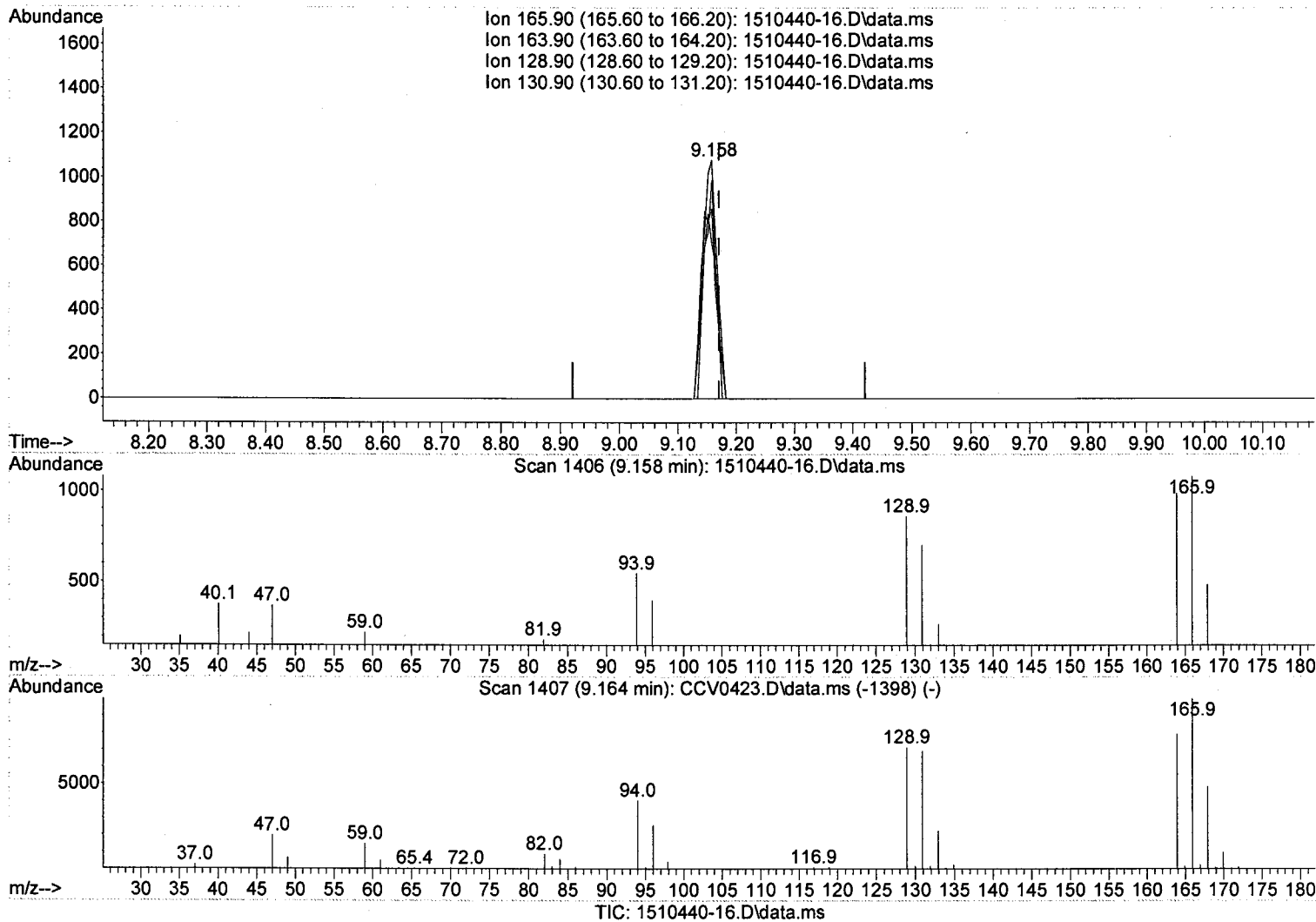
response 165375

Ion	Exp%	Act%
129.90	100	100
95.00	112.20	112.66
97.00	71.70	71.17
131.90	96.70	96.42

000327

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-16.D
Acq On : 30 Oct 2015 3:20
Operator : BAG
Sample : 1510440-16
Misc : MWH
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Oct 30 08:17:10 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(52) tetrachloroethene

9.158min (-0.013) 0.25 ug/L

response 1885

Ion	Exp%	Act%
165.90	100	100
163.90	78.80	79.84
128.90	76.90	77.56
130.90	73.90	69.66

000328

8260-WN69.M Fri Oct 30 10:46:02 2015

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

Storage Blank

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-17

File ID: 1510440-17.D

Sampled: 10/22/15 14:19

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 23:05

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	2.6	2.4	10	J
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37	2.0	U
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U

000329

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

Storage Blank

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-17

File ID: 1510440-17.D

Sampled: 10/22/15 14:19

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 23:05

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	1.1	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.3	98	85 - 118	
1,2-Dichloroethane-d4	40.0	40.3	101	87 - 122	
Toluene-d8	40.0	39.3	98	85 - 113	

000330

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

Storage Blank

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-17

File ID: 1510440-17.D

Sampled: 10/22/15 14:19

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 23:05

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.5	99	82 - 110	

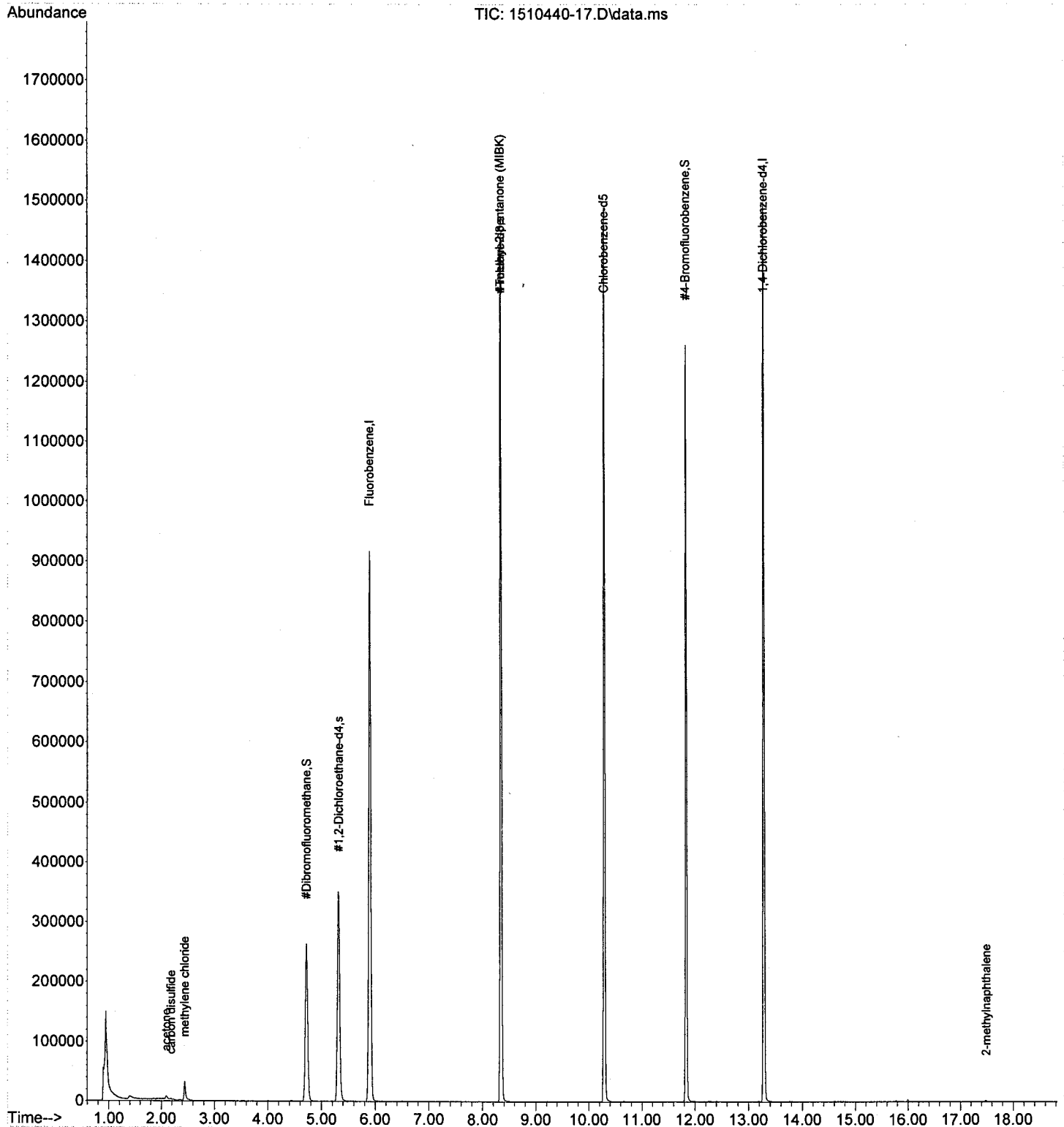
* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1014161	5.897	101	5.915	
Chlorobenzene-d5	700813	10.292	100	10.305	
1,4-Dichlorobenzene-d4	340425	13.286	98	13.292	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-17.D
Acq On : 29 Oct 2015 23:05
Operator : BAG
Sample : 1510440-17
Misc : MWH
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 30 08:17:13 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



000332

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-17.D
 Acq On : 29 Oct 2015 23:05
 Operator : BAG
 Sample : 1510440-17
 Misc : MWH
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 30 08:17:13 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.897	96	1014161	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.292	117	700813	40.00	ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.286	152	340425	40.00	ug/L	# 0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.720	111	249654	39.31	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	98.28%	
37) #1,2-Dichloroethane-d4	5.324	67	198050	40.33	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	100.82%	
47) #Toluene-d8	8.347	98	959631	39.31	ug/L	-0.01
Spiked Amount 40.000			Recovery	=	98.28%	
65) #4-Bromofluorobenzene	11.835	95	401223	39.52	ug/L	-0.01
Spiked Amount 40.000			Recovery	=	98.80%	
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	0.000		0	N.D.		
13) acetone	2.093	43	7781	2.61	ug/L	93
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.184	76	2016	0.09	ug/L #	75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.446	49	23796	1.13	ug/L	99
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	0.000		0	N.D.		
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	0.000		0	N.D.		
25) 2-butanone (MEK)	0.000		0	N.D.		
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	0.000		0	N.D.		
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.897	57	45516	No	Calib	
38) trichloroethene	0.000		0	N.D.		
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000333

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1510440-17.D
 Acq On : 29 Oct 2015 23:05
 Operator : BAG
 Sample : 1510440-17
 Misc : MWH
 ALS Vial : 33 Sample Multiplier: 1

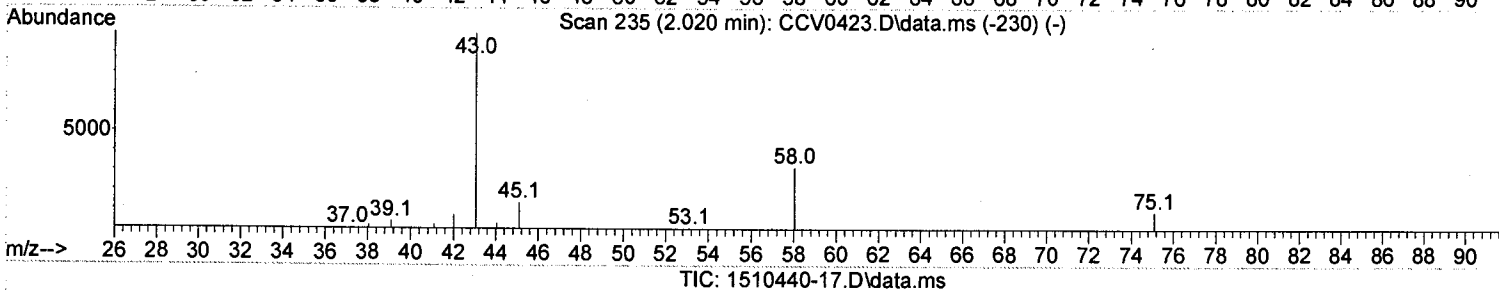
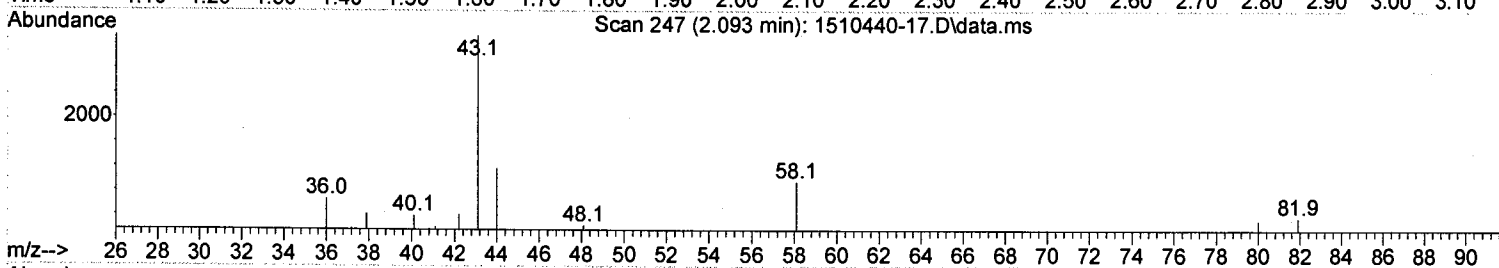
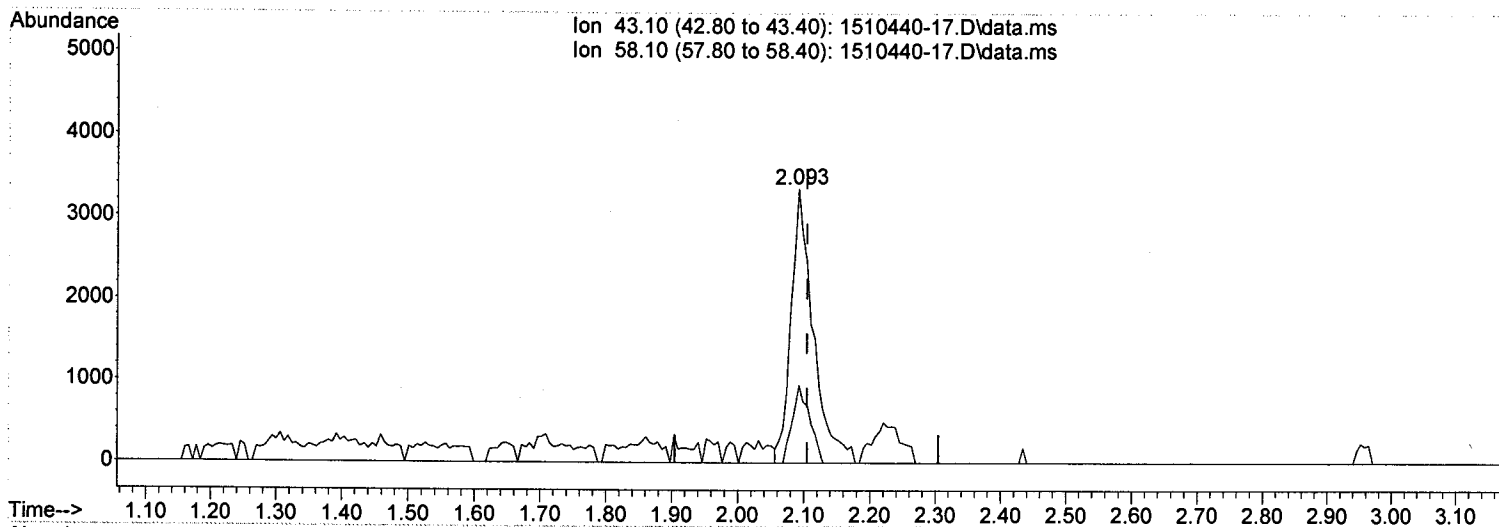
Quant Time: Oct 30 08:17:13 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.341	43	6173	2.71 ug/L #		1
48) toluene	0.000		0	N.D.		
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	0.000		0	N.D.		
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	0.000		0	N.D.		
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	0.000		0	N.D.		
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	0.000		0	N.D.		
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	0.000		0	N.D.		
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	0.000		0	N.D.		
87) hexachlorobutadiene	0.000		0	N.D.		
88) naphthalene	0.000		0	N.D.		
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	17.486	142	1496	3.14 ug/L #		78

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-17.D
Acq On : 29 Oct 2015 23:05
Operator : BAG
Sample : 1510440-17
Misc : MWH
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 30 08:17:13 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(13) acetone

2.093min (-0.012) 2.61 ug/L

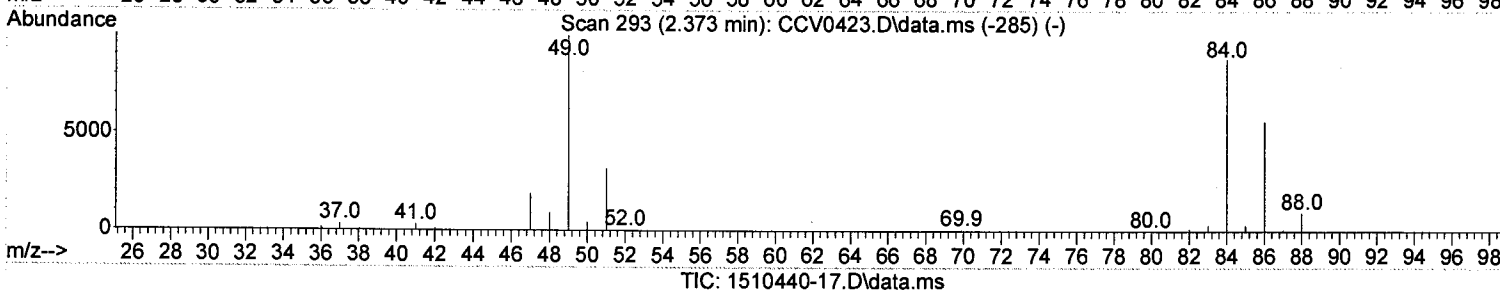
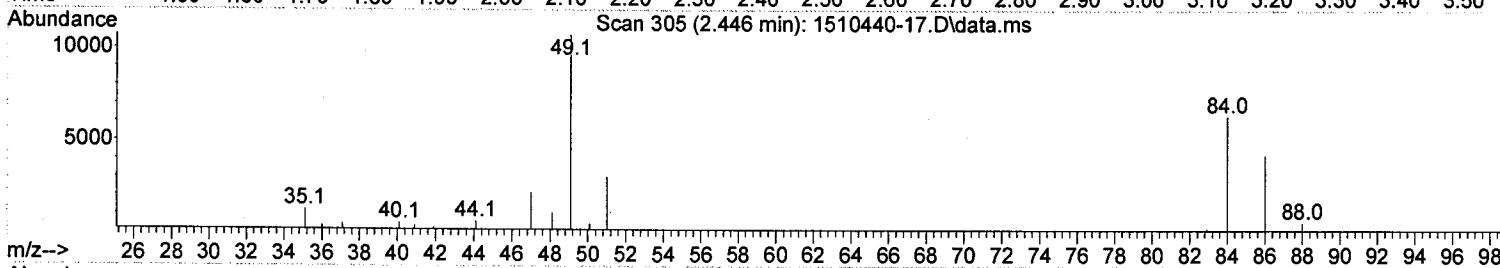
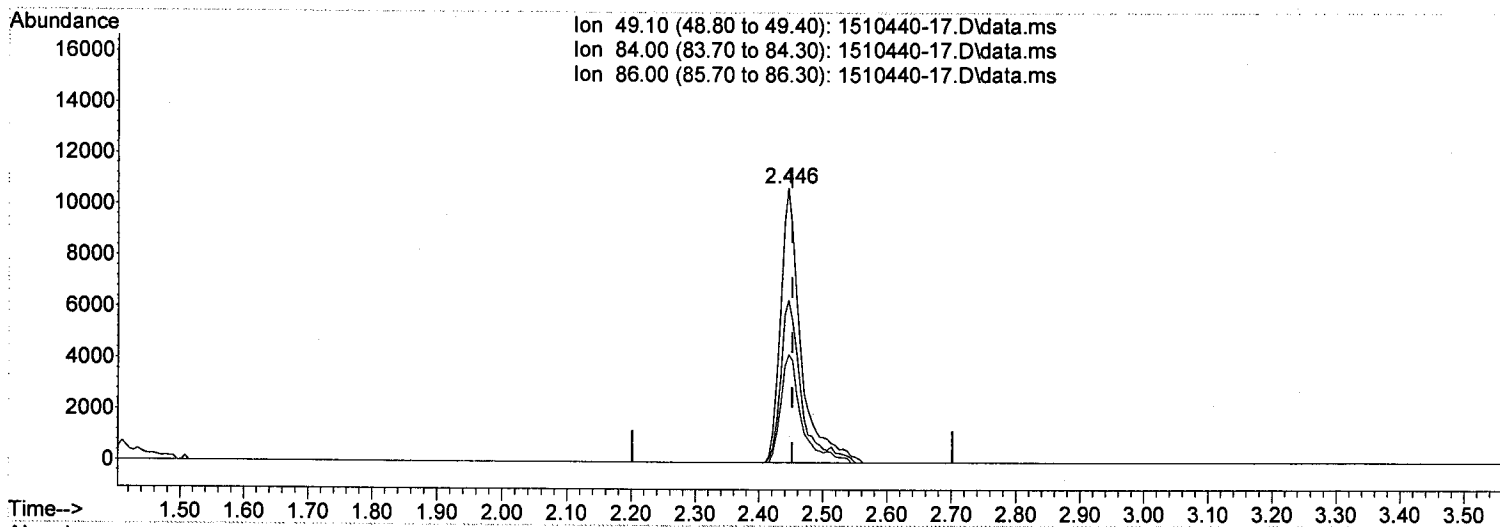
response 7781

Ion	Exp%	Act%
43.10	100	100
58.10	25.50	22.02
0.00	0.00	0.00
0.00	0.00	0.00

000335

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1510440-17.D
Acq On : 29 Oct 2015 23:05
Operator : BAG
Sample : 1510440-17
Misc : MWH
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 30 08:17:13 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(17) methylene chloride

2.446min (-0.006) 1.13 ug/L

response 23796

Ion	Exp%	Act%
49.10	100	100
84.00	60.60	60.05
86.00	38.40	39.88
0.00	0.00	0.00

000336

INITIAL CALIBRATION STANDARDS
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5J30009

Calibration: 5J30003

Instrument: 328

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
5090734	8260 Tune Working Standard 09-17-15	5J30009-TUN1	BFB1029A.D	10/29/15 09:41
5101540	1.0 ug/L A	5J30009-CAL1	1P1029.D	10/29/15 10:41
5101541	5.0 ug/L A	5J30009-CAL2	5P1029.D	10/29/15 11:09
5101542	10 ug/L A	5J30009-CAL3	10P1029.D	10/29/15 11:38
5101543	20 ug/L A	5J30009-CAL4	20P1029.D	10/29/15 12:07
5101544	40 ug/L A	5J30009-CAL5	40P1029.D	10/29/15 12:35
5101545	100 ug/L A	5J30009-CAL6	100P1029.D	10/29/15 13:03
5101546	200 ug/L A	5J30009-CAL7	200P1029.D	10/29/15 14:00
5101095	40 ug/L B	5J30009-SCV1	SCV1029.D	10/29/15 15:30

INITIAL CALIBRATION DATA

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Calibration: 5J30003

Calibration Date: 10/29/15 09:00

Instrument: 328

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Acetone	1	0.3681795	5	0.1676357	10	0.1413814	20	0.1272931	40	0.1197858	100	0.123993
Acrolein	1	0.0569816	5	5.538946E-02	10	5.848091E-02	20	5.435572E-02	40	0.0605913	100	6.528348E-02
Acrylonitrile	1	0.1244472	5	0.1301588	10	0.1487925	20	0.1382316	40	0.1482138	100	0.1543267
Benzene	1	1.251234	5	1.338616	10	1.396275	20	1.302101	40	1.385004	100	1.379142
Bromobenzene	1	1.719806	5	1.750282	10	1.867656	20	1.746744	40	1.830157	100	1.872507
Bromochloromethane	1	0.3358473	5	0.3335635	10	0.3493542	20	0.3275451	40	0.3416274	100	0.3308112
Bromodichloromethane	1	0.3250032	5	0.3695971	10	0.4027149	20	0.3862332	40	0.4233401	100	0.4389048
Bromoform	1	0.1379243	5	0.1608751	10	0.1909064	20	0.1958235	40	0.2295504	100	0.2577937
Bromomethane	1	0.1121225	5	0.1139461	10	0.1153663	20	0.1084453	40	0.1130042	100	0.1040647
n-Butylbenzene	1	2.38685	5	2.805307	10	3.12983	20	3.041897	40	3.371774	100	3.508533
sec-Butylbenzene	1	3.440438	5	3.989111	10	4.322125	20	4.142292	40	4.407005	100	4.498007
tert-Butylbenzene	1	2.351817	5	2.684356	10	2.911138	20	2.760405	40	2.920069	100	2.97123
Carbon Disulfide	1	0.9093847	5	0.852106	10	0.8335388	20	0.8127117	40	0.84808	100	0.9394635
Carbon Tetrachloride	1	0.3142391	5	0.3592056	10	0.3951752	20	0.3804098	40	0.4191975	100	0.4338283
Chlorobenzene	1	1.143814	5	1.134017	10	1.162088	20	1.077238	40	1.149044	100	1.146958
Chloroethane	1	0.2634198	5	0.2446501	10	0.247516	20	0.2234067	40	0.2364555	100	0.2185693
2-Chloroethyl Vinyl Ether	1	0.121286	5	0.1426431	10	0.1508905	20	0.1569365	40	0.1673194	100	0.1687512
Chloroform	1	0.6138326	5	0.6034468	10	0.626832	20	0.5876593	40	0.6228287	100	0.6228621
1-Chlorohexane	1	0.5649014	5	0.6356786	10	0.6579761	20	0.6182122	40	0.6551591	100	0.6472642
Chloromethane	1	0.3579357	5	0.3944214	10	0.4098527	20	0.3842764	40	0.4092851	100	0.4156264
2-Chlorotoluene	1	0.7865341	5	0.8523341	10	0.9101024	20	0.8384987	40	0.8936331	100	0.9058255
4-Chlorotoluene	1	3.236963	5	3.5004	10	3.727421	20	3.485157	40	3.670033	100	3.704207
Cyclohexane	1	0.6085907	5	0.69491	10	0.7501801	20	0.7101015	40	0.7513994	100	0.7485976
1,2-Dibromo-3-chloropropane	1	0.1135921	5	0.1459308	10	0.1822277	20	0.1855771	40	0.2047856	100	0.2269533
Dibromochloromethane	1	0.2470182	5	0.2810419	10	0.3195658	20	0.3233255	40	0.3591527	100	0.3834739
1,2-Dibromoethane	1	0.2975866	5	0.3138125	10	0.3417148	20	0.3284816	40	0.3518659	100	0.3605649
Dibromomethane	1	0.1839497	5	0.1738658	10	0.18289	20	0.1734949	40	0.1827926	100	0.1872565
trans-1,4-Dichloro-2-butene	1	0.2750746	5	0.3043633	10	0.3570531	20	0.3438538	40	0.3817655	100	0.4094173
1,2-Dichlorobenzene	1	1.408165	5	1.431127	10	1.514921	20	1.425499	40	1.49374	100	1.53473
1,3-Dichlorobenzene	1	1.584156	5	1.5625	10	1.665887	20	1.559612	40	1.650835	100	1.686972
1,4-Dichlorobenzene	1	1.661771	5	1.608137	10	1.683426	20	1.567216	40	1.656205	100	1.681195

000338

INITIAL CALIBRATION DATA

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Calibration: 5J30003

Calibration Date: 10/29/15 09:00

Instrument: 328

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Dichlorodifluoromethane	1	0.4004318	5	0.4464833	10	0.4590295	20	0.427228	40	0.4481989	100	0.4469214
1,1-Dichloroethane	1	0.6001475	5	0.6415491	10	0.67793	20	0.6335421	40	0.684044	100	0.6868947
1,2-Dichloroethane	1	0.4989491	5	0.5056573	10	0.5291937	20	0.4909978	40	0.5130418	100	0.5124625
1,1-Dichloroethene	1	0.3052357	5	0.3311901	10	0.3379723	20	0.3146675	40	0.3410733	100	0.3407175
cis-1,2-Dichloroethene	1	0.319201	5	0.3151057	10	0.3377312	20	0.3174422	40	0.3432642	100	0.3430701
trans-1,2-Dichloroethene	1	0.269062	5	0.2980431	10	0.3074719	20	0.2864682	40	0.3123091	100	0.3125998
1,2-Dichloroethene (Total)	2	0.2941315	10	0.3065744	20	0.3226015	40	0.3019552	80	0.3277866	200	0.327835
Dichlorofluoromethane	1	0.6627312	5	0.68961	10	0.7104882	20	0.65918	40	0.6995716	100	0.6922182
1,2-Dichloropropane	1	0.3226823	5	0.3438268	10	0.3693408	20	0.3480934	40	0.3696908	100	0.3709451
1,3-Dichloropropane	1	0.7273891	5	0.7376523	10	0.7889348	20	0.7419805	40	0.7729417	100	0.7666501
2,2-Dichloropropane	1	0.3706605	5	0.4025277	10	0.4375317	20	0.4264511	40	0.4757725	100	0.4957021
1,1-Dichloropropene	1	0.4496504	5	0.4835994	10	0.5129247	20	0.4836481	40	0.5191731	100	0.5210821
cis-1,3-Dichloropropene	1	0.3518934	5	0.405751	10	0.4550667	20	0.4603584	40	0.5118248	100	0.5371228
trans-1,3-Dichloropropene	1	0.269022	5	0.3088515	10	0.3625165	20	0.3726022	40	0.4206526	100	0.4536879
1,3-Dichloropropene (Total)	2	0.3104577	10	0.3573013	20	0.4087916	40	0.4164803	80	0.4662387	200	0.4954053
Ethylbenzene	1	1.995981	5	2.242599	10	2.361287	20	2.227491	40	2.345337	100	2.318521
Ethyl Ether	1	0.1512173	5	0.1657113	10	0.1720587	20	0.16194	40	0.1729754	100	0.1764201
Hexachlorobutadiene	1	0.599573	5	0.43382	10	0.4358822	20	0.426763	40	0.4649087	100	0.4884165
Hexachloroethane	1	0.2032391	5	0.2276941	10	0.2639781	20	0.2769856	40	0.328125	100	0.3840859
2-Hexanone	1	0.2664499	5	0.2983195	10	0.3270874	20	0.3479544	40	0.3581037	100	0.3795964
Iodomethane	1	0.1140032	5	0.1162072	10	0.1431579	20	0.1803906	40	0.2396174	100	0.2760926
Isopropylbenzene	1	3.460608	5	3.984274	10	4.295542	20	4.036307	40	4.318639	100	4.368785
4-Isopropyltoluene	1	2.884981	5	3.228798	10	3.519844	20	3.365175	40	3.642059	100	3.695665
Methyl Acetate	1	0.2536561	5	0.2396628	10	0.2560564	20	0.2550715	40	0.2742894	100	0.2963141
Methyl tert-Butyl Ether	1	0.7477234	5	0.7815302	10	0.8460822	20	0.7963471	40	0.8565013	100	0.8849154
Methylcyclohexane	1	0.4931069	5	0.5821506	10	0.6241594	20	0.5918586	40	0.6378227	100	0.6450313
Methylene Chloride	1	1.069165	5	0.6274612	10	0.6032886	20	0.5400115	40	0.5597899	100	0.5476194
2-Butanone (MEK)	1	0.1396129	5	0.1470691	10	0.1487724	20	0.1435325	40	0.1432712	100	0.1560523
2-Methylnaphthalene	1	1.002984	5	0.7907838	10	0.9909567	20	1.040179	40	1.167525	100	1.258106
4-Methyl-2-pentanone (MIBK)	1	0.2540163	5	0.3300115	10	0.3355569	20	0.3454654	40	0.3582884	100	0.380447
Naphthalene	1	1.894264	5	1.847912	10	2.216946	20	2.154075	40	2.309291	100	2.381336

000339

INITIAL CALIBRATION DATA

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Calibration: 5J30003

Calibration Date: 10/29/15 09:00

Instrument: 328

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
n-Propylbenzene	1	0.8906897	5	1.023923	10	1.088012	20	1.01307	40	1.094393	100	1.106899
Styrene	1	1.090075	5	1.251345	10	1.347275	20	1.285377	40	1.364356	100	1.362373
1,1,1,2-Tetrachloroethane	1	0.2612027	5	0.31467	10	0.3473185	20	0.3412913	40	0.3725631	100	0.3862134
1,1,2,2-Tetrachloroethane	1	0.9429444	5	0.9866045	10	1.062221	20	1.006784	40	1.060331	100	1.080933
Tetrachloroethene	1	0.3905932	5	0.432693	10	0.4496521	20	0.4277169	40	0.4515799	100	0.4568206
Tetrahydrofuran	1	9.283518E-03	5	2.576235E-02	10	2.832211E-02	20	2.866306E-02	40	3.154807E-02	100	3.466957E-02
Toluene	1	1.263239	5	1.336635	10	1.402147	20	1.299583	40	1.384086	100	1.385607
1,2,3-Trichlorobenzene	1	0.7640044	5	0.716615	10	0.7956238	20	0.7772123	40	0.8362744	100	0.8809108
1,2,4-Trichlorobenzene	1	0.8757092	5	0.8226572	10	0.900966	20	0.8746814	40	0.9601841	100	1.005938
1,1,1-Trichloroethane	1	0.4112359	5	0.4715641	10	0.4970495	20	0.4791122	40	0.5216099	100	0.533867
1,1,2-Trichloroethane	1	0.205798	5	0.2192406	10	0.2358528	20	0.2233285	40	0.236541	100	0.2378042
Trichloroethene	1	0.2761847	5	0.2884934	10	0.2995584	20	0.2813903	40	0.3038838	100	0.3069255
Trichlorofluoromethane	1	0.4879849	5	0.5328148	10	0.5419461	20	0.5116987	40	0.5423999	100	0.5317211
1,2,3-Trichloropropane	1	0.2814443	5	0.2826548	10	0.3081122	20	0.2885772	40	0.3048706	100	0.3081943
1,1,2-Trichloro-1,2,2-trifluoroethane	1	0.3544543	5	0.3762923	10	0.3959428	20	0.3695398	40	0.3909571	100	0.3879909
1,2,4-Trimethylbenzene	1	2.7511	5	3.246394	10	3.515642	20	3.314129	40	3.544834	100	3.611586
1,3,5-Trimethylbenzene	1	3.012728	5	3.503788	10	3.72841	20	3.507845	40	3.692669	100	3.713934
Vinyl Acetate	1	0.6377617	5	0.6885115	10	0.718687	20	0.7380797	40	0.7862931	100	0.8598791
Vinyl Chloride	1	0.3756624	5	0.4254757	10	0.4292565	20	0.4019677	40	0.4332749	100	0.43884
Xylene, Meta + Para	2	0.7046708	10	0.7978168	20	0.8282587	40	0.7839868	80	0.8242154	200	0.8037715
Xylene, Ortho	1	0.6526609	5	0.7232486	10	0.7713265	20	0.7335902	40	0.776668	100	0.7780919
Xylene (Total)	3	0.6873342	15	0.7729607	30	0.8092813	60	0.767188	120	0.8083663	300	0.7952116
Dibromofluoromethane	40	0.2485522	40	0.2502077	40	0.2507885	40	0.2530815	40	0.2505864	40	0.2509312
1,2-Dichloroethane-d4	40	0.1967646	40	0.1934993	40	0.1928501	40	0.1923769	40	0.1922404	40	0.1935265
Toluene-d8	40	0.9546748	40	0.9561356	40	0.9671273	40	0.9645762	40	0.9622467	40	0.9639744
4-Bromofluorobenzene	40	0.5849774	40	0.5883246	40	0.5849102	40	0.5897085	40	0.5733493	40	0.5732222

000340

INITIAL CALIBRATION DATA (Continued)

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Calibration: 5J30003

Calibration Date: 10/29/15 09:00

Instrument: 328

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Acetone	200	0.1317911										
Acrolein	200	7.032718E-02										
Acrylonitrile	200	0.1552756										
Benzene	200	1.378039										
Bromobenzene	200	1.879815										
Bromochloromethane	200	0.326497										
Bromodichloromethane	200	0.4485411										
Bromoform	200	0.2709977										
Bromomethane	200	9.311435E-02										
n-Butylbenzene	200	3.551177										
sec-Butylbenzene	200	4.439147										
tert-Butylbenzene	200	2.966093										
Carbon Disulfide	200	0.8804965										
Carbon Tetrachloride	200	0.4438667										
Chlorobenzene	200	1.129183										
Chloroethane	200	0.1519794										
2-Chloroethyl Vinyl Ether	200	0.1542802										
Chloroform	200	0.6278603										
1-Chlorohexane	200	0.6210978										
Chloromethane	200	0.4263258										
2-Chlorotoluene	200	0.9162357										
4-Chlorotoluene	200	3.673783										
Cyclohexane	200	0.7379909										
1,2-Dibromo-3-chloropropane	200	0.2441964										
Dibromochloromethane	200	0.3956137										
1,2-Dibromoethane	200	0.3572683										
Dibromomethane	200	0.1924075										
trans-1,4-Dichloro-2-butene	200	0.4163689										
1,2-Dichlorobenzene	200	1.563257										
1,3-Dichlorobenzene	200	1.701895										
1,4-Dichlorobenzene	200	1.694668										

000341

INITIAL CALIBRATION DATA (Continued)

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Calibration: 5J30003

Calibration Date: 10/29/15 09:00

Instrument: 328

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Dichlorodifluoromethane	200	0.4488573										
1,1-Dichloroethane	200	0.6936846										
1,2-Dichloroethane	200	0.5170762										
1,1-Dichloroethene	200	0.3461326										
cis-1,2-Dichloroethene	200	0.3452343										
trans-1,2-Dichloroethene	200	0.3137672										
1,2-Dichloroethene (Total)	400	0.3295008										
Dichlorofluoromethane	200	0.6937402										
1,2-Dichloropropane	200	0.3701755										
1,3-Dichloropropane	200	0.761544										
2,2-Dichloropropane	200	0.498549										
1,1-Dichloropropene	200	0.5237602										
cis-1,3-Dichloropropene	200	0.551183										
trans-1,3-Dichloropropene	200	0.4693751										
1,3-Dichloropropene (Total)	400	0.510279										
Ethylbenzene	200	2.254795										
Ethyl Ether	200	0.1819518										
Hexachlorobutadiene	200	0.4984547										
Hexachloroethane	200	0.4249366										
2-Hexanone	200	0.3858661										
Iodomethane	200	0.2836183										
Isopropylbenzene	200	4.354118										
4-Isopropyltoluene	200	3.720655										
Methyl Acetate	200	0.3182082										
Methyl tert-Butyl Ether	200	0.8960604										
Methylcyclohexane	200	0.6366368										
Methylene Chloride	200	0.5504927										
2-Butanone (MEK)	200	0.1627183										
2-Methylnaphthalene	200	1.279038										
4-Methyl-2-pentanone (MIBK)	200	0.3862466										
Naphthalene	200	2.419455										

000342

INITIAL CALIBRATION DATA (Continued)

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Calibration: 5J30003

Calibration Date: 10/29/15 09:00

Instrument: 328

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
n-Propylbenzene	200	1.095671										
Styrene	200	1.325177										
1,1,1,2-Tetrachloroethane	200	0.3920522										
1,1,2,2-Tetrachloroethane	200	1.096166										
Tetrachloroethene	200	0.4561195										
Tetrahydrofuran	200	3.744866E-02										
Toluene	200	1.37322										
1,2,3-Trichlorobenzene	200	0.9138401										
1,2,4-Trichlorobenzene	200	1.0488										
1,1,1-Trichloroethane	200	0.5458208										
1,1,2-Trichloroethane	200	0.2386306										
Trichloroethene	200	0.3114402										
Trichlorofluoromethane	200	0.5314776										
1,2,3-Trichloropropane	200	0.3089204										
1,1,2-Trichloro-1,2,2-trifluoroethane	200	0.3881026										
1,2,4-Trimethylbenzene	200	3.59411										
1,3,5-Trimethylbenzene	200	3.693113										
Vinyl Acetate	200	0.878769										
Vinyl Chloride	200	0.4454468										
Xylene, Meta + Para	400	0.7609497										
Xylene, Ortho	200	0.7556508										
Xylene (Total)	600	0.7591834										
Dibromofluoromethane	40	0.2494094										
1,2-Dichloroethane-d4	40	0.1945132										
Toluene-d8	40	0.9711747										
4-Bromofluorobenzene	40	0.5613602										

000343

INITIAL CALIBRATION DATA (Continued)

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Calibration: 5J30003

Calibration Date: 10/29/15 09:00

Instrument: 328

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	Limit	Q
Acetone	0.1685799	53.06073	2.105857	0.1071117	0.99860		0.99	
Acrolein	6.020138E-02	9.570268	1.977	1.230662E-02			15	
Acrylonitrile	0.142778	8.439687	2.721857	0.0817556			15	
Benzene	1.347202	3.965702	5.384143	4.475306E-02			15	
Bromobenzene	1.809567	3.789433	11.999	2.317602E-02			15	
Bromochloromethane	0.3350351	2.431441	4.286143	5.101428E-02			15	
Bromodichloromethane	0.3991906	10.80172	7.36	1.063249E-02			15	
Bromoform	0.2062673	23.80282	11.426	9.494803E-03	0.99899		SPCC (0.1)	
Bromomethane	0.1085805	7.1986	1.428857	0.289257			15	
n-Butylbenzene	3.113624	13.38877	13.81	9.122218E-03			15	
sec-Butylbenzene	4.176875	8.876388	13.09871	0.0270503			15	
tert-Butylbenzene	2.795015	7.991011	12.82286	1.579671E-02			15	
Carbon Disulfide	0.8679687	5.124375	2.194286	0.1322883			15	
Carbon Tetrachloride	0.3922746	11.61025	4.959714	5.998842E-02			15	
Chlorobenzene	1.13462	2.419565	10.33757	2.969409E-02			SPCC (0.3)	
Chloroethane	0.2390029	6.920287	1.495	0.2533512			15	
2-Chloroethyl Vinyl Ether	0.1517296	10.68312	7.885714	3.425976E-02			15	
Chloroform	0.615046	2.403206	4.453714	6.489726E-02			CCC (30)	
1-Chlorohexane	0.6286128	5.108972	10.378	9.848045E-03			15	
Chloromethane	0.3996748	5.748822	1.203	4.908594E-03			SPCC (0.1)	
2-Chlorotoluene	0.8718805	5.507364	12.263	2.121873E-02			15	
4-Chlorotoluene	3.571138	4.937172	12.41314	2.765008E-02			15	
Cyclohexane	0.7145386	7.220019	4.723428	0.0666292			15	
1,2-Dibromo-3-chloropropane	0.1861804	24.29859	14.77814	1.981691E-02	0.99857		0.99	
Dibromochloromethane	0.3298845	16.34816	9.575572	2.961125E-02	0.99962		0.99	
1,2-Dibromoethane	0.3358992	7.049772	9.682143	2.725858E-02			15	
Dibromomethane	0.1823796	3.736661	7.067857	3.751415E-02			15	
trans-1,4-Dichloro-2-butene	0.3554138	14.76511	12.182	1.953996E-02			15	
1,2-Dichlorobenzene	1.481634	4.071631	13.779	1.971179E-02			15	
1,3-Dichlorobenzene	1.630265	3.693007	13.20257	1.427425E-02			15	
1,4-Dichlorobenzene	1.650374	2.80599	13.32286	2.518178E-02			15	
Dichlorodifluoromethane	0.4395929	4.478334	1.044	2.163759E-02			15	

000344

INITIAL CALIBRATION DATA (Continued)

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Calibration: 5J30003

Calibration Date: 10/29/15 09:00

Instrument: 328

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	Limit	Q
1,1-Dichloroethane	0.6596846	5.316262	3.154286	8.343126E-02			SPCC (0.1)	
1,2-Dichloroethane	0.5096255	2.449309	5.477714	0.0532354			15	
1,1-Dichloroethene	0.3309984	4.621639	2.031143	0.109358			CCC (30)	
cis-1,2-Dichloroethene	0.3315784	4.11558	3.918428	0.086977			15	
trans-1,2-Dichloroethene	0.2999602	5.611121	2.695143	8.291979E-02			15	
1,2-Dichloroethene (Total)	0.3157693	4.605237	3.918428	0.086977			15	
Dichlorofluoromethane	0.6867913	2.757388	1.633429	0.1858282			15	
1,2-Dichloropropane	0.3563935	5.261081	6.884857	3.448642E-02			CCC (30)	
1,3-Dichloropropane	0.7567275	2.887112	9.286857	1.596977E-02			15	
2,2-Dichloropropane	0.4438849	10.92356	3.890143	0.0572378			15	
1,1-Dichloropropene	0.4991197	5.553337	4.996714	5.795116E-02			15	
cis-1,3-Dichloropropene	0.4676	15.42108	8.024143	2.350032E-02	0.99974		0.99	
trans-1,3-Dichloropropene	0.3795297	19.48343	8.848286	1.712467E-02	0.99954		0.99	
1,3-Dichloropropene (Total)	0.4235648	17.22927	8.848286	1.712467E-02	0.99966		0.99	
Ethylbenzene	2.24943	5.48317	10.512	1.418023E-02			CCC (30)	
Ethyl Ether	0.1688964	6.041792	1.861857	0.1211644			15	
Hexachlorobutadiene	0.4782597	12.61176	16.00757	2.379636E-02			15	
Hexachloroethane	0.3012921	27.05813	14.066	4.772659E-03	0.99713		0.99	
2-Hexanone	0.3376253	12.8746	9.480572	2.802544E-02			15	
Iodomethane	0.1932982	37.82183	2.154	1.010534E-02	0.99897		0.99	
Isopropylbenzene	4.116896	7.977206	11.664	1.728212E-02			15	
4-Isopropyltoluene	3.43674	8.805743	13.29886	4.742285E-03			15	
Methyl Acetate	0.2704655	10.27974	2.369571	0.1351328			15	
Methyl tert-Butyl Ether	0.82988	6.707644	2.702	1.728747E-02			15	
Methylcyclohexane	0.601538	8.89523	6.747429	4.915718E-02			15	
Methylene Chloride	0.6425469	29.70733	2.452857	9.099197E-02	0.99995		0.99	
2-Butanone (MEK)	0.1487184	5.4349	4.000143	0.1826509			15	
2-Methylnaphthalene	1.087765	17.04071	17.487	8.924056E-03	0.99988		0.99	
4-Methyl-2-pentanone (MIBK)	0.3414332	12.89871	8.311857	1.542445E-02			15	
Naphthalene	2.174754	10.42426	16.07886	1.619795E-02			15	
n-Propylbenzene	1.044665	7.411026	12.18886	0.0110847			15	
Styrene	1.289425	7.543615	11.207	1.801374E-02			15	

000345

INITIAL CALIBRATION DATA (Continued)

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Calibration: 5J30003

Calibration Date: 10/29/15 09:00

Instrument: 328

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	Limit	Q
1,1,1,2-Tetrachloroethane	0.3450445	13.29859	10.47586	1.734553E-02			15	
1,1,2,2-Tetrachloroethane	1.033712	5.420054	12.10986	1.610071E-02			SPCC (0.3)	
Tetrachloroethene	0.4378822	5.423479	9.171857	2.218987E-02			15	
Tetrahydrofuran	2.795676E-02	32.72449	4.352286	0.1041489	0.99849		0.99	
Toluene	1.349217	3.81924	8.450143	2.041871E-02			CCC (30)	
1,2,3-Trichlorobenzene	0.8120687	8.500313	16.37857	1.761457E-02			15	
1,2,4-Trichlorobenzene	0.9269908	8.708468	15.77986	1.630324E-02			15	
1,1,1-Trichloroethane	0.4943228	9.277975	4.683143	4.601386E-02			15	
1,1,2-Trichloroethane	0.2281708	5.471122	9.080715	3.641024E-02			15	
Trichloroethene	0.2954109	4.567996	6.513857	3.800648E-02			15	
Trichlorofluoromethane	0.5257204	3.709198	1.658286	0.1771486			15	
1,2,3-Trichloropropane	0.2975391	4.272237	12.12871	3.270391E-02			15	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3804685	3.83586	2.026	0.1716967			15	
1,2,4-Trimethylbenzene	3.368256	9.084561	12.889	2.244074E-02			15	
1,3,5-Trimethylbenzene	3.550355	7.200428	12.42686	2.493797E-02			15	
Vinyl Acetate	0.758283	11.671	3.248428	9.846943E-02			15	
Vinyl Chloride	0.4214177	5.789277	1.225286	0.2396184			CCC (30)	
Xylene, Meta + Para	0.7862385	5.432795	10.67171	2.404782E-02			15	
Xylene, Ortho	0.7416053	6.018663	11.176	1.133434E-02			15	
Xylene (Total)	0.7713608	5.450314	11.176	1.133434E-02			15	
Dibromofluoromethane	0.2505081	0.5645917	4.738714	1.852276E-02			15	
1,2-Dichloroethane-d4	0.1936816	0.8087815	5.341143	4.444386E-02			15	
Toluene-d8	0.9628442	0.6058554	8.36	1.135278E-02			15	
4-Bromofluorobenzene	0.5794075	1.793069	11.847	1.282987E-02			15	

Response Factor Report 328

Method Path : C:\msdchem\1\METHODS\
 Method File : 8260-WN69.M
 Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 Last Update : Thu Oct 29 14:49:04 2015
 Response Via : Initial Calibration

5J3000 3 (5J30009)
 5K02018 (5K02010)
 5K05011 (5K05031)

Calibration Files
 1 =1P1029.D 2 =5P1029.D 3 =10P1029.D 4 =20P1029.D 5 =40P1029.D 6 =100P1029.D 7 =200P1029.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
1) I Fluorobenzene	0.400	0.446	0.459	0.427	0.448	0.447	0.449	0.440	4.48
2) chlorodifluoro...	0.358	0.394	0.410	0.384	0.409	0.416	0.426	0.400	5.75
3) P chloromethane	0.376	0.425	0.429	0.402	0.433	0.439	0.445	0.421	5.79#
4) C vinyl chloride	0.112	0.114	0.115	0.108	0.113	0.104	0.093	0.109	7.20
5) bromomethane	0.263	0.245	0.248	0.223	0.236	0.219	0.239	0.239	6.92
6) chloroethane	0.663	0.690	0.710	0.659	0.700	0.692	0.694	0.687	2.76
7) dichlorofluoro...	0.488	0.533	0.542	0.512	0.542	0.532	0.531	0.526	3.71
8) trichlorofluoro...	0.451	0.166	0.172	0.162	0.173	0.176	0.182	0.169	6.04
9) ethyl ether	0.057	0.055	0.058	0.054	0.061	0.065	0.070	0.060	9.57
10) acrolein	0.354	0.376	0.396	0.370	0.391	0.388	0.388	0.380	3.84
11) 1,1,2-trichlor...	0.305	0.331	0.338	0.315	0.341	0.341	0.346	0.331	4.62#
12) C 1,1-dichloroet...	0.368	0.168	0.141	0.127	0.120	0.124	0.132	0.169	53.06
13) acetone	0.114	0.116	0.143	0.180	0.240	0.276	0.284	0.193	37.82
14) iodomethane	0.909	0.852	0.834	0.813	0.848	0.939	0.880	0.868	5.12
15) carbon disulfide	0.254	0.240	0.256	0.255	0.274	0.296	0.318	0.270	10.28
16) methyl acetate	1.069	0.627	0.603	0.540	0.560	0.548	0.550	0.643	29.71
17) methylene chlo...	0.124	0.130	0.149	0.138	0.148	0.154	0.155	0.143	8.44
18) acrylonitrile	0.269	0.298	0.307	0.286	0.312	0.313	0.314	0.300	5.61
19) trans-1,2-dich...	0.748	0.782	0.846	0.796	0.857	0.885	0.896	0.830	6.71
20) methyl (tert) ...	0.600	0.642	0.678	0.634	0.684	0.687	0.694	0.660	5.32
21) P 1,1-dichloroet...	0.638	0.689	0.719	0.738	0.786	0.860	0.879	0.758	11.67
22) vinyl acetate	0.371	0.403	0.438	0.426	0.476	0.496	0.499	0.444	10.92
23) 2,2-dichloropr...	0.319	0.315	0.338	0.317	0.343	0.343	0.345	0.332	4.12
24) cis-1,2-dichlo...	0.140	0.147	0.149	0.144	0.143	0.156	0.163	0.149	5.43
25) 2-butanone (MEK)	0.336	0.334	0.349	0.328	0.342	0.331	0.326	0.335	2.43
26) bromochloromet...	0.009	0.026	0.028	0.029	0.032	0.035	0.037	0.028	32.72
27) tetrahydrofuran	0.614	0.603	0.627	0.588	0.623	0.623	0.628	0.615	2.40#
28) C chloroform	0.249	0.250	0.251	0.253	0.251	0.251	0.249	0.251	0.56
29) S #Dibromofluoro...	0.411	0.472	0.497	0.479	0.522	0.534	0.546	0.494	9.28
30) 1,1,1-trichlor...	0.609	0.695	0.750	0.710	0.751	0.749	0.738	0.715	7.22
31) cyclohexane	0.314	0.359	0.395	0.380	0.419	0.434	0.444	0.392	11.61
32) carbon tetrach...	0.450	0.484	0.513	0.484	0.519	0.521	0.524	0.499	5.55
33) 1,1-dichloropr...	1.251	1.339	1.396	1.302	1.385	1.379	1.378	1.347	3.97
34) benzene	0.499	0.506	0.529	0.491	0.513	0.512	0.517	0.510	2.45
35) 1,2-dichloroet...	0.197	0.193	0.193	0.192	0.192	0.194	0.195	0.194	-1.00
36) heptane	0.276	0.288	0.300	0.281	0.304	0.307	0.311	0.295	0.81
37) S #1,2-Dichloroe...	0.493	0.582	0.624	0.592	0.638	0.645	0.637	0.602	4.57
38) trichloroethene	0.323	0.344	0.369	0.348	0.370	0.371	0.370	0.356	8.90
39) methylocyclohexane	0.184	0.174	0.183	0.173	0.183	0.187	0.192	0.182	5.26#
40) C 1,2-dichloropr...									3.74
41) dibromomethane									

000347
 10/30/15

8260-WN69.M Fri Oct 30 09:24:44 2015

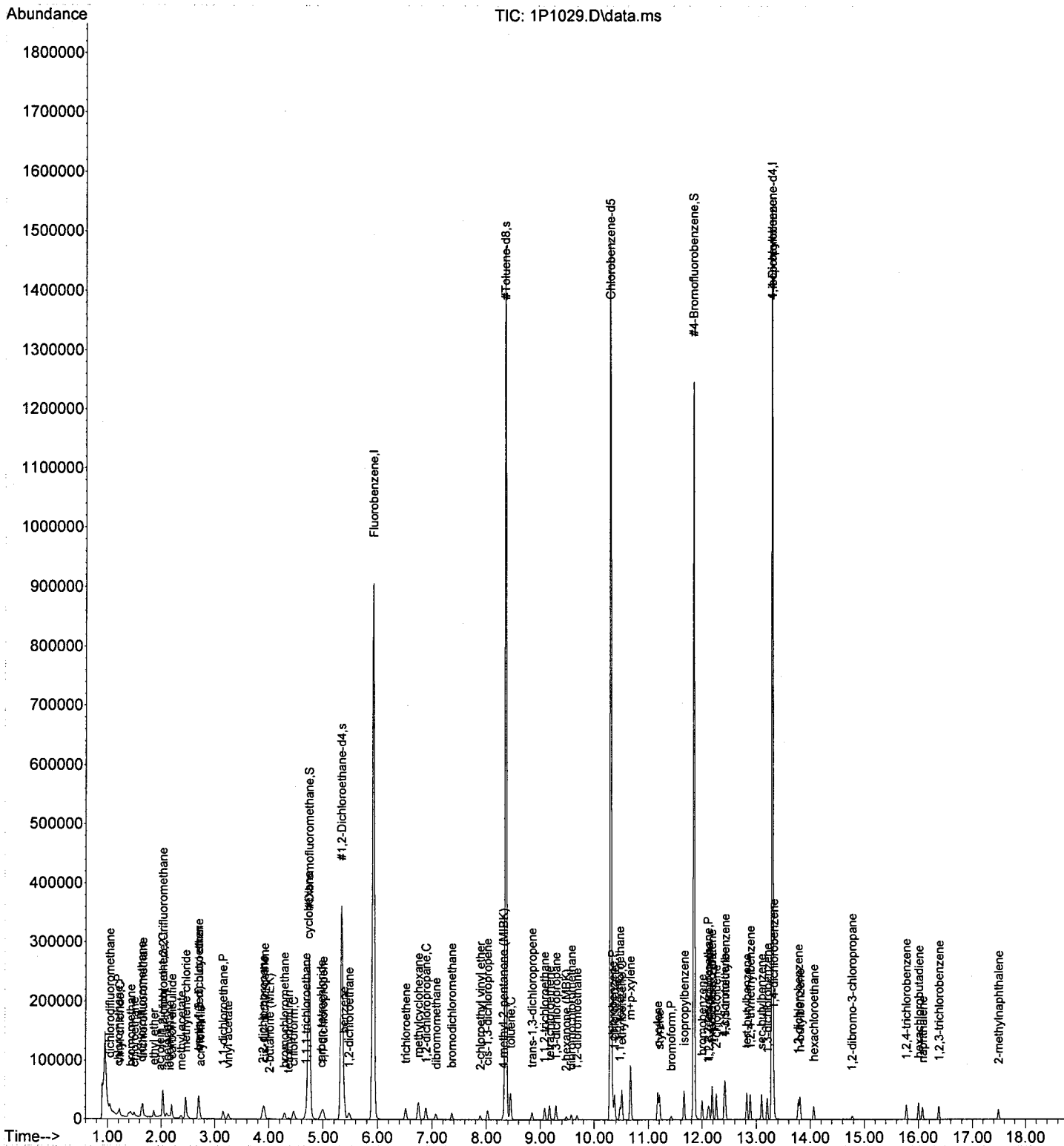
Response Factor Report 328

Method Path : C:\msdchem\1\METHODS\
Method File : 8260-WN69.M

(#) = Out of Range

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 1P1029.D
Acq On : 29 Oct 2015 10:41
Operator : BAG
Sample : STD1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 29 14:43:15 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Mon Oct 19 14:30:36 2015
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1P1029.D
 Acq On : 29 Oct 2015 10:41
 Operator : BAG
 Sample : STD1
 Misc :
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 29 14:43:15 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Mon Oct 19 14:30:36 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.921	96	999621	40.00	ug/L	0.04
51) Chlorobenzene-d5	10.304	117	693714	40.00	ug/L	0.02
66) 1,4-Dichlorobenzene-d4	13.298	152	339108	40.00	ug/L	# 0.02
System Monitoring Compounds						
29) #Dibromofluoromethane	4.738	111	248458	39.49	ug/L	0.04
Spiked Amount 40.000			Recovery	=	98.73%	
37) #1,2-Dichloroethane-d4	5.342	67	196690	43.07	ug/L	0.04
Spiked Amount 40.000			Recovery	=	107.68%	
47) #Toluene-d8	8.360	98	954313	38.65	ug/L	0.02
Spiked Amount 40.000			Recovery	=	96.63%	
65) #4-Bromofluorobenzene	11.847	95	405807	40.54	ug/L	0.02
Spiked Amount 40.000			Recovery	=	101.35%	
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	1.044	85	10007	1.55	ug/L	99
3) chloromethane	1.203	50	8945	0.81	ug/L	99
4) vinyl chloride	1.227	62	9388	0.80	ug/L	75
5) bromomethane	1.434	94	2802	0.94	ug/L	95
6) chloroethane	1.501	64	6583	1.08	ug/L	92
7) dichlorofluoromethane	1.635	67	16562	0.92	ug/L	100
8) trichlorofluoromethane	1.660	101	12195	0.92	ug/L	98
9) ethyl ether	1.861	74	3779	0.79	ug/L	# 81
10) acrolein	1.977	56	1424	0.82	ug/L	# 93
11) 1,1,2-trichloro-1,2,2-...	2.032	101	8858	0.86	ug/L	99
12) 1,1-dichloroethene	2.032	96	7628	0.83	ug/L	94
13) acetone	2.105	43	9201	1.05	ug/L	# 88
14) iodomethane	2.154	142	2849	5.40	ug/L	89
15) carbon disulfide	2.196	76	22726	0.95	ug/L	98
16) methyl acetate	2.373	43	6339	0.85	ug/L	89
17) methylene chloride	2.458	49	26719	1.54	ug/L	96
18) acrylonitrile	2.727	53	3110	0.80	ug/L	97
19) trans-1,2-dichloroethene	2.696	96	6724	0.81	ug/L	92
20) methyl (tert) butyl ether	2.702	73	18686	0.81	ug/L	98
21) 1,1-dichloroethane	3.153	63	14998	0.83	ug/L	99
22) vinyl acetate	3.251	43	15938	0.78	ug/L	95
23) 2,2-dichloropropane	3.891	77	9263	0.78	ug/L	94
24) cis-1,2-dichloroethene	3.922	96	7977	0.87	ug/L	99
25) 2-butanone (MEK)	4.013	43	3489	0.80	ug/L	82
26) bromochloromethane	4.287	49	8393	0.93	ug/L	92
27) tetrahydrofuran	4.360	71	232	2.33	ug/L	# 1
28) chloroform	4.452	83	15340	0.95	ug/L	97
30) 1,1,1-trichloroethane	4.684	97	10277	0.80	ug/L	93
31) cyclohexane	4.726	56	15209	0.78	ug/L	99
32) carbon tetrachloride	4.964	117	7853	0.78	ug/L	98
33) 1,1-dichloropropene	5.001	75	11237	0.84	ug/L	95
34) benzene	5.385	78	31269	0.85	ug/L	# 62
35) 1,2-dichloroethane	5.476	62	12469	0.97	ug/L	98
36) heptane	5.915	57	45671	No Calib		
38) trichloroethene	6.519	130	6902	0.84	ug/L	95
39) methylcyclohexane	6.750	83	12323	0.73	ug/L	95
40) 1,2-dichloropropane	6.890	63	8064	0.81	ug/L	# 89
41) dibromomethane	7.073	93	4597	0.93	ug/L	94
42) 1,4-dioxane	0.000		0	N.D.		

000351

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 1P1029.D
 Acq On : 29 Oct 2015 10:41
 Operator : BAG
 Sample : STD1
 Misc :
 ALS Vial : 7 Sample Multiplier: 1

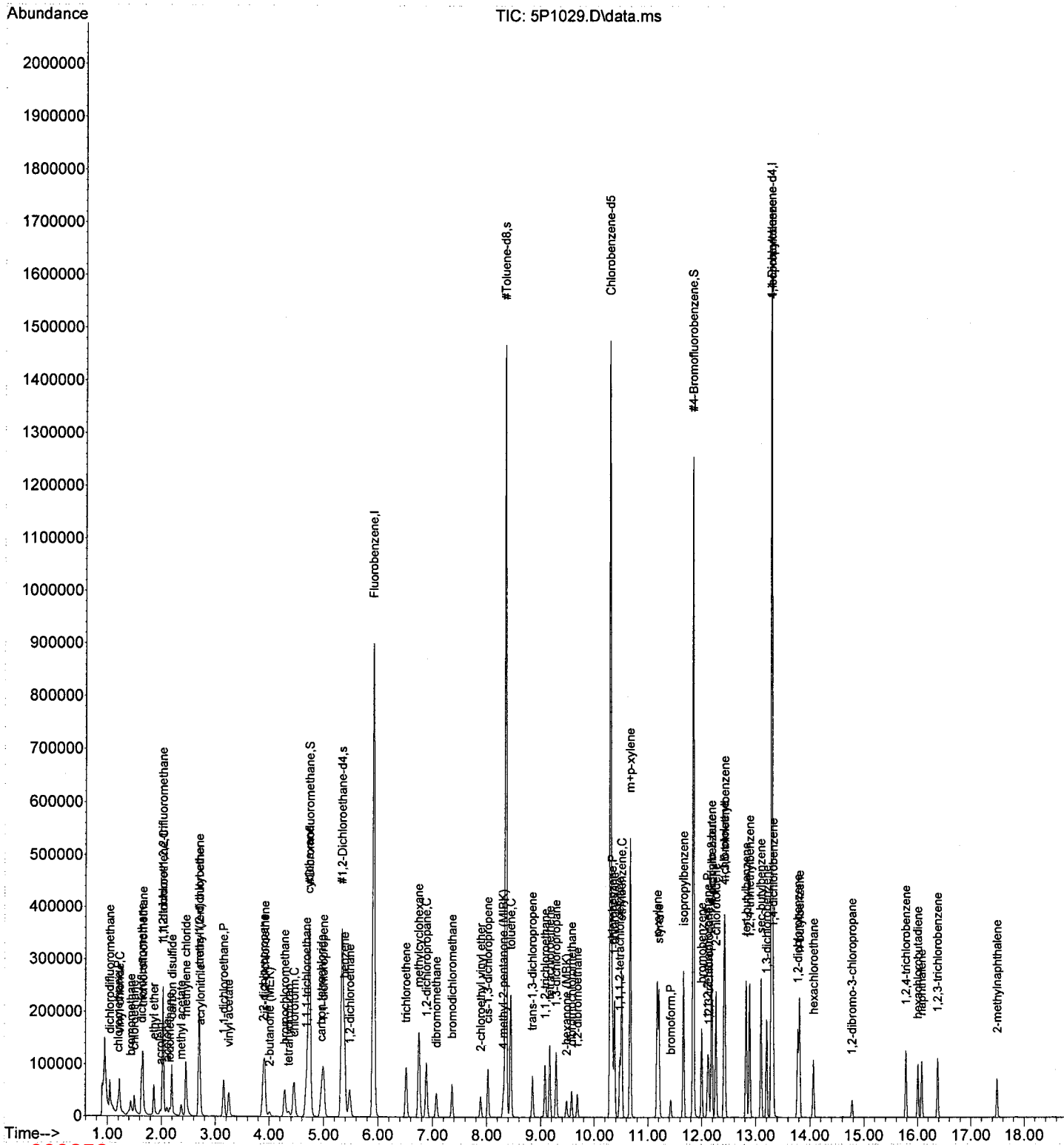
Quant Time: Oct 29 14:43:15 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Mon Oct 19 14:30:36 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	7.360	83	8122	0.77	ug/L	98
44) 2-chloroethyl vinyl ether	7.890	63	3031	0.68	ug/L	97
45) cis-1,3-dichloropropene	8.024	75	8794	0.68	ug/L	93
46) 4-methyl-2-pentanone (...)	8.317	43	6348	0.66	ug/L #	85
48) toluene	8.451	91	31569	0.86	ug/L	99
49) trans-1,3-dichloropropene	8.853	75	6723	2.88	ug/L	92
50) 1,1,2-trichloroethane	9.079	83	5143	0.82	ug/L	95
52) tetrachloroethene	9.177	166	6774	0.87	ug/L	97
53) 1,3-dichloropropane	9.292	76	12615	0.96	ug/L	100
54) 2-hexanone (MBK)	9.481	43	4621	0.78	ug/L	92
55) dibromochloromethane	9.579	129	4284	3.03	ug/L	99
56) 1,2-dibromoethane	9.683	109	5161	0.87	ug/L	99
57) chlorobenzene	10.341	112	19837	1.00	ug/L	98
58) 1-chlorohexane	10.378	55	9797	0.93	ug/L	85
59) 1,1,1,2-tetrachloroethane	10.475	131	4530	0.75	ug/L	97
60) ethylbenzene	10.512	91	34616	0.88	ug/L	99
61) m+p-xylene	10.670	106	24442	1.76	ug/L	96
62) o-xylene	11.176	106	11319	0.85	ug/L	97
63) styrene	11.207	104	18905	0.83	ug/L	97
64) bromoform	11.426	173	2392	4.02	ug/L	97
67) isopropylbenzene	11.664	105	29338	0.87	ug/L	98
68) bromobenzene	11.999	77	14580	0.99	ug/L	97
69) 1,1,2,2-tetrachloroethane	12.109	83	7994	0.92	ug/L #	97
70) 1,2,3-trichloropropane	12.127	110	2386	0.99	ug/L	91
71) 1,4-dichloro-2-butene	12.182	53	2332	0.85	ug/L #	67
72) n-propylbenzene	12.188	120	7551	0.86	ug/L	97
73) 2-chlorotoluene	12.261	126	6668	0.91	ug/L	94
74) 1,3,5-trimethylbenzene	12.426	105	25541	0.87	ug/L	98
75) 4-chlorotoluene	12.414	91	27442	0.95	ug/L	98
76) tert-butylbenzene	12.822	119	19938	0.85	ug/L	99
77) 1,2,4-trimethylbenzene	12.889	105	23323	0.84	ug/L	99
78) sec-butylbenzene	13.097	105	29167	0.82	ug/L	97
79) 1,3-dichlorobenzene	13.206	146	13430	0.98	ug/L	96
80) 4-isopropyltoluene	13.298	119	24458	0.83	ug/L	93
81) 1,4-dichlorobenzene	13.322	146	14088	1.02	ug/L	89
82) 1,2-dichlorobenzene	13.779	146	11938	0.96	ug/L	99
83) n-butylbenzene	13.810	91	20235	0.76	ug/L	99
84) hexachloroethane	14.066	201	1723	5.50	ug/L #	55
85) 1,2-dibromo-3-chloropr...	14.773	157	963	3.35	ug/L #	82
86) 1,2,4-trichlorobenzene	15.779	180	7424	0.88	ug/L	99
87) hexachlorobutadiene	16.011	225	5083	1.21	ug/L	99
88) naphthalene	16.084	128	16059	0.80	ug/L	99
89) 1,2,3-trichlorobenzene	16.383	180	6477	0.86	ug/L	97
90) 2-methylnaphthalene	17.492	142	8503	0.73	ug/L	100

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 5P1029.D
Acq On : 29 Oct 2015 11:09
Operator : BAG
Sample : STD2
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 29 14:43:58 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Mon Oct 19 14:30:36 2015
Response via : Initial Calibration



Page: 3

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 5P1029.D
 Acq On : 29 Oct 2015 11:09
 Operator : BAG
 Sample : STD2
 Misc :
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 29 14:43:58 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Mon Oct 19 14:30:36 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.915	96	997735	40.00	ug/L	0.03
51) Chlorobenzene-d5	10.304	117	690374	40.00	ug/L	0.02
66) 1,4-Dichlorobenzene-d4	13.292	152	342354	40.00	ug/L	# 0.02
System Monitoring Compounds						
29) #Dibromofluoromethane	4.738	111	249641	39.75	ug/L	0.04
Spiked Amount 40.000			Recovery	=	99.38%	
37) #1,2-Dichloroethane-d4	5.342	67	193061	42.36	ug/L	0.04
Spiked Amount 40.000			Recovery	=	105.90%	
47) #Toluene-d8	8.360	98	953970	38.70	ug/L	0.02
Spiked Amount 40.000			Recovery	=	96.75%	
65) #4-Bromofluorobenzene	11.847	95	406164	40.77	ug/L	0.02
Spiked Amount 40.000			Recovery	=	101.93%	
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	1.044	85	55684	5.45	ug/L	98
3) chloromethane	1.203	50	49191	4.47	ug/L	99
4) vinyl chloride	1.227	62	53064	4.55	ug/L	95
5) bromomethane	1.434	94	14211	4.77	ug/L	99
6) chloroethane	1.495	64	30512	5.02	ug/L	98
7) dichlorofluoromethane	1.635	67	86006	4.76	ug/L	99
8) trichlorofluoromethane	1.660	101	66451	5.04	ug/L	100
9) ethyl ether	1.861	74	20667	4.33	ug/L	96
10) acrolein	1.977	56	6908	3.99	ug/L	# 97
11) 1,1,2-trichloro-1,2,2-...	2.026	101	46930	4.57	ug/L	99
12) 1,1-dichloroethene	2.032	96	41305	4.51	ug/L	94
13) acetone	2.105	43	20907	4.31	ug/L	# 86
14) iodomethane	2.154	142	14493	6.70	ug/L	99
15) carbon disulfide	2.196	76	106272	4.44	ug/L	99
16) methyl acetate	2.367	43	29890	4.03	ug/L	97
17) methylene chloride	2.452	49	78255	5.01	ug/L	97
18) acrylonitrile	2.721	53	16233	4.20	ug/L	99
19) trans-1,2-dichloroethene	2.696	96	37171	4.49	ug/L	96
20) methyl (tert) butyl ether	2.702	73	97470	4.23	ug/L	100
21) 1,1-dichloroethane	3.153	63	80012	4.45	ug/L	99
22) vinyl acetate	3.251	43	85869	4.21	ug/L	98
23) 2,2-dichloropropane	3.891	77	50202	4.26	ug/L	98
24) cis-1,2-dichloroethene	3.922	96	39299	4.30	ug/L	94
25) 2-butanone (MEK)	4.007	43	18342	4.22	ug/L	93
26) bromochloromethane	4.287	49	41601	4.64	ug/L	98
27) tetrahydrofuran	4.354	71	3213	5.29	ug/L	# 80
28) chloroform	4.458	83	75260	4.65	ug/L	99
30) 1,1,1-trichloroethane	4.684	97	58812	4.58	ug/L	96
31) cyclohexane	4.726	56	86667	4.43	ug/L	99
32) carbon tetrachloride	4.958	117	44799	4.47	ug/L	97
33) 1,1-dichloropropene	4.995	75	60313	4.54	ug/L	99
34) benzene	5.385	78	166948	4.53	ug/L	# 64
35) 1,2-dichloroethane	5.482	62	63064	4.94	ug/L	98
36) heptane	5.915	57	44852	No Calib		
38) trichloroethene	6.513	130	35980	4.37	ug/L	98
39) methylcyclohexane	6.744	83	72604	4.33	ug/L	97
40) 1,2-dichloropropane	6.884	63	42881	4.30	ug/L	98
41) dibromomethane	7.067	93	21684	4.40	ug/L	98
42) 1,4-dioxane	0.000		0	N.D.		

000354

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 5P1029.D
 Acq On : 29 Oct 2015 11:09
 Operator : BAG
 Sample : STD2
 Misc :
 ALS Vial : 8 Sample Multiplier: 1

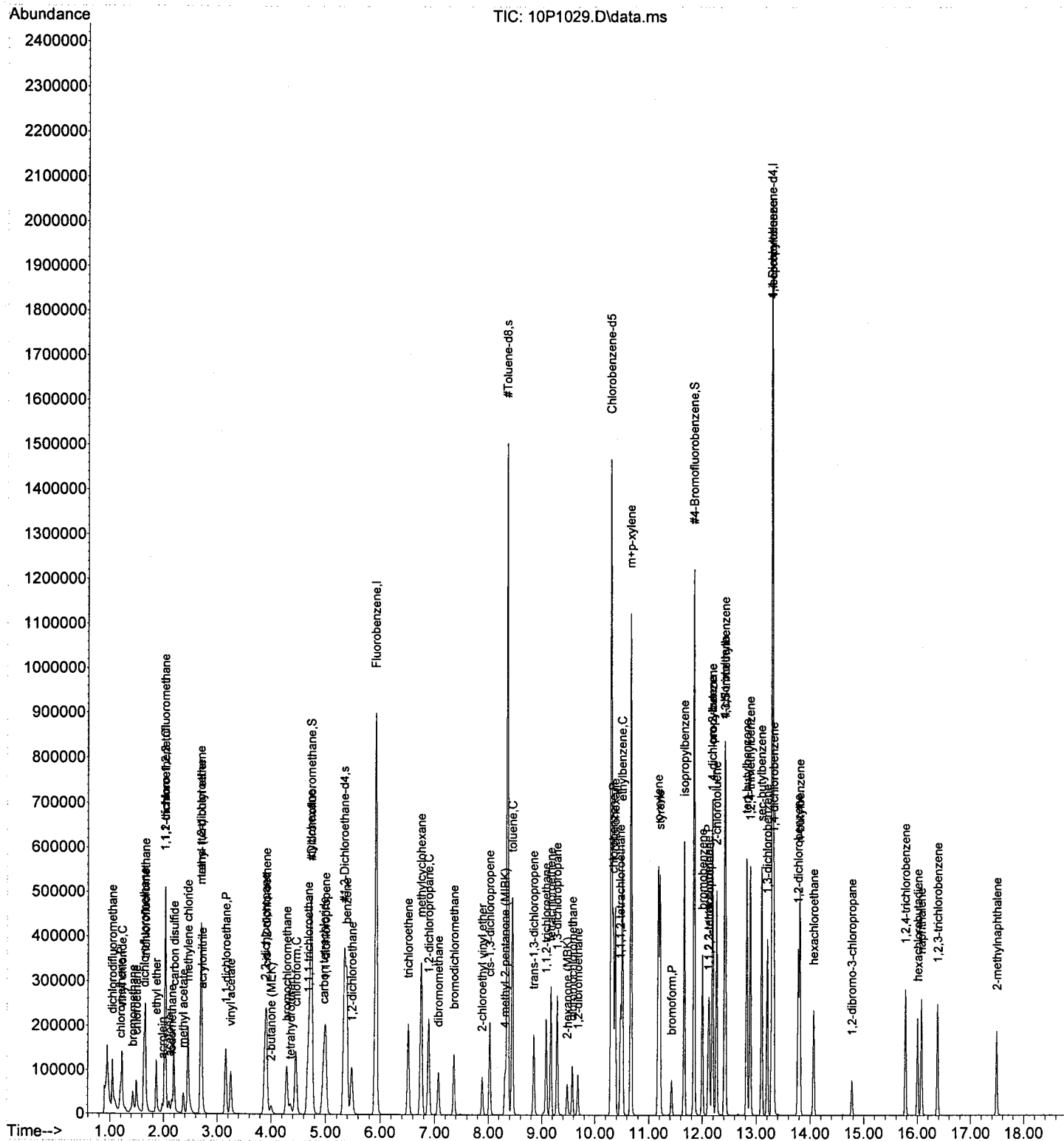
Quant Time: Oct 29 14:43:58 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Mon Oct 19 14:30:36 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	7.360	83	46095	4.37	ug/L	99
44) 2-chloroethyl vinyl ether	7.890	63	17790	4.01	ug/L	98
45) cis-1,3-dichloropropene	8.024	75	50604	3.92	ug/L	94
46) 4-methyl-2-pentanone (...)	8.311	43	41158	4.31	ug/L #	89
48) toluene	8.451	91	166701	4.53	ug/L	100
49) trans-1,3-dichloropropene	8.847	75	38519	5.43	ug/L	93
50) 1,1,2-trichloroethane	9.085	83	27343	4.36	ug/L	98
52) tetrachloroethene	9.171	166	37340	4.84	ug/L	99
53) 1,3-dichloropropane	9.286	76	63657	4.86	ug/L	98
54) 2-hexanone (MBK)	9.481	43	25744	4.36	ug/L	94
55) dibromochloromethane	9.579	129	24253	5.96	ug/L	100
56) 1,2-dibromoethane	9.683	109	27081	4.57	ug/L	100
57) chlorobenzene	10.335	112	97862	4.96	ug/L	92
58) 1-chlorohexane	10.378	55	54857	5.23	ug/L	88
59) 1,1,1,2-tetrachloroethane	10.475	131	27155	4.53	ug/L	99
60) ethylbenzene	10.512	91	193529	4.95	ug/L	99
61) m+p-xylene	10.670	106	137698	9.95	ug/L	97
62) o-xylene	11.176	106	62414	4.72	ug/L	96
63) styrene	11.207	104	107987	4.75	ug/L	97
64) bromoform	11.426	173	13883	6.47	ug/L	99
67) isopropylbenzene	11.664	105	170504	4.98	ug/L	99
68) bromobenzene	11.999	77	74902	5.05	ug/L	98
69) 1,1,2,2-tetrachloroethane	12.109	83	42221	4.80	ug/L #	99
70) 1,2,3-trichloropropane	12.133	110	12096	4.96	ug/L	93
71) 1,4-dichloro-2-butene	12.182	53	13025	4.68	ug/L #	76
72) n-propylbenzene	12.188	120	43818	4.96	ug/L	96
73) 2-chlorotoluene	12.261	126	36475	4.95	ug/L	94
74) 1,3,5-trimethylbenzene	12.426	105	149942	5.07	ug/L	98
75) 4-chlorotoluene	12.414	91	149797	5.13	ug/L	99
76) tert-butylbenzene	12.822	119	114875	4.85	ug/L	97
77) 1,2,4-trimethylbenzene	12.889	105	138927	4.94	ug/L	98
78) sec-butylbenzene	13.097	105	170711	4.78	ug/L	100
79) 1,3-dichlorobenzene	13.200	146	66866	4.85	ug/L	99
80) 4-isopropyltoluene	13.298	119	138174	4.67	ug/L	98
81) 1,4-dichlorobenzene	13.322	146	68819	4.92	ug/L	94
82) 1,2-dichlorobenzene	13.779	146	61244	4.90	ug/L	99
83) n-butylbenzene	13.810	91	120051	4.44	ug/L	99
84) hexachloroethane	14.066	201	9744	7.74	ug/L #	71
85) 1,2-dibromo-3-chloropr...	14.779	157	6245	5.81	ug/L	90
86) 1,2,4-trichlorobenzene	15.779	180	35205	4.14	ug/L	99
87) hexachlorobutadiene	16.005	225	18565	4.39	ug/L	98
88) naphthalene	16.078	128	79080	3.89	ug/L	98
89) 1,2,3-trichlorobenzene	16.376	180	30667	4.03	ug/L	99
90) 2-methylnaphthalene	17.486	142	33841	2.87	ug/L	96

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

```
Data Path : C:\msdchem\1\DATA\10-29-15\  
InstName  : 328  
Data File : 10P1029.D  
Acq On    : 29 Oct 2015   11:38  
Operator  : BAG  
Sample    : STD3  
Misc      :  
ALS Vial  : 9      Sample Multiplier: 1
```

Quant Time: Oct 29 14:43:07 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Mon Oct 19 14:30:36 2015
Response via : Initial Calibration



000356

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 10P1029.D
 Acq On : 29 Oct 2015 11:38
 Operator : BAG
 Sample : STD3
 Misc :
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 29 14:43:07 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Mon Oct 19 14:30:36 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.915	96	995265	40.00	ug/L	0.03
51) Chlorobenzene-d5	10.304	117	692402	40.00	ug/L	0.02
66) 1,4-Dichlorobenzene-d4	13.292	152	343680	40.00	ug/L	0.02
System Monitoring Compounds						
29) #Dibromofluoromethane	4.739	111	249601	39.85	ug/L	0.04
Spiked Amount 40.000			Recovery	=	99.63%	
37) #1,2-Dichloroethane-d4	5.342	67	191937	42.22	ug/L	0.04
Spiked Amount 40.000			Recovery	=	105.55%	
47) #Toluene-d8	8.360	98	962548	39.15	ug/L	0.02
Spiked Amount 40.000			Recovery	=	97.88%	
65) #4-Bromofluorobenzene	11.847	95	404993	40.53	ug/L	0.02
Spiked Amount 40.000			Recovery	=	101.33%	
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	1.044	85	114214	10.46	ug/L	99
3) chloromethane	1.203	50	101978	9.28	ug/L	99
4) vinyl chloride	1.227	62	106806	9.18	ug/L	96
5) bromomethane	1.428	94	28705	9.67	ug/L	98
6) chloroethane	1.495	64	61586	10.17	ug/L	99
7) dichlorofluoromethane	1.635	67	176781	9.81	ug/L	100
8) trichlorofluoromethane	1.660	101	134845	10.25	ug/L	99
9) ethyl ether	1.861	74	42811	9.00	ug/L	97
10) acrolein	1.977	56	14551	8.43	ug/L	# 99
11) 1,1,2-trichloro-1,2,2-...	2.026	101	98517	9.61	ug/L	100
12) 1,1-dichloroethene	2.032	96	84093	9.20	ug/L	94
13) acetone	2.105	43	35178	8.30	ug/L	93
14) iodomethane	2.154	142	35620	9.07	ug/L	96
15) carbon disulfide	2.196	76	207398	8.69	ug/L	100
16) methyl acetate	2.367	43	63711	8.61	ug/L	100
17) methylene chloride	2.452	49	150108	9.86	ug/L	97
18) acrylonitrile	2.721	53	37022	9.60	ug/L	97
19) trans-1,2-dichloroethene	2.696	96	76504	9.26	ug/L	96
20) methyl (tert) butyl ether	2.702	73	210519	9.16	ug/L	99
21) 1,1-dichloroethane	3.160	63	168680	9.40	ug/L	100
22) vinyl acetate	3.251	43	178821	8.78	ug/L	99
23) 2,2-dichloropropane	3.891	77	108865	9.27	ug/L	98
24) cis-1,2-dichloroethene	3.915	96	84033	9.22	ug/L	96
25) 2-butanone (MEK)	4.001	43	37017	8.55	ug/L	96
26) bromochloromethane	4.287	49	86925	9.72	ug/L	98
27) tetrahydrofuran	4.354	71	7047	9.11	ug/L	82
28) chloroform	4.458	83	155966	9.66	ug/L	100
30) 1,1,1-trichloroethane	4.684	97	123674	9.65	ug/L	97
31) cyclohexane	4.726	56	186657	9.57	ug/L	99
32) carbon tetrachloride	4.964	117	98326	9.83	ug/L	100
33) 1,1-dichloropropene	4.995	75	127624	9.64	ug/L	99
34) benzene	5.385	78	347416	9.44	ug/L	# 65
35) 1,2-dichloroethane	5.482	62	131672	10.34	ug/L	98
36) heptane	5.915	57	44489	No Calib		
38) trichloroethene	6.513	130	74535	9.07	ug/L	98
39) methylcyclohexane	6.750	83	155301	9.28	ug/L	97
40) 1,2-dichloropropane	6.884	63	91898	9.24	ug/L	99
41) dibromomethane	7.067	93	45506	9.25	ug/L	98
42) 1,4-dioxane	0.000		0	N.D.		

000357

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 10P1029.D
 Acq On : 29 Oct 2015 11:38
 Operator : BAG
 Sample : STD3
 Misc :
 ALS Vial : 9 Sample Multiplier: 1

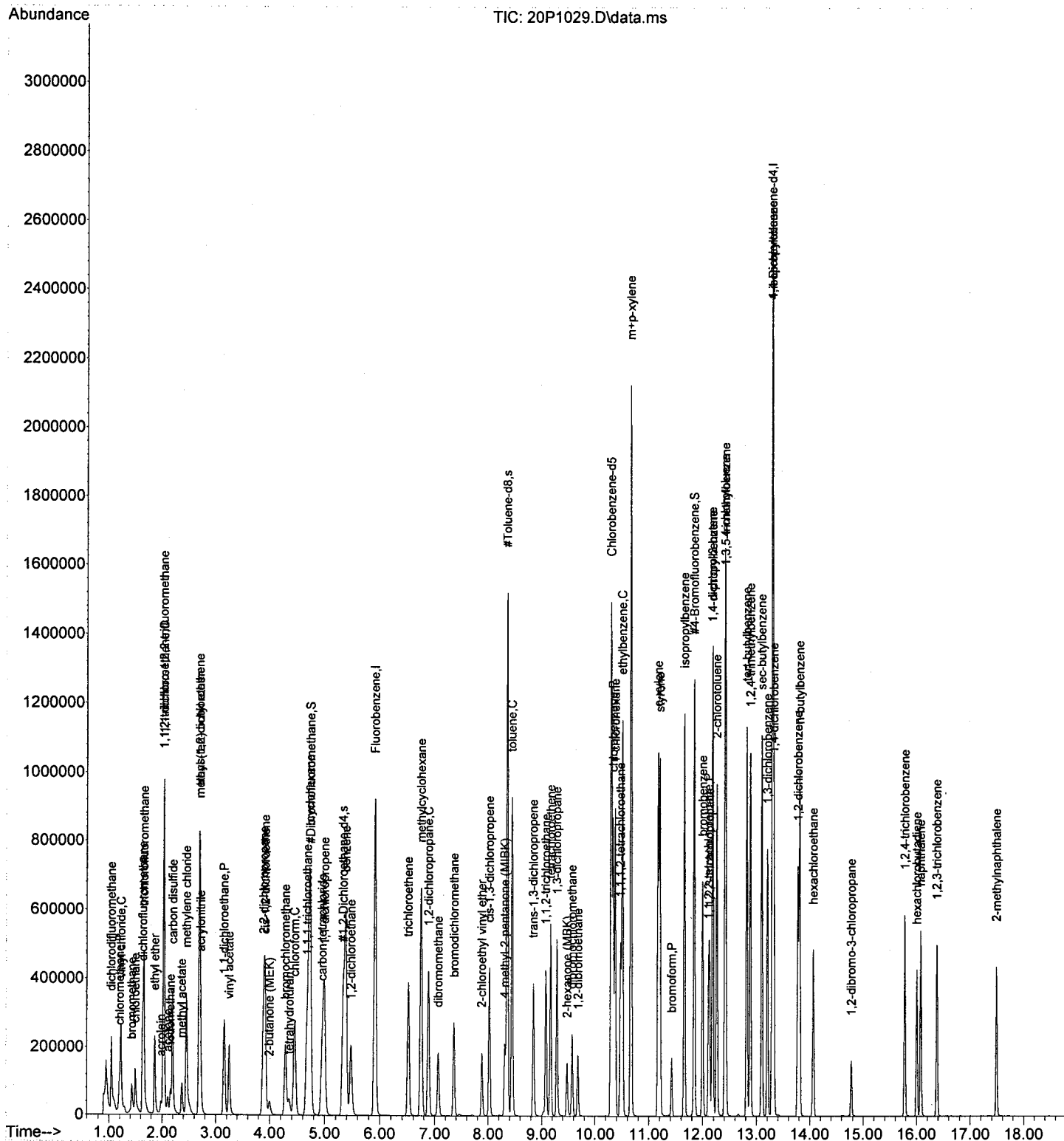
Quant Time: Oct 29 14:43:07 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Mon Oct 19 14:30:36 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	7.360	83	100202	9.53	ug/L	99
44) 2-chloroethyl vinyl ether	7.884	63	37544	8.48	ug/L	100
45) cis-1,3-dichloropropene	8.024	75	113228	8.79	ug/L	94
46) 4-methyl-2-pentanone (...)	8.311	43	83492	8.76	ug/L #	94
48) toluene	8.451	91	348877	9.50	ug/L	99
49) trans-1,3-dichloropropene	8.847	75	90200	9.58	ug/L	94
50) 1,1,2-trichloroethane	9.079	83	58684	9.37	ug/L	98
52) tetrachloroethene	9.171	166	77835	10.05	ug/L	99
53) 1,3-dichloropropane	9.286	76	136565	10.40	ug/L	99
54) 2-hexanone (MBK)	9.481	43	56619	9.56	ug/L	96
55) dibromochloromethane	9.579	129	55317	10.49	ug/L	100
56) 1,2-dibromoethane	9.683	109	59151	9.94	ug/L	100
57) chlorobenzene	10.341	112	201158	10.17	ug/L	95
58) 1-chlorohexane	10.378	55	113896	10.82	ug/L	92
59) 1,1,1,2-tetrachloroethane	10.475	131	60121	9.99	ug/L	99
60) ethylbenzene	10.512	91	408740	10.42	ug/L	98
61) m+p-xylene	10.670	106	286744	20.66	ug/L	95
62) o-xylene	11.176	106	133517	10.07	ug/L	97
63) styrene	11.207	104	233214	10.23	ug/L	96
64) bromoform	11.426	173	33046	10.52	ug/L	99
67) isopropylbenzene	11.664	105	369073	10.74	ug/L	98
68) bromobenzene	11.999	77	160469	10.79	ug/L	98
69) 1,1,2,2-tetrachloroethane	12.109	83	91266	10.33	ug/L #	100
70) 1,2,3-trichloropropane	12.127	110	26473	10.82	ug/L	95
71) 1,4-dichloro-2-butene	12.182	53	30678	10.98	ug/L #	79
72) n-propylbenzene	12.188	120	93482	10.54	ug/L	97
73) 2-chlorotoluene	12.261	126	78196	10.56	ug/L	98
74) 1,3,5-trimethylbenzene	12.426	105	320345	10.78	ug/L	98
75) 4-chlorotoluene	12.414	91	320260	10.92	ug/L	98
76) tert-butylbenzene	12.822	119	250125	10.52	ug/L	98
77) 1,2,4-trimethylbenzene	12.889	105	302064	10.69	ug/L	98
78) sec-butylbenzene	13.097	105	371357	10.36	ug/L	99
79) 1,3-dichlorobenzene	13.200	146	143133	10.33	ug/L	99
80) 4-isopropyltoluene	13.298	119	302425	10.17	ug/L	98
81) 1,4-dichlorobenzene	13.322	146	144640	10.29	ug/L	96
82) 1,2-dichlorobenzene	13.779	146	130162	10.37	ug/L	99
83) n-butylbenzene	13.810	91	268915	9.91	ug/L	98
84) hexachloroethane	14.066	201	22681	11.33	ug/L #	81
85) 1,2-dibromo-3-chloropr...	14.779	157	15657	10.18	ug/L	95
86) 1,2,4-trichlorobenzene	15.779	180	77411	9.06	ug/L	100
87) hexachlorobutadiene	16.011	225	37451	8.82	ug/L	98
88) naphthalene	16.078	128	190480	9.34	ug/L	99
89) 1,2,3-trichlorobenzene	16.383	180	68360	8.94	ug/L	98
90) 2-methylnaphthalene	17.492	142	85143	7.19	ug/L	98

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


```
Data Path : C:\msdchem\1\DATA\10-29-15\  
InstName : 328  
Data File : 20P1029.D  
Acq On : 29 Oct 2015 12:07  
Operator : BAG  
Sample : STD4  
Misc :  
ALS Vial : 10 Sample Multiplier: 1
```

Quant Time: Oct 29 14:43:46 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Mon Oct 19 14:30:36 2015
Response via : Initial Calibration



000359

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 20P1029.D
 Acq On : 29 Oct 2015 12:07
 Operator : BAG
 Sample : STD4
 Misc :
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 29 14:43:46 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Mon Oct 19 14:30:36 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.915	96	1022082	40.00	ug/L	0.03
51) Chlorobenzene-d5	10.305	117	708679	40.00	ug/L	0.02
66) 1,4-Dichlorobenzene-d4	13.292	152	355087	40.00	ug/L	0.02
System Monitoring Compounds						
29) #Dibromofluoromethane	4.739	111	258670	40.21	ug/L	0.04
Spiked Amount 40.000			Recovery	=	100.52%	
37) #1,2-Dichloroethane-d4	5.336	67	196625	42.11	ug/L	0.03
Spiked Amount 40.000			Recovery	=	105.28%	
47) #Toluene-d8	8.360	98	985876	39.05	ug/L	0.02
Spiked Amount 40.000			Recovery	=	97.63%	
65) #4-Bromofluorobenzene	11.847	95	417914	40.87	ug/L	0.02
Spiked Amount 40.000			Recovery	=	102.18%	
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	1.044	85	218331	18.87	ug/L	99
3) chloromethane	1.203	50	196381	17.40	ug/L	99
4) vinyl chloride	1.227	62	205422	17.20	ug/L	99
5) bromomethane	1.428	94	55420	18.17	ug/L	99
6) chloroethane	1.495	64	114170	18.35	ug/L	100
7) dichlorofluoromethane	1.636	67	336868	18.21	ug/L	100
8) trichlorofluoromethane	1.660	101	261499	19.37	ug/L	100
9) ethyl ether	1.861	74	82758	16.94	ug/L	98
10) acrolein	1.977	56	27778	15.67	ug/L	98
11) 1,1,2-trichloro-1,2,2-...	2.026	101	188850	17.94	ug/L	100
12) 1,1-dichloroethene	2.032	96	160808	17.13	ug/L	92
13) acetone	2.105	43	65052	16.15	ug/L	95
14) iodomethane	2.154	142	92187	15.14	ug/L	97
15) carbon disulfide	2.196	76	415329	16.95	ug/L	100
16) methyl acetate	2.367	43	130352	17.16	ug/L	99
17) methylene chloride	2.452	49	275968	17.86	ug/L	97
18) acrylonitrile	2.721	53	70642	17.84	ug/L	99
19) trans-1,2-dichloroethene	2.696	96	146397	17.25	ug/L	97
20) methyl (tert) butyl ether	2.702	73	406966	17.24	ug/L	99
21) 1,1-dichloroethane	3.153	63	323766	17.56	ug/L	100
22) vinyl acetate	3.251	43	377189	18.03	ug/L	99
23) 2,2-dichloropropane	3.891	77	217934	18.06	ug/L	98
24) cis-1,2-dichloroethene	3.922	96	162226	17.33	ug/L	95
25) 2-butanone (MEK)	3.995	43	73351	16.49	ug/L	98
26) bromochloromethane	4.287	49	167389	18.22	ug/L	98
27) tetrahydrofuran	4.354	71	14648	16.29	ug/L	86
28) chloroform	4.452	83	300318	18.11	ug/L	99
30) 1,1,1-trichloroethane	4.684	97	244846	18.60	ug/L	97
31) cyclohexane	4.726	56	362891	18.12	ug/L	100
32) carbon tetrachloride	4.958	117	194405	18.92	ug/L	100
33) 1,1-dichloropropene	5.001	75	247164	18.18	ug/L	99
34) benzene	5.385	78	665427	17.61	ug/L	83
35) 1,2-dichloroethane	5.476	62	250920	19.18	ug/L	98
36) heptane	5.915	57	46361	No Calib		
38) trichloroethene	6.513	130	143802	17.05	ug/L	98
39) methylcyclohexane	6.750	83	302464	17.60	ug/L	98
40) 1,2-dichloropropane	6.884	63	177890	17.42	ug/L	100
41) dibromomethane	7.067	93	88663	17.54	ug/L	99
42) 1,4-dioxane	0.000		0	N.D.		

000360

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 20P1029.D
 Acq On : 29 Oct 2015 12:07
 Operator : BAG
 Sample : STD4
 Misc :
 ALS Vial : 10 Sample Multiplier: 1

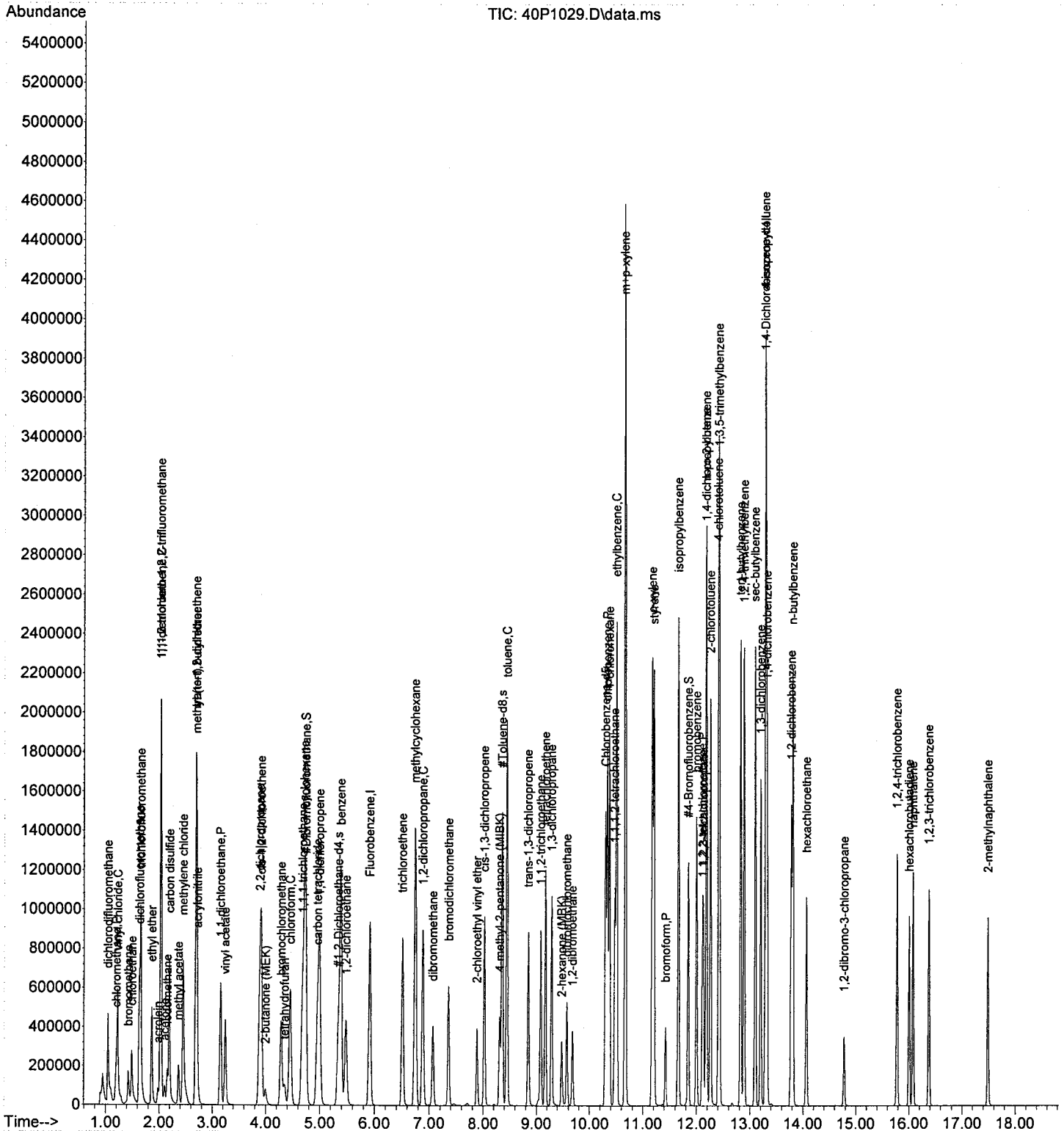
Quant Time: Oct 29 14:43:46 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Mon Oct 19 14:30:36 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	7.360	83	197381	18.28	ug/L	100
44) 2-chloroethyl vinyl ether	7.884	63	80201	17.65	ug/L	100
45) cis-1,3-dichloropropene	8.024	75	235262	17.78	ug/L	94
46) 4-methyl-2-pentanone (...)	8.311	43	176547	18.04	ug/L #	98
48) toluene	8.445	91	664140	17.61	ug/L	100
49) trans-1,3-dichloropropene	8.848	75	190415	17.23	ug/L	96
50) 1,1,2-trichloroethane	9.079	83	114130	17.75	ug/L	99
52) tetrachloroethene	9.171	166	151557	19.12	ug/L	99
53) 1,3-dichloropropane	9.286	76	262913	19.56	ug/L	99
54) 2-hexanone (MBK)	9.482	43	123294	20.34	ug/L	96
55) dibromochloromethane	9.573	129	114567	18.76	ug/L	98
56) 1,2-dibromoethane	9.683	109	116394	19.12	ug/L	100
57) chlorobenzene	10.335	112	381708	18.85	ug/L	97
58) 1-chlorohexane	10.378	55	219057	20.34	ug/L	94
59) 1,1,1,2-tetrachloroethane	10.475	131	120933	19.64	ug/L	98
60) ethylbenzene	10.512	91	789288	19.65	ug/L	99
61) m+p-xylene	10.670	106	555595	39.11	ug/L	97
62) o-xylene	11.176	106	259940	19.16	ug/L	97
63) styrene	11.207	104	455460	19.51	ug/L	97
64) bromoform	11.426	173	69388	17.89	ug/L	99
67) isopropylbenzene	11.664	105	716620	20.19	ug/L	99
68) bromobenzene	11.999	77	310123	20.18	ug/L	98
69) 1,1,2,2-tetrachloroethane	12.109	83	178748	19.58	ug/L #	99
70) 1,2,3-trichloropropane	12.127	110	51235	20.28	ug/L	95
71) 1,4-dichloro-2-butene	12.182	53	61049	21.15	ug/L	87
72) n-propylbenzene	12.188	120	179864	19.62	ug/L	93
73) 2-chlorotoluene	12.261	126	148870	19.47	ug/L	95
74) 1,3,5-trimethylbenzene	12.426	105	622795	20.29	ug/L	98
75) 4-chlorotoluene	12.414	91	618767	20.42	ug/L	99
76) tert-butylbenzene	12.822	119	490092	19.95	ug/L	97
77) 1,2,4-trimethylbenzene	12.889	105	588402	20.15	ug/L	98
78) sec-butylbenzene	13.097	105	735437	19.85	ug/L	99
79) 1,3-dichlorobenzene	13.200	146	276899	19.35	ug/L	100
80) 4-isopropyltoluene	13.298	119	597465	19.45	ug/L	98
81) 1,4-dichlorobenzene	13.322	146	278249	19.16	ug/L	99
82) 1,2-dichlorobenzene	13.779	146	253088	19.52	ug/L	99
83) n-butylbenzene	13.810	91	540069	19.26	ug/L	99
84) hexachloroethane	14.066	201	49177	18.28	ug/L	92
85) 1,2-dibromo-3-chloropr...	14.779	157	32948	17.74	ug/L	96
86) 1,2,4-trichlorobenzene	15.779	180	155294	17.59	ug/L	100
87) hexachlorobutadiene	16.005	225	75769	17.27	ug/L	99
88) naphthalene	16.078	128	382442	18.15	ug/L	99
89) 1,2,3-trichlorobenzene	16.377	180	137989	17.47	ug/L	99
90) 2-methylnaphthalene	17.486	142	184677	15.09	ug/L	98

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 40P1029.D
Acq On : 29 Oct 2015 12:35
Operator : BAG
Sample : STD5
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 29 14:43:53 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Mon Oct 19 14:30:36 2015
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 40P1029.D
 Acq On : 29 Oct 2015 12:35
 Operator : BAG
 Sample : STD5
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 29 14:43:53 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Mon Oct 19 14:30:36 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.915	96	1028811	40.00	ug/L	0.03
51) Chlorobenzene-d5	10.305	117	717873	40.00	ug/L	0.02
66) 1,4-Dichlorobenzene-d4	13.292	152	357696	40.00	ug/L	0.02
System Monitoring Compounds						
29) #Dibromofluoromethane	4.739	111	257806	39.81	ug/L	0.04
Spiked Amount 40.000			Recovery	=	99.53%	
37) #1,2-Dichloroethane-d4	5.342	67	197779	42.08	ug/L	0.04
Spiked Amount 40.000			Recovery	=	105.20%	
47) #Toluene-d8	8.360	98	989970	38.95	ug/L	0.02
Spiked Amount 40.000			Recovery	=	97.38%	
65) #4-Bromofluorobenzene	11.847	95	411592	39.73	ug/L	0.02
Spiked Amount 40.000			Recovery	=	99.33%	
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	1.044	85	461112	38.82	ug/L	99
3) chloromethane	1.203	50	421077	37.07	ug/L	100
4) vinyl chloride	1.227	62	445758	37.08	ug/L	99
5) bromomethane	1.428	94	116260	37.87	ug/L	98
6) chloroethane	1.495	64	243268	38.85	ug/L	99
7) dichlorofluoromethane	1.635	67	719727	38.65	ug/L	100
8) trichlorofluoromethane	1.660	101	558027	41.05	ug/L	99
9) ethyl ether	1.861	74	177959	36.19	ug/L	99
10) acrolein	1.977	56	62337	34.93	ug/L	100
11) 1,1,2-trichloro-1,2,2-...	2.026	101	402221	37.97	ug/L	100
12) 1,1-dichloroethene	2.032	96	350900	37.14	ug/L	94
13) acetone	2.105	43	123237	31.72	ug/L	96
14) iodomethane	2.154	142	246521	31.80	ug/L	97
15) carbon disulfide	2.196	76	872514	35.39	ug/L	100
16) methyl acetate	2.367	43	282192	36.91	ug/L	99
17) methylene chloride	2.452	49	575918	37.31	ug/L	98
18) acrylonitrile	2.721	53	152484	38.26	ug/L	99
19) trans-1,2-dichloroethene	2.696	96	321307	37.61	ug/L	98
20) methyl (tert) butyl ether	2.702	73	881178	37.09	ug/L	100
21) 1,1-dichloroethane	3.153	63	703752	37.93	ug/L	100
22) vinyl acetate	3.245	43	808947	38.42	ug/L	99
23) 2,2-dichloropropane	3.891	77	489480	40.30	ug/L	98
24) cis-1,2-dichloroethene	3.916	96	353154	37.48	ug/L	97
25) 2-butanone (MEK)	3.995	43	147399	32.92	ug/L	98
26) bromochloromethane	4.287	49	351470	38.01	ug/L	98
27) tetrahydrofuran	4.348	71	32457	33.34	ug/L	94
28) chloroform	4.452	83	640773	38.39	ug/L	100
30) 1,1,1-trichloroethane	4.684	97	536638	40.49	ug/L	98
31) cyclohexane	4.720	56	773048	38.34	ug/L	100
32) carbon tetrachloride	4.958	117	431275	41.70	ug/L	100
33) 1,1-dichloropropene	4.995	75	534131	39.02	ug/L	99
34) benzene	5.385	78	1424907	37.46	ug/L	96
35) 1,2-dichloroethane	5.476	62	527823	40.08	ug/L	98
36) heptane	5.915	57	46120	No Calib		
38) trichloroethene	6.513	130	312639	36.82	ug/L	98
39) methylcyclohexane	6.744	83	656199	37.93	ug/L	98
40) 1,2-dichloropropane	6.884	63	380342	37.01	ug/L	100
41) dibromomethane	7.067	93	188059	36.97	ug/L	100
42) 1,4-dioxane	7.354	88	258	No Calib	#	

000363

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 40P1029.D
 Acq On : 29 Oct 2015 12:35
 Operator : BAG
 Sample : STD5
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

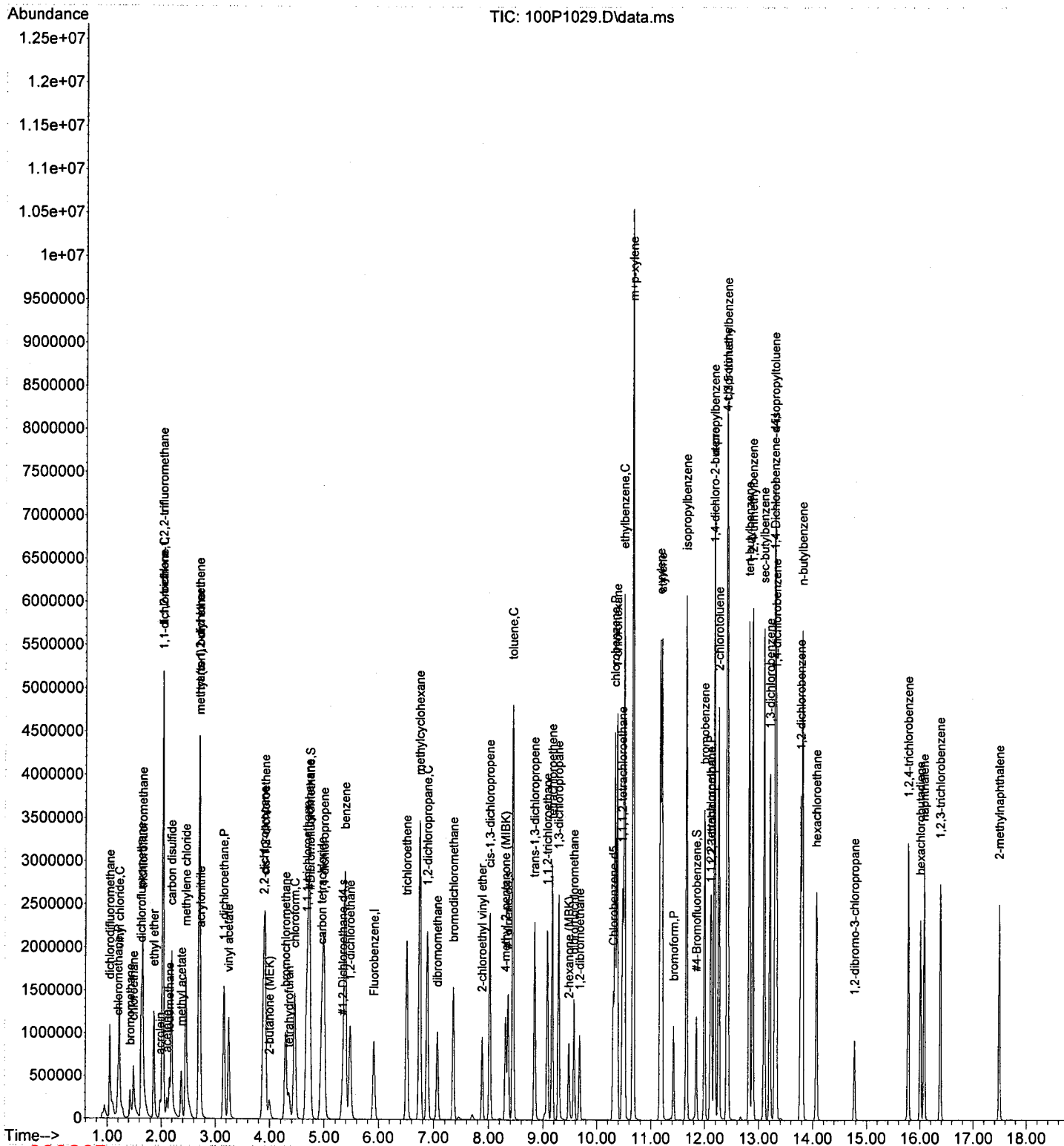
Quant Time: Oct 29 14:43:53 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Mon Oct 19 14:30:36 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	7.360	83	435537	40.06	ug/L	100
44) 2-chloroethyl vinyl ether	7.884	63	172140	37.63	ug/L	99
45) cis-1,3-dichloropropene	8.024	75	526571	39.54	ug/L	95
46) 4-methyl-2-pentanone (...)	8.311	43	368611	37.42	ug/L #	98
48) toluene	8.451	91	1423963	37.51	ug/L	100
49) trans-1,3-dichloropropene	8.847	75	432772	35.95	ug/L	95
50) 1,1,2-trichloroethane	9.079	83	243356	37.61	ug/L	99
52) tetrachloroethene	9.171	166	324177	40.38	ug/L	99
53) 1,3-dichloropropane	9.286	76	554874	40.76	ug/L	99
54) 2-hexanone (MBK)	9.475	43	257073	41.88	ug/L	98
55) dibromochloromethane	9.573	129	257826	38.74	ug/L	99
56) 1,2-dibromoethane	9.677	109	252595	40.95	ug/L	100
57) chlorobenzene	10.335	112	824868	40.22	ug/L	99
58) 1-chlorohexane	10.378	55	470321	43.11	ug/L	96
59) 1,1,1,2-tetrachloroethane	10.475	131	267453	42.88	ug/L	100
60) ethylbenzene	10.512	91	1683654	41.38	ug/L	99
61) m+p-xylene	10.670	106	1183364	82.22	ug/L	97
62) o-xylene	11.176	106	557549	40.56	ug/L	97
63) styrene	11.207	104	979434	41.42	ug/L	97
64) bromoform	11.426	173	164788	37.22	ug/L	100
67) isopropylbenzene	11.664	105	1544760	43.19	ug/L	99
68) bromobenzene	11.999	77	654640	42.29	ug/L	99
69) 1,1,2,2-tetrachloroethane	12.109	83	379276	41.25	ug/L #	100
70) 1,2,3-trichloropropane	12.127	110	109051	42.84	ug/L	97
71) 1,4-dichloro-2-butene	12.182	53	136556	46.95	ug/L	94
72) n-propylbenzene	12.188	120	391460	42.40	ug/L	97
73) 2-chlorotoluene	12.261	126	319649	41.49	ug/L	97
74) 1,3,5-trimethylbenzene	12.426	105	1320853	42.72	ug/L	99
75) 4-chlorotoluene	12.408	91	1312756	43.01	ug/L	99
76) tert-butylbenzene	12.822	119	1044497	42.22	ug/L	98
77) 1,2,4-trimethylbenzene	12.889	105	1267973	43.11	ug/L	98
78) sec-butylbenzene	13.097	105	1576368	42.24	ug/L	100
79) 1,3-dichlorobenzene	13.200	146	590497	40.96	ug/L	100
80) 4-isopropyltoluene	13.298	119	1302750	42.11	ug/L	99
81) 1,4-dichlorobenzene	13.322	146	592418	40.50	ug/L	99
82) 1,2-dichlorobenzene	13.779	146	534305	40.91	ug/L	99
83) n-butylbenzene	13.810	91	1206070	42.69	ug/L	99
84) hexachloroethane	14.066	201	117369	36.46	ug/L	98
85) 1,2-dibromo-3-chloropr...	14.779	157	73251	35.65	ug/L	95
86) 1,2,4-trichlorobenzene	15.779	180	343454	38.63	ug/L	100
87) hexachlorobutadiene	16.005	225	166296	37.62	ug/L	100
88) naphthalene	16.078	128	826024	38.91	ug/L	99
89) 1,2,3-trichlorobenzene	16.377	180	299132	37.60	ug/L	99
90) 2-methylnaphthalene	17.486	142	417619	33.88	ug/L	98

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 100P1029.D
Acq On : 29 Oct 2015 13:03
Operator : BAG
Sample : STD6
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 29 14:43:00 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Mon Oct 19 14:30:36 2015
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 100P1029.D
 Acq On : 29 Oct 2015 13:03
 Operator : BAG
 Sample : STD6
 Misc :
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 29 14:43:00 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Mon Oct 19 14:30:36 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.915	96	1013696	40.00	ug/L	0.03
51) Chlorobenzene-d5	10.305	117	709327	40.00	ug/L	0.02
66) 1,4-Dichlorobenzene-d4	13.292	152	346510	40.00	ug/L	# 0.02
System Monitoring Compounds						
29) #Dibromofluoromethane	4.739	111	254368	39.87	ug/L	0.04
Spiked Amount 40.000			Recovery	=	99.67%	
37) #1,2-Dichloroethane-d4	5.342	67	196177	42.36	ug/L	0.04
Spiked Amount 40.000			Recovery	=	105.90%	
47) #Toluene-d8	8.360	98	977177	39.02	ug/L	0.02
Spiked Amount 40.000			Recovery	=	97.55%	
65) #4-Bromofluorobenzene	11.847	95	406602	39.72	ug/L	0.02
Spiked Amount 40.000			Recovery	=	99.30%	
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	1.044	85	1132606	95.73	ug/L	100
3) chloromethane	1.203	50	1053297	94.11	ug/L	100
4) vinyl chloride	1.221	62	1112126	93.88	ug/L	100
5) bromomethane	1.428	94	263725	87.20	ug/L	100
6) chloroethane	1.489	64	553907	89.77	ug/L	100
7) dichlorofluoromethane	1.629	67	1754247	95.60	ug/L	100
8) trichlorofluoromethane	1.654	101	1347509	100.61	ug/L	100
9) ethyl ether	1.861	74	447091	92.27	ug/L	99
10) acrolein	1.977	56	165444	94.08	ug/L	100
11) 1,1,2-trichloro-1,2,2-...	2.026	101	983262	94.20	ug/L	100
12) 1,1-dichloroethene	2.032	96	863460	92.75	ug/L	94
13) acetone	2.105	43	314228	84.47	ug/L	98
14) iodomethane	2.154	142	699685	82.06	ug/L	96
15) carbon disulfide	2.190	76	2380826	98.00	ug/L	100
16) methyl acetate	2.373	43	750931	99.68	ug/L	100
17) methylene chloride	2.452	49	1387799	91.61	ug/L	99
18) acrylonitrile	2.721	53	391101	99.58	ug/L	99
19) trans-1,2-dichloroethene	2.696	96	792203	94.11	ug/L	99
20) methyl (tert) butyl ether	2.702	73	2242588	95.81	ug/L	99
21) 1,1-dichloroethane	3.154	63	1740756	95.22	ug/L	100
22) vinyl acetate	3.245	43	2179140	105.03	ug/L	99
23) 2,2-dichloropropane	3.891	77	1256228	104.97	ug/L	97
24) cis-1,2-dichloroethene	3.916	96	869422	93.64	ug/L	97
25) 2-butanone (MEK)	3.995	43	395474	89.64	ug/L	99
26) bromochloromethane	4.287	49	838355	92.02	ug/L	99
27) tetrahydrofuran	4.348	71	87861	87.93	ug/L	96
28) chloroform	4.452	83	1578482	95.97	ug/L	100
30) 1,1,1-trichloroethane	4.684	97	1352947	103.60	ug/L	99
31) cyclohexane	4.720	56	1897126	95.50	ug/L	99
32) carbon tetrachloride	4.958	117	1099425	107.90	ug/L	100
33) 1,1-dichloropropene	4.995	75	1320547	97.91	ug/L	99
34) benzene	5.385	78	3495078	93.26	ug/L	94
35) 1,2-dichloroethane	5.476	62	1298703	100.09	ug/L	99
36) heptane	5.909	57	44582	No Calib		
38) trichloroethene	6.513	130	777823	92.97	ug/L	99
39) methylcyclohexane	6.744	83	1634664	95.89	ug/L	99
40) 1,2-dichloropropane	6.884	63	940064	92.83	ug/L	100
41) dibromomethane	7.067	93	474553	94.68	ug/L	100
42) 1,4-dioxane	7.360	88	1167	No Calib		#

000366

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 100P1029.D
 Acq On : 29 Oct 2015 13:03
 Operator : BAG
 Sample : STD6
 Misc :
 ALS Vial : 12 Sample Multiplier: 1

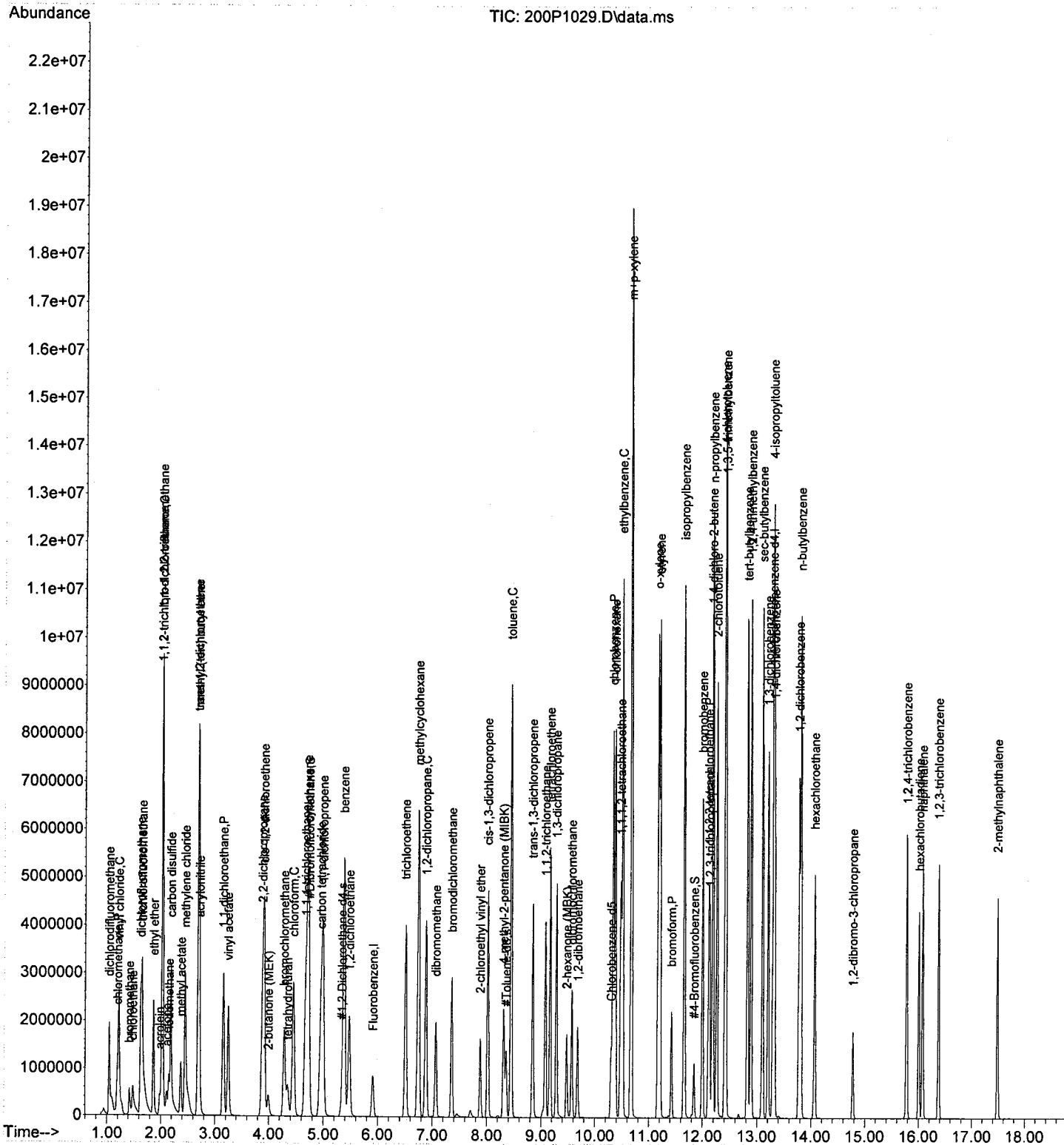
Quant Time: Oct 29 14:43:00 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Mon Oct 19 14:30:36 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	7.360	83	1112290	103.84	ug/L	99
44) 2-chloroethyl vinyl ether	7.884	63	427656	94.89	ug/L	100
45) cis-1,3-dichloropropene	8.025	75	1361198	103.73	ug/L	96
46) 4-methyl-2-pentanone (...)	8.311	43	964144	99.33	ug/L	97
48) toluene	8.451	91	3511460	93.87	ug/L	100
49) trans-1,3-dichloropropene	8.848	75	1149754	92.95	ug/L	96
50) 1,1,2-trichloroethane	9.079	83	602653	94.52	ug/L	99
52) tetrachloroethene	9.171	166	810088	102.11	ug/L	99
53) 1,3-dichloropropane	9.286	76	1359514	101.07	ug/L	99
54) 2-hexanone (MBK)	9.482	43	673145	110.97	ug/L	99
55) dibromochloromethane	9.573	129	680021	99.40	ug/L	100
56) 1,2-dibromoethane	9.683	109	639396	104.92	ug/L	99
57) chlorobenzene	10.335	112	2033920	100.36	ug/L	99
58) 1-chlorohexane	10.378	55	1147805	106.48	ug/L	98
59) 1,1,1,2-tetrachloroethane	10.475	131	684879	111.13	ug/L	99
60) ethylbenzene	10.512	91	4111473	102.27	ug/L	99
61) m+p-xylene	10.676	106	2850684	200.46	ug/L	96
62) o-xylene	11.176	106	1379804	101.59	ug/L	98
63) styrene	11.207	104	2415920	103.41	ug/L	98
64) bromoform	11.426	173	457150	98.13	ug/L	100
67) isopropylbenzene	11.664	105	3784569	109.24	ug/L	99
68) bromobenzene	11.999	77	1622106	108.16	ug/L	99
69) 1,1,2,2-tetrachloroethane	12.109	83	936385	105.12	ug/L #	100
70) 1,2,3-trichloropropane	12.127	110	266981	108.27	ug/L	98
71) 1,4-dichloro-2-butene	12.182	53	354668	125.88	ug/L	97
72) n-propylbenzene	12.188	120	958879	107.20	ug/L	98
73) 2-chlorotoluene	12.268	126	784694	105.14	ug/L	98
74) 1,3,5-trimethylbenzene	12.426	105	3217288	107.42	ug/L	98
75) 4-chlorotoluene	12.414	91	3208862	108.52	ug/L	100
76) tert-butylbenzene	12.822	119	2573902	107.39	ug/L	98
77) 1,2,4-trimethylbenzene	12.889	105	3128627	109.81	ug/L	98
78) sec-butylbenzene	13.103	105	3896511	107.78	ug/L	100
79) 1,3-dichlorobenzene	13.206	146	1461382	104.63	ug/L	99
80) 4-isopropyltoluene	13.298	119	3201462	106.83	ug/L	99
81) 1,4-dichlorobenzene	13.322	146	1456377	102.77	ug/L	99
82) 1,2-dichlorobenzene	13.779	146	1329498	105.08	ug/L	99
83) n-butylbenzene	13.810	91	3039354	111.04	ug/L	99
84) hexachloroethane	14.066	201	332724	97.04	ug/L	90
85) 1,2-dibromo-3-chloropr...	14.779	157	196604	93.64	ug/L	96
86) 1,2,4-trichlorobenzene	15.779	180	871419	101.18	ug/L	100
87) hexachlorobutadiene	16.005	225	423103	98.81	ug/L	100
88) naphthalene	16.078	128	2062892	100.31	ug/L	100
89) 1,2,3-trichlorobenzene	16.377	180	763111	99.03	ug/L	100
90) 2-methylnaphthalene	17.486	142	1089866	91.28	ug/L	99

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : 200P1029.D
Acq On : 29 Oct 2015 14:00
Operator : BAG
Sample : STD7
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 29 14:43:40 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Mon Oct 19 14:30:36 2015
Response via : Initial Calibration



000368

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 200P1029.D
 Acq On : 29 Oct 2015 14:00
 Operator : BAG
 Sample : STD7
 Misc :
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 29 14:43:40 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Mon Oct 19 14:30:36 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.915	96	959575	40.00	ug/L	0.03
51) Chlorobenzene-d5	10.305	117	682177	40.00	ug/L	0.02
66) 1,4-Dichlorobenzene-d4	13.292	152	324334	40.00	ug/L	# 0.02
System Monitoring Compounds						
29) #Dibromofluoromethane	4.739	111	239327	39.63	ug/L	0.04
Spiked Amount 40.000			Recovery	=	99.08%	
37) #1,2-Dichloroethane-d4	5.342	67	186650	42.58	ug/L	0.04
Spiked Amount 40.000			Recovery	=	106.45%	
47) #Toluene-d8	8.360	98	931915	39.31	ug/L	0.02
Spiked Amount 40.000			Recovery	=	98.28%	
65) #4-Bromofluorobenzene	11.847	95	382947	38.90	ug/L	0.02
Spiked Amount 40.000			Recovery	=	97.25%	
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	1.044	85	2153561	191.58	ug/L	100
3) chloromethane	1.203	50	2045458	193.07	ug/L	99
4) vinyl chloride	1.221	62	2137198	190.60	ug/L	100
5) bromomethane	1.422	94	446751	156.04	ug/L	100
6) chloroethane	1.483	64	729178	124.84	ug/L	99
7) dichlorofluoromethane	1.629	67	3328479	191.62	ug/L	100
8) trichlorofluoromethane	1.654	101	2549963	201.14	ug/L	100
9) ethyl ether	1.867	74	872982	190.33	ug/L	99
10) acrolein	1.977	56	337421	202.70	ug/L	100
11) 1,1,2-trichloro-1,2,2-...	2.020	101	1862068	188.46	ug/L	100
12) 1,1-dichloroethene	2.026	96	1660701	188.45	ug/L	95
13) acetone	2.111	43	632317	181.26	ug/L	97
14) iodomethane	2.154	142	1360765	163.24	ug/L	97
15) carbon disulfide	2.190	76	4224512	183.69	ug/L	100
16) methyl acetate	2.373	43	1526723	214.10	ug/L	100
17) methylene chloride	2.452	49	2641195	184.45	ug/L	99
18) acrylonitrile	2.721	53	744993	200.39	ug/L	99
19) trans-1,2-dichloroethene	2.690	96	1505416	188.92	ug/L	100
20) methyl (tert) butyl ether	2.702	73	4299186	194.03	ug/L	99
21) 1,1-dichloroethane	3.154	63	3328212	192.31	ug/L	100
22) vinyl acetate	3.245	43	4216224	214.68	ug/L	99
23) 2,2-dichloropropane	3.885	77	2391976	211.16	ug/L	98
24) cis-1,2-dichloroethene	3.916	96	1656391	188.46	ug/L	97
25) 2-butanone (MEK)	3.995	43	780702	186.94	ug/L	99
26) bromochloromethane	4.281	49	1566492	181.63	ug/L	100
27) tetrahydrofuran	4.348	71	179674	187.52	ug/L	97
28) chloroform	4.452	83	3012395	193.48	ug/L	100
30) 1,1,1-trichloroethane	4.678	97	2618780	211.85	ug/L	100
31) cyclohexane	4.720	56	3540788	188.30	ug/L	98
32) carbon tetrachloride	4.958	117	2129617	220.79	ug/L	100
33) 1,1-dichloropropene	4.995	75	2512936	196.82	ug/L	100
34) benzene	5.379	78	6611661	186.37	ug/L	92
35) 1,2-dichloroethane	5.476	62	2480867	201.99	ug/L	99
36) heptane	5.909	57	42930	No Calib		
38) trichloroethene	6.513	130	1494251	188.67	ug/L	99
39) methylcyclohexane	6.750	83	3054504	189.28	ug/L	99
40) 1,2-dichloropropane	6.884	63	1776056	185.28	ug/L	100
41) dibromomethane	7.067	93	923147	194.56	ug/L	100
42) 1,4-dioxane	7.360	88	2080	No Calib		#

000369

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : 200P1029.D
 Acq On : 29 Oct 2015 14:00
 Operator : BAG
 Sample : STD7
 Misc :
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 29 14:43:40 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN68.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Mon Oct 19 14:30:36 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	7.360	83	2152044	212.25	ug/L	100
44) 2-chloroethyl vinyl ether	7.884	63	740217	173.50	ug/L	100
45) cis-1,3-dichloropropene	8.024	75	2644507	212.90	ug/L	96
46) 4-methyl-2-pentanone (...)	8.311	43	1853163	201.68	ug/L	97
48) toluene	8.451	91	6588537	186.07	ug/L	100
49) trans-1,3-dichloropropene	8.848	75	2252003	189.81	ug/L	96
50) 1,1,2-trichloroethane	9.085	83	1144920	189.70	ug/L	99
52) tetrachloroethene	9.171	166	1555771	203.91	ug/L	99
53) 1,3-dichloropropane	9.286	76	2597539	200.79	ug/L	99
54) 2-hexanone (MBK)	9.482	43	1316145	225.61	ug/L	99
55) dibromochloromethane	9.573	129	1349393	202.53	ug/L	100
56) 1,2-dibromoethane	9.683	109	1218601	207.92	ug/L	100
57) chlorobenzene	10.341	112	3851513	197.62	ug/L	99
58) 1-chlorohexane	10.378	55	2118493	204.35	ug/L	99
59) 1,1,1,2-tetrachloroethane	10.481	131	1337245	225.62	ug/L	99
60) ethylbenzene	10.512	91	7690846	198.93	ug/L	100
61) m+p-xylene	10.676	106	5191024	379.56	ug/L	95
62) o-xylene	11.176	106	2577438	197.32	ug/L	98
63) styrene	11.207	104	4520027	201.17	ug/L	97
64) bromoform	11.426	173	924342	202.44	ug/L	99
67) isopropylbenzene	11.664	105	7060942	217.75	ug/L	99
68) bromobenzene	11.999	77	3048439	217.16	ug/L	100
69) 1,1,2,2-tetrachloroethane	12.115	83	1777620	213.20	ug/L #	100
70) 1,2,3-trichloropropane	12.133	110	500967	217.05	ug/L	99
71) 1,4-dichloro-2-butene	12.182	53	675213	256.04	ug/L	94
72) n-propylbenzene	12.194	120	1776816	212.23	ug/L	99
73) 2-chlorotoluene	12.268	126	1485832	212.70	ug/L	100
74) 1,3,5-trimethylbenzene	12.432	105	5989010	213.63	ug/L	98
75) 4-chlorotoluene	12.414	91	5957664	215.25	ug/L	99
76) tert-butylbenzene	12.828	119	4810024	214.41	ug/L	98
77) 1,2,4-trimethylbenzene	12.889	105	5828460	218.56	ug/L	99
78) sec-butylbenzene	13.103	105	7198832	212.75	ug/L	100
79) 1,3-dichlorobenzene	13.206	146	2759912	211.11	ug/L	100
80) 4-isopropyltoluene	13.304	119	6033674	215.10	ug/L	99
81) 1,4-dichlorobenzene	13.328	146	2748193	207.19	ug/L	99
82) 1,2-dichlorobenzene	13.779	146	2535087	214.07	ug/L	99
83) n-butylbenzene	13.810	91	5758838	224.79	ug/L	100
84) hexachloroethane	14.066	201	689107	208.65	ug/L #	85
85) 1,2-dibromo-3-chloropr...	14.779	157	396006	198.18	ug/L	97
86) 1,2,4-trichlorobenzene	15.785	180	1700807	210.97	ug/L	100
87) hexachlorobutadiene	16.011	225	808329	201.68	ug/L	99
88) naphthalene	16.078	128	3923558	203.82	ug/L	100
89) 1,2,3-trichlorobenzene	16.377	180	1481947	205.46	ug/L	100
90) 2-methylnaphthalene	17.486	142	2074178	185.60	ug/L	99

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

SECOND-SOURCE CALIBRATION VERIFICATION

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Laboratory ID: 5J30009-SCV1

Standard ID: 5101095

Sequence: 5J30009

Calibration: 5J30003

Analyte	Expected (ug/L)	Found (ug/L)	% Rec.	QC Limit
Acetone	40.0	38.1	95	75-125
Acrolein	40.0	42.3	106	75-125
Acrylonitrile	40.0	42.6	107	75-125
Benzene	40.0	41.6	104	75-125
Bromobenzene	40.0	41.0	103	75-125
Bromochloromethane	40.0	40.7	102	75-125
Bromodichloromethane	40.0	40.1	100	75-125
Bromoform	40.0	37.4	94	75-125
Bromomethane	40.0	49.3	123	75-125
n-Butylbenzene	40.0	43.0	108	75-125
sec-Butylbenzene	40.0	43.5	109	75-125
tert-Butylbenzene	40.0	43.0	108	75-125
Carbon Disulfide	40.0	38.5	96	75-125
Carbon Tetrachloride	40.0	41.6	104	75-125
Chlorobenzene	40.0	41.2	103	75-125
Chloroethane	40.0	35.1	88	75-125
2-Chloroethyl Vinyl Ether	40.0	42.4	106	75-125
Chloroform	40.0	40.5	101	75-125
1-Chlorohexane	40.0	40.2	101	75-125
Chloromethane	40.0	42.8	107	75-125
2-Chlorotoluene	40.0	42.8	107	75-125
4-Chlorotoluene	40.0	42.4	106	75-125
Cyclohexane	40.0	41.0	103	75-125
1,2-Dibromo-3-chloropropane	40.0	38.5	96	75-125
Dibromochloromethane	40.0	38.5	96	75-125
1,2-Dibromoethane	40.0	42.6	107	75-125
Dibromomethane	40.0	41.2	103	75-125

000371

SECOND-SOURCE CALIBRATION VERIFICATION

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Laboratory ID: 5J30009-SCV1

Standard ID: 5101095

Sequence: 5J30009

Calibration: 5J30003

Analyte	Expected (ug/L)	Found (ug/L)	% Rec.	QC Limit
trans-1,4-Dichloro-2-butene	40.0	44.9	112	75-125
1,2-Dichlorobenzene	40.0	42.4	106	75-125
1,3-Dichlorobenzene	40.0	42.0	105	75-125
1,4-Dichlorobenzene	40.0	41.6	104	75-125
Dichlorodifluoromethane	40.0	44.2	111	75-125
1,1-Dichloroethane	40.0	42.1	105	75-125
1,2-Dichloroethane	40.0	40.8	102	75-125
1,1-Dichloroethene	40.0	42.8	107	75-125
cis-1,2-Dichloroethene	40.0	42.0	105	75-125
trans-1,2-Dichloroethene	40.0	42.2	106	75-125
1,2-Dichloroethene (Total)	80.0	84.2	105	75-125
Dichlorofluoromethane	40.0	38.7	97	75-125
1,2-Dichloropropane	40.0	42.4	106	75-125
1,3-Dichloropropane	40.0	39.9	100	75-125
2,2-Dichloropropane	40.0	39.3	98	75-125
1,1-Dichloropropene	40.0	42.0	105	75-125
cis-1,3-Dichloropropene	40.0	39.3	98	75-125
trans-1,3-Dichloropropene	40.0	42.3	106	75-125
1,3-Dichloropropene (Total)	80.0	81.6	102	75-125
Ethylbenzene	40.0	41.7	104	75-125
Ethyl Ether	40.0	39.2	98	75-125
Hexachlorobutadiene	40.0	42.3	106	75-125
Hexachloroethane	40.0	35.1	88	75-125
2-Hexanone	40.0	43.2	108	75-125
Iodomethane	40.0	29.7	74 *	75-125
Isopropylbenzene	40.0	43.2	108	75-125
4-Isopropyltoluene	40.0	42.5	106	75-125

000372

SECOND-SOURCE CALIBRATION VERIFICATION

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Laboratory ID: 5J30009-SCV1

Standard ID: 5101095

Sequence: 5J30009

Calibration: 5J30003

Analyte	Expected (ug/L)	Found (ug/L)	% Rec.	QC Limit
Methyl Acetate	40.0	42.7	107	75-125
Methyl tert-Butyl Ether	40.0	42.6	107	75-125
Methylcyclohexane	40.0	40.7	102	75-125
Methylene Chloride	40.0	40.1	100	75-125
2-Butanone (MEK)	40.0	38.9	97	75-125
2-Methylnaphthalene	40.0	40.8	102	75-125
4-Methyl-2-pentanone (MIBK)	40.0	42.3	106	75-125
Naphthalene	40.0	48.1	120	75-125
n-Propylbenzene	40.0	44.0	110	75-125
Styrene	40.0	43.0	108	75-125
1,1,1,2-Tetrachloroethane	40.0	43.4	109	75-125
1,1,2,2-Tetrachloroethane	40.0	40.3	101	75-125
Tetrachloroethene	40.0	41.8	105	75-125
Tetrahydrofuran	40.0	39.0	98	75-125
Toluene	40.0	41.2	103	75-125
1,2,3-Trichlorobenzene	40.0	42.1	105	75-125
1,2,4-Trichlorobenzene	40.0	42.3	106	75-125
1,1,1-Trichloroethane	40.0	41.9	105	75-125
1,1,2-Trichloroethane	40.0	41.7	104	75-125
Trichloroethene	40.0	42.5	106	75-125
Trichlorofluoromethane	40.0	40.6	102	75-125
1,2,3-Trichloropropane	40.0	41.8	105	75-125
1,1,2-Trichloro-1,2,2-trifluoroethane	40.0	38.8	97	75-125
1,2,4-Trimethylbenzene	40.0	43.1	108	75-125
1,3,5-Trimethylbenzene	40.0	41.2	103	75-125
Vinyl Acetate	40.0	32.4	81	75-125
Vinyl Chloride	40.0	40.3	101	75-125

000373

SECOND-SOURCE CALIBRATION VERIFICATION

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Laboratory ID: 5J30009-SCV1

Standard ID: 5101095

Sequence: 5J30009

Calibration: 5J30003

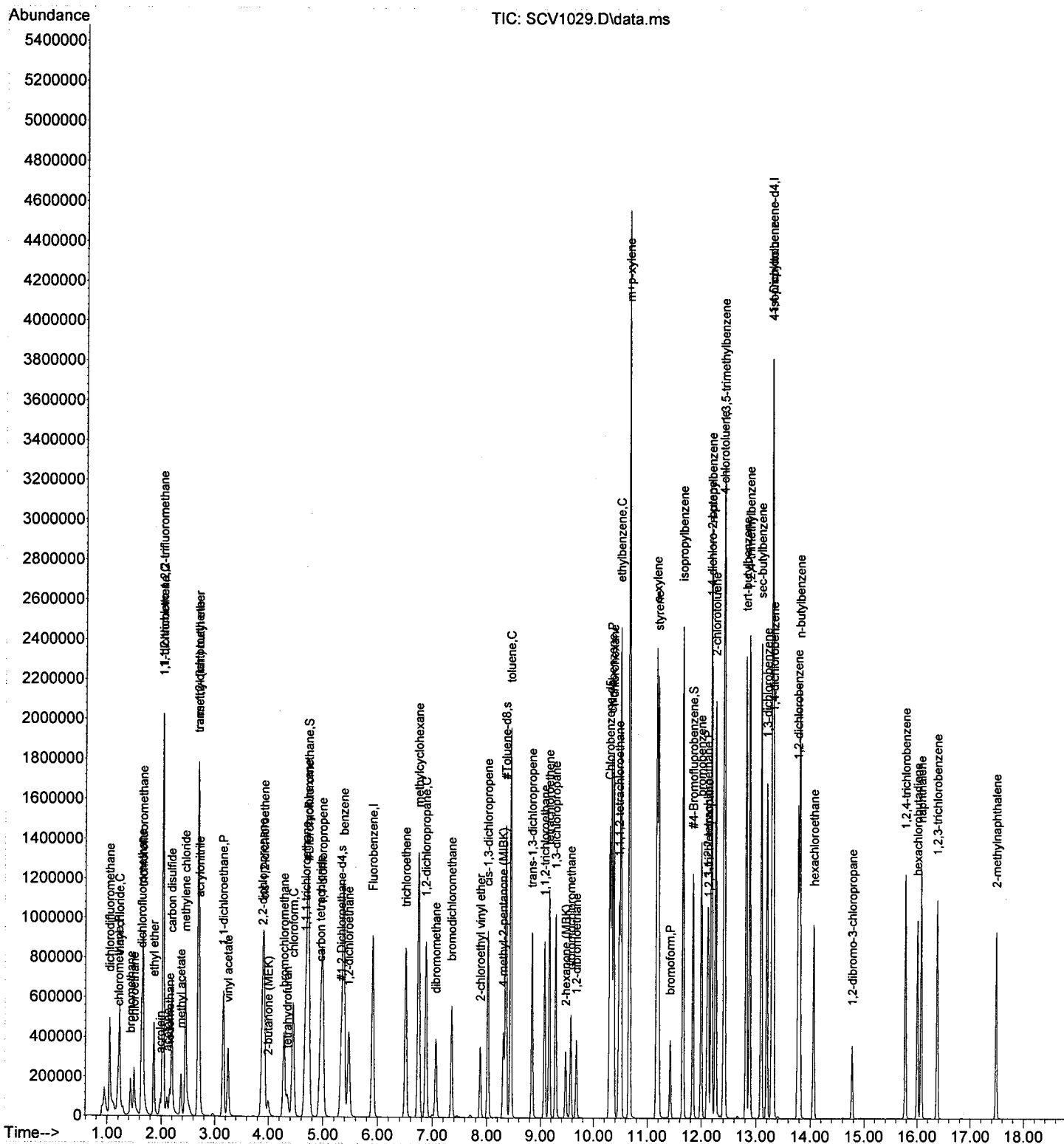
Analyte	Expected (ug/L)	Found (ug/L)	% Rec.	QC Limit
Xylene, Meta + Para	80.0	85.2	107	75-125
Xylene, Ortho	40.0	43.3	108	75-125
Xylene (Total)	120	128	107	75-125
Dibromofluoromethane	40.0	40.0	100	75-125
1,2-Dichloroethane-d4	40.0	39.6	99	75-125
Toluene-d8	40.0	39.7	99	75-125
4-Bromofluorobenzene	40.0	40.3	101	75-125

* Values outside of QC limits

000374

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : SCV1029.D
Acq On : 29 Oct 2015 15:30
Operator : BAG
Sample : SCV
Misc : 40PPB
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 29 15:48:57 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : SCV1029.D
 Acq On : 29 Oct 2015 15:30
 Operator : BAG
 Sample : SCV
 Misc : 40PPB
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 29 15:48:57 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.909	96	1010448	40.00	ug/L	0.00
51) Chlorobenzene-d5	10.298	117	702790	40.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4	13.292	152	349888	40.00	ug/L	0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.732	111	253419	40.05	ug/L	0.00
Spiked Amount 40.000			Recovery	=	100.13%	
37) #1,2-Dichloroethane-d4	5.336	67	193737	39.60	ug/L	0.00
Spiked Amount 40.000			Recovery	=	99.00%	
47) #Toluene-d8	8.354	98	966277	39.73	ug/L	0.00
Spiked Amount 40.000			Recovery	=	99.33%	
65) #4-Bromofluorobenzene	11.841	95	410272	40.30	ug/L	0.00
Spiked Amount 40.000			Recovery	=	100.75%	
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	1.044	85	490541	44.17	ug/L	100
3) chloromethane	1.209	50	431804	42.77	ug/L	100
4) vinyl chloride	1.221	62	429482	40.34	ug/L	100
5) bromomethane	1.428	94	135290	-49.32	ug/L	97
6) chloroethane	1.495	64	211840	35.09	ug/L	99
7) dichlorofluoromethane	1.635	67	671802	38.72	ug/L	99
8) trichlorofluoromethane	1.660	101	539070	40.59	ug/L	99
9) ethyl ether	1.861	74	167439	39.24	ug/L	98
10) acrolein	1.977	56	64357	42.32	ug/L	100
11) 1,1,2-trichloro-1,2,2-...	2.026	101	372702	38.78	ug/L	100
12) 1,1-dichloroethene	2.032	96	357805	42.79	ug/L	99
13) acetone	2.105	43	124535	38.12	ug/L	100
14) iodomethane	2.154	142	184608	-29.74	ug/L	100
15) carbon disulfide	2.190	76	843757	38.48	ug/L	100
16) methyl acetate	2.367	43	291851	42.72	ug/L	99
17) methylene chloride	2.452	49	562852	40.07	ug/L	100
18) acrylonitrile	2.714	53	153611	42.59	ug/L	99
19) trans-1,2-dichloroethene	2.690	96	319917	42.22	ug/L	100
20) methyl (tert) butyl ether	2.696	73	893283	42.61	ug/L	99
21) 1,1-dichloroethane	3.153	63	702246	42.14	ug/L	99
22) vinyl acetate	3.245	43	621538	32.45	ug/L	100
23) 2,2-dichloropropane	3.885	77	441157	39.34	ug/L	99
24) cis-1,2-dichloroethene	3.915	96	352025	42.03	ug/L	99
25) 2-butanone (MEK)	3.989	43	146286	38.94	ug/L	99
26) bromochloromethane	4.281	49	344264	40.68	ug/L	100
27) tetrahydrofuran	4.342	71	33688	38.98	ug/L	97
28) chloroform	4.452	83	629329	40.51	ug/L	99
30) 1,1,1-trichloroethane	4.677	97	523645	41.93	ug/L	99
31) cyclohexane	4.720	56	740498	41.02	ug/L	100
32) carbon tetrachloride	4.952	117	412473	41.62	ug/L	100
33) 1,1-dichloropropene	4.988	75	529020	41.96	ug/L	99
34) benzene	5.379	78	1414949	41.58	ug/L	99
35) 1,2-dichloroethane	5.470	62	525791	40.84	ug/L	100
36) heptane	5.909	57	45285	No Calib		
38) trichloroethene	6.512	130	317032	42.48	ug/L	100
39) methylcyclohexane	6.744	83	618851	40.73	ug/L	100
40) 1,2-dichloropropane	6.878	63	381579	42.38	ug/L	100
41) dibromomethane	7.061	93	189997	41.24	ug/L	99
42) 1,4-dioxane	0.000		0	N.D.		

000376

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : SCV1029.D
 Acq On : 29 Oct 2015 15:30
 Operator : BAG
 Sample : SCV
 Misc : 40PPB
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 29 15:48:57 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	7.354	83	404517	40.11	ug/L	100
44) 2-chloroethyl vinyl ether	7.884	63	162572	42.42	ug/L	100
45) cis-1,3-dichloropropene	8.018	75	521883	39.30	ug/L	100
46) 4-methyl-2-pentanone (...)	8.305	43	364889	42.31	ug/L	# 99
48) toluene	8.445	91	1404324	41.20	ug/L	100
49) trans-1,3-dichloropropene	8.841	75	473020	42.27	ug/L	98
50) 1,1,2-trichloroethane	9.079	83	240135	41.66	ug/L	99
52) tetrachloroethene	9.164	166	321211	41.75	ug/L	99
53) 1,3-dichloropropane	9.286	76	530812	39.92	ug/L	99
54) 2-hexanone (MBK)	9.475	43	256181	43.19	ug/L	100
55) dibromochloromethane	9.573	129	252619	38.46	ug/L	100
56) 1,2-dibromoethane	9.677	109	251196	42.56	ug/L	100
57) chlorobenzene	10.335	112	821273	41.20	ug/L	100
58) 1-chlorohexane	10.371	55	444085	40.21	ug/L	99
59) 1,1,1,2-tetrachloroethane	10.475	131	262773	43.35	ug/L	100
60) ethylbenzene	10.506	91	1649127	41.73	ug/L	100
61) m+p-xylene	10.670	106	1177256	85.22	ug/L	100
62) o-xylene	11.170	106	563907	43.28	ug/L	100
63) styrene	11.201	104	975171	43.04	ug/L	100
64) bromoform	11.420	173	162296	37.38	ug/L	100
67) isopropylbenzene	11.658	105	1555865	43.20	ug/L	100
68) bromobenzene	11.993	77	649496	41.03	ug/L	100
69) 1,1,2,2-tetrachloroethane	12.109	83	364401	40.30	ug/L	# 100
70) 1,2,3-trichloropropane	12.127	110	108842	41.82	ug/L	98
71) 1,4-dichloro-2-butene	12.176	53	139639	44.92	ug/L	99
72) n-propylbenzene	12.188	120	402024	44.00	ug/L	98
73) 2-chlorotoluene	12.261	126	326328	42.79	ug/L	100
74) 1,3,5-trimethylbenzene	12.420	105	1280854	41.24	ug/L	100
75) 4-chlorotoluene	12.408	91	1323922	42.38	ug/L	100
76) tert-butylbenzene	12.822	119	1050038	42.95	ug/L	100
77) 1,2,4-trimethylbenzene	12.883	105	1270799	43.13	ug/L	100
78) sec-butylbenzene	13.097	105	1588996	43.49	ug/L	100
79) 1,3-dichlorobenzene	13.200	146	598674	41.98	ug/L	100
80) 4-isopropyltoluene	13.298	119	1277426	42.49	ug/L	100
81) 1,4-dichlorobenzene	13.322	146	600846	41.62	ug/L	100
82) 1,2-dichlorobenzene	13.773	146	550086	42.44	ug/L	100
83) n-butylbenzene	13.804	91	1170351	42.97	ug/L	100
84) hexachloroethane	14.066	201	112678	35.06	ug/L	98
85) 1,2-dibromo-3-chloropr...	14.779	157	74865	38.47	ug/L	98
86) 1,2,4-trichlorobenzene	15.779	180	342870	42.28	ug/L	99
87) hexachlorobutadiene	16.005	225	176898	42.29	ug/L	99
88) naphthalene	16.078	128	914572	48.08	ug/L	100
89) 1,2,3-trichlorobenzene	16.376	180	299291	42.13	ug/L	100
90) 2-methylnaphthalene	17.486	142	429226	40.84	ug/L	99

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

CONTINUING CALIBRATION CHECK

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Lab Sample ID: 5J30014-CCV1

Lab File ID: CCV1029B.D

Injection Date: 10/29/15

Injection Time: 19:17

Calibration Date: 10/29/15 09:00

Calibration: 5J30003

Sequence: 5J30014

Instrument ID: 328

Analyte	Type	CONC. (ug/L)		Response Factor			% Diff. / Drift	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	L	40.0	32.7	0.1685799	0.1056574		-18.2	40
Acrolein	A	40.0	37.4	6.020138E-02	5.633495E-02		-6.4	20
Acrylonitrile	A	40.0	38.4	0.142778	0.1368849		-4.1	20
Benzene	A	40.0	40.1	1.347202	1.351734		0.3	20
Bromobenzene	A	40.0	40.2	1.809567	1.820251		0.6	20
Bromochloromethane	A	40.0	39.8	0.3350351	0.3334713		-0.5	20
Bromodichloromethane	A	40.0	41.1	0.3991906	0.4104648		2.8	20
Bromoform	L	40.0	35.0	0.2062673	0.2146911	0.1	-12.5	20
Bromomethane	A	40.0	46.6	0.1085805	0.1265338		16.5	20
n-Butylbenzene	A	40.0	41.3	3.113624	3.212516		3.2	20
sec-Butylbenzene	A	40.0	41.3	4.176875	4.311658		3.2	20
tert-Butylbenzene	A	40.0	41.3	2.795015	2.882781		3.1	20
Carbon Disulfide	A	40.0	44.7	0.8679687	0.9695265		11.7	20
Carbon Tetrachloride	A	40.0	40.9	0.3922746	0.4010846		2.2	20
Chlorobenzene	A	40.0	39.6	1.13462	1.124271	0.3	-0.9	20
Chloroethane	A	40.0	39.5	0.2390029	0.2357576		-1.4	20
2-Chloroethyl Vinyl Ether	A	40.0	41.6	0.1517296	0.1577573		4.0	40
Chloroform	A	40.0	39.5	0.615046	0.6076968		-1.2	20
1-Chlorohexane	A	40.0	40.3	0.6286128	0.6326867		0.6	20
Chloromethane	A	40.0	41.3	0.3996748	0.4127568	0.1	3.3	20
2-Chlorotoluene	A	40.0	40.6	0.8718805	0.8856726		1.6	20
4-Chlorotoluene	A	40.0	40.5	3.571138	3.614551		1.2	20
Cyclohexane	A	40.0	41.2	0.7145386	0.7349995		2.9	20
1,2-Dibromo-3-chloropropane	L	40.0	34.8	0.1861804	0.1914229		-13.0	20
Dibromochloromethane	L	40.0	37.3	0.3298845	0.3475606		-6.8	20
1,2-Dibromoethane	A	40.0	41.0	0.3358992	0.3445158		2.6	20
Dibromomethane	A	40.0	39.3	0.1823796	0.1791859		-1.8	20
trans-1,4-Dichloro-2-butene	A	40.0	40.6	0.3554138	0.360497		1.4	20
1,2-Dichlorobenzene	A	40.0	40.3	1.481634	1.492997		0.8	20

000378

CONTINUING CALIBRATION CHECK

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Lab Sample ID: 5J30014-CCV1

Lab File ID: CCV1029B.D

Injection Date: 10/29/15

Injection Time: 19:17

Calibration Date: 10/29/15 09:00

Calibration: 5J30003

Sequence: 5J30014

Instrument ID: 328

Analyte	Type	CONC. (ug/L)		Response Factor			% Diff. / Drift	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
1,3-Dichlorobenzene	A	40.0	40.1	1.630265	1.635171		0.3	20
1,4-Dichlorobenzene	A	40.0	39.8	1.650374	1.643751		-0.4	20
Dichlorodifluoromethane	A	40.0	39.5	0.4395929	0.4338879		-1.3	20
1,1-Dichloroethane	A	40.0	40.4	0.6596846	0.6664889	0.1	1.0	20
1,2-Dichloroethane	A	40.0	38.7	0.5096255	0.4936341		-3.1	20
1,1-Dichloroethene	A	40.0	39.2	0.3309984	0.3240622		-2.1	20
cis-1,2-Dichloroethene	A	40.0	40.4	0.3315784	0.3348193		1.0	20
trans-1,2-Dichloroethene	A	40.0	40.5	0.2999602	0.3036216		1.2	20
1,2-Dichloroethene (Total)	A	80.0	80.9	0.3157693	0.3192204		1.1	20
Dichlorofluoromethane	A	40.0	39.3	0.6867913	0.6748773		-1.7	20
1,2-Dichloropropane	A	40.0	41.0	0.3563935	0.3656041		2.6	20
1,3-Dichloropropane	A	40.0	40.2	0.7567275	0.7609318		0.6	20
2,2-Dichloropropane	A	40.0	40.9	0.4438849	0.4541774		2.3	20
1,1-Dichloropropene	A	40.0	40.5	0.4991197	0.5052467		1.2	20
cis-1,3-Dichloropropene	L	40.0	38.0	0.4676	0.4987445		-5.0	20
trans-1,3-Dichloropropene	L	40.0	37.2	0.3795297	0.4081826		-7.0	20
1,3-Dichloropropene (Total)	L	80.0	75.2	0.4235648	0.4534636		-6.0	20
Ethylbenzene	A	40.0	41.1	2.24943	2.312372		2.8	20
Ethyl Ether	A	40.0	38.1	0.1688964	0.1609298		-4.7	20
Hexachlorobutadiene	A	40.0	36.8	0.4782597	0.4397945		-8.0	20
Hexachloroethane	L	40.0	34.0	0.3012921	0.3104486		-15.0	20
2-Hexanone	A	40.0	37.7	0.3376253	0.3183406		-5.7	40
Iodomethane	L	40.0	36.2	0.1932982	0.2292047		-9.6	40
Isopropylbenzene	A	40.0	41.3	4.116896	4.249188		3.2	20
4-Isopropyltoluene	A	40.0	41.0	3.43674	3.522385		2.5	20
Methyl Acetate	A	40.0	36.4	0.2704655	0.2463376		-8.9	20
Methyl tert-Butyl Ether	A	40.0	40.1	0.82988	0.8315911		0.2	20
Methylcyclohexane	A	40.0	41.2	0.601538	0.6189333		2.9	20
Methylene Chloride	L	40.0	39.0	0.6425469	0.542489		-2.5	20

000379

CONTINUING CALIBRATION CHECK

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Lab Sample ID: 5J30014-CCV1

Lab File ID: CCV1029B.D

Injection Date: 10/29/15

Injection Time: 19:17

Calibration Date: 10/29/15 09:00

Calibration: 5J30003

Sequence: 5J30014

Instrument ID: 328

Analyte	Type	CONC. (ug/L)		Response Factor			% Diff. / Drift	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
2-Butanone (MEK)	A	40.0	32.4	0.1487184	0.1204047		-19.0	40
2-Methylnaphthalene	L	40.0	34.2	1.087765	1.010208		-14.6	40
4-Methyl-2-pentanone (MIBK)	A	40.0	38.6	0.3414332	0.3298929		-3.4	40
Naphthalene	A	40.0	40.1	2.174754	2.18243		0.4	20
n-Propylbenzene	A	40.0	41.2	1.044665	1.075387		2.9	20
Styrene	A	40.0	41.7	1.289425	1.343306		4.2	20
1,1,1,2-Tetrachloroethane	A	40.0	42.4	0.3450445	0.365978		6.1	20
1,1,2,2-Tetrachloroethane	A	40.0	39.9	1.033712	1.031821	0.3	-0.2	20
Tetrachloroethene	A	40.0	40.4	0.4378822	0.4417871		0.9	20
Tetrahydrofuran	L	40.0	34.8	2.795676E-02	2.946273E-02		-12.9	20
Toluene	A	40.0	40.5	1.349217	1.365484		1.2	20
1,2,3-Trichlorobenzene	A	40.0	39.5	0.8120687	0.8019942		-1.2	20
1,2,4-Trichlorobenzene	A	40.0	40.2	0.9269908	0.9314844		0.5	20
1,1,1-Trichloroethane	A	40.0	40.8	0.4943228	0.5043255		2.0	20
1,1,2-Trichloroethane	A	40.0	40.6	0.2281708	0.231651		1.5	20
Trichloroethene	A	40.0	40.4	0.2954109	0.2985688		1.1	20
Trichlorofluoromethane	A	40.0	39.3	0.5257204	0.5163062		-1.8	20
1,2,3-Trichloropropane	A	40.0	39.2	0.2975391	0.2914301		-2.1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	A	40.0	39.2	0.3804685	0.372354		-2.1	20
1,2,4-Trimethylbenzene	A	40.0	41.3	3.368256	3.481009		3.3	20
1,3,5-Trimethylbenzene	A	40.0	41.3	3.550355	3.664706		3.2	20
Vinyl Acetate	A	40.0	37.9	0.758283	0.7185053		-5.2	40
Vinyl Chloride	A	40.0	40.0	0.4214177	0.4209164		-0.1	20
Xylene, Meta + Para	A	80.0	82.9	0.7862385	0.8145938		3.6	20
Xylene, Ortho	A	40.0	41.6	0.7416053	0.7706818		3.9	20
Xylene (Total)	A	120	124	0.7713608	0.7999565		3.7	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

000380

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : CCV1029B.D
 Acq On : 29 Oct 2015 19:17
 Operator : BAG
 Sample : CCV
 Misc :
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 30 08:15:29 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 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	1.000	1.000	0.0	98	-0.01
2	dichlorodifluoromethane	0.440	0.434	1.4	95	0.00
3 P	chloromethane	0.400	0.413	-3.2	99	0.00
4 C	vinyl chloride	0.421	0.421	0.0	95	0.00
5	bromomethane	0.109	0.127	-16.5	109	0.00
6	chloroethane	0.239	0.236	1.3	97	0.00
7	dichlorofluoromethane	0.687	0.675	1.7	94	0.00
8	trichlorofluoromethane	0.526	0.516	1.9	93	0.00
9	ethyl ether	0.169	0.161	4.7	91	0.00
10	acrolein	0.060	0.056	6.7	91	0.00
11	1,1,2-trichloro-1,2,2-trifl	0.380	0.372	2.1	93	0.00
12 C	1,1-dichloroethene	0.331	0.324	2.1	93	0.00
13	acetone	0.169	0.106	37.3#	86	0.00
14	iodomethane	0.193	0.229	-18.7	93	0.00
15	carbon disulfide	0.868	0.970	-11.8	112	0.00
16	methyl acetate	0.270	0.246	8.9	88	0.00
17	methylene chloride	0.643	0.542	15.7	95	0.00
18	acrylonitrile	0.143	0.137	4.2	90	-0.01
19	trans-1,2-dichloroethene	0.300	0.304	-1.3	95	-0.01
20	methyl (tert) butyl ether	0.830	0.832	-0.2	95	-0.01
21 P	1,1-dichloroethane	0.660	0.666	-0.9	95	0.00
22	vinyl acetate	0.758	0.719	5.1	89	0.00
23	2,2-dichloropropane	0.444	0.454	-2.3	93	-0.01
24	cis-1,2-dichloroethene	0.332	0.335	-0.9	95	-0.01
25	2-butanone (MEK)	0.149	0.120	19.5	82	-0.01
26	bromochloromethane	0.335	0.333	0.6	95	-0.01
27	tetrahydrofuran	0.028	0.029	-3.6	91	-0.01
28 C	chloroform	0.615	0.608	1.1	95	-0.01
29 S	#Dibromofluoromethane	0.251	0.249	0.8	97	-0.01
30	1,1,1-trichloroethane	0.494	0.504	-2.0	94	-0.02
31	cyclohexane	0.715	0.735	-2.8	96	-0.01
32	carbon tetrachloride	0.392	0.401	-2.3	93	-0.01
33	1,1-dichloropropene	0.499	0.505	-1.2	95	-0.01
34	benzene	1.347	1.352	-0.4	95	-0.02
35	1,2-dichloroethane	0.510	0.494	3.1	94	-0.01
36	heptane	0.000	0.000	0.0	0#	-0.01
37 s	#1,2-Dichloroethane-d4	0.194	0.187	3.6	95	-0.02
38	trichloroethene	0.295	0.299	-1.4	96	-0.01
39	methylcyclohexane	0.602	0.619	-2.8	95	0.00
40 C	1,2-dichloropropane	0.356	0.366	-2.8	97	-0.01
41	dibromomethane	0.182	0.179	1.6	96	-0.01
42	1,4-dioxane	0.000	0.000	0.0	0#	-7.35#
43	bromodichloromethane	0.399	0.410	-2.8	95	-0.01
44	2-chloroethyl vinyl ether	0.152	0.158	-3.9	92	0.00
45	cis-1,3-dichloropropene	0.468	0.499	-6.6	95	-0.01
46	4-methyl-2-pentanone (MIBK)	0.341	0.330	3.2	90	0.00
47 s	#Toluene-d8	0.963	0.966	-0.3	98	-0.01
48 C	toluene	1.349	1.365	-1.2	96	-0.01
49	trans-1,3-dichloropropene	0.380	0.408	-7.4	95	-0.01
50	1,1,2-trichloroethane	0.228	0.232	-1.8	96	0.00

000381

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : CCV1029B.D
 Acq On : 29 Oct 2015 19:17
 Operator : BAG
 Sample : CCV
 Misc :
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 30 08:15:29 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 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)
51	Chlorobenzene-d5	1.000	1.000	0.0	98	-0.01
52	tetrachloroethene	0.438	0.442	-0.9	95	0.00
53	1,3-dichloropropane	0.757	0.761	-0.5	96	0.00
54	2-hexanone (MBK)	0.338	0.318	5.9	87	0.00
55	dibromochloromethane	0.330	0.348	-5.5	94	0.00
56	1,2-dibromoethane	0.336	0.345	-2.7	96	0.00
57 P	chlorobenzene	1.135	1.124	1.0	95	0.00
58	1-chlorohexane	0.629	0.633	-0.6	94	0.00
59	1,1,1,2-tetrachloroethane	0.345	0.366	-6.1	96	0.00
60 C	ethylbenzene	2.249	2.312	-2.8	96	0.00
61	m+p-xylene	0.786	0.815	-3.7	96	0.00
62	o-xylene	0.742	0.771	-3.9	97	-0.01
63	styrene	1.289	1.343	-4.2	96	0.00
64 P	bromoform	0.206	0.215	-4.4	91	0.00
65 S	#4-Bromofluorobenzene	0.579	0.573	1.0	98	-0.01
66 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
67	isopropylbenzene	4.117	4.249	-3.2	95	0.00
68	bromobenzene	1.810	1.820	-0.6	96	0.00
69 P	1,1,2,2-tetrachloroethane	1.034	1.032	0.2	94	0.00
70	1,2,3-trichloropropane	0.298	0.291	2.3	93	0.00
71	1,4-dichloro-2-butene	0.355	0.360	-1.4	91	0.00
72	n-propylbenzene	1.045	1.075	-2.9	95	0.00
73	2-chlorotoluene	0.872	0.886	-1.6	96	0.00
74	1,3,5-trimethylbenzene	3.550	3.665	-3.2	96	0.00
75	4-chlorotoluene	3.571	3.615	-1.2	95	0.00
76	tert-butylbenzene	2.795	2.883	-3.1	96	0.00
77	1,2,4-trimethylbenzene	3.368	3.481	-3.4	95	-0.01
78	sec-butylbenzene	4.177	4.312	-3.2	95	0.00
79	1,3-dichlorobenzene	1.630	1.635	-0.3	96	0.00
80	4-isopropyltoluene	3.437	3.522	-2.5	94	0.00
81	1,4-dichlorobenzene	1.650	1.644	0.4	96	0.00
82	1,2-dichlorobenzene	1.482	1.493	-0.7	97	0.00
83	n-butylbenzene	3.114	3.213	-3.2	92	0.00
84	hexachloroethane	0.301	0.310	-3.0	92	0.00
85	1,2-dibromo-3-chloropropane	0.186	0.191	-2.7	91	0.00
86	1,2,4-trichlorobenzene	0.927	0.931	-0.4	94	0.00
87	hexachlorobutadiene	0.478	0.440	7.9	92	0.00
88	naphthalene	2.175	2.182	-0.3	92	0.00
89	1,2,3-trichlorobenzene	0.812	0.802	1.2	93	0.00
90	2-methylnaphthalene	1.088	1.010	7.2	84	0.00

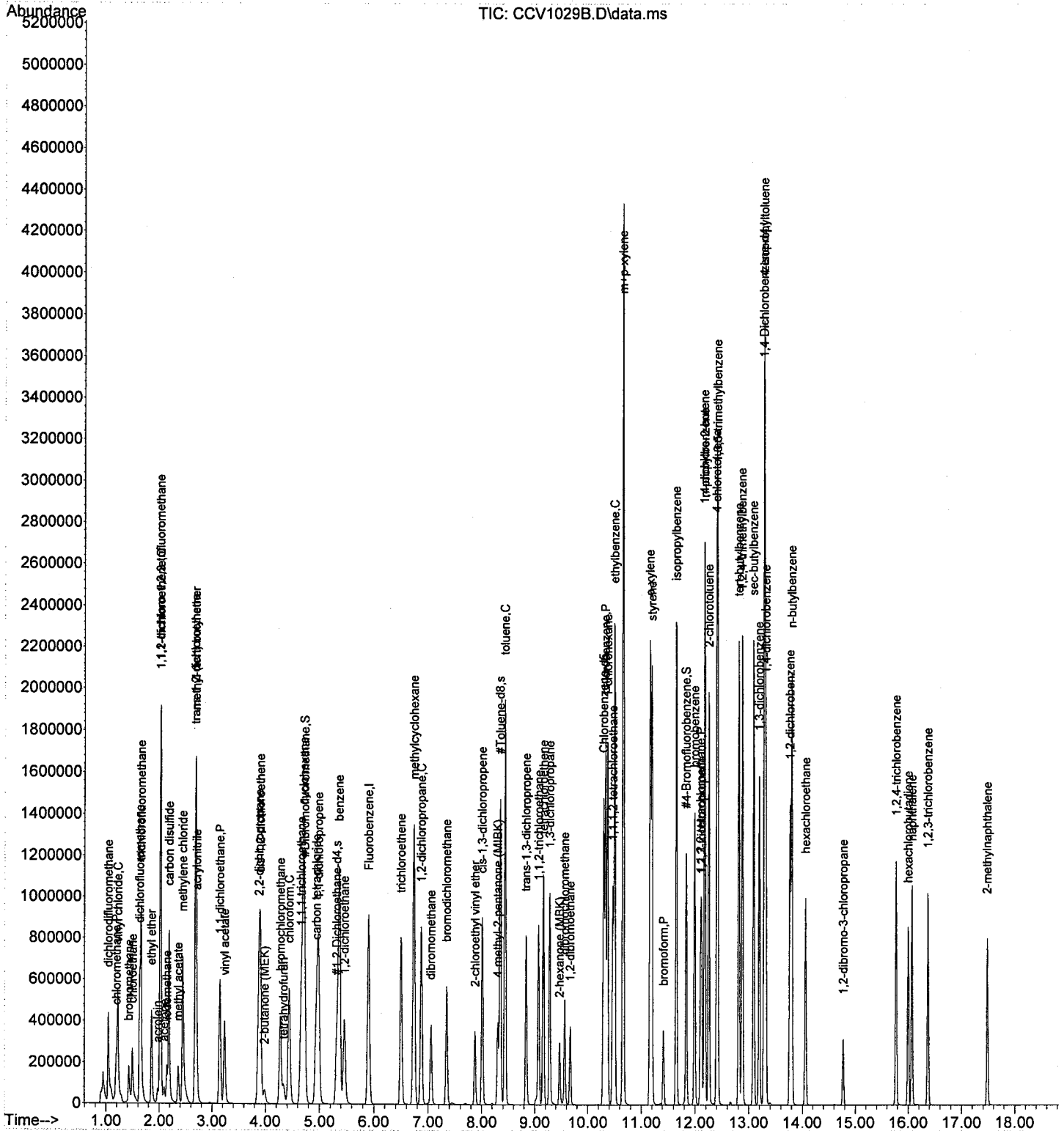
(#) = Out of Range

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

000382

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : CCV1029B.D
Acq On : 29 Oct 2015 19:17
Operator : BAG
Sample : CCV
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 30 08:15:29 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : CCV1029B.D
 Acq On : 29 Oct 2015 19:17
 Operator : BAG
 Sample : CCV
 Misc :
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 30 08:15:29 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.903	96	1005202	40.00	ug/L	-0.01
51) Chlorobenzene-d5	10.292	117	700206	40.00	ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.285	152	346505	40.00	ug/L	0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.726	111	250517	39.79	ug/L	-0.01
Spiked Amount	40.000		Recovery	=	99.48%	
37) #1,2-Dichloroethane-d4	5.324	67	187491	38.52	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	96.30%	
47) #Toluene-d8	8.347	98	971036	40.13	ug/L	-0.01
Spiked Amount	40.000		Recovery	=	100.33%	
65) #4-Bromofluorobenzene	11.834	95	401402	39.58	ug/L	-0.01
Spiked Amount	40.000		Recovery	=	98.95%	
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	1.044	85	436145	39.48	ug/L	100
3) chloromethane	1.196	50	414904	41.31	ug/L	99
4) vinyl chloride	1.221	62	423106	39.95	ug/L	100
5) bromomethane	1.428	94	127192	46.61	ug/L	98
6) chloroethane	1.495	64	236984	39.46	ug/L	99
7) dichlorofluoromethane	1.629	67	678388	39.31	ug/L	100
8) trichlorofluoromethane	1.654	101	518992	39.28	ug/L	99
9) ethyl ether	1.855	74	161767	38.11	ug/L	99
10) acrolein	1.971	56	56628	37.43	ug/L	100
11) 1,1,2-trichloro-1,2,2-...	2.019	101	374291	39.15	ug/L	100
12) 1,1-dichloroethene	2.025	96	325748	39.16	ug/L	100
13) acetone	2.099	43	106207	32.72	ug/L	99
14) iodomethane	2.147	142	230397	36.18	ug/L	98
15) carbon disulfide	2.190	76	974570	44.68	ug/L	100
16) methyl acetate	2.361	43	247619	36.43	ug/L	99
17) methylene chloride	2.446	49	545311	39.01	ug/L	99
18) acrylonitrile	2.708	53	137597	38.35	ug/L	99
19) trans-1,2-dichloroethene	2.684	96	305201	40.49	ug/L	99
20) methyl (tert) butyl ether	2.690	73	835917	40.08	ug/L	100
21) 1,1-dichloroethane	3.147	63	669956	40.41	ug/L	100
22) vinyl acetate	3.239	43	722243	37.90	ug/L	100
23) 2,2-dichloropropane	3.879	77	456540	40.93	ug/L	99
24) cis-1,2-dichloroethene	3.903	96	336561	40.39	ug/L	99
25) 2-butanone (MEK)	3.982	43	121031	32.38	ug/L	98
26) bromochloromethane	4.275	49	335206	39.81	ug/L	99
27) tetrahydrofuran	4.336	71	29616	34.85	ug/L	99
28) chloroform	4.440	83	610858	39.52	ug/L	100
30) 1,1,1-trichloroethane	4.665	97	506949	40.81	ug/L	100
31) cyclohexane	4.708	56	738823	41.15	ug/L	100
32) carbon tetrachloride	4.946	117	403171	40.90	ug/L	100
33) 1,1-dichloropropene	4.982	75	507875	40.49	ug/L	100
34) benzene	5.366	78	1358766	40.13	ug/L	100
35) 1,2-dichloroethane	5.464	62	496202	38.74	ug/L	100
36) heptane	5.903	57	46447	No Calib		
38) trichloroethene	6.500	130	300122	40.43	ug/L	99
39) methylcyclohexane	6.738	83	622153	41.16	ug/L	100
40) 1,2-dichloropropane	6.872	63	367506	41.03	ug/L	100
41) dibromomethane	7.055	93	180118	39.30	ug/L	99
42) 1,4-dioxane	0.000		0	N.D.		

000384

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : CCV1029B.D
 Acq On : 29 Oct 2015 19:17
 Operator : BAG
 Sample : CCV
 Misc :
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 30 08:15:29 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	7.348	83	412600	41.13	ug/L	100
44) 2-chloroethyl vinyl ether	7.878	63	158578	41.59	ug/L	99
45) cis-1,3-dichloropropene	8.012	75	501339	38.02	ug/L	100
46) 4-methyl-2-pentanone (...)	8.305	43	331609	38.65	ug/L #	98
48) toluene	8.439	91	1372587	40.48	ug/L	100
49) trans-1,3-dichloropropene	8.835	75	410306	37.20	ug/L	99
50) 1,1,2-trichloroethane	9.073	83	232856	40.61	ug/L	100
52) tetrachloroethene	9.164	166	309342	40.36	ug/L	100
53) 1,3-dichloropropane	9.280	76	532809	40.22	ug/L	99
54) 2-hexanone (MBK)	9.469	43	222904	37.72	ug/L	100
55) dibromochloromethane	9.567	129	243364	37.27	ug/L	100
56) 1,2-dibromoethane	9.670	109	241232	41.03	ug/L	100
57) chlorobenzene	10.329	112	787221	39.64	ug/L	100
58) 1-chlorohexane	10.371	55	443011	40.26	ug/L	100
59) 1,1,1,2-tetrachloroethane	10.469	131	256260	42.43	ug/L	100
60) ethylbenzene	10.505	91	1619137	41.12	ug/L	100
61) m+p-xylene	10.664	106	1140767	82.89	ug/L	100
62) o-xylene	11.164	106	539636	41.57	ug/L	100
63) styrene	11.200	104	940591	41.67	ug/L	100
64) bromoform	11.420	173	150328	35.01	ug/L	100
67) isopropylbenzene	11.658	105	1472365	41.29	ug/L	100
68) bromobenzene	11.993	77	630726	40.24	ug/L	100
69) 1,1,2,2-tetrachloroethane	12.103	83	357531	39.93	ug/L #	99
70) 1,2,3-trichloropropane	12.121	110	100982	39.18	ug/L	100
71) 1,4-dichloro-2-butene	12.176	53	124914	40.57	ug/L	99
72) n-propylbenzene	12.182	120	372627	41.18	ug/L	100
73) 2-chlorotoluene	12.255	126	306890	40.63	ug/L	100
74) 1,3,5-trimethylbenzene	12.420	105	1269839	41.29	ug/L	100
75) 4-chlorotoluene	12.401	91	1252460	40.49	ug/L	100
76) tert-butylbenzene	12.816	119	998898	41.26	ug/L	100
77) 1,2,4-trimethylbenzene	12.877	105	1206187	41.34	ug/L	100
78) sec-butylbenzene	13.090	105	1494011	41.29	ug/L	100
79) 1,3-dichlorobenzene	13.194	146	566595	40.12	ug/L	100
80) 4-isopropyltoluene	13.292	119	1220524	41.00	ug/L	100
81) 1,4-dichlorobenzene	13.316	146	569568	39.84	ug/L	99
82) 1,2-dichlorobenzene	13.773	146	517331	40.31	ug/L	99
83) n-butylbenzene	13.804	91	1113153	41.27	ug/L	100
84) hexachloroethane	14.060	201	107572	33.98	ug/L	96
85) 1,2-dibromo-3-chloropr...	14.773	157	66329	34.79	ug/L	99
86) 1,2,4-trichlorobenzene	15.773	180	322764	40.19	ug/L	99
87) hexachlorobutadiene	15.998	225	152391	36.78	ug/L	100
88) naphthalene	16.071	128	756223	40.14	ug/L	100
89) 1,2,3-trichlorobenzene	16.370	180	277895	39.50	ug/L	100
90) 2-methylnaphthalene	17.480	142	350042	34.16	ug/L	100

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

CONTINUING CALIBRATION CHECK

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Lab Sample ID: 5K02029-CCV1

Lab File ID: CCV1030.D

Injection Date: 10/30/15

Injection Time: 11:54

Calibration Date: 10/29/15 09:00

Calibration: 5J30003

Sequence: 5K02029

Instrument ID: 328

Analyte	Type	CONC. (ug/L)		Response Factor			% Diff. / Drift	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	L	40.0	38.6	0.1685799	0.1247807		-3.5	40
Acrolein	A	40.0	37.9	6.020138E-02	5.704619E-02		-5.2	20
Acrylonitrile	A	40.0	40.3	0.142778	0.1439211		0.8	20
Benzene	A	40.0	40.9	1.347202	1.377288		2.2	20
Bromobenzene	A	40.0	40.2	1.809567	1.817538		0.4	20
Bromochloromethane	A	40.0	40.6	0.3350351	0.3398198		1.4	20
Bromodichloromethane	A	40.0	42.0	0.3991906	0.4195188		5.1	20
Bromoform	L	40.0	36.2	0.2062673	0.2226766	0.1	-9.6	20
Bromomethane	A	40.0	44.0	0.1085805	0.119357		9.9	20
n-Butylbenzene	A	40.0	41.8	3.113624	3.254827		4.5	20
sec-Butylbenzene	A	40.0	41.6	4.176875	4.345536		4.0	20
tert-Butylbenzene	A	40.0	41.4	2.795015	2.894946		3.6	20
Carbon Disulfide	A	40.0	40.6	0.8679687	0.8805511		1.4	20
Carbon Tetrachloride	A	40.0	42.4	0.3922746	0.4155954		5.9	20
Chlorobenzene	A	40.0	40.3	1.13462	1.143051	0.3	0.7	20
Chloroethane	A	40.0	40.4	0.2390029	0.2411188		0.9	20
2-Chloroethyl Vinyl Ether	A	40.0	43.7	0.1517296	0.1657696		9.3	40
Chloroform	A	40.0	40.5	0.615046	0.6225438		1.2	20
1-Chlorohexane	A	40.0	40.7	0.6286128	0.6403021		1.9	20
Chloromethane	A	40.0	41.2	0.3996748	0.4119641	0.1	3.1	20
2-Chlorotoluene	A	40.0	40.9	0.8718805	0.8917083		2.3	20
4-Chlorotoluene	A	40.0	40.8	3.571138	3.642518		2.0	20
Cyclohexane	A	40.0	41.5	0.7145386	0.7417243		3.8	20
1,2-Dibromo-3-chloropropane	L	40.0	35.6	0.1861804	0.1965486		-10.9	20
Dibromochloromethane	L	40.0	37.6	0.3298845	0.3511203		-5.9	20
1,2-Dibromoethane	A	40.0	41.4	0.3358992	0.3474342		3.4	20
Dibromomethane	A	40.0	40.6	0.1823796	0.1853302		1.6	20
trans-1,4-Dichloro-2-butene	A	40.0	40.6	0.3554138	0.3606093		1.5	20
1,2-Dichlorobenzene	A	40.0	40.4	1.481634	1.494908		0.9	20

000386

CONTINUING CALIBRATION CHECK

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Lab Sample ID: 5K02029-CCV1

Lab File ID: CCV1030.D

Injection Date: 10/30/15

Injection Time: 11:54

Calibration Date: 10/29/15 09:00

Calibration: 5J30003

Sequence: 5K02029

Instrument ID: 328

Analyte	Type	CONC. (ug/L)		Response Factor			% Diff. / Drift	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
1,3-Dichlorobenzene	A	40.0	40.4	1.630265	1.644812		0.9	20
1,4-Dichlorobenzene	A	40.0	40.2	1.650374	1.658776		0.5	20
Dichlorodifluoromethane	A	40.0	40.6	0.4395929	0.4457266		1.4	20
1,1-Dichloroethane	A	40.0	41.0	0.6596846	0.6756438	0.1	2.4	20
1,2-Dichloroethane	A	40.0	39.9	0.5096255	0.5088758		-0.1	20
1,1-Dichloroethene	A	40.0	41.3	0.3309984	0.3421253		3.4	20
cis-1,2-Dichloroethene	A	40.0	41.1	0.3315784	0.3409968		2.8	20
trans-1,2-Dichloroethene	A	40.0	40.9	0.2999602	0.3069463		2.3	20
1,2-Dichloroethene (Total)	A	80.0	82.1	0.3157693	0.3239716		2.6	20
Dichlorofluoromethane	A	40.0	41.2	0.6867913	0.7072876		3.0	20
1,2-Dichloropropane	A	40.0	41.6	0.3563935	0.37065		4.0	20
1,3-Dichloropropane	A	40.0	40.6	0.7567275	0.7679925		1.5	20
2,2-Dichloropropane	A	40.0	40.2	0.4438849	0.4455118		0.4	20
1,1-Dichloropropene	A	40.0	40.9	0.4991197	0.5102501		2.2	20
cis-1,3-Dichloropropene	L	40.0	38.4	0.4676	0.5033189		-4.1	20
trans-1,3-Dichloropropene	L	40.0	37.7	0.3795297	0.4141034		-5.8	20
1,3-Dichloropropene (Total)	L	80.0	76.0	0.4235648	0.4587112		-4.9	20
Ethylbenzene	A	40.0	41.7	2.24943	2.345081		4.3	20
Ethyl Ether	A	40.0	40.9	0.1688964	0.1727761		2.3	20
Hexachlorobutadiene	A	40.0	36.2	0.4782597	0.4321856		-9.6	20
Hexachloroethane	L	40.0	34.8	0.3012921	0.3189791		-13.1	20
2-Hexanone	A	40.0	41.0	0.3376253	0.3457111		2.4	40
Iodomethane	L	40.0	41.4	0.1932982	0.2666141		3.4	40
Isopropylbenzene	A	40.0	41.5	4.116896	4.266788		3.6	20
4-Isopropyltoluene	A	40.0	41.6	3.43674	3.575073		4.0	20
Methyl Acetate	A	40.0	40.3	0.2704655	0.2723878		0.7	20
Methyl tert-Butyl Ether	A	40.0	41.0	0.82988	0.8516165		2.6	20
Methylcyclohexane	A	40.0	42.0	0.601538	0.6313138		4.9	20
Methylene Chloride	L	40.0	39.8	0.6425469	0.5535641		-0.4	20

000387

CONTINUING CALIBRATION CHECK

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Lab Sample ID: 5K02029-CCV1

Lab File ID: CCV1030.D

Injection Date: 10/30/15

Injection Time: 11:54

Calibration Date: 10/29/15 09:00

Calibration: 5J30003

Sequence: 5K02029

Instrument ID: 328

Analyte	Type	CONC. (ug/L)		Response Factor			% Diff. / Drift	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
2-Butanone (MEK)	A	40.0	38.0	0.1487184	0.1414348		-4.9	40
2-Methylnaphthalene	L	40.0	36.5	1.087765	1.084661		-8.8	40
4-Methyl-2-pentanone (MIBK)	A	40.0	42.2	0.3414332	0.359782		5.4	40
Naphthalene	A	40.0	41.3	2.174754	2.24323		3.1	20
n-Propylbenzene	A	40.0	41.5	1.044665	1.084932		3.9	20
Styrene	A	40.0	42.3	1.289425	1.363119		5.7	20
1,1,1,2-Tetrachloroethane	A	40.0	43.3	0.3450445	0.3738558		8.4	20
1,1,2,2-Tetrachloroethane	A	40.0	39.8	1.033712	1.029681	0.3	-0.4	20
Tetrachloroethene	A	40.0	41.7	0.4378822	0.4562727		4.2	20
Tetrahydrofuran	L	40.0	35.2	2.795676E-02	2.978015E-02		-12.0	20
Toluene	A	40.0	41.5	1.349217	1.398352		3.6	20
1,2,3-Trichlorobenzene	A	40.0	40.0	0.8120687	0.8113827		-0.08	20
1,2,4-Trichlorobenzene	A	40.0	41.1	0.9269908	0.9520865		2.7	20
1,1,1-Trichloroethane	A	40.0	42.1	0.4943228	0.5202384		5.2	20
1,1,2-Trichloroethane	A	40.0	41.1	0.2281708	0.2346781		2.9	20
Trichloroethene	A	40.0	41.3	0.2954109	0.305317		3.4	20
Trichlorofluoromethane	A	40.0	41.6	0.5257204	0.5474167		4.1	20
1,2,3-Trichloropropane	A	40.0	40.2	0.2975391	0.299381		0.6	20
1,1,2-Trichloro-1,2,2-trifluoroethane	A	40.0	41.4	0.3804685	0.393815		3.5	20
1,2,4-Trimethylbenzene	A	40.0	41.8	3.368256	3.518422		4.5	20
1,3,5-Trimethylbenzene	A	40.0	41.4	3.550355	3.670405		3.4	20
Vinyl Acetate	A	40.0	36.6	0.758283	0.6940263		-8.5	40
Vinyl Chloride	A	40.0	40.5	0.4214177	0.4263787		1.2	20
Xylene, Meta + Para	A	80.0	83.8	0.7862385	0.8232345		4.7	20
Xylene, Ortho	A	40.0	42.0	0.7416053	0.7790523		5.0	20
Xylene (Total)	A	120	126	0.7713608	0.8085071		4.8	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

000388

Data Path : C:\msdchem\1\DATA\10-30-15\
 InstName : 328
 Data File : CCV1030.D
 Acq On : 30 Oct 2015 11:54
 Operator : BAG
 Sample : CCV
 Misc :
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 02 07:54:44 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 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	1.000	1.000	0.0	94	-0.03
2	dichlorodifluoromethane	0.440	0.446	-1.4	94	0.00
3 P	chloromethane	0.400	0.412	-3.0	95	0.00
4 C	vinyl chloride	0.421	0.426	-1.2	93	-0.01
5	bromomethane	0.109	0.119	-9.2	99	0.00
6	chloroethane	0.239	0.241	-0.8	96	0.00
7	dichlorofluoromethane	0.687	0.707	-2.9	95	-0.01
8	trichlorofluoromethane	0.526	0.547	-4.0	95	-0.01
9	ethyl ether	0.169	0.173	-2.4	94	-0.01
10	acrolein	0.060	0.057	5.0	89	-0.01
11	1,1,2-trichloro-1,2,2-trifl	0.380	0.394	-3.7	95	-0.01
12 C	1,1-dichloroethene	0.331	0.342	-3.3	94	-0.01
13	acetone	0.169	0.125	26.0#	98	-0.02
14	iodomethane	0.193	0.267	-38.3#	105	-0.01
15	carbon disulfide	0.868	0.881	-1.5	98	-0.01
16	methyl acetate	0.270	0.272	-0.7	93	-0.01
17	methylene chloride	0.643	0.554	13.8	93	-0.01
18	acrylonitrile	0.143	0.144	-0.7	91	-0.02
19	trans-1,2-dichloroethene	0.300	0.307	-2.3	93	-0.02
20	methyl (tert) butyl ether	0.830	0.852	-2.7	94	-0.02
21 P	1,1-dichloroethane	0.660	0.676	-2.4	93	-0.02
22	vinyl acetate	0.758	0.694	8.4	83	-0.02
23	2,2-dichloropropane	0.444	0.446	-0.5	88	-0.03
24	cis-1,2-dichloroethene	0.332	0.341	-2.7	94	-0.03
25	2-butanone (MEK)	0.149	0.141	5.4	93	-0.02
26	bromochloromethane	0.335	0.340	-1.5	94	-0.03
27	tetrahydrofuran	0.028	0.030	-7.1	89	-0.03
28 C	chloroform	0.615	0.623	-1.3	94	-0.03
29 S	#Dibromofluoromethane	0.251	0.251	0.0	94	-0.03
30	1,1,1-trichloroethane	0.494	0.520	-5.3	94	-0.03
31	cyclohexane	0.715	0.742	-3.8	93	-0.03
32	carbon tetrachloride	0.392	0.416	-6.1	93	-0.03
33	1,1-dichloropropene	0.499	0.510	-2.2	93	-0.03
34	benzene	1.347	1.377	-2.2	94	-0.04
35	1,2-dichloroethane	0.510	0.509	0.2	93	-0.03
36	heptane	0.000	0.000	0.0	0#	-0.03
37 s	#1,2-Dichloroethane-d4	0.194	0.191	1.5	94	-0.04
38	trichloroethene	0.295	0.305	-3.4	95	-0.03
39	methylcyclohexane	0.602	0.631	-4.8	93	-0.02
40 C	1,2-dichloropropane	0.356	0.371	-4.2	94	-0.02
41	dibromomethane	0.182	0.185	-1.6	95	-0.02
42	1,4-dioxane	0.000	0.000	0.0	0#	-7.35#
43	bromodichloromethane	0.399	0.420	-5.3	93	-0.02
44	2-chloroethyl vinyl ether	0.152	0.166	-9.2	93	-0.02
45	cis-1,3-dichloropropene	0.468	0.503	-7.5	93	-0.02
46	4-methyl-2-pentanone (MIBK)	0.341	0.360	-5.6	95	-0.02
47 s	#Toluene-d8	0.963	0.976	-1.3	95	-0.02
48 C	toluene	1.349	1.398	-3.6	95	-0.02
49	trans-1,3-dichloropropene	0.380	0.414	-8.9	93	-0.02
50	1,1,2-trichloroethane	0.228	0.235	-3.1	93	-0.02

000389

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\10-30-15\
 InstName : 328
 Data File : CCV1030.D
 Acq On : 30 Oct 2015 11:54
 Operator : BAG
 Sample : CCV
 Misc :
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 02 07:54:44 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 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)
51	Chlorobenzene-d5	1.000	1.000	0.0	95	-0.02
52	tetrachloroethene	0.438	0.456	-4.1	96	-0.02
53	1,3-dichloropropane	0.757	0.768	-1.5	95	-0.02
54	2-hexanone (MBK)	0.338	0.346	-2.4	92	-0.02
55	dibromochloromethane	0.330	0.351	-6.4	93	-0.02
56	1,2-dibromoethane	0.336	0.347	-3.3	94	-0.02
57 P	chlorobenzene	1.135	1.143	-0.7	95	-0.02
58	1-chlorohexane	0.629	0.640	-1.7	93	-0.02
59	1,1,1,2-tetrachloroethane	0.345	0.374	-8.4	96	-0.02
60 C	ethylbenzene	2.249	2.345	-4.3	95	-0.02
61	m+p-xylene	0.786	0.823	-4.7	95	-0.02
62	o-xylene	0.742	0.779	-5.0	96	-0.02
63	styrene	1.289	1.363	-5.7	95	-0.02
64 P	bromoform	0.206	0.223	-8.3	92	-0.02
65 S	#4-Bromofluorobenzene	0.579	0.578	0.2	96	-0.02
66 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	-0.01
67	isopropylbenzene	4.117	4.267	-3.6	95	-0.02
68	bromobenzene	1.810	1.818	-0.4	95	-0.02
69 P	1,1,2,2-tetrachloroethane	1.034	1.030	0.4	93	-0.02
70	1,2,3-trichloropropane	0.298	0.299	-0.3	94	-0.01
71	1,4-dichloro-2-butene	0.355	0.361	-1.7	91	-0.02
72	n-propylbenzene	1.045	1.085	-3.8	95	-0.02
73	2-chlorotoluene	0.872	0.892	-2.3	96	-0.02
74	1,3,5-trimethylbenzene	3.550	3.670	-3.4	95	-0.02
75	4-chlorotoluene	3.571	3.643	-2.0	95	-0.01
76	tert-butylbenzene	2.795	2.895	-3.6	95	-0.02
77	1,2,4-trimethylbenzene	3.368	3.518	-4.5	95	-0.02
78	sec-butylbenzene	4.177	4.346	-4.0	95	-0.01
79	1,3-dichlorobenzene	1.630	1.645	-0.9	96	-0.01
80	4-isopropyltoluene	3.437	3.575	-4.0	94	-0.01
81	1,4-dichlorobenzene	1.650	1.659	-0.5	96	-0.02
82	1,2-dichlorobenzene	1.482	1.495	-0.9	96	-0.02
83	n-butylbenzene	3.114	3.255	-4.5	93	-0.02
84	hexachloroethane	0.301	0.319	-6.0	93	-0.02
85	1,2-dibromo-3-chloropropane	0.186	0.197	-5.9	92	-0.02
86	1,2,4-trichlorobenzene	0.927	0.952	-2.7	95	-0.01
87	hexachlorobutadiene	0.478	0.432	9.6	89	-0.01
88	naphthalene	2.175	2.243	-3.1	93	-0.02
89	1,2,3-trichlorobenzene	0.812	0.811	0.1	93	-0.01
90	2-methylnaphthalene	1.088	1.085	0.3	89	-0.01

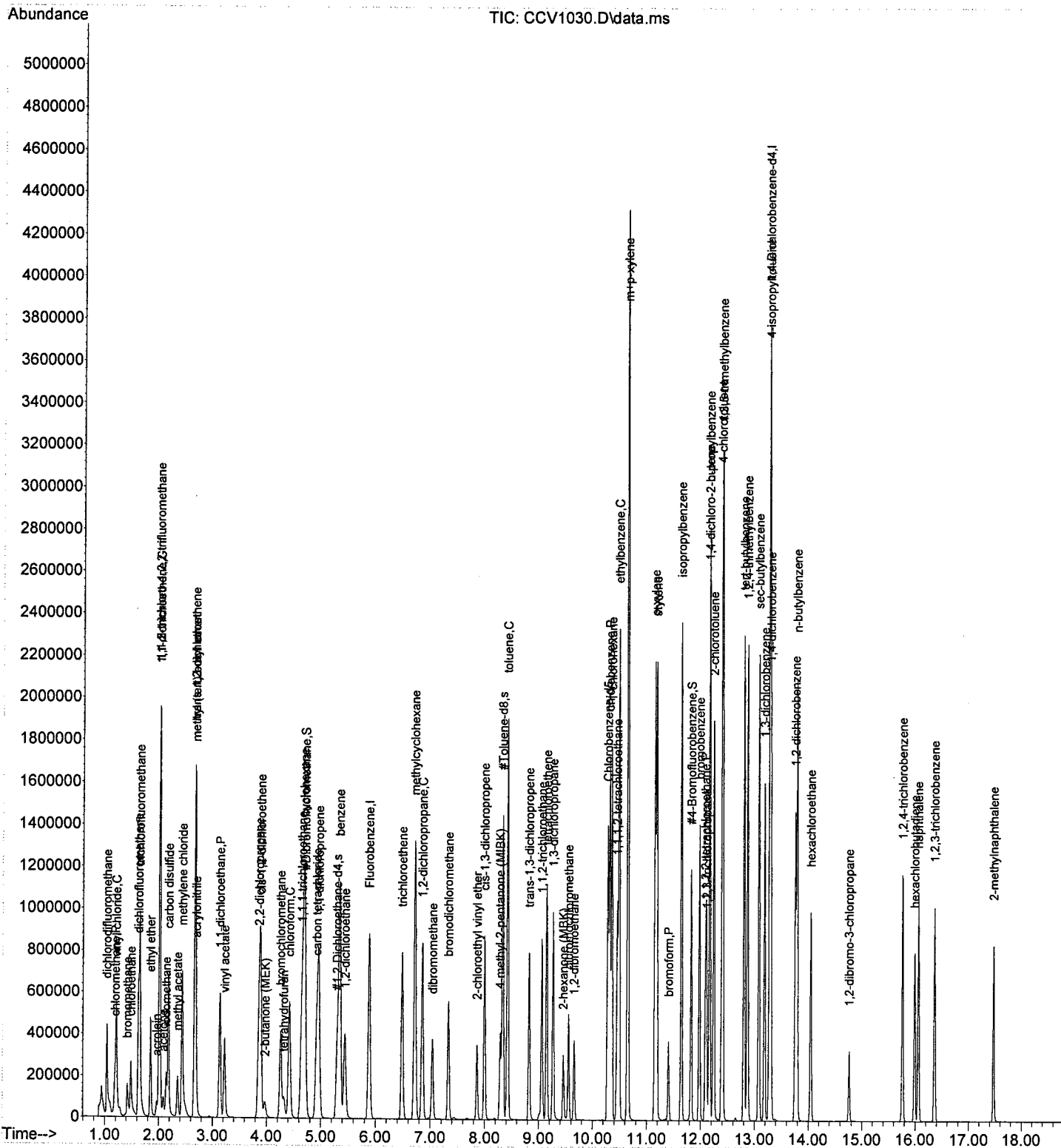
(#) = Out of Range

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

000390

Data Path : C:\msdchem\1\DATA\10-30-15\
InstName : 328
Data File : CCV1030.D
Acq On : 30 Oct 2015 11:54
Operator : BAG
Sample : CCV
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 02 07:54:44 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\10-30-15\
 InstName : 328
 Data File : CCV1030.D
 Acq On : 30 Oct 2015 11:54
 Operator : BAG
 Sample : CCV
 Misc :
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 02 07:54:44 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Fluorobenzene	5.884	96	968531	40.00	ug/L	-0.03
51) Chlorobenzene-d5	10.286	117	683646	40.00	ug/L	-0.02
66) 1,4-Dichlorobenzene-d4	13.279	152	343452	40.00	ug/L	-0.01
System Monitoring Compounds						
29) #Dibromofluoromethane	4.708	111	243236	40.10	ug/L	-0.03
Spiked Amount 40.000			Recovery	=	100.25%	
37) #1,2-Dichloroethane-d4	5.305	67	185392	39.53	ug/L	-0.04
Spiked Amount 40.000			Recovery	=	98.83%	
47) #Toluene-d8	8.335	98	945363	40.55	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	101.38%	
65) #4-Bromofluorobenzene	11.828	95	394905	39.88	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	99.70%	
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	1.038	85	431700	40.56	ug/L	100
3) chloromethane	1.196	50	399000	41.23	ug/L	100
4) vinyl chloride	1.215	62	412961	40.47	ug/L	100
5) bromomethane	1.422	94	115601	43.97	ug/L	98
6) chloroethane	1.489	64	233531	40.35	ug/L	99
7) dichlorofluoromethane	1.623	67	685030	41.19	ug/L	100
8) trichlorofluoromethane	1.647	101	530190	41.65	ug/L	99
9) ethyl ether	1.849	74	167339	40.92	ug/L	99
10) acrolein	1.964	56	55251	37.90	ug/L	99
11) 1,1,2-trichloro-1,2,2-...	2.013	101	381422	41.40	ug/L	100
12) 1,1-dichloroethene	2.019	96	331359	41.34	ug/L	99
13) acetone	2.086	43	120854	38.59	ug/L	100
14) iodomethane	2.141	142	258224	41.35	ug/L	99
15) carbon disulfide	2.184	76	852841	40.58	ug/L	100
16) methyl acetate	2.355	43	263816	40.28	ug/L	99
17) methylene chloride	2.440	49	536144	39.82	ug/L	99
18) acrylonitrile	2.702	53	139392	40.32	ug/L	99
19) trans-1,2-dichloroethene	2.678	96	297287	40.93	ug/L	100
20) methyl (tert) butyl ether	2.684	73	824817	41.05	ug/L	100
21) 1,1-dichloroethane	3.135	63	654382	40.97	ug/L	100
22) vinyl acetate	3.226	43	672186	36.61	ug/L	100
23) 2,2-dichloropropane	3.860	77	431492	40.15	ug/L	98
24) cis-1,2-dichloroethene	3.891	96	330266	41.14	ug/L	98
25) 2-butanone (MEK)	3.970	43	136984	38.04	ug/L	100
26) bromochloromethane	4.257	49	329126	40.57	ug/L	98
27) tetrahydrofuran	4.318	71	28843	35.19	ug/L	97
28) chloroform	4.421	83	602953	40.49	ug/L	100
30) 1,1,1-trichloroethane	4.653	97	503867	42.10	ug/L	100
31) cyclohexane	4.690	56	718383	41.52	ug/L	99
32) carbon tetrachloride	4.927	117	402517	42.38	ug/L	99
33) 1,1-dichloropropene	4.964	75	494193	40.89	ug/L	100
34) benzene	5.348	78	1333946	40.89	ug/L	100
35) 1,2-dichloroethane	5.446	62	492862	39.94	ug/L	100
36) heptane	5.884	57	47240	No Calib		
38) trichloroethene	6.488	130	295709	41.34	ug/L	99
39) methylcyclohexane	6.720	83	611447	41.98	ug/L	99
40) 1,2-dichloropropane	6.860	63	358986	41.60	ug/L	100
41) dibromomethane	7.043	93	179498	40.65	ug/L	99
42) 1,4-dioxane	0.000		0	N.D.		

000392

Data Path : C:\msdchem\1\DATA\10-30-15\
 InstName : 328
 Data File : CCV1030.D
 Acq On : 30 Oct 2015 11:54
 Operator : BAG
 Sample : CCV
 Misc :
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 02 07:54:44 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

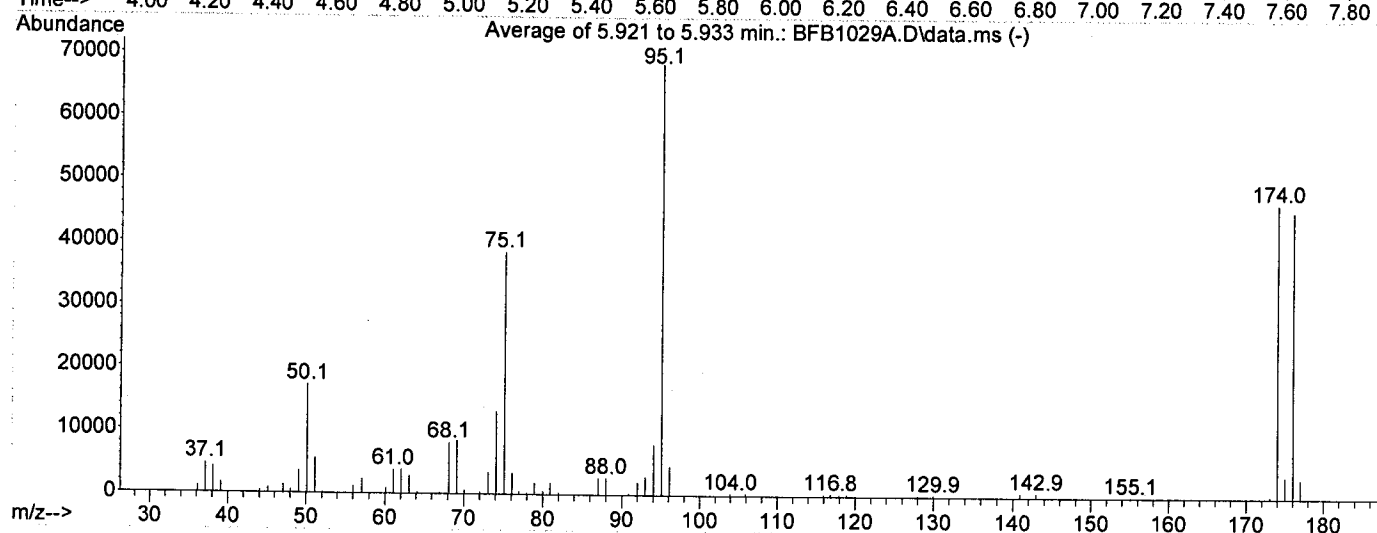
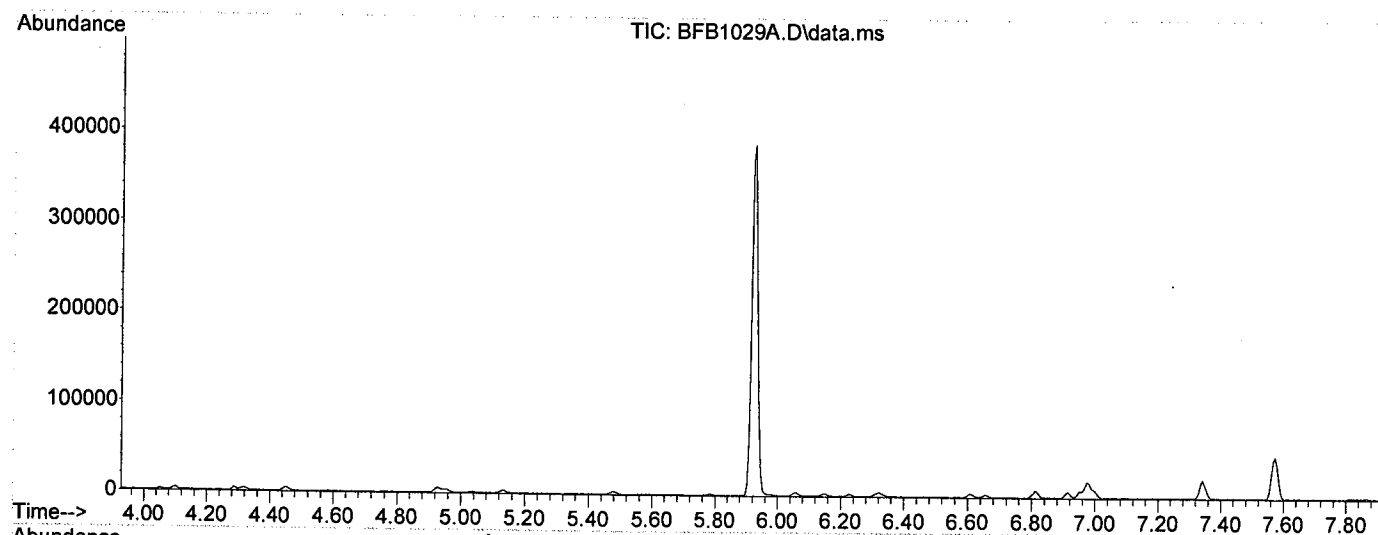
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	7.335	83	406317	42.04	ug/L	100
44) 2-chloroethyl vinyl ether	7.866	63	160553	43.70	ug/L	100
45) cis-1,3-dichloropropene	8.000	75	487480	38.35	ug/L	100
46) 4-methyl-2-pentanone (...)	8.286	43	348460	42.15	ug/L	# 99
48) toluene	8.427	91	1354347	41.46	ug/L	100
49) trans-1,3-dichloropropene	8.829	75	401072	37.70	ug/L	99
50) 1,1,2-trichloroethane	9.061	83	227293	41.14	ug/L	99
52) tetrachloroethene	9.152	166	311929	41.68	ug/L	99
53) 1,3-dichloropropane	9.268	76	525035	40.60	ug/L	100
54) 2-hexanone (MBK)	9.457	43	236344	40.96	ug/L	100
55) dibromochloromethane	9.554	129	240042	37.63	ug/L	100
56) 1,2-dibromoethane	9.658	109	237522	41.37	ug/L	100
57) chlorobenzene	10.317	112	781442	40.30	ug/L	100
58) 1-chlorohexane	10.359	55	437740	40.74	ug/L	100
59) 1,1,1,2-tetrachloroethane	10.457	131	255585	43.34	ug/L	99
60) ethylbenzene	10.493	91	1603205	41.70	ug/L	100
61) m+p-xylene	10.652	106	1125602	83.76	ug/L	99
62) o-xylene	11.158	106	532596	42.02	ug/L	100
63) styrene	11.188	104	931891	42.29	ug/L	100
64) bromoform	11.408	173	152232	36.18	ug/L	99
67) isopropylbenzene	11.646	105	1465437	41.46	ug/L	100
68) bromobenzene	11.981	77	624237	40.18	ug/L	99
69) 1,1,2,2-tetrachloroethane	12.091	83	353646	39.84	ug/L	# 100
70) 1,2,3-trichloropropane	12.115	110	102823	40.25	ug/L	99
71) 1,4-dichloro-2-butene	12.164	53	123852	40.58	ug/L	100
72) n-propylbenzene	12.170	120	372622	41.54	ug/L	98
73) 2-chlorotoluene	12.243	126	306259	40.91	ug/L	99
74) 1,3,5-trimethylbenzene	12.408	105	1260608	41.35	ug/L	100
75) 4-chlorotoluene	12.395	91	1251030	40.80	ug/L	100
76) tert-butylbenzene	12.804	119	994275	41.43	ug/L	100
77) 1,2,4-trimethylbenzene	12.871	105	1208409	41.78	ug/L	100
78) sec-butylbenzene	13.084	105	1492483	41.62	ug/L	100
79) 1,3-dichlorobenzene	13.188	146	564914	40.36	ug/L	100
80) 4-isopropyltoluene	13.285	119	1227866	41.61	ug/L	100
81) 1,4-dichlorobenzene	13.304	146	569710	40.20	ug/L	99
82) 1,2-dichlorobenzene	13.761	146	513429	40.36	ug/L	99
83) n-butylbenzene	13.791	91	1117877	41.81	ug/L	99
84) hexachloroethane	14.047	201	109554	34.77	ug/L	96
85) 1,2-dibromo-3-chloropr...	14.761	157	67505	35.63	ug/L	99
86) 1,2,4-trichlorobenzene	15.767	180	326996	41.08	ug/L	99
87) hexachlorobutadiene	15.992	225	148435	36.15	ug/L	99
88) naphthalene	16.059	128	770442	41.26	ug/L	100
89) 1,2,3-trichlorobenzene	16.364	180	278671	39.97	ug/L	99
90) 2-methylnaphthalene	17.474	142	372529	36.46	ug/L	99

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

Data Path : C:\msdchem\1\DATA\10-29-15\
 Data File : BFB1029A.D
 Acq On : 29 Oct 2015 9:41
 Operator : BAG
 Sample : BFB
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\8260-WN69.M
 Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 Last Update : Thu Oct 29 14:49:04 2015



AutoFind: Scans 875, 876, 877; Background Corrected with Scan 868

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.0	17093	PASS
75	95	30	60	56.1	38451	PASS
95	95	100	100	100.0	68491	PASS
96	95	5	9	6.6	4518	PASS
173	174	0.00	2	0.6	299	PASS
174	95	50	100	68.1	46632	PASS
175	174	5	9	7.2	3355	PASS
176	174	95	101	97.4	45419	PASS
177	176	5	9	6.7	3054	PASS

Average of 5.921 to 5.933 min.: BFB1029A.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1029	52.05	150	68.10	8044	78.95	1795
37.10	4617	55.05	169	69.10	8404	80.00	543
38.10	4082	56.05	1157	70.05	554	80.90	1887
39.10	1609	57.10	2248	72.00	305	82.00	329
44.00	383	58.10	70	73.10	3372	87.00	2636
45.10	844	60.10	808	74.10	12998	88.00	2638
47.10	1307	61.05	3740	75.10	38451	90.90	235
48.05	506	62.05	3787	76.10	3327	92.00	2012
49.10	3551	63.10	2813	76.95	408	93.00	2867
50.10	17093	64.15	227	77.95	199	94.05	7915
51.10	5527	67.00	210	78.20	58	95.10	68491

Average of 5.921 to 5.933 min.: BFB1029A.D\data.ms

BFB

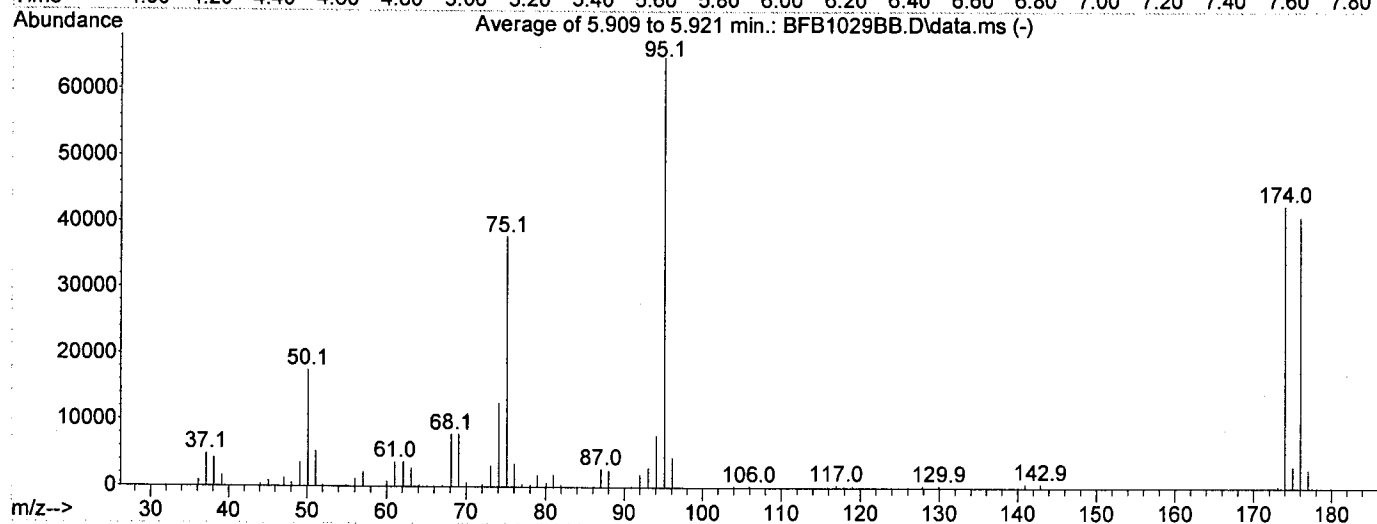
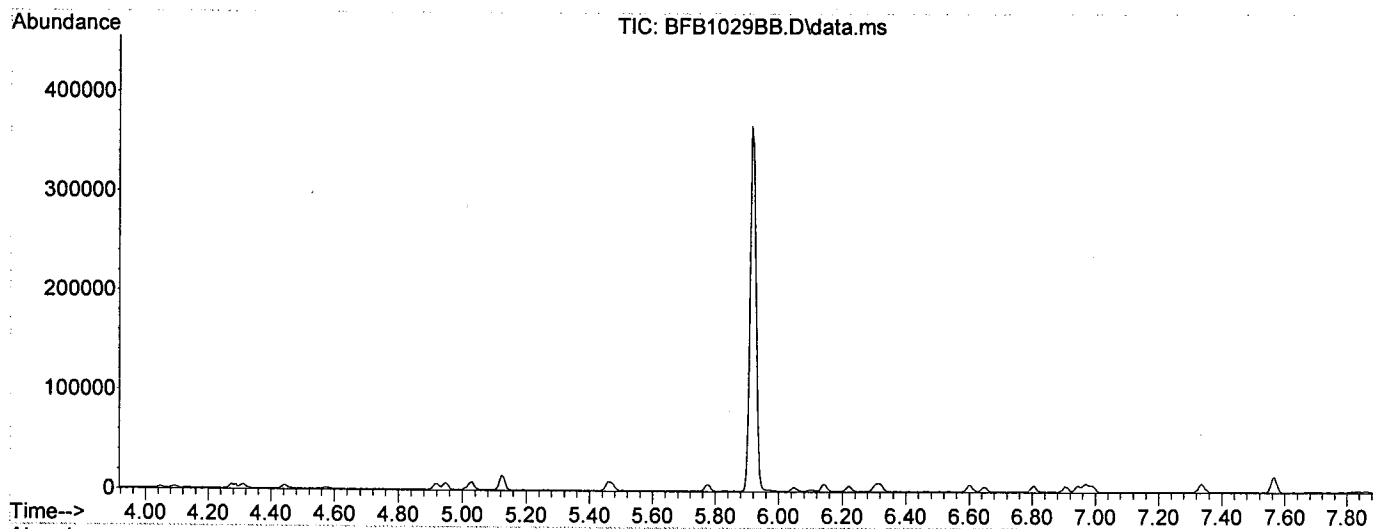
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.10	4518	142.95	662				
97.00	54	155.10	107				
103.95	305	173.05	299				
105.90	295	174.00	46632				
115.95	232	175.00	3355				
116.85	357	176.00	45419				
117.95	235	177.00	3054				
118.95	309	178.00	57				
127.95	134						
129.95	249						
140.90	639						

Data Path : C:\msdchem\1\DATA\10-29-15\
 Data File : BFB1029BB.D
 Acq On : 29 Oct 2015 18:49
 Operator : BAG
 Sample : BFB
 Misc :
 ALS Vial : 24 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\8260-WN69.M
 Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 Last Update : Thu Oct 29 14:49:04 2015



AutoFind: Scans 873, 874, 875; Background Corrected with Scan 867

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	27.0	17504	PASS
75	95	30	60	58.2	37771	PASS
95	95	100	100	100.0	64891	PASS
96	95	5	9	6.8	4413	PASS
173	174	0.00	2	0.5	230	PASS
174	95	50	100	65.8	42667	PASS
175	174	5	9	7.6	3227	PASS
176	174	95	101	95.9	40901	PASS
177	176	5	9	6.8	2765	PASS

Average of 5.909 to 5.921 min.: BFB1029BB.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.15	949	52.00	224	69.05	7863	80.95	1808
37.10	4848	54.95	214	70.05	632	81.95	369
38.10	4220	56.00	1169	72.00	336	87.00	2687
39.10	1621	57.05	2198	73.05	3129	88.00	2453
44.05	293	60.00	827	74.10	12508	90.90	173
45.10	848	61.05	3657	75.10	37771	92.00	1890
47.10	1265	62.10	3697	76.05	3442	93.05	2903
48.05	545	63.10	2731	77.00	390	94.10	7732
49.10	3558	64.05	261	78.00	313	95.10	64891
50.10	17504	67.00	140	78.90	1760	96.10	4413
51.10	5249	68.10	7843	80.05	572	103.80	70

Average of 5.909 to 5.921 min.: BFB1029BB.D\data.ms

BFB

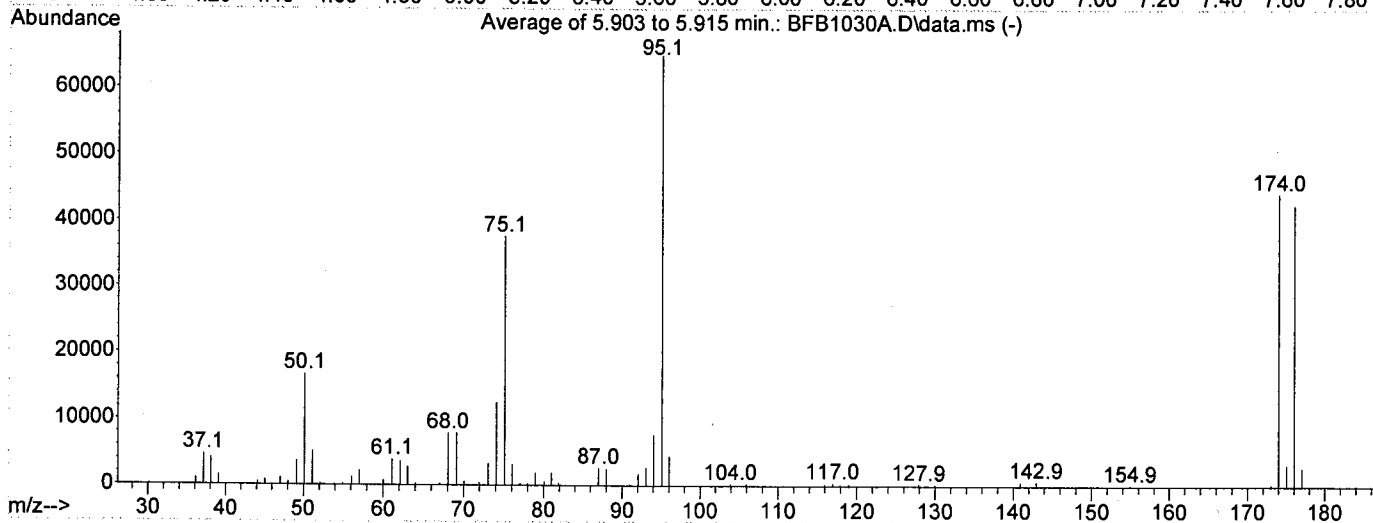
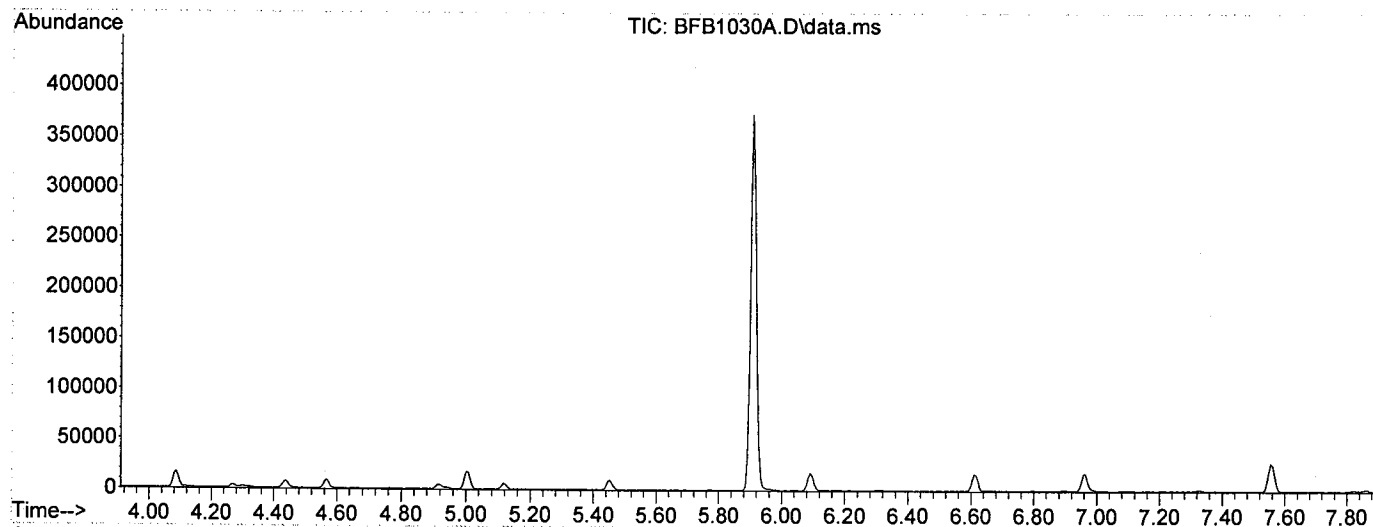
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
104.00	195	173.10	230				
105.80	60	174.00	42667				
105.95	207	175.00	3227				
115.90	134	176.00	40901				
116.95	366	176.95	2765				
117.90	236						
118.95	254						
127.90	248						
129.95	258						
140.95	536						
142.90	605						

Data Path : C:\msdchem\1\DATA\10-30-15\
 Data File : BFB1030A.D
 Acq On : 30 Oct 2015 11:26
 Operator : BAG
 Sample : BFB
 Misc :
 ALS Vial : 9 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\8260-WN69.M
 Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 Last Update : Thu Oct 29 14:49:04 2015



AutoFind: Scans 872, 873, 874; Background Corrected with Scan 866

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.7	16682	PASS
75	95	30	60	58.0	37632	PASS
95	95	100	100	100.0	64917	PASS
96	95	5	9	6.8	4404	PASS
173	174	0.00	2	0.6	263	PASS
174	95	50	100	68.2	44264	PASS
175	174	5	9	7.3	3221	PASS
176	174	95	101	96.1	42536	PASS
177	176	5	9	6.3	2685	PASS

DW
11/4/15

Average of 5.903 to 5.915 min.: BFB1030A.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	993	52.10	231	69.10	7934	80.05	572
37.10	4644	55.00	186	70.05	592	81.00	1840
38.10	4081	56.10	1198	71.95	372	81.90	326
39.10	1499	57.05	2169	73.05	3253	87.00	2640
44.10	442	60.05	669	74.05	12553	88.00	2495
45.05	769	61.10	3839	75.10	37632	90.95	217
47.05	1049	62.10	3603	76.05	3120	92.05	1724
48.05	481	63.05	2742	76.90	132	93.05	2714
49.10	3600	64.05	239	77.05	231	94.05	7667
50.10	16682	67.05	227	77.95	258	95.10	64917
51.10	5139	68.05	7845	78.95	1796	96.05	4404

Average of 5.903 to 5.915 min.: BFB1030A.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
103.95	265	142.95	624				
105.95	247	148.00	58				
115.95	207	154.95	116				
116.95	409	172.90	60				
117.90	223	173.05	263				
119.00	283	174.00	44264				
127.90	224	175.00	3221				
129.00	60	176.00	42536				
129.95	207	177.00	2685				
136.80	59						
140.90	600						

METHOD BLANK DATA SHEET

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511719-BLK1

File ID: BLK1029B.D

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 21:11

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
67-64-1	Acetone	10	ug/L	2.4	10	U
71-43-2	Benzene	1.0	ug/L	0.27	1.0	U
108-86-1	Bromobenzene	1.0	ug/L	0.21	1.0	U
74-97-5	Bromochloromethane	1.0	ug/L	0.22	1.0	U
75-27-4	Bromodichloromethane	1.0	ug/L	0.26	1.0	U
75-25-2	Bromoform	1.0	ug/L	0.14	1.0	U
74-83-9	Bromomethane	1.0	ug/L	0.18	1.0	U
104-51-8	n-Butylbenzene	1.0	ug/L	0.28	1.0	U
135-98-8	sec-Butylbenzene	1.0	ug/L	0.10	1.0	U
98-06-6	tert-Butylbenzene	1.0	ug/L	0.11	1.0	U
75-15-0	Carbon Disulfide	5.0	ug/L	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1.0	ug/L	0.30	1.0	U
108-90-7	Chlorobenzene	1.0	ug/L	0.24	1.0	U
75-00-3	Chloroethane	1.0	ug/L	0.22	1.0	U
67-66-3	Chloroform	1.0	ug/L	0.21	1.0	U
74-87-3	Chloromethane	1.0	ug/L	0.18	1.0	U
95-49-8	2-Chlorotoluene	1.0	ug/L	0.16	1.0	U
106-43-4	4-Chlorotoluene	1.0	ug/L	0.30	1.0	U
124-48-1	Dibromochloromethane	1.0	ug/L	0.29	1.0	U
106-93-4	1,2-Dibromoethane	5.0	ug/L	0.14	5.0	U
74-95-3	Dibromomethane	1.0	ug/L	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	ug/L	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	ug/L	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	ug/L	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	10	ug/L	0.29	10	U
75-34-3	1,1-Dichloroethane	1.0	ug/L	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1.0	ug/L	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1.0	ug/L	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	ug/L	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	ug/L	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	2.0	ug/L	0.37	2.0	U
78-87-5	1,2-Dichloropropane	1.0	ug/L	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1.0	ug/L	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1.0	ug/L	0.27	1.0	U
563-58-6	1,1-Dichloropropene	1.0	ug/L	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	ug/L	0.21	1.0	U

000400

METHOD BLANK DATA SHEET

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511719-BLK1

File ID: BLK1029B.D

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 21:11

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
10061-02-6	trans-1,3-Dichloropropene	1.0	ug/L	0.22	1.0	U
100-41-4	Ethylbenzene	1.0	ug/L	0.065	1.0	U
591-78-6	2-Hexanone	10	ug/L	0.55	10	U
98-82-8	Isopropylbenzene	1.0	ug/L	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1.0	ug/L	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	ug/L	0.25	5.0	U
75-09-2	Methylene Chloride	5.0	ug/L	0.23	5.0	U
78-93-3	2-Butanone (MEK)	10	ug/L	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	10	ug/L	0.35	10	U
103-65-1	n-Propylbenzene	1.0	ug/L	0.23	1.0	U
100-42-5	Styrene	1.0	ug/L	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	ug/L	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	ug/L	0.26	1.0	U
127-18-4	Tetrachloroethene	1.0	ug/L	0.15	1.0	U
108-88-3	Toluene	1.0	ug/L	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	ug/L	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	ug/L	0.27	1.0	U
79-01-6	Trichloroethene	1.0	ug/L	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1.0	ug/L	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	ug/L	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	ug/L	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	ug/L	0.060	1.0	U
108-05-4	Vinyl Acetate	10	ug/L	0.32	10	U
75-01-4	Vinyl Chloride	2.0	ug/L	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	2.0	ug/L	0.24	2.0	U
95-47-6	Xylene, Ortho	1.0	ug/L	0.12	1.0	U
1330-20-7	Xylene (Total)	3.0	ug/L	0.36	3.0	U

System Monitoring Compound	Added (ug/L)	Conc. (ug/L)	% REC	QC Limits	Q
Dibromofluoromethane	40.0	38.6	97	85 - 118	
1,2-Dichloroethane-d4	40.0	39.9	100	87 - 122	
Toluene-d8	40.0	39.1	98	85 - 113	
4-Bromofluorobenzene	40.0	39.8	100	82 - 110	

Internal Standard	Area	RT	% REC	Ref. RT	Q
Fluorobenzene	1000803	5.903	100	5.915	

000401

METHOD BLANK DATA SHEET
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511719-BLK1

File ID: BLK1029B.D

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 21:11

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

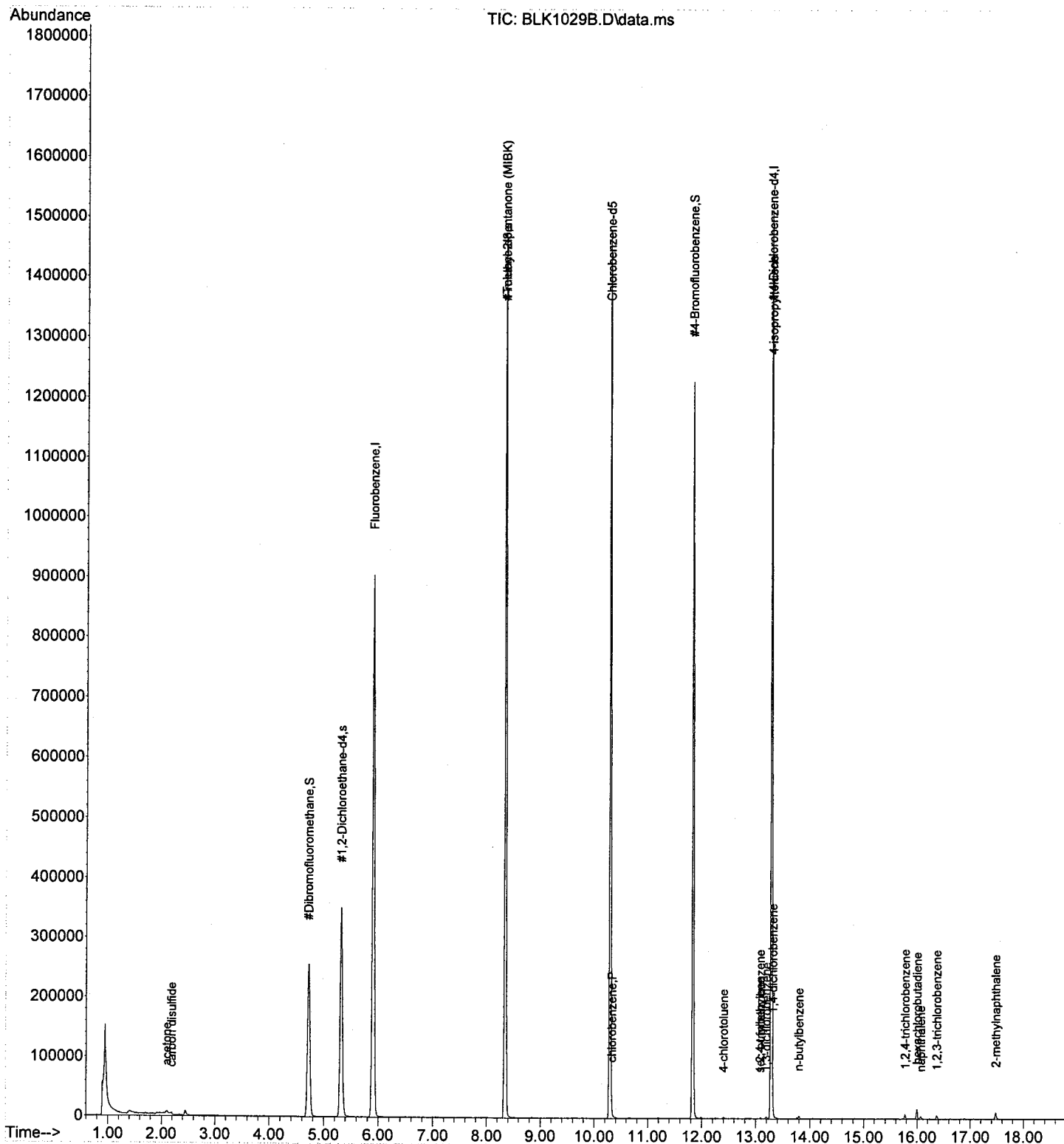
Calibration: 5J30003

Instrument: 328

Internal Standard	Area	RT	% REC	Ref. RT	Q
Chlorobenzene-d5	691287	10.292	99	10.305	
1,4-Dichlorobenzene-d4	334941	13.286	97	13.292	

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : BLK1029B.D
Acq On : 29 Oct 2015 21:11
Operator : BAG
Sample : BLK
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 30 08:15:59 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : BLK1029B.D
 Acq On : 29 Oct 2015 21:11
 Operator : BAG
 Sample : BLK
 Misc :
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 30 08:15:59 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.903	96	1000803	40.00	ug/L	-0.01
51) Chlorobenzene-d5	10.292	117	691287	40.00	ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.286	152	334941	40.00	ug/L	# 0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.720	111	242244	38.65	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	96.63%	
37) #1,2-Dichloroethane-d4	5.324	67	193492	39.93	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	99.83%	
47) #Toluene-d8	8.348	98	942033	39.10	ug/L	-0.01
Spiked Amount 40.000			Recovery	=	97.75%	
65) #4-Bromofluorobenzene	11.835	95	398605	39.81	ug/L	-0.01
Spiked Amount 40.000			Recovery	=	99.53%	
Target Compounds						
						Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	0.000		0	N.D.		
13) acetone	2.099	43	6656	2.29	ug/L #	88
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.190	76	3146	0.14	ug/L #	75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.446	49	6834	Below Cal		94
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	0.000		0	N.D.		
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	0.000		0	N.D.		
25) 2-butanone (MEK)	0.000		0	N.D.		
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	0.000		0	N.D.		
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.903	57	44266	No Calib		
38) trichloroethene	0.000		0	N.D.		
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000404

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : BLK1029B.D
 Acq On : 29 Oct 2015 21:11
 Operator : BAG
 Sample : BLK
 Misc :
 ALS Vial : 29 Sample Multiplier: 1

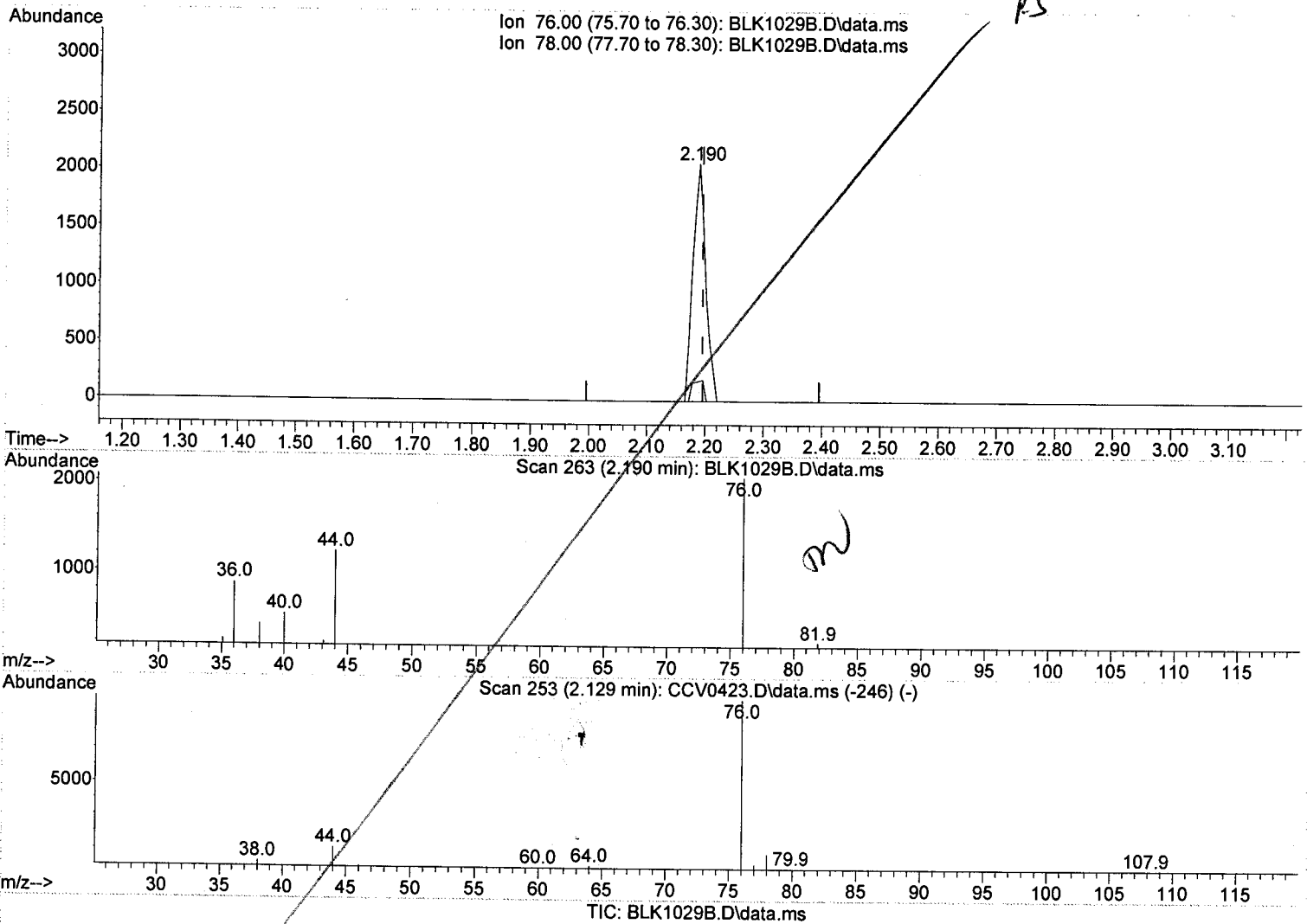
Quant Time: Oct 30 08:15:59 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.348	43	5945	0.70 ug/L #	1	
48) toluene	0.000		0	N.D.		
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	0.000		0	N.D.		
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	10.329	112	1233	0.06 ug/L #	22	
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	0.000		0	N.D.		
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	12.402	91	1718	0.06 ug/L #	50	
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	13.084	105	1670	0.06 ug/L #	33	
78) sec-butylbenzene	13.084	105	1670	0.05 ug/L #	58	
79) 1,3-dichlorobenzene	13.194	146	1359	0.10 ug/L #	24	
80) 4-isopropyltoluene	13.292	119	1724	0.06 ug/L #	16	
81) 1,4-dichlorobenzene	13.310	146	2084	0.15 ug/L #	12	
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	13.798	91	3038	0.12 ug/L #	81	
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	15.773	180	2722	0.35 ug/L #	85	
87) hexachlorobutadiene	15.998	225	2998	0.75 ug/L	97	
88) naphthalene	16.072	128	4250	0.23 ug/L #	72	
89) 1,2,3-trichlorobenzene	16.370	180	2202	0.32 ug/L #	82	
90) 2-methylnaphthalene	17.480	142	6033	3.56 ug/L	97	

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

Data Path : C:\msdchem\1\DATA\10-29-15\
InstName : 328
Data File : BLK1029B.D
Acq On : 29 Oct 2015 21:11
Operator : BAG
Sample : BLK
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 30 08:15:59 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



(15) carbon disulfide

2.190min (-0.006) 0.14 ug/L

response 3146

Ion	Exp%	Act%
76.00	100	100
78.00	9.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

METHOD BLANK DATA SHEET

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511821-BLK1

File ID: BLK1030.D

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 14:16

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
67-64-1	Acetone	10	ug/L	2.4	10	U
71-43-2	Benzene	1.0	ug/L	0.27	1.0	U
108-86-1	Bromobenzene	1.0	ug/L	0.21	1.0	U
74-97-5	Bromochloromethane	1.0	ug/L	0.22	1.0	U
75-27-4	Bromodichloromethane	1.0	ug/L	0.26	1.0	U
75-25-2	Bromoform	1.0	ug/L	0.14	1.0	U
74-83-9	Bromomethane	1.0	ug/L	0.18	1.0	U
104-51-8	n-Butylbenzene	1.0	ug/L	0.28	1.0	U
135-98-8	sec-Butylbenzene	1.0	ug/L	0.10	1.0	U
98-06-6	tert-Butylbenzene	1.0	ug/L	0.11	1.0	U
75-15-0	Carbon Disulfide	5.0	ug/L	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1.0	ug/L	0.30	1.0	U
108-90-7	Chlorobenzene	1.0	ug/L	0.24	1.0	U
75-00-3	Chloroethane	1.0	ug/L	0.22	1.0	U
67-66-3	Chloroform	1.0	ug/L	0.21	1.0	U
74-87-3	Chloromethane	1.0	ug/L	0.18	1.0	U
95-49-8	2-Chlorotoluene	1.0	ug/L	0.16	1.0	U
106-43-4	4-Chlorotoluene	1.0	ug/L	0.30	1.0	U
124-48-1	Dibromochloromethane	1.0	ug/L	0.29	1.0	U
106-93-4	1,2-Dibromoethane	5.0	ug/L	0.14	5.0	U
74-95-3	Dibromomethane	1.0	ug/L	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	ug/L	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	ug/L	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	ug/L	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	10	ug/L	0.29	10	U
75-34-3	1,1-Dichloroethane	1.0	ug/L	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1.0	ug/L	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1.0	ug/L	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	ug/L	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	ug/L	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	2.0	ug/L	0.37	2.0	U
78-87-5	1,2-Dichloropropane	1.0	ug/L	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1.0	ug/L	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1.0	ug/L	0.27	1.0	U
563-58-6	1,1-Dichloropropene	1.0	ug/L	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	ug/L	0.21	1.0	U

000407

METHOD BLANK DATA SHEET

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511821-BLK1

File ID: BLK1030.D

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 14:16

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
10061-02-6	trans-1,3-Dichloropropene	1.0	ug/L	0.22	1.0	U
100-41-4	Ethylbenzene	1.0	ug/L	0.065	1.0	U
591-78-6	2-Hexanone	10	ug/L	0.55	10	U
98-82-8	Isopropylbenzene	1.0	ug/L	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1.0	ug/L	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	ug/L	0.25	5.0	U
75-09-2	Methylene Chloride	5.0	ug/L	0.23	5.0	U
78-93-3	2-Butanone (MEK)	10	ug/L	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	10	ug/L	0.35	10	U
103-65-1	n-Propylbenzene	1.0	ug/L	0.23	1.0	U
100-42-5	Styrene	1.0	ug/L	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	ug/L	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	ug/L	0.26	1.0	U
127-18-4	Tetrachloroethene	1.0	ug/L	0.15	1.0	U
108-88-3	Toluene	1.0	ug/L	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	ug/L	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	ug/L	0.27	1.0	U
79-01-6	Trichloroethene	1.0	ug/L	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1.0	ug/L	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	ug/L	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	ug/L	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	ug/L	0.060	1.0	U
108-05-4	Vinyl Acetate	10	ug/L	0.32	10	U
75-01-4	Vinyl Chloride	2.0	ug/L	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	2.0	ug/L	0.24	2.0	U
95-47-6	Xylene, Ortho	1.0	ug/L	0.12	1.0	U
1330-20-7	Xylene (Total)	3.0	ug/L	0.36	3.0	U

System Monitoring Compound	Added (ug/L)	Conc. (ug/L)	% REC	QC Limits	Q
Dibromofluoromethane	40.0	39.6	99	85 - 118	
1,2-Dichloroethane-d4	40.0	40.4	101	87 - 122	
Toluene-d8	40.0	40.0	100	85 - 113	
4-Bromofluorobenzene	40.0	39.9	100	82 - 110	

Internal Standard	Area	RT	% REC	Ref. RT	Q
Fluorobenzene	962350	5.891	99	5.915	

000408

METHOD BLANK DATA SHEET
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511821-BLK1

File ID: BLK1030.D

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 14:16

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

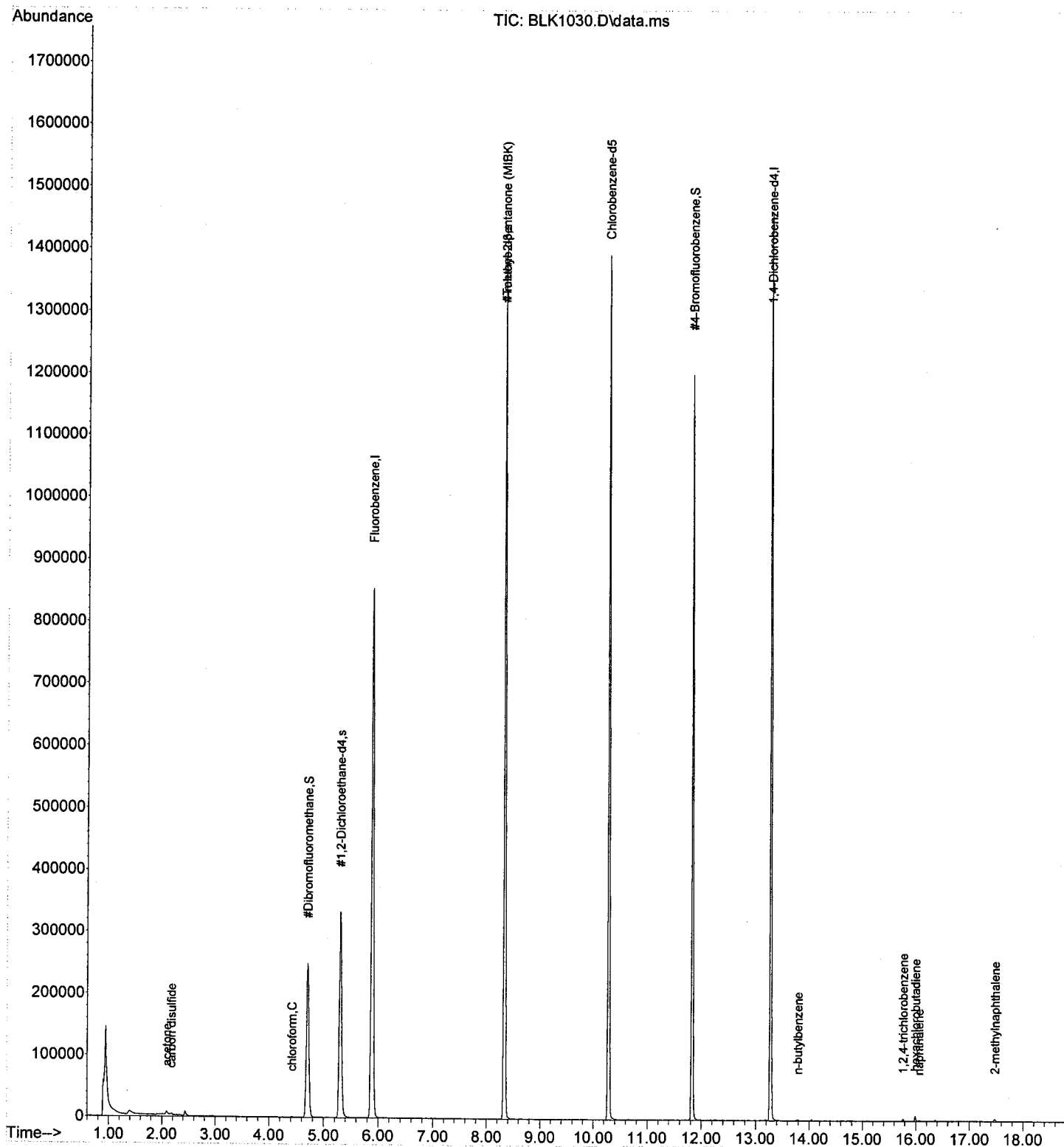
Calibration: 5J30003

Instrument: 328

Internal Standard	Area	RT	% REC	Ref. RT	Q
Chlorobenzene-d5	671648	10.286	98	10.305	
1,4-Dichlorobenzene-d4	329831	13.28	96	13.292	

Data Path : C:\msdchem\1\DATA\10-30-15\
InstName : 328
Data File : BLK1030.D
Acq On : 30 Oct 2015 14:16
Operator : BAG
Sample : BLK
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 02 07:55:33 2015
Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
QLast Update : Thu Oct 29 14:49:04 2015
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\10-30-15\
 InstName : 328
 Data File : BLK1030.D
 Acq On : 30 Oct 2015 14:16
 Operator : BAG
 Sample : BLK
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 02 07:55:33 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

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

Internal Standards						
1) Fluorobenzene	5.891	96	962255	40.00	ug/L	-0.02
51) Chlorobenzene-d5	10.286	117	672248	40.00	ug/L	-0.02
66) 1,4-Dichlorobenzene-d4	13.280	152	329168	40.00	ug/L	#-0.01
System Monitoring Compounds						
29) #Dibromofluoromethane	4.708	111	236106	39.18	ug/L	-0.03
Spiked Amount	40.000		Recovery	=	97.95%	
37) #1,2-Dichloroethane-d4	5.306	67	186005	39.92	ug/L	-0.04
Spiked Amount	40.000		Recovery	=	99.80%	
47) #Toluene-d8	8.335	98	912909	39.41	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	98.52%	
65) #4-Bromofluorobenzene	11.829	95	382343	39.26	ug/L	-0.02
Spiked Amount	40.000		Recovery	=	98.15%	
Target Compounds						
						Qvalue
2) dichlorodifluoromethane	0.000		0	N.D.		
3) chloromethane	0.000		0	N.D.		
4) vinyl chloride	0.000		0	N.D.		
5) bromomethane	0.000		0	N.D.		
6) chloroethane	0.000		0	N.D.		
7) dichlorofluoromethane	0.000		0	N.D.		
8) trichlorofluoromethane	0.000		0	N.D.		
9) ethyl ether	0.000		0	N.D.		
10) acrolein	0.000		0	N.D.		
11) 1,1,2-trichloro-1,2,2-...	0.000		0	N.D.		
12) 1,1-dichloroethene	0.000		0	N.D.		
13) acetone	2.093	43	7333	2.59	ug/L	92
14) iodomethane	0.000		0	N.D.		
15) carbon disulfide	2.178	76	1701	0.08	ug/L #	75
16) methyl acetate	0.000		0	N.D.		
17) methylene chloride	2.440	49	5257	Below Cal		97
18) acrylonitrile	0.000		0	N.D.		
19) trans-1,2-dichloroethene	0.000		0	N.D.		
20) methyl (tert) butyl ether	0.000		0	N.D.		
21) 1,1-dichloroethane	0.000		0	N.D.		
22) vinyl acetate	0.000		0	N.D.		
23) 2,2-dichloropropane	0.000		0	N.D.		
24) cis-1,2-dichloroethene	0.000		0	N.D.		
25) 2-butanone (MEK)	0.000		0	N.D.		
26) bromochloromethane	0.000		0	N.D.		
27) tetrahydrofuran	0.000		0	N.D.		
28) chloroform	4.422	83	1250	0.08	ug/L #	18
30) 1,1,1-trichloroethane	0.000		0	N.D.		
31) cyclohexane	0.000		0	N.D.		
32) carbon tetrachloride	0.000		0	N.D.		
33) 1,1-dichloropropene	0.000		0	N.D.		
34) benzene	0.000		0	N.D.		
35) 1,2-dichloroethane	0.000		0	N.D.		
36) heptane	5.891	57	42931	No Calib		
38) trichloroethene	0.000		0	N.D.		
39) methylcyclohexane	0.000		0	N.D.		
40) 1,2-dichloropropane	0.000		0	N.D.		
41) dibromomethane	0.000		0	N.D.		
42) 1,4-dioxane	0.000		0	N.D.		

000411

Data Path : C:\msdchem\1\DATA\10-30-15\
 InstName : 328
 Data File : BLK1030.D
 Acq On : 30 Oct 2015 14:16
 Operator : BAG
 Sample : BLK
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 02 07:55:33 2015

Quant Method : C:\msdchem\1\METHODS\8260-WN69.M

Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil

QLast Update : Thu Oct 29 14:49:04 2015

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	0.000		0	N.D.		
44) 2-chloroethyl vinyl ether	0.000		0	N.D.		
45) cis-1,3-dichloropropene	0.000		0	N.D.		
46) 4-methyl-2-pentanone (...)	8.335	43	5995	0.73 ug/L #	1	
48) toluene	0.000		0	N.D.		
49) trans-1,3-dichloropropene	0.000		0	N.D.		
50) 1,1,2-trichloroethane	0.000		0	N.D.		
52) tetrachloroethene	0.000		0	N.D.		
53) 1,3-dichloropropane	0.000		0	N.D.		
54) 2-hexanone (MBK)	0.000		0	N.D.		
55) dibromochloromethane	0.000		0	N.D.		
56) 1,2-dibromoethane	0.000		0	N.D.		
57) chlorobenzene	0.000		0	N.D.		
58) 1-chlorohexane	0.000		0	N.D.		
59) 1,1,1,2-tetrachloroethane	0.000		0	N.D.		
60) ethylbenzene	0.000		0	N.D.		
61) m+p-xylene	0.000		0	N.D.		
62) o-xylene	0.000		0	N.D.		
63) styrene	0.000		0	N.D.		
64) bromoform	0.000		0	N.D.		
67) isopropylbenzene	0.000		0	N.D.		
68) bromobenzene	0.000		0	N.D.		
69) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
70) 1,2,3-trichloropropane	0.000		0	N.D.		
71) 1,4-dichloro-2-butene	0.000		0	N.D.		
72) n-propylbenzene	0.000		0	N.D.		
73) 2-chlorotoluene	0.000		0	N.D.		
74) 1,3,5-trimethylbenzene	0.000		0	N.D.		
75) 4-chlorotoluene	0.000		0	N.D.		
76) tert-butylbenzene	0.000		0	N.D.		
77) 1,2,4-trimethylbenzene	0.000		0	N.D.		
78) sec-butylbenzene	0.000		0	N.D.		
79) 1,3-dichlorobenzene	0.000		0	N.D.		
80) 4-isopropyltoluene	0.000		0	N.D.		
81) 1,4-dichlorobenzene	0.000		0	N.D.		
82) 1,2-dichlorobenzene	0.000		0	N.D.		
83) n-butylbenzene	13.792	91	1274	0.05 ug/L #	33	
84) hexachloroethane	0.000		0	N.D.		
85) 1,2-dibromo-3-chloropr...	0.000		0	N.D.		
86) 1,2,4-trichlorobenzene	15.767	180	1451	0.19 ug/L #	82	
87) hexachlorobutadiene	15.992	225	1541	0.39 ug/L #	19	
88) naphthalene	16.060	128	2045	0.11 ug/L #	72	
89) 1,2,3-trichlorobenzene	0.000		0	N.D.		
90) 2-methylnaphthalene	17.474	142	2401	3.23 ug/L #	80	

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

LCS / LCS DUPLICATE RECOVERY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511719-BS1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Acetone	40.0	34.0	85	53 - 138	ug/L
Benzene	40.0	41.4	103	84 - 119	ug/L
Bromobenzene	40.0	41.2	103	79 - 127	ug/L
Bromochloromethane	40.0	41.2	103	77 - 126	ug/L
Bromodichloromethane	40.0	42.4	106	82 - 124	ug/L
Bromoform	40.0	36.3	91	65 - 123	ug/L
Bromomethane	40.0	52.9	132	55 - 142	ug/L
n-Butylbenzene	40.0	43.8	110	79 - 123	ug/L
sec-Butylbenzene	40.0	42.6	107	81 - 122	ug/L
tert-Butylbenzene	40.0	42.3	106	80 - 122	ug/L
Carbon Disulfide	40.0	46.6	117	70 - 131	ug/L
Carbon Tetrachloride	40.0	42.2	105	79 - 127	ug/L
Chlorobenzene	40.0	40.9	102	84 - 118	ug/L
Chloroethane	40.0	40.5	101	76 - 124	ug/L
Chloroform	40.0	40.6	101	82 - 119	ug/L
Chloromethane	40.0	42.3	106	73 - 125	ug/L
2-Chlorotoluene	40.0	41.7	104	82 - 123	ug/L
4-Chlorotoluene	40.0	41.6	104	82 - 125	ug/L
Dibromochloromethane	40.0	38.6	97	74 - 121	ug/L
1,2-Dibromoethane	40.0	42.1	105	84 - 125	ug/L
Dibromomethane	40.0	40.3	101	83 - 120	ug/L
1,2-Dichlorobenzene	40.0	41.5	104	81 - 124	ug/L
1,3-Dichlorobenzene	40.0	41.6	104	81 - 124	ug/L
1,4-Dichlorobenzene	40.0	40.9	102	79 - 122	ug/L
Dichlorodifluoromethane	40.0	40.1	100	68 - 130	ug/L
1,1-Dichloroethane	40.0	41.6	104	80 - 118	ug/L
1,2-Dichloroethane	40.0	39.8	100	81 - 122	ug/L
1,1-Dichloroethene	40.0	40.7	102	77 - 123	ug/L
cis-1,2-Dichloroethene	40.0	41.4	104	84 - 119	ug/L

000413

LCS / LCS DUPLICATE RECOVERY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511719-BS1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
trans-1,2-Dichloroethene	40.0	42.0	105	76 - 126	ug/L
1,2-Dichloroethene (Total)	80.0	83.4	104	82 - 119	ug/L
1,2-Dichloropropane	40.0	42.4	106	82 - 122	ug/L
1,3-Dichloropropane	40.0	41.1	103	84 - 125	ug/L
2,2-Dichloropropane	40.0	42.2	105	55 - 141	ug/L
1,1-Dichloropropene	40.0	41.6	104	84 - 122	ug/L
cis-1,3-Dichloropropene	40.0	39.3	98	77 - 120	ug/L
trans-1,3-Dichloropropene	40.0	38.5	96	73 - 116	ug/L
Ethylbenzene	40.0	42.1	105	87 - 119	ug/L
2-Hexanone	40.0	39.6	99	55 - 141	ug/L
Isopropylbenzene	40.0	42.1	105	76 - 126	ug/L
4-Isopropyltoluene	40.0	42.7	107	80 - 126	ug/L
Methyl tert-Butyl Ether	40.0	41.6	104	72 - 128	ug/L
Methylene Chloride	40.0	40.1	100	75 - 129	ug/L
2-Butanone (MEK)	40.0	34.9	87	52 - 142	ug/L
4-Methyl-2-pentanone (MIBK)	40.0	40.5	101	60 - 142	ug/L
n-Propylbenzene	40.0	42.3	106	82 - 123	ug/L
Styrene	40.0	42.8	107	84 - 120	ug/L
1,1,1,2-Tetrachloroethane	40.0	43.4	108	84 - 122	ug/L
1,1,2,2-Tetrachloroethane	40.0	40.5	101	70 - 137	ug/L
Tetrachloroethene	40.0	41.9	105	81 - 117	ug/L
Toluene	40.0	41.7	104	85 - 118	ug/L
1,1,1-Trichloroethane	40.0	42.4	106	81 - 122	ug/L
1,1,2-Trichloroethane	40.0	41.6	104	83 - 121	ug/L
Trichloroethene	40.0	41.4	103	82 - 119	ug/L
Trichlorofluoromethane	40.0	40.3	101	76 - 128	ug/L
1,2,3-Trichloropropane	40.0	40.0	100	78 - 134	ug/L
1,2,4-Trimethylbenzene	40.0	42.4	106	83 - 124	ug/L
1,3,5-Trimethylbenzene	40.0	42.1	105	82 - 125	ug/L

000414

LCS / LCS DUPLICATE RECOVERY
USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511719-BS1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Vinyl Acetate	40.0	39.9	100	45 - 155	ug/L
Vinyl Chloride	40.0	41.1	103	77 - 123	ug/L
Xylene, Meta + Para	80.0	84.7	106	86 - 119	ug/L
Xylene, Ortho	40.0	42.8	107	86 - 120	ug/L
Xylene (Total)	120	128	106	86 - 119	ug/L

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

* Values outside of QC limits

TIC: BS1029B.D\data.ms

Abundance

Time-->

1,1,2-dichloroethane
trans-1,2-dichloroethane
1,1,2-dichloroethane
dichlorodifluoromethane
chloromethane, C
bromomethane
ethyl ether
carbon disulfide
methylene chloride
acrylonitrile
vinyl acetate
1,1-dichloroethane, P
2-butanone (MEK)
2-chloropropane
tetrahydrofuran
monochloromethane
chloroform, C
1,1,1-trichloroethane, S
carbon tetrachloride
benzene
1,2-dichlorobenzene
Fluorobenzene, I
trichloroethene
methylcyclohexane
1,2-dichloropropane
dibromomethane
bromodichloromethane
2-chloroethyl vinyl ether
1,3-dichloropropene
4-methyl-2-pentanone (MIBK)
Toluene, d8, s
trans-1,3-dichloropropene
1,1,2-trichloroethane
1,3-dichloropropene
2-hexanone (MIBK)
1,2-dibromoethane
Chlorobenzene
m,p-xylene
ethylbenzene, C
styrene
bromoform, P
isopropylbenzene
n-propylbenzene
2-chlorotoluene
n-butylbenzene
4-chlorotoluene
5-trimethylbenzene
tert-butylbenzene
sec-butylbenzene
1,3-dichlorobenzene
1,2-dichlorobenzene
hexachloroethane
n-butylbenzene
1,2-dibromo-3-chloropropane
1,2,4-trichlorobenzene
hexachlorocyclopentadiene
1,2,3-trichlorobenzene
2-methylnaphthalene

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : BS1029B.D
 Acq On : 29 Oct 2015 19:46
 Operator : BAG
 Sample : BS
 Misc :
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 30 08:15:51 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.903	96	992894	40.00	ug/L	-0.01
51) Chlorobenzene-d5	10.292	117	694146	40.00	ug/L	-0.01
66) 1,4-Dichlorobenzene-d4	13.286	152	346098	40.00	ug/L	0.00
System Monitoring Compounds						
29) #Dibromofluoromethane	4.726	111	247693	39.83	ug/L	-0.01
Spiked Amount 40.000			Recovery =	99.57%		
37) #1,2-Dichloroethane-d4	5.324	67	184391	38.35	ug/L	-0.02
Spiked Amount 40.000			Recovery =	95.88%		
47) #Toluene-d8	8.348	98	954840	39.95	ug/L	-0.01
Spiked Amount 40.000			Recovery =	99.88%		
65) #4-Bromofluorobenzene	11.835	95	398981	39.68	ug/L	-0.01
Spiked Amount 40.000			Recovery =	99.20%		
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	1.044	85	437097	40.06	ug/L	99
3) chloromethane	1.197	50	419350	42.27	ug/L	100
4) vinyl chloride	1.221	62	430116	41.12	ug/L	100
5) bromomethane	1.428	94	142606	52.91	ug/L	99
6) chloroethane	1.495	64	240347	40.51	ug/L	100
7) dichlorofluoromethane	1.629	67	689327	40.44	ug/L	100
8) trichlorofluoromethane	1.654	101	526474	40.34	ug/L	99
9) ethyl ether	1.855	74	164917	39.34	ug/L	99
10) acrolein	1.971	56	58126	38.90	ug/L	99
11) 1,1,2-trichloro-1,2,2-...	2.020	101	377413	39.96	ug/L	99
12) 1,1-dichloroethene	2.026	96	334091	40.66	ug/L	99
13) acetone	2.099	43	109169	34.04	ug/L	100
14) iodomethane	2.148	142	256715	40.24	ug/L	98
15) carbon disulfide	2.190	76	1004656	46.63	ug/L	100
16) methyl acetate	2.361	43	255997	38.13	ug/L	99
17) methylene chloride	2.446	49	553286	40.09	ug/L	99
18) acrylonitrile	2.708	53	141087	39.81	ug/L	100
19) trans-1,2-dichloroethene	2.684	96	312561	41.98	ug/L	99
20) methyl (tert) butyl ether	2.690	73	857313	41.62	ug/L	100
21) 1,1-dichloroethane	3.147	63	681041	41.59	ug/L	100
22) vinyl acetate	3.239	43	751521	39.93	ug/L	100
23) 2,2-dichloropropane	3.879	77	464579	42.16	ug/L	98
24) cis-1,2-dichloroethene	3.903	96	341160	41.45	ug/L	99
25) 2-butanone (MEK)	3.983	43	128860	34.91	ug/L	100
26) bromochloromethane	4.275	49	342478	41.18	ug/L	99
27) tetrahydrofuran	4.336	71	30327	36.00	ug/L	97
28) chloroform	4.440	83	619234	40.56	ug/L	100
30) 1,1,1-trichloroethane	4.665	97	520615	42.43	ug/L	99
31) cyclohexane	4.708	56	746835	42.11	ug/L	100
32) carbon tetrachloride	4.946	117	410631	42.17	ug/L	99
33) 1,1-dichloropropene	4.976	75	515015	41.57	ug/L	100
34) benzene	5.366	78	1383398	41.37	ug/L	99
35) 1,2-dichloroethane	5.464	62	504117	39.85	ug/L	100
36) heptane	5.903	57	45053	No Calib		
38) trichloroethene	6.500	130	303528	41.39	ug/L	99
39) methylcyclohexane	6.738	83	634252	42.48	ug/L	99
40) 1,2-dichloropropane	6.872	63	375126	42.40	ug/L	100
41) dibromomethane	7.055	93	182372	40.28	ug/L	99
42) 1,4-dioxane	0.000		0	N.D.		

000417

Data Path : C:\msdchem\1\DATA\10-29-15\
 InstName : 328
 Data File : BS1029B.D
 Acq On : 29 Oct 2015 19:46
 Operator : BAG
 Sample : BS
 Misc :
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 30 08:15:51 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	7.348	83	419762	42.36	ug/L	99
44) 2-chloroethyl vinyl ether	7.878	63	162839	43.24	ug/L	99
45) cis-1,3-dichloropropene	8.012	75	513017	39.32	ug/L	100
46) 4-methyl-2-pentanone (...)	8.299	43	343605	40.54	ug/L #	98
48) toluene	8.439	91	1395062	41.66	ug/L	100
49) trans-1,3-dichloropropene	8.835	75	419990	38.46	ug/L	99
50) 1,1,2-trichloroethane	9.073	83	235794	41.63	ug/L	99
52) tetrachloroethene	9.165	166	318064	41.86	ug/L	99
53) 1,3-dichloropropane	9.280	76	539399	41.08	ug/L	100
54) 2-hexanone (MBK)	9.469	43	232017	39.60	ug/L	100
55) dibromochloromethane	9.567	129	250728	38.64	ug/L	100
56) 1,2-dibromoethane	9.671	109	245321	42.09	ug/L	99
57) chlorobenzene	10.329	112	804723	40.87	ug/L	100
58) 1-chlorohexane	10.366	55	451360	41.38	ug/L	98
59) 1,1,1,2-tetrachloroethane	10.469	131	259877	43.40	ug/L	100
60) ethylbenzene	10.500	91	1644576	42.13	ug/L	100
61) m+p-xylene	10.664	106	1155625	84.70	ug/L	99
62) o-xylene	11.164	106	550870	42.80	ug/L	99
63) styrene	11.195	104	957901	42.81	ug/L	100
64) bromoform	11.414	173	155168	36.30	ug/L	99
67) isopropylbenzene	11.652	105	1498240	42.06	ug/L	100
68) bromobenzene	11.993	77	644335	41.15	ug/L	100
69) 1,1,2,2-tetrachloroethane	12.103	83	362395	40.52	ug/L #	100
70) 1,2,3-trichloropropane	12.121	110	102852	39.95	ug/L	100
71) 1,4-dichloro-2-butene	12.176	53	126864	41.25	ug/L	99
72) n-propylbenzene	12.182	120	382362	42.30	ug/L	99
73) 2-chlorotoluene	12.255	126	314365	41.67	ug/L	99
74) 1,3,5-trimethylbenzene	12.420	105	1294089	42.13	ug/L	100
75) 4-chlorotoluene	12.402	91	1284664	41.58	ug/L	100
76) tert-butylbenzene	12.816	119	1022213	42.27	ug/L	100
77) 1,2,4-trimethylbenzene	12.877	105	1234449	42.36	ug/L	100
78) sec-butylbenzene	13.091	105	1539841	42.61	ug/L	100
79) 1,3-dichlorobenzene	13.194	146	587449	41.65	ug/L	99
80) 4-isopropyltoluene	13.292	119	1270934	42.74	ug/L	100
81) 1,4-dichlorobenzene	13.316	146	584406	40.93	ug/L	100
82) 1,2-dichlorobenzene	13.767	146	532111	41.51	ug/L	100
83) n-butylbenzene	13.804	91	1181005	43.84	ug/L	99
84) hexachloroethane	14.060	201	113689	35.66	ug/L	98
85) 1,2-dibromo-3-chloropr...	14.773	157	69025	36.10	ug/L	99
86) 1,2,4-trichlorobenzene	15.773	180	341805	42.62	ug/L	99
87) hexachlorobutadiene	15.999	225	163671	39.55	ug/L	99
88) naphthalene	16.072	128	813058	43.21	ug/L	100
89) 1,2,3-trichlorobenzene	16.370	180	297952	42.40	ug/L	100
90) 2-methylnaphthalene	17.480	142	419369	40.38	ug/L	100

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

LCS / LCS DUPLICATE RECOVERY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511821-BS1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Acetone	40.0	39.6	99	53 - 138	ug/L
Benzene	40.0	41.2	103	84 - 119	ug/L
Bromobenzene	40.0	40.4	101	79 - 127	ug/L
Bromochloromethane	40.0	40.4	101	77 - 126	ug/L
Bromodichloromethane	40.0	42.4	106	82 - 124	ug/L
Bromoform	40.0	36.3	91	65 - 123	ug/L
Bromomethane	40.0	50.9	127	55 - 142	ug/L
n-Butylbenzene	40.0	43.7	109	79 - 123	ug/L
sec-Butylbenzene	40.0	42.7	107	81 - 122	ug/L
tert-Butylbenzene	40.0	42.4	106	80 - 122	ug/L
Carbon Disulfide	40.0	45.1	113	70 - 131	ug/L
Carbon Tetrachloride	40.0	43.0	108	79 - 127	ug/L
Chlorobenzene	40.0	40.4	101	84 - 118	ug/L
Chloroethane	40.0	40.6	102	76 - 124	ug/L
Chloroform	40.0	40.6	101	82 - 119	ug/L
Chloromethane	40.0	41.9	105	73 - 125	ug/L
2-Chlorotoluene	40.0	41.4	103	82 - 123	ug/L
4-Chlorotoluene	40.0	41.1	103	82 - 125	ug/L
Dibromochloromethane	40.0	38.0	95	74 - 121	ug/L
1,2-Dibromoethane	40.0	41.3	103	84 - 125	ug/L
Dibromomethane	40.0	40.5	101	83 - 120	ug/L
1,2-Dichlorobenzene	40.0	41.0	103	81 - 124	ug/L
1,3-Dichlorobenzene	40.0	41.3	103	81 - 124	ug/L
1,4-Dichlorobenzene	40.0	40.9	102	79 - 122	ug/L
Dichlorodifluoromethane	40.0	40.6	102	68 - 130	ug/L
1,1-Dichloroethane	40.0	41.3	103	80 - 118	ug/L
1,2-Dichloroethane	40.0	40.0	100	81 - 122	ug/L
1,1-Dichloroethene	40.0	41.8	105	77 - 123	ug/L
cis-1,2-Dichloroethene	40.0	41.6	104	84 - 119	ug/L

000419

LCS / LCS DUPLICATE RECOVERY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511821-BS1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
trans-1,2-Dichloroethene	40.0	42.0	105	76 - 126	ug/L
1,2-Dichloroethene (Total)	80.0	83.6	104	82 - 119	ug/L
1,2-Dichloropropane	40.0	41.9	105	82 - 122	ug/L
1,3-Dichloropropane	40.0	40.5	101	84 - 125	ug/L
2,2-Dichloropropane	40.0	41.2	103	55 - 141	ug/L
1,1-Dichloropropene	40.0	41.7	104	84 - 122	ug/L
cis-1,3-Dichloropropene	40.0	38.9	97	77 - 120	ug/L
trans-1,3-Dichloropropene	40.0	38.1	95	73 - 116	ug/L
Ethylbenzene	40.0	41.8	105	87 - 119	ug/L
2-Hexanone	40.0	44.1	110	55 - 141	ug/L
Isopropylbenzene	40.0	42.0	105	76 - 126	ug/L
4-Isopropyltoluene	40.0	42.9	107	80 - 126	ug/L
Methyl tert-Butyl Ether	40.0	41.3	103	72 - 128	ug/L
Methylene Chloride	40.0	39.6	99	75 - 129	ug/L
2-Butanone (MEK)	40.0	39.6	99	52 - 142	ug/L
4-Methyl-2-pentanone (MIBK)	40.0	44.8	112	60 - 142	ug/L
n-Propylbenzene	40.0	42.0	105	82 - 123	ug/L
Styrene	40.0	42.4	106	84 - 120	ug/L
1,1,1,2-Tetrachloroethane	40.0	43.3	108	84 - 122	ug/L
1,1,2,2-Tetrachloroethane	40.0	39.8	100	70 - 137	ug/L
Tetrachloroethene	40.0	42.4	106	81 - 117	ug/L
Toluene	40.0	41.8	105	85 - 118	ug/L
1,1,1-Trichloroethane	40.0	42.8	107	81 - 122	ug/L
1,1,2-Trichloroethane	40.0	41.7	104	83 - 121	ug/L
Trichloroethene	40.0	42.1	105	82 - 119	ug/L
Trichlorofluoromethane	40.0	41.8	104	76 - 128	ug/L
1,2,3-Trichloropropane	40.0	39.9	100	78 - 134	ug/L
1,2,4-Trimethylbenzene	40.0	42.1	105	83 - 124	ug/L
1,3,5-Trimethylbenzene	40.0	42.1	105	82 - 125	ug/L

000420

LCS / LCS DUPLICATE RECOVERY

USEPA-8260B

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511821-BS1

Preparation: 5030B Aqueous Purge & Trap

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Vinyl Acetate	40.0	38.6	97	45 - 155	ug/L
Vinyl Chloride	40.0	41.0	103	77 - 123	ug/L
Xylene, Meta + Para	80.0	84.1	105	86 - 119	ug/L
Xylene, Ortho	40.0	42.0	105	86 - 120	ug/L
Xylene (Total)	120	126	105	86 - 119	ug/L

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

* Values outside of QC limits

TIC: BS1030.D\data.ms

Abundance

Time-->

1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 11.00 12.00 13.00 14.00 15.00 16.00 17.00 18.00

chlorodifluoromethane
bromochloromethane
dichlorodifluoromethane
ethyl ether
carbon disulfide
methylene chloride
methyl acetate
acrylonitrile
vinyl acetate
1,1-dichloroethane
2-butanone (MEK)
2,2-dichloropropane
tetrahydrofuran
bromochloromethane
chloroform
1,1,1-trichloroethane
carbon tetrachloride
1,2-dichloropropane
1,2-dichloroethane
Fluorobenzene
trichloroethene
methylcyclohexane
1,2-dichloropropane
bromodichloromethane
2-chloroethyl vinyl ether
4-methyl-2-pentanone (MIBK)
toluene
trans-1,3-dichloropropene
1,1,2-trichloropropane
1,3-dichloropropane
2-hexanone (MIBK)
1,2-dichloroethane
chlorobenzene
1,1,2-tetrachloroethane
ethylbenzene
m-p-xylene
bromoform
isopropylbenzene
4-bromofluorobenzene
1,2-dichlorobenzene
1,4-dichlorobenzene
1,3-dichlorobenzene
1,2-dichlorobenzene
n-butylbenzene
hexachloroethane
1,2-dibromo-3-chloropropane
1,2,4-trichlorobenzene
hexachlorocyclopentadiene
1,2,3-trichlorobenzene
2-methylnaphthalene

Data Path : C:\msdchem\1\DATA\10-30-15\
 InstName : 328
 Data File : BS1030.D
 Acq On : 30 Oct 2015 12:23
 Operator : BAG
 Sample : BS
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 02 07:54:57 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.885	96	979294	40.00	ug/L	-0.03
51) Chlorobenzene-d5	10.280	117	690946	40.00	ug/L	-0.02
66) 1,4-Dichlorobenzene-d4	13.280	152	345153	40.00	ug/L	-0.01
System Monitoring Compounds						
29) #Dibromofluoromethane	4.708	111	246771	40.24	ug/L	-0.03
Spiked Amount 40.000			Recovery	=	100.60%	
37) #1,2-Dichloroethane-d4	5.312	67	185737	39.17	ug/L	-0.03
Spiked Amount 40.000			Recovery	=	97.93%	
47) #Toluene-d8	8.335	98	949570	40.28	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	100.70%	
65) #4-Bromofluorobenzene	11.829	95	394918	39.46	ug/L	-0.02
Spiked Amount 40.000			Recovery	=	98.65%	
Target Compounds						
					Qvalue	
2) dichlorodifluoromethane	1.038	85	437305	40.63	ug/L	100
3) chloromethane	1.197	50	409904	41.89	ug/L	99
4) vinyl chloride	1.215	62	423268	41.03	ug/L	100
5) bromomethane	1.422	94	135344	50.91	ug/L	99
6) chloroethane	1.489	64	237783	40.64	ug/L	99
7) dichlorofluoromethane	1.623	67	694077	41.28	ug/L	100
8) trichlorofluoromethane	1.648	101	537391	41.75	ug/L	100
9) ethyl ether	1.849	74	167096	40.41	ug/L	99
10) acrolein	1.965	56	56704	38.47	ug/L	99
11) 1,1,2-trichloro-1,2,2-...	2.013	101	384108	41.24	ug/L	99
12) 1,1-dichloroethene	2.020	96	339054	41.84	ug/L	100
13) acetone	2.093	43	125572	39.65	ug/L	99
14) iodomethane	2.141	142	298730	46.67	ug/L	99
15) carbon disulfide	2.178	76	958678	45.11	ug/L	100
16) methyl acetate	2.355	43	273620	41.32	ug/L	99
17) methylene chloride	2.440	49	538468	39.55	ug/L	99
18) acrylonitrile	2.702	53	140647	40.24	ug/L	100
19) trans-1,2-dichloroethene	2.678	96	308626	42.03	ug/L	99
20) methyl (tert) butyl ether	2.684	73	838563	41.27	ug/L	99
21) 1,1-dichloroethane	3.135	63	666337	41.26	ug/L	100
22) vinyl acetate	3.227	43	717597	38.65	ug/L	100
23) 2,2-dichloropropane	3.867	77	448012	41.23	ug/L	99
24) cis-1,2-dichloroethene	3.891	96	337400	41.56	ug/L	98
25) 2-butanone (MEK)	3.970	43	144118	39.58	ug/L	99
26) bromochloromethane	4.257	49	331743	40.44	ug/L	98
27) tetrahydrofuran	4.324	71	30075	36.18	ug/L	96
28) chloroform	4.428	83	610874	40.57	ug/L	100
30) 1,1,1-trichloroethane	4.653	97	517947	42.80	ug/L	99
31) cyclohexane	4.690	56	733811	41.95	ug/L	99
32) carbon tetrachloride	4.928	117	412966	43.00	ug/L	99
33) 1,1-dichloropropene	4.964	75	509855	41.72	ug/L	100
34) benzene	5.354	78	1359620	41.22	ug/L	99
35) 1,2-dichloroethane	5.446	62	499741	40.05	ug/L	100
36) heptane	5.885	57	45389	No Calib		
38) trichloroethene	6.488	130	304261	42.07	ug/L	99
39) methylcyclohexane	6.720	83	629223	42.73	ug/L	99
40) 1,2-dichloropropane	6.860	63	365891	41.93	ug/L	100
41) dibromomethane	7.043	93	180957	40.53	ug/L	99
42) 1,4-dioxane	0.000		0	N.D.		

000423

Data Path : C:\msdchem\1\DATA\10-30-15\
 InstName : 328
 Data File : BS1030.D
 Acq On : 30 Oct 2015 12:23
 Operator : BAG
 Sample : BS
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 02 07:54:57 2015
 Quant Method : C:\msdchem\1\METHODS\8260-WN69.M
 Quant Title : 8260B/624/524.2 : 5030 wtr : 5035a soil
 QLast Update : Thu Oct 29 14:49:04 2015
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) bromodichloromethane	7.336	83	413910	42.35	ug/L	100
44) 2-chloroethyl vinyl ether	7.866	63	172772	46.51	ug/L	100
45) cis-1,3-dichloropropene	8.000	75	500081	38.88	ug/L	100
46) 4-methyl-2-pentanone (...)	8.293	43	374837	44.84	ug/L #	99
48) toluene	8.427	91	1382408	41.85	ug/L	100
49) trans-1,3-dichloropropene	8.829	75	409863	38.08	ug/L	99
50) 1,1,2-trichloroethane	9.061	83	232768	41.67	ug/L	100
52) tetrachloroethene	9.152	166	320315	42.35	ug/L	99
53) 1,3-dichloropropane	9.268	76	528807	40.46	ug/L	100
54) 2-hexanone (MBK)	9.457	43	257445	44.14	ug/L	100
55) dibromochloromethane	9.555	129	245340	38.03	ug/L	99
56) 1,2-dibromoethane	9.658	109	239528	41.28	ug/L	99
57) chlorobenzene	10.317	112	791210	40.37	ug/L	100
58) 1-chlorohexane	10.359	55	447642	41.23	ug/L	99
59) 1,1,1,2-tetrachloroethane	10.457	131	258099	43.30	ug/L	100
60) ethylbenzene	10.493	91	1625965	41.85	ug/L	100
61) m+p-xylene	10.652	106	1142780	84.14	ug/L	100
62) o-xylene	11.158	106	538062	42.00	ug/L	100
63) styrene	11.188	104	944581	42.41	ug/L	100
64) bromoform	11.408	173	154441	36.30	ug/L	99
67) isopropylbenzene	11.646	105	1490877	41.97	ug/L	100
68) bromobenzene	11.981	77	631180	40.42	ug/L	99
69) 1,1,2,2-tetrachloroethane	12.091	83	355285	39.83	ug/L #	100
70) 1,2,3-trichloropropane	12.109	110	102539	39.94	ug/L	100
71) 1,4-dichloro-2-butene	12.164	53	126262	41.17	ug/L	100
72) n-propylbenzene	12.170	120	379090	42.05	ug/L	99
73) 2-chlorotoluene	12.243	126	311401	41.39	ug/L	99
74) 1,3,5-trimethylbenzene	12.408	105	1289124	42.08	ug/L	100
75) 4-chlorotoluene	12.396	91	1265786	41.08	ug/L	100
76) tert-butylbenzene	12.804	119	1021397	42.35	ug/L	100
77) 1,2,4-trimethylbenzene	12.871	105	1222761	42.07	ug/L	100
78) sec-butylbenzene	13.084	105	1538652	42.69	ug/L	100
79) 1,3-dichlorobenzene	13.188	146	580425	41.26	ug/L	99
80) 4-isopropyltoluene	13.280	119	1271353	42.87	ug/L	100
81) 1,4-dichlorobenzene	13.304	146	582494	40.90	ug/L	100
82) 1,2-dichlorobenzene	13.761	146	524658	41.04	ug/L	100
83) n-butylbenzene	13.792	91	1173212	43.67	ug/L	100
84) hexachloroethane	14.054	201	113912	35.81	ug/L	97
85) 1,2-dibromo-3-chloropr...	14.761	157	69566	36.44	ug/L	99
86) 1,2,4-trichlorobenzene	15.767	180	342818	42.86	ug/L	99
87) hexachlorobutadiene	15.992	225	167771	40.65	ug/L	99
88) naphthalene	16.059	128	813820	43.37	ug/L	100
89) 1,2,3-trichlorobenzene	16.364	180	298912	42.66	ug/L	99
90) 2-methylnaphthalene	17.474	142	433369	41.73	ug/L	99

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

PREPARATION BATCH **1511719**

Page 1 of 1

Printed: 11/17/2015 9:14:47AM

Volatiles MS, Water, 5030B Aqueous Purge & Trap

Surrogate #1 = 5101371 (Static)

Batch Comments: (none)

Standard	Description	Solvent
5101371	8260B Static Surrogate 10-27-15	MeOH 38701
5101520	8260B Working Std A 10-29-15	Solvent Lot #99494

LotNum
CJ-0680a
N/A

Work Order	Analysis
1510440	8260B Standard VOAs plus custom

Work Order	Analysis

Work Order	Analysis

Balance ID: nonepH Meter: none

Lab Number	Contain	Prepared	By	Initial (ml)	Final (ml)	uL Surrogate	Source ID	Spike ID	uL Spike	Client / QC Type	Extraction Comments
1511719-BLK1		Oct-29-15 18:00	BAG	5	5	1				BLANK	
1511719-BS1		Oct-29-15 18:00	BAG	5	5	1		5101520	2	LCS	
1510440-01	D	Oct-29-15 18:00	BAG	5	5	1				MMWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-02	D	Oct-29-15 18:00	BAG	5	5	1				MMWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-03	D	Oct-29-15 18:00	BAG	5	5	1				MMWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-04	D	Oct-29-15 18:00	BAG	5	5	1				MMWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-06	D	Oct-29-15 18:00	BAG	5	5	1				MMWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-07	D	Oct-29-15 18:00	BAG	5	5	1				MMWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-08	D	Oct-29-15 18:00	BAG	5	5	1				MMWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-09	D	Oct-29-15 18:00	BAG	5	5	1				MMWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-10	D	Oct-29-15 18:00	BAG	5	5	1				MMWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-11	D	Oct-29-15 18:00	BAG	5	5	1				MMWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-12	D	Oct-29-15 18:00	BAG	5	5	1				MMWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-13	D	Oct-29-15 18:00	BAG	5	5	1				MMWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-15	A	Oct-29-15 18:00	BAG	5	5	1				MMWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-16	D	Oct-29-15 18:00	BAG	5	5	1				MMWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-17	A	Oct-29-15 18:00	BAG	5	5	1				MMWH Americas - Farmington Hills, MI	GE Vieques VOCs

Comments:

Analyst
Initials:

PREPARATION BATCH **1511821**

Page 1 of 1

Printed: 11/17/2015 9:15:18AM

Volatiles MS, Water, 5030B Aqueous Purge & Trap

Surrogate #1 = 5101371 (Static)

Batch Comments: (none)

Standard	Description	Solvent	Lot/Num
5101371	8260B Static Surrogate 10-27-15	MeOH 38701	CJ-0680a
5101520	8260B Working Std A 10-29-15	Solvent Lot #99494	N/A

<u>Work Order</u>	<u>Analysis</u>	<u>Work Order</u>	<u>Analysis</u>
1510440	8260B Standard VOAs plus custom		

Balance ID: nonepH Meter: none

Lab Number	Contain	Prepared	By	Initial (mL)	Final (mL)	uL Surrogate	Source ID	Spike ID	uL Spike	Client / QC Type	Extraction Comments
1511821-BLK1		Oct-30-15 07:00	BAG	5	5	1				BLANK	
1511821-BS1		Oct-30-15 07:00	BAG	5	5	1		5101520	2	LCS	
1510440-05	C	Oct-30-15 07:00	BAG	5	5	1				MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-14	A	Oct-30-15 07:00	BAG	5	5	1				MWH Americas - Farmington Hills, MI	GE Vieques VOCs

Comments:

Analyst
Initials:

Volatiles MS, Water, Oct-29-15

Instrument = 328, Calibration = 5J30003

Sequence Analyses:

8260B Standard VOAs plus custom

Lab Number	Analysis	Contain	STD ID	ISTD ID	Client / QC Type	Extraction Comments
5J30014-TUN1	QC		5090734	5091232	MS TUNE	
5J30014-CCV1	QC		5101544	5091232	CALIBRATION CHECK	
1511719-BS1	QC			5091232	LCS	
1511719-BLK1	QC			5091232	BLANK	
1510440-12	8260B Standard VOAs plus custom	D		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-13	8260B Standard VOAs plus custom	D		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-15	8260B Standard VOAs plus custom	A		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-17	8260B Standard VOAs plus custom	A		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-01	8260B Standard VOAs plus custom	D		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-02	8260B Standard VOAs plus custom	D		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-03	8260B Standard VOAs plus custom	D		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-06	8260B Standard VOAs plus custom	D		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-08	8260B Standard VOAs plus custom	D		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-09	8260B Standard VOAs plus custom	D		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-10	8260B Standard VOAs plus custom	D		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-11	8260B Standard VOAs plus custom	D		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-16	8260B Standard VOAs plus custom	D		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-07	8260B Standard VOAs plus custom	D		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-04	8260B Standard VOAs plus custom	D		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs

Comments:

Analyst
Initials:

000427

seq_TriMatrix.rpt

Volatiles MS, Water, Oct-30-15

Instrument = 328, Calibration = 5J30003

Sequence Analyses:

8260B Standard VOAs plus custom

<i>Lab Number</i>	<i>Analysis</i>	<i>Contain</i>	<i>STD ID</i>	<i>ISTD ID</i>	<i>Client / QC Type</i>	<i>Extraction Comments</i>
5K02029-TUN1	QC		5090734	5091232	MS TUNE	
5K02029-CCV1	QC		5101544	5091232	CALIBRATION CHECK	
1511821-BS1	QC			5091232	LCS	
1511821-BLK1	QC			5091232	BLANK	
1510440-14	8260B Standard VOAs plus custom	A		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs
1510440-05	8260B Standard VOAs plus custom	C		5091232	MWH Americas - Farmington Hills, MI	GE Vieques VOCs

Comments:

Analyst
Initials:



Instrument Number: 328		Acquisition Information		Temperature Program		Standard Information					
Column Type: DB-624	Multiplier Voltage:	Step #1 45° C for 3 minutes	Curve Date: 10-29-15								
Column Installation Date: 12/23/2009	Scan Range: 35-300	Step #2 15° C/minute to 200° C, hold for 1.00 minute	IS/SS Std.: 5011232								
Injector Temperature: 200° C	Scan Rate:	Step #3	Working Std.: 5101520								
Detector Temperature: 230° C	Filament Delay:	Step #4	App. IX Std.: 5101539								
Purge Flow (mL/min):	Quantitation Method:	Step #5	LCS Std.: 5110202								
Date	Analyst	Method	Standard Prep uL Used	Final Vol. (mL)	Comments	pH <2	Acquisition Time	Client	Sample ID	Dilution	Matrix
10-29-15	BA6	8260B	25	50			411	QC	8FA1029A		420
			1	200			1012		05P1029		
			2	200			1041		1P1029		
			5	100			1109		5P1029		
			5	50			1138		10P1029		
			10				1207		20P1029		
			20				1235		40P1029		
			50				1303		100P1029		
			5	100			1332		5A1029		
			200	50			1400		200P1029		
			12.5				1428		25A1029		
			25				1457		50A1029		
			40	100			1530		5CV1029		
			5	100			1559		5CV1029A		
			50	50			1627		100A1029		
			100				1656		200A1029		
			200				1724		400A1029		
			5/25				1752		5CV1029AA		
			25	50			1849		05A1029BB		
			40	100			1917		0CV1029G		

Date	Analyst	Method	Standard Prep		Comments	pH < 2	Acquisition Time	Client	Sample ID	Dilution	Matrix
			UL Used	Final Vol. (mL)							
10-29-15	Mc	83605	40	100			1946	AC	8510296		4.0
							2043		2		
							2111		2		
							2140	MWH	86K10298		
							2208		1510440-12		
							2236		-13		
							2305		-15		
							2333		-17		
							002		-1		
							030		-2		
							058		-3		
							127		-6		
							155		-8		
							224		-9		
							252		-10		
							326		-11		
							349		-16		
							417		-7	2.5	
							446		-4		
									-5		

10-30-15

Instrument Number: 328		Acquisition Information		Temperature Program		Standard Information				
Column Type:	DB-624	Multiplier Voltage:		Step #1	45° C for 3 minutes	Curve Date:	10-29-15			
Column Installation Date:	12/23/2009	Scan Range:	35-300	Step #2	15° C/minute to 200° C, hold for 1.00 minute	IS/SS Std:	5091232			
Injector Temperature:	200° C	Scan Rate:		Step #3		Working Std:	5101520			
Detector Temperature:	230° C	Filament Delay:		Step #4		App. IX Std:	5101539			
Purge Flow (mL/min):		Quantitation Method:		Step #5		LCS Std:	5051195			
Date	Analyst	Method	Standard Prep uL Used Final Vol. (mL)	Comments	pH <2	Acquisition Time	Client	Sample ID	Dilution	Matrix
10-30-15	AKC	81606	25 50		8.46 11.2-1.5	444 735	QC	8FA 1030		4.0
			5 100			806		5A 1030		
			12.5 50			834		2541030		
			25			903		50A 1030		
			50			931		100A 1030		
			100			959		200A 1030		
			200			1028		410A 1030		
			25			1056		50V 1030		
			25			1126		8FA 1030A		
			40 100			1154		CCV 1030A		
			" "			1223		BS 1030		
				49		1251		CCV 1030A		
						1319		Q		
						1348		Q		
						1416		BLK 1030		
						1449		1510440-14		
						1513		1510430-14		
						1541				
						1610				
						1638				

SECTION - E

INORGANIC – METALS

STATEMENT OF DATA QUALIFICATIONS
USEPA-6010C

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington H

Project: GE Caribe - Vieques, PR

All analyses in this report section have been validated and comply with our Quality Control Program. No Qualifications are required.

PROJECT TECHNICAL NARRATIVE(S)

USEPA-6010C

Total Metals by EPA 6000/7000 Series Methods

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Narrative: The MS and/or MSD recovery was outside the laboratory or method control limit. The non-spiked sample concentration for this analyte was greater than or equal to 4 times the spiked amount and cannot be used to evaluate matrix quality control.

Sample/Analyte: 1510440-04 C-4

Sodium

TriMatrix Laboratories, Inc.

MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

SDG: 1510440

USEPA-6010C

SAMPLE ID SUMMARY

USEPA-6010C

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Client Sample Id:

Lab Sample Id:

C-4

1510440-04

C-7

1510440-07

EB-101915

1510440-12

EB-102015

1510440-13

W-A

1510440-16

INORGANIC ANALYSIS DATA SHEET

USEPA-6010C

C-4

Laboratory: TriMatrix Laboratories, Inc.SDG: 1510440Client: MWH Americas - Farmington Hills, MIProject: GE Caribe - Vieques, PRMatrix: WaterLaboratory ID: 1510440-04Sampled: 10/20/15 12:05Prepared: 10/30/15 09:30Solids: NAPreparation: 3010A DigestionQC Batch: 1511696Initial/Final: 25 mL / 25 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-70-2	Calcium, Total	1	61	mg/L	0.10	0.50		11/03/15 11:43
7439-95-4	Magnesium, Total	1	38	mg/L	0.14	0.50		11/03/15 11:43
7440-23-5	Sodium, Total	1	340	mg/L	0.13	0.50		11/03/15 11:43

000437

INORGANIC ANALYSIS DATA SHEET

USEPA-6010C

C-7

Laboratory: TriMatrix Laboratories, Inc.SDG: 1510440Client: MWH Americas - Farmington Hills, MIProject: GE Caribe - Vieques, PRMatrix: WaterLaboratory ID: 1510440-07Sampled: 10/20/15 11:40Prepared: 10/30/15 09:30Solids: NAPreparation: 3010A DigestionQC Batch: 1511696Initial/Final: 25 mL / 25 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-70-2	Calcium, Total	1	41	mg/L	0.10	0.50		11/03/15 11:54
7439-95-4	Magnesium, Total	1	30	mg/L	0.14	0.50		11/03/15 11:54
7440-23-5	Sodium, Total	50	480	mg/L	6.4	25		11/03/15 11:48

000438

INORGANIC ANALYSIS DATA SHEET
USEPA-6010C

EB-101915

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-12

Sampled: 10/19/15 12:40

Prepared: 10/30/15 09:30

Solids: NA

Preparation: 3010A Digestion

QC Batch: 1511696

Initial/Final: 25 mL / 25 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-70-2	Calcium, Total	1	0.50	mg/L	0.10	0.50	U	11/03/15 11:50
7439-95-4	Magnesium, Total	1	0.50	mg/L	0.14	0.50	U	11/03/15 11:50
7440-23-5	Sodium, Total	1	0.59	mg/L	0.13	0.50		11/03/15 11:50

INORGANIC ANALYSIS DATA SHEET

USEPA-6010C

EB-102015

Laboratory: TriMatrix Laboratories, Inc.SDG: 1510440Client: MWH Americas - Farmington Hills, MIProject: GE Caribe - Vieques, PRMatrix: WaterLaboratory ID: 1510440-13Sampled: 10/20/15 09:05Prepared: 10/30/15 09:30Solids: NAPreparation: 3010A DigestionQC Batch: 1511696Initial/Final: 25 mL / 25 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-70-2	Calcium, Total	1	0.50	mg/L	0.10	0.50	U	11/03/15 11:52
7439-95-4	Magnesium, Total	1	0.50	mg/L	0.14	0.50	U	11/03/15 11:52
7440-23-5	Sodium, Total	1	0.54	mg/L	0.13	0.50		11/03/15 11:52

000440

INORGANIC ANALYSIS DATA SHEET
USEPA-6010C

W-A

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-16

Sampled: 10/20/15 12:00

Prepared: 10/30/15 09:30

Solids: NA

Preparation: 3010A Digestion

QC Batch: 1511696

Initial/Final: 25 mL / 25 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-70-2	Calcium, Total	1	59	mg/L	0.10	0.50		11/03/15 12:10
7439-95-4	Magnesium, Total	1	38	mg/L	0.14	0.50		11/03/15 12:10
7440-23-5	Sodium, Total	10	330	mg/L	1.3	5.0		11/03/15 12:00

000441

ANALYSIS BATCH (SEQUENCE) SUMMARY

USEPA-6010C

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K02031

Calibration: 5K03013

Instrument: 354

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	5K02031-CAL1	5K03027-004	11/03/15 11:02
Cal Standard	5K02031-CAL2	5K03027-005	11/03/15 11:04
Cal Standard	5K02031-CAL3	5K03027-006	11/03/15 11:06
Cal Standard	5K02031-CAL4	5K03027-007	11/03/15 11:08
Cal Standard	5K02031-CAL5	5K03027-008	11/03/15 11:10
Secondary Cal Check	5K02031-SCV1	5K03027-009	11/03/15 11:12
Calibration Check	5K02031-CCV1	5K03027-009	11/03/15 11:12
Calibration Blank	5K02031-CCB1	5K03027-011	11/03/15 11:16
Instrument RL Check	5K02031-CRL1	5K03027-012	11/03/15 11:18
Interference Check A	5K02031-IFA1	5K03027-013	11/03/15 11:20
Interference Check A	5K02031-IFA2	5K03027-014	11/03/15 11:25
Interference Check B	5K02031-IFB1	5K03027-015	11/03/15 11:27
Interference Check B	5K02031-IFB2	5K03027-016	11/03/15 11:33
Calibration Check	5K02031-CCV2	5K03027-017	11/03/15 11:35
Calibration Blank	5K02031-CCB2	5K03027-018	11/03/15 11:37
Blank	1511696-BLK1	5K03027-019	11/03/15 11:39
LCS	1511696-BS1	5K03027-020	11/03/15 11:41
C-4	1510440-04	5K03027-021	11/03/15 11:43
C-4	1510440-04	5K03027-021	11/03/15 11:43
C-4	1510440-04	5K03027-021	11/03/15 11:43
C-4	1511696-MS1	5K03027-022	11/03/15 11:45
C-4	1511696-MSD1	5K03027-023	11/03/15 11:47
C-7	1510440-07	5K03027-024	11/03/15 11:48
EB-101915	1510440-12	5K03027-025	11/03/15 11:50
EB-101915	1510440-12	5K03027-025	11/03/15 11:50
EB-101915	1510440-12	5K03027-025	11/03/15 11:50
EB-102015	1510440-13	5K03027-026	11/03/15 11:52
EB-102015	1510440-13	5K03027-026	11/03/15 11:52
EB-102015	1510440-13	5K03027-026	11/03/15 11:52
C-7	1510440-07	5K03027-027	11/03/15 11:54
C-7	1510440-07	5K03027-027	11/03/15 11:54
W-A	1510440-16	5K03027-028	11/03/15 12:00

000442

ANALYSIS BATCH (SEQUENCE) SUMMARY
USEPA-6010C

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K02031

Calibration: 5K03013

Instrument: 354

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	5K02031-CCV3	5K03027-029	11/03/15 12:02
Calibration Blank	5K02031-CCB3	5K03027-030	11/03/15 12:04
W-A	5K02031-SRD1	5K03027-031	11/03/15 12:06
W-A	1511696-PS1	5K03027-032	11/03/15 12:08
W-A	1510440-16	5K03027-033	11/03/15 12:10
W-A	1510440-16	5K03027-033	11/03/15 12:10
W-A	5K02031-SRD2	5K03027-034	11/03/15 12:12
W-A	1511696-PS2	5K03027-035	11/03/15 12:14
Interference Check A	5K02031-IFA3	5K03027-037	11/03/15 12:18
Interference Check A	5K02031-IFA4	5K03027-038	11/03/15 12:22
Interference Check B	5K02031-IFB3	5K03027-039	11/03/15 12:24
Instrument RL Check	5K02031-CRL2	5K03027-040	11/03/15 12:30
Interference Check B	5K02031-IFB4	5K03027-041	11/03/15 12:32
Calibration Check	5K02031-CCV4	5K03027-042	11/03/15 12:34
Calibration Blank	5K02031-CCB4	5K03027-043	11/03/15 12:36

INITIAL AND CONTINUING CALIBRATION CHECK

USEPA-6010C

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K02031

Calibration: 5K03013

Control Limit: +/- 10.00%

Instrument ID: 354

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
5K02031-CCV1	Calcium	5.00	4.99	100	mg/L	11/03/15 11:12
	Magnesium	5.00	4.95	99	mg/L	11/03/15 11:12
	Sodium	5.00	5.01	100	mg/L	11/03/15 11:12
5K02031-CCV2	Calcium	5.00	4.81	96	mg/L	11/03/15 11:35
	Magnesium	5.00	5.10	102	mg/L	11/03/15 11:35
	Sodium	5.00	4.88	98	mg/L	11/03/15 11:35
5K02031-CCV3	Calcium	5.00	4.95	99	mg/L	11/03/15 12:02
	Magnesium	5.00	5.16	103	mg/L	11/03/15 12:02
	Sodium	5.00	4.90	98	mg/L	11/03/15 12:02
5K02031-CCV4	Calcium	5.00	4.91	98	mg/L	11/03/15 12:34
	Magnesium	5.00	5.18	104	mg/L	11/03/15 12:34
	Sodium	5.00	4.88	98	mg/L	11/03/15 12:34

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

USEPA-6010C

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Laboratory ID: 5K02031-SCV1

Instrument: 354

Sequence: 5K02031

Calibration: 5K03013

Analyte	Expected	Found	% R	QC Limit	Units
Calcium	5.00	4.99	100	90-110	mg/L
Magnesium	5.00	4.95	99	90-110	mg/L
Sodium	5.00	5.01	100	90-110	mg/L

* Values outside of QC limits

CRDL STANDARD

USEPA-6010C

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K02031

Calibration: 5K03013

Instrument ID: 354

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
5K02031-CRL1	Calcium	0.500	0.534	107	mg/L	70 - 130
	Magnesium	0.500	0.475	95	mg/L	70 - 130
	Sodium	0.500	0.513	103	mg/L	70 - 130
5K02031-CRL2	Calcium	0.500	0.543	109	mg/L	70 - 130
	Magnesium	0.500	0.520	104	mg/L	70 - 130
	Sodium	0.500	0.545	109	mg/L	70 - 130

* Values outside of QC limits

BLANKS
USEPA-6010C

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K02031

Calibration: 5K03013

Instrument ID: 354

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
5K02031-CCB1	Calcium	0.054	mg/L	0.10	0.50	U	11/03/15 11:16
	Magnesium	0.027	mg/L	0.14	0.50	U	11/03/15 11:16
	Sodium	0.018	mg/L	0.13	0.50	U	11/03/15 11:16
5K02031-CCB2	Calcium	0.061	mg/L	0.10	0.50	U	11/03/15 11:37
	Magnesium	0.0092	mg/L	0.14	0.50	U	11/03/15 11:37
	Sodium	0.037	mg/L	0.13	0.50	U	11/03/15 11:37
5K02031-CCB3	Calcium	0.057	mg/L	0.10	0.50	U	11/03/15 12:04
	Magnesium	-0.014	mg/L	0.14	0.50	U	11/03/15 12:04
	Sodium	0.053	mg/L	0.13	0.50	U	11/03/15 12:04
5K02031-CCB4	Calcium	0.062	mg/L	0.10	0.50	U	11/03/15 12:36
	Magnesium	0.025	mg/L	0.14	0.50	U	11/03/15 12:36
	Sodium	0.045	mg/L	0.13	0.50	U	11/03/15 12:36

* Values outside of QC limits

ICP INTERFERENCE CHECK SAMPLE

USEPA-6010C

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K02031

Calibration: 5K03013

Instrument ID: 354

Lab Sample ID	Analyte	True	Found	%R	Units
5K02031-IFA1	Calcium	100	93.9	94	mg/L
	Magnesium	100	100	100	mg/L
	Sodium	0.00	0.0403		mg/L
5K02031-IFA2	Calcium	0.00	-0.0661		mg/L
	Magnesium	0.00	-0.0273		mg/L
	Sodium	0.00	0.0477		mg/L
5K02031-IFB1	Calcium	100	93.5	94	mg/L
	Magnesium	100	97.4	97	mg/L
5K02031-IFB2	Calcium	5.00	4.90	98	mg/L
	Magnesium	5.00	4.88	98	mg/L
	Sodium	5.00	5.01	100	mg/L
5K02031-IFA3	Calcium	100	92.2	92	mg/L
	Magnesium	100	97.1	97	mg/L
	Sodium	0.00	0.167		mg/L
5K02031-IFA4	Calcium	0.00	-0.0307		mg/L
	Magnesium	0.00	-0.0237		mg/L
	Sodium	0.00	0.154		mg/L
5K02031-IFB3	Calcium	100	91.8	92	mg/L
	Magnesium	100	97.7	98	mg/L
5K02031-IFB4	Calcium	5.00	4.86	97	mg/L
	Magnesium	5.00	4.85	97	mg/L
	Sodium	5.00	5.00	100	mg/L

* Values outside of QC limits

000448

QC BATCH SUMMARY

USEPA-6010C

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

QC Batch: 1511696

QC Batch Matrix: Water

Preparation: 3010A Digestion

Sample Name	Lab Sample ID	Date Prepared	Observations
C-4	1510440-04	10/30/15 09:30	
C-7	1510440-07	10/30/15 09:30	
EB-101915	1510440-12	10/30/15 09:30	
EB-102015	1510440-13	10/30/15 09:30	
W-A	1510440-16	10/30/15 09:30	
Blank	1511696-BLK1	10/30/15 09:30	
LCS	1511696-BS1	10/30/15 09:30	
C-4	1511696-MS1	10/30/15 09:30	
C-4	1511696-MSD1	10/30/15 09:30	
W-A	1511696-PS1	11/02/15 13:00	
W-A	1511696-PS2	11/02/15 13:00	

METHOD BLANK DATA SHEET
USEPA-6010C

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511696-BLK1

File ID: 5K03027-019

Prepared: 10/30/15 09:30

Analyzed: 11/03/15 11:39

Preparation: 3010A Digestion

Initial/Final: 25 mL / 25 mL

QC Batch: 1511696

Sequence: 5K02031

Calibration: 5K03013

Instrument: 354

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
7440-70-2	Calcium, Total	0.50	mg/L	0.10	0.50	U
7439-95-4	Magnesium, Total	0.50	mg/L	0.14	0.50	U
7440-23-5	Sodium, Total	0.50	mg/L	0.13	0.50	U

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY
USEPA-6010C

C-4

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511696-MS1

Preparation: 3010A Digestion

QC Batch: 1511696

Initial/Final: 25 mL / 25 mL

Analyte	Spike Added	Sample Conc.	MS Conc.	MS % Rec. #	QC Limits Rec.	Units
Calcium, Total	20.0	60.7	80.5	99	75 - 125	mg/L
Magnesium, Total	20.0	38.2	58.1	99	75 - 125	mg/L
Sodium, Total	20.0	340	349	47 *	75 - 125	mg/L

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

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

USEPA-6010C

C-4

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511696-MSD1

Preparation: 3010A Digestion

QC Batch: 1511696

Initial/Final: 25 mL / 25 mL

Analyte	Spike Added	MSD Conc.	MSD % Rec. #	% RPD #	QC Limits		Units
					RPD	Rec.	
Calcium, Total	20.0	82.8	111	3	20	75 - 125	mg/L
Magnesium, Total	20.0	61.6	117	6	20	75 - 125	mg/L
Sodium, Total	20.0	366	129 *	5	20	75 - 125	mg/L

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

* Values outside of QC limits

000452

POST DIGEST SPIKE SAMPLE RECOVERY
USEPA-6010C

W-A

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511696-PS1

% Solids:

Lab Source ID: 1510440-16

Preparation: 3010A Digestion

Initial/Final: 1 mL / 1 mL

QC Batch: 1511696

Sequence: 5K02031

Analyte	Spike Sample Result (SSR)	Sample Result (SR)	Units	Spike Added (SA)	%R	Control Limit %R
Sodium, Total	460	330	mg/L	125	105	80 - 120

* Values outside of QC limits

000453

POST DIGEST SPIKE SAMPLE RECOVERY

USEPA-6010C

W-A

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511696-PS2

% Solids:

Lab Source ID: 1510440-16

Preparation: 3010A Digestion

Initial/Final: 4 mL / 4 mL

QC Batch: 1511696

Sequence: 5K02031

Analyte	Spike Sample Result (SSR)	Sample Result (SR)	Units	Spike Added (SA)	%R	Control Limit %R
Calcium, Total	69.6	58.9	mg/L	12.5	86	80 - 120
Magnesium, Total	50.5	37.6	mg/L	12.5	103	80 - 120

* Values outside of QC limits

000454

LCS / LCS DUPLICATE RECOVERY
USEPA-6010C

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511696-BS1

Preparation: 3010A Digestion

Initial/Final: 25 mL / 25 mL

QC Batch: 1511696

Sequence: 5K02031

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Calcium, Total	20.0	21.0	105	80 - 120	mg/L
Magnesium, Total	20.0	21.8	109	80 - 120	mg/L
Sodium, Total	20.0	22.4	112	80 - 120	mg/L

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

* Values outside of QC limits

SERIAL DILUTION
USEPA-6010C

W-A

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 5K02031-SRD1

% Solids:

Lab Source ID: 1510440-16

QC Batch: 5K02031

Sequence: 5K02031

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Units	QC Limits % Difference
Sodium, Total	33.0		32.9				mg/L	10

* Values outside of QC limits

Initial Sample Result (I) was less than 50xMDL (for 6010) or 100xMDL (for 6020), therefore serial dilution is not required.

SERIAL DILUTION

USEPA-6010C

W-A

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 5K02031-SRD2

% Solids:

Lab Source ID: 1510440-16

QC Batch: 5K02031

Sequence: 5K02031

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Units	QC Limits % Difference
Calcium, Total	58.9		60.8		3.0		mg/L	10
Magnesium, Total	37.6		37.2		1.0		mg/L	10

* Values outside of QC limits

Initial Sample Result (I) was less than 50xMDL (for 6010) or 100xMDL (for 6020), therefore serial dilution is not required.

HOLDING TIME SUMMARY

USEPA-6010C

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Total Metals

Sample Name	Date Collected	Date Received	Date Leached	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
C-4	10/20/15	10/22/15		10/30/15	10	NA	11/03/15	14	180	
C-4	10/20/15	10/22/15		10/30/15	10	NA	11/03/15	14	180	
C-4	10/20/15	10/22/15		10/30/15	10	NA	11/03/15	14	180	
C-7	10/20/15	10/22/15		10/30/15	10	NA	11/03/15	14	180	
C-7	10/20/15	10/22/15		10/30/15	10	NA	11/03/15	14	180	
C-7	10/20/15	10/22/15		10/30/15	10	NA	11/03/15	14	180	
EB-101915	10/19/15	10/22/15		10/30/15	11	NA	11/03/15	15	180	
EB-101915	10/19/15	10/22/15		10/30/15	11	NA	11/03/15	15	180	
EB-101915	10/19/15	10/22/15		10/30/15	11	NA	11/03/15	15	180	
EB-102015	10/20/15	10/22/15		10/30/15	10	NA	11/03/15	14	180	
EB-102015	10/20/15	10/22/15		10/30/15	10	NA	11/03/15	14	180	
EB-102015	10/20/15	10/22/15		10/30/15	10	NA	11/03/15	14	180	
W-A	10/20/15	10/22/15		10/30/15	10	NA	11/03/15	14	180	
W-A	10/20/15	10/22/15		10/30/15	10	NA	11/03/15	14	180	
W-A	10/20/15	10/22/15		10/30/15	10	NA	11/03/15	14	180	

000458

ICP-AES INTERELEMENT CORRECTION FACTORS
USEPA-6010C/200.7

Laboratory: TriMatrix Laboratories, Inc.

Client: MWH

ICP-AES Instrument ID: 354

Date: 11-06-15

SDG: 1510440

Project: GE Caribe

Time: _____

Analyte	Wavelength (nm)	Interelement Correction Factors For:											
		Al	Ca	Cd	Ce	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni
Aluminum	396.153	N/A	-0.626894		7.573024				-0.121437			37.380736	
Antimony	217.582								-1.038518				-1.733727
Arsenic	188.979				-1.061073		3.407389					5.606142	
Barium	455.403												
Beryllium	234.861	0.005085			0.019470				0.688553			-0.114043	
Boron	249.677					3.152974	-0.649731		-0.169353			-1.318794	
Cadmium	214.437	0.044467		N/A					0.077741				0.210256
Calcium	315.874		N/A										
Chromium	205.557						N/A	-1.400195				0.611373	0.807590
Cobalt	228.616					N/A	0.263902					-1.624835	0.182299
Copper	327.397				-0.350032	0.220085		N/A					
Iron	238.204	0.034122				0.517175	0.127754		N/A				
Lead	220.353				1.229923			1.410468	0.124762			-3.508564	
Lithium	670.784				0.148820								
Magnesium	279.071				-5.279620				1.241147	N/A		-24.126337	
Manganese	257.610									0.035858	N/A		
Molybdenum	202.031											N/A	
Nickel	231.604				0.165423	0.798375			0.048281			-2.487503	N/A
Phosphorus	178.226												
Potassium	766.490												
Selenium	196.026				-2.113167				0.217811				
Silver	328.068				-10.059237				-0.024196		0.244141	0.319438	
Silicon	251.611												
Sodium	589.592												
Strontium	407.771												
Sulfur	180.669		20.093639								3.400609		
Thallium	190.801				-5.124581	2.340150							
Tin	189.927												
Titanium	334.940		-0.071004		-0.850333		0.331771						
Vanadium	292.395				0.136017		0.269703		0.095903	-0.021084		-10.586980	
Zinc	206.200						0.463394		0.021857	0.021262		0.303595	-0.255941

ICP-AES INTERELEMENT CORRECTION FACTORS
USEPA-6010C/200.7

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH

Project: GE Caribe

ICP-AES Instrument ID: 354

Date: 11/06/15

Time: _____

Analyte	Wavelength (nm)	Interelement Correction Factors For:															
		Ti	V														
Aluminum	396.153																
Antimony	217.582		2.343133														
Arsenic	188.979	3.292241															
Barium	455.403																
Beryllium	234.861	0.021007															
Boron	249.677																
Cadmium	214.437	-0.339236	-0.176046														
Calcium	315.874																
Chromium	205.557																
Cobalt	228.616	1.935021															
Copper	327.397	-0.390716	-0.727045														
Iron	238.204		-1.410714														
Lead	220.353	-1.124911															
Lithium	670.784																
Magnesium	279.071																
Manganese	257.610																
Molybdenum	202.031																
Nickel	231.604																
Phosphorus	178.226																
Potassium	766.490																
Selenium	196.026																
Silver	328.068		-0.413275														
Silicon	251.611																
Sodium	589.592																
Strontium	407.771																
Sulfur	180.669																
Thallium	190.801	-8.324958	-1.147878														
Tin	189.927																
Titanium	334.940	N/A															
Vanadium	292.395	0.612004	N/A														
Zinc	206.200																

ICP-AES LINEAR RANGES

USEPA-6010B/200.7

Laboratory: TriMatrix

SDG: 1510440

Client: MWH

Project: GE Caribe

ICP-AES Instrument ID: 354

Analyte	Integration Time	Date Analyzed	Analyst	Concentration
	(sec)			(ug/L)
Aluminum	0.2 - 20	8/25/2015	KLV	400,000
Arsenic	0.2 - 20	8/25/2015	KLV	50,000
Barium	0.2 - 20	8/25/2015	KLV	10,000
Beryllium	0.2 - 20	8/25/2015	KLV	5,000
Boron	0.2 - 20	8/25/2015	KLV	50,000
Cadmium	0.2 - 20	8/25/2015	KLV	20,000
Calcium	0.2 - 20	8/25/2015	KLV	1,000,000
Chromium	0.2 - 20	8/25/2015	KLV	100,000
Cobalt	0.2 - 20	8/25/2015	KLV	50,000
Copper	0.2 - 20	8/25/2015	KLV	100,000
Iron	0.2 - 20	8/25/2015	KLV	500,000
Lead	0.2 - 20	8/25/2015	KLV	100,000
Lithium	0.2 - 20	8/25/2015	KLV	5,000
Magnesium	0.2 - 20	8/25/2015	KLV	500,000
Manganese	0.2 - 20	8/25/2015	KLV	50,000
Molybdenum	0.2 - 20	8/25/2015	KLV	50,000
Nickel	0.2 - 20	8/25/2015	KLV	100,000
Potassium	0.2 - 20	8/25/2015	KLV	200,000
Selenium	0.2 - 20	8/25/2015	KLV	50,000
Silver	0.2 - 20	8/25/2015	KLV	5,000
Sodium	0.2 - 20	8/25/2015	KLV	500,000
Strontium	0.2 - 20	8/25/2015	KLV	20,000
Sulfur	0.2 - 20	8/25/2015	KLV	50,000
Antimony	0.2 - 20	8/25/2015	KLV	50,000
Thallium	0.2 - 20	8/25/2015	KLV	100,000
Tin	0.2 - 20	8/25/2015	KLV	100,000
Titanium	0.2 - 20	8/25/2015	KLV	100,000
Vanadium	0.2 - 20	8/25/2015	KLV	100,000
Zinc	0.2 - 20	8/25/2015	KLV	100,000

Comments:

Metals, Water, 3010A Digestion

Batch comments:

ARB 10/30/15 9:30am-4:15pm
ins #219 @ 91.1-93.5C #298
hot block vessel lot #1501179

Lab Number	Container	Prepared	By	Initial (mL)	Final (mL)	Source ID	Client Spike ID	uL Spike	Comments
1510440-04	H	Oct-30-15 09:30	ARB	25	25	MWH Americas - Farmington Hills, MI			
Ca Total 6010C	Mg Total 6010C	Na Total 6010C							
1510440-07	H	Oct-30-15 09:30	ARB	25	25	MWH Americas - Farmington Hills, MI			
Ca Total 6010C	Mg Total 6010C	Na Total 6010C							
1510440-12	H	Oct-30-15 09:30	ARB	25	25	MWH Americas - Farmington Hills, MI			
Ca Total 6010C	Mg Total 6010C	Na Total 6010C							
1510440-13	H	Oct-30-15 09:30	ARB	25	25	MWH Americas - Farmington Hills, MI			
Ca Total 6010C	Mg Total 6010C	Na Total 6010C							
1510440-16	H	Oct-30-15 09:30	ARB	25	25	MWH Americas - Farmington Hills, MI			
Ca Total 6010C	Mg Total 6010C	Na Total 6010C							
1511696-BLK1		Oct-30-15 09:30	ARB	25	25				
1511696-BS1		Oct-30-15 09:30	ARB	25	25				
1511696-MS1		Oct-30-15 09:30	ARB	25	25				
1511696-MSD1		Oct-30-15 09:30	ARB	25	25				
1511696-PS1		Nov-02-15 13:00	CKD	1	1				
1511696-PS2		Nov-02-15 13:00	CKD	4	4				

Comments:

Analyst
Initials:

app pw 11-4-15



9C
HMD 5K02031
Calib-5K03013

Dec 11/04

Metals Laboratory Instrument Run Sequence

Instrument #: 354
Date: 11-3-15
Analyst: DED

Data File: 5K03027-WTR
Calibration BLK/ICB/CCB: 5% HNO3 54339/5% HCL 54310
Internal Standard #: 5060001

Autosampler Position:

1 CAL1BLK/ICB/CCB/5061651	5 STD 4/5110052	104 IFA2/5090476
2 STD 1/5110049	101 DAILY SCV/CCV1/5101073	105 IFB1/5101206
3 STD 2/5110050	102 CRL/5110053	106 IFB2/5090477
4 STD 3/5110051	103 IFA1/5100627	

Analysis #/ Position #	ID	Dilution			Analysis #/ Position #	ID	Dilution		
		Initial Volume (mL)	Final Volume (mL)	Dilution Factor			Initial Volume (mL)	Final Volume (mL)	Dilution Factor
WTL 1/107	151745-BLK				~~35/141~~	~~1510452-03~~			
2/108	-BS1				36/142	-01			
3/109	1510446-01				37/143	-05			
4/110	-02				38/144	-06			
5/111	-03				39/145	-07			
6/112	-04				40/146	-08			
7/113	1510484-04			10X	41/147	-09			
8/114	1510489-11 x50 predigestion diln				42/148	-10			
9/115	-11 x5 predigestion diln				43/149	-11			
10/116	1510502-01				44/150	-12			
11/117	-02				45/151	1510531-01			
12/118	-MS1				46/152	1510548-01			
13/119	-MSD1				47/153	-02			
14/120	-SPD1				48/154	-03			
15/121	-PS1				49/155	1510484-04			
16/122	-03				50/156				
17/123	-04				51/157				
18/124	-05				52/158				
19/125	-06				53/159				
20/126	1510551-01				54/160				
21/127	-02				4MD55/201	1511696-BLK			
22/128	-03				9E 56/202	-BS1			
23/129	-04				57/203	1510440-04			
24/130	-05				58/204	-MS1			
25/131	-08				59/205	-MSD1			
26/132	-09				60/206	1510440-07			50X
~~27/133~~	~~1511751-BLK~~				61/207	-12			
28/134	-BS1				62/208	-13			
29/135	1510452-01				63/209	-16			10
30/136	-MS1				64/210	-SPD1			50
31/137	-MSD1				65/211	-PS1			10
32/138	-SPD2				66/212	-16			
33/139	-PS1				67/213	-SPD2			
34/140	1510452-02				68/214	-PS2			

000463

ICP_354_5%_A

revision: 1.0



Metals Laboratory Instrument Run Sequence

Instrument #: 354
Date: 11-3-15
Analyst: CKD

Data File: 5K03027
Calibration BLK/ICB/CCB: 5%HNO3 54339/5%HCL 54310
Internal Standard #: 5060001

Autosampler Position:

1 CAL1BLK/ICB/CCB/5061651	5 STD 4/5110052	104 IFA2/5090476
2 STD 1 /5110049	101 DAILY SCV/CCV1/5101073	105 IFB1/5101206
3 STD 2/5110050	102 CRL/5110053	106 IFB2/5090477
4 STD 3/5110051	103 IFA1/5100627	

Analysis #/ Position #	ID	Dilution			Analysis #/ Position #	ID	Dilution		
		Initial Volume (mL)	Final Volume (mL)	Dilution Factor			Initial Volume (mL)	Final Volume (mL)	Dilution Factor
4MPD 215	1510440-07				249				
216					250				
217					251				
218					252				
219					253				
220					254				
221					255				
222					256				
223					257				
224					258				
225					259				
226					260				
227					301				
228					302				
229					303				
230					304				
231					305				
232					306				
233					307				
234					308				
235					309				
236					310				
237					311				
238					312				
239					313				
240					314				
241					315				
242					316				
243					317				
244					318				
245					319				
246					320				
247					321				
248					322				

CKD

=====

Analysis Begun

Start Time: 11/3/2015 11:02:36 AM
 Logged In Analyst: Metals Analyst
 Spectrometer: Optima 8300 , S/N No Serial #

Plasma On Time: 11/3/2015 10:27:28 AM
 Technique: ICP Continuous
 Autosampler: ESI

Sample Information File: C:\Users\Public\PerkinElmer Syngistix\ICP\Data\Sample Information\
 5K02031.sifx

Batch ID:

Results Data Set: 5K03027

Results Library: C:\Users\Public\PerkinElmer Syngistix\ICP\Data\Results\Results.mdb

=====

Sequence No.: 1

Sample ID: 5K02031-CAL1

Analyst:

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 11/3/2015 11:02:43 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 5K02031-CAL1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc 357.234	179348.3	179348.3	99.3585 %		11:03:14 AM
1	Al 396.153†	40.7	40.9	[0.00] ug/L		11:03:19 AM
1	Ba 455.398†	595.6	599.5	[0.00] ug/L		11:03:14 AM
1	Ca 315.887†	238.3	239.8	[0.00] mg/L		11:03:19 AM
1	Fe 238.204†	23.4	23.6	[0.00] ug/L		11:03:19 AM
1	K 766.490†	174.9	176.0	[0.00] mg/L		11:03:14 AM
1	Li 670.784†	91.6	92.1	[0.00] ug/L		11:03:14 AM
1	Mg 279.071†	17.3	17.4	[0.00] mg/L		11:03:19 AM
1	Na 589.592†	743.8	748.6	[0.00] mg/L		11:03:14 AM
1	Sr 407.771†	1818.5	1830.2	[0.00] ug/L		11:03:19 AM
1	Ti 334.940†	-115.0	-115.7	[0.00] ug/L		11:03:19 AM
1	Y 360.076	269837.8	269837.8	100.688 %		11:03:28 AM
1	Ag 328.068†	-48.4	-48.1	[0.00] ug/L		11:03:33 AM
1	As 188.979†	-61.7	-61.3	[0.00] ug/L		11:03:33 AM
1	B 249.677†	413.2	410.4	[0.00] ug/L		11:03:33 AM
1	Be 234.861†	-991.2	-984.5	[0.00] ug/L		11:03:33 AM
1	Cd 214.437†	543.5	539.8	[0.00] ug/L		11:03:33 AM
1	Ce 413.764†	714.7	709.8	[0.00] ug/L		11:03:28 AM
1	Co 228.616†	-76.1	-75.6	[0.00] ug/L		11:03:33 AM
1	Cr 205.557†	-35.3	-35.1	[0.00] ug/L		11:03:33 AM
1	Cu 327.397†	-15.5	-15.4	[0.00] ug/L		11:03:28 AM
1	Mn 257.610†	210.2	208.8	[0.00] ug/L		11:03:33 AM
1	Mo 202.031†	123.5	122.7	[0.00] ug/L		11:03:33 AM
1	Ni 231.604†	600.9	596.8	[0.00] ug/L		11:03:33 AM
1	Pb 220.353†	105.4	104.6	[0.00] ug/L		11:03:33 AM
1	S 180.669†	3.7	3.7	[0.00] ug/L		11:03:33 AM
1	Sb 217.582†	-12.9	-12.8	[0.00] ug/L		11:03:33 AM
1	Se 196.026†	-58.3	-57.9	[0.00] ug/L		11:03:33 AM
1	Sn 189.927†	1.5	1.5	[0.00] ug/L		11:03:33 AM
1	Tl 190.801†	-74.4	-73.9	[0.00] ug/L		11:03:33 AM
1	V 292.395†	-34.0	-33.8	[0.00] ug/L		11:03:33 AM
1	Zn 206.200†	-20.1	-20.0	[0.00] ug/L		11:03:33 AM
2	Sc 357.234	181664.3	181664.3	100.642 %		11:03:20 AM
2	Al 396.153†	54.8	54.5	[0.00] ug/L		11:03:25 AM
2	Ba 455.398†	550.8	547.2	[0.00] ug/L		11:03:20 AM
2	Ca 315.887†	245.0	243.5	[0.00] mg/L		11:03:25 AM
2	Fe 238.204†	36.6	36.4	[0.00] ug/L		11:03:25 AM
2	K 766.490†	249.2	247.6	[0.00] mg/L		11:03:20 AM
2	Li 670.784†	42.8	42.5	[0.00] ug/L		11:03:20 AM
2	Mg 279.071†	-4.9	-4.8	[0.00] mg/L		11:03:25 AM
2	Na 589.592†	788.1	783.1	[0.00] mg/L		11:03:20 AM
2	Sr 407.771†	1797.3	1785.8	[0.00] ug/L		11:03:25 AM
2	Ti 334.940†	-68.5	-68.0	[0.00] ug/L		11:03:25 AM
2	Y 360.076	266151.2	266151.2	99.3122 %		11:03:34 AM
2	Ag 328.068†	-38.2	-38.4	[0.00] ug/L		11:03:39 AM
2	As 188.979†	-51.7	-52.0	[0.00] ug/L		11:03:39 AM
2	B 249.677†	390.0	392.7	[0.00] ug/L		11:03:39 AM
2	Be 234.861†	-975.7	-982.5	[0.00] ug/L		11:03:39 AM
2	Cd 214.437†	570.4	574.3	[0.00] ug/L		11:03:39 AM
2	Ce 413.764†	656.7	661.3	[0.00] ug/L		11:03:34 AM

000465

2	Co 228.616†	-55.4	-55.7	[0.00]	ug/L	11:03:39 AM
2	Cr 205.557†	-47.6	-47.9	[0.00]	ug/L	11:03:39 AM
2	Cu 327.397†	-53.3	-53.7	[0.00]	ug/L	11:03:34 AM
2	Mn 257.610†	198.7	200.1	[0.00]	ug/L	11:03:39 AM
2	Mo 202.031†	144.4	145.4	[0.00]	ug/L	11:03:39 AM
2	Ni 231.604†	597.8	601.9	[0.00]	ug/L	11:03:39 AM
2	Pb 220.353†	70.2	70.7	[0.00]	ug/L	11:03:39 AM
2	S 180.669†	5.9	6.0	[0.00]	ug/L	11:03:39 AM
2	Sb 217.582†	6.0	6.0	[0.00]	ug/L	11:03:39 AM
2	Se 196.026†	-61.4	-61.9	[0.00]	ug/L	11:03:39 AM
2	Sn 189.927†	15.0	15.1	[0.00]	ug/L	11:03:39 AM
2	Tl 190.801†	-77.1	-77.6	[0.00]	ug/L	11:03:39 AM
2	V 292.395†	-18.2	-18.3	[0.00]	ug/L	11:03:39 AM
2	Zn 206.200†	-43.4	-43.7	[0.00]	ug/L	11:03:39 AM

CKD

Mean Data: 5K02031-CAL1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 357.234	180506.3	1637.62	0.91%	100.000	%
Y 360.076	267994.5	2606.83	0.97%	100.000	%
Ag 328.068†	-43.3	6.84	15.80%	[0.00]	ug/L
Al 396.153†	47.7	9.59	20.09%	[0.00]	ug/L
As 188.979†	-56.6	6.53	11.53%	[0.00]	ug/L
B 249.677†	401.5	12.51	3.11%	[0.00]	ug/L
Ba 455.398†	573.4	36.93	6.44%	[0.00]	ug/L
Be 234.861†	-983.5	1.39	0.14%	[0.00]	ug/L
Ca 315.887†	241.6	2.58	1.07%	[0.00]	mg/L
Cd 214.437†	557.1	24.45	4.39%	[0.00]	ug/L
Ce 413.764†	685.6	34.33	5.01%	[0.00]	ug/L
Co 228.616†	-65.7	14.03	21.37%	[0.00]	ug/L
Cr 205.557†	-41.5	9.08	21.87%	[0.00]	ug/L
Cu 327.397†	-34.5	27.08	78.43%	[0.00]	ug/L
Fe 238.204†	30.0	9.07	30.26%	[0.00]	ug/L
K 766.490†	211.8	50.63	23.90%	[0.00]	mg/L
Li 670.784†	67.3	35.07	52.08%	[0.00]	ug/L
Mg 279.071†	6.3	15.71	250.75%	[0.00]	mg/L
Mn 257.610†	204.4	6.17	3.02%	[0.00]	ug/L
Mo 202.031†	134.0	16.05	11.98%	[0.00]	ug/L
Na 589.592†	765.9	24.40	3.19%	[0.00]	mg/L
Ni 231.604†	599.4	3.64	0.61%	[0.00]	ug/L
Pb 220.353†	87.7	24.04	27.42%	[0.00]	ug/L
S 180.669†	4.8	1.60	32.99%	[0.00]	ug/L
Sb 217.582†	-3.4	13.31	389.79%	[0.00]	ug/L
Se 196.026†	-59.9	2.83	4.73%	[0.00]	ug/L
Sn 189.927†	8.3	9.65	116.11%	[0.00]	ug/L
Sr 407.771†	1808.0	31.41	1.74%	[0.00]	ug/L
Ti 334.940†	-91.9	33.72	36.70%	[0.00]	ug/L
Tl 190.801†	-75.8	2.66	3.52%	[0.00]	ug/L
V 292.395†	-26.1	10.93	41.92%	[0.00]	ug/L
Zn 206.200†	-31.8	16.81	52.79%	[0.00]	ug/L

Sequence No.: 2

Sample ID: 5K02031-CAL2

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 2

Date Collected: 11/3/2015 11:04:45 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-CAL2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 357.234	183549.6	183549.6	101.686	%	11:05:09 AM
1	Al 396.153†	207.8	156.7	[50.00]	ug/L	11:05:14 AM
1	Ba 455.398†	3309.2	2680.9	[10.00]	ug/L	11:05:09 AM
1	Ca 315.887†	1238.3	976.1	[0.500]	mg/L	11:05:14 AM
1	Fe 238.204†	66.1	35.0	[10.00]	ug/L	11:05:14 AM
1	K 766.490†	295.1	78.4	[0.100]	mg/L	11:05:09 AM
1	Li 670.784†	530.7	454.6	[8.00]	ug/L	11:05:09 AM
1	Mg 279.071†	134.0	125.5	[0.500]	mg/L	11:05:14 AM
1	Na 589.592†	3557.8	2733.0	[0.500]	mg/L	11:05:09 AM
1	Sr 407.771†	33866.8	31497.3	[50.00]	ug/L	11:05:09 AM
1	Y 360.076	268013.7	268013.7	100.007	%	11:05:23 AM
1	Ag 328.068†	784.7	828.0	[10.00]	ug/L	11:05:28 AM

000466

CKD

1	As 188.979†	13.4	70.1	[100.00]	ug/L	11:05:28 AM
1	B 249.677†	1289.9	888.2	[50.00]	ug/L	11:05:28 AM
1	Be 234.861†	-728.2	255.4	[1.000]	ug/L	11:05:28 AM
1	Cd 214.437†	816.0	258.9	[10.00]	ug/L	11:05:28 AM
1	Co 228.616†	113.8	179.5	[10.00]	ug/L	11:05:28 AM
1	Cr 205.557†	471.8	513.2	[50.00]	ug/L	11:05:28 AM
1	Cu 327.397†	442.8	477.3	[10.00]	ug/L	11:05:23 AM
1	Mn 257.610†	2083.2	1878.6	[10.00]	ug/L	11:05:28 AM
1	Ni 231.604†	673.2	73.8	[10.00]	ug/L	11:05:28 AM
1	Pb 220.353†	152.3	64.7	[50.00]	ug/L	11:05:28 AM
1	S 180.669†	72.5	67.6	[500.0]	ug/L	11:05:28 AM
1	Sb 217.582†	86.1	89.5	[100.00]	ug/L	11:05:28 AM
1	Se 196.026†	-12.2	47.7	[100.00]	ug/L	11:05:28 AM
1	Sn 189.927†	156.2	147.9	[100.00]	ug/L	11:05:28 AM
1	Tl 190.801†	19.4	95.2	[100.00]	ug/L	11:05:28 AM
1	V 292.395†	371.3	397.3	[10.00]	ug/L	11:05:28 AM
1	Zn 206.200†	160.2	192.0	[20.00]	ug/L	11:05:28 AM
2	Sc 357.234	179741.4	179741.4	99.5763	%	11:05:15 AM
2	Al 396.153†	145.1	98.0	[50.00]	ug/L	11:05:21 AM
2	Ba 455.398†	3238.9	2679.3	[10.00]	ug/L	11:05:15 AM
2	Ca 315.887†	1219.3	982.8	[0.500]	mg/L	11:05:21 AM
2	Fe 238.204†	87.9	58.3	[10.00]	ug/L	11:05:21 AM
2	K 766.490†	263.2	52.5	[0.100]	mg/L	11:05:15 AM
2	Li 670.784†	553.6	488.6	[8.00]	ug/L	11:05:15 AM
2	Mg 279.071†	171.3	165.8	[0.500]	mg/L	11:05:21 AM
2	Na 589.592†	3455.8	2704.7	[0.500]	mg/L	11:05:15 AM
2	Sr 407.771†	32817.9	31149.5	[50.00]	ug/L	11:05:15 AM
2	Y 360.076	265019.7	265019.7	98.8900	%	11:05:29 AM
2	Ag 328.068†	646.4	696.9	[10.00]	ug/L	11:05:34 AM
2	As 188.979†	30.8	87.8	[100.00]	ug/L	11:05:34 AM
2	B 249.677†	1270.1	882.8	[50.00]	ug/L	11:05:34 AM
2	Be 234.861†	-746.7	228.4	[1.000]	ug/L	11:05:34 AM
2	Cd 214.437†	844.4	296.8	[10.00]	ug/L	11:05:34 AM
2	Co 228.616†	103.7	170.5	[10.00]	ug/L	11:05:34 AM
2	Cr 205.557†	467.2	514.0	[50.00]	ug/L	11:05:34 AM
2	Cu 327.397†	417.9	457.2	[10.00]	ug/L	11:05:29 AM
2	Mn 257.610†	2086.8	1905.8	[10.00]	ug/L	11:05:34 AM
2	Ni 231.604†	702.1	110.6	[10.00]	ug/L	11:05:34 AM
2	Pb 220.353†	172.0	86.2	[50.00]	ug/L	11:05:34 AM
2	S 180.669†	81.3	77.4	[500.0]	ug/L	11:05:34 AM
2	Sb 217.582†	86.8	91.1	[100.00]	ug/L	11:05:34 AM
2	Se 196.026†	-4.4	55.4	[100.00]	ug/L	11:05:34 AM
2	Sn 189.927†	134.5	127.7	[100.00]	ug/L	11:05:34 AM
2	Tl 190.801†	19.7	95.7	[100.00]	ug/L	11:05:34 AM
2	V 292.395†	402.2	432.8	[10.00]	ug/L	11:05:34 AM
2	Zn 206.200†	163.7	197.4	[20.00]	ug/L	11:05:34 AM

Mean Data: 5K02031-CAL2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 357.234	181645.5	2692.81	1.48%	100.631 %
Y 360.076	266516.7	2117.04	0.79%	99.4486 %
Ag 328.068†	762.4	92.66	12.15%	[10.00] ug/L
Al 396.153†	127.3	41.46	32.56%	[50.00] ug/L
As 188.979†	78.9	12.57	15.92%	[100.00] ug/L
B 249.677†	885.5	3.87	0.44%	[50.00] ug/L
Ba 455.398†	2680.1	1.14	0.04%	[10.00] ug/L
Be 234.861†	241.9	19.08	7.89%	[1.000] ug/L
Ca 315.887†	979.5	4.77	0.49%	[0.500] mg/L
Cd 214.437†	277.8	26.78	9.64%	[10.00] ug/L
Co 228.616†	175.0	6.34	3.62%	[10.00] ug/L
Cr 205.557†	513.6	0.53	0.10%	[50.00] ug/L
Cu 327.397†	467.2	14.22	3.04%	[10.00] ug/L
Fe 238.204†	46.7	16.45	35.25%	[10.00] ug/L
K 766.490†	65.5	18.30	27.95%	[0.100] mg/L
Li 670.784†	471.6	24.08	5.11%	[8.00] ug/L
Mg 279.071†	145.6	28.50	19.57%	[0.500] mg/L
Mn 257.610†	1892.2	19.23	1.02%	[10.00] ug/L
Na 589.592†	2718.8	20.01	0.74%	[0.500] mg/L
Ni 231.604†	92.2	25.97	28.17%	[10.00] ug/L
Pb 220.353†	75.4	15.26	20.23%	[50.00] ug/L
S 180.669†	72.5	6.87	9.48%	[500.0] ug/L
Sb 217.582†	90.3	1.17	1.30%	[100.00] ug/L
Se 196.026†	51.5	5.44	10.56%	[100.00] ug/L
Sn 189.927†	137.8	14.29	10.37%	[100.00] ug/L

000467

Sr 407.771†	31323.4	245.87	0.78%	[50.00]	ug/L
Tl 190.801†	95.4	0.37	0.38%	[100.00]	ug/L
V 292.395†	415.1	25.10	6.05%	[10.00]	ug/L
Zn 206.200†	194.7	3.78	1.94%	[20.00]	ug/L

CKD

Sequence No.: 3

Sample ID: 5K02031-CAL3

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 3

Date Collected: 11/3/2015 11:06:42 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-CAL3

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Analysis Time
1	Sc 357.234	186488.2	186488.2	103.314	%	11:07:06 AM
1	Al 396.153†	1049.2	967.8	[500.00]	ug/L	11:07:11 AM
1	Ba 455.398†	27079.3	25637.3	[100.00]	ug/L	11:07:06 AM
1	Ca 315.887†	2267.3	1953.0	[1.000]	mg/L	11:07:11 AM
1	Fe 238.204†	545.1	497.7	[100.00]	ug/L	11:07:11 AM
1	K 766.490†	1050.8	805.3	[1.000]	mg/L	11:07:06 AM
1	Li 670.784†	5304.1	5066.6	[100.00]	ug/L	11:07:06 AM
1	Mg 279.071†	308.2	292.0	[1.000]	mg/L	11:07:11 AM
1	Na 589.592†	6533.2	5557.8	[1.000]	mg/L	11:07:06 AM
1	Sr 407.771†	67722.7	63742.4	[100.00]	ug/L	11:07:06 AM
1	Ti 334.940†	2837.7	2838.6	[100.00]	ug/L	11:07:11 AM
1	Y 360.076	271241.2	271241.2	101.211	%	11:07:20 AM
1	Ag 328.068†	7866.4	7815.5	[100.00]	ug/L	11:07:25 AM
1	As 188.979†	225.2	279.2	[500.00]	ug/L	11:07:25 AM
1	B 249.677†	2115.8	1689.0	[100.00]	ug/L	11:07:25 AM
1	Be 234.861†	1683.6	2646.9	[10.00]	ug/L	11:07:25 AM
1	Cd 214.437†	3492.2	2893.3	[100.00]	ug/L	11:07:25 AM
1	Co 228.616†	1510.4	1558.0	[100.00]	ug/L	11:07:25 AM
1	Cr 205.557†	1007.4	1036.9	[100.00]	ug/L	11:07:25 AM
1	Cu 327.397†	4302.6	4285.7	[100.00]	ug/L	11:07:20 AM
1	Mn 257.610†	18987.9	18556.1	[100.00]	ug/L	11:07:20 AM
1	Mo 202.031†	657.8	515.9	[100.00]	ug/L	11:07:25 AM
1	Ni 231.604†	1491.8	874.6	[100.00]	ug/L	11:07:25 AM
1	Pb 220.353†	230.2	139.8	[100.00]	ug/L	11:07:25 AM
1	S 180.669†	155.4	148.7	[1000.0]	ug/L	11:07:25 AM
1	Sb 217.582†	465.3	463.1	[500.00]	ug/L	11:07:25 AM
1	Se 196.026†	243.7	300.6	[500.00]	ug/L	11:07:25 AM
1	Sn 189.927†	716.9	700.0	[500.00]	ug/L	11:07:25 AM
1	Tl 190.801†	393.6	464.6	[500.00]	ug/L	11:07:25 AM
1	V 292.395†	4216.2	4191.8	[100.00]	ug/L	11:07:25 AM
1	Zn 206.200†	870.2	891.6	[100.00]	ug/L	11:07:25 AM
2	Sc 357.234	182797.1	182797.1	101.269	%	11:07:12 AM
2	Al 396.153†	986.3	926.3	[500.00]	ug/L	11:07:17 AM
2	Ba 455.398†	26644.3	25737.0	[100.00]	ug/L	11:07:12 AM
2	Ca 315.887†	2250.6	1980.8	[1.000]	mg/L	11:07:17 AM
2	Fe 238.204†	526.5	489.9	[100.00]	ug/L	11:07:17 AM
2	K 766.490†	956.1	732.3	[1.000]	mg/L	11:07:12 AM
2	Li 670.784†	5332.8	5198.6	[100.00]	ug/L	11:07:12 AM
2	Mg 279.071†	305.4	295.3	[1.000]	mg/L	11:07:17 AM
2	Na 589.592†	6298.0	5453.2	[1.000]	mg/L	11:07:12 AM
2	Sr 407.771†	66610.4	63967.6	[100.00]	ug/L	11:07:12 AM
2	Ti 334.940†	2792.9	2849.8	[100.00]	ug/L	11:07:17 AM
2	Y 360.076	267252.1	267252.1	99.7230	%	11:07:26 AM
2	Ag 328.068†	7876.6	7941.8	[100.00]	ug/L	11:07:31 AM
2	As 188.979†	236.4	293.7	[500.00]	ug/L	11:07:31 AM
2	B 249.677†	2116.5	1720.8	[100.00]	ug/L	11:07:31 AM
2	Be 234.861†	1669.1	2657.2	[10.00]	ug/L	11:07:31 AM
2	Cd 214.437†	3510.8	2963.5	[100.00]	ug/L	11:07:31 AM
2	Co 228.616†	1522.6	1592.5	[100.00]	ug/L	11:07:31 AM
2	Cr 205.557†	984.1	1028.3	[100.00]	ug/L	11:07:31 AM
2	Cu 327.397†	4351.1	4397.7	[100.00]	ug/L	11:07:26 AM
2	Mn 257.610†	18722.7	18570.3	[100.00]	ug/L	11:07:26 AM
2	Mo 202.031†	680.3	548.2	[100.00]	ug/L	11:07:31 AM
2	Ni 231.604†	1515.9	920.7	[100.00]	ug/L	11:07:31 AM
2	Pb 220.353†	226.0	139.0	[100.00]	ug/L	11:07:31 AM
2	S 180.669†	158.2	153.8	[1000.0]	ug/L	11:07:31 AM
2	Sb 217.582†	461.1	465.7	[500.00]	ug/L	11:07:31 AM
2	Se 196.026†	238.5	299.0	[500.00]	ug/L	11:07:31 AM
2	Sn 189.927†	736.1	729.8	[500.00]	ug/L	11:07:31 AM

2	Tl 190.801†	398.8	475.7	[500.00] ug/L	11:07:31 AM
2	V 292.395†	4215.0	4252.8	[100.00] ug/L	11:07:31 AM
2	Zn 206.200†	880.8	915.1	[100.00] ug/L	11:07:31 AM

CKD

Mean Data: 5K02031-CAL3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib
Sc 357.234	184642.7	2610.01	1.41%	102.292 %	
Y 360.076	269246.7	2820.66	1.05%	100.467 %	
Ag 328.068†	7878.6	89.26	1.13%	[100.00] ug/L	
Al 396.153†	947.0	29.38	3.10%	[500.00] ug/L	
As 188.979†	286.5	10.29	3.59%	[500.00] ug/L	
B 249.677†	1704.9	22.53	1.32%	[100.00] ug/L	
Ba 455.398†	25687.2	70.54	0.27%	[100.00] ug/L	
Be 234.861†	2652.1	7.30	0.28%	[10.00] ug/L	
Ca 315.887†	1966.9	19.66	1.00%	[1.000] mg/L	
Cd 214.437†	2928.4	49.64	1.70%	[100.00] ug/L	
Co 228.616†	1575.3	24.44	1.55%	[100.00] ug/L	
Cr 205.557†	1032.6	6.04	0.58%	[100.00] ug/L	
Cu 327.397†	4341.7	79.23	1.82%	[100.00] ug/L	
Fe 238.204†	493.8	5.48	1.11%	[100.00] ug/L	
K 766.490†	768.8	51.60	6.71%	[1.000] mg/L	
Li 670.784†	5132.6	93.34	1.82%	[100.00] ug/L	
Mg 279.071†	293.7	2.31	0.79%	[1.000] mg/L	
Mn 257.610†	18563.2	9.99	0.05%	[100.00] ug/L	
Mo 202.031†	532.1	22.82	4.29%	[100.00] ug/L	
Na 589.592†	5505.5	73.91	1.34%	[1.000] mg/L	
Ni 231.604†	897.6	32.64	3.64%	[100.00] ug/L	
Pb 220.353†	139.4	0.52	0.37%	[100.00] ug/L	
S 180.669†	151.2	3.56	2.35%	[1000.0] ug/L	
Sb 217.582†	464.4	1.86	0.40%	[500.00] ug/L	
Se 196.026†	299.8	1.16	0.39%	[500.00] ug/L	
Sn 189.927†	714.9	21.10	2.95%	[500.00] ug/L	
Sr 407.771†	63855.0	159.27	0.25%	[100.00] ug/L	
Ti 334.940†	2844.2	7.94	0.28%	[100.00] ug/L	
Tl 190.801†	170.2	7.83	1.67%	[500.00] ug/L	
V 292.395†	4222.3	43.13	1.02%	[100.00] ug/L	
Zn 206.200†	903.4	16.58	1.83%	[100.00] ug/L	

Sequence No.: 4

Sample ID: 5K02031-CAL4

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 4

Date Collected: 11/3/2015 11:08:37 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-CAL4

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc 357.234	183074.5	183074.5	101.423 %		11:09:01 AM
1	Al 396.153†	4621.1	4508.6	[2500.00] ug/L		11:09:07 AM
1	Ba 455.398†	129485.7	127095.8	[500.00] ug/L		11:09:01 AM
1	Ca 315.887†	10235.7	9850.5	[5.000] mg/L		11:09:07 AM
1	Fe 238.204†	2848.8	2778.9	[500.00] ug/L		11:09:07 AM
1	K 766.490†	4245.4	3974.0	[5.000] mg/L		11:09:07 AM
1	Li 670.784†	26030.4	25597.9	[500.00] ug/L		11:09:01 AM
1	Mg 279.071†	1659.7	1630.1	[5.000] mg/L		11:09:07 AM
1	Na 589.592†	28164.7	27003.8	[5.000] mg/L		11:09:01 AM
1	Sr 407.771†	325477.4	319103.4	[500.00] ug/L		11:09:01 AM
1	Ti 334.940†	14217.4	14109.9	[500.00] ug/L		11:09:07 AM
1	Y 360.076	268625.6	268625.6	100.236 %		11:09:17 AM
1	Ag 328.068†	36724.3	36681.2	[500.00] ug/L		11:09:17 AM
1	As 188.979†	1407.9	1461.2	[2500.00] ug/L		11:09:22 AM
1	B 249.677†	8070.4	7649.9	[500.00] ug/L		11:09:17 AM
1	Be 234.861†	12553.1	13507.1	[50.00] ug/L		11:09:22 AM
1	Cd 214.437†	14870.5	14278.5	[500.00] ug/L		11:09:17 AM
1	Co 228.616†	7846.6	7893.8	[500.00] ug/L		11:09:22 AM
1	Cr 205.557†	5143.8	5173.2	[500.00] ug/L		11:09:22 AM
1	Cu 327.397†	21872.6	21855.7	[500.00] ug/L		11:09:17 AM
1	Mn 257.610†	93122.2	92699.0	[500.00] ug/L		11:09:17 AM
1	Mo 202.031†	2741.5	2601.0	[500.00] ug/L		11:09:22 AM
1	Ni 231.604†	5083.7	4472.4	[500.00] ug/L		11:09:22 AM
1	Pb 220.353†	752.4	662.9	[500.00] ug/L		11:09:22 AM

1	S 180.669†	803.4	796.6	[5000.0]	ug/L	11:09:22 AM
1	Sb 217.582†	2351.3	2349.2	[2500.00]	ug/L	11:09:22 AM
1	Se 196.026†	1364.3	1420.9	[2500.00]	ug/L	11:09:22 AM
1	Sn 189.927†	3518.2	3501.7	[2500.00]	ug/L	11:09:22 AM
1	Tl 190.801†	2283.5	2353.9	[2500.00]	ug/L	11:09:22 AM
1	V 292.395†	20562.4	20540.2	[500.00]	ug/L	11:09:17 AM
1	Zn 206.200†	4479.5	4500.8	[500.00]	ug/L	11:09:22 AM
2	Sc 357.234	184895.9	184895.9	102.432	%	11:09:09 AM
2	Al 396.153†	4546.6	4390.9	[2500.00]	ug/L	11:09:15 AM
2	Ba 455.398†	131495.1	127799.9	[500.00]	ug/L	11:09:09 AM
2	Ca 315.887†	10170.2	9687.1	[5.000]	mg/L	11:09:15 AM
2	Fe 238.204†	2815.3	2718.5	[500.00]	ug/L	11:09:15 AM
2	K 766.490†	4236.7	3924.3	[5.000]	mg/L	11:09:15 AM
2	Li 670.784†	26239.0	25548.7	[500.00]	ug/L	11:09:09 AM
2	Mg 279.071†	1659.2	1613.5	[5.000]	mg/L	11:09:15 AM
2	Na 589.592†	28776.7	27327.7	[5.000]	mg/L	11:09:09 AM
2	Sr 407.771†	330817.8	321155.8	[500.00]	ug/L	11:09:09 AM
2	Ti 334.940†	14116.5	13873.2	[500.00]	ug/L	11:09:15 AM
2	Y 360.076	261986.8	261986.8	97.7583	%	11:09:23 AM
2	Ag 328.068†	35701.4	36563.4	[500.00]	ug/L	11:09:23 AM
2	As 188.979†	1410.9	1499.9	[2500.00]	ug/L	11:09:28 AM
2	B 249.677†	7786.1	7563.1	[500.00]	ug/L	11:09:23 AM
2	Be 234.861†	12526.7	13797.4	[50.00]	ug/L	11:09:28 AM
2	Cd 214.437†	14547.6	14324.1	[500.00]	ug/L	11:09:23 AM
2	Co 228.616†	7859.3	8105.2	[500.00]	ug/L	11:09:28 AM
2	Cr 205.557†	5094.4	5252.7	[500.00]	ug/L	11:09:28 AM
2	Cu 327.397†	21153.1	21672.7	[500.00]	ug/L	11:09:23 AM
2	Mn 257.610†	90824.9	92703.2	[500.00]	ug/L	11:09:23 AM
2	Mo 202.031†	2753.7	2682.8	[500.00]	ug/L	11:09:28 AM
2	Ni 231.604†	5079.6	4596.7	[500.00]	ug/L	11:09:28 AM
2	Pb 220.353†	741.4	670.7	[500.00]	ug/L	11:09:28 AM
2	S 180.669†	786.8	800.0	[5000.0]	ug/L	11:09:28 AM
2	Sb 217.582†	2361.2	2418.8	[2500.00]	ug/L	11:09:28 AM
2	Se 196.026†	1363.4	1454.5	[2500.00]	ug/L	11:09:28 AM
2	Sn 189.927†	3515.9	3588.3	[2500.00]	ug/L	11:09:28 AM
2	Tl 190.801†	2269.1	2396.9	[2500.00]	ug/L	11:09:28 AM
2	V 292.395†	19850.9	20332.2	[500.00]	ug/L	11:09:23 AM
2	Zn 206.200†	4491.6	4626.4	[500.00]	ug/L	11:09:28 AM

CKD

Mean Data: 5K02031-CAL4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 357.234	183985.2	1287.93	0.70%	101.927 %
Y 360.076	265306.2	4694.39	1.77%	98.9969 %
Ag 328.068†	36622.3	83.33	0.23%	[500.00] ug/L
Al 396.153†	4449.8	83.20	1.87%	[2500.00] ug/L
As 188.979†	1480.6	27.32	1.85%	[2500.00] ug/L
B 249.677†	7606.5	61.34	0.81%	[500.00] ug/L
Ba 455.398†	127447.9	497.85	0.39%	[500.00] ug/L
Be 234.861†	13652.3	205.27	1.50%	[50.00] ug/L
Ca 315.887†	9768.8	115.57	1.18%	[5.000] mg/L
Cd 214.437†	14301.3	32.25	0.23%	[500.00] ug/L
Co 228.616†	7999.5	149.45	1.87%	[500.00] ug/L
Cr 205.557†	5212.9	56.22	1.08%	[500.00] ug/L
Cu 327.397†	21764.2	129.44	0.59%	[500.00] ug/L
Fe 238.204†	2748.7	42.71	1.55%	[500.00] ug/L
K 766.490†	3949.1	35.13	0.89%	[5.000] mg/L
Li 670.784†	25573.3	34.76	0.14%	[500.00] ug/L
Mg 279.071†	1621.8	11.71	0.72%	[5.000] mg/L
Mn 257.610†	92701.1	2.95	0.00%	[500.00] ug/L
Mo 202.031†	2641.9	57.86	2.19%	[500.00] ug/L
Na 589.592†	27165.7	229.04	0.84%	[5.000] mg/L
Ni 231.604†	4534.6	87.86	1.94%	[500.00] ug/L
Pb 220.353†	666.8	5.48	0.82%	[500.00] ug/L
S 180.669†	798.3	2.41	0.30%	[5000.0] ug/L
Sb 217.582†	2384.0	49.23	2.06%	[2500.00] ug/L
Se 196.026†	1437.7	23.73	1.65%	[2500.00] ug/L
Sn 189.927†	3545.0	61.23	1.73%	[2500.00] ug/L
Sr 407.771†	320129.6	1451.22	0.45%	[500.00] ug/L
Ti 334.940†	13991.5	167.35	1.20%	[500.00] ug/L
Tl 190.801†	2375.4	30.41	1.28%	[2500.00] ug/L
V 292.395†	20436.2	147.09	0.72%	[500.00] ug/L
Zn 206.200†	4563.6	88.85	1.95%	[500.00] ug/L

Sequence No.: 5
 Sample ID: 5K02031-CAL5
 Analyst:
 Initial Sample Wt:
 Dilution:
 Wash Time: 60

Autosampler Location: 5
 Date Collected: 11/3/2015 11:10:34 AM
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:
 Auto Dilution Factor: 1

CKD

Replicate Data: 5K02031-CAL5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 357.234	179944.3	179944.3	99.6886	%	11:11:00 AM
1	Al 396.153†	9248.9	9230.1	[5000.00]	ug/L	11:11:06 AM
1	Ba 455.398†	260018.8	260257.6	[1000.00]	ug/L	11:11:00 AM
1	Ca 315.887†	20752.1	20575.3	[10.00]	mg/L	11:11:06 AM
1	Fe 238.204†	5188.4	5174.7	[1000.00]	ug/L	11:11:06 AM
1	K 766.490†	8697.9	8513.2	[10.000]	mg/L	11:11:06 AM
1	Li 670.784†	52759.2	52856.6	[1000.00]	ug/L	11:11:00 AM
1	Mg 279.071†	3184.1	3187.7	[10.000]	mg/L	11:11:06 AM
1	Na 589.592†	56569.1	55979.9	[10.000]	mg/L	11:11:00 AM
1	Sr 407.771†	653396.2	653629.0	[1000.00]	ug/L	11:11:00 AM
1	Ti 334.940†	29526.6	29710.7	[1000.00]	ug/L	11:11:06 AM
1	Y 360.076	269566.5	269566.5	100.587	%	11:11:16 AM
1	Ag 328.068†	76119.0	75718.3	[1000.00]	ug/L	11:11:16 AM
1	As 188.979†	2939.9	2979.4	[5000.00]	ug/L	11:11:22 AM
1	B 249.677†	15904.0	15409.7	[1000.00]	ug/L	11:11:22 AM
1	Be 234.861†	26560.6	27389.2	[100.00]	ug/L	11:11:22 AM
1	Cd 214.437†	30807.6	30070.8	[1000.00]	ug/L	11:11:22 AM
1	Ce 413.764†	33082.5	32204.0	[1000.00]	ug/L	11:11:16 AM
1	Co 228.616†	16063.2	16035.2	[1000.00]	ug/L	11:11:22 AM
1	Cr 205.557†	10457.2	10437.7	[1000.00]	ug/L	11:11:22 AM
1	Cu 327.397†	44799.5	44572.8	[1000.00]	ug/L	11:11:16 AM
1	Mn 257.610†	191520.1	190198.7	[1000.00]	ug/L	11:11:16 AM
1	Mo 202.031†	5557.1	5390.7	[1000.00]	ug/L	11:11:22 AM
1	Ni 231.604†	9705.0	9049.0	[1000.00]	ug/L	11:11:22 AM
1	Pb 220.353†	1446.7	1350.7	[1000.00]	ug/L	11:11:22 AM
1	S 180.669†	1557.3	1543.4	[10000.0]	ug/L	11:11:22 AM
1	Sb 217.582†	4810.9	4786.2	[5000.00]	ug/L	11:11:22 AM
1	Se 196.026†	2914.0	2956.9	[5000.00]	ug/L	11:11:22 AM
1	Sn 189.927†	7207.9	7157.6	[5000.00]	ug/L	11:11:22 AM
1	Tl 190.801†	4709.9	4758.2	[5000.00]	ug/L	11:11:22 AM
1	V 292.395†	41899.2	41680.9	[1000.00]	ug/L	11:11:16 AM
1	Zn 206.200†	9094.6	9073.4	[1000.00]	ug/L	11:11:22 AM
2	Sc 357.234	182032.5	182032.5	100.846	%	11:11:07 AM
2	Al 396.153†	9194.6	9069.8	[5000.00]	ug/L	11:11:13 AM
2	Ba 455.398†	263670.1	260886.0	[1000.00]	ug/L	11:11:07 AM
2	Ca 315.887†	20694.6	20279.4	[10.00]	mg/L	11:11:13 AM
2	Fe 238.204†	5236.4	5162.5	[1000.00]	ug/L	11:11:13 AM
2	K 766.490†	8655.3	8370.9	[10.000]	mg/L	11:11:13 AM
2	Li 670.784†	53760.0	53241.9	[1000.00]	ug/L	11:11:07 AM
2	Mg 279.071†	3196.7	3163.7	[10.000]	mg/L	11:11:13 AM
2	Na 589.592†	57122.4	55877.6	[10.000]	mg/L	11:11:07 AM
2	Sr 407.771†	663345.4	655975.5	[1000.00]	ug/L	11:11:07 AM
2	Ti 334.940†	29437.8	29282.9	[1000.00]	ug/L	11:11:13 AM
2	Y 360.076	264453.2	264453.2	98.6786	%	11:11:23 AM
2	Ag 328.068†	74482.1	75522.7	[1000.00]	ug/L	11:11:23 AM
2	As 188.979†	2952.2	3048.4	[5000.00]	ug/L	11:11:29 AM
2	B 249.677†	15969.3	15781.6	[1000.00]	ug/L	11:11:29 AM
2	Be 234.861†	26751.5	28093.3	[100.00]	ug/L	11:11:29 AM
2	Cd 214.437†	31121.4	30981.1	[1000.00]	ug/L	11:11:29 AM
2	Ce 413.764†	32584.1	32334.9	[1000.00]	ug/L	11:11:23 AM
2	Co 228.616†	16181.2	16463.5	[1000.00]	ug/L	11:11:29 AM
2	Cr 205.557†	10514.7	10697.0	[1000.00]	ug/L	11:11:29 AM
2	Cu 327.397†	43970.4	44593.8	[1000.00]	ug/L	11:11:23 AM
2	Mn 257.610†	187590.2	189897.7	[1000.00]	ug/L	11:11:23 AM
2	Mo 202.031†	5560.9	5501.4	[1000.00]	ug/L	11:11:29 AM
2	Ni 231.604†	9810.5	9342.5	[1000.00]	ug/L	11:11:29 AM
2	Pb 220.353†	1461.2	1393.1	[1000.00]	ug/L	11:11:29 AM
2	S 180.669†	1575.9	1592.1	[10000.0]	ug/L	11:11:29 AM
2	Sb 217.582†	4859.7	4928.2	[5000.00]	ug/L	11:11:29 AM
2	Se 196.026†	2904.6	3003.4	[5000.00]	ug/L	11:11:29 AM
2	Sn 189.927†	7261.4	7350.3	[5000.00]	ug/L	11:11:29 AM
2	Tl 190.801†	4728.7	4867.8	[5000.00]	ug/L	11:11:29 AM
2	V 292.395†	41414.9	41995.5	[1000.00]	ug/L	11:11:23 AM
2	Zn 206.200†	9157.5	9311.9	[1000.00]	ug/L	11:11:29 AM

CKD

Mean Data: 5K02031-CAL5

Analyte	Mean Corrected				Calib
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 357.234	180988.4	1476.65	0.82%	100.267	%
Y 360.076	267009.9	3615.64	1.35%	99.6326	%
Ag 328.068†	75620.5	138.30	0.18%	[1000.00]	ug/L
Al 396.153†	9150.0	113.36	1.24%	[5000.00]	ug/L
As 188.979†	3013.9	48.74	1.62%	[5000.00]	ug/L
B 249.677†	15595.7	262.99	1.69%	[1000.00]	ug/L
Ba 455.398†	260571.8	444.37	0.17%	[1000.00]	ug/L
Be 234.861†	27741.2	497.87	1.79%	[100.00]	ug/L
Ca 315.887†	20427.4	209.22	1.02%	[10.00]	mg/L
Cd 214.437†	30526.0	643.65	2.11%	[1000.00]	ug/L
Ce 413.764†	32269.4	92.58	0.29%	[1000.00]	ug/L
Co 228.616†	16249.4	302.85	1.86%	[1000.00]	ug/L
Cr 205.557†	10567.4	183.35	1.74%	[1000.00]	ug/L
Cu 327.397†	44583.3	14.82	0.03%	[1000.00]	ug/L
Fe 238.204†	5168.6	8.59	0.17%	[1000.00]	ug/L
K 766.490†	8442.1	100.63	1.19%	[10.000]	mg/L
Li 670.784†	53049.3	272.48	0.51%	[1000.00]	ug/L
Mg 279.071†	3175.7	17.01	0.54%	[10.000]	mg/L
Mn 257.610†	190048.2	212.84	0.11%	[1000.00]	ug/L
Mo 202.031†	5446.1	78.26	1.44%	[1000.00]	ug/L
Na 589.592†	55928.8	72.39	0.13%	[10.000]	mg/L
Ni 231.604†	9195.8	207.54	2.26%	[1000.00]	ug/L
Pb 220.353†	1371.9	30.04	2.19%	[1000.00]	ug/L
S 180.669†	1567.8	34.43	2.20%	[10000.0]	ug/L
Sb 217.582†	4857.2	100.42	2.07%	[5000.00]	ug/L
Se 196.026†	2980.1	32.88	1.10%	[5000.00]	ug/L
Sn 189.927†	7254.0	136.27	1.88%	[5000.00]	ug/L
Sr 407.771†	654802.2	1659.28	0.25%	[1000.00]	ug/L
Ti 334.940†	29496.8	302.53	1.03%	[1000.00]	ug/L
Tl 190.801†	4813.0	77.49	1.61%	[5000.00]	ug/L
V 292.395†	41838.2	222.48	0.53%	[1000.00]	ug/L
Zn 206.200†	9192.7	168.68	1.83%	[1000.00]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	4	Lin, Calc Int	-49.9	75.24	0.00000	0.999851	
Al 396.153	4	Lin, Calc Int	6.2	1.819	0.00000	0.999877	
As 188.979	4	Lin, Calc Int	-1.5	0.6009	0.00000	0.999917	
B 249.677	4	Lin, Calc Int	55.9	15.46	0.00000	0.999838	
Ba 455.398	4	Lin, Calc Int	-433.0	260.0	0.00000	0.999941	
Be 234.861	4	Lin, Calc Int	-74.9	277.4	0.00000	0.999969	
Ca 315.887	4	Lin, Calc Int	-91.2	2036	0.00000	0.999766	
Cd 214.437	4	Lin, Calc Int	-164.0	30.34	0.00000	0.999511	
Ce 413.764	1	Lin, Calc Int	0.0	32.27	0.00000	1.000000	
Co 228.616	4	Lin, Calc Int	-25.9	16.23	0.00000	0.999967	
Cr 205.557	4	Lin, Calc Int	-20.8	10.56	0.00000	0.999979	
Cu 327.397	4	Lin, Calc Int	-92.1	44.48	0.00000	0.999929	
Fe 238.204	4	Lin, Calc Int	11.7	5.217	0.00000	0.999453	
K 766.490	4	Lin, Calc Int	-62.1	840.7	0.00000	0.999502	
Li 670.784	4	Lin, Calc Int	-151.9	52.85	0.00000	0.999837	
Mg 279.071	4	Lin, Calc Int	-7.5	319.7	0.00000	0.999892	
Mn 257.610	4	Lin, Calc Int	-418.8	189.6	0.00000	0.999926	
Mo 202.031	3	Lin, Calc Int	-20.6	5.439	0.00000	0.999877	
Na 589.592	4	Lin, Calc Int	-149.6	5580	0.00000	0.999899	
Ni 231.604	4	Lin, Calc Int	-14.2	9.187	0.00000	0.999976	
Pb 220.353	4	Lin, Calc Int	0.6	1.364	0.00000	0.999868	
S 180.669	4	Lin, Calc Int	-1.9	0.1575	0.00000	0.999935	
Sb 217.582	4	Lin, Calc Int	-14.1	0.9712	0.00000	0.999959	
Se 196.026	4	Lin, Calc Int	-8.6	0.5941	0.00000	0.999842	
Sn 189.927	4	Lin, Calc Int	-15.6	1.448	0.00000	0.999938	
Sr 407.771	4	Lin, Calc Int	-1848.7	654.2	0.00000	0.999942	
Ti 334.940	3	Lin, Calc Int	-187.2	29.43	0.00000	0.999632	
Tl 190.801	4	Lin, Calc Int	-7.4	0.9619	0.00000	0.999979	
V 292.395	4	Lin, Calc Int	-49.0	41.71	0.00000	0.999929	
Zn 206.200	4	Lin, Calc Int	-5.1	9.185	0.00000	0.999991	

Sequence No.: 6

Sample ID: 5K02031-SCV1

Analyst:

Autosampler Location: 101

Date Collected: 11/3/2015 11:12:35 AM

Data Type: Original

000472

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time: 60

Auto Dilution Factor: 1

CKD

Replicate Data: 5K02031-SCV1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	180724.9	180724.9	100.121 %		11:13:03 AM
1	Al 396.153†	4588.5	4535.3	2478.14 ug/L	2478.14 ug/L	11:13:09 AM
1	Ba 455.398†	132688.3	131954.4	509.241 ug/L	509.241 ug/L	11:13:03 AM
1	Ca 315.887†	10378.8	10124.6	5.01691 mg/L	5.01691 mg/L	11:13:09 AM
1	Fe 238.204†	2629.1	2596.0	495.415 ug/L	495.415 ug/L	11:13:09 AM
1	K 766.490†	4417.5	4200.3	5.06986 mg/L	5.06986 mg/L	11:13:09 AM
1	Li 670.784†	25878.7	25780.0	490.650 ug/L	490.650 ug/L	11:13:03 AM
1	Mg 279.071†	1583.2	1575.0	4.95061 mg/L	4.95061 mg/L	11:13:09 AM
1	Na 589.592†	28620.5	27820.0	5.01265 mg/L	5.01265 mg/L	11:13:03 AM
1	Sr 407.771†	323975.5	321775.6	494.722 ug/L	494.722 ug/L	11:13:03 AM
1	Ti 334.940†	14525.7	14600.0	502.510 ug/L	502.510 ug/L	11:13:09 AM
1	Y 360.076	268751.7	268751.7	100.283 %		11:13:18 AM
1	Ag 328.068†	37563.5	37501.0	499.132 ug/L	499.132 ug/L	11:13:18 AM
1	As 188.979†	1450.0	1502.6	2496.71 ug/L	2496.71 ug/L	11:13:24 AM
1	B 249.677†	8140.1	7715.6	494.674 ug/L	494.674 ug/L	11:13:24 AM
1	Be 234.861†	12862.3	13809.5	49.7150 ug/L	49.7150 ug/L	11:13:24 AM
1	Cd 214.437†	15132.3	14532.6	484.169 ug/L	484.169 ug/L	11:13:18 AM
1	Ce 413.764†	689.7	2.2	0.274125 ug/L	0.274125 ug/L	11:13:18 AM
1	Co 228.616†	8021.7	8064.8	498.131 ug/L	498.131 ug/L	11:13:24 AM
1	Cr 205.557†	5250.9	5277.6	501.473 ug/L	501.473 ug/L	11:13:24 AM
1	Cu 327.397†	22174.8	22146.9	500.577 ug/L	500.577 ug/L	11:13:18 AM
1	Mn 257.610†	94448.3	93977.7	497.802 ug/L	497.802 ug/L	11:13:18 AM
1	Mo 202.031†	2758.1	2616.3	484.817 ug/L	484.817 ug/L	11:13:24 AM
1	Ni 231.604†	5221.2	4607.2	503.594 ug/L	503.594 ug/L	11:13:24 AM
1	Pb 220.353†	817.1	727.2	534.418 ug/L	534.418 ug/L	11:13:24 AM
1	S 180.669†	22.8	17.9	15.0281 ug/L	15.0281 ug/L	11:13:24 AM
1	Sb 217.582†	2286.2	2283.1	2366.32 ug/L	2366.32 ug/L	11:13:24 AM
1	Se 196.026†	1438.7	1494.5	2530.08 ug/L	2530.08 ug/L	11:13:24 AM
1	Sn 189.927†	3682.2	3663.5	2540.66 ug/L	2540.66 ug/L	11:13:24 AM
1	Tl 190.801†	2319.1	2388.3	2493.18 ug/L	2493.18 ug/L	11:13:24 AM
1	V 292.395†	20946.3	20913.3	513.057 ug/L	513.057 ug/L	11:13:18 AM
1	Zn 206.200†	4569.6	4588.6	499.984 ug/L	499.984 ug/L	11:13:24 AM
2	Sc 357.234	181973.6	181973.6	100.813 %		11:13:10 AM
2	Al 396.153†	4623.7	4538.7	2480.41 ug/L	2480.41 ug/L	11:13:16 AM
2	Ba 455.398†	133855.3	132202.6	510.195 ug/L	510.195 ug/L	11:13:10 AM
2	Ca 315.887†	10343.9	10018.8	4.96498 mg/L	4.96498 mg/L	11:13:16 AM
2	Fe 238.204†	2647.8	2596.5	495.510 ug/L	495.510 ug/L	11:13:16 AM
2	K 766.490†	4388.1	4140.9	4.99918 mg/L	4.99918 mg/L	11:13:16 AM
2	Li 670.784†	26112.4	25834.5	491.680 ug/L	491.680 ug/L	11:13:10 AM
2	Mg 279.071†	1595.9	1576.7	4.95606 mg/L	4.95606 mg/L	11:13:16 AM
2	Na 589.592†	28768.6	27770.8	5.00383 mg/L	5.00383 mg/L	11:13:10 AM
2	Sr 407.771†	326996.1	322551.5	495.908 ug/L	495.908 ug/L	11:13:10 AM
2	Ti 334.940†	14465.4	14440.7	497.100 ug/L	497.100 ug/L	11:13:16 AM
2	Y 360.076	275054.5	275054.5	102.634 %		11:13:25 AM
2	Ag 328.068†	38066.5	37132.7	494.228 ug/L	494.228 ug/L	11:13:25 AM
2	As 188.979†	1432.6	1452.5	2413.44 ug/L	2413.44 ug/L	11:13:30 AM
2	B 249.677†	8094.0	7484.7	479.786 ug/L	479.786 ug/L	11:13:30 AM
2	Be 234.861†	12763.0	13418.9	48.3049 ug/L	48.3049 ug/L	11:13:30 AM
2	Cd 214.437†	15443.5	14490.1	482.768 ug/L	482.768 ug/L	11:13:25 AM
2	Ce 413.764†	666.1	-36.6	-0.931409 ug/L	-0.931409 ug/L	11:13:25 AM
2	Co 228.616†	7851.8	7715.9	476.636 ug/L	476.636 ug/L	11:13:30 AM
2	Cr 205.557†	5175.7	5084.4	483.195 ug/L	483.195 ug/L	11:13:30 AM
2	Cu 327.397†	22487.4	21944.7	496.027 ug/L	496.027 ug/L	11:13:25 AM
2	Mn 257.610†	96521.5	93839.5	497.074 ug/L	497.074 ug/L	11:13:25 AM
2	Mo 202.031†	2755.9	2551.1	472.832 ug/L	472.832 ug/L	11:13:30 AM
2	Ni 231.604†	5160.5	4428.7	484.159 ug/L	484.159 ug/L	11:13:30 AM
2	Pb 220.353†	799.5	691.3	508.097 ug/L	508.097 ug/L	11:13:30 AM
2	S 180.669†	25.2	19.7	27.3978 ug/L	27.3978 ug/L	11:13:30 AM
2	Sb 217.582†	2272.0	2217.1	2298.27 ug/L	2298.27 ug/L	11:13:30 AM
2	Se 196.026†	1432.5	1455.6	2464.54 ug/L	2464.54 ug/L	11:13:30 AM
2	Sn 189.927†	3616.7	3515.6	2438.47 ug/L	2438.47 ug/L	11:13:30 AM
2	Tl 190.801†	2302.4	2319.1	2421.22 ug/L	2421.22 ug/L	11:13:30 AM
2	V 292.395†	21259.3	20739.7	508.631 ug/L	508.631 ug/L	11:13:25 AM
2	Zn 206.200†	4523.7	4439.4	483.740 ug/L	483.740 ug/L	11:13:30 AM

Mean Data: 5K02031-SCV1

Mean Corrected

Calib.

Sample

000473

Analyte	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD	CKD
Sc 357.234	181349.3	100.467 %	0.4892			0.49%	
Y 360.076	271903.1	101.458 %	1.6630			1.64%	
Ag 328.068†	37316.9	496.680 ug/L	3.4676	496.680 ug/L	3.4676	0.70%	
QC value within limits for Ag 328.068 Recovery = 99.34%							
Al 396.153†	4537.0	2479.27 ug/L	1.607	2479.27 ug/L	1.607	0.06%	
QC value within limits for Al 396.153 Recovery = 99.17%							
As 188.979†	1477.5	2455.08 ug/L	58.882	2455.08 ug/L	58.882	2.40%	
QC value within limits for As 188.979 Recovery = 98.20%							
B 249.677†	7600.2	487.230 ug/L	10.5281	487.230 ug/L	10.5281	2.16%	
QC value within limits for B 249.677 Recovery = 97.45%							
Ba 455.398†	132078.5	509.718 ug/L	0.6751	509.718 ug/L	0.6751	0.13%	
QC value within limits for Ba 455.398 Recovery = 101.94%							
Be 234.861†	13614.2	49.0099 ug/L	0.99708	49.0099 ug/L	0.99708	2.03%	
QC value within limits for Be 234.861 Recovery = 98.02%							
Ca 315.887†	10071.7	4.99095 mg/L	0.036725	4.99095 mg/L	0.036725	0.74%	
QC value within limits for Ca 315.887 Recovery = 99.82%							
Cd 214.437†	14511.3	483.469 ug/L	0.9906	483.469 ug/L	0.9906	0.20%	
QC value within limits for Cd 214.437 Recovery = 96.69%							
Ce 413.764†	-17.2	-0.328642 ug/L	0.8524409	-0.328642 ug/L	0.8524409	259.38%	
Co 228.616†	7890.4	487.384 ug/L	15.1995	487.384 ug/L	15.1995	3.12%	
QC value within limits for Co 228.616 Recovery = 97.48%							
Cr 205.557†	5181.0	492.334 ug/L	12.9251	492.334 ug/L	12.9251	2.63%	
QC value within limits for Cr 205.557 Recovery = 98.47%							
Cu 327.397†	22045.8	498.302 ug/L	3.2171	498.302 ug/L	3.2171	0.65%	
QC value within limits for Cu 327.397 Recovery = 99.66%							
Fe 238.204†	2596.2	495.462 ug/L	0.0667	495.462 ug/L	0.0667	0.01%	
QC value within limits for Fe 238.204 Recovery = 99.09%							
K 766.490†	4170.6	5.03452 mg/L	0.049979	5.03452 mg/L	0.049979	0.99%	
QC value within limits for K 766.490 Recovery = 100.69%							
Li 670.784†	25807.3	491.165 ug/L	0.7288	491.165 ug/L	0.7288	0.15%	
QC value within limits for Li 670.784 Recovery = 98.23%							
Mg 279.071†	1575.9	4.95333 mg/L	0.003856	4.95333 mg/L	0.003856	0.08%	
QC value within limits for Mg 279.071 Recovery = 99.07%							
Mn 257.610†	93908.6	497.438 ug/L	0.5153	497.438 ug/L	0.5153	0.10%	
QC value within limits for Mn 257.610 Recovery = 99.49%							
Mo 202.031†	2583.7	478.824 ug/L	8.4740	478.824 ug/L	8.4740	1.77%	
QC value within limits for Mo 202.031 Recovery = 95.76%							
Na 589.592†	27795.4	5.00824 mg/L	0.006237	5.00824 mg/L	0.006237	0.12%	
QC value within limits for Na 589.592 Recovery = 100.16%							
Ni 231.604†	4517.9	493.877 ug/L	13.7420	493.877 ug/L	13.7420	2.78%	
QC value within limits for Ni 231.604 Recovery = 98.78%							
Pb 220.353†	709.3	521.258 ug/L	18.6123	521.258 ug/L	18.6123	3.57%	
QC value within limits for Pb 220.353 Recovery = 104.25%							
S 180.669†	18.8	21.2129 ug/L	8.74664	21.2129 ug/L	8.74664	41.23%	
QC value less than the lower limit for S 180.669 Recovery = 0.42%							
Sb 217.582†	2250.1	2332.29 ug/L	48.116	2332.29 ug/L	48.116	2.06%	
QC value within limits for Sb 217.582 Recovery = 93.29%							
Se 196.026†	1475.0	2497.31 ug/L	46.342	2497.31 ug/L	46.342	1.86%	
QC value within limits for Se 196.026 Recovery = 99.89%							
Sn 189.927†	3589.5	2489.56 ug/L	72.257	2489.56 ug/L	72.257	2.90%	
QC value within limits for Sn 189.927 Recovery = 99.58%							
Sr 407.771†	322163.5	495.315 ug/L	0.8387	495.315 ug/L	0.8387	0.17%	
QC value within limits for Sr 407.771 Recovery = 99.06%							
Ti 334.940†	14520.4	499.805 ug/L	3.8257	499.805 ug/L	3.8257	0.77%	
QC value within limits for Ti 334.940 Recovery = 99.96%							
Tl 190.801†	2353.7	2457.20 ug/L	50.880	2457.20 ug/L	50.880	2.07%	
QC value within limits for Tl 190.801 Recovery = 98.29%							
V 292.395†	20826.5	510.844 ug/L	3.1297	510.844 ug/L	3.1297	0.61%	
QC value within limits for V 292.395 Recovery = 102.17%							
Zn 206.200†	4514.0	491.862 ug/L	11.4866	491.862 ug/L	11.4866	2.34%	
QC value within limits for Zn 206.200 Recovery = 98.37%							
QC Failed. Continue with analysis.							

Sequence No.: 7

Sample ID: 5K02031-CCB

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 1

Date Collected: 11/3/2015 11:14:35 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time

000474

1	Sc 357.234	185930.3	185930.3	103.005 %		11:15:02 AM
1	Al 396.153†	59.1	9.7	1.75595 ug/L	1.75595 ug/L	11:15:07 AM
1	Ba 455.398†	751.2	155.9	2.26535 ug/L	2.26535 ug/L	11:15:02 AM
1	Ca 315.887†	279.0	29.3	0.0591479 mg/L	0.0591479 mg/L	11:15:07 AM
1	Fe 238.204†	21.9	-8.7	-3.90297 ug/L	-3.90297 ug/L	11:15:07 AM
1	K 766.490†	218.8	0.6	0.0745803 mg/L	0.0745803 mg/L	11:15:02 AM
1	Li 670.784†	142.0	70.6	4.21002 ug/L	4.21002 ug/L	11:15:02 AM
1	Mg 279.071†	1.3	-5.0	0.0076686 mg/L	0.0076686 mg/L	11:15:07 AM
1	Na 589.592†	687.6	-98.3	0.0091866 mg/L	0.0091866 mg/L	11:15:02 AM
1	Sr 407.771†	2179.4	307.8	3.29658 ug/L	3.29658 ug/L	11:15:07 AM
1	Ti 334.940†	-57.6	35.9	7.58311 ug/L	7.58311 ug/L	11:15:07 AM
1	Y 360.076	269002.7	269002.7	100.376 %		11:15:15 AM
1	Ag 328.068†	28.5	71.7	1.60097 ug/L	1.60097 ug/L	11:15:20 AM
1	As 188.979†	-53.3	3.6	8.30215 ug/L	8.30215 ug/L	11:15:20 AM
1	B 249.677†	418.5	15.4	-2.61156 ug/L	-2.61156 ug/L	11:15:20 AM
1	Be 234.861†	-1013.4	-26.1	0.180085 ug/L	0.180085 ug/L	11:15:20 AM
1	Cd 214.437†	570.4	11.2	5.77310 ug/L	5.77310 ug/L	11:15:20 AM
1	Ce 413.764†	643.6	-44.4	-1.37388 ug/L	-1.37388 ug/L	11:15:15 AM
1	Co 228.616†	-70.7	-4.7	1.29912 ug/L	1.29912 ug/L	11:15:20 AM
1	Cr 205.557†	-36.6	5.1	2.44954 ug/L	2.44954 ug/L	11:15:20 AM
1	Cu 327.397†	41.1	75.4	3.77281 ug/L	3.77281 ug/L	11:15:15 AM
1	Mn 257.610†	283.2	77.7	2.61804 ug/L	2.61804 ug/L	11:15:20 AM
1	Mo 202.031†	149.9	15.3	6.59914 ug/L	6.59914 ug/L	11:15:20 AM
1	Ni 231.604†	602.9	1.3	1.70332 ug/L	1.70332 ug/L	11:15:20 AM
1	Pb 220.353†	73.3	-14.7	-11.1512 ug/L	-11.1512 ug/L	11:15:20 AM
1	S 180.669†	2.6	-2.2	-3.44054 ug/L	-3.44054 ug/L	11:15:20 AM
1	Sb 217.582†	15.1	18.5	33.5284 ug/L	33.5284 ug/L	11:15:20 AM
1	Se 196.026†	-29.4	30.5	65.8235 ug/L	65.8235 ug/L	11:15:20 AM
1	Sn 189.927†	-3.3	-11.6	2.75705 ug/L	2.75705 ug/L	11:15:20 AM
1	Tl 190.801†	-69.7	6.4	14.3609 ug/L	14.3609 ug/L	11:15:20 AM
1	V 292.395†	40.3	66.2	2.90519 ug/L	2.90519 ug/L	11:15:20 AM
1	Zn 206.200†	-17.3	14.6	2.14727 ug/L	2.14727 ug/L	11:15:20 AM
2	Sc 357.234	184068.7	184068.7	101.974 %		11:15:08 AM
2	Al 396.153†	65.0	16.0	5.38263 ug/L	5.38263 ug/L	11:15:13 AM
2	Ba 455.398†	791.3	202.6	2.44493 ug/L	2.44493 ug/L	11:15:08 AM
2	Ca 315.887†	246.7	0.3	0.0449041 mg/L	0.0449041 mg/L	11:15:13 AM
2	Fe 238.204†	33.8	3.2	-1.63647 ug/L	-1.63647 ug/L	11:15:13 AM
2	K 766.490†	274.7	57.5	0.142277 mg/L	0.142277 mg/L	11:15:08 AM
2	Li 670.784†	144.5	74.4	4.28251 ug/L	4.28251 ug/L	11:15:08 AM
2	Mg 279.071†	5.5	-0.8	0.0208498 mg/L	0.0208498 mg/L	11:15:13 AM
2	Na 589.592†	953.7	169.4	0.0571609 mg/L	0.0571609 mg/L	11:15:08 AM
2	Sr 407.771†	2226.0	374.9	3.39915 ug/L	3.39915 ug/L	11:15:13 AM
2	Ti 334.940†	-53.3	39.6	7.70729 ug/L	7.70729 ug/L	11:15:13 AM
2	Y 360.076	267888.9	267888.9	99.9606 %		11:15:22 AM
2	Ag 328.068†	11.5	54.8	1.37290 ug/L	1.37290 ug/L	11:15:27 AM
2	As 188.979†	-46.5	10.2	19.2929 ug/L	19.2929 ug/L	11:15:27 AM
2	B 249.677†	400.5	-0.9	-3.67353 ug/L	-3.67353 ug/L	11:15:27 AM
2	Be 234.861†	-965.1	18.0	0.336481 ug/L	0.336481 ug/L	11:15:27 AM
2	Cd 214.437†	575.4	18.6	6.01807 ug/L	6.01807 ug/L	11:15:27 AM
2	Ce 413.764†	623.6	-61.7	-1.91219 ug/L	-1.91219 ug/L	11:15:22 AM
2	Co 228.616†	-51.2	14.5	2.47696 ug/L	2.47696 ug/L	11:15:27 AM
2	Cr 205.557†	-28.0	13.5	3.24823 ug/L	3.24823 ug/L	11:15:27 AM
2	Cu 327.397†	20.2	54.7	3.30461 ug/L	3.30461 ug/L	11:15:22 AM
2	Mn 257.610†	283.0	78.7	2.62326 ug/L	2.62326 ug/L	11:15:27 AM
2	Mo 202.031†	125.8	-8.2	2.28900 ug/L	2.28900 ug/L	11:15:27 AM
2	Ni 231.604†	592.6	-6.6	0.835078 ug/L	0.835078 ug/L	11:15:27 AM
2	Pb 220.353†	88.7	1.1	0.362649 ug/L	0.362649 ug/L	11:15:27 AM
2	S 180.669†	-3.5	-8.3	-42.0177 ug/L	-42.0177 ug/L	11:15:27 AM
2	Sb 217.582†	13.5	16.9	31.9246 ug/L	31.9246 ug/L	11:15:27 AM
2	Se 196.026†	-32.1	27.8	61.1332 ug/L	61.1332 ug/L	11:15:27 AM
2	Sn 189.927†	6.1	-2.2	9.24453 ug/L	9.24453 ug/L	11:15:27 AM
2	Tl 190.801†	-64.9	10.8	18.9969 ug/L	18.9969 ug/L	11:15:27 AM
2	V 292.395†	20.7	46.7	2.34063 ug/L	2.34063 ug/L	11:15:27 AM
2	Zn 206.200†	-31.6	0.2	0.581625 ug/L	0.581625 ug/L	11:15:27 AM

Mean Data: 5K02031-CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	184999.5	102.489 %	0.7292			0.71%
Y 360.076	268445.8	100.168 %	0.2939			0.29%
Ag 328.068†	63.3	1.48694 ug/L	0.161269	1.48694 ug/L	0.161269	10.85%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153†	12.8	3.56929 ug/L	2.564448	3.56929 ug/L	2.564448	71.85%
QC value within limits for Al 396.153 Recovery = Not calculated						
As 188.979†	6.9	13.7975 ug/L	7.77165	13.7975 ug/L	7.77165	56.33%

QC value within limits for As 188.979 Recovery = Not calculated
B 249.677† 7.3 -3.14255 ug/L 0.750926 -3.14255 ug/L 0.750926 23.90% CKD
QC value within limits for B 249.677 Recovery = Not calculated
Ba 455.398† 179.3 2.35514 ug/L 0.126985 2.35514 ug/L 0.126985 5.39%
QC value within limits for Ba 455.398 Recovery = Not calculated
Be 234.861† -4.0 0.258283 ug/L 0.1105886 0.258283 ug/L 0.1105886 42.82%
QC value within limits for Be 234.861 Recovery = Not calculated
Ca 315.887† 14.8 0.0520260 mg/L 0.01007188 0.0520260 mg/L 0.01007188 19.36%
QC value within limits for Ca 315.887 Recovery = Not calculated
Cd 214.437† 14.9 5.89559 ug/L 0.173226 5.89559 ug/L 0.173226 2.94%
QC value within limits for Cd 214.437 Recovery = Not calculated
Ce 413.764† -53.1 -1.64303 ug/L 0.380643 -1.64303 ug/L 0.380643 23.17%
Co 228.616† 4.9 1.88804 ug/L 0.832862 1.88804 ug/L 0.832862 44.11%
QC value within limits for Co 228.616 Recovery = Not calculated
Cr 205.557† 9.3 2.84889 ug/L 0.564757 2.84889 ug/L 0.564757 19.82%
QC value within limits for Cr 205.557 Recovery = Not calculated
Cu 327.397† 63.1 3.53871 ug/L 0.331068 3.53871 ug/L 0.331068 9.36%
QC value within limits for Cu 327.397 Recovery = Not calculated
Fe 238.204† -2.8 -2.76972 ug/L 1.602661 -2.76972 ug/L 1.602661 57.86%
QC value within limits for Fe 238.204 Recovery = Not calculated
K 766.490† 29.1 0.108429 mg/L 0.0478688 0.108429 mg/L 0.0478688 44.15%
QC value greater than the upper limit for K 766.490 Recovery = Not calculated
Li 670.784† 72.5 4.24627 ug/L 0.051258 4.24627 ug/L 0.051258 1.21%
QC value within limits for Li 670.784 Recovery = Not calculated
Mg 279.071† -2.9 0.0142592 mg/L 0.00932051 0.0142592 mg/L 0.00932051 65.36%
QC value within limits for Mg 279.071 Recovery = Not calculated
Mn 257.610† 78.2 2.62065 ug/L 0.003693 2.62065 ug/L 0.003693 0.14%
QC value within limits for Mn 257.610 Recovery = Not calculated
Mo 202.031† 3.6 4.44407 ug/L 3.047727 4.44407 ug/L 3.047727 68.58%
QC value within limits for Mo 202.031 Recovery = Not calculated
Na 589.592† 35.5 0.0331737 mg/L 0.03392293 0.0331737 mg/L 0.03392293 102.26%
QC value within limits for Na 589.592 Recovery = Not calculated
Ni 231.604† -2.6 1.26920 ug/L 0.613937 1.26920 ug/L 0.613937 48.37%
QC value within limits for Ni 231.604 Recovery = Not calculated
Pb 220.353† -6.8 -5.39429 ug/L 8.141536 -5.39429 ug/L 8.141536 150.93%
QC value within limits for Pb 220.353 Recovery = Not calculated
S 180.669† -5.3 -22.7291 ug/L 27.27819 -22.7291 ug/L 27.27819 120.01%
QC value within limits for S 180.669 Recovery = Not calculated
Sb 217.582† 17.7 32.7265 ug/L 1.13405 32.7265 ug/L 1.13405 3.47%
QC value within limits for Sb 217.582 Recovery = Not calculated
Se 196.026† 29.1 63.4783 ug/L 3.31652 63.4783 ug/L 3.31652 5.22%
QC value within limits for Se 196.026 Recovery = Not calculated
Sn 189.927† -6.9 6.00079 ug/L 4.587342 6.00079 ug/L 4.587342 76.45%
QC value within limits for Sn 189.927 Recovery = Not calculated
Sr 407.771† 341.4 3.34786 ug/L 0.072527 3.34786 ug/L 0.072527 2.17%
QC value within limits for Sr 407.771 Recovery = Not calculated
Ti 334.940† 37.8 7.64520 ug/L 0.087810 7.64520 ug/L 0.087810 1.15%
QC value within limits for Ti 334.940 Recovery = Not calculated
Tl 190.801† 8.6 16.6789 ug/L 3.27814 16.6789 ug/L 3.27814 19.65%
QC value within limits for Tl 190.801 Recovery = Not calculated
V 292.395† 56.5 2.62291 ug/L 0.399208 2.62291 ug/L 0.399208 15.22%
QC value within limits for V 292.395 Recovery = Not calculated
Zn 206.200† 7.4 1.36445 ug/L 1.107076 1.36445 ug/L 1.107076 81.14%
QC value within limits for Zn 206.200 Recovery = Not calculated
QC Failed. Continue with analysis.
User canceled analysis.

=====
Analysis Begun

Start Time: 11/3/2015 11:16:33 AM

Plasma On Time: 11/3/2015 10:27:28 AM

Logged In Analyst: Metals Analyst

Technique: ICP Continuous

Spectrometer: Optima 8300 , S/N No Serial #

Autosampler: ESI

Sample Information File: C:\Users\Public\PerkinElmer Syngistix\ICP\Data\Sample Information\
5K02031.sifx

Batch ID:

Results Data Set: 5K03027

Results Library: C:\Users\Public\PerkinElmer Syngistix\ICP\Data\Results\Results.mdb

Sequence No.: 7

Autosampler Location: 1

Sample ID: 5K02031-CCB

Date Collected: 11/3/2015 11:16:35 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

000476

Wash Time: 60

Auto Dilution Factor: 1

CKD

Replicate Data: 5K02031-CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	190034.0	190034.0	105.278 %		11:17:03 AM
1	Al 396.153†	57.3	6.7	0.109402 ug/L	0.109402 ug/L	11:17:08 AM
1	Ba 455.398†	541.5	-59.0	1.43870 ug/L	1.43870 ug/L	11:17:03 AM
1	Ca 315.887†	260.5	5.8	0.0476386 mg/L	0.0476386 mg/L	11:17:08 AM
1	Fe 238.204†	38.4	6.6	-0.985393 ug/L	-0.985393 ug/L	11:17:08 AM
1	K 766.490†	169.8	-50.6	0.0136897 mg/L	0.0136897 mg/L	11:17:03 AM
1	Li 670.784†	223.2	144.7	5.61228 ug/L	5.61228 ug/L	11:17:03 AM
1	Mg 279.071†	0.6	-5.7	0.0057321 mg/L	0.0057321 mg/L	11:17:08 AM
1	Na 589.592†	804.8	-1.4	0.0265453 mg/L	0.0265453 mg/L	11:17:03 AM
1	Sr 407.771†	1988.6	80.8	2.94963 ug/L	2.94963 ug/L	11:17:08 AM
1	Ti 334.940†	-58.1	36.7	7.60830 ug/L	7.60830 ug/L	11:17:08 AM
1	Y 360.076	269538.8	269538.8	100.576 %		11:17:17 AM
1	Ag 328.068†	-17.8	25.6	1.01041 ug/L	1.01041 ug/L	11:17:22 AM
1	As 188.979†	-59.5	-2.5	-1.78760 ug/L	-1.78760 ug/L	11:17:22 AM
1	B 249.677†	405.5	1.6	-3.50862 ug/L	-3.50862 ug/L	11:17:22 AM
1	Be 234.861†	-971.7	17.3	0.334088 ug/L	0.334088 ug/L	11:17:22 AM
1	Cd 214.437†	546.8	-13.4	4.96448 ug/L	4.96448 ug/L	11:17:22 AM
1	Ce 413.764†	720.0	30.3	0.942911 ug/L	0.942911 ug/L	11:17:17 AM
1	Co 228.616†	-50.8	15.2	2.52881 ug/L	2.52881 ug/L	11:17:22 AM
1	Cr 205.557†	-53.6	-11.8	0.849251 ug/L	0.849251 ug/L	11:17:22 AM
1	Cu 327.397†	-51.6	-16.8	1.69887 ug/L	1.69887 ug/L	11:17:17 AM
1	Mn 257.610†	246.7	40.8	2.42372 ug/L	2.42372 ug/L	11:17:22 AM
1	Mo 202.031†	150.3	15.5	6.63126 ug/L	6.63126 ug/L	11:17:22 AM
1	Ni 231.604†	614.6	11.7	2.83041 ug/L	2.83041 ug/L	11:17:22 AM
1	Pb 220.353†	82.5	-5.7	-4.55053 ug/L	-4.55053 ug/L	11:17:22 AM
1	S 180.669†	-3.2	-8.0	-40.0184 ug/L	-40.0184 ug/L	11:17:22 AM
1	Sb 217.582†	-9.3	-5.8	8.51853 ug/L	8.51853 ug/L	11:17:22 AM
1	Se 196.026†	-55.5	4.7	22.3153 ug/L	22.3153 ug/L	11:17:22 AM
1	Sn 189.927†	18.3	9.9	17.5949 ug/L	17.5949 ug/L	11:17:22 AM
1	Tl 190.801†	-77.5	-1.3	6.42995 ug/L	6.42995 ug/L	11:17:22 AM
1	V 292.395†	-9.2	16.9	1.72523 ug/L	1.72523 ug/L	11:17:22 AM
1	Zn 206.200†	-56.3	-24.1	-2.06774 ug/L	-2.06774 ug/L	11:17:22 AM
2	Sc 357.234	186071.7	186071.7	103.083 %		11:17:09 AM
2	Al 396.153†	37.7	-11.2	-9.62711 ug/L	-9.62711 ug/L	11:17:14 AM
2	Ba 455.398†	698.8	104.5	2.06756 ug/L	2.06756 ug/L	11:17:09 AM
2	Ca 315.887†	281.6	31.6	0.0602832 mg/L	0.0602832 mg/L	11:17:14 AM
2	Fe 238.204†	30.5	-0.4	-2.32519 ug/L	-2.32519 ug/L	11:17:14 AM
2	K 766.490†	218.4	-0.0	0.0738346 mg/L	0.0738346 mg/L	11:17:09 AM
2	Li 670.784†	192.9	119.8	5.14072 ug/L	5.14072 ug/L	11:17:09 AM
2	Mg 279.071†	14.7	8.0	0.0485011 mg/L	0.0485011 mg/L	11:17:14 AM
2	Na 589.592†	689.3	-97.2	0.0093849 mg/L	0.0093849 mg/L	11:17:09 AM
2	Sr 407.771†	1976.9	109.7	2.99376 ug/L	2.99376 ug/L	11:17:14 AM
2	Ti 334.940†	-55.1	38.4	7.66818 ug/L	7.66818 ug/L	11:17:14 AM
2	Y 360.076	270582.6	270582.6	100.966 %		11:17:23 AM
2	Ag 328.068†	34.7	77.7	1.69360 ug/L	1.69360 ug/L	11:17:28 AM
2	As 188.979†	-58.7	-1.5	-0.0855037 ug/L	-0.0855037 ug/L	11:17:28 AM
2	B 249.677†	399.5	-5.8	-3.98732 ug/L	-3.98732 ug/L	11:17:28 AM
2	Be 234.861†	-991.3	1.7	0.278497 ug/L	0.278497 ug/L	11:17:28 AM
2	Cd 214.437†	573.6	11.1	5.77152 ug/L	5.77152 ug/L	11:17:28 AM
2	Ce 413.764†	691.8	-0.4	-0.0092437 ug/L	-0.0092437 ug/L	11:17:23 AM
2	Co 228.616†	-71.6	-5.2	1.26577 ug/L	1.26577 ug/L	11:17:28 AM
2	Cr 205.557†	-34.0	7.8	2.70846 ug/L	2.70846 ug/L	11:17:28 AM
2	Cu 327.397†	54.7	88.7	4.06909 ug/L	4.06909 ug/L	11:17:23 AM
2	Mn 257.610†	262.5	55.5	2.50110 ug/L	2.50110 ug/L	11:17:28 AM
2	Mo 202.031†	139.9	4.5	4.62355 ug/L	4.62355 ug/L	11:17:28 AM
2	Ni 231.604†	615.5	10.2	2.66592 ug/L	2.66592 ug/L	11:17:28 AM
2	Pb 220.353†	74.9	-13.5	-10.3223 ug/L	-10.3223 ug/L	11:17:28 AM
2	S 180.669†	0.4	-4.5	-17.9095 ug/L	-17.9095 ug/L	11:17:28 AM
2	Sb 217.582†	-7.3	-3.8	10.6347 ug/L	10.6347 ug/L	11:17:28 AM
2	Se 196.026†	-60.9	-0.4	13.7458 ug/L	13.7458 ug/L	11:17:28 AM
2	Sn 189.927†	11.0	2.6	12.5488 ug/L	12.5488 ug/L	11:17:28 AM
2	Tl 190.801†	-68.9	7.5	15.5511 ug/L	15.5511 ug/L	11:17:28 AM
2	V 292.395†	-91.0	-64.0	-0.261609 ug/L	-0.261609 ug/L	11:17:28 AM
2	Zn 206.200†	-27.0	5.1	1.11187 ug/L	1.11187 ug/L	11:17:28 AM

Mean Data: 5K02031-CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	188052.9	104.181 %	1.5522			1.49%

000477

Y 360.076	270060.7	100.771 %	0.2754		0.27%	
Ag 328.068†	51.6	1.35200 ug/L	0.483090	1.35200 ug/L	0.483090	35.73%
QC value within limits	for Ag 328.068	Recovery =	Not calculated			
Al 396.153†	-2.2	-4.75885 ug/L	6.884752	-4.75885 ug/L	6.884752	144.67%
QC value within limits	for Al 396.153	Recovery =	Not calculated			
As 188.979†	-2.0	-0.936551 ug/L	1.2035631	-0.936551 ug/L	1.2035631	128.51%
QC value within limits	for As 188.979	Recovery =	Not calculated			
B 249.677†	-2.1	-3.74797 ug/L	0.338498	-3.74797 ug/L	0.338498	9.03%
QC value within limits	for B 249.677	Recovery =	Not calculated			
Ba 455.398†	22.8	1.75313 ug/L	0.444674	1.75313 ug/L	0.444674	25.36%
QC value within limits	for Ba 455.398	Recovery =	Not calculated			
Be 234.861†	9.5	0.306293 ug/L	0.0393086	0.306293 ug/L	0.0393086	12.83%
QC value within limits	for Be 234.861	Recovery =	Not calculated			
Ca 315.887†	18.7	0.0539609 mg/L	0.00894111	0.0539609 mg/L	0.00894111	16.57%
QC value within limits	for Ca 315.887	Recovery =	Not calculated			
Cd 214.437†	-1.1	5.36800 ug/L	0.570664	5.36800 ug/L	0.570664	10.63%
QC value within limits	for Cd 214.437	Recovery =	Not calculated			
Ce 413.764†	15.0	0.466834 ug/L	0.6732753	0.466834 ug/L	0.6732753	144.22%
Co 228.616†	5.0	1.89729 ug/L	0.893107	1.89729 ug/L	0.893107	47.07%
QC value within limits	for Co 228.616	Recovery =	Not calculated			
Cr 205.557†	-2.0	1.77886 ug/L	1.314662	1.77886 ug/L	1.314662	73.90%
QC value within limits	for Cr 205.557	Recovery =	Not calculated			
Cu 327.397†	36.0	2.88398 ug/L	1.675997	2.88398 ug/L	1.675997	58.11%
QC value within limits	for Cu 327.397	Recovery =	Not calculated			
Fe 238.204†	3.1	-1.65529 ug/L	0.947380	-1.65529 ug/L	0.947380	57.23%
QC value within limits	for Fe 238.204	Recovery =	Not calculated			
K 766.490†	-25.3	0.0437621 mg/L	0.04252889	0.0437621 mg/L	0.04252889	97.18%
QC value within limits	for K 766.490	Recovery =	Not calculated			
Li 670.784†	132.2	5.37650 ug/L	0.333442	5.37650 ug/L	0.333442	6.20%
QC value within limits	for Li 670.784	Recovery =	Not calculated			
Mg 279.071†	1.2	0.0271166 mg/L	0.03024225	0.0271166 mg/L	0.03024225	111.53%
QC value within limits	for Mg 279.071	Recovery =	Not calculated			
Mn 257.610†	48.2	2.46241 ug/L	0.054722	2.46241 ug/L	0.054722	2.22%
QC value within limits	for Mn 257.610	Recovery =	Not calculated			
Mo 202.031†	10.0	5.62741 ug/L	1.419668	5.62741 ug/L	1.419668	25.23%
QC value within limits	for Mo 202.031	Recovery =	Not calculated			
Na 589.592†	-49.3	0.0179651 mg/L	0.01213424	0.0179651 mg/L	0.01213424	67.54%
QC value within limits	for Na 589.592	Recovery =	Not calculated			
Ni 231.604†	10.9	2.74816 ug/L	0.116309	2.74816 ug/L	0.116309	4.23%
QC value within limits	for Ni 231.604	Recovery =	Not calculated			
Pb 220.353†	-9.6	-7.43643 ug/L	4.081290	-7.43643 ug/L	4.081290	54.88%
QC value within limits	for Pb 220.353	Recovery =	Not calculated			
S 180.669†	-6.2	-28.9640 ug/L	15.63335	-28.9640 ug/L	15.63335	53.98%
QC value within limits	for S 180.669	Recovery =	Not calculated			
Sb 217.582†	-4.8	9.57660 ug/L	1.496346	9.57660 ug/L	1.496346	15.63%
QC value within limits	for Sb 217.582	Recovery =	Not calculated			
Se 196.026†	2.1	18.0306 ug/L	6.05953	18.0306 ug/L	6.05953	33.61%
QC value within limits	for Se 196.026	Recovery =	Not calculated			
Sn 189.927†	6.2	15.0719 ug/L	3.56809	15.0719 ug/L	3.56809	23.67%
QC value within limits	for Sn 189.927	Recovery =	Not calculated			
Sr 407.771†	95.3	2.97170 ug/L	0.031203	2.97170 ug/L	0.031203	1.05%
QC value within limits	for Sr 407.771	Recovery =	Not calculated			
Ti 334.940†	37.6	7.63824 ug/L	0.042342	7.63824 ug/L	0.042342	0.55%
QC value within limits	for Ti 334.940	Recovery =	Not calculated			
Tl 190.801†	3.1	10.9905 ug/L	6.44960	10.9905 ug/L	6.44960	58.68%
QC value within limits	for Tl 190.801	Recovery =	Not calculated			
V 292.395†	-23.5	0.731809 ug/L	1.4049053	0.731809 ug/L	1.4049053	191.98%
QC value within limits	for V 292.395	Recovery =	Not calculated			
Zn 206.200†	-9.5	-0.477937 ug/L	2.2483267	-0.477937 ug/L	2.2483267	470.42%
QC value within limits	for Zn 206.200	Recovery =	Not calculated			

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: 5K02031-CRL1

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 2

Date Collected: 11/3/2015 11:18:34 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-CRL1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	181582.8	181582.8	100.596 %		11:18:59 AM
1	Al 396.153†	166.2	117.5	57.9797 ug/L	57.9797 ug/L	11:19:04 AM

000478

1	Ba 455.398†	3177.9	2585.7	11.6117 ug/L	11.6117 ug/L	11:18:59 AM
1	Ca 315.887†	1262.6	1013.5	0.542504 mg/L	0.542504 mg/L	11:19:04 AM
1	Fe 238.204†	72.0	41.6	5.61441 ug/L	5.61441 ug/L	11:19:04 AM
1	K 766.490†	374.3	160.2	0.264427 mg/L	0.264427 mg/L	11:18:59 AM
1	Li 670.784†	545.0	474.4	11.8505 ug/L	11.8505 ug/L	11:18:59 AM
1	Mg 279.071†	143.0	135.9	0.448607 mg/L	0.448607 mg/L	11:19:04 AM
1	Na 589.592†	3583.2	2796.1	0.527914 mg/L	0.527914 mg/L	11:18:59 AM
1	Sr 407.771†	33548.0	31541.0	51.0426 ug/L	51.0426 ug/L	11:18:59 AM
1	Ti 334.940†	2792.3	2867.6	103.814 ug/L	103.814 ug/L	11:19:04 AM
1	Y 360.076	266239.5	266239.5	99.3452 %		11:19:13 AM
1	Ag 328.068†	660.0	707.6	10.0234 ug/L	10.0234 ug/L	11:19:18 AM
1	As 188.979†	22.6	79.4	133.487 ug/L	133.487 ug/L	11:19:18 AM
1	B 249.677†	1303.0	910.0	55.3521 ug/L	55.3521 ug/L	11:19:18 AM
1	Be 234.861†	-719.0	259.7	1.21764 ug/L	1.21764 ug/L	11:19:18 AM
1	Cd 214.437†	838.7	287.2	14.8653 ug/L	14.8653 ug/L	11:19:18 AM
1	Ce 413.764†	633.4	-48.0	-1.43515 ug/L	-1.43515 ug/L	11:19:13 AM
1	Co 228.616†	87.8	154.1	11.0486 ug/L	11.0486 ug/L	11:19:18 AM
1	Cr 205.557†	474.9	519.5	51.0758 ug/L	51.0758 ug/L	11:19:18 AM
1	Cu 327.397†	479.2	516.9	13.7655 ug/L	13.7655 ug/L	11:19:13 AM
1	Mn 257.610†	2191.4	2001.4	12.7629 ug/L	12.7629 ug/L	11:19:18 AM
1	Mo 202.031†	687.6	558.1	106.406 ug/L	106.406 ug/L	11:19:18 AM
1	Ni 231.604†	697.2	102.4	12.9405 ug/L	12.9405 ug/L	11:19:18 AM
1	Pb 220.353†	158.5	71.9	52.6678 ug/L	52.6678 ug/L	11:19:18 AM
1	S 180.669†	79.2	74.9	475.317 ug/L	475.317 ug/L	11:19:18 AM
1	Sb 217.582†	100.9	104.9	122.647 ug/L	122.647 ug/L	11:19:18 AM
1	Se 196.026†	0.4	60.3	115.942 ug/L	115.942 ug/L	11:19:18 AM
1	Sn 189.927†	144.6	137.2	105.559 ug/L	105.559 ug/L	11:19:18 AM
1	Tl 190.801†	22.6	98.5	110.684 ug/L	110.684 ug/L	11:19:18 AM
1	V 292.395†	359.3	387.7	12.8021 ug/L	12.8021 ug/L	11:19:18 AM
1	Zn 206.200†	159.0	191.9	21.4087 ug/L	21.4087 ug/L	11:19:18 AM
2	Sc 357.234	184406.9	184406.9	102.161 %		11:19:05 AM
2	Al 396.153†	136.1	85.5	40.5473 ug/L	40.5473 ug/L	11:19:10 AM
2	Ba 455.398†	3386.5	2741.5	12.2111 ug/L	12.2111 ug/L	11:19:05 AM
2	Ca 315.887†	1247.0	979.0	0.525554 mg/L	0.525554 mg/L	11:19:10 AM
2	Fe 238.204†	67.2	35.8	4.50504 ug/L	4.50504 ug/L	11:19:10 AM
2	K 766.490†	373.1	153.4	0.256278 mg/L	0.256278 mg/L	11:19:05 AM
2	Li 670.784†	569.4	490.0	12.1467 ug/L	12.1467 ug/L	11:19:05 AM
2	Mg 279.071†	162.7	153.0	0.501952 mg/L	0.501952 mg/L	11:19:10 AM
2	Na 589.592†	3469.9	2630.6	0.498257 mg/L	0.498257 mg/L	11:19:05 AM
2	Sr 407.771†	34033.4	31505.5	50.9883 ug/L	50.9883 ug/L	11:19:05 AM
2	Ti 334.940†	2782.3	2815.4	102.036 ug/L	102.036 ug/L	11:19:10 AM
2	Y 360.076	275170.7	275170.7	102.678 %		11:19:19 AM
2	Ag 328.068†	815.0	837.1	11.7435 ug/L	11.7435 ug/L	11:19:24 AM
2	As 188.979†	34.0	89.8	150.787 ug/L	150.787 ug/L	11:19:24 AM
2	B 249.677†	1304.3	868.7	52.6728 ug/L	52.6728 ug/L	11:19:24 AM
2	Be 234.861†	-736.9	265.8	1.23970 ug/L	1.23970 ug/L	11:19:24 AM
2	Cd 214.437†	870.1	290.3	14.9713 ug/L	14.9713 ug/L	11:19:24 AM
2	Ce 413.764†	648.0	-54.5	-1.63955 ug/L	-1.63955 ug/L	11:19:19 AM
2	Co 228.616†	99.9	163.0	11.5920 ug/L	11.5920 ug/L	11:19:24 AM
2	Cr 205.557†	509.0	537.2	52.7509 ug/L	52.7509 ug/L	11:19:24 AM
2	Cu 327.397†	445.9	468.8	12.6824 ug/L	12.6824 ug/L	11:19:19 AM
2	Mn 257.610†	2130.5	1870.5	12.0725 ug/L	12.0725 ug/L	11:19:24 AM
2	Mo 202.031†	681.5	529.7	101.182 ug/L	101.182 ug/L	11:19:24 AM
2	Ni 231.604†	679.7	62.6	8.59113 ug/L	8.59113 ug/L	11:19:24 AM
2	Pb 220.353†	157.9	66.2	48.4796 ug/L	48.4796 ug/L	11:19:24 AM
2	S 180.669†	88.3	81.1	515.359 ug/L	515.359 ug/L	11:19:24 AM
2	Sb 217.582†	85.7	86.9	104.073 ug/L	104.073 ug/L	11:19:24 AM
2	Se 196.026†	-13.2	47.0	93.4844 ug/L	93.4844 ug/L	11:19:24 AM
2	Sn 189.927†	153.0	140.7	107.924 ug/L	107.924 ug/L	11:19:24 AM
2	Tl 190.801†	19.8	95.0	107.044 ug/L	107.044 ug/L	11:19:24 AM
2	V 292.395†	390.7	406.6	13.1355 ug/L	13.1355 ug/L	11:19:24 AM
2	Zn 206.200†	165.1	192.6	21.4890 ug/L	21.4890 ug/L	11:19:24 AM

CKD

Mean Data: 5K02031-CRL1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 357.234	182994.8	101.379 %		1.1063			1.09%
Y 360.076	270705.1	101.011 %		2.3565			2.33%
Ag 328.068†	772.3	10.8835 ug/L		1.21628	10.8835 ug/L	1.21628	11.18%
QC value within limits for Ag 328.068 Recovery = 108.83%							
Al 396.153†	101.5	49.2635 ug/L		12.32657	49.2635 ug/L	12.32657	25.02%
QC value within limits for Al 396.153 Recovery = 98.53%							
As 188.979†	84.6	142.137 ug/L		12.2328	142.137 ug/L	12.2328	8.61%
QC value greater than the upper limit for As 188.979 Recovery = 142.14%							
B 249.677†	889.4	54.0124 ug/L		1.89455	54.0124 ug/L	1.89455	3.51%

QC value within limits for B 249.677 Recovery = 108.02%								
Ba 455.398†	2663.6	11.9114 ug/L	0.42380	11.9114 ug/L	0.42380	3.56%	CKD	
QC value within limits for Ba 455.398 Recovery = 119.11%								
Be 234.861†	262.8	1.22867 ug/L	0.015602	1.22867 ug/L	0.015602	1.27%		
QC value within limits for Be 234.861 Recovery = 122.87%								
Ca 315.887†	996.2	0.534029 mg/L	0.0119850	0.534029 mg/L	0.0119850	2.24%		
QC value within limits for Ca 315.887 Recovery = 106.81%								
Cd 214.437†	288.8	14.9183 ug/L	0.07499	14.9183 ug/L	0.07499	0.50%		
QC value greater than the upper limit for Cd 214.437 Recovery = 149.18%								
Ce 413.764†	-51.2	-1.53735 ug/L	0.144531	-1.53735 ug/L	0.144531	9.40%		
Co 228.616†	158.5	11.3203 ug/L	0.38428	11.3203 ug/L	0.38428	3.39%		
QC value within limits for Co 228.616 Recovery = 113.20%								
Cr 205.557†	528.4	51.9134 ug/L	1.18450	51.9134 ug/L	1.18450	2.28%		
QC value within limits for Cr 205.557 Recovery = 103.83%								
Cu 327.397†	492.9	13.2239 ug/L	0.76584	13.2239 ug/L	0.76584	5.79%		
QC value greater than the upper limit for Cu 327.397 Recovery = 132.24%								
Fe 238.204†	38.7	5.05973 ug/L	0.784447	5.05973 ug/L	0.784447	15.50%		
QC value less than the lower limit for Fe 238.204 Recovery = 50.60%								
K 766.490†	156.8	0.260352 mg/L	0.0057625	0.260352 mg/L	0.0057625	2.21%		
QC value greater than the upper limit for K 766.490 Recovery = 260.35%								
Li 670.784†	482.2	11.9986 ug/L	0.20947	11.9986 ug/L	0.20947	1.75%		
QC value greater than the upper limit for Li 670.784 Recovery = 149.98%								
Mg 279.071†	144.4	0.475280 mg/L	0.0377210	0.475280 mg/L	0.0377210	7.94%		
QC value within limits for Mg 279.071 Recovery = 95.06%								
Mn 257.610†	1936.0	12.4177 ug/L	0.48817	12.4177 ug/L	0.48817	3.93%		
QC value within limits for Mn 257.610 Recovery = 124.18%								
Mo 202.031†	543.9	103.794 ug/L	3.6943	103.794 ug/L	3.6943	3.56%		
QC value within limits for Mo 202.031 Recovery = 103.79%								
Na 589.592†	2713.4	0.513085 mg/L	0.0209708	0.513085 mg/L	0.0209708	4.09%		
QC value within limits for Na 589.592 Recovery = 102.62%								
Ni 231.604†	82.5	10.7658 ug/L	3.07544	10.7658 ug/L	3.07544	28.57%		
QC value within limits for Ni 231.604 Recovery = 107.66%								
Pb 220.353†	69.0	50.5737 ug/L	2.96156	50.5737 ug/L	2.96156	5.86%		
QC value within limits for Pb 220.353 Recovery = 101.15%								
S 180.669†	78.0	495.338 ug/L	28.3138	495.338 ug/L	28.3138	5.72%		
QC value within limits for S 180.669 Recovery = 99.07%								
Sb 217.582†	95.9	113.360 ug/L	13.1342	113.360 ug/L	13.1342	11.59%		
QC value within limits for Sb 217.582 Recovery = 113.36%								
Se 196.026†	53.6	104.713 ug/L	15.8801	104.713 ug/L	15.8801	15.17%		
QC value within limits for Se 196.026 Recovery = 104.71%								
Sn 189.927†	139.0	106.742 ug/L	1.6721	106.742 ug/L	1.6721	1.57%		
QC value within limits for Sn 189.927 Recovery = 106.74%								
Sr 407.771†	31523.3	51.0154 ug/L	0.03843	51.0154 ug/L	0.03843	0.08%		
QC value within limits for Sr 407.771 Recovery = 102.03%								
Ti 334.940†	2841.5	102.925 ug/L	1.2572	102.925 ug/L	1.2572	1.22%		
QC value within limits for Ti 334.940 Recovery = 102.92%								
Tl 190.801†	96.8	108.864 ug/L	2.5734	108.864 ug/L	2.5734	2.36%		
QC value within limits for Tl 190.801 Recovery = 108.86%								
V 292.395†	397.1	12.9688 ug/L	0.23575	12.9688 ug/L	0.23575	1.82%		
QC value within limits for V 292.395 Recovery = 129.69%								
Zn 206.200†	192.2	21.4488 ug/L	0.05675	21.4488 ug/L	0.05675	0.26%		
QC value within limits for Zn 206.200 Recovery = 107.24%								
QC Failed. Continue with analysis.								

Sequence No.: 9

Sample ID: 5K02031-IFA1

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 103

Date Collected: 11/3/2015 11:20:32 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-IFA1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	185950.8	185950.8	103.016 %		11:20:58 AM
1	Al 396.153†	180811.6	175469.9	96545.7 ug/L	96545.7 ug/L	11:20:58 AM
1	Ba 455.398†	744.3	149.1	2.23919 ug/L	2.23919 ug/L	11:21:04 AM
1	Ca 315.887†	197402.9	191381.4	94.0312 mg/L	94.0312 mg/L	11:20:58 AM
1	Fe 238.204†	199026.3	193168.9	37024.2 ug/L	37024.2 ug/L	11:20:58 AM
1	K 766.490†	210.7	-7.3	0.0651585 mg/L	0.0651585 mg/L	11:21:04 AM
1	Li 670.784†	147.5	75.8	4.30994 ug/L	4.30994 ug/L	11:21:04 AM
1	Mg 279.071†	32344.4	31391.1	98.2272 mg/L	98.2272 mg/L	11:21:04 AM
1	Na 589.592†	818.0	28.2	0.0318515 mg/L	0.0318515 mg/L	11:21:04 AM
1	Sr 407.771†	2414.5	535.8	3.64508 ug/L	3.64508 ug/L	11:21:04 AM

000480

1	Ti 334.940†	-135.6	-39.7	7.28947 ug/L	7.28947 ug/L	11:21:04 AM	CKD
1	Y 360.076	264715.9	264715.9	98.7766 %		11:21:14 AM	
1	Ag 328.068†	-103.2	-61.2	-0.160656 ug/L	-0.160656 ug/L	11:21:19 AM	
1	As 188.979†	-45.1	11.0	20.5785 ug/L	20.5785 ug/L	11:21:19 AM	
1	B 249.677†	456.9	61.0	8.56647 ug/L	8.56647 ug/L	11:21:19 AM	
1	Be 234.861†	5825.3	6880.9	-5.09128 ug/L	-5.09128 ug/L	11:21:14 AM	
1	Cd 214.437†	790.5	243.2	5.82443 ug/L	5.82443 ug/L	11:21:19 AM	
1	Ce 413.764†	655.8	-21.7	-1.62457 ug/L	-1.62457 ug/L	11:21:14 AM	
1	Co 228.616†	-70.2	-5.4	1.28178 ug/L	1.28178 ug/L	11:21:19 AM	
1	Cr 205.557†	-40.3	0.7	3.36019 ug/L	3.36019 ug/L	11:21:19 AM	
1	Cu 327.397†	-27.8	6.4	3.22067 ug/L	3.22067 ug/L	11:21:14 AM	
1	Mn 257.610†	447.8	248.9	3.52106 ug/L	3.52106 ug/L	11:21:14 AM	
1	Mo 202.031†	198.9	67.4	16.1799 ug/L	16.1799 ug/L	11:21:19 AM	
1	Ni 231.604†	619.8	28.1	0.992259 ug/L	0.992259 ug/L	11:21:19 AM	
1	Pb 220.353†	85.0	-1.6	-1.56176 ug/L	-1.56176 ug/L	11:21:19 AM	
1	S 180.669†	323.8	322.9	48.0082 ug/L	48.0082 ug/L	11:21:19 AM	
1	Sb 217.582†	-47.4	-44.5	13.2796 ug/L	13.2796 ug/L	11:21:19 AM	
1	Se 196.026†	-66.5	-7.5	1.86844 ug/L	1.86844 ug/L	11:21:19 AM	
1	Sn 189.927†	-7.8	-16.2	-0.411065 ug/L	-0.411065 ug/L	11:21:19 AM	
1	Tl 190.801†	-71.8	3.1	10.9519 ug/L	10.9519 ug/L	11:21:19 AM	
1	V 292.395†	92.4	119.6	1.92259 ug/L	1.92259 ug/L	11:21:19 AM	
1	Zn 206.200†	40.3	72.7	7.08574 ug/L	7.08574 ug/L	11:21:19 AM	
2	Sc 357.234	179432.6	179432.6	99.4052 %		11:21:05 AM	
2	Al 396.153†	175685.4	176689.0	97215.4 ug/L	97215.4 ug/L	11:21:05 AM	
2	Ba 455.398†	733.9	165.0	2.30006 ug/L	2.30006 ug/L	11:21:11 AM	
2	Ca 315.887†	189933.1	190828.0	93.7594 mg/L	93.7594 mg/L	11:21:05 AM	
2	Fe 238.204†	192010.3	193129.3	37016.6 ug/L	37016.6 ug/L	11:21:05 AM	
2	K 766.490†	260.9	50.6	0.134036 mg/L	0.134036 mg/L	11:21:11 AM	
2	Li 670.784†	174.0	107.7	4.91196 ug/L	4.91196 ug/L	11:21:11 AM	
2	Mg 279.071†	32524.9	32713.2	102.363 mg/L	102.363 mg/L	11:21:11 AM	
2	Na 589.592†	882.6	122.0	0.0486720 mg/L	0.0486720 mg/L	11:21:11 AM	
2	Sr 407.771†	2411.7	618.1	3.77096 ug/L	3.77096 ug/L	11:21:11 AM	
2	Ti 334.940†	-86.2	5.2	8.81014 ug/L	8.81014 ug/L	11:21:11 AM	
2	Y 360.076	260553.9	260553.9	97.2236 %		11:21:20 AM	
2	Ag 328.068†	-133.8	-94.3	-0.616137 ug/L	-0.616137 ug/L	11:21:25 AM	
2	As 188.979†	-22.9	33.1	57.4181 ug/L	57.4181 ug/L	11:21:25 AM	
2	B 249.677†	393.0	2.7	4.80055 ug/L	4.80055 ug/L	11:21:25 AM	
2	Be 234.861†	5932.5	7085.4	-4.35055 ug/L	-4.35055 ug/L	11:21:20 AM	
2	Cd 214.437†	746.1	210.3	4.70512 ug/L	4.70512 ug/L	11:21:25 AM	
2	Ce 413.764†	603.4	-65.0	-2.95960 ug/L	-2.95960 ug/L	11:21:20 AM	
2	Co 228.616†	-59.3	4.7	1.90845 ug/L	1.90845 ug/L	11:21:25 AM	
2	Cr 205.557†	-47.3	-7.2	2.60907 ug/L	2.60907 ug/L	11:21:25 AM	
2	Cu 327.397†	-44.6	-11.4	2.82304 ug/L	2.82304 ug/L	11:21:20 AM	
2	Mn 257.610†	383.5	190.0	3.21029 ug/L	3.21029 ug/L	11:21:20 AM	
2	Mo 202.031†	230.5	103.0	22.7336 ug/L	22.7336 ug/L	11:21:25 AM	
2	Ni 231.604†	591.5	9.1	-1.06931 ug/L	-1.06931 ug/L	11:21:25 AM	
2	Pb 220.353†	103.8	19.1	13.6617 ug/L	13.6617 ug/L	11:21:25 AM	
2	S 180.669†	330.1	334.7	128.582 ug/L	128.582 ug/L	11:21:25 AM	
2	Sb 217.582†	-46.0	-43.9	13.8901 ug/L	13.8901 ug/L	11:21:25 AM	
2	Se 196.026†	-9.7	49.9	98.4765 ug/L	98.4765 ug/L	11:21:25 AM	
2	Sn 189.927†	-10.3	-18.9	-2.26912 ug/L	-2.26912 ug/L	11:21:25 AM	
2	Tl 190.801†	-88.4	-15.1	-8.01692 ug/L	-8.01692 ug/L	11:21:25 AM	
2	V 292.395†	75.4	103.6	1.68682 ug/L	1.68682 ug/L	11:21:25 AM	
2	Zn 206.200†	9.4	41.5	3.69486 ug/L	3.69486 ug/L	11:21:25 AM	

Mean Data: 5K02031-IFA1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	182691.7	101.211 %		2.5534			2.52%
Y 360.076	262634.9	98.0001 %		1.09816			1.12%
Ag 328.068†	-77.7	-0.388397 ug/L		0.3220739	-0.388397 ug/L	0.3220739	82.92%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153†	176079.4	96880.5 ug/L		473.57	96880.5 ug/L	473.57	0.49%
QC value within limits for Al 396.153 Recovery = 96.88%							
As 188.979†	22.1	38.9983 ug/L		26.04953	38.9983 ug/L	26.04953	66.80%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	31.9	6.68351 ug/L		2.662909	6.68351 ug/L	2.662909	39.84%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 455.398†	157.0	2.26963 ug/L		0.043038	2.26963 ug/L	0.043038	1.90%
QC value within limits for Ba 455.398 Recovery = Not calculated							
Be 234.861†	6983.2	-4.72092 ug/L		0.523780	-4.72092 ug/L	0.523780	11.09%
QC value less than the lower limit for Be 234.861 Recovery = Not calculated							
Ca 315.887†	191104.7	93.8953 mg/L		0.19216	93.8953 mg/L	0.19216	0.20%
QC value within limits for Ca 315.887 Recovery = 93.90%							
Cd 214.437†	226.8	5.26477 ug/L		0.791471	5.26477 ug/L	0.791471	15.03%

QC value within limits for Cd 214.437 Recovery = Not calculated									
Ce 413.764†	-43.3	-2.29208 ug/L	0.944008	-2.29208 ug/L	0.944008	41.19%	CKD		
Co 228.616†	-0.3	1.59512 ug/L	0.443118	1.59512 ug/L	0.443118	27.78%			
QC value within limits for Co 228.616 Recovery = Not calculated									
Cr 205.557†	-3.2	2.98463 ug/L	0.531122	2.98463 ug/L	0.531122	17.80%			
QC value within limits for Cr 205.557 Recovery = Not calculated									
Cu 327.397†	-2.5	3.02185 ug/L	0.281167	3.02185 ug/L	0.281167	9.30%			
QC value within limits for Cu 327.397 Recovery = Not calculated									
Fe 238.204†	193149.1	37020.4 ug/L	5.38	37020.4 ug/L	5.38	0.01%			
QC value within limits for Fe 238.204 Recovery = 92.55%									
K 766.490†	21.7	0.0995974 mg/L	0.04870402	0.0995974 mg/L	0.04870402	48.90%			
QC value within limits for K 766.490 Recovery = Not calculated									
Li 670.784†	91.7	4.61095 ug/L	0.425693	4.61095 ug/L	0.425693	9.23%			
QC value within limits for Li 670.784 Recovery = Not calculated									
Mg 279.071†	32052.2	100.295 mg/L	2.9246	100.295 mg/L	2.9246	2.92%			
QC value within limits for Mg 279.071 Recovery = 100.30%									
Mn 257.610†	219.5	3.36567 ug/L	0.219745	3.36567 ug/L	0.219745	6.53%			
QC value within limits for Mn 257.610 Recovery = Not calculated									
Mo 202.031†	85.2	19.4568 ug/L	4.63423	19.4568 ug/L	4.63423	23.82%			
QC value within limits for Mo 202.031 Recovery = Not calculated									
Na 589.592†	75.1	0.0402617 mg/L	0.01189386	0.0402617 mg/L	0.01189386	29.54%			
QC value within limits for Na 589.592 Recovery = Not calculated									
Ni 231.604†	18.6	-0.0385260 ug/L	1.45774959	-0.0385260 ug/L	1.45774959	>999.9%			
QC value within limits for Ni 231.604 Recovery = Not calculated									
Pb 220.353†	8.7	6.04998 ug/L	10.764624	6.04998 ug/L	10.764624	177.93%			
QC value within limits for Pb 220.353 Recovery = Not calculated									
S 180.669†	328.8	88.2953 ug/L	56.97460	88.2953 ug/L	56.97460	64.53%			
QC value within limits for S 180.669 Recovery = Not calculated									
Sb 217.582†	-44.2	13.5848 ug/L	0.43164	13.5848 ug/L	0.43164	3.18%			
QC value within limits for Sb 217.582 Recovery = Not calculated									
Se 196.026†	21.2	50.1725 ug/L	68.31222	50.1725 ug/L	68.31222	136.15%			
QC value within limits for Se 196.026 Recovery = Not calculated									
Sn 189.927†	-17.6	-1.34009 ug/L	1.313843	-1.34009 ug/L	1.313843	98.04%			
QC value within limits for Sn 189.927 Recovery = Not calculated									
Sr 407.771†	576.9	3.70802 ug/L	0.089007	3.70802 ug/L	0.089007	2.40%			
QC value within limits for Sr 407.771 Recovery = Not calculated									
Ti 334.940†	-17.3	8.04980 ug/L	1.075271	8.04980 ug/L	1.075271	13.36%			
QC value within limits for Ti 334.940 Recovery = Not calculated									
Tl 190.801†	-6.0	1.46751 ug/L	13.413010	1.46751 ug/L	13.413010	914.00%			
QC value within limits for Tl 190.801 Recovery = Not calculated									
V 292.395†	111.6	1.80471 ug/L	0.166720	1.80471 ug/L	0.166720	9.24%			
QC value within limits for V 292.395 Recovery = Not calculated									
Zn 206.200†	57.1	5.39030 ug/L	2.397717	5.39030 ug/L	2.397717	44.48%			
QC value within limits for Zn 206.200 Recovery = Not calculated									
QC Failed. Continue with analysis.									

Sequence No.: 10

Sample ID: 5K02031-IFA2

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 260

Autosampler Location: 104

Date Collected: 11/3/2015 11:25:54 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-IFA2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	189295.1	189295.1	104.869	%		11:26:19 AM
1	Al 396.153†	-1.0	-48.6	-17.9457	ug/L	-17.9457 ug/L	11:26:24 AM
1	Ba 455.398†	476.9	-118.6	1.20944	ug/L	1.20944 ug/L	11:26:19 AM
1	Ca 315.887†	2.5	-239.3	-0.0727329	mg/L	-0.0727329 mg/L	11:26:24 AM
1	Fe 238.204†	-60.3	-87.4	-15.5107	ug/L	-15.5107 ug/L	11:26:24 AM
1	K 766.490†	246.5	23.2	0.101433	mg/L	0.101433 mg/L	11:26:19 AM
1	Li 670.784†	178.7	103.1	4.82688	ug/L	4.82688 ug/L	11:26:19 AM
1	Mg 279.071†	-9.2	-15.1	-0.0237403	mg/L	-0.0237403 mg/L	11:26:24 AM
1	Na 589.592†	827.3	23.1	0.0309381	mg/L	0.0309381 mg/L	11:26:19 AM
1	Sr 407.771†	1614.6	-268.4	2.41575	ug/L	2.41575 ug/L	11:26:24 AM
1	Ti 334.940†	609914.1	581688.0	19768.9	ug/L	19768.9 ug/L	11:26:19 AM
1	Y 360.076	269442.0	269442.0	100.540	%		11:26:34 AM
1	Ag 328.068†	-180.8	-136.5	6.70044	ug/L	6.70044 ug/L	11:26:34 AM
1	As 188.979†	27.3	83.7	0.326523	ug/L	0.326523 ug/L	11:26:39 AM
1	B 249.677†	336.7	-66.7	-8.05389	ug/L	-8.05389 ug/L	11:26:39 AM
1	Be 234.861†	-879.1	109.2	0.271971	ug/L	0.271971 ug/L	11:26:39 AM
1	Cd 214.437†	535.2	-24.7	4.59265	ug/L	4.59265 ug/L	11:26:39 AM
1	Ce 413.764†	449.9	-238.1	-7.37230	ug/L	-7.37230 ug/L	11:26:34 AM

1	Co 228.616†	665.6	727.7	-0.974275 ug/L	-0.974275 ug/L	11:26:39 AM
1	Cr 205.557†	211451.8	210357.3	19927.5 ug/L	19927.5 ug/L	11:26:34 AM
1	Cu 327.397†	936870.7	931872.1	20975.2 ug/L	20975.2 ug/L	11:26:33 AM
1	Mn 257.610†	3875006.4	3853984.1	20326.3 ug/L	20326.3 ug/L	11:26:33 AM
1	Mo 202.031†	156.7	21.9	7.80932 ug/L	7.80932 ug/L	11:26:39 AM
1	Ni 231.604†	185630.7	184034.1	20031.9 ug/L	20031.9 ug/L	11:26:34 AM
1	Pb 220.353†	113.8	25.5	23.4757 ug/L	23.4757 ug/L	11:26:39 AM
1	S 180.669†	2.6	-2.3	-95.7408 ug/L	-95.7408 ug/L	11:26:39 AM
1	Sb 217.582†	-28.2	-24.7	-17.4178 ug/L	-17.4178 ug/L	11:26:39 AM
1	Se 196.026†	-45.1	15.0	39.6442 ug/L	39.6442 ug/L	11:26:39 AM
1	Sn 189.927†	22.5	14.0	20.4742 ug/L	20.4742 ug/L	11:26:39 AM
1	Tl 190.801†	-245.7	-168.7	-26.0247 ug/L	-26.0247 ug/L	11:26:39 AM
1	V 292.395†	868593.0	863952.7	20695.8 ug/L	20695.8 ug/L	11:26:33 AM
1	Zn 206.200†	56.5	88.0	13.1450 ug/L	13.1450 ug/L	11:26:34 AM
2	Sc 357.234	185434.0	185434.0	102.730 %		11:26:25 AM
2	Al 396.153†	29.6	-18.9	-1.40102 ug/L	-1.40102 ug/L	11:26:30 AM
2	Ba 455.398†	445.5	-139.7	1.12832 ug/L	1.12832 ug/L	11:26:25 AM
2	Ca 315.887†	30.2	-212.2	-0.0594510 mg/L	-0.0594510 mg/L	11:26:30 AM
2	Fe 238.204†	-65.2	-93.5	-17.3842 ug/L	-17.3842 ug/L	11:26:30 AM
2	K 766.490†	179.0	-37.6	0.0291191 mg/L	0.0291191 mg/L	11:26:25 AM
2	Li 670.784†	111.8	41.4	3.66029 ug/L	3.66029 ug/L	11:26:25 AM
2	Mg 279.071†	-11.4	-17.3	-0.0307984 mg/L	-0.0307984 mg/L	11:26:30 AM
2	Na 589.592†	1002.4	209.9	0.0644214 mg/L	0.0644214 mg/L	11:26:25 AM
2	Sr 407.771†	1629.4	-221.9	2.48677 ug/L	2.48677 ug/L	11:26:30 AM
2	Ti 334.940†	603087.2	587152.6	19954.6 ug/L	19954.6 ug/L	11:26:25 AM
2	Y 360.076	273682.1	273682.1	102.122 %		11:26:42 AM
2	Ag 328.068†	-336.7	-286.4	4.59006 ug/L	4.59006 ug/L	11:26:42 AM
2	As 188.979†	39.9	95.7	19.6071 ug/L	19.6071 ug/L	11:26:47 AM
2	B 249.677†	325.5	-82.8	-9.10178 ug/L	-9.10178 ug/L	11:26:47 AM
2	Be 234.861†	-888.9	113.1	0.282244 ug/L	0.282244 ug/L	11:26:47 AM
2	Cd 214.437†	577.4	8.3	5.68215 ug/L	5.68215 ug/L	11:26:47 AM
2	Ce 413.764†	466.3	-228.9	-7.09187 ug/L	-7.09187 ug/L	11:26:42 AM
2	Co 228.616†	671.3	723.1	-1.64259 ug/L	-1.64259 ug/L	11:26:47 AM
2	Cr 205.557†	215076.7	210648.5	19954.6 ug/L	19954.6 ug/L	11:26:42 AM
2	Cu 327.397†	937516.0	918067.3	20664.6 ug/L	20664.6 ug/L	11:26:41 AM
2	Mn 257.610†	3885708.6	3804752.3	20066.7 ug/L	20066.7 ug/L	11:26:41 AM
2	Mo 202.031†	132.0	-4.7	2.91630 ug/L	2.91630 ug/L	11:26:47 AM
2	Ni 231.604†	188976.6	184450.0	20077.2 ug/L	20077.2 ug/L	11:26:42 AM
2	Pb 220.353†	105.7	15.9	16.6863 ug/L	16.6863 ug/L	11:26:47 AM
2	S 180.669†	-0.9	-5.8	-116.706 ug/L	-116.706 ug/L	11:26:47 AM
2	Sb 217.582†	-8.8	-5.2	3.48477 ug/L	3.48477 ug/L	11:26:47 AM
2	Se 196.026†	-39.6	21.1	49.9087 ug/L	49.9087 ug/L	11:26:47 AM
2	Sn 189.927†	9.2	0.7	11.2619 ug/L	11.2619 ug/L	11:26:47 AM
2	Tl 190.801†	-240.6	-159.8	-16.2364 ug/L	-16.2364 ug/L	11:26:47 AM
2	V 292.395†	868647.1	850621.2	20376.0 ug/L	20376.0 ug/L	11:26:41 AM
2	Zn 206.200†	56.2	86.8	13.0259 ug/L	13.0259 ug/L	11:26:42 AM

CKD

Mean Data: 5K02031-IFA2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	187364.6	103.799 %	1.5125			1.46%
Y 360.076	271562.0	101.331 %	1.1187			1.10%
Ag 328.068†	-211.5	5.64525 ug/L	1.492265	5.64525 ug/L	1.492265	26.43%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153†	-33.8	-9.67338 ug/L	11.698890	-9.67338 ug/L	11.698890	120.94%
QC value within limits for Al 396.153 Recovery = Not calculated						
As 188.979†	89.7	9.96679 ug/L	13.633392	9.96679 ug/L	13.633392	136.79%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-74.7	-8.57783 ug/L	0.740969	-8.57783 ug/L	0.740969	8.64%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 455.398†	-129.1	1.16888 ug/L	0.057359	1.16888 ug/L	0.057359	4.91%
QC value within limits for Ba 455.398 Recovery = Not calculated						
Be 234.861†	111.1	0.277107 ug/L	0.0072641	0.277107 ug/L	0.0072641	2.62%
QC value within limits for Be 234.861 Recovery = Not calculated						
Ca 315.887†	-225.8	-0.0660919 mg/L	0.00939177	-0.0660919 mg/L	0.00939177	14.21%
QC value within limits for Ca 315.887 Recovery = Not calculated						
Cd 214.437†	-8.2	5.13740 ug/L	0.770395	5.13740 ug/L	0.770395	15.00%
QC value within limits for Cd 214.437 Recovery = Not calculated						
Ce 413.764†	-233.5	-7.23208 ug/L	0.198294	-7.23208 ug/L	0.198294	2.74%
Co 228.616†	725.4	-1.30843 ug/L	0.472571	-1.30843 ug/L	0.472571	36.12%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 205.557†	210502.9	19941.1 ug/L	19.19	19941.1 ug/L	19.19	0.10%
QC value within limits for Cr 205.557 Recovery = 99.71%						
Cu 327.397†	924969.7	20819.9 ug/L	219.60	20819.9 ug/L	219.60	1.05%
QC value within limits for Cu 327.397 Recovery = 104.10%						

Fe 238.204†	-90.4	-16.4474 ug/L	1.32478	-16.4474 ug/L	1.32478	8.05%
QC value within limits for Fe 238.204	Recovery = Not calculated					
K 766.490†	-7.2	0.0652762 mg/L	0.05113394	0.0652762 mg/L	0.05113394	78.33%
QC value within limits for K 766.490	Recovery = Not calculated					
Li 670.784†	72.3	4.24358 ug/L	0.824901	4.24358 ug/L	0.824901	19.44%
QC value within limits for Li 670.784	Recovery = Not calculated					
Mg 279.071†	-16.2	-0.0272693 mg/L	0.00499084	-0.0272693 mg/L	0.00499084	18.30%
QC value within limits for Mg 279.071	Recovery = Not calculated					
Mn 257.610†	3829368.2	20196.5 ug/L	183.58	20196.5 ug/L	183.58	0.91%
QC value within limits for Mn 257.610	Recovery = 100.98%					
Mo 202.031†	8.6	5.36281 ug/L	3.459885	5.36281 ug/L	3.459885	64.52%
QC value within limits for Mo 202.031	Recovery = Not calculated					
Na 589.592†	116.5	0.0476798 mg/L	0.02367629	0.0476798 mg/L	0.02367629	49.66%
QC value within limits for Na 589.592	Recovery = Not calculated					
Ni 231.604†	184242.0	20054.5 ug/L	32.02	20054.5 ug/L	32.02	0.16%
QC value within limits for Ni 231.604	Recovery = 100.27%					
Pb 220.353†	20.7	20.0810 ug/L	4.80082	20.0810 ug/L	4.80082	23.91%
QC value within limits for Pb 220.353	Recovery = Not calculated					
S 180.669†	-4.0	-106.224 ug/L	14.8249	-106.224 ug/L	14.8249	13.96%
QC value within limits for S 180.669	Recovery = Not calculated					
Sb 217.582†	-14.9	-6.96649 ug/L	14.780325	-6.96649 ug/L	14.780325	212.16%
QC value within limits for Sb 217.582	Recovery = Not calculated					
Se 196.026†	18.1	44.7765 ug/L	7.25812	44.7765 ug/L	7.25812	16.21%
QC value within limits for Se 196.026	Recovery = Not calculated					
Sn 189.927†	7.4	15.8680 ug/L	6.51406	15.8680 ug/L	6.51406	41.05%
QC value within limits for Sn 189.927	Recovery = Not calculated					
Sr 407.771†	-245.2	2.45126 ug/L	0.050217	2.45126 ug/L	0.050217	2.05%
QC value within limits for Sr 407.771	Recovery = Not calculated					
Ti 334.940†	584420.3	19861.8 ug/L	131.31	19861.8 ug/L	131.31	0.66%
QC value within limits for Ti 334.940	Recovery = 99.31%					
Tl 190.801†	-164.3	-21.1305 ug/L	6.92139	-21.1305 ug/L	6.92139	32.76%
QC value within limits for Tl 190.801	Recovery = Not calculated					
V 292.395†	857286.9	20535.9 ug/L	226.16	20535.9 ug/L	226.16	1.10%
QC value within limits for V 292.395	Recovery = 102.68%					
Zn 206.200†	87.4	13.0855 ug/L	0.08424	13.0855 ug/L	0.08424	0.64%
QC value within limits for Zn 206.200	Recovery = Not calculated					
All analyte(s) passed QC.						

Sequence No.: 11

Sample ID: 5K02031-IFB1

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 105

Date Collected: 11/3/2015 11:27:55 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-IFB1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	185157.1	185157.1	102.577	%		11:28:20 AM
1	Al 396.153†	179857.8	175292.3	96448.7	ug/L	96448.7 ug/L	11:28:20 AM
1	Ba 455.398†	139006.7	134941.7	520.732	ug/L	520.732 ug/L	11:28:20 AM
1	Ca 315.887†	195243.6	190097.8	93.4008	mg/L	93.4008 mg/L	11:28:20 AM
1	Fe 238.204†	196827.6	191853.7	36772.9	ug/L	36772.9 ug/L	11:28:20 AM
1	K 766.490†	207.7	-9.4	0.0626921	mg/L	0.0626921 mg/L	11:28:26 AM
1	Li 670.784†	147.7	76.7	4.32499	ug/L	4.32499 ug/L	11:28:26 AM
1	Mg 279.071†	32196.1	31381.1	98.1957	mg/L	98.1957 mg/L	11:28:26 AM
1	Na 589.592†	770.3	-14.9	0.0241366	mg/L	0.0241366 mg/L	11:28:26 AM
1	Sr 407.771†	2046.8	187.4	3.11247	ug/L	3.11247 ug/L	11:28:26 AM
1	Ti 334.940†	424.1	505.4	25.6580	ug/L	25.6580 ug/L	11:28:26 AM
1	Y 360.076	265685.1	265685.1	99.1383	%		11:28:36 AM
1	Ag 328.068†	76463.2	77171.1	1026.56	ug/L	1026.56 ug/L	11:28:36 AM
1	As 188.979†	-14.6	41.9	69.6801	ug/L	69.6801 ug/L	11:28:41 AM
1	B 249.677†	329.0	-69.7	-1.37187	ug/L	-1.37187 ug/L	11:28:41 AM
1	Be 234.861†	19602.7	20756.6	45.1302	ug/L	45.1302 ug/L	11:28:36 AM
1	Cd 214.437†	29102.0	28797.9	946.882	ug/L	946.882 ug/L	11:28:36 AM
1	Ce 413.764†	698.8	19.3	-0.348689	ug/L	-0.348689 ug/L	11:28:36 AM
1	Co 228.616†	7755.4	7888.4	487.316	ug/L	487.316 ug/L	11:28:41 AM
1	Cr 205.557†	5384.1	5472.4	521.341	ug/L	521.341 ug/L	11:28:41 AM
1	Cu 327.397†	24511.1	24758.7	559.986	ug/L	559.986 ug/L	11:28:36 AM
1	Mn 257.610†	97227.5	97868.2	518.319	ug/L	518.319 ug/L	11:28:36 AM
1	Mo 202.031†	187.0	54.6	13.8221	ug/L	13.8221 ug/L	11:28:41 AM
1	Ni 231.604†	9749.2	9234.6	1002.56	ug/L	1002.56 ug/L	11:28:41 AM
1	Pb 220.353†	1418.0	1342.7	983.719	ug/L	983.719 ug/L	11:28:41 AM
1	S 180.669†	312.7	310.6	-19.1013	ug/L	-19.1013 ug/L	11:28:41 AM

000484

1	Sb 217.582†	-41.4	-38.4	20.1729 ug/L	20.1729 ug/L	11:28:41 AM
1	Se 196.026†	-26.5	33.1	70.2047 ug/L	70.2047 ug/L	11:28:41 AM
1	Sn 189.927†	-21.9	-30.4	-10.2004 ug/L	-10.2004 ug/L	11:28:41 AM
1	Tl 190.801†	-64.1	11.1	19.0042 ug/L	19.0042 ug/L	11:28:41 AM
1	V 292.395†	21799.6	22015.1	526.666 ug/L	526.666 ug/L	11:28:36 AM
1	Zn 206.200†	8956.4	9066.1	986.366 ug/L	986.366 ug/L	11:28:41 AM
2	Sc 357.234	188196.5	188196.5	104.260 %		11:28:27 AM
2	Al 396.153†	183454.1	175909.9	96788.3 ug/L	96788.3 ug/L	11:28:27 AM
2	Ba 455.398†	141844.6	135475.1	522.783 ug/L	522.783 ug/L	11:28:27 AM
2	Ca 315.887†	198959.2	190587.6	93.6413 mg/L	93.6413 mg/L	11:28:27 AM
2	Fe 238.204†	200959.0	192717.3	36938.4 ug/L	36938.4 ug/L	11:28:27 AM
2	K 766.490†	208.5	-11.8	0.0597580 mg/L	0.0597580 mg/L	11:28:33 AM
2	Li 670.784†	127.1	54.6	3.90804 ug/L	3.90804 ug/L	11:28:33 AM
2	Mg 279.071†	32178.2	30857.0	96.5562 mg/L	96.5562 mg/L	11:28:33 AM
2	Na 589.592†	822.3	22.8	0.0308974 mg/L	0.0308974 mg/L	11:28:33 AM
2	Sr 407.771†	2033.9	142.8	3.04434 ug/L	3.04434 ug/L	11:28:33 AM
2	Ti 334.940†	505.8	577.0	28.0973 ug/L	28.0973 ug/L	11:28:33 AM
2	Y 360.076	260166.9	260166.9	97.0792 %		11:28:42 AM
2	Ag 328.068†	76011.7	78341.9	1042.08 ug/L	1042.08 ug/L	11:28:42 AM
2	As 188.979†	-34.7	20.9	34.7290 ug/L	34.7290 ug/L	11:28:47 AM
2	B 249.677†	344.0	-47.2	0.108140 ug/L	0.108140 ug/L	11:28:47 AM
2	Be 234.861†	19283.3	20847.0	45.3225 ug/L	45.3225 ug/L	11:28:42 AM
2	Cd 214.437†	28685.4	28991.4	953.230 ug/L	953.230 ug/L	11:28:42 AM
2	Ce 413.764†	549.6	-119.4	-4.64667 ug/L	-4.64667 ug/L	11:28:42 AM
2	Co 228.616†	7698.6	7995.9	493.938 ug/L	493.938 ug/L	11:28:47 AM
2	Cr 205.557†	5336.7	5538.7	527.618 ug/L	527.618 ug/L	11:28:47 AM
2	Cu 327.397†	24097.7	24857.3	562.211 ug/L	562.211 ug/L	11:28:42 AM
2	Mn 257.610†	95517.2	98186.6	519.998 ug/L	519.998 ug/L	11:28:42 AM
2	Mo 202.031†	210.7	83.0	19.0494 ug/L	19.0494 ug/L	11:28:47 AM
2	Ni 231.604†	9659.5	9350.8	1015.21 ug/L	1015.21 ug/L	11:28:47 AM
2	Pb 220.353†	1449.2	1405.2	1029.57 ug/L	1029.57 ug/L	11:28:47 AM
2	S 180.669†	319.4	324.2	61.7462 ug/L	61.7462 ug/L	11:28:47 AM
2	Sb 217.582†	-50.2	-48.3	10.1970 ug/L	10.1970 ug/L	11:28:47 AM
2	Se 196.026†	-47.9	10.6	32.1834 ug/L	32.1834 ug/L	11:28:47 AM
2	Sn 189.927†	-26.7	-35.8	-13.9289 ug/L	-13.9289 ug/L	11:28:47 AM
2	Tl 190.801†	-75.8	-2.4	5.02672 ug/L	5.02672 ug/L	11:28:47 AM
2	V 292.395†	21571.7	22246.8	532.324 ug/L	532.324 ug/L	11:28:42 AM
2	Zn 206.200†	8898.0	9197.5	1000.67 ug/L	1000.67 ug/L	11:28:47 AM

CKD

Mean Data: 5K02031-IFB1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	186676.8	103.418 %	1.1906			1.15%
Y 360.076	262926.0	98.1087 %	1.45601			1.48%
Ag 328.068†	77756.5	1034.32 ug/L	10.975	1034.32 ug/L	10.975	1.06%
QC value within limits for Ag 328.068 Recovery = 103.43%						
Al 396.153†	175601.1	96618.5 ug/L	240.13	96618.5 ug/L	240.13	0.25%
QC value within limits for Al 396.153 Recovery = 96.62%						
As 188.979†	31.4	52.2045 ug/L	24.71421	52.2045 ug/L	24.71421	47.34%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-58.5	-0.631863 ug/L	1.0465230	-0.631863 ug/L	1.0465230	165.62%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 455.398†	135208.4	521.758 ug/L	1.4509	521.758 ug/L	1.4509	0.28%
QC value within limits for Ba 455.398 Recovery = 104.35%						
Be 234.861†	20801.8	45.2264 ug/L	0.13598	45.2264 ug/L	0.13598	0.30%
QC value within limits for Be 234.861 Recovery = 90.45%						
Ca 315.887†	190342.7	93.5211 mg/L	0.17008	93.5211 mg/L	0.17008	0.18%
QC value within limits for Ca 315.887 Recovery = 93.52%						
Cd 214.437†	28894.7	950.056 ug/L	4.4884	950.056 ug/L	4.4884	0.47%
QC value within limits for Cd 214.437 Recovery = 95.01%						
Ce 413.764†	-50.0	-2.49768 ug/L	3.039134	-2.49768 ug/L	3.039134	121.68%
Co 228.616†	7942.2	490.627 ug/L	4.6828	490.627 ug/L	4.6828	0.95%
QC value within limits for Co 228.616 Recovery = 98.13%						
Cr 205.557†	5505.6	524.479 ug/L	4.4383	524.479 ug/L	4.4383	0.85%
QC value within limits for Cr 205.557 Recovery = 104.90%						
Cu 327.397†	24808.0	561.099 ug/L	1.5734	561.099 ug/L	1.5734	0.28%
QC value within limits for Cu 327.397 Recovery = 112.22%						
Fe 238.204†	192285.5	36855.6 ug/L	117.06	36855.6 ug/L	117.06	0.32%
QC value within limits for Fe 238.204 Recovery = 92.14%						
K 766.490†	-10.6	0.0612251 mg/L	0.00207473	0.0612251 mg/L	0.00207473	3.39%
QC value within limits for K 766.490 Recovery = Not calculated						
Li 670.784†	65.6	4.11651 ug/L	0.294828	4.11651 ug/L	0.294828	7.16%
QC value within limits for Li 670.784 Recovery = Not calculated						
Mg 279.071†	31119.0	97.3760 mg/L	1.15928	97.3760 mg/L	1.15928	1.19%
QC value within limits for Mg 279.071 Recovery = 97.38%						

Mn	257.610†	98027.4	519.159 ug/L	1.1874	519.159 ug/L	1.1874	0.23%
	QC value within limits for Mn	257.610	Recovery = 103.83%				
Mo	202.031†	68.8	16.4358 ug/L	3.69625	16.4358 ug/L	3.69625	22.49%
	QC value within limits for Mo	202.031	Recovery = Not calculated				
Na	589.592†	4.0	0.0275170 mg/L	0.00478064	0.0275170 mg/L	0.00478064	17.37%
	QC value within limits for Na	589.592	Recovery = Not calculated				
Ni	231.604†	9292.7	1008.89 ug/L	8.939	1008.89 ug/L	8.939	0.89%
	QC value within limits for Ni	231.604	Recovery = 100.89%				
Pb	220.353†	1373.9	1006.64 ug/L	32.422	1006.64 ug/L	32.422	3.22%
	QC value within limits for Pb	220.353	Recovery = 100.66%				
S	180.669†	317.4	21.3225 ug/L	57.16779	21.3225 ug/L	57.16779	268.11%
	QC value within limits for S	180.669	Recovery = Not calculated				
Sb	217.582†	-43.3	15.1849 ug/L	7.05400	15.1849 ug/L	7.05400	46.45%
	QC value within limits for Sb	217.582	Recovery = Not calculated				
Se	196.026†	21.8	51.1941 ug/L	26.88514	51.1941 ug/L	26.88514	52.52%
	QC value within limits for Se	196.026	Recovery = Not calculated				
Sn	189.927†	-33.1	-12.0647 ug/L	2.63645	-12.0647 ug/L	2.63645	21.85%
	QC value within limits for Sn	189.927	Recovery = Not calculated				
Sr	407.771†	165.1	3.07840 ug/L	0.048172	3.07840 ug/L	0.048172	1.56%
	QC value within limits for Sr	407.771	Recovery = Not calculated				
Ti	334.940†	541.2	26.8777 ug/L	1.72479	26.8777 ug/L	1.72479	6.42%
	QC value within limits for Ti	334.940	Recovery = Not calculated				
Tl	190.801†	4.4	12.0155 ug/L	9.88358	12.0155 ug/L	9.88358	82.26%
	QC value within limits for Tl	190.801	Recovery = Not calculated				
V	292.395†	22131.0	529.495 ug/L	4.0009	529.495 ug/L	4.0009	0.76%
	QC value within limits for V	292.395	Recovery = 105.90%				
Zn	206.200†	9131.8	993.519 ug/L	10.1156	993.519 ug/L	10.1156	1.02%
	QC value within limits for Zn	206.200	Recovery = 99.35%				
All analyte(s) passed QC.							

Sequence No.: 12

Sample ID: 5K02031-IFB2

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 260

Autosampler Location: 106

Date Collected: 11/3/2015 11:33:16 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-IFB2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	185482.9	185482.9	102.757 %		11:33:41 AM
1	Al 396.153†	2102.3	1998.2	1077.03 ug/L	1077.03 ug/L	11:33:46 AM
1	Ba 455.398†	499.8	-86.9	1.33117 ug/L	1.33117 ug/L	11:33:41 AM
1	Ca 315.887†	10355.2	9835.8	4.87508 mg/L	4.87508 mg/L	11:33:46 AM
1	Fe 238.204†	-49.4	-78.0	-14.2093 ug/L	-14.2093 ug/L	11:33:46 AM
1	K 766.490†	259.6	40.8	0.122334 mg/L	0.122334 mg/L	11:33:41 AM
1	Li 670.784†	102.6	32.5	3.49046 ug/L	3.49046 ug/L	11:33:41 AM
1	Mg 279.071†	1603.2	1554.0	4.88483 mg/L	4.88483 mg/L	11:33:46 AM
1	Na 589.592†	29159.5	27611.3	4.97524 mg/L	4.97524 mg/L	11:33:41 AM
1	Sr 407.771†	1774.5	-81.2	2.70198 ug/L	2.70198 ug/L	11:33:46 AM
1	Ti 334.940†	601126.8	585090.0	19884.6 ug/L	19884.6 ug/L	11:33:41 AM
1	Y 360.076	268126.2	268126.2	100.049 %		11:33:56 AM
1	Ag 328.068†	-155.5	-112.1	6.62560 ug/L	6.62560 ug/L	11:33:56 AM
1	As 188.979†	631.2	687.6	998.916 ug/L	998.916 ug/L	11:34:01 AM
1	B 249.677†	15232.3	14823.3	956.228 ug/L	956.228 ug/L	11:33:56 AM
1	Be 234.861†	-863.3	120.6	0.473946 ug/L	0.473946 ug/L	11:34:01 AM
1	Cd 214.437†	545.5	-11.8	4.95841 ug/L	4.95841 ug/L	11:34:01 AM
1	Ce 413.764†	461.7	-224.1	-6.46505 ug/L	-6.46505 ug/L	11:33:56 AM
1	Co 228.616†	653.2	718.6	-0.164019 ug/L	-0.164019 ug/L	11:34:01 AM
1	Cr 205.557†	211259.3	211197.0	20005.9 ug/L	20005.9 ug/L	11:33:56 AM
1	Cu 327.397†	923146.0	922727.1	20769.8 ug/L	20769.8 ug/L	11:33:55 AM
1	Mn 257.610†	3819906.3	3817825.7	20135.6 ug/L	20135.6 ug/L	11:33:55 AM
1	Mo 202.031†	5504.9	5368.1	990.753 ug/L	990.753 ug/L	11:34:01 AM
1	Ni 231.604†	184859.8	184169.6	20049.0 ug/L	20049.0 ug/L	11:33:56 AM
1	Pb 220.353†	98.9	11.2	16.3508 ug/L	16.3508 ug/L	11:34:01 AM
1	S 180.669†	25.4	20.6	-56.4105 ug/L	-56.4105 ug/L	11:34:01 AM
1	Sb 217.582†	954.0	956.9	994.443 ug/L	994.443 ug/L	11:34:01 AM
1	Se 196.026†	562.2	621.8	1060.99 ug/L	1060.99 ug/L	11:34:01 AM
1	Sn 189.927†	11.7	3.4	13.1371 ug/L	13.1371 ug/L	11:34:01 AM
1	Tl 190.801†	697.9	773.3	953.634 ug/L	953.634 ug/L	11:34:01 AM
1	V 292.395†	854655.9	854262.2	20485.7 ug/L	20485.7 ug/L	11:33:55 AM
1	Zn 206.200†	111.8	143.6	18.7974 ug/L	18.7974 ug/L	11:33:56 AM
2	Sc 357.234	183035.2	183035.2	101.401 %		11:33:47 AM
2	Al 396.153†	2089.0	2012.4	1085.00 ug/L	1085.00 ug/L	11:33:52 AM

000486

2	Ba 455.398†	544.0	-36.9	1.52370 ug/L	1.52370 ug/L	11:33:47 AM
2	Ca 315.887†	10306.8	9922.7	4.91778 mg/L	4.91778 mg/L	11:33:52 AM
2	Fe 238.204†	-49.8	-79.1	-14.7305 ug/L	-14.7305 ug/L	11:33:52 AM
2	K 766.490†	294.9	79.0	0.167774 mg/L	0.167774 mg/L	11:33:47 AM
2	Li 670.784†	110.3	41.5	3.66023 ug/L	3.66023 ug/L	11:33:47 AM
2	Mg 279.071†	1577.2	1549.1	4.86964 mg/L	4.86964 mg/L	11:33:52 AM
2	Na 589.592†	29164.0	27995.2	5.04405 mg/L	5.04405 mg/L	11:33:47 AM
2	Sr 407.771†	1797.8	-35.1	2.77241 ug/L	2.77241 ug/L	11:33:52 AM
2	Ti 334.940†	597108.3	588950.3	20015.8 ug/L	20015.8 ug/L	11:33:47 AM
2	Y 360.076	270027.9	270027.9	100.759 %		11:34:03 AM
2	Ag 328.068†	-254.6	-209.4	5.30950 ug/L	5.30950 ug/L	11:34:03 AM
2	As 188.979†	628.8	680.7	987.103 ug/L	987.103 ug/L	11:34:08 AM
2	B 249.677†	15417.7	14900.0	961.194 ug/L	961.194 ug/L	11:34:03 AM
2	Be 234.861†	-927.3	63.2	0.263584 ug/L	0.263584 ug/L	11:34:08 AM
2	Cd 214.437†	518.7	-42.2	3.95596 ug/L	3.95596 ug/L	11:34:08 AM
2	Ce 413.764†	511.5	-177.9	-5.03704 ug/L	-5.03704 ug/L	11:34:03 AM
2	Co 228.616†	614.4	675.5	-3.08123 ug/L	-3.08123 ug/L	11:34:08 AM
2	Cr 205.557†	213011.8	211449.2	20029.6 ug/L	20029.6 ug/L	11:34:03 AM
2	Cu 327.397†	924379.6	917453.1	20651.1 ug/L	20651.1 ug/L	11:34:02 AM
2	Mn 257.610†	3812411.3	3783497.6	19954.6 ug/L	19954.6 ug/L	11:34:02 AM
2	Mo 202.031†	5519.4	5343.9	986.290 ug/L	986.290 ug/L	11:34:08 AM
2	Ni 231.604†	185933.6	183934.0	20023.4 ug/L	20023.4 ug/L	11:34:03 AM
2	Pb 220.353†	123.6	35.0	33.9375 ug/L	33.9375 ug/L	11:34:08 AM
2	S 180.669†	29.6	24.5	-31.7556 ug/L	-31.7556 ug/L	11:34:08 AM
2	Sb 217.582†	929.5	926.0	962.720 ug/L	962.720 ug/L	11:34:08 AM
2	Se 196.026†	564.5	620.1	1058.18 ug/L	1058.18 ug/L	11:34:08 AM
2	Sn 189.927†	1.8	-6.6	6.25031 ug/L	6.25031 ug/L	11:34:08 AM
2	Tl 190.801†	690.6	761.2	941.673 ug/L	941.673 ug/L	11:34:08 AM
2	V 292.395†	856473.9	850050.4	20384.5 ug/L	20384.5 ug/L	11:34:02 AM
2	Zn 206.200†	66.7	98.0	13.8306 ug/L	13.8306 ug/L	11:34:03 AM

CKD

Mean Data: 5K02031-IFB2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	184259.1	102.079 %	0.9589			0.94%
Y 360.076	269077.0	100.404 %	0.5018			0.50%
Ag 328.068†	-160.8	5.96755 ug/L	0.930622	5.96755 ug/L	0.930622	15.59%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153†	2005.3	1081.02 ug/L	5.638	1081.02 ug/L	5.638	0.52%
QC value within limits for Al 396.153 Recovery = 108.10%						
As 188.979†	684.2	993.010 ug/L	8.3527	993.010 ug/L	8.3527	0.84%
QC value within limits for As 188.979 Recovery = 99.30%						
B 249.677†	14861.6	958.711 ug/L	3.5114	958.711 ug/L	3.5114	0.37%
QC value within limits for B 249.677 Recovery = 95.87%						
Ba 455.398†	-61.9	1.42743 ug/L	0.136137	1.42743 ug/L	0.136137	9.54%
QC value within limits for Ba 455.398 Recovery = Not calculated						
Be 234.861†	91.9	0.368765 ug/L	0.1487487	0.368765 ug/L	0.1487487	40.34%
QC value within limits for Be 234.861 Recovery = Not calculated						
Ca 315.887†	9879.2	4.89643 mg/L	0.030193	4.89643 mg/L	0.030193	0.62%
QC value within limits for Ca 315.887 Recovery = 97.93%						
Cd 214.437†	-27.0	4.45719 ug/L	0.708842	4.45719 ug/L	0.708842	15.90%
QC value within limits for Cd 214.437 Recovery = Not calculated						
Ce 413.764†	-201.0	-5.75104 ug/L	1.009752	-5.75104 ug/L	1.009752	17.56%
Co 228.616†	697.0	-1.62262 ug/L	2.062777	-1.62262 ug/L	2.062777	127.13%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 205.557†	211323.1	20017.8 ug/L	16.79	20017.8 ug/L	16.79	0.08%
QC value within limits for Cr 205.557 Recovery = 100.09%						
Cu 327.397†	920090.1	20710.4 ug/L	83.87	20710.4 ug/L	83.87	0.40%
QC value within limits for Cu 327.397 Recovery = 103.55%						
Fe 238.204†	-78.6	-14.4699 ug/L	0.36848	-14.4699 ug/L	0.36848	2.55%
QC value within limits for Fe 238.204 Recovery = Not calculated						
K 766.490†	59.9	0.145054 mg/L	0.0321309	0.145054 mg/L	0.0321309	22.15%
QC value within limits for K 766.490 Recovery = Not calculated						
Li 670.784†	37.0	3.57534 ug/L	0.120042	3.57534 ug/L	0.120042	3.36%
QC value within limits for Li 670.784 Recovery = Not calculated						
Mg 279.071†	1551.5	4.87723 mg/L	0.010740	4.87723 mg/L	0.010740	0.22%
QC value within limits for Mg 279.071 Recovery = 97.54%						
Mn 257.610†	3800661.6	20045.1 ug/L	128.01	20045.1 ug/L	128.01	0.64%
QC value within limits for Mn 257.610 Recovery = 100.23%						
Mo 202.031†	5356.0	988.522 ug/L	3.1558	988.522 ug/L	3.1558	0.32%
QC value within limits for Mo 202.031 Recovery = 98.85%						
Na 589.592†	27803.2	5.00964 mg/L	0.048655	5.00964 mg/L	0.048655	0.97%
QC value within limits for Na 589.592 Recovery = 100.19%						
Ni 231.604†	184051.8	20036.2 ug/L	18.13	20036.2 ug/L	18.13	0.09%
QC value within limits for Ni 231.604 Recovery = 100.18%						

000487

Pb 220.353† 23.1 25.1441 ug/L 12.43563 25.1441 ug/L 12.43563 49.46% CKD
 QC value within limits for Pb 220.353 Recovery = Not calculated
 S 180.669† 22.5 -44.0830 ug/L 17.43365 -44.0830 ug/L 17.43365 39.55%
 QC value within limits for S 180.669 Recovery = Not calculated
 Sb 217.582† 941.5 978.581 ug/L 22.4318 978.581 ug/L 22.4318 2.29%
 QC value within limits for Sb 217.582 Recovery = 97.86%
 Se 196.026† 620.9 1059.59 ug/L 1.990 1059.59 ug/L 1.990 0.19%
 QC value within limits for Se 196.026 Recovery = 105.96%
 Sn 189.927† -1.6 9.69371 ug/L 4.869701 9.69371 ug/L 4.869701 50.24%
 QC value within limits for Sn 189.927 Recovery = Not calculated
 Sr 407.771† -58.1 2.73720 ug/L 0.049798 2.73720 ug/L 0.049798 1.82%
 QC value within limits for Sr 407.771 Recovery = Not calculated
 Ti 334.940† 587020.2 19950.2 ug/L 92.76 19950.2 ug/L 92.76 0.46%
 QC value within limits for Ti 334.940 Recovery = 99.75%
 Tl 190.801† 767.2 947.654 ug/L 8.4578 947.654 ug/L 8.4578 0.89%
 QC value within limits for Tl 190.801 Recovery = 94.77%
 V 292.395† 852156.3 20435.1 ug/L 71.54 20435.1 ug/L 71.54 0.35%
 QC value within limits for V 292.395 Recovery = 102.18%
 Zn 206.200† 120.8 16.3140 ug/L 3.51203 16.3140 ug/L 3.51203 21.53%
 QC value within limits for Zn 206.200 Recovery = Not calculated
 All analyte(s) passed QC.

Sequence No.: 13

Sample ID: 5K02031-CCV

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 4

Date Collected: 11/3/2015 11:35:17 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	181744.1	181744.1	100.686 %			11:35:43 AM
1	Al 396.153†	4658.0	4578.5	2498.04 ug/L	2498.04 ug/L	2498.04 ug/L	11:35:49 AM
1	Ba 455.398†	128416.0	126968.0	490.060 ug/L	490.060 ug/L	490.060 ug/L	11:35:43 AM
1	Ca 315.887†	10140.1	9829.4	4.87193 mg/L	4.87193 mg/L	4.87193 mg/L	11:35:49 AM
1	Fe 238.204†	2819.9	2770.8	528.907 ug/L	528.907 ug/L	528.907 ug/L	11:35:49 AM
1	K 766.490†	4336.8	4095.4	4.94510 mg/L	4.94510 mg/L	4.94510 mg/L	11:35:49 AM
1	Li 670.784†	26259.1	26012.9	494.960 ug/L	494.960 ug/L	494.960 ug/L	11:35:43 AM
1	Mg 279.071†	1673.3	1655.6	5.20291 mg/L	5.20291 mg/L	5.20291 mg/L	11:35:49 AM
1	Na 589.592†	28043.5	27086.6	4.88122 mg/L	4.88122 mg/L	4.88122 mg/L	11:35:43 AM
1	Sr 407.771†	323821.5	319808.0	491.714 ug/L	491.714 ug/L	491.714 ug/L	11:35:43 AM
1	Ti 334.940†	15266.7	15254.7	524.750 ug/L	524.750 ug/L	524.750 ug/L	11:35:49 AM
1	Y 360.076	268537.0	268537.0	100.202 %			11:35:59 AM
1	Ag 328.068†	36680.3	36649.5	492.632 ug/L	492.632 ug/L	492.632 ug/L	11:35:59 AM
1	As 188.979†	1386.0	1439.8	2392.12 ug/L	2392.12 ug/L	2392.12 ug/L	11:36:04 AM
1	B 249.677†	8156.1	7738.1	496.165 ug/L	496.165 ug/L	496.165 ug/L	11:35:59 AM
1	Be 234.861†	12576.2	13534.2	48.6867 ug/L	48.6867 ug/L	48.6867 ug/L	11:36:04 AM
1	Cd 214.437†	14785.5	14198.6	473.158 ug/L	473.158 ug/L	473.158 ug/L	11:35:59 AM
1	Ce 413.764†	16683.9	15964.6	494.941 ug/L	494.941 ug/L	494.941 ug/L	11:35:59 AM
1	Co 228.616†	7884.4	7934.1	490.042 ug/L	490.042 ug/L	490.042 ug/L	11:36:04 AM
1	Cr 205.557†	5398.4	5429.0	515.829 ug/L	515.829 ug/L	515.829 ug/L	11:36:04 AM
1	Cu 327.397†	23362.8	23350.2	527.891 ug/L	527.891 ug/L	527.891 ug/L	11:35:59 AM
1	Mn 257.610†	97533.9	97132.4	514.439 ug/L	514.439 ug/L	514.439 ug/L	11:35:59 AM
1	Mo 202.031†	2788.2	2648.5	490.738 ug/L	490.738 ug/L	490.738 ug/L	11:36:04 AM
1	Ni 231.604†	5287.4	4677.4	511.176 ug/L	511.176 ug/L	511.176 ug/L	11:36:04 AM
1	Pb 220.353†	763.6	674.4	495.077 ug/L	495.077 ug/L	495.077 ug/L	11:36:04 AM
1	S 180.669†	792.1	785.7	4892.12 ug/L	4892.12 ug/L	4892.12 ug/L	11:36:04 AM
1	Sb 217.582†	2358.7	2357.3	2442.73 ug/L	2442.73 ug/L	2442.73 ug/L	11:36:04 AM
1	Se 196.026†	1386.0	1443.1	2446.14 ug/L	2446.14 ug/L	2446.14 ug/L	11:36:04 AM
1	Sn 189.927†	3503.5	3488.1	2419.54 ug/L	2419.54 ug/L	2419.54 ug/L	11:36:04 AM
1	Tl 190.801†	2279.1	2350.3	2456.23 ug/L	2456.23 ug/L	2456.23 ug/L	11:36:04 AM
1	V 292.395†	21401.0	21383.8	524.451 ug/L	524.451 ug/L	524.451 ug/L	11:35:59 AM
1	Zn 206.200†	4431.1	4454.0	485.256 ug/L	485.256 ug/L	485.256 ug/L	11:36:04 AM
2	Sc 357.234	185112.0	185112.0	102.552 %			11:35:51 AM
2	Al 396.153†	4688.6	4524.3	2468.02 ug/L	2468.02 ug/L	2468.02 ug/L	11:35:57 AM
2	Ba 455.398†	130992.7	127160.1	490.799 ug/L	490.799 ug/L	490.799 ug/L	11:35:51 AM
2	Ca 315.887†	10085.8	9593.2	4.75597 mg/L	4.75597 mg/L	4.75597 mg/L	11:35:57 AM
2	Fe 238.204†	2816.0	2716.0	518.421 ug/L	518.421 ug/L	518.421 ug/L	11:35:57 AM
2	K 766.490†	4387.5	4066.5	4.91067 mg/L	4.91067 mg/L	4.91067 mg/L	11:35:57 AM
2	Li 670.784†	26718.0	25985.9	494.450 ug/L	494.450 ug/L	494.450 ug/L	11:35:51 AM
2	Mg 279.071†	1634.1	1587.2	4.98884 mg/L	4.98884 mg/L	4.98884 mg/L	11:35:57 AM
2	Na 589.592†	28525.9	27050.3	4.87471 mg/L	4.87471 mg/L	4.87471 mg/L	11:35:51 AM
2	Sr 407.771†	331076.0	321030.5	493.583 ug/L	493.583 ug/L	493.583 ug/L	11:35:51 AM

2	Ti 334.940†	15083.1	14799.7	509.283 ug/L	509.283 ug/L	11:35:57 AM
2	Y 360.076	260792.2	260792.2	97.3125 %		11:36:05 AM
2	Ag 328.068†	35705.1	36734.4	493.720 ug/L	493.720 ug/L	11:36:05 AM
2	As 188.979†	1393.4	1488.5	2473.08 ug/L	2473.08 ug/L	11:36:10 AM
2	B 249.677†	7845.5	7660.6	491.126 ug/L	491.126 ug/L	11:36:05 AM
2	Be 234.861†	12600.2	13931.7	50.1290 ug/L	50.1290 ug/L	11:36:10 AM
2	Cd 214.437†	14452.0	14294.1	476.309 ug/L	476.309 ug/L	11:36:05 AM
2	Ce 413.764†	16072.5	15830.8	490.796 ug/L	490.796 ug/L	11:36:05 AM
2	Co 228.616†	7835.4	8117.5	501.371 ug/L	501.371 ug/L	11:36:10 AM
2	Cr 205.557†	5298.6	5486.4	521.248 ug/L	521.248 ug/L	11:36:10 AM
2	Cu 327.397†	22636.1	23295.8	526.660 ug/L	526.660 ug/L	11:36:05 AM
2	Mn 257.610†	94474.4	96879.0	513.103 ug/L	513.103 ug/L	11:36:05 AM
2	Mo 202.031†	2726.8	2668.1	494.339 ug/L	494.339 ug/L	11:36:10 AM
2	Ni 231.604†	5241.4	4786.8	523.085 ug/L	523.085 ug/L	11:36:10 AM
2	Pb 220.353†	750.4	683.4	501.733 ug/L	501.733 ug/L	11:36:10 AM
2	S 180.669†	778.3	794.9	4953.18 ug/L	4953.18 ug/L	11:36:10 AM
2	Sb 217.582†	2362.5	2431.2	2518.78 ug/L	2518.78 ug/L	11:36:10 AM
2	Se 196.026†	1374.6	1472.4	2495.53 ug/L	2495.53 ug/L	11:36:10 AM
2	Sn 189.927†	3499.8	3588.2	2488.62 ug/L	2488.62 ug/L	11:36:10 AM
2	Tl 190.801†	2277.1	2415.7	2524.13 ug/L	2524.13 ug/L	11:36:10 AM
2	V 292.395†	20829.2	21430.5	525.660 ug/L	525.660 ug/L	11:36:05 AM
2	Zn 206.200†	4412.5	4566.2	497.472 ug/L	497.472 ug/L	11:36:10 AM

CKD

Mean Data: 5K02031-CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	183428.1	101.619 %	1.3193			1.30%
Y 360.076	264664.6	98.7575 %	2.04349			2.07%
Ag 328.068†	36691.9	493.176 ug/L	0.7695	493.176 ug/L	0.7695	0.16%
QC value within limits for Ag 328.068 Recovery = 98.64%						
Al 396.153†	4551.4	2483.03 ug/L	21.227	2483.03 ug/L	21.227	0.85%
QC value within limits for Al 396.153 Recovery = 99.32%						
As 188.979†	1464.2	2432.60 ug/L	57.247	2432.60 ug/L	57.247	2.35%
QC value within limits for As 188.979 Recovery = 97.30%						
B 249.677†	7699.4	493.646 ug/L	3.5631	493.646 ug/L	3.5631	0.72%
QC value within limits for B 249.677 Recovery = 98.73%						
Ba 455.398†	127064.1	490.430 ug/L	0.5225	490.430 ug/L	0.5225	0.11%
QC value within limits for Ba 455.398 Recovery = 98.09%						
Be 234.861†	13733.0	49.4079 ug/L	1.01986	49.4079 ug/L	1.01986	2.06%
QC value within limits for Be 234.861 Recovery = 98.82%						
Ca 315.887†	9711.3	4.81395 mg/L	0.081993	4.81395 mg/L	0.081993	1.70%
QC value within limits for Ca 315.887 Recovery = 96.28%						
Cd 214.437†	14246.3	474.733 ug/L	2.2275	474.733 ug/L	2.2275	0.47%
QC value within limits for Cd 214.437 Recovery = 94.95%						
Ce 413.764†	15897.7	492.869 ug/L	2.9311	492.869 ug/L	2.9311	0.59%
Co 228.616†	8025.8	495.706 ug/L	8.0108	495.706 ug/L	8.0108	1.62%
QC value within limits for Co 228.616 Recovery = 99.14%						
Cr 205.557†	5457.7	518.538 ug/L	3.8316	518.538 ug/L	3.8316	0.74%
QC value within limits for Cr 205.557 Recovery = 103.71%						
Cu 327.397†	23323.0	527.275 ug/L	0.8709	527.275 ug/L	0.8709	0.17%
QC value within limits for Cu 327.397 Recovery = 105.46%						
Fe 238.204†	2743.4	523.664 ug/L	7.4148	523.664 ug/L	7.4148	1.42%
QC value within limits for Fe 238.204 Recovery = 104.73%						
K 766.490†	4081.0	4.92789 mg/L	0.024349	4.92789 mg/L	0.024349	0.49%
QC value within limits for K 766.490 Recovery = 98.56%						
Li 670.784†	25999.4	494.705 ug/L	0.3608	494.705 ug/L	0.3608	0.07%
QC value within limits for Li 670.784 Recovery = 98.94%						
Mg 279.071†	1621.4	5.09588 mg/L	0.151368	5.09588 mg/L	0.151368	2.97%
QC value within limits for Mg 279.071 Recovery = 101.92%						
Mn 257.610†	97005.7	513.771 ug/L	0.9449	513.771 ug/L	0.9449	0.18%
QC value within limits for Mn 257.610 Recovery = 102.75%						
Mo 202.031†	2658.3	492.539 ug/L	2.5467	492.539 ug/L	2.5467	0.52%
QC value within limits for Mo 202.031 Recovery = 98.51%						
Na 589.592†	27068.5	4.87796 mg/L	0.004607	4.87796 mg/L	0.004607	0.09%
QC value within limits for Na 589.592 Recovery = 97.56%						
Ni 231.604†	4732.1	517.130 ug/L	8.4213	517.130 ug/L	8.4213	1.63%
QC value within limits for Ni 231.604 Recovery = 103.43%						
Pb 220.353†	678.9	498.405 ug/L	4.7067	498.405 ug/L	4.7067	0.94%
QC value within limits for Pb 220.353 Recovery = 99.68%						
S 180.669†	790.3	4922.65 ug/L	43.173	4922.65 ug/L	43.173	0.88%
QC value within limits for S 180.669 Recovery = 98.45%						
Sb 217.582†	2394.3	2480.75 ug/L	53.773	2480.75 ug/L	53.773	2.17%
QC value within limits for Sb 217.582 Recovery = 99.23%						
Se 196.026†	1457.7	2470.84 ug/L	34.924	2470.84 ug/L	34.924	1.41%
QC value within limits for Se 196.026 Recovery = 98.83%						

Sn 189.927† 3538.2 2454.08 ug/L 48.848 2454.08 ug/L 48.848 1.99% CKD
 QC value within limits for Sn 189.927 Recovery = 98.16%
 Sr 407.771† 320419.3 492.649 ug/L 1.3215 492.649 ug/L 1.3215 0.27%
 QC value within limits for Sr 407.771 Recovery = 98.53%
 Ti 334.940† 15027.2 517.017 ug/L 10.9365 517.017 ug/L 10.9365 2.12%
 QC value within limits for Ti 334.940 Recovery = 103.40%
 Tl 190.801† 2383.0 2490.18 ug/L 48.011 2490.18 ug/L 48.011 1.93%
 QC value within limits for Tl 190.801 Recovery = 99.61%
 V 292.395† 21407.2 525.056 ug/L 0.8549 525.056 ug/L 0.8549 0.16%
 QC value within limits for V 292.395 Recovery = 105.01%
 Zn 206.200† 4510.1 491.364 ug/L 8.6377 491.364 ug/L 8.6377 1.76%
 QC value within limits for Zn 206.200 Recovery = 98.27%
 All analyte(s) passed QC.

Sequence No.: 14

Sample ID: 5K02031-CCB

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 1

Date Collected: 11/3/2015 11:37:19 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	185413.6	185413.6	102.719 %			11:37:45 AM
1	Al 396.153†	55.9	6.7	0.144730 ug/L		0.144730 ug/L	11:37:50 AM
1	Ba 455.398†	573.5	-15.1	1.60763 ug/L		1.60763 ug/L	11:37:45 AM
1	Ca 315.887†	273.6	24.8	0.0569383 mg/L		0.0569383 mg/L	11:37:50 AM
1	Fe 238.204†	50.1	18.8	1.36128 ug/L		1.36128 ug/L	11:37:50 AM
1	K 766.490†	42.6	-170.4	-0.128796 mg/L		-0.128796 mg/L	11:37:45 AM
1	Li 670.784†	196.2	123.6	5.21396 ug/L		5.21396 ug/L	11:37:45 AM
1	Mg 279.071†	8.1	1.6	0.0284658 mg/L		0.0284658 mg/L	11:37:50 AM
1	Na 589.592†	834.3	46.3	0.0351041 mg/L		0.0351041 mg/L	11:37:45 AM
1	Sr 407.771†	2027.1	165.4	3.07888 ug/L		3.07888 ug/L	11:37:50 AM
1	Ti 334.940†	121.3	210.0	13.4961 ug/L		13.4961 ug/L	11:37:50 AM
1	Y 360.076	271466.5	271466.5	101.296 %			11:37:58 AM
1	Ag 328.068†	31.2	74.1	1.64326 ug/L		1.64326 ug/L	11:38:03 AM
1	As 188.979†	-53.7	3.7	8.40567 ug/L		8.40567 ug/L	11:38:03 AM
1	B 249.677†	412.6	5.8	-3.23869 ug/L		-3.23869 ug/L	11:38:03 AM
1	Be 234.861†	-906.9	88.2	0.587354 ug/L		0.587354 ug/L	11:38:03 AM
1	Cd 214.437†	555.2	-9.0	5.10887 ug/L		5.10887 ug/L	11:38:03 AM
1	Ce 413.764†	677.3	-16.9	-0.522364 ug/L		-0.522364 ug/L	11:37:58 AM
1	Co 228.616†	-57.0	9.4	2.15699 ug/L		2.15699 ug/L	11:38:03 AM
1	Cr 205.557†	36.2	77.2	9.29077 ug/L		9.29077 ug/L	11:38:03 AM
1	Cu 327.397†	418.7	447.8	12.1511 ug/L		12.1511 ug/L	11:37:58 AM
1	Mn 257.610†	1482.3	1258.9	8.84737 ug/L		8.84737 ug/L	11:38:03 AM
1	Mo 202.031†	146.6	10.7	5.75605 ug/L		5.75605 ug/L	11:38:03 AM
1	Ni 231.604†	628.8	21.4	3.88487 ug/L		3.88487 ug/L	11:38:03 AM
1	Pb 220.353†	99.6	10.7	7.42382 ug/L		7.42382 ug/L	11:38:03 AM
1	S 180.669†	11.1	6.1	49.1754 ug/L		49.1754 ug/L	11:38:03 AM
1	Sb 217.582†	4.4	7.7	22.4938 ug/L		22.4938 ug/L	11:38:03 AM
1	Se 196.026†	-69.5	-8.8	-0.324025 ug/L		-0.324025 ug/L	11:38:03 AM
1	Sn 189.927†	20.4	11.8	18.9484 ug/L		18.9484 ug/L	11:38:03 AM
1	Tl 190.801†	-71.6	5.1	13.1019 ug/L		13.1019 ug/L	11:38:03 AM
1	V 292.395†	269.4	292.0	8.29400 ug/L		8.29400 ug/L	11:38:03 AM
1	Zn 206.200†	-25.8	6.3	1.24807 ug/L		1.24807 ug/L	11:38:03 AM
2	Sc 357.234	179109.6	179109.6	99.2262 %			11:37:51 AM
2	Al 396.153†	63.1	15.9	5.31737 ug/L		5.31737 ug/L	11:37:56 AM
2	Ba 455.398†	681.8	113.7	2.10309 ug/L		2.10309 ug/L	11:37:51 AM
2	Ca 315.887†	280.9	41.5	0.0651496 mg/L		0.0651496 mg/L	11:37:56 AM
2	Fe 238.204†	36.9	7.2	-0.856807 ug/L		-0.856807 ug/L	11:37:56 AM
2	K 766.490†	140.8	-70.0	-0.0093821 mg/L		-0.0093821 mg/L	11:37:51 AM
2	Li 670.784†	205.0	139.3	5.50961 ug/L		5.50961 ug/L	11:37:51 AM
2	Mg 279.071†	-4.4	-10.7	-0.0100596 mg/L		-0.0100596 mg/L	11:37:56 AM
2	Na 589.592†	828.7	69.3	0.0392294 mg/L		0.0392294 mg/L	11:37:51 AM
2	Sr 407.771†	2057.4	265.4	3.23171 ug/L		3.23171 ug/L	11:37:56 AM
2	Ti 334.940†	153.1	246.2	14.7260 ug/L		14.7260 ug/L	11:37:56 AM
2	Y 360.076	271165.0	271165.0	101.183 %			11:38:05 AM
2	Ag 328.068†	-78.1	-33.9	0.217276 ug/L		0.217276 ug/L	11:38:10 AM
2	As 188.979†	-55.7	1.6	5.02131 ug/L		5.02131 ug/L	11:38:10 AM
2	B 249.677†	441.6	34.9	-1.35317 ug/L		-1.35317 ug/L	11:38:10 AM
2	Be 234.861†	-991.6	3.5	0.283437 ug/L		0.283437 ug/L	11:38:10 AM
2	Cd 214.437†	579.4	15.5	5.91675 ug/L		5.91675 ug/L	11:38:10 AM
2	Ce 413.764†	706.3	12.5	0.386948 ug/L		0.386948 ug/L	11:38:05 AM

2	Co 228.616†	-66.2	0.3	1.58576 ug/L	1.58576 ug/L	11:38:10 AM
2	Cr 205.557†	42.7	83.7	9.90204 ug/L	9.90204 ug/L	11:38:10 AM
2	Cu 327.397†	471.3	500.3	13.3299 ug/L	13.3299 ug/L	11:38:05 AM
2	Mn 257.610†	1509.6	1287.5	8.99810 ug/L	8.99810 ug/L	11:38:10 AM
2	Mo 202.031†	133.0	-2.6	3.31484 ug/L	3.31484 ug/L	11:38:10 AM
2	Ni 231.604†	651.1	44.2	6.35742 ug/L	6.35742 ug/L	11:38:10 AM
2	Pb 220.353†	88.1	-0.6	-0.850146 ug/L	-0.850146 ug/L	11:38:10 AM
2	S 180.669†	-0.7	-5.6	-24.9802 ug/L	-24.9802 ug/L	11:38:10 AM
2	Sb 217.582†	2.2	5.6	20.2777 ug/L	20.2777 ug/L	11:38:10 AM
2	Se 196.026†	-64.9	-4.3	7.26083 ug/L	7.26083 ug/L	11:38:10 AM
2	Sn 189.927†	9.5	1.0	11.5029 ug/L	11.5029 ug/L	11:38:10 AM
2	Tl 190.801†	-76.6	0.1	7.90413 ug/L	7.90413 ug/L	11:38:10 AM
2	V 292.395†	234.4	257.7	7.41636 ug/L	7.41636 ug/L	11:38:10 AM
2	Zn 206.200†	-12.9	19.1	2.63677 ug/L	2.63677 ug/L	11:38:10 AM

CKD

Mean Data: 5K02031-CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	182261.6	100.972 %		2.4695			2.45%
Y 360.076	271315.7	101.239 %		0.0796			0.08%
Ag 328.068†	20.1	0.930269 ug/L		1.0083255	0.930269 ug/L	1.0083255	108.39%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153†	11.3	2.73105 ug/L		3.657611	2.73105 ug/L	3.657611	133.93%
QC value within limits for Al 396.153 Recovery = Not calculated							
As 188.979†	2.6	6.71349 ug/L		2.393102	6.71349 ug/L	2.393102	35.65%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	20.4	-2.29593 ug/L		1.333260	-2.29593 ug/L	1.333260	58.07%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 455.398†	49.3	1.85536 ug/L		0.350337	1.85536 ug/L	0.350337	18.88%
QC value within limits for Ba 455.398 Recovery = Not calculated							
Be 234.861†	45.8	0.435395 ug/L		0.2149017	0.435395 ug/L	0.2149017	49.36%
QC value within limits for Be 234.861 Recovery = Not calculated							
Ca 315.887†	33.1	0.0610439 mg/L		0.00580627	0.0610439 mg/L	0.00580627	9.51%
QC value within limits for Ca 315.887 Recovery = Not calculated							
Cd 214.437†	3.3	5.51281 ug/L		0.571258	5.51281 ug/L	0.571258	10.36%
QC value within limits for Cd 214.437 Recovery = Not calculated							
Ce 413.764†	-2.2	-0.0677083 ug/L		0.64298046	-0.0677083 ug/L	0.64298046	949.63%
Co 228.616†	4.8	1.87138 ug/L		0.403922	1.87138 ug/L	0.403922	21.58%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 205.557†	80.4	9.59641 ug/L		0.432233	9.59641 ug/L	0.432233	4.50%
QC value within limits for Cr 205.557 Recovery = Not calculated							
Cu 327.397†	474.1	12.7405 ug/L		0.83350	12.7405 ug/L	0.83350	6.54%
QC value greater than the upper limit for Cu 327.397 Recovery = Not calculated							
Fe 238.204†	13.0	0.252235 ug/L		1.5684224	0.252235 ug/L	1.5684224	621.81%
QC value within limits for Fe 238.204 Recovery = Not calculated							
K 766.490†	-120.2	-0.0690888 mg/L		0.08443806	-0.0690888 mg/L	0.08443806	122.22%
QC value within limits for K 766.490 Recovery = Not calculated							
Li 670.784†	131.4	5.36178 ug/L		0.209053	5.36178 ug/L	0.209053	3.90%
QC value within limits for Li 670.784 Recovery = Not calculated							
Mg 279.071†	-4.5	0.0092031 mg/L		0.02724153	0.0092031 mg/L	0.02724153	296.00%
QC value within limits for Mg 279.071 Recovery = Not calculated							
Mn 257.610†	1273.2	8.92274 ug/L		0.106583	8.92274 ug/L	0.106583	1.19%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	4.1	4.53545 ug/L		1.726197	4.53545 ug/L	1.726197	38.06%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592†	57.8	0.0371667 mg/L		0.00291707	0.0371667 mg/L	0.00291707	7.85%
QC value within limits for Na 589.592 Recovery = Not calculated							
Ni 231.604†	32.8	5.12115 ug/L		1.748359	5.12115 ug/L	1.748359	34.14%
QC value within limits for Ni 231.604 Recovery = Not calculated							
Pb 220.353†	5.0	3.28684 ug/L		5.850578	3.28684 ug/L	5.850578	178.00%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 180.669†	0.3	12.0976 ug/L		52.43595	12.0976 ug/L	52.43595	433.44%
QC value within limits for S 180.669 Recovery = Not calculated							
Sb 217.582†	6.7	21.3857 ug/L		1.56703	21.3857 ug/L	1.56703	7.33%
QC value within limits for Sb 217.582 Recovery = Not calculated							
Se 196.026†	-6.5	3.46840 ug/L		5.363302	3.46840 ug/L	5.363302	154.63%
QC value within limits for Se 196.026 Recovery = Not calculated							
Sn 189.927†	6.4	15.2256 ug/L		5.26474	15.2256 ug/L	5.26474	34.58%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 407.771†	215.4	3.15530 ug/L		0.108068	3.15530 ug/L	0.108068	3.42%
QC value within limits for Sr 407.771 Recovery = Not calculated							
Ti 334.940†	228.1	14.1110 ug/L		0.86968	14.1110 ug/L	0.86968	6.16%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	2.6	10.5030 ug/L		3.67536	10.5030 ug/L	3.67536	34.99%
QC value within limits for Tl 190.801 Recovery = Not calculated							

V 292.395† 274.9 7.85518 ug/L 0.620585 7.85518 ug/L 0.620585 7.90%
QC value within limits for V 292.395 Recovery = Not calculated
Zn 206.200† 12.7 1.94242 ug/L 0.981961 1.94242 ug/L 0.981961 50.55%
QC value within limits for Zn 206.200 Recovery = Not calculated
QC Failed. Continue with analysis.

CKD

Sequence No.: 15

Sample ID: 1511696-BLK1

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 201

Date Collected: 11/3/2015 11:39:18 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 1511696-BLK1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	185532.6	185532.6	102.785	%		11:39:45 AM
1	Al 396.153†	6.7	-41.2	-26.1484	ug/L	-26.1484 ug/L	11:39:50 AM
1	Ba 455.398†	778.4	183.9	2.37297	ug/L	2.37297 ug/L	11:39:45 AM
1	Ca 315.887†	164.1	-82.0	0.0045019	mg/L	0.0045019 mg/L	11:39:50 AM
1	Fe 238.204†	57.7	26.1	2.76529	ug/L	2.76529 ug/L	11:39:50 AM
1	K 766.490†	170.2	-46.3	0.0187961	mg/L	0.0187961 mg/L	11:39:45 AM
1	Li 670.784†	163.9	92.1	4.61760	ug/L	4.61760 ug/L	11:39:45 AM
1	Mg 279.071†	-9.6	-15.6	-0.0252681	mg/L	-0.0252681 mg/L	11:39:50 AM
1	Na 589.592†	921.6	130.7	0.0502337	mg/L	0.0502337 mg/L	11:39:45 AM
1	Sr 407.771†	1649.9	-202.8	2.51598	ug/L	2.51598 ug/L	11:39:50 AM
1	Ti 334.940†	270.4	355.0	18.4218	ug/L	18.4218 ug/L	11:39:50 AM
1	Y 360.076	259229.2	259229.2	96.7293	%		11:39:59 AM
1	Ag 328.068†	9.4	53.0	1.34119	ug/L	1.34119 ug/L	11:40:04 AM
1	As 188.979†	-62.1	-7.5	-10.2421	ug/L	-10.2421 ug/L	11:40:04 AM
1	B 249.677†	331.6	-58.7	-7.41049	ug/L	-7.41049 ug/L	11:40:04 AM
1	Be 234.861†	-968.9	-18.2	0.202578	ug/L	0.202578 ug/L	11:40:04 AM
1	Cd 214.437†	561.7	23.6	6.18511	ug/L	6.18511 ug/L	11:40:04 AM
1	Ce 413.764†	572.7	-93.5	-2.89598	ug/L	-2.89598 ug/L	11:39:59 AM
1	Co 228.616†	-60.8	2.8	1.73395	ug/L	1.73395 ug/L	11:40:04 AM
1	Cr 205.557†	61.3	104.8	11.9049	ug/L	11.9049 ug/L	11:40:04 AM
1	Cu 327.397†	569.4	623.2	16.0965	ug/L	16.0965 ug/L	11:39:59 AM
1	Mn 257.610†	2187.9	2057.4	13.0581	ug/L	13.0581 ug/L	11:40:04 AM
1	Mo 202.031†	132.2	2.6	4.27048	ug/L	4.27048 ug/L	11:40:04 AM
1	Ni 231.604†	667.9	91.2	11.4748	ug/L	11.4748 ug/L	11:40:04 AM
1	Pb 220.353†	86.3	1.5	0.707010	ug/L	0.707010 ug/L	11:40:04 AM
1	S 180.669†	-3.9	-8.9	-44.7941	ug/L	-44.7941 ug/L	11:40:04 AM
1	Sb 217.582†	6.3	9.9	24.7319	ug/L	24.7319 ug/L	11:40:04 AM
1	Se 196.026†	-74.9	-17.6	-15.2385	ug/L	-15.2385 ug/L	11:40:04 AM
1	Sn 189.927†	16.0	8.2	16.4596	ug/L	16.4596 ug/L	11:40:04 AM
1	Tl 190.801†	-74.5	-1.3	6.50590	ug/L	6.50590 ug/L	11:40:04 AM
1	V 292.395†	374.8	413.5	11.1699	ug/L	11.1699 ug/L	11:40:04 AM
1	Zn 206.200†	-7.9	23.7	3.13793	ug/L	3.13793 ug/L	11:40:04 AM
2	Sc 357.234	182261.0	182261.0	100.972	%		11:39:51 AM
2	Al 396.153†	6.3	-41.5	-26.2132	ug/L	-26.2132 ug/L	11:39:56 AM
2	Ba 455.398†	778.6	197.7	2.42612	ug/L	2.42612 ug/L	11:39:51 AM
2	Ca 315.887†	138.4	-104.6	-0.0065741	mg/L	-0.0065741 mg/L	11:39:56 AM
2	Fe 238.204†	36.1	5.8	-1.12914	ug/L	-1.12914 ug/L	11:39:56 AM
2	K 766.490†	197.1	-16.6	0.0540802	mg/L	0.0540802 mg/L	11:39:51 AM
2	Li 670.784†	74.0	6.0	2.98843	ug/L	2.98843 ug/L	11:39:51 AM
2	Mg 279.071†	6.0	-0.3	0.0223376	mg/L	0.0223376 mg/L	11:39:56 AM
2	Na 589.592†	796.8	23.2	0.0309658	mg/L	0.0309658 mg/L	11:39:51 AM
2	Sr 407.771†	1591.7	-231.7	2.47190	ug/L	2.47190 ug/L	11:39:56 AM
2	Ti 334.940†	273.5	362.8	18.6854	ug/L	18.6854 ug/L	11:39:56 AM
2	Y 360.076	269632.7	269632.7	100.611	%		11:40:05 AM
2	Ag 328.068†	-78.4	-34.6	0.173686	ug/L	0.173686 ug/L	11:40:10 AM
2	As 188.979†	-45.1	11.9	22.0481	ug/L	22.0481 ug/L	11:40:10 AM
2	B 249.677†	345.1	-58.6	-7.40364	ug/L	-7.40364 ug/L	11:40:10 AM
2	Be 234.861†	-940.9	48.3	0.445104	ug/L	0.445104 ug/L	11:40:10 AM
2	Cd 214.437†	548.7	-11.7	5.02133	ug/L	5.02133 ug/L	11:40:10 AM
2	Ce 413.764†	579.8	-109.3	-3.38697	ug/L	-3.38697 ug/L	11:40:05 AM
2	Co 228.616†	-71.1	-5.0	1.24982	ug/L	1.24982 ug/L	11:40:10 AM
2	Cr 205.557†	71.2	112.3	12.6119	ug/L	12.6119 ug/L	11:40:10 AM
2	Cu 327.397†	661.0	691.6	17.6319	ug/L	17.6319 ug/L	11:40:05 AM
2	Mn 257.610†	2106.3	1889.1	12.1705	ug/L	12.1705 ug/L	11:40:10 AM
2	Mo 202.031†	120.6	-14.1	1.19123	ug/L	1.19123 ug/L	11:40:10 AM
2	Ni 231.604†	702.6	99.0	12.3218	ug/L	12.3218 ug/L	11:40:10 AM
2	Pb 220.353†	94.6	6.3	4.22716	ug/L	4.22716 ug/L	11:40:10 AM
2	S 180.669†	8.6	3.8	35.7737	ug/L	35.7737 ug/L	11:40:10 AM

2	Sb 217.582†	-3.9	-0.4	14.0631 ug/L	14.0631 ug/L	11:40:10 AM
2	Se 196.026†	-68.8	-8.5	0.158479 ug/L	0.158479 ug/L	11:40:10 AM
2	Sn 189.927†	15.6	7.1	15.7208 ug/L	15.7208 ug/L	11:40:10 AM
2	Tl 190.801†	-74.4	1.8	9.73113 ug/L	9.73113 ug/L	11:40:10 AM
2	V 292.395†	405.8	429.4	11.4810 ug/L	11.4810 ug/L	11:40:10 AM
2	Zn 206.200†	-24.4	7.6	1.38826 ug/L	1.38826 ug/L	11:40:10 AM

CKD

Mean Data: 1511696-BLK1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	183896.8	101.878 %		1.2816			1.26%
Y 360.076	264431.0	98.6703 %		2.74498			2.78%
Ag 328.068†	9.2	0.757440 ug/L		0.8255535	0.757440 ug/L	0.8255535	108.99%
Al 396.153†	-41.3	-26.1808 ug/L		0.04581	-26.1808 ug/L	0.04581	0.17%
As 188.979†	2.2	5.90300 ug/L		22.832603	5.90300 ug/L	22.832603	386.80%
B 249.677†	-58.7	-7.40707 ug/L		0.004848	-7.40707 ug/L	0.004848	0.07%
Ba 455.398†	190.8	2.39955 ug/L		0.037583	2.39955 ug/L	0.037583	1.57%
Be 234.861†	15.1	0.323841 ug/L		0.1714915	0.323841 ug/L	0.1714915	52.96%
Ca 315.887†	-93.3	-0.0010361 mg/L		0.00783193	-0.0010361 mg/L	0.00783193	755.89%
Cd 214.437†	6.0	5.60322 ug/L		0.822916	5.60322 ug/L	0.822916	14.69%
Ce 413.764†	-101.4	-3.14147 ug/L		0.347187	-3.14147 ug/L	0.347187	11.05%
Co 228.616†	-1.1	1.49188 ug/L		0.342334	1.49188 ug/L	0.342334	22.95%
Cr 205.557†	108.5	12.2584 ug/L		0.49995	12.2584 ug/L	0.49995	4.08%
Cu 327.397†	657.4	16.8642 ug/L		1.08569	16.8642 ug/L	1.08569	6.44%
Fe 238.204†	16.0	0.818074 ug/L		2.7537793	0.818074 ug/L	2.7537793	336.62%
K 766.490†	-31.4	0.0364381 mg/L		0.02494967	0.0364381 mg/L	0.02494967	68.47%
Li 670.784†	49.0	3.80302 ug/L		1.151993	3.80302 ug/L	1.151993	30.29%
Mg 279.071†	-8.0	-0.0014652 mg/L		0.03366232	-0.0014652 mg/L	0.03366232	>999.9%
Mn 257.610†	1973.3	12.6143 ug/L		0.62766	12.6143 ug/L	0.62766	4.98%
Mo 202.031†	-5.8	2.73085 ug/L		2.177353	2.73085 ug/L	2.177353	79.73%
Na 589.592†	77.0	0.0405998 mg/L		0.01362450	0.0405998 mg/L	0.01362450	33.56%
Ni 231.604†	95.1	11.8983 ug/L		0.59889	11.8983 ug/L	0.59889	5.03%
Pb 220.353†	3.9	2.46708 ug/L		2.489119	2.46708 ug/L	2.489119	100.89%
S 180.669†	-2.6	-4.51020 ug/L		56.969986	-4.51020 ug/L	56.969986	>999.9%
Sb 217.582†	4.7	19.3975 ug/L		7.54401	19.3975 ug/L	7.54401	38.89%
Se 196.026†	-13.0	-7.54000 ug/L		10.887289	-7.54000 ug/L	10.887289	144.39%
Sn 189.927†	7.7	16.0902 ug/L		0.52237	16.0902 ug/L	0.52237	3.25%
Sr 407.771†	-217.2	2.49394 ug/L		0.031171	2.49394 ug/L	0.031171	1.25%
Ti 334.940†	358.9	18.5536 ug/L		0.18636	18.5536 ug/L	0.18636	1.00%
Tl 190.801†	0.3	8.11852 ug/L		2.280581	8.11852 ug/L	2.280581	28.09%
V 292.395†	421.5	11.3254 ug/L		0.21997	11.3254 ug/L	0.21997	1.94%
Zn 206.200†	15.6	2.26309 ug/L		1.237200	2.26309 ug/L	1.237200	54.67%

Sequence No.: 16

Sample ID: 1511696-BS1

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 202

Date Collected: 11/3/2015 11:41:16 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 1511696-BS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	184420.9	184420.9	102.169 %		11:41:40 AM
1	Al 396.153†	4116.1	3981.0	2189.27 ug/L	2189.27 ug/L	11:41:46 AM
1	Ba 455.398†	119696.9	116582.8	450.112 ug/L	450.112 ug/L	11:41:40 AM
1	Ca 315.887†	43848.6	42676.2	21.0029 mg/L	21.0029 mg/L	11:41:40 AM
1	Fe 238.204†	2294.8	2216.1	422.599 ug/L	422.599 ug/L	11:41:46 AM
1	K 766.490†	18947.8	18333.7	21.8806 mg/L	21.8806 mg/L	11:41:40 AM
1	Li 670.784†	24225.1	23643.5	450.225 ug/L	450.225 ug/L	11:41:40 AM
1	Mg 279.071†	7054.7	6898.7	21.6053 mg/L	21.6053 mg/L	11:41:46 AM
1	Na 589.592†	127618.3	124143.5	22.2756 mg/L	22.2756 mg/L	11:41:40 AM
1	Sr 407.771†	300675.3	292485.0	449.946 ug/L	449.946 ug/L	11:41:40 AM
1	Ti 334.940†	13448.0	13254.4	457.184 ug/L	457.184 ug/L	11:41:46 AM
1	Y 360.076	262574.5	262574.5	97.9776 %		11:41:55 AM
1	Ag 328.068†	33008.7	33733.4	449.071 ug/L	449.071 ug/L	11:41:55 AM
1	As 188.979†	1228.0	1310.0	2176.77 ug/L	2176.77 ug/L	11:42:00 AM
1	B 249.677†	6909.5	6650.6	425.912 ug/L	425.912 ug/L	11:42:00 AM
1	Be 234.861†	10821.1	12027.9	43.3479 ug/L	43.3479 ug/L	11:42:00 AM
1	Cd 214.437†	13455.9	13176.6	439.505 ug/L	439.505 ug/L	11:42:00 AM
1	Ce 413.764†	748.7	78.6	2.46208 ug/L	2.46208 ug/L	11:41:55 AM
1	Co 228.616†	6864.9	7072.2	437.032 ug/L	437.032 ug/L	11:42:00 AM
1	Cr 205.557†	4601.4	4737.9	450.391 ug/L	450.391 ug/L	11:42:00 AM

000493

1	Cu 327.397†	20132.4	20582.5	465.358 ug/L	465.358 ug/L	11:41:55 AM
1	Mn 257.610†	83973.5	85502.4	453.108 ug/L	453.108 ug/L	11:41:55 AM
1	Mo 202.031†	2522.6	2440.6	452.515 ug/L	452.515 ug/L	11:42:00 AM
1	Ni 231.604†	4628.3	4124.5	451.051 ug/L	451.051 ug/L	11:42:00 AM
1	Pb 220.353†	684.9	611.4	449.409 ug/L	449.409 ug/L	11:42:00 AM
1	S 180.669†	76.5	73.2	20.7834 ug/L	20.7834 ug/L	11:42:00 AM
1	Sb 217.582†	2071.5	2117.7	2197.69 ug/L	2197.69 ug/L	11:42:00 AM
1	Se 196.026†	1220.9	1306.0	2212.79 ug/L	2212.79 ug/L	11:42:00 AM
1	Sn 189.927†	3018.0	3072.0	2132.19 ug/L	2132.19 ug/L	11:42:00 AM
1	Tl 190.801†	1996.5	2113.5	2207.28 ug/L	2207.28 ug/L	11:42:00 AM
1	V 292.395†	18543.4	18952.3	465.358 ug/L	465.358 ug/L	11:41:55 AM
1	Zn 206.200†	3803.2	3913.6	426.499 ug/L	426.499 ug/L	11:42:00 AM
2	Sc 357.234	181525.4	181525.4	100.565 %		11:41:47 AM
2	Al 396.153†	4107.8	4037.0	2220.37 ug/L	2220.37 ug/L	11:41:53 AM
2	Ba 455.398†	118411.8	117173.6	452.385 ug/L	452.385 ug/L	11:41:47 AM
2	Ca 315.887†	43254.9	42770.4	21.0491 mg/L	21.0491 mg/L	11:41:47 AM
2	Fe 238.204†	2302.2	2259.3	430.874 ug/L	430.874 ug/L	11:41:53 AM
2	K 766.490†	18911.9	18593.9	22.1900 mg/L	22.1900 mg/L	11:41:47 AM
2	Li 670.784†	24183.8	23980.7	456.605 ug/L	456.605 ug/L	11:41:47 AM
2	Mg 279.071†	7074.4	7028.4	22.0110 mg/L	22.0110 mg/L	11:41:53 AM
2	Na 589.592†	126696.4	125219.3	22.4684 mg/L	22.4684 mg/L	11:41:47 AM
2	Sr 407.771†	297888.5	294408.1	452.886 ug/L	452.886 ug/L	11:41:47 AM
2	Ti 334.940†	13414.2	13430.8	463.182 ug/L	463.182 ug/L	11:41:53 AM
2	Y 360.076	265100.1	265100.1	98.9200 %		11:42:01 AM
2	Ag 328.068†	33267.5	33674.0	448.239 ug/L	448.239 ug/L	11:42:01 AM
2	As 188.979†	1226.2	1296.2	2153.83 ug/L	2153.83 ug/L	11:42:06 AM
2	B 249.677†	6892.1	6565.8	420.439 ug/L	420.439 ug/L	11:42:06 AM
2	Be 234.861†	10696.1	11796.4	42.5049 ug/L	42.5049 ug/L	11:42:06 AM
2	Cd 214.437†	13366.9	12955.7	432.223 ug/L	432.223 ug/L	11:42:06 AM
2	Ce 413.764†	607.4	-71.6	-2.19541 ug/L	-2.19541 ug/L	11:42:01 AM
2	Co 228.616†	6850.3	6990.8	431.996 ug/L	431.996 ug/L	11:42:06 AM
2	Cr 205.557†	4519.8	4610.6	438.360 ug/L	438.360 ug/L	11:42:06 AM
2	Cu 327.397†	20268.2	20524.0	464.042 ug/L	464.042 ug/L	11:42:01 AM
2	Mn 257.610†	84544.7	85263.3	451.847 ug/L	451.847 ug/L	11:42:01 AM
2	Mo 202.031†	2509.1	2402.5	445.508 ug/L	445.508 ug/L	11:42:06 AM
2	Ni 231.604†	4570.4	4020.9	439.765 ug/L	439.765 ug/L	11:42:06 AM
2	Pb 220.353†	676.5	596.3	438.306 ug/L	438.306 ug/L	11:42:06 AM
2	S 180.669†	75.7	71.7	10.3562 ug/L	10.3562 ug/L	11:42:06 AM
2	Sb 217.582†	2050.5	2076.3	2155.04 ug/L	2155.04 ug/L	11:42:06 AM
2	Se 196.026†	1189.5	1262.3	2139.25 ug/L	2139.25 ug/L	11:42:06 AM
2	Sn 189.927†	2984.8	3009.1	2088.72 ug/L	2088.72 ug/L	11:42:06 AM
2	Tl 190.801†	1974.2	2071.5	2163.65 ug/L	2163.65 ug/L	11:42:06 AM
2	V 292.395†	18697.8	18928.0	464.616 ug/L	464.616 ug/L	11:42:01 AM
2	Zn 206.200†	3836.4	3910.1	426.123 ug/L	426.123 ug/L	11:42:06 AM

CKD

Mean Data: 1511696-BS1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	182973.2	101.367 %		1.1343			1.12%
Y 360.076	263837.3	98.4488 %		0.66640			0.68%
Ag 328.068†	33703.7	448.655 ug/L		0.5885	448.655 ug/L	0.5885	0.13%
Al 396.153†	4009.0	2204.82 ug/L		21.992	2204.82 ug/L	21.992	1.00%
As 188.979†	1303.1	2165.30 ug/L		16.223	2165.30 ug/L	16.223	0.75%
B 249.677†	6608.2	423.176 ug/L		3.8700	423.176 ug/L	3.8700	0.91%
Ba 455.398†	116878.2	451.249 ug/L		1.6071	451.249 ug/L	1.6071	0.36%
Be 234.861†	11912.1	42.9264 ug/L		0.59604	42.9264 ug/L	0.59604	1.39%
Ca 315.887†	42723.3	21.0260 mg/L		0.03269	21.0260 mg/L	0.03269	0.16%
Cd 214.437†	13066.2	435.864 ug/L		5.1490	435.864 ug/L	5.1490	1.18%
Ce 413.764†	3.5	0.133336 ug/L		3.2933390	0.133336 ug/L	3.2933390	>999.9%
Co 228.616†	7031.5	434.514 ug/L		3.5607	434.514 ug/L	3.5607	0.82%
Cr 205.557†	4674.2	444.376 ug/L		8.5075	444.376 ug/L	8.5075	1.91%
Cu 327.397†	20553.2	464.700 ug/L		0.9308	464.700 ug/L	0.9308	0.20%
Fe 238.204†	2237.7	426.736 ug/L		5.8512	426.736 ug/L	5.8512	1.37%
K 766.490†	18463.8	22.0353 mg/L		0.21879	22.0353 mg/L	0.21879	0.99%
Li 670.784†	23812.1	453.415 ug/L		4.5113	453.415 ug/L	4.5113	0.99%
Mg 279.071†	6963.6	21.8081 mg/L		0.28691	21.8081 mg/L	0.28691	1.32%
Mn 257.610†	85382.9	452.477 ug/L		0.8917	452.477 ug/L	0.8917	0.20%
Mo 202.031†	2421.6	449.011 ug/L		4.9545	449.011 ug/L	4.9545	1.10%
Na 589.592†	124681.4	22.3720 mg/L		0.13633	22.3720 mg/L	0.13633	0.61%
Ni 231.604†	4072.7	445.408 ug/L		7.9802	445.408 ug/L	7.9802	1.79%
Pb 220.353†	603.8	443.857 ug/L		7.8513	443.857 ug/L	7.8513	1.77%
S 180.669†	72.5	15.5698 ug/L		7.37318	15.5698 ug/L	7.37318	47.36%
Sb 217.582†	2097.0	2176.36 ug/L		30.155	2176.36 ug/L	30.155	1.39%
Se 196.026†	1284.2	2176.02 ug/L		52.000	2176.02 ug/L	52.000	2.39%
Sn 189.927†	3040.6	2110.46 ug/L		30.741	2110.46 ug/L	30.741	1.46%

000494

Sr 407.771†	293446.5	451.416 ug/L	2.0788	451.416 ug/L	2.0788	0.46%
Ti 334.940†	13342.6	460.183 ug/L	4.2417	460.183 ug/L	4.2417	0.92%
Tl 190.801†	2092.5	2185.46 ug/L	30.849	2185.46 ug/L	30.849	1.41%
V 292.395†	18940.1	464.987 ug/L	0.5250	464.987 ug/L	0.5250	0.11%
Zn 206.200†	3911.8	426.311 ug/L	0.2655	426.311 ug/L	0.2655	0.06%

CKD

Sequence No.: 17

Sample ID: 1510440-04

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 203

Date Collected: 11/3/2015 11:43:14 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 1510440-04

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	182290.6	182290.6	100.989 %			11:43:39 AM
1	Al 396.153†	1248.7	1188.8	705.521 ug/L		705.521 ug/L	11:43:45 AM
1	Ba 455.398†	34211.6	33303.4	129.770 ug/L		129.770 ug/L	11:43:39 AM
1	Ca 315.887†	124883.7	123419.6	60.6555 mg/L		60.6555 mg/L	11:43:39 AM
1	Fe 238.204†	8507.1	8393.9	1606.64 ug/L		1606.64 ug/L	11:43:45 AM
1	K 766.490†	1246.0	1021.9	1.28938 mg/L		1.28938 mg/L	11:43:45 AM
1	Li 670.784†	583.7	510.7	12.5361 ug/L		12.5361 ug/L	11:43:45 AM
1	Mg 279.071†	12204.9	12079.1	37.8117 mg/L		37.8117 mg/L	11:43:45 AM
1	Na 589.592†	1905756.6	1886336.2	338.092 mg/L		338.092 mg/L	11:43:38 AM
1	Sr 407.771†	214663.3	210754.1	325.004 ug/L		325.004 ug/L	11:43:39 AM
1	Ti 334.940†	1034.6	1116.4	45.7677 ug/L		45.7677 ug/L	11:43:45 AM
1	Y 360.076	255069.4	255069.4	95.1771 %			11:43:55 AM
1	Ag 328.068†	-4.9	38.1	1.19194 ug/L		1.19194 ug/L	11:44:00 AM
1	As 188.979†	-43.9	10.5	19.6959 ug/L		19.6959 ug/L	11:44:00 AM
1	B 249.677†	10067.2	10175.8	654.857 ug/L		654.857 ug/L	11:43:55 AM
1	Be 234.861†	-629.5	322.0	0.144370 ug/L		0.144370 ug/L	11:44:00 AM
1	Cd 214.437†	584.8	57.4	7.15443 ug/L		7.15443 ug/L	11:44:00 AM
1	Ce 413.764†	734.7	86.3	2.06618 ug/L		2.06618 ug/L	11:43:55 AM
1	Co 228.616†	-53.4	9.6	2.13084 ug/L		2.13084 ug/L	11:44:00 AM
1	Cr 205.557†	4.2	45.9	6.36144 ug/L		6.36144 ug/L	11:44:00 AM
1	Cu 327.397†	220.5	266.2	8.12628 ug/L		8.12628 ug/L	11:43:55 AM
1	Mn 257.610†	13189.8	13653.7	74.2115 ug/L		74.2115 ug/L	11:44:00 AM
1	Mo 202.031†	214.1	90.9	20.5011 ug/L		20.5011 ug/L	11:44:00 AM
1	Ni 231.604†	630.5	63.1	8.29844 ug/L		8.29844 ug/L	11:44:00 AM
1	Pb 220.353†	83.9	0.5	-0.0096377 ug/L		-0.0096377 ug/L	11:44:00 AM
1	S 180.669†	3993.7	4191.2	25308.3 ug/L		25308.3 ug/L	11:44:00 AM
1	Sb 217.582†	-0.2	3.2	25.9148 ug/L		25.9148 ug/L	11:44:00 AM
1	Se 196.026†	-38.5	19.5	47.2010 ug/L		47.2010 ug/L	11:44:00 AM
1	Sn 189.927†	15.5	7.9	16.2689 ug/L		16.2689 ug/L	11:44:00 AM
1	Tl 190.801†	-83.0	-11.4	-3.91333 ug/L		-3.91333 ug/L	11:44:00 AM
1	V 292.395†	232.8	270.7	7.98971 ug/L		7.98971 ug/L	11:44:00 AM
1	Zn 206.200†	12.2	44.6	5.35332 ug/L		5.35332 ug/L	11:44:00 AM
2	Sc 357.234	178660.2	178660.2	98.9773 %			11:43:47 AM
2	Al 396.153†	1251.1	1216.3	720.910 ug/L		720.910 ug/L	11:43:53 AM
2	Ba 455.398†	33777.9	33553.6	130.733 ug/L		130.733 ug/L	11:43:47 AM
2	Ca 315.887†	122630.4	123655.9	60.7716 mg/L		60.7716 mg/L	11:43:47 AM
2	Fe 238.204†	8518.3	8576.4	1641.63 ug/L		1641.63 ug/L	11:43:53 AM
2	K 766.490†	1212.8	1013.5	1.27932 mg/L		1.27932 mg/L	11:43:53 AM
2	Li 670.784†	588.3	527.0	12.8461 ug/L		12.8461 ug/L	11:43:53 AM
2	Mg 279.071†	12237.5	12357.7	38.6831 mg/L		38.6831 mg/L	11:43:53 AM
2	Na 589.592†	1885377.3	1904093.0	341.275 mg/L		341.275 mg/L	11:43:46 AM
2	Sr 407.771†	210786.4	211156.4	325.619 ug/L		325.619 ug/L	11:43:47 AM
2	Ti 334.940†	1018.0	1120.4	45.9079 ug/L		45.9079 ug/L	11:43:53 AM
2	Y 360.076	258146.9	258146.9	96.3255 %			11:44:01 AM
2	Ag 328.068†	-68.0	-27.3	0.306878 ug/L		0.306878 ug/L	11:44:06 AM
2	As 188.979†	-35.7	19.6	34.8344 ug/L		34.8344 ug/L	11:44:06 AM
2	B 249.677†	10203.8	10191.5	655.874 ug/L		655.874 ug/L	11:44:01 AM
2	Be 234.861†	-597.4	363.3	0.264506 ug/L		0.264506 ug/L	11:44:06 AM
2	Cd 214.437†	598.9	64.7	7.39336 ug/L		7.39336 ug/L	11:44:06 AM
2	Ce 413.764†	689.0	29.7	0.309452 ug/L		0.309452 ug/L	11:44:01 AM
2	Co 228.616†	-39.0	25.2	3.08958 ug/L		3.08958 ug/L	11:44:06 AM
2	Cr 205.557†	-12.8	28.2	4.70233 ug/L		4.70233 ug/L	11:44:06 AM
2	Cu 327.397†	282.7	328.1	9.51743 ug/L		9.51743 ug/L	11:44:01 AM
2	Mn 257.610†	13216.1	13515.8	73.4843 ug/L		73.4843 ug/L	11:44:06 AM
2	Mo 202.031†	195.3	68.8	16.4331 ug/L		16.4331 ug/L	11:44:06 AM
2	Ni 231.604†	597.4	20.8	3.68279 ug/L		3.68279 ug/L	11:44:06 AM
2	Pb 220.353†	85.7	1.3	0.617847 ug/L		0.617847 ug/L	11:44:06 AM
2	S 180.669†	4012.1	4160.3	25109.5 ug/L		25109.5 ug/L	11:44:06 AM

2	Sb 217.582†	-7.1	-3.9	18.6579 ug/L	18.6579 ug/L	11:44:06 AM
2	Se 196.026†	-22.8	36.2	75.2835 ug/L	75.2835 ug/L	11:44:06 AM
2	Sn 189.927†	-16.4	-25.3	-6.70720 ug/L	-6.70720 ug/L	11:44:06 AM
2	Tl 190.801†	-66.5	6.7	14.9227 ug/L	14.9227 ug/L	11:44:06 AM
2	V 292.395†	306.0	343.7	9.64655 ug/L	9.64655 ug/L	11:44:06 AM
2	Zn 206.200†	59.5	93.6	10.6851 ug/L	10.6851 ug/L	11:44:06 AM

CKD

Mean Data: 1510440-04

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	180475.4	99.9829 %	1.42217			1.42%
Y 360.076	256608.1	95.7513 %	0.81202			0.85%
Ag 328.068†	5.4	0.749408 ug/L	0.6258317	0.749408 ug/L	0.6258317	83.51%
Al 396.153†	1202.5	713.216 ug/L	10.8813	713.216 ug/L	10.8813	1.53%
As 188.979†	15.1	27.2652 ug/L	10.70452	27.2652 ug/L	10.70452	39.26%
B 249.677†	10183.7	655.366 ug/L	0.7195	655.366 ug/L	0.7195	0.11%
Ba 455.398†	33428.5	130.251 ug/L	0.6806	130.251 ug/L	0.6806	0.52%
Be 234.861†	342.7	0.204438 ug/L	0.0849486	0.204438 ug/L	0.0849486	41.55%
Ca 315.887†	123537.8	60.7135 mg/L	0.08205	60.7135 mg/L	0.08205	0.14%
Cd 214.437†	61.0	7.27390 ug/L	0.168951	7.27390 ug/L	0.168951	2.32%
Ce 413.764†	58.0	1.18781 ug/L	1.242191	1.18781 ug/L	1.242191	104.58%
Co 228.616†	17.4	2.61021 ug/L	0.677930	2.61021 ug/L	0.677930	25.97%
Cr 205.557†	37.1	5.53189 ug/L	1.173171	5.53189 ug/L	1.173171	21.21%
Cu 327.397†	297.1	8.82186 ug/L	0.983686	8.82186 ug/L	0.983686	11.15%
Fe 238.204†	8485.1	1624.14 ug/L	24.739	1624.14 ug/L	24.739	1.52%
K 766.490†	1017.7	1.28435 mg/L	0.007118	1.28435 mg/L	0.007118	0.55%
Li 670.784†	518.8	12.6911 ug/L	0.21920	12.6911 ug/L	0.21920	1.73%
Mg 279.071†	12218.4	38.2474 mg/L	0.61618	38.2474 mg/L	0.61618	1.61%
Mn 257.610†	13584.8	73.8479 ug/L	0.51425	73.8479 ug/L	0.51425	0.70%
Mo 202.031†	79.8	18.4671 ug/L	2.87653	18.4671 ug/L	2.87653	15.58%
Na 589.592†	1895214.6	339.684 mg/L	2.2503	339.684 mg/L	2.2503	0.66%
Ni 231.604†	41.9	5.99062 ug/L	3.263760	5.99062 ug/L	3.263760	54.48%
Pb 220.353†	0.9	0.304105 ug/L	0.4436987	0.304105 ug/L	0.4436987	145.90%
S 180.669†	4175.8	25208.9 ug/L	140.55	25208.9 ug/L	140.55	0.56%
Sb 217.582†	-0.4	22.2863 ug/L	5.13141	22.2863 ug/L	5.13141	23.02%
Se 196.026†	27.8	61.2423 ug/L	19.85735	61.2423 ug/L	19.85735	32.42%
Sn 189.927†	-8.7	4.78085 ug/L	16.246549	4.78085 ug/L	16.246549	339.83%
Sr 407.771†	210955.2	325.312 ug/L	0.4349	325.312 ug/L	0.4349	0.13%
Ti 334.940†	1118.4	45.8378 ug/L	0.09916	45.8378 ug/L	0.09916	0.22%
Tl 190.801†	-2.4	5.50466 ug/L	13.319058	5.50466 ug/L	13.319058	241.96%
V 292.395†	307.2	8.81813 ug/L	1.171561	8.81813 ug/L	1.171561	13.29%
Zn 206.200†	69.1	8.01923 ug/L	3.770166	8.01923 ug/L	3.770166	47.01%

Sequence No.: 18

Sample ID: 1511696-MS1

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 204

Date Collected: 11/3/2015 11:45:13 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 1511696-MS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Analysis Time
1	Sc 357.234	181439.7	181439.7	100.517 %			11:45:39 AM
1	Al 396.153†	7646.2	7559.2	4210.87 ug/L		4210.87 ug/L	11:45:39 AM
1	Ba 455.398†	154804.4	153434.6	591.866 ug/L		591.866 ug/L	11:45:39 AM
1	Ca 315.887†	165132.6	164041.4	80.6046 mg/L		80.6046 mg/L	11:45:39 AM
1	Fe 238.204†	16622.5	16507.0	3161.74 ug/L		3161.74 ug/L	11:45:39 AM
1	K 766.490†	20527.3	20209.9	24.1122 mg/L		24.1122 mg/L	11:45:39 AM
1	Li 670.784†	24937.7	24742.1	471.011 ug/L		471.011 ug/L	11:45:39 AM
1	Mg 279.071†	18799.9	18696.9	58.5147 mg/L		58.5147 mg/L	11:45:39 AM
1	Na 589.592†	1952650.0	1941838.5	348.040 mg/L		348.040 mg/L	11:45:38 AM
1	Sr 407.771†	492980.7	488636.4	749.801 ug/L		749.801 ug/L	11:45:38 AM
1	Ti 334.940†	15667.3	15678.6	541.012 ug/L		541.012 ug/L	11:45:39 AM
1	Y 360.076	256081.1	256081.1	95.5546 %			11:45:44 AM
1	Ag 328.068†	33035.9	34616.0	460.772 ug/L		460.772 ug/L	11:45:44 AM
1	As 188.979†	1275.3	1391.2	2311.64 ug/L		2311.64 ug/L	11:45:49 AM
1	B 249.677†	16247.3	16601.6	1070.12 ug/L		1070.12 ug/L	11:45:44 AM
1	Be 234.861†	11176.1	12679.5	43.4956 ug/L		43.4956 ug/L	11:45:44 AM
1	Cd 214.437†	13149.1	13203.8	440.112 ug/L		440.112 ug/L	11:45:49 AM
1	Ce 413.764†	652.2	-3.0	-0.666542 ug/L		-0.666542 ug/L	11:45:44 AM
1	Co 228.616†	6588.9	6961.1	430.060 ug/L		430.060 ug/L	11:45:49 AM
1	Cr 205.557†	4429.8	4677.4	444.783 ug/L		444.783 ug/L	11:45:49 AM

1	Cu 327.397†	20227.9	21203.4	479.422 ug/L	479.422 ug/L	11:45:44 AM
1	Mn 257.610†	94782.3	98987.3	524.220 ug/L	524.220 ug/L	11:45:44 AM
1	Mo 202.031†	2551.4	2536.1	470.059 ug/L	470.059 ug/L	11:45:49 AM
1	Ni 231.604†	4375.0	3979.1	435.008 ug/L	435.008 ug/L	11:45:49 AM
1	Pb 220.353†	660.1	603.2	443.495 ug/L	443.495 ug/L	11:45:49 AM
1	S 180.669†	3926.4	4104.2	24323.5 ug/L	24323.5 ug/L	11:45:49 AM
1	Sb 217.582†	2039.0	2137.2	2226.82 ug/L	2226.82 ug/L	11:45:49 AM
1	Se 196.026†	1258.7	1377.1	2332.45 ug/L	2332.45 ug/L	11:45:49 AM
1	Sn 189.927†	2972.0	3101.9	2152.83 ug/L	2152.83 ug/L	11:45:49 AM
1	Tl 190.801†	1837.9	1999.2	2088.91 ug/L	2088.91 ug/L	11:45:49 AM
1	V 292.395†	17999.2	18862.7	463.372 ug/L	463.372 ug/L	11:45:44 AM
1	Zn 206.200†	3827.4	4037.3	439.857 ug/L	439.857 ug/L	11:45:49 AM
2	Sc 357.234	181036.5	181036.5	100.294 %		11:45:42 AM
2	Al 396.153†	7661.0	7590.9	4228.32 ug/L	4228.32 ug/L	11:45:42 AM
2	Ba 455.398†	154611.8	153585.7	592.447 ug/L	592.447 ug/L	11:45:42 AM
2	Ca 315.887†	164228.7	163506.1	80.3418 mg/L	80.3418 mg/L	11:45:42 AM
2	Fe 238.204†	16592.7	16514.1	3163.11 ug/L	3163.11 ug/L	11:45:42 AM
2	K 766.490†	20417.1	20145.5	24.0355 mg/L	24.0355 mg/L	11:45:42 AM
2	Li 670.784†	25072.9	24932.1	474.606 ug/L	474.606 ug/L	11:45:42 AM
2	Mg 279.071†	18501.9	18441.5	57.7156 mg/L	57.7156 mg/L	11:45:42 AM
2	Na 589.592†	1959958.7	1953453.2	350.121 mg/L	350.121 mg/L	11:45:41 AM
2	Sr 407.771†	494868.9	491611.7	754.349 ug/L	754.349 ug/L	11:45:41 AM
2	Ti 334.940†	15421.6	15468.3	533.862 ug/L	533.862 ug/L	11:45:42 AM
2	Y 360.076	259146.3	259146.3	96.6984 %		11:45:51 AM
2	Ag 328.068†	33271.1	34450.3	458.637 ug/L	458.637 ug/L	11:45:51 AM
2	As 188.979†	1250.9	1350.3	2243.57 ug/L	2243.57 ug/L	11:45:56 AM
2	B 249.677†	16271.1	16425.1	1058.71 ug/L	1058.71 ug/L	11:45:51 AM
2	Be 234.861†	11216.4	12582.9	43.1442 ug/L	43.1442 ug/L	11:45:51 AM
2	Cd 214.437†	13105.7	12996.1	433.268 ug/L	433.268 ug/L	11:45:56 AM
2	Ce 413.764†	870.6	214.8	6.08011 ug/L	6.08011 ug/L	11:45:51 AM
2	Co 228.616†	6565.5	6855.4	423.547 ug/L	423.547 ug/L	11:45:56 AM
2	Cr 205.557†	4347.3	4537.2	431.513 ug/L	431.513 ug/L	11:45:56 AM
2	Cu 327.397†	20260.9	20987.2	474.559 ug/L	474.559 ug/L	11:45:51 AM
2	Mn 257.610†	95231.0	98278.1	520.480 ug/L	520.480 ug/L	11:45:51 AM
2	Mo 202.031†	2532.0	2484.4	460.562 ug/L	460.562 ug/L	11:45:56 AM
2	Ni 231.604†	4388.7	3939.2	430.644 ug/L	430.644 ug/L	11:45:56 AM
2	Pb 220.353†	660.1	595.0	437.441 ug/L	437.441 ug/L	11:45:56 AM
2	S 180.669†	3898.0	4026.2	23834.1 ug/L	23834.1 ug/L	11:45:56 AM
2	Sb 217.582†	2061.1	2134.9	2224.40 ug/L	2224.40 ug/L	11:45:56 AM
2	Se 196.026†	1252.8	1355.5	2296.09 ug/L	2296.09 ug/L	11:45:56 AM
2	Sn 189.927†	2982.2	3075.7	2134.75 ug/L	2134.75 ug/L	11:45:56 AM
2	Tl 190.801†	1827.9	1966.1	2054.53 ug/L	2054.53 ug/L	11:45:56 AM
2	V 292.395†	18089.3	18733.1	460.057 ug/L	460.057 ug/L	11:45:51 AM
2	Zn 206.200†	3804.8	3966.6	432.164 ug/L	432.164 ug/L	11:45:56 AM

CKD

Mean Data: 1511696-MS1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	181238.1	100.405 %		0.1580			0.16%
Y 360.076	257613.7	96.1265 %		0.80875			0.84%
Ag 328.068†	34533.2	459.704 ug/L		1.5095	459.704 ug/L	1.5095	0.33%
Al 396.153†	7575.0	4219.59 ug/L		12.338	4219.59 ug/L	12.338	0.29%
As 188.979†	1370.8	2277.61 ug/L		48.137	2277.61 ug/L	48.137	2.11%
B 249.677†	16513.3	1064.42 ug/L		8.069	1064.42 ug/L	8.069	0.76%
Ba 455.398†	153510.1	592.157 ug/L		0.4109	592.157 ug/L	0.4109	0.07%
Be 234.861†	12631.2	43.3199 ug/L		0.24843	43.3199 ug/L	0.24843	0.57%
Ca 315.887†	163773.8	80.4732 mg/L		0.18586	80.4732 mg/L	0.18586	0.23%
Cd 214.437†	13100.0	436.690 ug/L		4.8396	436.690 ug/L	4.8396	1.11%
Ce 413.764†	105.9	2.70678 ug/L		4.770604	2.70678 ug/L	4.770604	176.25%
Co 228.616†	6908.3	426.803 ug/L		4.6050	426.803 ug/L	4.6050	1.08%
Cr 205.557†	4607.3	438.148 ug/L		9.3832	438.148 ug/L	9.3832	2.14%
Cu 327.397†	21095.3	476.991 ug/L		3.4388	476.991 ug/L	3.4388	0.72%
Fe 238.204†	16510.5	3162.43 ug/L		0.969	3162.43 ug/L	0.969	0.03%
K 766.490†	20177.7	24.0738 mg/L		0.05420	24.0738 mg/L	0.05420	0.23%
Li 670.784†	24837.1	472.808 ug/L		2.5419	472.808 ug/L	2.5419	0.54%
Mg 279.071†	18569.2	58.1151 mg/L		0.56509	58.1151 mg/L	0.56509	0.97%
Mn 257.610†	98632.7	522.350 ug/L		2.6446	522.350 ug/L	2.6446	0.51%
Mo 202.031†	2510.2	465.311 ug/L		6.7155	465.311 ug/L	6.7155	1.44%
Na 589.592†	1947645.8	349.080 mg/L		1.4719	349.080 mg/L	1.4719	0.42%
Ni 231.604†	3959.2	432.826 ug/L		3.0859	432.826 ug/L	3.0859	0.71%
Pb 220.353†	599.1	440.468 ug/L		4.2810	440.468 ug/L	4.2810	0.97%
S 180.669†	4065.2	24078.8 ug/L		346.08	24078.8 ug/L	346.08	1.44%
Sb 217.582†	2136.1	2225.61 ug/L		1.709	2225.61 ug/L	1.709	0.08%
Se 196.026†	1366.3	2314.27 ug/L		25.715	2314.27 ug/L	25.715	1.11%
Sn 189.927†	3088.8	2143.79 ug/L		12.786	2143.79 ug/L	12.786	0.60%

Sr 407.771†	490124.1	752.075 ug/L	3.2161	752.075 ug/L	3.2161	0.43%
Ti 334.940†	15573.4	537.437 ug/L	5.0558	537.437 ug/L	5.0558	0.94%
Tl 190.801†	1982.6	2071.72 ug/L	24.309	2071.72 ug/L	24.309	1.17%
V 292.395†	18797.9	461.714 ug/L	2.3440	461.714 ug/L	2.3440	0.51%
Zn 206.200†	4001.9	436.011 ug/L	5.4403	436.011 ug/L	5.4403	1.25%

CKD

Sequence No.: 19

Sample ID: 1511696-MSD1

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 205

Date Collected: 11/3/2015 11:47:03 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 1511696-MSD1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	178967.9	178967.9	99.1478 %			11:47:28 AM
1	Al 396.153†	6140.9	6146.0	3435.52 ug/L		3435.52 ug/L	11:47:29 AM
1	Ba 455.398†	153730.7	154478.8	595.883 ug/L		595.883 ug/L	11:47:28 AM
1	Ca 315.887†	167104.9	168299.6	82.6958 mg/L		82.6958 mg/L	11:47:28 AM
1	Fe 238.204†	11654.9	11725.1	2245.22 ug/L		2245.22 ug/L	11:47:29 AM
1	K 766.490†	21556.9	21530.4	25.6828 mg/L		25.6828 mg/L	11:47:29 AM
1	Li 670.784†	26391.0	26550.5	505.226 ug/L		505.226 ug/L	11:47:29 AM
1	Mg 279.071†	19512.5	19673.9	61.5711 mg/L		61.5711 mg/L	11:47:29 AM
1	Na 589.592†	2021247.6	2037855.8	365.248 mg/L		365.248 mg/L	11:47:28 AM
1	Sr 407.771†	510003.1	512578.9	786.402 ug/L		786.402 ug/L	11:47:28 AM
1	Ti 334.940†	14926.2	15146.4	522.975 ug/L		522.975 ug/L	11:47:29 AM
1	Y 360.076	254365.3	254365.3	94.9144 %			11:47:34 AM
1	Ag 328.068†	33934.2	35795.7	476.519 ug/L		476.519 ug/L	11:47:34 AM
1	As 188.979†	1298.8	1425.1	2367.89 ug/L		2367.89 ug/L	11:47:39 AM
1	B 249.677†	16641.8	17132.0	1104.18 ug/L		1104.18 ug/L	11:47:34 AM
1	Be 234.861†	11935.7	13558.8	47.4048 ug/L		47.4048 ug/L	11:47:39 AM
1	Cd 214.437†	13547.6	13716.5	457.110 ug/L		457.110 ug/L	11:47:39 AM
1	Ce 413.764†	848.9	208.8	5.88199 ug/L		5.88199 ug/L	11:47:34 AM
1	Co 228.616†	6817.2	7248.1	447.789 ug/L		447.789 ug/L	11:47:39 AM
1	Cr 205.557†	4489.0	4771.0	453.608 ug/L		453.608 ug/L	11:47:39 AM
1	Cu 327.397†	20895.6	22049.7	498.436 ug/L		498.436 ug/L	11:47:34 AM
1	Mn 257.610†	94352.7	99203.8	525.362 ug/L		525.362 ug/L	11:47:34 AM
1	Mo 202.031†	2587.7	2592.4	480.414 ug/L		480.414 ug/L	11:47:39 AM
1	Ni 231.604†	4522.2	4165.1	455.345 ug/L		455.345 ug/L	11:47:39 AM
1	Pb 220.353†	671.8	620.1	455.901 ug/L		455.901 ug/L	11:47:39 AM
1	S 180.669†	3994.2	4203.3	24907.0 ug/L		24907.0 ug/L	11:47:39 AM
1	Sb 217.582†	2103.7	2219.8	2311.21 ug/L		2311.21 ug/L	11:47:39 AM
1	Se 196.026†	1288.2	1417.1	2399.91 ug/L		2399.91 ug/L	11:47:39 AM
1	Sn 189.927†	3054.0	3209.4	2227.03 ug/L		2227.03 ug/L	11:47:39 AM
1	Tl 190.801†	1906.3	2084.2	2177.22 ug/L		2177.22 ug/L	11:47:39 AM
1	V 292.395†	18648.5	19673.8	483.123 ug/L		483.123 ug/L	11:47:34 AM
1	Zn 206.200†	3930.6	4173.1	454.674 ug/L		454.674 ug/L	11:47:39 AM
2	Sc 357.234	179367.8	179367.8	99.3693 %			11:47:31 AM
2	Al 396.153†	6240.2	6232.1	3483.07 ug/L		3483.07 ug/L	11:47:32 AM
2	Ba 455.398†	154365.5	154771.9	597.011 ug/L		597.011 ug/L	11:47:31 AM
2	Ca 315.887†	168027.0	168851.9	82.9671 mg/L		82.9671 mg/L	11:47:31 AM
2	Fe 238.204†	11597.3	11641.0	2229.09 ug/L		2229.09 ug/L	11:47:32 AM
2	K 766.490†	21753.6	21679.9	25.8606 mg/L		25.8606 mg/L	11:47:32 AM
2	Li 670.784†	26276.5	26375.9	501.924 ug/L		501.924 ug/L	11:47:32 AM
2	Mg 279.071†	19584.3	19702.4	61.6601 mg/L		61.6601 mg/L	11:47:32 AM
2	Na 589.592†	2029276.0	2041389.9	365.881 mg/L		365.881 mg/L	11:47:31 AM
2	Sr 407.771†	510933.2	512368.1	786.079 ug/L		786.079 ug/L	11:47:31 AM
2	Ti 334.940†	14944.7	15131.4	522.471 ug/L		522.471 ug/L	11:47:32 AM
2	Y 360.076	259335.6	259335.6	96.7690 %			11:47:40 AM
2	Ag 328.068†	34463.9	35657.9	474.627 ug/L		474.627 ug/L	11:47:40 AM
2	As 188.979†	1336.5	1437.7	2388.89 ug/L		2388.89 ug/L	11:47:46 AM
2	B 249.677†	16975.9	17141.2	1104.78 ug/L		1104.78 ug/L	11:47:40 AM
2	Be 234.861†	12073.0	13459.6	47.0608 ug/L		47.0608 ug/L	11:47:46 AM
2	Cd 214.437†	13773.8	13676.6	455.796 ug/L		455.796 ug/L	11:47:46 AM
2	Ce 413.764†	675.7	12.7	-0.195763 ug/L		-0.195763 ug/L	11:47:40 AM
2	Co 228.616†	6899.3	7195.3	444.543 ug/L		444.543 ug/L	11:47:46 AM
2	Cr 205.557†	4620.9	4816.6	457.927 ug/L		457.927 ug/L	11:47:46 AM
2	Cu 327.397†	21221.3	21964.4	496.516 ug/L		496.516 ug/L	11:47:40 AM
2	Mn 257.610†	95889.0	98886.2	523.687 ug/L		523.687 ug/L	11:47:40 AM
2	Mo 202.031†	2655.5	2610.2	483.683 ug/L		483.683 ug/L	11:47:46 AM
2	Ni 231.604†	4564.8	4117.8	450.215 ug/L		450.215 ug/L	11:47:46 AM
2	Pb 220.353†	709.5	645.6	474.590 ug/L		474.590 ug/L	11:47:46 AM
2	S 180.669†	4080.3	4211.6	24953.8 ug/L		24953.8 ug/L	11:47:46 AM

2	Sb 217.582†	2148.8	2223.9	2315.49 ug/L	2315.49 ug/L	11:47:46 AM
2	Se 196.026†	1320.9	1424.9	2412.96 ug/L	2412.96 ug/L	11:47:46 AM
2	Sn 189.927†	3105.4	3200.8	2221.11 ug/L	2221.11 ug/L	11:47:46 AM
2	Tl 190.801†	1930.6	2070.8	2163.24 ug/L	2163.24 ug/L	11:47:46 AM
2	V 292.395†	18991.3	19651.5	482.664 ug/L	482.664 ug/L	11:47:40 AM
2	Zn 206.200†	4008.1	4173.8	454.751 ug/L	454.751 ug/L	11:47:46 AM

CKD

Mean Data: 1511696-MSD1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	179167.9	99.2585	%	0.15666			0.16%
Y 360.076	256850.4	95.8417	%	1.31141			1.37%
Ag 328.068†	35726.8	475.573	ug/L	1.3377	475.573 ug/L	1.3377	0.28%
Al 396.153†	6189.0	3459.30	ug/L	33.621	3459.30 ug/L	33.621	0.97%
As 188.979†	1431.4	2378.39	ug/L	14.849	2378.39 ug/L	14.849	0.62%
B 249.677†	17136.6	1104.48	ug/L	0.428	1104.48 ug/L	0.428	0.04%
Ba 455.398†	154625.4	596.447	ug/L	0.7974	596.447 ug/L	0.7974	0.13%
Be 234.861†	13509.2	47.2328	ug/L	0.24325	47.2328 ug/L	0.24325	0.52%
Ca 315.887†	168575.8	82.8314	mg/L	0.19177	82.8314 mg/L	0.19177	0.23%
Cd 214.437†	13696.5	456.453	ug/L	0.9288	456.453 ug/L	0.9288	0.20%
Ce 413.764†	110.8	2.84311	ug/L	4.297619	2.84311 ug/L	4.297619	151.16%
Co 228.616†	7221.7	446.166	ug/L	2.2957	446.166 ug/L	2.2957	0.51%
Cr 205.557†	4793.8	455.768	ug/L	3.0542	455.768 ug/L	3.0542	0.67%
Cu 327.397†	22007.1	497.476	ug/L	1.3575	497.476 ug/L	1.3575	0.27%
Fe 238.204†	11683.1	2237.15	ug/L	11.407	2237.15 ug/L	11.407	0.51%
K 766.490†	21605.1	25.7717	mg/L	0.12570	25.7717 mg/L	0.12570	0.49%
Li 670.784†	26463.2	503.575	ug/L	2.3347	503.575 ug/L	2.3347	0.46%
Mg 279.071†	19688.1	61.6156	mg/L	0.06294	61.6156 mg/L	0.06294	0.10%
Mn 257.610†	99045.0	524.525	ug/L	1.1843	524.525 ug/L	1.1843	0.23%
Mo 202.031†	2601.3	482.048	ug/L	2.3117	482.048 ug/L	2.3117	0.48%
Na 589.592†	2039622.9	365.564	mg/L	0.4479	365.564 mg/L	0.4479	0.12%
Ni 231.604†	4141.5	452.780	ug/L	3.6272	452.780 ug/L	3.6272	0.80%
Pb 220.353†	632.8	465.246	ug/L	13.2154	465.246 ug/L	13.2154	2.84%
S 180.669†	4207.5	24930.4	ug/L	33.13	24930.4 ug/L	33.13	0.13%
Sb 217.582†	2221.9	2313.35	ug/L	3.021	2313.35 ug/L	3.021	0.13%
Se 196.026†	1421.0	2406.43	ug/L	9.230	2406.43 ug/L	9.230	0.38%
Sn 189.927†	3205.1	2224.07	ug/L	4.184	2224.07 ug/L	4.184	0.19%
Sr 407.771†	512473.5	786.241	ug/L	0.2279	786.241 ug/L	0.2279	0.03%
Ti 334.940†	15138.9	522.723	ug/L	0.3565	522.723 ug/L	0.3565	0.07%
Tl 190.801†	2077.5	2170.23	ug/L	9.885	2170.23 ug/L	9.885	0.46%
V 292.395†	19662.6	482.893	ug/L	0.3244	482.893 ug/L	0.3244	0.07%
Zn 206.200†	4173.4	454.712	ug/L	0.0546	454.712 ug/L	0.0546	0.01%

Sequence No.: 20

Sample ID: 1510440-07

Analyst:

Initial Sample Wt:

Dilution: 50X

Wash Time: 60

Autosampler Location: 206

Date Collected: 11/3/2015 11:48:52 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 1510440-07

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	187287.1	187287.1	103.757 %		11:49:17 AM
1	Al 396.153†	73.7	23.3	10.1208 ug/L	506.039 ug/L	11:49:22 AM
1	Ba 455.398†	1134.9	520.4	3.66739 ug/L	183.369 ug/L	11:49:17 AM
1	Ca 315.887†	2169.9	1849.7	0.953147 mg/L	47.6573 mg/L	11:49:22 AM
1	Fe 238.204†	108.0	74.1	11.9675 ug/L	598.374 ug/L	11:49:22 AM
1	K 766.490†	291.4	69.0	0.155962 mg/L	7.79809 mg/L	11:49:17 AM
1	Li 670.784†	226.0	150.5	5.72309 ug/L	286.154 ug/L	11:49:17 AM
1	Mg 279.071†	213.6	199.6	0.647742 mg/L	32.3871 mg/L	11:49:22 AM
1	Na 589.592†	56601.0	53785.9	9.66621 mg/L	483.311 mg/L	11:49:17 AM
1	Sr 407.771†	8710.9	6587.5	12.8963 ug/L	644.813 ug/L	11:49:17 AM
1	Ti 334.940†	-53.5	40.3	7.75356 ug/L	387.678 ug/L	11:49:22 AM
1	Y 360.076	268503.6	268503.6	100.190 %		11:49:31 AM
1	Ag 328.068†	35.2	78.4	1.68068 ug/L	84.0340 ug/L	11:49:36 AM
1	As 188.979†	-65.5	-8.7	-12.1566 ug/L	-607.828 ug/L	11:49:36 AM
1	B 249.677†	655.8	253.1	12.7565 ug/L	637.827 ug/L	11:49:36 AM
1	Be 234.861†	-925.6	59.6	0.476003 ug/L	23.8002 ug/L	11:49:36 AM
1	Cd 214.437†	607.1	48.9	7.01454 ug/L	350.727 ug/L	11:49:36 AM
1	Ce 413.764†	609.6	-77.1	-2.39620 ug/L	-119.810 ug/L	11:49:31 AM
1	Co 228.616†	-55.2	10.6	2.24186 ug/L	112.093 ug/L	11:49:36 AM
1	Cr 205.557†	-21.4	20.2	3.88477 ug/L	194.239 ug/L	11:49:36 AM

000499

1	Cu 327.397†	79.4	113.8	4.63468 ug/L	231.734 ug/L	11:49:31 AM
1	Mn 257.610†	920.8	714.6	5.97672 ug/L	298.836 ug/L	11:49:36 AM
1	Mo 202.031†	144.0	9.8	5.58323 ug/L	279.161 ug/L	11:49:36 AM
1	Ni 231.604†	590.8	-9.7	0.500487 ug/L	25.0244 ug/L	11:49:36 AM
1	Pb 220.353†	103.0	15.2	10.7346 ug/L	536.731 ug/L	11:49:36 AM
1	S 180.669†	81.2	76.2	475.034 ug/L	23751.7 ug/L	11:49:36 AM
1	Sb 217.582†	-11.5	-8.1	6.34259 ug/L	317.130 ug/L	11:49:36 AM
1	Se 196.026†	-63.1	-3.1	9.22578 ug/L	461.289 ug/L	11:49:36 AM
1	Sn 189.927†	12.6	4.3	13.7596 ug/L	687.980 ug/L	11:49:36 AM
1	Tl 190.801†	-71.7	4.2	12.0691 ug/L	603.453 ug/L	11:49:36 AM
1	V 292.395†	14.7	40.8	2.27143 ug/L	113.572 ug/L	11:49:36 AM
1	Zn 206.200†	-9.8	22.1	2.96064 ug/L	148.032 ug/L	11:49:36 AM
2	Sc 357.234	185011.3	185011.3	102.496 %		11:49:23 AM
2	Al 396.153†	70.4	21.0	8.79544 ug/L	439.772 ug/L	11:49:28 AM
2	Ba 455.398†	970.0	373.0	3.10049 ug/L	155.025 ug/L	11:49:23 AM
2	Ca 315.887†	2140.5	1846.7	0.951687 mg/L	47.5844 mg/L	11:49:28 AM
2	Fe 238.204†	98.0	65.6	10.3344 ug/L	516.722 ug/L	11:49:28 AM
2	K 766.490†	240.2	22.5	0.100606 mg/L	5.03032 mg/L	11:49:23 AM
2	Li 670.784†	172.1	100.5	4.77600 ug/L	238.800 ug/L	11:49:23 AM
2	Mg 279.071†	224.5	212.7	0.688976 mg/L	34.4488 mg/L	11:49:28 AM
2	Na 589.592†	55649.8	53528.9	9.62015 mg/L	481.008 mg/L	11:49:23 AM
2	Sr 407.771†	8527.3	6511.6	12.7803 ug/L	639.016 ug/L	11:49:23 AM
2	Ti 334.940†	-55.6	37.7	7.66361 ug/L	383.181 ug/L	11:49:28 AM
2	Y 360.076	268303.4	268303.4	100.115 %		11:49:37 AM
2	Ag 328.068†	-30.7	12.6	0.887118 ug/L	44.3559 ug/L	11:49:42 AM
2	As 188.979†	-52.9	3.8	8.74015 ug/L	437.007 ug/L	11:49:42 AM
2	B 249.677†	659.0	256.7	12.9972 ug/L	649.859 ug/L	11:49:42 AM
2	Be 234.861†	-950.0	34.5	0.386819 ug/L	19.3410 ug/L	11:49:42 AM
2	Cd 214.437†	571.2	13.4	5.84746 ug/L	292.373 ug/L	11:49:42 AM
2	Ce 413.764†	877.8	191.2	5.91924 ug/L	295.962 ug/L	11:49:37 AM
2	Co 228.616†	-69.9	-4.2	1.33222 ug/L	66.6111 ug/L	11:49:42 AM
2	Cr 205.557†	-36.5	5.0	2.44798 ug/L	122.399 ug/L	11:49:42 AM
2	Cu 327.397†	28.9	63.4	3.50414 ug/L	175.207 ug/L	11:49:37 AM
2	Mn 257.610†	892.9	687.5	5.83374 ug/L	291.687 ug/L	11:49:42 AM
2	Mo 202.031†	145.0	10.8	5.76941 ug/L	288.471 ug/L	11:49:42 AM
2	Ni 231.604†	589.2	-10.8	0.378952 ug/L	18.9476 ug/L	11:49:42 AM
2	Pb 220.353†	91.2	3.4	2.10990 ug/L	105.495 ug/L	11:49:42 AM
2	S 180.669†	84.3	79.3	494.869 ug/L	24743.4 ug/L	11:49:42 AM
2	Sb 217.582†	-2.8	0.6	15.2965 ug/L	764.827 ug/L	11:49:42 AM
2	Se 196.026†	-52.2	7.7	27.3991 ug/L	1369.96 ug/L	11:49:42 AM
2	Sn 189.927†	14.8	6.5	15.2865 ug/L	764.324 ug/L	11:49:42 AM
2	Tl 190.801†	-77.6	-1.8	5.95564 ug/L	297.782 ug/L	11:49:42 AM
2	V 292.395†	-15.3	10.8	1.55780 ug/L	77.8898 ug/L	11:49:42 AM
2	Zn 206.200†	-24.0	7.8	1.40887 ug/L	70.4433 ug/L	11:49:42 AM

CKD

Mean Data: 1510440-07

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	186149.2	103.126	%	0.8915			0.86%
Y 360.076	268403.5	100.153	%	0.0528			0.05%
Ag 328.068†	45.5	1.28390	ug/L	0.561133	64.1950 ug/L	28.05666	43.71%
Al 396.153†	22.1	9.45811	ug/L	0.937158	472.905 ug/L	46.8579	9.91%
As 188.979†	-2.4	-1.70821	ug/L	14.776204	-85.4103 ug/L	738.81020	865.01%
B 249.677†	254.9	12.8769	ug/L	0.17016	643.843 ug/L	8.5078	1.32%
Ba 455.398†	446.7	3.38394	ug/L	0.400855	169.197 ug/L	20.0427	11.85%
Be 234.861†	47.1	0.431411	ug/L	0.0630625	21.5706 ug/L	3.15312	14.62%
Ca 315.887†	1848.2	0.952417	mg/L	0.0010318	47.6208 mg/L	0.05159	0.11%
Cd 214.437†	31.2	6.43100	ug/L	0.825253	321.550 ug/L	41.2626	12.83%
Ce 413.764†	57.1	1.76152	ug/L	5.879904	88.0762 ug/L	293.99518	333.80%
Co 228.616†	3.2	1.78704	ug/L	0.643215	89.3522 ug/L	32.16076	35.99%
Cr 205.557†	12.6	3.16637	ug/L	1.015966	158.319 ug/L	50.7983	32.09%
Cu 327.397†	88.6	4.06941	ug/L	0.799415	203.471 ug/L	39.9707	19.64%
Fe 238.204†	69.9	11.1510	ug/L	1.15473	557.548 ug/L	57.7363	10.36%
K 766.490†	45.8	0.128284	mg/L	0.0391422	6.41421 mg/L	1.957110	30.51%
Li 670.784†	125.5	5.24955	ug/L	0.669692	262.477 ug/L	33.4846	12.76%
Mg 279.071†	206.2	0.668359	mg/L	0.0291566	33.4179 mg/L	1.45783	4.36%
Mn 257.610†	701.0	5.90523	ug/L	0.101103	295.262 ug/L	5.0551	1.71%
Mo 202.031†	10.3	5.67632	ug/L	0.131650	283.816 ug/L	6.5825	2.32%
Na 589.592†	53657.4	9.64318	mg/L	0.032571	482.159 mg/L	1.6285	0.34%
Ni 231.604†	-10.3	0.439719	ug/L	0.0859384	21.9860 ug/L	4.29692	19.54%
Pb 220.353†	9.3	6.42226	ug/L	6.098594	321.113 ug/L	304.9297	94.96%
S 180.669†	77.8	484.952	ug/L	14.0250	24247.6 ug/L	701.25	2.89%
Sb 217.582†	-3.7	10.8196	ug/L	6.33140	540.978 ug/L	316.5699	58.52%
Se 196.026†	2.3	18.3125	ug/L	12.85049	915.623 ug/L	642.5246	70.17%
Sn 189.927†	5.4	14.5230	ug/L	1.07968	726.152 ug/L	53.9838	7.43%

Sr 407.771†	6549.6	12.8383 ug/L	0.08198	641.915 ug/L	4.0989	0.64%	CKD
Ti 334.940†	39.0	7.70859 ug/L	0.063605	385.429 ug/L	3.1802	0.83%	
Tl 190.801†	1.2	9.01236 ug/L	4.322842	450.618 ug/L	216.1421	47.97%	
V 292.395†	25.8	1.91461 ug/L	0.504617	95.7307 ug/L	25.23085	26.36%	
Zn 206.200†	14.9	2.18475 ug/L	1.097267	109.238 ug/L	54.8634	50.22%	

Sequence No.: 21

Sample ID: 1510440-12

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 207

Date Collected: 11/3/2015 11:50:50 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 1510440-12

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	189031.5	189031.5	104.723 %			11:51:14 AM
1	Al 396.153†	-25.1	-71.6	-42.7398 ug/L		-42.7398 ug/L	11:51:20 AM
1	Ba 455.398†	655.2	52.3	1.86684 ug/L		1.86684 ug/L	11:51:14 AM
1	Ca 315.887†	309.9	54.3	0.0714405 mg/L		0.0714405 mg/L	11:51:20 AM
1	Fe 238.204†	53.3	20.9	1.76156 ug/L		1.76156 ug/L	11:51:20 AM
1	K 766.490†	264.0	40.2	0.121709 mg/L		0.121709 mg/L	11:51:14 AM
1	Li 670.784†	146.0	72.1	4.23919 ug/L		4.23919 ug/L	11:51:14 AM
1	Mg 279.071†	-12.9	-18.5	-0.0345812 mg/L		-0.0345812 mg/L	11:51:20 AM
1	Na 589.592†	4098.9	3148.2	0.591020 mg/L		0.591020 mg/L	11:51:14 AM
1	Sr 407.771†	1820.0	-70.1	2.71883 ug/L		2.71883 ug/L	11:51:20 AM
1	Ti 334.940†	-48.3	45.7	7.91588 ug/L		7.91588 ug/L	11:51:20 AM
1	Y 360.076	269218.0	269218.0	100.457 %			11:51:28 AM
1	Ag 328.068†	0.4	43.6	1.19607 ug/L		1.19607 ug/L	11:51:33 AM
1	As 188.979†	-53.7	3.2	7.74140 ug/L		7.74140 ug/L	11:51:33 AM
1	B 249.677†	429.7	26.2	-1.92121 ug/L		-1.92121 ug/L	11:51:33 AM
1	Be 234.861†	-988.7	-0.7	0.266455 ug/L		0.266455 ug/L	11:51:33 AM
1	Cd 214.437†	565.7	6.1	5.60786 ug/L		5.60786 ug/L	11:51:33 AM
1	Ce 413.764†	534.9	-153.1	-4.74560 ug/L		-4.74560 ug/L	11:51:28 AM
1	Co 228.616†	-66.3	-0.3	1.56432 ug/L		1.56432 ug/L	11:51:33 AM
1	Cr 205.557†	-51.2	-9.4	1.08401 ug/L		1.08401 ug/L	11:51:33 AM
1	Cu 327.397†	97.3	131.4	5.02532 ug/L		5.02532 ug/L	11:51:28 AM
1	Mn 257.610†	224.2	18.7	2.30698 ug/L		2.30698 ug/L	11:51:33 AM
1	Mo 202.031†	124.9	-9.7	2.00249 ug/L		2.00249 ug/L	11:51:33 AM
1	Ni 231.604†	600.3	-1.8	1.35804 ug/L		1.35804 ug/L	11:51:33 AM
1	Pb 220.353†	89.1	1.0	0.332101 ug/L		0.332101 ug/L	11:51:33 AM
1	S 180.669†	12.9	8.0	60.9554 ug/L		60.9554 ug/L	11:51:33 AM
1	Sb 217.582†	0.6	4.0	18.6948 ug/L		18.6948 ug/L	11:51:33 AM
1	Se 196.026†	-74.0	-13.8	-8.89377 ug/L		-8.89377 ug/L	11:51:33 AM
1	Sn 189.927†	-7.2	-15.5	0.100211 ug/L		0.100211 ug/L	11:51:33 AM
1	Tl 190.801†	-77.6	-1.5	6.19646 ug/L		6.19646 ug/L	11:51:33 AM
1	V 292.395†	-50.2	-23.9	0.640885 ug/L		0.640885 ug/L	11:51:33 AM
1	Zn 206.200†	-6.0	25.9	3.37788 ug/L		3.37788 ug/L	11:51:33 AM
2	Sc 357.234	189716.9	189716.9	105.103 %			11:51:21 AM
2	Al 396.153†	-6.1	-53.5	-32.8641 ug/L		-32.8641 ug/L	11:51:26 AM
2	Ba 455.398†	618.5	15.1	1.72377 ug/L		1.72377 ug/L	11:51:21 AM
2	Ca 315.887†	330.2	72.5	0.0804003 mg/L		0.0804003 mg/L	11:51:26 AM
2	Fe 238.204†	36.8	5.0	-1.28120 ug/L		-1.28120 ug/L	11:51:26 AM
2	K 766.490†	348.4	119.6	0.216120 mg/L		0.216120 mg/L	11:51:21 AM
2	Li 670.784†	61.3	-9.1	2.70338 ug/L		2.70338 ug/L	11:51:21 AM
2	Mg 279.071†	5.6	-1.0	0.0203897 mg/L		0.0203897 mg/L	11:51:26 AM
2	Na 589.592†	4073.8	3110.1	0.584197 mg/L		0.584197 mg/L	11:51:21 AM
2	Sr 407.771†	1840.4	-57.0	2.73887 ug/L		2.73887 ug/L	11:51:26 AM
2	Ti 334.940†	-58.2	36.5	7.60311 ug/L		7.60311 ug/L	11:51:26 AM
2	Y 360.076	272848.9	272848.9	101.811 %			11:51:34 AM
2	Ag 328.068†	-58.3	-14.0	0.473988 ug/L		0.473988 ug/L	11:51:40 AM
2	As 188.979†	-47.3	10.2	19.3870 ug/L		19.3870 ug/L	11:51:40 AM
2	B 249.677†	442.7	33.3	-1.46320 ug/L		-1.46320 ug/L	11:51:40 AM
2	Be 234.861†	-962.4	38.2	0.409554 ug/L		0.409554 ug/L	11:51:40 AM
2	Cd 214.437†	600.4	32.7	6.48481 ug/L		6.48481 ug/L	11:51:40 AM
2	Ce 413.764†	693.0	-4.9	-0.150640 ug/L		-0.150640 ug/L	11:51:34 AM
2	Co 228.616†	-56.6	10.1	2.21045 ug/L		2.21045 ug/L	11:51:40 AM
2	Cr 205.557†	-52.2	-9.7	1.05355 ug/L		1.05355 ug/L	11:51:40 AM
2	Cu 327.397†	52.2	85.8	4.00419 ug/L		4.00419 ug/L	11:51:34 AM
2	Mn 257.610†	192.4	-15.5	2.12677 ug/L		2.12677 ug/L	11:51:40 AM
2	Mo 202.031†	139.7	3.2	4.38297 ug/L		4.38297 ug/L	11:51:40 AM
2	Ni 231.604†	572.9	-36.6	-2.43428 ug/L		-2.43428 ug/L	11:51:40 AM
2	Pb 220.353†	110.6	21.0	14.9530 ug/L		14.9530 ug/L	11:51:40 AM
2	S 180.669†	5.9	1.0	16.3186 ug/L		16.3186 ug/L	11:51:40 AM

2	Sb 217.582†	-5.4	-1.9	12.5532 ug/L	12.5532 ug/L	11:51:40 AM
2	Se 196.026†	-93.7	-32.1	-39.6394 ug/L	-39.6394 ug/L	11:51:40 AM
2	Sn 189.927†	15.7	7.1	15.7063 ug/L	15.7063 ug/L	11:51:40 AM
2	Tl 190.801†	-73.7	3.4	11.2972 ug/L	11.2972 ug/L	11:51:40 AM
2	V 292.395†	0.4	26.4	1.90215 ug/L	1.90215 ug/L	11:51:40 AM
2	Zn 206.200†	-20.8	11.4	1.80134 ug/L	1.80134 ug/L	11:51:40 AM

CKD

Mean Data: 1510440-12

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	189374.2	104.913	%	0.2685			0.26%
Y 360.076	271033.4	101.134	%	0.9580			0.95%
Ag 328.068†	14.8	0.835030	ug/L	0.5105905	0.835030 ug/L	0.5105905	61.15%
Al 396.153†	-62.6	-37.8020	ug/L	6.98320	-37.8020 ug/L	6.98320	18.47%
As 188.979†	6.7	13.5642	ug/L	8.23471	13.5642 ug/L	8.23471	60.71%
B 249.677†	29.7	-1.69220	ug/L	0.323865	-1.69220 ug/L	0.323865	19.14%
Ba 455.398†	33.7	1.79531	ug/L	0.101165	1.79531 ug/L	0.101165	5.63%
Be 234.861†	18.8	0.338004	ug/L	0.1011861	0.338004 ug/L	0.1011861	29.94%
Ca 315.887†	63.4	0.0759204	mg/L	0.00633557	0.0759204 mg/L	0.00633557	8.35%
Cd 214.437†	19.4	6.04633	ug/L	0.620102	6.04633 ug/L	0.620102	10.26%
Ce 413.764†	-79.0	-2.44812	ug/L	3.249125	-2.44812 ug/L	3.249125	132.72%
Co 228.616†	4.9	1.88739	ug/L	0.456883	1.88739 ug/L	0.456883	24.21%
Cr 205.557†	-9.6	1.06878	ug/L	0.021534	1.06878 ug/L	0.021534	2.01%
Cu 327.397†	108.6	4.51475	ug/L	0.722046	4.51475 ug/L	0.722046	15.99%
Fe 238.204†	12.9	0.240184	ug/L	2.1515562	0.240184 ug/L	2.1515562	895.79%
K 766.490†	79.9	0.168914	mg/L	0.0667590	0.168914 mg/L	0.0667590	39.52%
Li 670.784†	31.5	3.47128	ug/L	1.085980	3.47128 ug/L	1.085980	31.28%
Mg 279.071†	-9.8	-0.0070957	mg/L	0.03887028	-0.0070957 mg/L	0.03887028	547.80%
Mn 257.610†	1.6	2.21687	ug/L	0.127429	2.21687 ug/L	0.127429	5.75%
Mo 202.031†	-3.2	3.19273	ug/L	1.683253	3.19273 ug/L	1.683253	52.72%
Na 589.592†	3129.2	0.587609	mg/L	0.0048248	0.587609 mg/L	0.0048248	0.82%
Ni 231.604†	-19.2	-0.538119	ug/L	2.6815699	-0.538119 ug/L	2.6815699	498.32%
Pb 220.353†	11.0	7.64253	ug/L	10.338506	7.64253 ug/L	10.338506	135.28%
S 180.669†	4.5	38.6370	ug/L	31.56296	38.6370 ug/L	31.56296	81.69%
Sb 217.582†	1.1	15.6240	ug/L	4.34277	15.6240 ug/L	4.34277	27.80%
Se 196.026†	-23.0	-24.2666	ug/L	21.74048	-24.2666 ug/L	21.74048	89.59%
Sn 189.927†	-4.2	7.90327	ug/L	11.035184	7.90327 ug/L	11.035184	139.63%
Sr 407.771†	-63.6	2.72885	ug/L	0.014171	2.72885 ug/L	0.014171	0.52%
Ti 334.940†	41.1	7.75949	ug/L	0.221163	7.75949 ug/L	0.221163	2.85%
Tl 190.801†	1.0	8.74685	ug/L	3.606793	8.74685 ug/L	3.606793	41.24%
V 292.395†	1.3	1.27152	ug/L	0.891849	1.27152 ug/L	0.891849	70.14%
Zn 206.200†	18.6	2.58961	ug/L	1.114783	2.58961 ug/L	1.114783	43.05%

Sequence No.: 22

Sample ID: 1510440-13

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 208

Date Collected: 11/3/2015 11:52:46 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 1510440-13

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	191586.6	191586.6	106.138 %		11:53:11 AM
1	Al 396.153†	-33.2	-79.0	-46.7979 ug/L	-46.7979 ug/L	11:53:16 AM
1	Ba 455.398†	613.7	4.8	1.68411 ug/L	1.68411 ug/L	11:53:11 AM
1	Ca 315.887†	341.5	80.1	0.0841072 mg/L	0.0841072 mg/L	11:53:16 AM
1	Fe 238.204†	130.1	92.6	15.5132 ug/L	15.5132 ug/L	11:53:16 AM
1	K 766.490†	273.3	45.7	0.128153 mg/L	0.128153 mg/L	11:53:11 AM
1	Li 670.784†	142.7	67.1	4.14507 ug/L	4.14507 ug/L	11:53:11 AM
1	Mg 279.071†	18.6	11.3	0.0586366 mg/L	0.0586366 mg/L	11:53:16 AM
1	Na 589.592†	3850.6	2862.0	0.539724 mg/L	0.539724 mg/L	11:53:11 AM
1	Sr 407.771†	1794.3	-117.5	2.64638 ug/L	2.64638 ug/L	11:53:16 AM
1	Ti 334.940†	-72.3	23.8	7.17013 ug/L	7.17013 ug/L	11:53:16 AM
1	Y 360.076	272367.1	272367.1	101.632 %		11:53:25 AM
1	Ag 328.068†	-36.3	7.5	0.734679 ug/L	0.734679 ug/L	11:53:30 AM
1	As 188.979†	-47.7	9.7	18.5980 ug/L	18.5980 ug/L	11:53:30 AM
1	B 249.677†	444.1	35.5	-1.31656 ug/L	-1.31656 ug/L	11:53:30 AM
1	Be 234.861†	-972.4	26.7	0.354468 ug/L	0.354468 ug/L	11:53:30 AM
1	Cd 214.437†	560.7	-5.4	5.22891 ug/L	5.22891 ug/L	11:53:30 AM
1	Ce 413.764†	603.5	-91.7	-2.84193 ug/L	-2.84193 ug/L	11:53:25 AM
1	Co 228.616†	-64.7	2.0	1.70939 ug/L	1.70939 ug/L	11:53:30 AM
1	Cr 205.557†	-32.3	9.8	2.90161 ug/L	2.90161 ug/L	11:53:30 AM

1	Cu 327.397†	108.1	140.9	5.24073 ug/L	5.24073 ug/L	11:53:25 AM	CKD
1	Mn 257.610†	267.4	58.7	2.51778 ug/L	2.51778 ug/L	11:53:30 AM	
1	Mo 202.031†	131.0	-5.1	2.84899 ug/L	2.84899 ug/L	11:53:30 AM	
1	Ni 231.604†	588.6	-20.2	-0.649333 ug/L	-0.649333 ug/L	11:53:30 AM	
1	Pb 220.353†	82.3	-6.7	-5.32527 ug/L	-5.32527 ug/L	11:53:30 AM	
1	S 180.669†	2.2	-2.7	-6.82188 ug/L	-6.82188 ug/L	11:53:30 AM	
1	Sb 217.582†	-7.3	-3.8	10.6846 ug/L	10.6846 ug/L	11:53:30 AM	
1	Se 196.026†	-32.8	27.6	60.9275 ug/L	60.9275 ug/L	11:53:30 AM	
1	Sn 189.927†	12.5	4.0	13.5125 ug/L	13.5125 ug/L	11:53:30 AM	
1	Tl 190.801†	-79.5	-2.5	5.12321 ug/L	5.12321 ug/L	11:53:30 AM	
1	V 292.395†	-43.0	-16.3	0.842305 ug/L	0.842305 ug/L	11:53:30 AM	
1	Zn 206.200†	-1.6	30.2	3.85145 ug/L	3.85145 ug/L	11:53:30 AM	
2	Sc 357.234	188101.5	188101.5	104.208 %		11:53:17 AM	
2	Al 396.153†	-0.4	-48.1	-29.9171 ug/L	-29.9171 ug/L	11:53:22 AM	
2	Ba 455.398†	777.6	172.9	2.33047 ug/L	2.33047 ug/L	11:53:17 AM	
2	Ca 315.887†	379.5	122.6	0.104969 mg/L	0.104969 mg/L	11:53:22 AM	
2	Fe 238.204†	124.7	89.7	14.9498 ug/L	14.9498 ug/L	11:53:22 AM	
2	K 766.490†	239.0	17.5	0.0946660 mg/L	0.0946660 mg/L	11:53:17 AM	
2	Li 670.784†	157.4	83.7	4.45728 ug/L	4.45728 ug/L	11:53:17 AM	
2	Mg 279.071†	8.6	2.0	0.0297470 mg/L	0.0297470 mg/L	11:53:22 AM	
2	Na 589.592†	3753.6	2836.2	0.535102 mg/L	0.535102 mg/L	11:53:17 AM	
2	Sr 407.771†	1805.0	-75.9	2.70997 ug/L	2.70997 ug/L	11:53:22 AM	
2	Ti 334.940†	-91.0	4.6	6.51841 ug/L	6.51841 ug/L	11:53:22 AM	
2	Y 360.076	268763.8	268763.8	100.287 %		11:53:31 AM	
2	Ag 328.068†	-11.8	31.5	1.08967 ug/L	1.08967 ug/L	11:53:36 AM	
2	As 188.979†	-53.1	3.7	8.57417 ug/L	8.57417 ug/L	11:53:36 AM	
2	B 249.677†	429.1	26.4	-1.90079 ug/L	-1.90079 ug/L	11:53:36 AM	
2	Be 234.861†	-975.4	10.9	0.298132 ug/L	0.298132 ug/L	11:53:36 AM	
2	Cd 214.437†	557.0	-1.6	5.35259 ug/L	5.35259 ug/L	11:53:36 AM	
2	Ce 413.764†	719.1	31.4	0.975905 ug/L	0.975905 ug/L	11:53:31 AM	
2	Co 228.616†	-74.1	-8.2	1.08537 ug/L	1.08537 ug/L	11:53:36 AM	
2	Cr 205.557†	-53.9	-12.3	0.813363 ug/L	0.813363 ug/L	11:53:36 AM	
2	Cu 327.397†	83.7	118.0	4.72904 ug/L	4.72904 ug/L	11:53:31 AM	
2	Mn 257.610†	262.1	56.9	2.50841 ug/L	2.50841 ug/L	11:53:36 AM	
2	Mo 202.031†	142.1	7.7	5.19859 ug/L	5.19859 ug/L	11:53:36 AM	
2	Ni 231.604†	598.7	-2.4	1.29059 ug/L	1.29059 ug/L	11:53:36 AM	
2	Pb 220.353†	94.1	6.2	4.10882 ug/L	4.10882 ug/L	11:53:36 AM	
2	S 180.669†	4.4	-0.5	6.55595 ug/L	6.55595 ug/L	11:53:36 AM	
2	Sb 217.582†	13.0	16.4	31.3927 ug/L	31.3927 ug/L	11:53:36 AM	
2	Se 196.026†	-61.5	-1.5	11.9366 ug/L	11.9366 ug/L	11:53:36 AM	
2	Sn 189.927†	4.8	-3.5	8.35073 ug/L	8.35073 ug/L	11:53:36 AM	
2	Tl 190.801†	-63.7	12.3	20.4930 ug/L	20.4930 ug/L	11:53:36 AM	
2	V 292.395†	-26.2	-0.0	1.28589 ug/L	1.28589 ug/L	11:53:36 AM	
2	Zn 206.200†	15.7	47.5	5.72997 ug/L	5.72997 ug/L	11:53:36 AM	

Mean Data: 1510440-13

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	189844.1	105.173 %		1.3652			1.30%
Y 360.076	270565.4	100.959 %		0.9507			0.94%
Ag 328.068†	19.5	0.912174 ug/L		0.2510147	0.912174 ug/L	0.2510147	27.52%
Al 396.153†	-63.5	-38.3575 ug/L		11.93656	-38.3575 ug/L	11.93656	31.12%
As 188.979†	6.7	13.5861 ug/L		7.08790	13.5861 ug/L	7.08790	52.17%
B 249.677†	30.9	-1.60867 ug/L		0.413115	-1.60867 ug/L	0.413115	25.68%
Ba 455.398†	88.8	2.00729 ug/L		0.457046	2.00729 ug/L	0.457046	22.77%
Be 234.861†	18.8	0.326300 ug/L		0.0398355	0.326300 ug/L	0.0398355	12.21%
Ca 315.887†	101.3	0.0945383 mg/L		0.01475188	0.0945383 mg/L	0.01475188	15.60%
Cd 214.437†	-3.5	5.29075 ug/L		0.087459	5.29075 ug/L	0.087459	1.65%
Ce 413.764†	-30.1	-0.933010 ug/L		2.6996136	-0.933010 ug/L	2.6996136	289.34%
Co 228.616†	-3.1	1.39738 ug/L		0.441247	1.39738 ug/L	0.441247	31.58%
Cr 205.557†	-1.3	1.85749 ug/L		1.476617	1.85749 ug/L	1.476617	79.50%
Cu 327.397†	129.4	4.98488 ug/L		0.361821	4.98488 ug/L	0.361821	7.26%
Fe 238.204†	91.2	15.2315 ug/L		0.39833	15.2315 ug/L	0.39833	2.62%
K 766.490†	31.6	0.111409 mg/L		0.0236789	0.111409 mg/L	0.0236789	21.25%
Li 670.784†	75.4	4.30117 ug/L		0.220762	4.30117 ug/L	0.220762	5.13%
Mg 279.071†	6.6	0.0441918 mg/L		0.02042803	0.0441918 mg/L	0.02042803	46.23%
Mn 257.610†	57.8	2.51309 ug/L		0.006625	2.51309 ug/L	0.006625	0.26%
Mo 202.031†	1.3	4.02379 ug/L		1.661416	4.02379 ug/L	1.661416	41.29%
Na 589.592†	2849.1	0.537413 mg/L		0.0032683	0.537413 mg/L	0.0032683	0.61%
Ni 231.604†	-11.3	0.320630 ug/L		1.3717361	0.320630 ug/L	1.3717361	427.82%
Pb 220.353†	-0.3	-0.608229 ug/L		6.6709108	-0.608229 ug/L	6.6709108	>999.9%
S 180.669†	-1.6	-0.132968 ug/L		9.4595567	-0.132968 ug/L	9.4595567	>999.9%
Sb 217.582†	6.3	21.0387 ug/L		14.64283	21.0387 ug/L	14.64283	69.60%
Se 196.026†	13.1	36.4321 ug/L		34.64182	36.4321 ug/L	34.64182	95.09%
Sn 189.927†	0.2	10.9316 ug/L		3.64989	10.9316 ug/L	3.64989	33.39%

Sr 407.771†	-96.7	2.67818 ug/L	0.044967	2.67818 ug/L	0.044967	1.68%
Ti 334.940†	14.2	6.84427 ug/L	0.460836	6.84427 ug/L	0.460836	6.73%
Tl 190.801†	4.9	12.8081 ug/L	10.86808	12.8081 ug/L	10.86808	84.85%
V 292.395†	-8.1	1.06410 ug/L	0.313664	1.06410 ug/L	0.313664	29.48%
Zn 206.200†	38.9	4.79071 ug/L	1.328316	4.79071 ug/L	1.328316	27.73%

CKD

Sequence No.: 23

Sample ID: 1510440-07

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 215

Date Collected: 11/3/2015 11:54:44 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 1510440-07

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	183434.1	183434.1	101.622 %		11:55:12 AM
1	Al 396.153†	-8.5	-56.1	1.79172 ug/L	1.79172 ug/L	11:55:18 AM
1	Ba 455.398†	13813.5	13019.6	51.7468 ug/L	51.7468 ug/L	11:55:12 AM
1	Ca 315.887†	84638.7	83046.1	40.8283 mg/L	40.8283 mg/L	11:55:12 AM
1	Fe 238.204†	2176.0	2111.3	402.456 ug/L	402.456 ug/L	11:55:18 AM
1	K 766.490†	2361.4	2111.9	2.58583 mg/L	2.58583 mg/L	11:55:18 AM
1	Li 670.784†	330.0	257.4	7.74370 ug/L	7.74370 ug/L	11:55:18 AM
1	Mg 279.071†	9738.6	9576.9	29.9836 mg/L	29.9836 mg/L	11:55:18 AM
1	Na 589.592†	2639594.8	2596698.0	465.402 mg/L	465.402 mg/L	11:55:11 AM
1	Sr 407.771†	311711.3	304928.0	468.967 ug/L	468.967 ug/L	11:55:11 AM
1	Ti 334.940†	-61.1	31.8	8.42957 ug/L	8.42957 ug/L	11:55:18 AM
1	Y 360.076	258662.5	258662.5	96.5179 %		11:55:29 AM
1	Ag 328.068†	-75.1	-34.5	0.207987 ug/L	0.207987 ug/L	11:55:34 AM
1	As 188.979†	-32.3	23.2	40.7482 ug/L	40.7482 ug/L	11:55:34 AM
1	B 249.677†	10998.0	10993.2	707.492 ug/L	707.492 ug/L	11:55:29 AM
1	Be 234.861†	-869.8	82.3	0.253432 ug/L	0.253432 ug/L	11:55:34 AM
1	Cd 214.437†	598.4	62.9	7.45406 ug/L	7.45406 ug/L	11:55:34 AM
1	Ce 413.764†	727.7	68.4	1.72765 ug/L	1.72765 ug/L	11:55:29 AM
1	Co 228.616†	-46.4	17.6	2.74845 ug/L	2.74845 ug/L	11:55:34 AM
1	Cr 205.557†	-33.8	6.4	2.55580 ug/L	2.55580 ug/L	11:55:34 AM
1	Cu 327.397†	32.0	67.7	3.62136 ug/L	3.62136 ug/L	11:55:29 AM
1	Mn 257.610†	25321.8	26030.9	139.483 ug/L	139.483 ug/L	11:55:29 AM
1	Mo 202.031†	372.9	252.3	50.1802 ug/L	50.1802 ug/L	11:55:34 AM
1	Ni 231.604†	621.2	44.3	6.44044 ug/L	6.44044 ug/L	11:55:34 AM
1	Pb 220.353†	75.3	-9.7	-7.35758 ug/L	-7.35758 ug/L	11:55:34 AM
1	S 180.669†	3831.5	3964.8	24298.6 ug/L	24298.6 ug/L	11:55:34 AM
1	Sb 217.582†	-27.7	-25.3	-6.61371 ug/L	-6.61371 ug/L	11:55:34 AM
1	Se 196.026†	-38.2	20.3	48.5333 ug/L	48.5333 ug/L	11:55:34 AM
1	Sn 189.927†	-19.7	-28.7	-9.02449 ug/L	-9.02449 ug/L	11:55:34 AM
1	Tl 190.801†	-94.2	-21.9	-14.9768 ug/L	-14.9768 ug/L	11:55:34 AM
1	V 292.395†	-115.3	-93.4	0.0408112 ug/L	0.0408112 ug/L	11:55:34 AM
1	Zn 206.200†	63.7	97.8	11.1745 ug/L	11.1745 ug/L	11:55:34 AM
2	Sc 357.234	182862.9	182862.9	101.306 %		11:55:21 AM
2	Al 396.153†	-42.3	-89.5	-16.4235 ug/L	-16.4235 ug/L	11:55:27 AM
2	Ba 455.398†	13894.4	13142.0	52.2176 ug/L	52.2176 ug/L	11:55:21 AM
2	Ca 315.887†	84272.8	82945.1	40.7787 mg/L	40.7787 mg/L	11:55:21 AM
2	Fe 238.204†	2208.7	2150.3	409.918 ug/L	409.918 ug/L	11:55:27 AM
2	K 766.490†	2465.3	2221.7	2.71639 mg/L	2.71639 mg/L	11:55:27 AM
2	Li 670.784†	299.8	228.6	7.19928 ug/L	7.19928 ug/L	11:55:27 AM
2	Mg 279.071†	9758.3	9626.3	30.1382 mg/L	30.1382 mg/L	11:55:27 AM
2	Na 589.592†	2675163.4	2639922.2	473.149 mg/L	473.149 mg/L	11:55:20 AM
2	Sr 407.771†	316216.4	310333.2	477.230 ug/L	477.230 ug/L	11:55:20 AM
2	Ti 334.940†	-46.3	46.2	8.91820 ug/L	8.91820 ug/L	11:55:27 AM
2	Y 360.076	253977.4	253977.4	94.7696 %		11:55:36 AM
2	Ag 328.068†	-70.3	-30.9	0.275928 ug/L	0.275928 ug/L	11:55:41 AM
2	As 188.979†	-40.9	13.5	24.6350 ug/L	24.6350 ug/L	11:55:41 AM
2	B 249.677†	10749.4	10941.1	704.120 ug/L	704.120 ug/L	11:55:36 AM
2	Be 234.861†	-884.2	50.5	0.131785 ug/L	0.131785 ug/L	11:55:41 AM
2	Cd 214.437†	567.9	42.1	6.76924 ug/L	6.76924 ug/L	11:55:41 AM
2	Ce 413.764†	770.4	127.4	3.55420 ug/L	3.55420 ug/L	11:55:36 AM
2	Co 228.616†	-67.9	-6.0	1.28266 ug/L	1.28266 ug/L	11:55:41 AM
2	Cr 205.557†	-55.2	-16.8	0.366594 ug/L	0.366594 ug/L	11:55:41 AM
2	Cu 327.397†	8.5	43.6	3.08029 ug/L	3.08029 ug/L	11:55:36 AM
2	Mn 257.610†	25014.4	26190.5	140.325 ug/L	140.325 ug/L	11:55:36 AM
2	Mo 202.031†	336.9	221.5	44.5127 ug/L	44.5127 ug/L	11:55:41 AM
2	Ni 231.604†	592.5	25.8	4.41843 ug/L	4.41843 ug/L	11:55:41 AM
2	Pb 220.353†	109.0	27.4	19.8076 ug/L	19.8076 ug/L	11:55:41 AM
2	S 180.669†	3834.1	4040.9	24782.3 ug/L	24782.3 ug/L	11:55:41 AM

2	Sb 217.582†	-24.7	-22.6	-3.90806 ug/L	-3.90806 ug/L	11:55:41 AM
2	Se 196.026†	-52.2	4.8	22.5943 ug/L	22.5943 ug/L	11:55:41 AM
2	Sn 189.927†	5.0	-3.0	8.68051 ug/L	8.68051 ug/L	11:55:41 AM
2	Tl 190.801†	-74.9	-3.3	4.34299 ug/L	4.34299 ug/L	11:55:41 AM
2	V 292.395†	-61.1	-38.4	1.22929 ug/L	1.22929 ug/L	11:55:41 AM
2	Zn 206.200†	70.5	106.2	12.0878 ug/L	12.0878 ug/L	11:55:41 AM

CKD

Mean Data: 1510440-07

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	183148.5	101.464	%	0.2238			0.22%
Y 360.076	256320.0	95.6438	%	1.23619			1.29%
Ag 328.068†	-32.7	0.241958	ug/L	0.0480416	0.241958 ug/L	0.0480416	19.86%
Al 396.153†	-72.8	-7.31588	ug/L	12.880098	-7.31588 ug/L	12.880098	176.06%
As 188.979†	18.4	32.6916	ug/L	11.39375	32.6916 ug/L	11.39375	34.85%
B 249.677†	10967.2	705.806	ug/L	2.3846	705.806 ug/L	2.3846	0.34%
Ba 455.398†	13080.8	51.9822	ug/L	0.33289	51.9822 ug/L	0.33289	0.64%
Be 234.861†	66.4	0.192609	ug/L	0.0860176	0.192609 ug/L	0.0860176	44.66%
Ca 315.887†	82995.6	40.8035	mg/L	0.03507	40.8035 mg/L	0.03507	0.09%
Cd 214.437†	52.5	7.11165	ug/L	0.484239	7.11165 ug/L	0.484239	6.81%
Ce 413.764†	97.9	2.64092	ug/L	1.291564	2.64092 ug/L	1.291564	48.91%
Co 228.616†	5.8	2.01555	ug/L	1.036466	2.01555 ug/L	1.036466	51.42%
Cr 205.557†	-5.2	1.46120	ug/L	1.548005	1.46120 ug/L	1.548005	105.94%
Cu 327.397†	55.6	3.35082	ug/L	0.382593	3.35082 ug/L	0.382593	11.42%
Fe 238.204†	2130.8	406.187	ug/L	5.2768	406.187 ug/L	5.2768	1.30%
K 766.490†	2166.8	2.65111	mg/L	0.092319	2.65111 mg/L	0.092319	3.48%
Li 670.784†	243.0	7.47149	ug/L	0.384967	7.47149 ug/L	0.384967	5.15%
Mg 279.071†	9601.6	30.0609	mg/L	0.10933	30.0609 mg/L	0.10933	0.36%
Mn 257.610†	26110.7	139.904	ug/L	0.5952	139.904 ug/L	0.5952	0.43%
Mo 202.031†	236.9	47.3464	ug/L	4.00753	47.3464 ug/L	4.00753	8.46%
Na 589.592†	2618310.1	469.276	mg/L	5.4776	469.276 mg/L	5.4776	1.17%
Ni 231.604†	35.0	5.42944	ug/L	1.429779	5.42944 ug/L	1.429779	26.33%
Pb 220.353†	8.9	6.22499	ug/L	19.208651	6.22499 ug/L	19.208651	308.57%
S 180.669†	4002.9	24540.5	ug/L	342.03	24540.5 ug/L	342.03	1.39%
Sb 217.582†	-23.9	-5.26088	ug/L	1.913182	-5.26088 ug/L	1.913182	36.37%
Se 196.026†	12.5	35.5638	ug/L	18.34166	35.5638 ug/L	18.34166	51.57%
Sn 189.927†	-15.9	-0.171993	ug/L	12.5193268	-0.171993 ug/L	12.5193268	>999.9%
Sr 407.771†	307630.6	473.099	ug/L	5.8428	473.099 ug/L	5.8428	1.24%
Ti 334.940†	39.0	8.67388	ug/L	0.345509	8.67388 ug/L	0.345509	3.98%
Tl 190.801†	-12.6	-5.31688	ug/L	13.661122	-5.31688 ug/L	13.661122	256.94%
V 292.395†	-65.9	0.635052	ug/L	0.8403836	0.635052 ug/L	0.8403836	132.33%
Zn 206.200†	102.0	11.6311	ug/L	0.64579	11.6311 ug/L	0.64579	5.55%

User canceled analysis.

Analysis Begun

Start Time: 11/3/2015 12:00:51 PM

Logged In Analyst: Metals Analyst

Spectrometer: Optima 8300 , S/N No Serial #

Plasma On Time: 11/3/2015 10:27:28 AM

Technique: ICP Continuous

Autosampler: ESI

Sample Information File: C:\Users\Public\PerkinElmer Syngistix\ICP\Data\Sample Information\5K02031.sifx

Batch ID:

Results Data Set: 5K03027

Results Library: C:\Users\Public\PerkinElmer Syngistix\ICP\Data\Results\Results.mdb

Sequence No.: 24

Sample ID: 1510440-16

Analyst:

Initial Sample Wt:

Dilution: 10X

Wash Time:

Autosampler Location: 209

Date Collected: 11/3/2015 12:00:52 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1510440-16

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	188513.4	188513.4	104.436 %		12:01:20 PM
1	Al 396.153†	120.4	67.5	39.0985 ug/L	390.985 ug/L	12:01:26 PM
1	Ba 455.398†	4187.1	3435.9	14.8820 ug/L	148.820 ug/L	12:01:26 PM
1	Ca 315.887†	13000.6	12206.7	6.03944 mg/L	60.3944 mg/L	12:01:26 PM
1	Fe 238.204†	1099.2	1022.6	193.761 ug/L	1937.61 ug/L	12:01:26 PM
1	K 766.490†	316.2	90.9	0.181982 mg/L	1.81982 mg/L	12:01:26 PM

000505

1	Li 670.784†	175.9	101.1	4.78797 ug/L	47.8797 ug/L	12:01:26 PM	CKD
1	Mg 279.071†	1232.1	1173.5	3.69452 mg/L	36.9452 mg/L	12:01:26 PM	
1	Na 589.592†	192629.0	183681.2	32.9458 mg/L	329.458 mg/L	12:01:20 PM	
1	Sr 407.771†	22883.4	20103.4	33.5580 ug/L	335.580 ug/L	12:01:20 PM	
1	Ti 334.940†	33.3	123.8	10.7123 ug/L	107.123 ug/L	12:01:26 PM	
1	Y 360.076	270719.8	270719.8	101.017 %		12:01:36 PM	
1	Ag 328.068†	-15.2	28.2	1.00868 ug/L	10.0868 ug/L	12:01:41 PM	
1	As 188.979†	-38.3	18.8	33.5905 ug/L	335.905 ug/L	12:01:41 PM	
1	B 249.677†	1413.5	997.7	60.9618 ug/L	609.618 ug/L	12:01:41 PM	
1	Be 234.861†	-883.2	109.2	0.509389 ug/L	5.09389 ug/L	12:01:41 PM	
1	Cd 214.437†	569.4	6.6	5.60699 ug/L	56.0699 ug/L	12:01:41 PM	
1	Ce 413.764†	600.8	-90.8	-2.87222 ug/L	-28.7222 ug/L	12:01:36 PM	
1	Co 228.616†	-67.7	-1.4	1.50304 ug/L	15.0304 ug/L	12:01:41 PM	
1	Cr 205.557†	-40.7	1.2	2.09589 ug/L	20.9589 ug/L	12:01:41 PM	
1	Cu 327.397†	27.9	62.1	3.47798 ug/L	34.7798 ug/L	12:01:36 PM	
1	Mn 257.610†	976.8	762.5	6.22957 ug/L	62.2957 ug/L	12:01:41 PM	
1	Mo 202.031†	154.5	18.9	7.26160 ug/L	72.6160 ug/L	12:01:41 PM	
1	Ni 231.604†	572.5	-32.6	-2.00984 ug/L	-20.0984 ug/L	12:01:41 PM	
1	Pb 220.353†	88.1	-0.4	-0.694267 ug/L	-6.94267 ug/L	12:01:41 PM	
1	S 180.669†	414.8	405.8	2457.38 ug/L	24573.8 ug/L	12:01:41 PM	
1	Sb 217.582†	-11.4	-7.9	7.23551 ug/L	72.3551 ug/L	12:01:41 PM	
1	Se 196.026†	-57.0	3.5	20.2563 ug/L	202.563 ug/L	12:01:41 PM	
1	Sn 189.927†	7.8	-0.6	10.3566 ug/L	103.566 ug/L	12:01:41 PM	
1	Tl 190.801†	-87.8	-11.2	-3.84686 ug/L	-38.4686 ug/L	12:01:41 PM	
1	V 292.395†	-6.3	19.9	1.79422 ug/L	17.9422 ug/L	12:01:41 PM	
1	Zn 206.200†	-4.1	27.8	3.57797 ug/L	35.7797 ug/L	12:01:41 PM	
2	Sc 357.234	189425.6	189425.6	104.941 %		12:01:28 PM	
2	Al 396.153†	122.7	69.2	40.1124 ug/L	401.124 ug/L	12:01:34 PM	
2	Ba 455.398†	4192.8	3422.0	14.8287 ug/L	148.287 ug/L	12:01:34 PM	
2	Ca 315.887†	13151.9	12291.0	6.08081 mg/L	60.8081 mg/L	12:01:34 PM	
2	Fe 238.204†	1096.4	1014.8	192.279 ug/L	1922.79 ug/L	12:01:34 PM	
2	K 766.490†	323.3	96.2	0.188286 mg/L	1.88286 mg/L	12:01:34 PM	
2	Li 670.784†	166.1	91.0	4.59583 ug/L	45.9583 ug/L	12:01:34 PM	
2	Mg 279.071†	1262.9	1197.2	3.76868 mg/L	37.6868 mg/L	12:01:34 PM	
2	Na 589.592†	193772.3	183882.4	32.9819 mg/L	329.819 mg/L	12:01:28 PM	
2	Sr 407.771†	23130.7	20233.6	33.7569 ug/L	337.569 ug/L	12:01:28 PM	
2	Ti 334.940†	-29.8	63.5	8.66578 ug/L	86.6578 ug/L	12:01:34 PM	
2	Y 360.076	270260.2	270260.2	100.845 %		12:01:42 PM	
2	Ag 328.068†	-92.5	-48.4	0.0138754 ug/L	0.138754 ug/L	12:01:47 PM	
2	As 188.979†	-49.1	8.0	15.6529 ug/L	156.529 ug/L	12:01:47 PM	
2	B 249.677†	1414.4	1001.0	61.1667 ug/L	611.667 ug/L	12:01:47 PM	
2	Be 234.861†	-938.5	52.8	0.307042 ug/L	3.07042 ug/L	12:01:47 PM	
2	Cd 214.437†	573.2	11.3	5.76378 ug/L	57.6378 ug/L	12:01:47 PM	
2	Ce 413.764†	676.4	-14.8	-0.518042 ug/L	-5.18042 ug/L	12:01:42 PM	
2	Co 228.616†	-66.9	-0.6	1.54892 ug/L	15.4892 ug/L	12:01:47 PM	
2	Cr 205.557†	-39.9	2.0	2.16655 ug/L	21.6655 ug/L	12:01:47 PM	
2	Cu 327.397†	13.4	47.8	3.15610 ug/L	31.5610 ug/L	12:01:42 PM	
2	Mn 257.610†	1003.5	790.7	6.37792 ug/L	63.7792 ug/L	12:01:47 PM	
2	Mo 202.031†	142.5	7.2	5.12195 ug/L	51.2195 ug/L	12:01:47 PM	
2	Ni 231.604†	593.2	-11.1	0.326713 ug/L	3.26713 ug/L	12:01:47 PM	
2	Pb 220.353†	108.2	19.7	14.0165 ug/L	140.165 ug/L	12:01:47 PM	
2	S 180.669†	408.7	400.5	2422.82 ug/L	24228.2 ug/L	12:01:47 PM	
2	Sb 217.582†	-10.6	-7.1	8.02941 ug/L	80.2941 ug/L	12:01:47 PM	
2	Se 196.026†	-62.4	-2.0	10.9891 ug/L	109.891 ug/L	12:01:47 PM	
2	Sn 189.927†	-4.2	-12.5	2.14396 ug/L	21.4396 ug/L	12:01:47 PM	
2	Tl 190.801†	-68.0	8.4	16.4490 ug/L	164.490 ug/L	12:01:47 PM	
2	V 292.395†	9.1	35.1	2.11266 ug/L	21.1266 ug/L	12:01:47 PM	
2	Zn 206.200†	-2.7	29.2	3.72692 ug/L	37.2692 ug/L	12:01:47 PM	

Mean Data: 1510440-16

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	188969.5	104.689	%	0.3574			0.34%
Y 360.076	270490.0	100.931	%	0.1213			0.12%
Ag 328.068†	-10.1	0.511276	ug/L	0.7034304	5.11276 ug/L	7.034304	137.58%
Al 396.153†	68.4	39.6055	ug/L	0.71698	396.055 ug/L	7.1698	1.81%
As 188.979†	13.4	24.6217	ug/L	12.68375	246.217 ug/L	126.8375	51.51%
B 249.677†	999.4	61.0643	ug/L	0.14484	610.643 ug/L	1.4484	0.24%
Ba 455.398†	3429.0	14.8554	ug/L	0.03766	148.554 ug/L	0.3766	0.25%
Be 234.861†	81.0	0.408215	ug/L	0.1430807	4.08215 ug/L	1.430807	35.05%
Ca 315.887†	12248.8	6.06012	mg/L	0.029254	60.6012 mg/L	0.29254	0.48%
Cd 214.437†	8.9	5.68538	ug/L	0.110864	56.8538 ug/L	1.10864	1.95%
Ce 413.764†	-52.8	-1.69513	ug/L	1.664653	-16.9513 ug/L	16.64653	98.20%
Co 228.616†	-1.0	1.52598	ug/L	0.032446	15.2598 ug/L	0.32446	2.13%
Cr 205.557†	1.6	2.13122	ug/L	0.049958	21.3122 ug/L	0.49958	2.34%

Cu 327.397†	54.9	3.31704 ug/L	0.227603	33.1704 ug/L	2.27603	6.86%	CKD
Fe 238.204†	1018.7	193.020 ug/L	1.0478	1930.20 ug/L	10.478	0.54%	
K 766.490†	93.6	0.185134 mg/L	0.0044580	1.85134 mg/L	0.044580	2.41%	
Li 670.784†	96.0	4.69190 ug/L	0.135861	46.9190 ug/L	1.35861	2.90%	
Mg 279.071†	1185.3	3.73160 mg/L	0.052437	37.3160 mg/L	0.52437	1.41%	
Mn 257.610†	776.6	6.30375 ug/L	0.104896	63.0375 ug/L	1.04896	1.66%	
Mo 202.031†	13.1	6.19178 ug/L	1.512963	61.9178 ug/L	15.12963	24.44%	
Na 589.592†	183781.8	~~8259638~~ mg/L	0.02550	329.638 mg/L	0.2550	0.08%	
Ni 231.604†	-21.9	-0.841562 ug/L	1.6521894	-8.41562 ug/L	16.521894	196.32%	
Pb 220.353†	9.6	6.66112 ug/L	10.402092	66.6112 ug/L	104.02092	156.16%	
S 180.669†	403.1	2440.10 ug/L	24.431	24401.0 ug/L	244.31	1.00%	
Sb 217.582†	-7.5	7.63246 ug/L	0.561370	76.3246 ug/L	5.61370	7.36%	
Se 196.026†	0.7	15.6227 ug/L	6.55291	156.227 ug/L	65.5291	41.94%	
Sn 189.927†	-6.6	6.25027 ug/L	5.807197	62.5027 ug/L	58.07197	92.91%	
Sr 407.771†	20168.5	33.6574 ug/L	0.14069	336.574 ug/L	1.4069	0.42%	
Ti 334.940†	93.6	9.68903 ug/L	1.447082	96.8903 ug/L	14.47082	14.94%	
Tl 190.801†	-1.4	6.30108 ug/L	14.351361	63.0108 ug/L	143.51361	227.76%	
V 292.395†	27.5	1.95344 ug/L	0.225170	19.5344 ug/L	2.25170	11.53%	
Zn 206.200†	28.5	3.65244 ug/L	0.105329	36.5244 ug/L	1.05329	2.88%	

Sequence No.: 25

Sample ID: 5K02031-CCV

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 4

Date Collected: 11/3/2015 12:02:56 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Analysis Time
1	Sc 357.234	187731.7	187731.7	104.003	%		12:03:24 PM
1	Al 396.153†	4752.8	4522.1	2466.43	ug/L	2466.43 ug/L	12:03:24 PM
1	Ba 455.398†	131967.2	126314.7	487.547	ug/L	487.547 ug/L	12:03:24 PM
1	Ca 315.887†	10615.9	9965.7	4.93887	mg/L	4.93887 mg/L	12:03:30 PM
1	Fe 238.204†	2962.3	2818.3	538.028	ug/L	538.028 ug/L	12:03:30 PM
1	K 766.490†	4523.3	4137.4	4.99495	mg/L	4.99495 mg/L	12:03:30 PM
1	Li 670.784†	26772.7	25674.9	488.566	ug/L	488.566 ug/L	12:03:24 PM
1	Mg 279.071†	1710.6	1638.5	5.14917	mg/L	5.14917 mg/L	12:03:30 PM
1	Na 589.592†	29089.9	27204.4	4.90233	mg/L	4.90233 mg/L	12:03:24 PM
1	Sr 407.771†	333609.4	318961.4	490.420	ug/L	490.420 ug/L	12:03:24 PM
1	Ti 334.940†	14603.9	14133.7	486.657	ug/L	486.657 ug/L	12:03:30 PM
1	Y 360.076	264181.9	264181.9	98.5774	%		12:03:40 PM
1	Ag 328.068†	36147.4	36712.4	493.416	ug/L	493.416 ug/L	12:03:40 PM
1	As 188.979†	1475.4	1553.3	2580.95	ug/L	2580.95 ug/L	12:03:45 PM
1	B 249.677†	7893.3	7605.6	487.553	ug/L	487.553 ug/L	12:03:40 PM
1	Be 234.861†	12966.9	14137.5	50.8588	ug/L	50.8588 ug/L	12:03:45 PM
1	Cd 214.437†	15027.1	14686.9	489.254	ug/L	489.254 ug/L	12:03:40 PM
1	Ce 413.764†	16298.6	15848.2	491.344	ug/L	491.344 ug/L	12:03:40 PM
1	Co 228.616†	8171.3	8354.9	516.075	ug/L	516.075 ug/L	12:03:45 PM
1	Cr 205.557†	5298.1	5416.0	514.534	ug/L	514.534 ug/L	12:03:45 PM
1	Cu 327.397†	21319.5	21661.7	489.896	ug/L	489.896 ug/L	12:03:40 PM
1	Mn 257.610†	92333.0	93461.1	495.078	ug/L	495.078 ug/L	12:03:40 PM
1	Mo 202.031†	2852.7	2759.8	511.197	ug/L	511.197 ug/L	12:03:45 PM
1	Ni 231.604†	5231.3	4707.4	514.473	ug/L	514.473 ug/L	12:03:45 PM
1	Pb 220.353†	766.4	689.8	506.449	ug/L	506.449 ug/L	12:03:45 PM
1	S 180.669†	820.6	827.6	5156.88	ug/L	5156.88 ug/L	12:03:45 PM
1	Sb 217.582†	2430.1	2468.6	2557.39	ug/L	2557.39 ug/L	12:03:45 PM
1	Se 196.026†	1452.6	1533.5	2598.30	ug/L	2598.30 ug/L	12:03:45 PM
1	Sn 189.927†	3643.1	3687.3	2557.09	ug/L	2557.09 ug/L	12:03:45 PM
1	Tl 190.801†	2361.2	2471.1	2581.45	ug/L	2581.45 ug/L	12:03:45 PM
1	V 292.395†	19896.4	20209.6	496.790	ug/L	496.790 ug/L	12:03:40 PM
1	Zn 206.200†	4660.5	4759.6	518.525	ug/L	518.525 ug/L	12:03:45 PM
2	Sc 357.234	185479.9	185479.9	102.755	%		12:03:31 PM
2	Al 396.153†	4772.4	4596.8	2508.06	ug/L	2508.06 ug/L	12:03:37 PM
2	Ba 455.398†	130438.4	126367.4	487.750	ug/L	487.750 ug/L	12:03:31 PM
2	Ca 315.887†	10546.4	10021.9	4.96650	mg/L	4.96650 mg/L	12:03:37 PM
2	Fe 238.204†	2927.1	2818.6	538.088	ug/L	538.088 ug/L	12:03:37 PM
2	K 766.490†	4502.6	4170.0	5.03380	mg/L	5.03380 mg/L	12:03:37 PM
2	Li 670.784†	26571.8	25791.9	490.781	ug/L	490.781 ug/L	12:03:31 PM
2	Mg 279.071†	1696.1	1644.3	5.16757	mg/L	5.16757 mg/L	12:03:37 PM
2	Na 589.592†	28660.8	27126.4	4.88835	mg/L	4.88835 mg/L	12:03:31 PM
2	Sr 407.771†	329686.4	319037.9	490.537	ug/L	490.537 ug/L	12:03:31 PM
2	Ti 334.940†	14499.4	14202.4	489.000	ug/L	489.000 ug/L	12:03:37 PM
2	Y 360.076	277021.7	277021.7	103.368	%		12:03:46 PM

2	Ag 328.068†	37777.1	36589.3	491.772 ug/L	491.772 ug/L	12:03:46 PM
2	As 188.979†	1477.1	1485.6	2468.42 ug/L	2468.42 ug/L	12:03:51 PM
2	B 249.677†	8349.6	7675.9	492.134 ug/L	492.134 ug/L	12:03:46 PM
2	Be 234.861†	13118.2	13674.2	49.1852 ug/L	49.1852 ug/L	12:03:51 PM
2	Cd 214.437†	15669.1	14601.4	486.433 ug/L	486.433 ug/L	12:03:46 PM
2	Ce 413.764†	17041.8	15800.9	489.869 ug/L	489.869 ug/L	12:03:46 PM
2	Co 228.616†	8243.2	8040.3	496.665 ug/L	496.665 ug/L	12:03:51 PM
2	Cr 205.557†	5342.5	5209.9	495.049 ug/L	495.049 ug/L	12:03:51 PM
2	Cu 327.397†	22452.0	21754.9	491.992 ug/L	491.992 ug/L	12:03:46 PM
2	Mn 257.610†	96832.5	93472.6	495.139 ug/L	495.139 ug/L	12:03:46 PM
2	Mo 202.031†	2894.5	2666.2	493.979 ug/L	493.979 ug/L	12:03:51 PM
2	Ni 231.604†	5293.9	4522.1	494.272 ug/L	494.272 ug/L	12:03:51 PM
2	Pb 220.353†	766.0	653.4	479.698 ug/L	479.698 ug/L	12:03:51 PM
2	S 180.669†	808.9	777.7	4839.45 ug/L	4839.45 ug/L	12:03:51 PM
2	Sb 217.582†	2483.5	2405.9	2492.83 ug/L	2492.83 ug/L	12:03:51 PM
2	Se 196.026†	1454.8	1467.2	2486.80 ug/L	2486.80 ug/L	12:03:51 PM
2	Sn 189.927†	3642.2	3515.2	2438.22 ug/L	2438.22 ug/L	12:03:51 PM
2	Tl 190.801†	2398.6	2396.2	2503.66 ug/L	2503.66 ug/L	12:03:51 PM
2	V 292.395†	20943.8	20287.4	498.267 ug/L	498.267 ug/L	12:03:46 PM
2	Zn 206.200†	4701.1	4579.7	498.944 ug/L	498.944 ug/L	12:03:51 PM

CKD

Mean Data: 5K02031-CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	186605.8	103.379 %		0.8821			0.85%
Y 360.076	270601.8	100.973 %		3.3878			3.36%
Ag 328.068†	36650.8	492.594 ug/L		1.1624	492.594 ug/L	1.1624	0.24%
QC value within limits for Ag 328.068 Recovery = 98.52%							
Al 396.153†	4559.5	2487.25 ug/L		29.438	2487.25 ug/L	29.438	1.18%
QC value within limits for Al 396.153 Recovery = 99.49%							
As 188.979†	1519.5	2524.69 ug/L		79.572	2524.69 ug/L	79.572	3.15%
QC value within limits for As 188.979 Recovery = 100.99%							
B 249.677†	7640.8	489.843 ug/L		3.2389	489.843 ug/L	3.2389	0.66%
QC value within limits for B 249.677 Recovery = 97.97%							
Ba 455.398†	126341.0	487.648 ug/L		0.1434	487.648 ug/L	0.1434	0.03%
QC value within limits for Ba 455.398 Recovery = 97.53%							
Be 234.861†	13905.9	50.0220 ug/L		1.18346	50.0220 ug/L	1.18346	2.37%
QC value within limits for Be 234.861 Recovery = 100.04%							
Ca 315.887†	9993.8	4.95268 mg/L		0.019540	4.95268 mg/L	0.019540	0.39%
QC value within limits for Ca 315.887 Recovery = 99.05%							
Cd 214.437†	14644.2	487.843 ug/L		1.9947	487.843 ug/L	1.9947	0.41%
QC value within limits for Cd 214.437 Recovery = 97.57%							
Ce 413.764†	15824.6	490.607 ug/L		1.0427	490.607 ug/L	1.0427	0.21%
Co 228.616†	8197.6	506.370 ug/L		13.7251	506.370 ug/L	13.7251	2.71%
QC value within limits for Co 228.616 Recovery = 101.27%							
Cr 205.557†	5313.0	504.791 ug/L		13.7783	504.791 ug/L	13.7783	2.73%
QC value within limits for Cr 205.557 Recovery = 100.96%							
Cu 327.397†	21708.3	490.944 ug/L		1.4820	490.944 ug/L	1.4820	0.30%
QC value within limits for Cu 327.397 Recovery = 98.19%							
Fe 238.204†	2818.5	538.058 ug/L		0.0428	538.058 ug/L	0.0428	0.01%
QC value within limits for Fe 238.204 Recovery = 107.61%							
K 766.490†	4153.7	5.01437 mg/L		0.027477	5.01437 mg/L	0.027477	0.55%
QC value within limits for K 766.490 Recovery = 100.29%							
Li 670.784†	25733.4	489.674 ug/L		1.5660	489.674 ug/L	1.5660	0.32%
QC value within limits for Li 670.784 Recovery = 97.93%							
Mg 279.071†	1641.4	5.15837 mg/L		0.013006	5.15837 mg/L	0.013006	0.25%
QC value within limits for Mg 279.071 Recovery = 103.17%							
Mn 257.610†	93466.8	495.108 ug/L		0.0431	495.108 ug/L	0.0431	0.01%
QC value within limits for Mn 257.610 Recovery = 99.02%							
Mo 202.031†	2713.0	502.588 ug/L		12.1750	502.588 ug/L	12.1750	2.42%
QC value within limits for Mo 202.031 Recovery = 100.52%							
Na 589.592†	27165.4	4.89534 mg/L		0.009882	4.89534 mg/L	0.009882	0.20%
QC value within limits for Na 589.592 Recovery = 97.91%							
Ni 231.604†	4614.8	504.373 ug/L		14.2846	504.373 ug/L	14.2846	2.83%
QC value within limits for Ni 231.604 Recovery = 100.87%							
Pb 220.353†	671.6	493.073 ug/L		18.9155	493.073 ug/L	18.9155	3.84%
QC value within limits for Pb 220.353 Recovery = 98.61%							
S 180.669†	802.7	4998.17 ug/L		224.462	4998.17 ug/L	224.462	4.49%
QC value within limits for S 180.669 Recovery = 99.96%							
Sb 217.582†	2437.3	2525.11 ug/L		45.649	2525.11 ug/L	45.649	1.81%
QC value within limits for Sb 217.582 Recovery = 101.00%							
Se 196.026†	1500.3	2542.55 ug/L		78.844	2542.55 ug/L	78.844	3.10%
QC value within limits for Se 196.026 Recovery = 101.70%							
Sn 189.927†	3601.3	2497.65 ug/L		84.055	2497.65 ug/L	84.055	3.37%
QC value within limits for Sn 189.927 Recovery = 99.91%							

Sr 407.771† 318999.7 490.479 ug/L 0.0826 490.479 ug/L 0.0826 0.02% CKD
 QC value within limits for Sr 407.771 Recovery = 98.10%
 Ti 334.940† 14168.1 487.828 ug/L 1.6563 487.828 ug/L 1.6563 0.34%
 QC value within limits for Ti 334.940 Recovery = 97.57%
 Tl 190.801† 2433.6 2542.55 ug/L 55.001 2542.55 ug/L 55.001 2.16%
 QC value within limits for Tl 190.801 Recovery = 101.70%
 V 292.395† 20248.5 497.528 ug/L 1.0443 497.528 ug/L 1.0443 0.21%
 QC value within limits for V 292.395 Recovery = 99.51%
 Zn 206.200† 4669.7 508.735 ug/L 13.8462 508.735 ug/L 13.8462 2.72%
 QC value within limits for Zn 206.200 Recovery = 101.75%
 All analyte(s) passed QC.

Sequence No.: 26

Sample ID: 5K02031-CCB

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 1

Date Collected: 11/3/2015 12:04:59 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	190843.7	190843.7	105.727 %			12:05:25 PM
1	Al 396.153†	13.8	-34.7	-22.5141 ug/L		-22.5141 ug/L	12:05:30 PM
1	Ba 455.398†	707.7	96.0	2.03502 ug/L		2.03502 ug/L	12:05:25 PM
1	Ca 315.887†	284.5	27.5	0.0582757 mg/L		0.0582757 mg/L	12:05:30 PM
1	Fe 238.204†	41.3	9.1	-0.492172 ug/L		-0.492172 ug/L	12:05:30 PM
1	K 766.490†	172.0	-49.2	0.0153582 mg/L		0.0153582 mg/L	12:05:25 PM
1	Li 670.784†	107.0	33.8	3.51535 ug/L		3.51535 ug/L	12:05:25 PM
1	Mg 279.071†	-4.0	-10.0	-0.0078803 mg/L		-0.0078803 mg/L	12:05:30 PM
1	Na 589.592†	966.4	148.2	0.0533690 mg/L		0.0533690 mg/L	12:05:25 PM
1	Sr 407.771†	2007.6	90.8	2.96486 ug/L		2.96486 ug/L	12:05:30 PM
1	Ti 334.940†	-93.0	4.0	6.49639 ug/L		6.49639 ug/L	12:05:30 PM
1	Y 360.076	269933.8	269933.8	100.724 %			12:05:39 PM
1	Ag 328.068†	-26.9	16.6	0.864633 ug/L		0.864633 ug/L	12:05:44 PM
1	As 188.979†	-35.2	21.6	38.4117 ug/L		38.4117 ug/L	12:05:44 PM
1	B 249.677†	407.9	3.5	-3.38846 ug/L		-3.38846 ug/L	12:05:44 PM
1	Be 234.861†	-980.3	10.3	0.308084 ug/L		0.308084 ug/L	12:05:44 PM
1	Cd 214.437†	533.3	-27.6	4.49819 ug/L		4.49819 ug/L	12:05:44 PM
1	Ce 413.764†	632.4	-57.7	-1.78685 ug/L		-1.78685 ug/L	12:05:39 PM
1	Co 228.616†	-59.4	6.7	2.00517 ug/L		2.00517 ug/L	12:05:44 PM
1	Cr 205.557†	-55.0	-13.2	0.728072 ug/L		0.728072 ug/L	12:05:44 PM
1	Cu 327.397†	-40.5	-5.7	1.94689 ug/L		1.94689 ug/L	12:05:39 PM
1	Mn 257.610†	227.0	20.9	2.31877 ug/L		2.31877 ug/L	12:05:44 PM
1	Mo 202.031†	136.1	1.1	3.98796 ug/L		3.98796 ug/L	12:05:44 PM
1	Ni 231.604†	581.4	-22.2	-0.862395 ug/L		-0.862395 ug/L	12:05:44 PM
1	Pb 220.353†	91.2	2.8	1.67276 ug/L		1.67276 ug/L	12:05:44 PM
1	S 180.669†	8.2	3.3	31.6796 ug/L		31.6796 ug/L	12:05:44 PM
1	Sb 217.582†	4.5	7.9	22.6263 ug/L		22.6263 ug/L	12:05:44 PM
1	Se 196.026†	-56.2	4.1	21.3396 ug/L		21.3396 ug/L	12:05:44 PM
1	Sn 189.927†	-5.8	-14.1	1.05988 ug/L		1.05988 ug/L	12:05:44 PM
1	Tl 190.801†	-75.0	1.3	9.06824 ug/L		9.06824 ug/L	12:05:44 PM
1	V 292.395†	-26.9	-0.6	1.24526 ug/L		1.24526 ug/L	12:05:44 PM
1	Zn 206.200†	-33.9	-1.8	0.358136 ug/L		0.358136 ug/L	12:05:44 PM
2	Sc 357.234	192893.4	192893.4	106.862 %			12:05:31 PM
2	Al 396.153†	84.4	31.3	13.6867 ug/L		13.6867 ug/L	12:05:36 PM
2	Ba 455.398†	668.7	52.4	1.86700 ug/L		1.86700 ug/L	12:05:31 PM
2	Ca 315.887†	282.1	22.4	0.0557659 mg/L		0.0557659 mg/L	12:05:36 PM
2	Fe 238.204†	40.6	8.0	-0.702112 ug/L		-0.702112 ug/L	12:05:36 PM
2	K 766.490†	276.4	46.8	0.129504 mg/L		0.129504 mg/L	12:05:31 PM
2	Li 670.784†	149.6	72.6	4.24929 ug/L		4.24929 ug/L	12:05:31 PM
2	Mg 279.071†	-8.3	-14.1	-0.0205511 mg/L		-0.0205511 mg/L	12:05:36 PM
2	Na 589.592†	973.3	144.9	0.0527784 mg/L		0.0527784 mg/L	12:05:31 PM
2	Sr 407.771†	1964.1	29.9	2.87180 ug/L		2.87180 ug/L	12:05:36 PM
2	Ti 334.940†	-86.3	11.1	6.73834 ug/L		6.73834 ug/L	12:05:36 PM
2	Y 360.076	269765.9	269765.9	100.661 %			12:05:45 PM
2	Ag 328.068†	-13.2	30.1	1.06079 ug/L		1.06079 ug/L	12:05:50 PM
2	As 188.979†	-39.5	17.4	31.4076 ug/L		31.4076 ug/L	12:05:50 PM
2	B 249.677†	411.4	7.1	-3.15261 ug/L		-3.15261 ug/L	12:05:50 PM
2	Be 234.861†	-984.6	5.3	0.290337 ug/L		0.290337 ug/L	12:05:50 PM
2	Cd 214.437†	558.4	-2.3	5.32844 ug/L		5.32844 ug/L	12:05:50 PM
2	Ce 413.764†	685.5	-4.6	-0.141087 ug/L		-0.141087 ug/L	12:05:45 PM
2	Co 228.616†	-49.0	17.0	2.63726 ug/L		2.63726 ug/L	12:05:50 PM
2	Cr 205.557†	-35.0	6.7	2.61009 ug/L		2.61009 ug/L	12:05:50 PM

2	Cu 327.397†	-68.3	-33.3	1.32613 ug/L	1.32613 ug/L	12:05:45 PM
2	Mn 257.610†	185.4	-20.3	2.10122 ug/L	2.10122 ug/L	12:05:50 PM
2	Mo 202.031†	140.9	5.9	4.88168 ug/L	4.88168 ug/L	12:05:50 PM
2	Ni 231.604†	564.3	-38.8	-2.67158 ug/L	-2.67158 ug/L	12:05:50 PM
2	Pb 220.353†	92.0	3.7	2.31440 ug/L	2.31440 ug/L	12:05:50 PM
2	S 180.669†	8.3	3.4	32.3880 ug/L	32.3880 ug/L	12:05:50 PM
2	Sb 217.582†	-26.4	-22.8	-8.93949 ug/L	-8.93949 ug/L	12:05:50 PM
2	Se 196.026†	-62.5	-2.2	10.7534 ug/L	10.7534 ug/L	12:05:50 PM
2	Sn 189.927†	19.2	10.8	18.2395 ug/L	18.2395 ug/L	12:05:50 PM
2	Tl 190.801†	-68.4	7.8	15.8882 ug/L	15.8882 ug/L	12:05:50 PM
2	V 292.395†	-17.3	8.8	1.49165 ug/L	1.49165 ug/L	12:05:50 PM
2	Zn 206.200†	-21.7	10.3	1.67576 ug/L	1.67576 ug/L	12:05:50 PM

CKD

Mean Data: 5K02031-CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	191868.6	106.295 %		0.8029			0.76%
Y 360.076	269849.8	100.692 %		0.0443			0.04%
Ag 328.068†	23.4	0.962713 ug/L		0.1387069	0.962713 ug/L	0.1387069	14.41%
QC value within limits for Ag 328.068							Recovery = Not calculated
Al 396.153†	-1.7	-4.41370 ug/L		25.597880	-4.41370 ug/L	25.597880	579.96%
QC value within limits for Al 396.153							Recovery = Not calculated
As 188.979†	19.5	34.9096 ug/L		4.95260	34.9096 ug/L	4.95260	14.19%
QC value within limits for As 188.979							Recovery = Not calculated
B 249.677†	5.3	-3.27054 ug/L		0.166770	-3.27054 ug/L	0.166770	5.10%
QC value within limits for B 249.677							Recovery = Not calculated
Ba 455.398†	74.2	1.95101 ug/L		0.118808	1.95101 ug/L	0.118808	6.09%
QC value within limits for Ba 455.398							Recovery = Not calculated
Be 234.861†	7.8	0.299211 ug/L		0.0125485	0.299211 ug/L	0.0125485	4.19%
QC value within limits for Be 234.861							Recovery = Not calculated
Ca 315.887†	24.9	0.0570208 mg/L		0.00177471	0.0570208 mg/L	0.00177471	3.11%
QC value within limits for Ca 315.887							Recovery = Not calculated
Cd 214.437†	-14.9	4.91331 ug/L		0.587072	4.91331 ug/L	0.587072	11.95%
QC value within limits for Cd 214.437							Recovery = Not calculated
Ce 413.764†	-31.2	-0.963971 ug/L		1.1637334	-0.963971 ug/L	1.1637334	120.72%
Co 228.616†	11.9	2.32122 ug/L		0.446956	2.32122 ug/L	0.446956	19.26%
QC value within limits for Co 228.616							Recovery = Not calculated
Cr 205.557†	-3.2	1.66908 ug/L		1.330790	1.66908 ug/L	1.330790	79.73%
QC value within limits for Cr 205.557							Recovery = Not calculated
Cu 327.397†	-19.5	1.63651 ug/L		0.438945	1.63651 ug/L	0.438945	26.82%
QC value within limits for Cu 327.397							Recovery = Not calculated
Fe 238.204†	8.6	-0.597142 ug/L		0.1484501	-0.597142 ug/L	0.1484501	24.86%
QC value within limits for Fe 238.204							Recovery = Not calculated
K 766.490†	-1.2	0.0724311 mg/L		0.08071332	0.0724311 mg/L	0.08071332	111.43%
QC value within limits for K 766.490							Recovery = Not calculated
Li 670.784†	53.2	3.88232 ug/L		0.518973	3.88232 ug/L	0.518973	13.37%
QC value within limits for Li 670.784							Recovery = Not calculated
Mg 279.071†	-12.0	-0.0142157 mg/L		0.00895957	-0.0142157 mg/L	0.00895957	63.03%
QC value within limits for Mg 279.071							Recovery = Not calculated
Mn 257.610†	0.3	2.20999 ug/L		0.153833	2.20999 ug/L	0.153833	6.96%
QC value within limits for Mn 257.610							Recovery = Not calculated
Mo 202.031†	3.5	4.43482 ug/L		0.631959	4.43482 ug/L	0.631959	14.25%
QC value within limits for Mo 202.031							Recovery = Not calculated
Na 589.592†	146.6	0.0530737 mg/L		0.00041763	0.0530737 mg/L	0.00041763	0.79%
QC value within limits for Na 589.592							Recovery = Not calculated
Ni 231.604†	-30.5	-1.76699 ug/L		1.279287	-1.76699 ug/L	1.279287	72.40%
QC value within limits for Ni 231.604							Recovery = Not calculated
Pb 220.353†	3.3	1.99358 ug/L		0.453710	1.99358 ug/L	0.453710	22.76%
QC value within limits for Pb 220.353							Recovery = Not calculated
S 180.669†	3.4	32.0338 ug/L		0.50094	32.0338 ug/L	0.50094	1.56%
QC value within limits for S 180.669							Recovery = Not calculated
Sb 217.582†	-7.5	6.84340 ug/L		22.320377	6.84340 ug/L	22.320377	326.16%
QC value within limits for Sb 217.582							Recovery = Not calculated
Se 196.026†	1.0	16.0465 ug/L		7.48559	16.0465 ug/L	7.48559	46.65%
QC value within limits for Se 196.026							Recovery = Not calculated
Sn 189.927†	-1.6	9.64969 ug/L		12.147837	9.64969 ug/L	12.147837	125.89%
QC value within limits for Sn 189.927							Recovery = Not calculated
Sr 407.771†	60.4	2.91833 ug/L		0.065805	2.91833 ug/L	0.065805	2.25%
QC value within limits for Sr 407.771							Recovery = Not calculated
Ti 334.940†	7.5	6.61737 ug/L		0.171081	6.61737 ug/L	0.171081	2.59%
QC value within limits for Ti 334.940							Recovery = Not calculated
Tl 190.801†	4.6	12.4782 ug/L		4.82241	12.4782 ug/L	4.82241	38.65%
QC value within limits for Tl 190.801							Recovery = Not calculated
V 292.395†	4.1	1.36846 ug/L		0.174223	1.36846 ug/L	0.174223	12.73%
QC value within limits for V 292.395							Recovery = Not calculated

000510

Zn 206.200† 4.2 1.01695 ug/L 0.931698 1.01695 ug/L 0.931698 91.62%
QC value within limits for Zn 206.200 Recovery = Not calculated
All analyte(s) passed QC.

CKD

Sequence No.: 27
Sample ID: 5K02031-SRD1
Analyst:
Initial Sample Wt:
Dilution: 50X
Wash Time: 60

Autosampler Location: 210
Date Collected: 11/3/2015 12:06:59 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: 5K02031-SRD1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	185112.7	185112.7	102.552	%		12:07:26 PM
1	Al 396.153†	77.3	27.7	13.0320	ug/L	651.602 ug/L	12:07:31 PM
1	Ba 455.398†	1336.3	729.6	4.47221	ug/L	223.611 ug/L	12:07:26 PM
1	Ca 315.887†	2846.1	2533.6	1.28904	mg/L	64.4518 mg/L	12:07:31 PM
1	Fe 238.204†	253.4	217.1	39.3742	ug/L	1968.71 ug/L	12:07:31 PM
1	K 766.490†	165.7	-50.3	0.0140468	mg/L	0.702338 mg/L	12:07:26 PM
1	Li 670.784†	136.7	66.0	4.12384	ug/L	206.192 ug/L	12:07:26 PM
1	Mg 279.071†	262.1	249.3	0.803243	mg/L	40.1621 mg/L	12:07:31 PM
1	Na 589.592†	38373.2	36652.4	6.59558	mg/L	329.779 mg/L	12:07:26 PM
1	Sr 407.771†	6020.8	4063.0	9.03705	ug/L	451.852 ug/L	12:07:26 PM
1	Ti 334.940†	-81.0	12.9	6.83031	ug/L	341.515 ug/L	12:07:31 PM
1	Y 360.076	271984.1	271984.1	101.489	%		12:07:39 PM
1	Ag 328.068†	-13.0	30.5	1.03537	ug/L	51.7684 ug/L	12:07:44 PM
1	As 188.979†	-47.1	10.3	19.4824	ug/L	974.122 ug/L	12:07:44 PM
1	B 249.677†	599.6	189.3	8.63600	ug/L	431.800 ug/L	12:07:44 PM
1	Be 234.861†	-939.5	57.8	0.446649	ug/L	22.3324 ug/L	12:07:44 PM
1	Cd 214.437†	572.8	7.3	5.64324	ug/L	282.162 ug/L	12:07:44 PM
1	Ce 413.764†	587.4	-106.8	-3.32199	ug/L	-166.100 ug/L	12:07:39 PM
1	Co 228.616†	-74.2	-7.4	1.12678	ug/L	56.3388 ug/L	12:07:44 PM
1	Cr 205.557†	-36.0	6.1	2.55124	ug/L	127.562 ug/L	12:07:44 PM
1	Cu 327.397†	-4.3	30.3	2.75498	ug/L	137.749 ug/L	12:07:39 PM
1	Mn 257.610†	373.0	163.1	3.06862	ug/L	153.431 ug/L	12:07:44 PM
1	Mo 202.031†	119.2	-16.5	0.746727	ug/L	37.3364 ug/L	12:07:44 PM
1	Ni 231.604†	597.0	-11.1	0.333368	ug/L	16.6684 ug/L	12:07:44 PM
1	Pb 220.353†	95.2	6.1	4.06535	ug/L	203.268 ug/L	12:07:44 PM
1	S 180.669†	84.4	78.3	480.996	ug/L	24049.8 ug/L	12:07:44 PM
1	Sb 217.582†	2.5	5.9	20.7693	ug/L	1038.46 ug/L	12:07:44 PM
1	Se 196.026†	-29.8	30.5	65.7227	ug/L	3286.14 ug/L	12:07:44 PM
1	Sn 189.927†	7.7	-0.7	10.2988	ug/L	514.938 ug/L	12:07:44 PM
1	Tl 190.801†	-71.9	4.9	12.8536	ug/L	642.678 ug/L	12:07:44 PM
1	V 292.395†	-43.2	-16.5	0.787262	ug/L	39.3631 ug/L	12:07:44 PM
1	Zn 206.200†	-20.3	11.8	1.84550	ug/L	92.2750 ug/L	12:07:44 PM
2	Sc 357.234	188264.7	188264.7	104.298	%		12:07:32 PM
2	Al 396.153†	66.4	15.9	6.32400	ug/L	316.200 ug/L	12:07:37 PM
2	Ba 455.398†	1232.1	608.0	4.00425	ug/L	200.213 ug/L	12:07:32 PM
2	Ca 315.887†	2799.0	2442.0	1.24404	mg/L	62.2020 mg/L	12:07:37 PM
2	Fe 238.204†	224.5	185.3	33.2645	ug/L	1663.22 ug/L	12:07:37 PM
2	K 766.490†	210.9	-9.6	0.0624516	mg/L	3.12258 mg/L	12:07:32 PM
2	Li 670.784†	209.0	133.0	5.39156	ug/L	269.578 ug/L	12:07:32 PM
2	Mg 279.071†	242.3	226.0	0.730557	mg/L	36.5278 mg/L	12:07:37 PM
2	Na 589.592†	38919.0	36549.3	6.57710	mg/L	328.855 mg/L	12:07:32 PM
2	Sr 407.771†	6180.7	4117.9	9.12108	ug/L	456.054 ug/L	12:07:32 PM
2	Ti 334.940†	-39.2	54.3	8.23682	ug/L	411.841 ug/L	12:07:37 PM
2	Y 360.076	270145.6	270145.6	100.803	%		12:07:45 PM
2	Ag 328.068†	2.8	46.1	1.24949	ug/L	62.4746 ug/L	12:07:50 PM
2	As 188.979†	-35.6	21.3	37.7682	ug/L	1888.41 ug/L	12:07:50 PM
2	B 249.677†	619.5	213.0	10.1789	ug/L	508.946 ug/L	12:07:50 PM
2	Be 234.861†	-917.6	73.2	0.508154	ug/L	25.4077 ug/L	12:07:50 PM
2	Cd 214.437†	535.5	-25.8	4.55106	ug/L	227.553 ug/L	12:07:50 PM
2	Ce 413.764†	611.3	-79.2	-2.46268	ug/L	-123.134 ug/L	12:07:45 PM
2	Co 228.616†	-85.3	-19.0	0.420473	ug/L	21.0237 ug/L	12:07:50 PM
2	Cr 205.557†	-31.0	10.8	2.99084	ug/L	149.542 ug/L	12:07:50 PM
2	Cu 327.397†	-51.4	-16.5	1.70439	ug/L	85.2196 ug/L	12:07:45 PM
2	Mn 257.610†	379.7	172.3	3.11676	ug/L	155.838 ug/L	12:07:50 PM
2	Mo 202.031†	148.7	13.5	6.27307	ug/L	313.654 ug/L	12:07:50 PM
2	Ni 231.604†	582.2	-21.8	-0.814492	ug/L	-40.7246 ug/L	12:07:50 PM
2	Pb 220.353†	84.9	-3.4	-2.92731	ug/L	-146.366 ug/L	12:07:50 PM
2	S 180.669†	83.0	77.5	476.673	ug/L	23833.6 ug/L	12:07:50 PM
2	Sb 217.582†	2.6	6.0	20.8380	ug/L	1041.90 ug/L	12:07:50 PM
2	Se 196.026†	-88.4	-27.8	-32.3462	ug/L	-1617.31 ug/L	12:07:50 PM

2	Sn 189.927†	2.3	-6.0	6.63551 ug/L	331.776 ug/L	12:07:50 PM
2	Tl 190.801†	-73.6	2.7	10.5742 ug/L	528.709 ug/L	12:07:50 PM
2	V 292.395†	-78.3	-51.6	0.0701415 ug/L	3.50708 ug/L	12:07:50 PM
2	Zn 206.200†	-23.1	8.9	1.52804 ug/L	76.4019 ug/L	12:07:50 PM

CKD

Mean Data: 5K02031-SRD1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	186688.7	103.425 %	1.2348			1.19%
Y 360.076	271064.8	101.146 %	0.4851			0.48%
Ag 328.068†	38.3	1.14243 ug/L	0.151408	57.1215 ug/L	7.57041	13.25%
Al 396.153†	21.8	9.67802 ug/L	4.743303	483.901 ug/L	237.1652	49.01%
As 188.979†	15.8	28.6253 ug/L	12.92996	1431.26 ug/L	646.498	45.17%
B 249.677†	201.2	9.40746 ug/L	1.091008	470.373 ug/L	54.5504	11.60%
Ba 455.398†	668.8	4.23823 ug/L	0.330896	211.912 ug/L	16.5448	7.81%
Be 234.861†	65.5	0.477401 ug/L	0.0434909	23.8701 ug/L	2.17455	9.11%
Ca 315.887†	2487.8	1.26654 mg/L	0.031817	63.3269 mg/L	1.59086	2.51%
Cd 214.437†	-9.3	5.09715 ug/L	0.772282	254.858 ug/L	38.6141	15.15%
Ce 413.764†	-93.0	-2.89234 ug/L	0.607625	-144.617 ug/L	30.3812	21.01%
Co 228.616†	-13.2	0.773625 ug/L	0.4994323	38.6812 ug/L	24.97161	64.56%
Cr 205.557†	8.4	2.77104 ug/L	0.310840	138.552 ug/L	15.5420	11.22%
Cu 327.397†	6.9	2.22969 ug/L	0.742881	111.484 ug/L	37.1440	33.32%
Fe 238.204†	201.2	36.3193 ug/L	4.32023	1815.97 ug/L	216.011	11.90%
K 766.490†	-29.9	0.0382492 mg/L	0.03422743	1.91246 mg/L	1.711372	89.49%
Li 670.784†	99.5	4.75770 ug/L	0.896414	237.885 ug/L	44.8207	18.84%
Mg 279.071†	237.7	0.766900 mg/L	0.0513969	38.3450 mg/L	2.56984	6.70%
Mn 257.610†	167.7	3.09269 ug/L	0.034040	154.634 ug/L	1.7020	1.10%
Mo 202.031†	-1.5	3.50990 ug/L	3.907717	175.495 ug/L	195.3859	111.33%
Na 589.592†	36600.9	~~6.58634~~ mg/L	0.013064	329.317 mg/L	0.6532	0.20%
Ni 231.604†	-16.4	-0.240562 ug/L	0.8116592	-12.0281 ug/L	40.58296	337.40%
Pb 220.353†	1.3	0.569020 ug/L	4.9445604	28.4510 ug/L	247.22802	868.96%
S 180.669†	77.9	478.834 ug/L	3.0566	23941.7 ug/L	152.83	0.64%
Sb 217.582†	5.9	20.8036 ug/L	0.04860	1040.18 ug/L	2.430	0.23%
Se 196.026†	1.4	16.6883 ug/L	69.34517	834.414 ug/L	3467.2584	415.53%
Sn 189.927†	-3.4	8.46714 ug/L	2.590313	423.357 ug/L	129.5156	30.59%
Sr 407.771†	4090.4	9.07906 ug/L	0.059420	453.953 ug/L	2.9710	0.65%
Ti 334.940†	33.6	7.53356 ug/L	0.994554	376.678 ug/L	49.7277	13.20%
Tl 190.801†	3.8	11.7139 ug/L	1.61176	585.693 ug/L	80.5880	13.76%
V 292.395†	-34.1	0.428702 ug/L	0.5070810	21.4351 ug/L	25.35405	118.28%
Zn 206.200†	10.4	1.68677 ug/L	0.224481	84.3385 ug/L	11.22404	13.31%

Sequence No.: 28

Sample ID: 1511696-PS1

Analyst:

Initial Sample Wt:

Dilution: 10X

Wash Time: 60

Autosampler Location: 211

Date Collected: 11/3/2015 12:08:56 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 1511696-PS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Analysis Time
1	Sc 357.234	188253.2	188253.2	104.292 %			12:09:21 PM
1	Al 396.153†	2467.5	2318.2	1288.58 ug/L		12885.8 ug/L	12:09:27 PM
1	Ba 455.398†	73036.5	69457.6	268.841 ug/L		2688.41 ug/L	12:09:21 PM
1	Ca 315.887†	40120.2	38227.5	18.8181 mg/L		188.181 mg/L	12:09:27 PM
1	Fe 238.204†	2405.1	2276.1	434.453 ug/L		4344.53 ug/L	12:09:27 PM
1	K 766.490†	11626.2	10935.9	13.0814 mg/L		130.814 mg/L	12:09:27 PM
1	Li 670.784†	14400.5	13740.6	262.855 ug/L		2628.55 ug/L	12:09:21 PM
1	Mg 279.071†	5364.6	5137.5	16.0956 mg/L		160.956 mg/L	12:09:27 PM
1	Na 589.592†	267599.7	255821.6	45.8747 mg/L		458.747 mg/L	12:09:21 PM
1	Sr 407.771†	197453.6	187520.0	289.486 ug/L		2894.86 ug/L	12:09:21 PM
1	Ti 334.940†	35.8	126.2	11.0333 ug/L		110.333 ug/L	12:09:27 PM
1	Y 360.076	259892.4	259892.4	96.9768 %			12:09:36 PM
1	Ag 328.068†	18469.6	19088.6	254.509 ug/L		2545.09 ug/L	12:09:36 PM
1	As 188.979†	726.4	805.7	1341.95 ug/L		13419.5 ug/L	12:09:41 PM
1	B 249.677†	5348.3	5113.5	326.435 ug/L		3264.35 ug/L	12:09:41 PM
1	Be 234.861†	6099.9	7273.6	26.1369 ug/L		261.369 ug/L	12:09:41 PM
1	Cd 214.437†	8332.5	8035.2	270.113 ug/L		2701.13 ug/L	12:09:41 PM
1	Ce 413.764†	762.8	101.0	2.94191 ug/L		29.4191 ug/L	12:09:36 PM
1	Co 228.616†	4016.4	4207.3	260.708 ug/L		2607.08 ug/L	12:09:41 PM
1	Cr 205.557†	2668.8	2793.5	266.567 ug/L		2665.67 ug/L	12:09:41 PM
1	Cu 327.397†	11091.7	11472.0	260.160 ug/L		2601.60 ug/L	12:09:36 PM
1	Mn 257.610†	47519.7	48796.6	259.539 ug/L		2595.39 ug/L	12:09:36 PM

000512

1	Mo 202.031†	153.1	23.9	8.17606 ug/L	81.7606 ug/L	12:09:41 PM
1	Ni 231.604†	2944.8	2437.2	266.512 ug/L	2665.12 ug/L	12:09:41 PM
1	Pb 220.353†	437.4	363.4	265.890 ug/L	2658.90 ug/L	12:09:41 PM
1	S 180.669†	432.6	441.3	2405.45 ug/L	24054.5 ug/L	12:09:41 PM
1	Sb 217.582†	-1.0	2.4	19.3641 ug/L	193.641 ug/L	12:09:41 PM
1	Se 196.026†	707.5	789.4	1343.19 ug/L	13431.9 ug/L	12:09:41 PM
1	Sn 189.927†	0.8	-7.5	5.62766 ug/L	56.2766 ug/L	12:09:41 PM
1	Tl 190.801†	1153.7	1265.4	1323.21 ug/L	13232.1 ug/L	12:09:41 PM
1	V 292.395†	11384.0	11764.9	283.308 ug/L	2833.08 ug/L	12:09:41 PM
1	Zn 206.200†	2306.8	2410.5	263.014 ug/L	2630.14 ug/L	12:09:41 PM
2	Sc 357.234	183907.5	183907.5	101.884 %		12:09:28 PM
2	Al 396.153†	2453.4	2360.3	1312.00 ug/L	13120.0 ug/L	12:09:34 PM
2	Ba 455.398†	71712.0	69812.4	270.206 ug/L	2702.06 ug/L	12:09:28 PM
2	Ca 315.887†	40098.3	39115.1	19.2540 mg/L	192.540 mg/L	12:09:34 PM
2	Fe 238.204†	2398.7	2324.4	443.685 ug/L	4436.85 ug/L	12:09:34 PM
2	K 766.490†	11612.4	11185.8	13.3786 mg/L	133.786 mg/L	12:09:34 PM
2	Li 670.784†	14235.6	13905.0	265.966 ug/L	2659.66 ug/L	12:09:28 PM
2	Mg 279.071†	5399.5	5293.4	16.5831 mg/L	165.831 mg/L	12:09:34 PM
2	Na 589.592†	263185.4	257552.2	46.1848 mg/L	461.848 mg/L	12:09:28 PM
2	Sr 407.771†	194275.5	188874.5	291.557 ug/L	2915.57 ug/L	12:09:28 PM
2	Ti 334.940†	12.1	103.8	10.2837 ug/L	102.837 ug/L	12:09:34 PM
2	Y 360.076	265092.4	265092.4	98.9171 %		12:09:43 PM
2	Ag 328.068†	18820.5	19069.8	254.267 ug/L	2542.67 ug/L	12:09:43 PM
2	As 188.979†	705.5	769.8	1282.38 ug/L	12823.8 ug/L	12:09:48 PM
2	B 249.677†	5253.2	4909.2	313.250 ug/L	3132.50 ug/L	12:09:48 PM
2	Be 234.861†	5993.8	7042.9	25.2983 ug/L	252.983 ug/L	12:09:48 PM
2	Cd 214.437†	8186.1	7718.6	259.679 ug/L	2596.79 ug/L	12:09:48 PM
2	Ce 413.764†	821.9	145.4	4.31400 ug/L	43.1400 ug/L	12:09:43 PM
2	Co 228.616†	3950.7	4059.6	251.622 ug/L	2516.22 ug/L	12:09:48 PM
2	Cr 205.557†	2627.3	2697.5	257.484 ug/L	2574.84 ug/L	12:09:48 PM
2	Cu 327.397†	11272.2	11430.1	259.213 ug/L	2592.13 ug/L	12:09:43 PM
2	Mn 257.610†	47980.5	48301.3	256.926 ug/L	2569.26 ug/L	12:09:43 PM
2	Mo 202.031†	169.3	37.1	10.6124 ug/L	106.124 ug/L	12:09:48 PM
2	Ni 231.604†	2908.9	2341.4	256.103 ug/L	2561.03 ug/L	12:09:48 PM
2	Pb 220.353†	437.8	354.9	259.677 ug/L	2596.77 ug/L	12:09:48 PM
2	S 180.669†	457.6	457.8	2500.86 ug/L	25008.6 ug/L	12:09:48 PM
2	Sb 217.582†	-9.0	-5.6	11.1394 ug/L	111.394 ug/L	12:09:48 PM
2	Se 196.026†	701.1	768.7	1308.32 ug/L	13083.2 ug/L	12:09:48 PM
2	Sn 189.927†	-12.6	-21.1	-3.78406 ug/L	-37.8406 ug/L	12:09:48 PM
2	Tl 190.801†	1144.9	1233.2	1289.66 ug/L	12896.6 ug/L	12:09:48 PM
2	V 292.395†	11099.7	11247.3	270.955 ug/L	2709.55 ug/L	12:09:48 PM
2	Zn 206.200†	2279.1	2335.9	254.889 ug/L	2548.89 ug/L	12:09:48 PM

CKD

Mean Data: 1511696-PS1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	186080.3	103.088	%	1.7024			1.65%
Y 360.076	262492.4	97.9469	%	1.37201			1.40%
Ag 328.068†	19079.2	254.388	ug/L	0.1711	2543.88 ug/L	1.711	0.07%
Al 396.153†	2339.2	1300.29	ug/L	16.562	13002.9 ug/L	165.62	1.27%
As 188.979†	787.7	1312.16	ug/L	42.125	13121.6 ug/L	421.25	3.21%
B 249.677†	5011.4	319.843	ug/L	9.3230	3198.43 ug/L	93.230	2.91%
Ba 455.398†	69635.0	269.523	ug/L	0.9651	2695.23 ug/L	9.651	0.36%
Be 234.861†	7158.3	25.7176	ug/L	0.59301	257.176 ug/L	5.9301	2.31%
Ca 315.887†	38671.3	19.0361	mg/L	0.30820	190.361 mg/L	3.0820	1.62%
Cd 214.437†	7876.9	264.896	ug/L	7.3782	2648.96 ug/L	73.782	2.79%
Ce 413.764†	123.2	3.62795	ug/L	0.970214	36.2795 ug/L	9.70214	26.74%
Co 228.616†	4133.5	256.165	ug/L	6.4246	2561.65 ug/L	64.246	2.51%
Cr 205.557†	2745.5	262.025	ug/L	6.4224	2620.25 ug/L	64.224	2.45%
Cu 327.397†	11451.1	259.687	ug/L	0.6700	2596.87 ug/L	6.700	0.26%
Fe 238.204†	2300.3	439.069	ug/L	6.5279	4390.69 ug/L	65.279	1.49%
K 766.490†	11060.9	13.2300	mg/L	0.21018	132.300 mg/L	2.1018	1.59%
Li 670.784†	13822.8	264.410	ug/L	2.1998	2644.10 ug/L	21.998	0.83%
Mg 279.071†	5215.4	16.3394	mg/L	0.34474	163.394 mg/L	3.4474	2.11%
Mn 257.610†	48548.9	258.233	ug/L	1.8471	2582.33 ug/L	18.471	0.72%
Mo 202.031†	30.5	9.39421	ug/L	1.722721	93.9421 ug/L	17.22721	18.34%
Na 589.592†	256686.9	46.0298	mg/L	0.21931	460.298 mg/L	2.1931	0.48%
Ni 231.604†	2389.3	261.307	ug/L	7.3607	2613.07 ug/L	73.607	2.82%
Pb 220.353†	359.2	262.783	ug/L	4.3932	2627.83 ug/L	43.932	1.67%
S 180.669†	449.5	2453.15	ug/L	67.466	24531.5 ug/L	674.66	2.75%
Sb 217.582†	-1.6	15.2517	ug/L	5.81575	152.517 ug/L	58.1575	38.13%
Se 196.026†	779.0	1325.76	ug/L	24.655	13257.6 ug/L	246.55	1.86%
Sn 189.927†	-14.3	0.921801	ug/L	6.6550860	9.21801 ug/L	66.550860	721.97%
Sr 407.771†	188197.3	290.522	ug/L	1.4642	2905.22 ug/L	14.642	0.50%
Ti 334.940†	115.0	10.6585	ug/L	0.53009	106.585 ug/L	5.3009	4.97%

000513

Tl 190.801†	1249.3	1306.43 ug/L	23.720	13064.3 ug/L	237.20	1.82%
V 292.395†	11506.1	277.132 ug/L	8.7348	2771.32 ug/L	87.348	3.15%
Zn 206.200†	2373.2	258.952 ug/L	5.7453	2589.52 ug/L	57.453	2.22%

CKD

Sequence No.: 29

Sample ID: 1510440-16

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 212

Date Collected: 11/3/2015 12:10:56 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 1510440-16

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	182844.7	182844.7	101.295 %		12:11:21 PM
1	Al 396.153†	756.3	698.9	434.956 ug/L	434.956 ug/L	12:11:27 PM
1	Ba 455.398†	34813.0	33794.4	131.659 ug/L	131.659 ug/L	12:11:21 PM
1	Ca 315.887†	122060.5	120257.8	59.1028 mg/L	59.1028 mg/L	12:11:21 PM
1	Fe 238.204†	10100.7	9941.6	1903.33 ug/L	1903.33 ug/L	12:11:27 PM
1	K 766.490†	1260.7	1032.7	1.30219 mg/L	1.30219 mg/L	12:11:27 PM
1	Li 670.784†	518.0	444.1	11.2767 ug/L	11.2767 ug/L	12:11:27 PM
1	Mg 279.071†	12052.3	11891.9	37.2259 mg/L	37.2259 mg/L	12:11:27 PM
1	Na 589.592†	1944561.6	1918926.7	343.933 mg/L	343.933 mg/L	12:11:21 PM
1	Sr 407.771†	211005.3	206498.7	318.499 ug/L	318.499 ug/L	12:11:21 PM
1	Ti 334.940†	677.5	760.7	33.6456 ug/L	33.6456 ug/L	12:11:27 PM
1	Y 360.076	261698.8	261698.8	97.6508 %		12:11:37 PM
1	Ag 328.068†	-90.6	-49.5	0.0072684 ug/L	0.0072684 ug/L	12:11:42 PM
1	As 188.979†	-32.3	23.6	41.5292 ug/L	41.5292 ug/L	12:11:42 PM
1	B 249.677†	10109.2	9950.8	640.369 ug/L	640.369 ug/L	12:11:37 PM
1	Be 234.861†	-611.1	357.7	0.0366089 ug/L	0.0366089 ug/L	12:11:42 PM
1	Cd 214.437†	614.2	71.9	7.62783 ug/L	7.62783 ug/L	12:11:42 PM
1	Ce 413.764†	685.9	16.8	-0.0747531 ug/L	-0.0747531 ug/L	12:11:37 PM
1	Co 228.616†	-64.7	-0.5	1.52776 ug/L	1.52776 ug/L	12:11:42 PM
1	Cr 205.557†	-62.2	-22.2	-0.0739568 ug/L	-0.0739568 ug/L	12:11:42 PM
1	Cu 327.397†	53.3	89.1	4.14681 ug/L	4.14681 ug/L	12:11:37 PM
1	Mn 257.610†	7790.5	7773.5	43.2020 ug/L	43.2020 ug/L	12:11:42 PM
1	Mo 202.031†	199.3	70.0	16.6654 ug/L	16.6654 ug/L	12:11:42 PM
1	Ni 231.604†	595.0	9.9	2.47262 ug/L	2.47262 ug/L	12:11:42 PM
1	Pb 220.353†	97.2	11.9	8.36569 ug/L	8.36569 ug/L	12:11:42 PM
1	S 180.669†	3944.8	4034.8	24349.1 ug/L	24349.1 ug/L	12:11:42 PM
1	Sb 217.582†	-17.6	-14.6	7.70959 ug/L	7.70959 ug/L	12:11:42 PM
1	Se 196.026†	-73.1	-15.0	-10.8346 ug/L	-10.8346 ug/L	12:11:42 PM
1	Sn 189.927†	-31.4	-40.5	-17.1839 ug/L	-17.1839 ug/L	12:11:42 PM
1	Tl 190.801†	-74.6	-0.7	7.19593 ug/L	7.19593 ug/L	12:11:42 PM
1	V 292.395†	236.7	268.4	7.83894 ug/L	7.83894 ug/L	12:11:42 PM
1	Zn 206.200†	74.5	108.2	12.2605 ug/L	12.2605 ug/L	12:11:42 PM
2	Sc 357.234	179582.6	179582.6	99.4883 %		12:11:28 PM
2	Al 396.153†	725.5	681.5	424.963 ug/L	424.963 ug/L	12:11:34 PM
2	Ba 455.398†	33978.5	33579.9	130.834 ug/L	130.834 ug/L	12:11:28 PM
2	Ca 315.887†	118926.4	119296.5	58.6307 mg/L	58.6307 mg/L	12:11:28 PM
2	Fe 238.204†	10174.3	10196.6	1952.22 ug/L	1952.22 ug/L	12:11:34 PM
2	K 766.490†	1234.4	1029.0	1.29772 mg/L	1.29772 mg/L	12:11:34 PM
2	Li 670.784†	601.5	537.3	13.0398 ug/L	13.0398 ug/L	12:11:34 PM
2	Mg 279.071†	12065.5	12121.3	37.9435 mg/L	37.9435 mg/L	12:11:34 PM
2	Na 589.592†	1906484.4	1915524.8	343.324 mg/L	343.324 mg/L	12:11:28 PM
2	Sr 407.771†	206145.4	205397.7	316.816 ug/L	316.816 ug/L	12:11:28 PM
2	Ti 334.940†	692.2	787.6	34.5473 ug/L	34.5473 ug/L	12:11:34 PM
2	Y 360.076	254484.6	254484.6	94.9589 %		12:11:43 PM
2	Ag 328.068†	-90.8	-52.4	-0.0105848 ug/L	-0.0105848 ug/L	12:11:48 PM
2	As 188.979†	-59.5	-6.0	-7.79749 ug/L	-7.79749 ug/L	12:11:48 PM
2	B 249.677†	9834.1	9954.6	640.624 ug/L	640.624 ug/L	12:11:43 PM
2	Be 234.861†	-629.1	321.0	-0.134767 ug/L	-0.134767 ug/L	12:11:48 PM
2	Cd 214.437†	622.8	98.8	8.51155 ug/L	8.51155 ug/L	12:11:48 PM
2	Ce 413.764†	729.5	82.7	1.97034 ug/L	1.97034 ug/L	12:11:43 PM
2	Co 228.616†	-66.8	-4.6	1.27069 ug/L	1.27069 ug/L	12:11:48 PM
2	Cr 205.557†	-32.8	6.9	2.69051 ug/L	2.69051 ug/L	12:11:48 PM
2	Cu 327.397†	29.4	65.5	3.61836 ug/L	3.61836 ug/L	12:11:43 PM
2	Mn 257.610†	7724.3	7929.9	44.0271 ug/L	44.0271 ug/L	12:11:48 PM
2	Mo 202.031†	187.2	63.1	15.3936 ug/L	15.3936 ug/L	12:11:48 PM
2	Ni 231.604†	576.9	8.2	2.27715 ug/L	2.27715 ug/L	12:11:48 PM
2	Pb 220.353†	114.1	32.5	23.4709 ug/L	23.4709 ug/L	12:11:48 PM
2	S 180.669†	3920.1	4123.4	24921.7 ug/L	24921.7 ug/L	12:11:48 PM
2	Sb 217.582†	-19.1	-16.7	5.57371 ug/L	5.57371 ug/L	12:11:48 PM
2	Se 196.026†	-15.5	43.5	87.6690 ug/L	87.6690 ug/L	12:11:48 PM

2	Sn 189.927†	-14.3	-23.4	-5.36184 ug/L	-5.36184 ug/L	12:11:48 PM
2	Tl 190.801†	-76.6	-4.9	2.79187 ug/L	2.79187 ug/L	12:11:48 PM
2	V 292.395†	238.3	277.0	8.01089 ug/L	8.01089 ug/L	12:11:48 PM
2	Zn 206.200†	98.9	136.0	15.2832 ug/L	15.2832 ug/L	12:11:48 PM

CKD

Mean Data: 1510440-16

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	181213.6	100.392 %		1.2779			1.27%
Y 360.076	258091.7	96.3049 %		1.90346			1.98%
Ag 328.068†	-50.9	-0.0016582 ug/L		0.01262411	-0.0016582 ug/L	0.01262411	761.31%
Al 396.153†	690.2	429.960 ug/L		7.0662	429.960 ug/L	7.0662	1.64%
As 188.979†	8.8	16.8659 ug/L		34.87924	16.8659 ug/L	34.87924	206.80%
B 249.677†	9952.7	640.496 ug/L		0.1804	640.496 ug/L	0.1804	0.03%
Ba 455.398†	33687.1	131.246 ug/L		0.5834	131.246 ug/L	0.5834	0.44%
Be 234.861†	339.3	-0.0490793 ug/L		0.12118138	-0.0490793 ug/L	0.12118138	246.91%
Ca 315.887†	119777.2	58.8667 mg/L		0.33382	58.8667 mg/L	0.33382	0.57%
Cd 214.437†	85.4	8.06969 ug/L		0.624882	8.06969 ug/L	0.624882	7.74%
Ce 413.764†	49.7	0.947794 ug/L		1.4460994	0.947794 ug/L	1.4460994	152.58%
Co 228.616†	-2.6	1.39923 ug/L		0.181775	1.39923 ug/L	0.181775	12.99%
Cr 205.557†	-7.7	1.30828 ug/L		1.954775	1.30828 ug/L	1.954775	149.42%
Cu 327.397†	77.3	3.88258 ug/L		0.373667	3.88258 ug/L	0.373667	9.62%
Fe 238.204†	10069.1	1927.77 ug/L		34.570	1927.77 ug/L	34.570	1.79%
K 766.490†	1030.8	1.29995 mg/L		0.003164	1.29995 mg/L	0.003164	0.24%
Li 670.784†	490.7	12.1583 ug/L		1.24670	12.1583 ug/L	1.24670	10.25%
Mg 279.071†	12006.6	37.5847 mg/L		0.50743	37.5847 mg/L	0.50743	1.35%
Mn 257.610†	7851.7	43.6145 ug/L		0.58345	43.6145 ug/L	0.58345	1.34%
Mo 202.031†	66.6	16.0295 ug/L		0.89933	16.0295 ug/L	0.89933	5.61%
Na 589.592†	1917225.8	343.628 mg/L		0.4311	343.628 mg/L	0.4311	0.13%
Ni 231.604†	9.0	2.37489 ug/L		0.138215	2.37489 ug/L	0.138215	5.82%
Pb 220.353†	22.2	15.9183 ug/L		10.68100	15.9183 ug/L	10.68100	67.10%
S 180.669†	4079.1	24635.4 ug/L		404.90	24635.4 ug/L	404.90	1.64%
Sb 217.582†	-15.7	6.64165 ug/L		1.510289	6.64165 ug/L	1.510289	22.74%
Se 196.026†	14.2	38.4172 ug/L		69.65255	38.4172 ug/L	69.65255	181.31%
Sn 189.927†	-31.9	-11.2729 ug/L		8.35944	-11.2729 ug/L	8.35944	74.16%
Sr 407.771†	205948.2	317.658 ug/L		1.1901	317.658 ug/L	1.1901	0.37%
Ti 334.940†	774.2	34.0965 ug/L		0.63760	34.0965 ug/L	0.63760	1.87%
Tl 190.801†	-2.8	4.99390 ug/L		3.114138	4.99390 ug/L	3.114138	62.36%
V 292.395†	272.7	7.92491 ug/L		0.121582	7.92491 ug/L	0.121582	1.53%
Zn 206.200†	122.1	13.7719 ug/L		2.13736	13.7719 ug/L	2.13736	15.52%

Sequence No.: 30

Sample ID: 5K02031-SRD2

Analyst:

Initial Sample Wt:

Dilution: 5X

Wash Time: 60

Autosampler Location: 213

Date Collected: 11/3/2015 12:12:54 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-SRD2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	185047.7	185047.7	102.516 %		12:13:19 PM
1	Al 396.153†	177.0	124.9	76.1750 ug/L	380.875 ug/L	12:13:25 PM
1	Ba 455.398†	7688.4	6926.3	28.3084 ug/L	141.542 ug/L	12:13:25 PM
1	Ca 315.887†	25516.6	24648.7	12.1496 mg/L	60.7482 mg/L	12:13:25 PM
1	Fe 238.204†	2118.8	2036.9	388.178 ug/L	1940.89 ug/L	12:13:25 PM
1	K 766.490†	427.6	205.3	0.318031 mg/L	1.59016 mg/L	12:13:25 PM
1	Li 670.784†	266.0	192.1	6.50897 ug/L	32.5448 ug/L	12:13:25 PM
1	Mg 279.071†	2428.5	2362.7	7.41475 mg/L	37.0737 mg/L	12:13:25 PM
1	Na 589.592†	383223.7	373052.9	66.8847 mg/L	334.423 mg/L	12:13:19 PM
1	Sr 407.771†	43919.4	41033.6	65.5537 ug/L	327.769 ug/L	12:13:19 PM
1	Ti 334.940†	68.5	158.7	12.0474 ug/L	60.2370 ug/L	12:13:25 PM
1	Y 360.076	267847.3	267847.3	99.9451 %		12:13:35 PM
1	Ag 328.068†	-27.2	16.0	0.940052 ug/L	4.70026 ug/L	12:13:40 PM
1	As 188.979†	-49.5	7.1	14.2208 ug/L	71.1041 ug/L	12:13:40 PM
1	B 249.677†	2394.6	1994.4	125.460 ug/L	627.300 ug/L	12:13:40 PM
1	Be 234.861†	-897.1	85.9	0.269822 ug/L	1.34911 ug/L	12:13:40 PM
1	Cd 214.437†	575.9	19.2	6.00793 ug/L	30.0396 ug/L	12:13:40 PM
1	Ce 413.764†	906.0	220.9	6.72748 ug/L	33.6374 ug/L	12:13:35 PM
1	Co 228.616†	-63.9	1.8	1.69664 ug/L	8.48318 ug/L	12:13:40 PM
1	Cr 205.557†	-38.4	3.1	2.27902 ug/L	11.3951 ug/L	12:13:40 PM
1	Cu 327.397†	30.6	65.2	3.55815 ug/L	17.7908 ug/L	12:13:35 PM
1	Mn 257.610†	1773.7	1570.2	10.4889 ug/L	52.4444 ug/L	12:13:40 PM

000515

1	Mo 202.031†	162.5	28.6	9.04837 ug/L	45.2419 ug/L	12:13:40 PM
1	Ni 231.604†	579.3	-19.7	-0.618978 ug/L	-3.09489 ug/L	12:13:40 PM
1	Pb 220.353†	98.5	10.9	7.56268 ug/L	37.8134 ug/L	12:13:40 PM
1	S 180.669†	808.9	804.5	4856.59 ug/L	24283.0 ug/L	12:13:40 PM
1	Sb 217.582†	-1.7	1.7	17.9838 ug/L	89.9188 ug/L	12:13:40 PM
1	Se 196.026†	-59.0	0.8	15.8125 ug/L	79.0624 ug/L	12:13:40 PM
1	Sn 189.927†	1.5	-6.8	6.10750 ug/L	30.5375 ug/L	12:13:40 PM
1	Tl 190.801†	-77.4	-1.7	6.02138 ug/L	30.1069 ug/L	12:13:40 PM
1	V 292.395†	7.7	33.8	2.15445 ug/L	10.7722 ug/L	12:13:40 PM
1	Zn 206.200†	17.8	49.6	5.94132 ug/L	29.7066 ug/L	12:13:40 PM
2	Sc 357.234	185145.8	185145.8	102.570 %		12:13:26 PM
2	Al 396.153†	197.9	145.2	87.4143 ug/L	437.071 ug/L	12:13:32 PM
2	Ba 455.398†	7638.2	6873.4	28.1048 ug/L	140.524 ug/L	12:13:32 PM
2	Ca 315.887†	25549.2	24667.3	12.1588 mg/L	60.7938 mg/L	12:13:32 PM
2	Fe 238.204†	2103.6	2020.9	385.113 ug/L	1925.57 ug/L	12:13:32 PM
2	K 766.490†	498.3	274.0	0.399704 mg/L	1.99852 mg/L	12:13:32 PM
2	Li 670.784†	242.8	169.3	6.07907 ug/L	30.3954 ug/L	12:13:32 PM
2	Mg 279.071†	2439.9	2372.5	7.44548 mg/L	37.2274 mg/L	12:13:32 PM
2	Na 589.592†	384810.0	374401.2	67.1263 mg/L	335.631 mg/L	12:13:26 PM
2	Sr 407.771†	44125.7	41212.0	65.8265 ug/L	329.132 ug/L	12:13:26 PM
2	Ti 334.940†	100.8	190.1	13.1169 ug/L	65.5845 ug/L	12:13:32 PM
2	Y 360.076	266296.1	266296.1	99.3663 %		12:13:41 PM
2	Ag 328.068†	-17.6	25.6	0.971527 ug/L	4.85764 ug/L	12:13:46 PM
2	As 188.979†	-57.1	-0.8	0.993815 ug/L	4.96907 ug/L	12:13:46 PM
2	B 249.677†	2389.8	2003.5	126.051 ug/L	630.257 ug/L	12:13:46 PM
2	Be 234.861†	-891.8	86.0	0.272934 ug/L	1.36467 ug/L	12:13:46 PM
2	Cd 214.437†	574.8	21.4	6.08075 ug/L	30.4037 ug/L	12:13:46 PM
2	Ce 413.764†	585.2	-96.6	-3.11306 ug/L	-15.5653 ug/L	12:13:41 PM
2	Co 228.616†	-82.7	-17.6	0.502423 ug/L	2.51211 ug/L	12:13:46 PM
2	Cr 205.557†	-47.1	-5.9	1.42454 ug/L	7.12269 ug/L	12:13:46 PM
2	Cu 327.397†	24.3	59.0	3.41516 ug/L	17.0758 ug/L	12:13:41 PM
2	Mn 257.610†	1768.9	1575.8	10.5182 ug/L	52.5911 ug/L	12:13:46 PM
2	Mo 202.031†	161.4	28.4	9.01133 ug/L	45.0567 ug/L	12:13:46 PM
2	Ni 231.604†	618.5	23.0	4.03543 ug/L	20.1771 ug/L	12:13:46 PM
2	Pb 220.353†	97.7	10.7	7.44662 ug/L	37.2331 ug/L	12:13:46 PM
2	S 180.669†	827.4	827.9	5004.58 ug/L	25022.9 ug/L	12:13:46 PM
2	Sb 217.582†	-21.4	-18.1	-2.46646 ug/L	-12.3323 ug/L	12:13:46 PM
2	Se 196.026†	-56.0	3.5	20.2747 ug/L	101.374 ug/L	12:13:46 PM
2	Sn 189.927†	-7.9	-16.2	-0.434422 ug/L	-2.17211 ug/L	12:13:46 PM
2	Tl 190.801†	-69.5	5.8	13.8090 ug/L	69.0450 ug/L	12:13:46 PM
2	V 292.395†	35.0	61.3	2.81418 ug/L	14.0709 ug/L	12:13:46 PM
2	Zn 206.200†	7.3	39.2	4.81336 ug/L	24.0668 ug/L	12:13:46 PM

CKD

Mean Data: 5K02031-SRD2

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	185096.8	102.543 %		0.0385			0.04%
Y 360.076	267071.7	99.6557 %		0.40930			0.41%
Ag 328.068†	20.8	0.955790 ug/L		0.0222564	4.77895 ug/L	0.111282	2.33%
Al 396.153†	135.1	81.7947 ug/L		7.94733	408.973 ug/L	39.7367	9.72%
As 188.979†	3.2	7.60731 ug/L		9.352899	38.0366 ug/L	46.76450	122.95%
B 249.677†	1998.9	125.756 ug/L		0.4182	628.778 ug/L	2.0910	0.33%
Ba 455.398†	6899.9	28.2066 ug/L		0.14393	141.033 ug/L	0.7196	0.51%
Be 234.861†	86.0	0.271378 ug/L		0.0022005	1.35689 ug/L	0.011002	0.81%
Ca 315.887†	24658.0	12.1542 mg/L		0.00646	60.7710 mg/L	0.03228	0.05%
Cd 214.437†	20.3	6.04434 ug/L		0.051489	30.2217 ug/L	0.25745	0.85%
Ce 413.764†	62.2	1.80721 ug/L		6.958308	9.03606 ug/L	34.791542	385.03%
Co 228.616†	-7.9	1.09953 ug/L		0.844436	5.49765 ug/L	4.222179	76.80%
Cr 205.557†	-1.4	1.85178 ug/L		0.604212	9.25890 ug/L	3.021061	32.63%
Cu 327.397†	62.1	3.48666 ug/L		0.101110	17.4333 ug/L	0.50555	2.90%
Fe 238.204†	2028.9	386.646 ug/L		2.1670	1933.23 ug/L	10.835	0.56%
K 766.490†	239.6	0.358868 mg/L		0.0577517	1.79434 mg/L	0.288758	16.09%
Li 670.784†	180.7	6.29402 ug/L		0.303982	31.4701 ug/L	1.51991	4.83%
Mg 279.071†	2367.6	7.43011 mg/L		0.021732	37.1506 mg/L	0.10866	0.29%
Mn 257.610†	1573.0	10.5035 ug/L		0.02074	52.5177 ug/L	0.10370	0.20%
Mo 202.031†	28.5	9.02985 ug/L		0.026192	45.1493 ug/L	0.13096	0.29%
Na 589.592†	373727.0	67.0055 mg/L		0.17087	335.027 mg/L	0.8543	0.26%
Ni 231.604†	1.7	1.70823 ug/L		3.291163	8.54113 ug/L	16.455815	192.67%
Pb 220.353†	10.8	7.50465 ug/L		0.082065	37.5233 ug/L	0.41032	1.09%
S 180.669†	816.2	4930.59 ug/L		104.643	24652.9 ug/L	523.22	2.12%
Sb 217.582†	-8.2	7.75865 ug/L		14.460493	38.7932 ug/L	72.30246	186.38%
Se 196.026†	2.1	18.0436 ug/L		3.15528	90.2180 ug/L	15.77642	17.49%
Sn 189.927†	-11.5	2.83654 ug/L		4.625837	14.1827 ug/L	23.12918	163.08%
Sr 407.771†	41122.8	65.6901 ug/L		0.19286	328.451 ug/L	0.9643	0.29%
Ti 334.940†	174.4	12.5822 ug/L		0.75625	62.9108 ug/L	3.78124	6.01%

Tl 190.801†	2.0	9.91520 ug/L	5.506682	49.5760 ug/L	27.53341	55.54%
V 292.395†	47.5	2.48432 ug/L	0.466506	12.4216 ug/L	2.33253	18.78%
Zn 206.200†	44.4	5.37734 ug/L	0.797590	26.8867 ug/L	3.98795	14.83%

CKD

Sequence No.: 31

Sample ID: 1511696-PS2

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 214

Date Collected: 11/3/2015 12:14:54 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 1511696-PS2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	177072.6	177072.6	98.0978 %			12:15:20 PM
1	Al 396.153†	3102.3	3114.7	1773.00 ug/L		1773.00 ug/L	12:15:26 PM
1	Ba 455.398†	98952.6	100298.1	387.472 ug/L		387.472 ug/L	12:15:20 PM
1	Ca 315.887†	138961.3	141414.3	69.4926 mg/L		69.4926 mg/L	12:15:20 PM
1	Fe 238.204†	11326.1	11515.7	2205.44 ug/L		2205.44 ug/L	12:15:26 PM
1	K 766.490†	12899.8	12938.1	15.4629 mg/L		15.4629 mg/L	12:15:26 PM
1	Li 670.784†	14758.8	14977.6	286.260 ug/L		286.260 ug/L	12:15:20 PM
1	Mg 279.071†	16058.0	16363.2	51.2138 mg/L		51.2138 mg/L	12:15:26 PM
1	Na 589.592†	1897765.0	1933799.0	346.599 mg/L		346.599 mg/L	12:15:19 PM
1	Sr 407.771†	363890.3	369138.5	567.125 ug/L		567.125 ug/L	12:15:19 PM
1	Ti 334.940†	678.9	783.9	34.6160 ug/L		34.6160 ug/L	12:15:26 PM
1	Y 360.076	257646.0	257646.0	96.1386 %			12:15:37 PM
1	Ag 328.068†	19119.7	19931.0	265.697 ug/L		265.697 ug/L	12:15:37 PM
1	As 188.979†	695.5	780.1	1299.33 ug/L		1299.33 ug/L	12:15:42 PM
1	B 249.677†	13561.9	13705.1	882.522 ug/L		882.522 ug/L	12:15:37 PM
1	Be 234.861†	6365.9	7605.1	25.9138 ug/L		25.9138 ug/L	12:15:42 PM
1	Cd 214.437†	7827.2	7584.5	255.119 ug/L		255.119 ug/L	12:15:42 PM
1	Ce 413.764†	759.2	104.1	2.52604 ug/L		2.52604 ug/L	12:15:37 PM
1	Co 228.616†	3749.5	3965.8	245.809 ug/L		245.809 ug/L	12:15:42 PM
1	Cr 205.557†	2561.5	2705.9	258.363 ug/L		258.363 ug/L	12:15:42 PM
1	Cu 327.397†	11785.3	12293.2	278.672 ug/L		278.672 ug/L	12:15:37 PM
1	Mn 257.610†	52748.9	54663.1	290.476 ug/L		290.476 ug/L	12:15:37 PM
1	Mo 202.031†	201.3	75.4	17.6533 ug/L		17.6533 ug/L	12:15:42 PM
1	Ni 231.604†	2782.0	2294.3	250.825 ug/L		250.825 ug/L	12:15:42 PM
1	Pb 220.353†	441.5	371.6	271.969 ug/L		271.969 ug/L	12:15:42 PM
1	S 180.669†	3885.9	4037.1	24138.0 ug/L		24138.0 ug/L	12:15:42 PM
1	Sb 217.582†	-17.9	-15.2	8.45125 ug/L		8.45125 ug/L	12:15:42 PM
1	Se 196.026†	725.9	814.9	1386.11 ug/L		1386.11 ug/L	12:15:42 PM
1	Sn 189.927†	-30.3	-39.9	-16.7391 ug/L		-16.7391 ug/L	12:15:42 PM
1	Tl 190.801†	1018.0	1134.6	1187.33 ug/L		1187.33 ug/L	12:15:42 PM
1	V 292.395†	10765.2	11223.7	270.416 ug/L		270.416 ug/L	12:15:37 PM
1	Zn 206.200†	2311.6	2436.3	265.745 ug/L		265.745 ug/L	12:15:42 PM
2	Sc 357.234	179988.2	179988.2	99.7130 %			12:15:29 PM
2	Al 396.153†	3081.6	3042.8	1733.86 ug/L		1733.86 ug/L	12:15:35 PM
2	Ba 455.398†	100590.9	100307.1	387.506 ug/L		387.506 ug/L	12:15:29 PM
2	Ca 315.887†	141830.1	141996.7	69.7786 mg/L		69.7786 mg/L	12:15:29 PM
2	Fe 238.204†	11135.9	11138.0	2133.04 ug/L		2133.04 ug/L	12:15:35 PM
2	K 766.490†	12832.2	12657.3	15.1288 mg/L		15.1288 mg/L	12:15:35 PM
2	Li 670.784†	14969.0	14944.7	285.639 ug/L		285.639 ug/L	12:15:29 PM
2	Mg 279.071†	15841.5	15880.9	49.7050 mg/L		49.7050 mg/L	12:15:35 PM
2	Na 589.592†	1969314.9	1974218.1	353.843 mg/L		353.843 mg/L	12:15:28 PM
2	Sr 407.771†	377623.2	376902.2	578.994 ug/L		578.994 ug/L	12:15:28 PM
2	Ti 334.940†	696.5	790.3	34.8414 ug/L		34.8414 ug/L	12:15:35 PM
2	Y 360.076	254697.6	254697.6	95.0384 %			12:15:44 PM
2	Ag 328.068†	19142.3	20184.9	269.046 ug/L		269.046 ug/L	12:15:44 PM
2	As 188.979†	713.0	806.8	1343.83 ug/L		1343.83 ug/L	12:15:49 PM
2	B 249.677†	13499.1	13802.3	888.783 ug/L		888.783 ug/L	12:15:44 PM
2	Be 234.861†	6310.5	7623.4	26.0373 ug/L		26.0373 ug/L	12:15:49 PM
2	Cd 214.437†	7755.6	7603.4	255.749 ug/L		255.749 ug/L	12:15:49 PM
2	Ce 413.764†	664.6	13.8	-0.279120 ug/L		-0.279120 ug/L	12:15:44 PM
2	Co 228.616†	3723.4	3983.5	246.889 ug/L		246.889 ug/L	12:15:49 PM
2	Cr 205.557†	2529.1	2702.6	258.053 ug/L		258.053 ug/L	12:15:49 PM
2	Cu 327.397†	11546.6	12183.9	276.210 ug/L		276.210 ug/L	12:15:44 PM
2	Mn 257.610†	52251.7	54775.1	291.066 ug/L		291.066 ug/L	12:15:44 PM
2	Mo 202.031†	180.3	55.7	14.0270 ug/L		14.0270 ug/L	12:15:49 PM
2	Ni 231.604†	2730.0	2273.1	248.514 ug/L		248.514 ug/L	12:15:49 PM
2	Pb 220.353†	458.3	394.5	288.759 ug/L		288.759 ug/L	12:15:49 PM
2	S 180.669†	3833.3	4028.6	24077.6 ug/L		24077.6 ug/L	12:15:49 PM
2	Sb 217.582†	-13.2	-10.5	13.2104 ug/L		13.2104 ug/L	12:15:49 PM
2	Se 196.026†	696.7	793.0	1349.19 ug/L		1349.19 ug/L	12:15:49 PM

000517

2	Sn 189.927†	-12.2	-21.1	-3.78929 ug/L	-3.78929 ug/L	12:15:49 PM
2	Tl 190.801†	1049.4	1180.0	1234.51 ug/L	1234.51 ug/L	12:15:49 PM
2	V 292.395†	10612.8	11192.9	269.602 ug/L	269.602 ug/L	12:15:44 PM
2	Zn 206.200†	2274.5	2425.1	264.538 ug/L	264.538 ug/L	12:15:49 PM

CKD

Mean Data: 1511696-PS2

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	178530.4	98.9054 %		1.14211			1.15%
Y 360.076	256171.8	95.5885 %		0.77793			0.81%
Ag 328.068†	20057.9	267.372 ug/L		2.3679	267.372 ug/L	2.3679	0.89%
Al 396.153†	3078.8	1753.43 ug/L		27.677	1753.43 ug/L	27.677	1.58%
As 188.979†	793.5	1321.58 ug/L		31.471	1321.58 ug/L	31.471	2.38%
B 249.677†	13753.7	885.652 ug/L		4.4274	885.652 ug/L	4.4274	0.50%
Ba 455.398†	100302.6	387.489 ug/L		0.0246	387.489 ug/L	0.0246	0.01%
Be 234.861†	7614.2	25.9755 ug/L		0.08737	25.9755 ug/L	0.08737	0.34%
Ca 315.887†	141705.5	69.6356 mg/L		0.20225	69.6356 mg/L	0.20225	0.29%
Cd 214.437†	7593.9	255.434 ug/L		0.4457	255.434 ug/L	0.4457	0.17%
Ce 413.764†	58.9	1.12346 ug/L		1.983545	1.12346 ug/L	1.983545	176.56%
Co 228.616†	3974.6	246.349 ug/L		0.7643	246.349 ug/L	0.7643	0.31%
Cr 205.557†	2704.3	258.208 ug/L		0.2194	258.208 ug/L	0.2194	0.08%
Cu 327.397†	12238.5	277.441 ug/L		1.7410	277.441 ug/L	1.7410	0.63%
Fe 238.204†	11326.9	2169.24 ug/L		51.199	2169.24 ug/L	51.199	2.36%
K 766.490†	12797.7	15.2959 mg/L		0.23620	15.2959 mg/L	0.23620	1.54%
Li 670.784†	14961.2	285.950 ug/L		0.4391	285.950 ug/L	0.4391	0.15%
Mg 279.071†	16122.0	50.4594 mg/L		1.06686	50.4594 mg/L	1.06686	2.11%
Mn 257.610†	54719.1	290.771 ug/L		0.4176	290.771 ug/L	0.4176	0.14%
Mo 202.031†	65.5	15.8401 ug/L		2.56417	15.8401 ug/L	2.56417	16.19%
Na 589.592†	1954008.5	350.221 mg/L		5.1222	350.221 mg/L	5.1222	1.46%
Ni 231.604†	2283.7	249.670 ug/L		1.6341	249.670 ug/L	1.6341	0.65%
Pb 220.353†	383.1	280.364 ug/L		11.8724	280.364 ug/L	11.8724	4.23%
S 180.669†	4032.8	24107.8 ug/L		42.71	24107.8 ug/L	42.71	0.18%
Sb 217.582†	-12.9	10.8308 ug/L		3.36522	10.8308 ug/L	3.36522	31.07%
Se 196.026†	803.9	1367.65 ug/L		26.106	1367.65 ug/L	26.106	1.91%
Sn 189.927†	-30.5	-10.2642 ug/L		9.15690	-10.2642 ug/L	9.15690	89.21%
Sr 407.771†	373020.4	573.060 ug/L		8.3922	573.060 ug/L	8.3922	1.46%
Ti 334.940†	787.1	34.7287 ug/L		0.15942	34.7287 ug/L	0.15942	0.46%
Tl 190.801†	1157.3	1210.92 ug/L		33.359	1210.92 ug/L	33.359	2.75%
V 292.395†	11208.3	270.009 ug/L		0.5758	270.009 ug/L	0.5758	0.21%
Zn 206.200†	2430.7	265.142 ug/L		0.8531	265.142 ug/L	0.8531	0.32%

Sequence No.: 32

Sample ID: 5K02031-CRL1

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 2

Date Collected: 11/3/2015 12:16:54 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-CRL1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Sample Conc. Units	Analysis Time
1	Sc 357.234	186379.3	186379.3	103.254 %			12:17:21 PM
1	Al 396.153†	162.8	109.9	54.0647 ug/L		54.0647 ug/L	12:17:26 PM
1	Ba 455.398†	3283.3	2606.4	11.6915 ug/L		11.6915 ug/L	12:17:21 PM
1	Ca 315.887†	1331.0	1047.4	0.559141 mg/L		0.559141 mg/L	12:17:26 PM
1	Fe 238.204†	104.6	71.3	11.3163 ug/L		11.3163 ug/L	12:17:26 PM
1	K 766.490†	248.7	29.0	0.108370 mg/L		0.108370 mg/L	12:17:21 PM
1	Li 670.784†	534.4	450.2	11.3916 ug/L		11.3916 ug/L	12:17:21 PM
1	Mg 279.071†	178.8	166.9	0.545485 mg/L		0.545485 mg/L	12:17:26 PM
1	Na 589.592†	5356.7	4422.0	0.819309 mg/L		0.819309 mg/L	12:17:21 PM
1	Sr 407.771†	34213.8	31327.6	50.7164 ug/L		50.7164 ug/L	12:17:21 PM
1	Ti 334.940†	2800.1	2803.7	101.642 ug/L		101.642 ug/L	12:17:26 PM
1	Y 360.076	270226.0	270226.0	100.833 %			12:17:34 PM
1	Ag 328.068†	775.1	812.0	11.4635 ug/L		11.4635 ug/L	12:17:39 PM
1	As 188.979†	-1.6	55.1	92.9875 ug/L		92.9875 ug/L	12:17:39 PM
1	B 249.677†	1292.4	880.2	53.4162 ug/L		53.4162 ug/L	12:17:39 PM
1	Be 234.861†	-697.8	291.5	1.32622 ug/L		1.32622 ug/L	12:17:39 PM
1	Cd 214.437†	851.8	287.7	14.8820 ug/L		14.8820 ug/L	12:17:39 PM
1	Ce 413.764†	812.7	120.4	3.77753 ug/L		3.77753 ug/L	12:17:34 PM
1	Co 228.616†	76.2	141.2	10.2479 ug/L		10.2479 ug/L	12:17:39 PM
1	Cr 205.557†	472.6	510.2	50.1950 ug/L		50.1950 ug/L	12:17:39 PM
1	Cu 327.397†	447.4	478.3	12.8968 ug/L		12.8968 ug/L	12:17:34 PM
1	Mn 257.610†	2061.4	1839.9	11.9111 ug/L		11.9111 ug/L	12:17:39 PM

000518

1	Mo 202.031†	654.5	515.0	98.4807 ug/L	98.4807 ug/L	12:17:39 PM
1	Ni 231.604†	685.7	80.7	10.5497 ug/L	10.5497 ug/L	12:17:39 PM
1	Pb 220.353†	153.9	65.0	47.5937 ug/L	47.5937 ug/L	12:17:39 PM
1	S 180.669†	81.5	76.0	482.110 ug/L	482.110 ug/L	12:17:39 PM
1	Sb 217.582†	84.6	87.3	104.467 ug/L	104.467 ug/L	12:17:39 PM
1	Se 196.026†	-19.1	40.9	83.2945 ug/L	83.2945 ug/L	12:17:39 PM
1	Sn 189.927†	142.8	133.3	102.851 ug/L	102.851 ug/L	12:17:39 PM
1	Tl 190.801†	17.3	92.9	104.926 ug/L	104.926 ug/L	12:17:39 PM
1	V 292.395†	380.1	403.0	12.9900 ug/L	12.9900 ug/L	12:17:39 PM
1	Zn 206.200†	140.0	170.7	19.1049 ug/L	19.1049 ug/L	12:17:39 PM
2	Sc 357.234	185035.3	185035.3	102.509 %		12:17:27 PM
2	Al 396.153†	152.8	101.4	49.4126 ug/L	49.4126 ug/L	12:17:32 PM
2	Ba 455.398†	3289.7	2635.8	11.8044 ug/L	11.8044 ug/L	12:17:27 PM
2	Ca 315.887†	1290.7	1017.4	0.544437 mg/L	0.544437 mg/L	12:17:32 PM
2	Fe 238.204†	94.2	61.9	9.50587 ug/L	9.50587 ug/L	12:17:32 PM
2	K 766.490†	331.5	111.6	0.206552 mg/L	0.206552 mg/L	12:17:27 PM
2	Li 670.784†	595.4	513.5	12.5906 ug/L	12.5906 ug/L	12:17:27 PM
2	Mg 279.071†	175.8	165.2	0.540295 mg/L	0.540295 mg/L	12:17:32 PM
2	Na 589.592†	5178.3	4285.7	0.794872 mg/L	0.794872 mg/L	12:17:27 PM
2	Sr 407.771†	34159.4	31515.3	51.0032 ug/L	51.0032 ug/L	12:17:27 PM
2	Ti 334.940†	2804.1	2827.3	102.444 ug/L	102.444 ug/L	12:17:32 PM
2	Y 360.076	264751.6	264751.6	98.7900 %		12:17:41 PM
2	Ag 328.068†	689.2	740.9	10.4707 ug/L	10.4707 ug/L	12:17:46 PM
2	As 188.979†	7.2	63.9	107.773 ug/L	107.773 ug/L	12:17:46 PM
2	B 249.677†	1327.2	941.9	57.4005 ug/L	57.4005 ug/L	12:17:46 PM
2	Be 234.861†	-697.9	277.0	1.27544 ug/L	1.27544 ug/L	12:17:46 PM
2	Cd 214.437†	856.4	309.8	15.6127 ug/L	15.6127 ug/L	12:17:46 PM
2	Ce 413.764†	638.2	-39.6	-1.17931 ug/L	-1.17931 ug/L	12:17:41 PM
2	Co 228.616†	95.3	162.2	11.5353 ug/L	11.5353 ug/L	12:17:46 PM
2	Cr 205.557†	473.1	520.4	51.1661 ug/L	51.1661 ug/L	12:17:46 PM
2	Cu 327.397†	403.4	442.8	12.0973 ug/L	12.0973 ug/L	12:17:41 PM
2	Mn 257.610†	2082.8	1903.9	12.2486 ug/L	12.2486 ug/L	12:17:46 PM
2	Mo 202.031†	638.9	512.7	98.0492 ug/L	98.0492 ug/L	12:17:46 PM
2	Ni 231.604†	679.7	88.7	11.4235 ug/L	11.4235 ug/L	12:17:46 PM
2	Pb 220.353†	165.2	79.6	58.3162 ug/L	58.3162 ug/L	12:17:46 PM
2	S 180.669†	81.8	78.6	495.234 ug/L	495.234 ug/L	12:17:46 PM
2	Sb 217.582†	80.2	84.6	101.694 ug/L	101.694 ug/L	12:17:46 PM
2	Se 196.026†	-6.8	53.0	103.599 ug/L	103.599 ug/L	12:17:46 PM
2	Sn 189.927†	149.5	143.0	109.538 ug/L	109.538 ug/L	12:17:46 PM
2	Tl 190.801†	18.3	94.3	106.328 ug/L	106.328 ug/L	12:17:46 PM
2	V 292.395†	369.2	399.8	12.9028 ug/L	12.9028 ug/L	12:17:46 PM
2	Zn 206.200†	158.8	192.5	21.4838 ug/L	21.4838 ug/L	12:17:46 PM

CKD

Mean Data: 5K02031-CRL1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	185707.3	102.881 %	0.5265			0.51%
Y 360.076	267488.8	99.8113 %	1.44442			1.45%
Ag 328.068†	776.4	10.9671 ug/L	0.70201	10.9671 ug/L	0.70201	6.40%
QC value within limits for Ag 328.068 Recovery = 109.67%						
Al 396.153†	105.7	51.7386 ug/L	3.28953	51.7386 ug/L	3.28953	6.36%
QC value within limits for Al 396.153 Recovery = 103.48%						
As 188.979†	59.5	100.380 ug/L	10.4551	100.380 ug/L	10.4551	10.42%
QC value within limits for As 188.979 Recovery = 100.38%						
B 249.677†	911.0	55.4083 ug/L	2.81728	55.4083 ug/L	2.81728	5.08%
QC value within limits for B 249.677 Recovery = 110.82%						
Ba 455.398†	2621.1	11.7480 ug/L	0.07985	11.7480 ug/L	0.07985	0.68%
QC value within limits for Ba 455.398 Recovery = 117.48%						
Be 234.861†	284.2	1.30083 ug/L	0.035912	1.30083 ug/L	0.035912	2.76%
QC value greater than the upper limit for Be 234.861 Recovery = 130.08%						
Ca 315.887†	1032.4	0.551789 mg/L	0.0103971	0.551789 mg/L	0.0103971	1.88%
QC value within limits for Ca 315.887 Recovery = 110.36%						
Cd 214.437†	298.8	15.2474 ug/L	0.51664	15.2474 ug/L	0.51664	3.39%
QC value greater than the upper limit for Cd 214.437 Recovery = 152.47%						
Ce 413.764†	40.4	1.29911 ug/L	3.505021	1.29911 ug/L	3.505021	269.80%
Co 228.616†	151.7	10.8916 ug/L	0.91030	10.8916 ug/L	0.91030	8.36%
QC value within limits for Co 228.616 Recovery = 108.92%						
Cr 205.557†	515.3	50.6806 ug/L	0.68662	50.6806 ug/L	0.68662	1.35%
QC value within limits for Cr 205.557 Recovery = 101.36%						
Cu 327.397†	460.6	12.4971 ug/L	0.56532	12.4971 ug/L	0.56532	4.52%
QC value within limits for Cu 327.397 Recovery = 124.97%						
Fe 238.204†	66.6	10.4111 ug/L	1.28017	10.4111 ug/L	1.28017	12.30%
QC value within limits for Fe 238.204 Recovery = 104.11%						
K 766.490†	70.3	0.157461 mg/L	0.0694255	0.157461 mg/L	0.0694255	44.09%
QC value greater than the upper limit for K 766.490 Recovery = 157.46%						

Li 670.784†	481.8	11.9911 ug/L	0.84779	11.9911 ug/L	0.84779	7.07%
QC value greater than the upper limit for Li 670.784 Recovery = 149.89%						
Mg 279.071†	166.0	0.542890 mg/L	0.0036699	0.542890 mg/L	0.0036699	0.68%
QC value within limits for Mg 279.071 Recovery = 108.58%						
Mn 257.610†	1871.9	12.0799 ug/L	0.23859	12.0799 ug/L	0.23859	1.98%
QC value within limits for Mn 257.610 Recovery = 120.80%						
Mo 202.031†	513.9	98.2649 ug/L	0.30511	98.2649 ug/L	0.30511	0.31%
QC value within limits for Mo 202.031 Recovery = 98.26%						
Na 589.592†	4352.8	0.807090 mg/L	0.0172797	0.807090 mg/L	0.0172797	2.14%
QC value greater than the upper limit for Na 589.592 Recovery = 161.42%						
Ni 231.604†	84.7	10.9866 ug/L	0.61785	10.9866 ug/L	0.61785	5.62%
QC value within limits for Ni 231.604 Recovery = 109.87%						
Pb 220.353†	72.3	52.9549 ug/L	7.58197	52.9549 ug/L	7.58197	14.32%
QC value within limits for Pb 220.353 Recovery = 105.91%						
S 180.669†	77.0	488.672 ug/L	9.2804	488.672 ug/L	9.2804	1.90%
QC value within limits for S 180.669 Recovery = 97.73%						
Sb 217.582†	85.9	103.080 ug/L	1.9609	103.080 ug/L	1.9609	1.90%
QC value within limits for Sb 217.582 Recovery = 103.08%						
Se 196.026†	46.9	93.4468 ug/L	14.35753	93.4468 ug/L	14.35753	15.36%
QC value within limits for Se 196.026 Recovery = 93.45%						
Sn 189.927†	138.2	106.195 ug/L	4.7289	106.195 ug/L	4.7289	4.45%
QC value within limits for Sn 189.927 Recovery = 106.19%						
Sr 407.771†	31421.5	50.8598 ug/L	0.20282	50.8598 ug/L	0.20282	0.40%
QC value within limits for Sr 407.771 Recovery = 101.72%						
Ti 334.940†	2815.5	102.043 ug/L	0.5668	102.043 ug/L	0.5668	0.56%
QC value within limits for Ti 334.940 Recovery = 102.04%						
Tl 190.801†	93.6	105.627 ug/L	0.9912	105.627 ug/L	0.9912	0.94%
QC value within limits for Tl 190.801 Recovery = 105.63%						
V 292.395†	401.4	12.9464 ug/L	0.06166	12.9464 ug/L	0.06166	0.48%
QC value within limits for V 292.395 Recovery = 129.46%						
Zn 206.200†	181.6	20.2943 ug/L	1.68214	20.2943 ug/L	1.68214	2.29%
QC value within limits for Zn 206.200 Recovery = 101.47%						
QC Failed. Continue with analysis.						

Sequence No.: 33

Sample ID: 5K02031-IFA1

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 103

Date Collected: 11/3/2015 12:18:54 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-IFA1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Units	Analysis Time
1	Sc 357.234	184879.1	184879.1	102.422	%			12:19:21 PM
1	Al 396.153†	179127.3	174842.8	96199.2	ug/L	96199.2	ug/L	12:19:21 PM
1	Ba 455.398†	726.9	136.4	2.19020	ug/L	2.19020	ug/L	12:19:27 PM
1	Ca 315.887†	192170.8	187383.9	92.0681	mg/L	92.0681	mg/L	12:19:21 PM
1	Fe 238.204†	194105.3	189484.3	36318.0	ug/L	36318.0	ug/L	12:19:21 PM
1	K 766.490†	245.0	27.4	0.106443	mg/L	0.106443	mg/L	12:19:27 PM
1	Li 670.784†	144.1	73.3	4.26150	ug/L	4.26150	ug/L	12:19:27 PM
1	Mg 279.071†	31736.6	30979.7	96.9400	mg/L	96.9400	mg/L	12:19:27 PM
1	Na 589.592†	1591.1	787.6	0.167952	mg/L	0.167952	mg/L	12:19:27 PM
1	Sr 407.771†	2392.3	527.7	3.63275	ug/L	3.63275	ug/L	12:19:27 PM
1	Ti 334.940†	-72.6	21.0	9.30702	ug/L	9.30702	ug/L	12:19:27 PM
1	Y 360.076	267085.0	267085.0	99.6607	%			12:19:37 PM
1	Ag 328.068†	-144.1	-101.3	-0.644182	ug/L	-0.644182	ug/L	12:19:42 PM
1	As 188.979†	-33.3	23.3	41.0297	ug/L	41.0297	ug/L	12:19:42 PM
1	B 249.677†	461.7	61.8	8.44693	ug/L	8.44693	ug/L	12:19:42 PM
1	Be 234.861†	5994.2	6998.1	-4.10270	ug/L	-4.10270	ug/L	12:19:37 PM
1	Cd 214.437†	762.6	208.1	4.73329	ug/L	4.73329	ug/L	12:19:42 PM
1	Ce 413.764†	824.2	141.5	3.44965	ug/L	3.44965	ug/L	12:19:37 PM
1	Co 228.616†	-46.8	18.7	2.75372	ug/L	2.75372	ug/L	12:19:42 PM
1	Cr 205.557†	-55.8	-14.5	1.89351	ug/L	1.89351	ug/L	12:19:42 PM
1	Cu 327.397†	-44.4	-10.1	2.83388	ug/L	2.83388	ug/L	12:19:37 PM
1	Mn 257.610†	346.0	142.7	2.96096	ug/L	2.96096	ug/L	12:19:37 PM
1	Mo 202.031†	180.4	47.0	12.4260	ug/L	12.4260	ug/L	12:19:42 PM
1	Ni 231.604†	621.2	23.9	0.593653	ug/L	0.593653	ug/L	12:19:42 PM
1	Pb 220.353†	94.2	6.9	4.67333	ug/L	4.67333	ug/L	12:19:42 PM
1	S 180.669†	304.8	301.0	-49.1035	ug/L	-49.1035	ug/L	12:19:42 PM
1	Sb 217.582†	-54.0	-50.7	6.01740	ug/L	6.01740	ug/L	12:19:42 PM
1	Se 196.026†	-3.9	56.0	108.642	ug/L	108.642	ug/L	12:19:42 PM
1	Sn 189.927†	-1.6	-9.9	3.93989	ug/L	3.93989	ug/L	12:19:42 PM
1	Tl 190.801†	-77.6	-2.2	5.52672	ug/L	5.52672	ug/L	12:19:42 PM

1	V 292.395†	86.0	112.3	1.70913 ug/L	1.70913 ug/L	12:19:42 PM	CKD
1	Zn 206.200†	27.7	59.7	5.69841 ug/L	5.69841 ug/L	12:19:42 PM	
2	Sc 357.234	183579.2	183579.2	101.702 %		12:19:28 PM	
2	Al 396.153†	178847.2	175805.7	96728.8 ug/L	96728.8 ug/L	12:19:28 PM	
2	Ba 455.398†	703.3	118.2	2.12015 ug/L	2.12015 ug/L	12:19:34 PM	
2	Ca 315.887†	191292.6	187848.9	92.2964 mg/L	92.2964 mg/L	12:19:28 PM	
2	Fe 238.204†	193799.5	190525.5	36517.5 ug/L	36517.5 ug/L	12:19:28 PM	
2	K 766.490†	229.0	13.4	0.0897272 mg/L	0.0897272 mg/L	12:19:34 PM	
2	Li 670.784†	120.0	50.7	3.83408 ug/L	3.83408 ug/L	12:19:34 PM	
2	Mg 279.071†	31615.5	31080.0	97.2538 mg/L	97.2538 mg/L	12:19:34 PM	
2	Na 589.592†	1568.8	776.7	0.166004 mg/L	0.166004 mg/L	12:19:34 PM	
2	Sr 407.771†	2345.8	498.5	3.58805 ug/L	3.58805 ug/L	12:19:34 PM	
2	Ti 334.940†	-103.9	-10.2	8.25062 ug/L	8.25062 ug/L	12:19:34 PM	
2	Y 360.076	268363.2	268363.2	100.138 %		12:19:43 PM	
2	Ag 328.068†	-149.4	-105.9	-0.774357 ug/L	-0.774357 ug/L	12:19:48 PM	
2	As 188.979†	-41.7	15.0	27.2961 ug/L	27.2961 ug/L	12:19:48 PM	
2	B 249.677†	417.0	14.9	5.46656 ug/L	5.46656 ug/L	12:19:48 PM	
2	Be 234.861†	6046.1	7021.2	-4.18139 ug/L	-4.18139 ug/L	12:19:43 PM	
2	Cd 214.437†	729.5	171.4	3.48191 ug/L	3.48191 ug/L	12:19:48 PM	
2	Ce 413.764†	597.4	-89.0	-3.69317 ug/L	-3.69317 ug/L	12:19:43 PM	
2	Co 228.616†	-79.3	-13.5	0.777011 ug/L	0.777011 ug/L	12:19:48 PM	
2	Cr 205.557†	-62.4	-20.9	1.29947 ug/L	1.29947 ug/L	12:19:48 PM	
2	Cu 327.397†	-94.5	-59.8	1.71829 ug/L	1.71829 ug/L	12:19:43 PM	
2	Mn 257.610†	351.8	146.8	2.98268 ug/L	2.98268 ug/L	12:19:43 PM	
2	Mo 202.031†	190.9	56.6	14.1911 ug/L	14.1911 ug/L	12:19:48 PM	
2	Ni 231.604†	609.1	8.9	-1.05740 ug/L	-1.05740 ug/L	12:19:48 PM	
2	Pb 220.353†	61.9	-25.9	-19.3365 ug/L	-19.3365 ug/L	12:19:48 PM	
2	S 180.669†	301.4	296.2	-84.7880 ug/L	-84.7880 ug/L	12:19:48 PM	
2	Sb 217.582†	-54.9	-51.4	5.51206 ug/L	5.51206 ug/L	12:19:48 PM	
2	Se 196.026†	-33.2	26.7	59.3365 ug/L	59.3365 ug/L	12:19:48 PM	
2	Sn 189.927†	11.9	3.6	13.2725 ug/L	13.2725 ug/L	12:19:48 PM	
2	Tl 190.801†	-74.7	1.2	8.96290 ug/L	8.96290 ug/L	12:19:48 PM	
2	V 292.395†	89.8	115.7	1.81798 ug/L	1.81798 ug/L	12:19:48 PM	
2	Zn 206.200†	26.5	58.3	5.54301 ug/L	5.54301 ug/L	12:19:48 PM	

Mean Data: 5K02031-IFA1 IFA3

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	184229.1	102.062 %		0.5092			0.50%
Y 360.076	267724.1	99.8991 %		0.33725			0.34%
Ag 328.068†	-103.6	-0.709270 ug/L		0.0920475	-0.709270 ug/L	0.0920475	12.98%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153†	175324.3	96464.0 ug/L		374.43	96464.0 ug/L	374.43	0.39%
QC value within limits for Al 396.153 Recovery = 96.46%							
As 188.979†	19.1	34.1629 ug/L		9.71115	34.1629 ug/L	9.71115	28.43%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	38.3	6.95675 ug/L		2.107438	6.95675 ug/L	2.107438	30.29%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 455.398†	127.3	2.15517 ug/L		0.049533	2.15517 ug/L	0.049533	2.30%
QC value within limits for Ba 455.398 Recovery = Not calculated							
Be 234.861†	7009.7	-4.14204 ug/L		0.055640	-4.14204 ug/L	0.055640	1.34%
QC value less than the lower limit for Be 234.861 Recovery = Not calculated							
Ca 315.887†	187616.4	92.1822 mg/L		0.16146	92.1822 mg/L	0.16146	0.18%
QC value within limits for Ca 315.887 Recovery = 92.18%							
Cd 214.437†	189.8	4.10760 ug/L		0.884864	4.10760 ug/L	0.884864	21.54%
QC value within limits for Cd 214.437 Recovery = Not calculated							
Ce 413.764†	26.2	-0.121761 ug/L		5.0507409	-0.121761 ug/L	5.0507409	>999.9%
Co 228.616†	2.6	1.76537 ug/L		1.397747	1.76537 ug/L	1.397747	79.18%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 205.557†	-17.7	1.59649 ug/L		0.420052	1.59649 ug/L	0.420052	26.31%
QC value within limits for Cr 205.557 Recovery = Not calculated							
Cu 327.397†	-34.9	2.27608 ug/L		0.788840	2.27608 ug/L	0.788840	34.66%
QC value within limits for Cu 327.397 Recovery = Not calculated							
Fe 238.204†	190004.9	36417.7 ug/L		141.12	36417.7 ug/L	141.12	0.39%
QC value within limits for Fe 238.204 Recovery = 91.04%							
K 766.490†	20.4	0.0980853 mg/L		0.01182018	0.0980853 mg/L	0.01182018	12.05%
QC value within limits for K 766.490 Recovery = Not calculated							
Li 670.784†	62.0	4.04779 ug/L		0.302232	4.04779 ug/L	0.302232	7.47%
QC value within limits for Li 670.784 Recovery = Not calculated							
Mg 279.071†	31029.8	97.0969 mg/L		0.22190	97.0969 mg/L	0.22190	0.23%
QC value within limits for Mg 279.071 Recovery = 97.10%							
Mn 257.610†	144.8	2.97182 ug/L		0.015361	2.97182 ug/L	0.015361	0.52%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	51.8	13.3085 ug/L		1.24813	13.3085 ug/L	1.24813	9.38%
QC value within limits for Mo 202.031 Recovery = Not calculated							

Na 589.592† 782.1 0.166978 mg/L 0.0013780 0.166978 mg/L 0.0013780 0.83% CKD
 QC value within limits for Na 589.592 Recovery = Not calculated
 Ni 231.604† 16.4 -0.231873 ug/L 1.1674699 -0.231873 ug/L 1.1674699 503.50%
 QC value within limits for Ni 231.604 Recovery = Not calculated
 Pb 220.353† -9.5 -7.33158 ug/L 16.977513 -7.33158 ug/L 16.977513 231.57%
 QC value within limits for Pb 220.353 Recovery = Not calculated
 S 180.669† 298.6 -66.9457 ug/L 25.23281 -66.9457 ug/L 25.23281 37.69%
 QC value within limits for S 180.669 Recovery = Not calculated
 Sb 217.582† -51.1 5.76473 ug/L 0.357333 5.76473 ug/L 0.357333 6.20%
 QC value within limits for Sb 217.582 Recovery = Not calculated
 Se 196.026† 41.3 83.9893 ug/L 34.86444 83.9893 ug/L 34.86444 41.51%
 QC value within limits for Se 196.026 Recovery = Not calculated
 Sn 189.927† -3.2 8.60618 ug/L 6.599132 8.60618 ug/L 6.599132 76.68%
 QC value within limits for Sn 189.927 Recovery = Not calculated
 Sr 407.771† 513.1 3.61040 ug/L 0.031605 3.61040 ug/L 0.031605 0.88%
 QC value within limits for Sr 407.771 Recovery = Not calculated
 Ti 334.940† 5.4 8.77882 ug/L 0.746991 8.77882 ug/L 0.746991 8.51%
 QC value within limits for Ti 334.940 Recovery = Not calculated
 Tl 190.801† -0.5 7.24481 ug/L 2.429746 7.24481 ug/L 2.429746 33.54%
 QC value within limits for Tl 190.801 Recovery = Not calculated
 V 292.395† 114.0 1.76355 ug/L 0.076969 1.76355 ug/L 0.076969 4.36%
 QC value within limits for V 292.395 Recovery = Not calculated
 Zn 206.200† 59.0 5.62071 ug/L 0.109881 5.62071 ug/L 0.109881 1.95%
 QC value within limits for Zn 206.200 Recovery = Not calculated
 QC Failed. Continue with analysis.
 User canceled analysis.

=====
Analysis Begun

Start Time: 11/3/2015 12:22:47 PM

Plasma On Time: 11/3/2015 10:27:28 AM

Logged In Analyst: Metals Analyst

Technique: ICP Continuous

Spectrometer: Optima 8300 , S/N No Serial #

Autosampler: ESI

Sample Information File: C:\Users\Public\PerkinElmer Syngistix\ICP\Data\Sample Information\
5K02031.sifx

Batch ID:

Results Data Set: 5K03027

Results Library: C:\Users\Public\PerkinElmer Syngistix\ICP\Data\Results\Results.mdb

Sequence No.: 34

Autosampler Location: 104

Sample ID: 5K02031-IFA2

Date Collected: 11/3/2015 12:22:48 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Replicate Data: 5K02031-IFA2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	188988.6	188988.6	104.699 %		12:23:13 PM
1	Al 396.153†	97.8	45.7	34.1434 ug/L	34.1434 ug/L	12:23:18 PM
1	Ba 455.398†	452.0	-141.6	1.12078 ug/L	1.12078 ug/L	12:23:13 PM
1	Ca 315.887†	99.6	-146.5	-0.0271743 mg/L	-0.0271743 mg/L	12:23:18 PM
1	Fe 238.204†	-0.4	-30.3	-5.65975 ug/L	-5.65975 ug/L	12:23:18 PM
1	K 766.490†	202.5	-18.5	0.0518859 mg/L	0.0518859 mg/L	12:23:13 PM
1	Li 670.784†	174.7	99.5	4.75776 ug/L	4.75776 ug/L	12:23:13 PM
1	Mg 279.071†	-17.2	-22.7	-0.0476498 mg/L	-0.0476498 mg/L	12:23:18 PM
1	Na 589.592†	1580.1	743.3	0.160015 mg/L	0.160015 mg/L	12:23:13 PM
1	Sr 407.771†	1706.0	-178.6	2.55306 ug/L	2.55306 ug/L	12:23:18 PM
1	Ti 334.940†	609261.5	582008.2	19779.8 ug/L	19779.8 ug/L	12:23:13 PM
1	Y 360.076	273355.0	273355.0	102.000 %		12:23:28 PM
1	Ag 328.068†	-407.6	-356.3	3.55456 ug/L	3.55456 ug/L	12:23:28 PM
1	As 188.979†	52.1	107.7	40.3696 ug/L	40.3696 ug/L	12:23:34 PM
1	B 249.677†	315.0	-92.7	-9.74138 ug/L	-9.74138 ug/L	12:23:34 PM
1	Be 234.861†	-894.6	106.4	0.251295 ug/L	0.251295 ug/L	12:23:34 PM
1	Cd 214.437†	520.8	-46.4	3.87424 ug/L	3.87424 ug/L	12:23:34 PM
1	Ce 413.764†	646.6	-51.7	-1.60074 ug/L	-1.60074 ug/L	12:23:28 PM
1	Co 228.616†	651.8	704.7	-2.41080 ug/L	-2.41080 ug/L	12:23:34 PM
1	Cr 205.557†	214195.4	210036.5	19896.2 ug/L	19896.2 ug/L	12:23:28 PM
1	Cu 327.397†	917006.5	899058.4	20236.9 ug/L	20236.9 ug/L	12:23:27 PM
1	Mn 257.610†	3798907.2	3724205.7	19641.9 ug/L	19641.9 ug/L	12:23:27 PM
1	Mo 202.031†	115.4	-20.9	-0.0449721 ug/L	-0.0449721 ug/L	12:23:34 PM
1	Ni 231.604†	187877.6	183593.9	19984.0 ug/L	19984.0 ug/L	12:23:28 PM

1	Pb 220.353†	113.3	23.4	22.2800 ug/L	22.2800 ug/L	12:23:34 PM
1	S 180.669†	-4.5	-9.3	-137.942 ug/L	-137.942 ug/L	12:23:34 PM
1	Sb 217.582†	-23.0	-19.1	-10.0619 ug/L	-10.0619 ug/L	12:23:34 PM
1	Se 196.026†	-47.7	13.1	36.4590 ug/L	36.4590 ug/L	12:23:34 PM
1	Sn 189.927†	3.4	-4.9	7.37277 ug/L	7.37277 ug/L	12:23:34 PM
1	Tl 190.801†	-265.9	-184.9	-43.8515 ug/L	-43.8515 ug/L	12:23:34 PM
1	V 292.395†	849723.9	833086.8	19955.6 ug/L	19955.6 ug/L	12:23:27 PM
1	Zn 206.200†	70.3	100.7	14.5267 ug/L	14.5267 ug/L	12:23:28 PM
2	Sc 357.234	183180.7	183180.7	101.482 %		12:23:20 PM
2	Al 396.153†	55.3	6.8	12.6246 ug/L	12.6246 ug/L	12:23:25 PM
2	Ba 455.398†	462.2	-117.9	1.21207 ug/L	1.21207 ug/L	12:23:20 PM
2	Ca 315.887†	82.1	-160.7	-0.0341608 mg/L	-0.0341608 mg/L	12:23:25 PM
2	Fe 238.204†	19.2	-11.1	-1.19938 ug/L	-1.19938 ug/L	12:23:25 PM
2	K 766.490†	224.6	9.5	0.0851829 mg/L	0.0851829 mg/L	12:23:20 PM
2	Li 670.784†	192.3	122.1	5.18676 ug/L	5.18676 ug/L	12:23:20 PM
2	Mg 279.071†	-1.1	-7.4	0.0003023 mg/L	0.0003023 mg/L	12:23:25 PM
2	Na 589.592†	1462.8	675.6	0.147882 mg/L	0.147882 mg/L	12:23:20 PM
2	Sr 407.771†	1673.9	-158.6	2.58359 ug/L	2.58359 ug/L	12:23:25 PM
2	Ti 334.940†	591576.4	583031.3	19814.6 ug/L	19814.6 ug/L	12:23:20 PM
2	Y 360.076	269653.4	269653.4	100.619 %		12:23:36 PM
2	Ag 328.068†	-336.3	-291.0	4.55920 ug/L	4.55920 ug/L	12:23:36 PM
2	As 188.979†	38.7	95.1	19.2860 ug/L	19.2860 ug/L	12:23:41 PM
2	B 249.677†	346.4	-57.2	-7.44456 ug/L	-7.44456 ug/L	12:23:41 PM
2	Be 234.861†	-861.4	127.4	0.324277 ug/L	0.324277 ug/L	12:23:41 PM
2	Cd 214.437†	596.3	35.6	6.57872 ug/L	6.57872 ug/L	12:23:41 PM
2	Ce 413.764†	384.8	-303.2	-9.39194 ug/L	-9.39194 ug/L	12:23:36 PM
2	Co 228.616†	665.1	726.7	-1.10155 ug/L	-1.10155 ug/L	12:23:41 PM
2	Cr 205.557†	211125.6	209868.3	19881.1 ug/L	19881.1 ug/L	12:23:36 PM
2	Cu 327.397†	933476.7	927768.4	20882.8 ug/L	20882.8 ug/L	12:23:35 PM
2	Mn 257.610†	3858966.8	3835021.7	20226.3 ug/L	20226.3 ug/L	12:23:35 PM
2	Mo 202.031†	137.8	2.9	4.32463 ug/L	4.32463 ug/L	12:23:41 PM
2	Ni 231.604†	184969.9	183232.5	19944.6 ug/L	19944.6 ug/L	12:23:36 PM
2	Pb 220.353†	84.0	-4.2	1.73537 ug/L	1.73537 ug/L	12:23:41 PM
2	S 180.669†	19.2	14.2	8.74255 ug/L	8.74255 ug/L	12:23:41 PM
2	Sb 217.582†	-14.8	-11.3	-3.43203 ug/L	-3.43203 ug/L	12:23:41 PM
2	Se 196.026†	-32.2	27.8	61.2046 ug/L	61.2046 ug/L	12:23:41 PM
2	Sn 189.927†	26.3	17.8	23.0702 ug/L	23.0702 ug/L	12:23:41 PM
2	Tl 190.801†	-252.2	-174.9	-32.4573 ug/L	-32.4573 ug/L	12:23:41 PM
2	V 292.395†	861647.5	856372.6	20514.0 ug/L	20514.0 ug/L	12:23:35 PM
2	Zn 206.200†	107.7	138.9	18.6716 ug/L	18.6716 ug/L	12:23:36 PM

CKD

Mean Data: 5K02031-1FA2 IFA4

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	186084.6	103.090 %	2.2751			2.21%
Y 360.076	271504.2	101.310 %	0.9767			0.96%
Ag 328.068†	-323.7	4.05688 ug/L	0.710385	4.05688 ug/L	0.710385	17.51%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153†	26.2	23.3840 ug/L	15.21609	23.3840 ug/L	15.21609	65.07%
QC value within limits for Al 396.153 Recovery = Not calculated						
As 188.979†	101.4	29.8278 ug/L	14.90836	29.8278 ug/L	14.90836	49.98%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-75.0	-8.59297 ug/L	1.624095	-8.59297 ug/L	1.624095	18.90%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 455.398†	-129.8	1.16643 ug/L	0.064549	1.16643 ug/L	0.064549	5.53%
QC value within limits for Ba 455.398 Recovery = Not calculated						
Be 234.861†	116.9	0.287786 ug/L	0.0516064	0.287786 ug/L	0.0516064	17.93%
QC value within limits for Be 234.861 Recovery = Not calculated						
Ca 315.887†	-153.6	-0.0306676 mg/L	0.00494017	-0.0306676 mg/L	0.00494017	16.11%
QC value within limits for Ca 315.887 Recovery = Not calculated						
Cd 214.437†	-5.4	5.22648 ug/L	1.912358	5.22648 ug/L	1.912358	36.59%
QC value within limits for Cd 214.437 Recovery = Not calculated						
Ce 413.764†	-177.4	-5.49634 ug/L	5.509211	-5.49634 ug/L	5.509211	100.23%
Co 228.616†	715.7	-1.75618 ug/L	0.925780	-1.75618 ug/L	0.925780	52.72%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 205.557†	209952.4	19888.7 ug/L	10.67	19888.7 ug/L	10.67	0.05%
QC value within limits for Cr 205.557 Recovery = 99.44%						
Cu 327.397†	913413.4	20559.8 ug/L	456.72	20559.8 ug/L	456.72	2.22%
QC value within limits for Cu 327.397 Recovery = 102.80%						
Fe 238.204†	-20.7	-3.42956 ug/L	3.153956	-3.42956 ug/L	3.153956	91.96%
QC value within limits for Fe 238.204 Recovery = Not calculated						
K 766.490†	-4.5	0.0685344 mg/L	0.02354457	0.0685344 mg/L	0.02354457	34.35%
QC value within limits for K 766.490 Recovery = Not calculated						
Li 670.784†	110.8	4.97226 ug/L	0.303349	4.97226 ug/L	0.303349	6.10%
QC value within limits for Li 670.784 Recovery = Not calculated						

000523

Mg 279.071† -15.1 -0.0236738 mg/L 0.03390723 -0.0236738 mg/L 0.03390723 143.23% CKD
 QC value within limits for Mg 279.071 Recovery = Not calculated
 Mn 257.610† 3779613.7 19934.1 ug/L 413.23 19934.1 ug/L 413.23 2.07%
 QC value within limits for Mn 257.610 Recovery = 99.67%
 Mo 202.031† -9.0 2.13983 ug/L 3.089774 2.13983 ug/L 3.089774 144.39%
 QC value within limits for Mo 202.031 Recovery = Not calculated
 Na 589.592† 709.4 0.153948 mg/L 0.0085794 0.153948 mg/L 0.0085794 5.57%
 QC value within limits for Na 589.592 Recovery = Not calculated
 Ni 231.604† 183413.2 19964.3 ug/L 27.84 19964.3 ug/L 27.84 0.14%
 QC value within limits for Ni 231.604 Recovery = 99.82%
 Pb 220.353† 9.6 12.0077 ug/L 14.52724 12.0077 ug/L 14.52724 120.98%
 QC value within limits for Pb 220.353 Recovery = Not calculated
 S 180.669† 2.5 -64.5998 ug/L 103.72173 -64.5998 ug/L 103.72173 160.56%
 QC value within limits for S 180.669 Recovery = Not calculated
 Sb 217.582† -15.2 -6.74698 ug/L 4.688052 -6.74698 ug/L 4.688052 69.48%
 QC value within limits for Sb 217.582 Recovery = Not calculated
 Se 196.026† 20.5 48.8318 ug/L 17.49779 48.8318 ug/L 17.49779 35.83%
 QC value within limits for Se 196.026 Recovery = Not calculated
 Sn 189.927† 6.4 15.2215 ug/L 11.09976 15.2215 ug/L 11.09976 72.92%
 QC value within limits for Sn 189.927 Recovery = Not calculated
 Sr 407.771† -168.6 2.56833 ug/L 0.021590 2.56833 ug/L 0.021590 0.84%
 QC value within limits for Sr 407.771 Recovery = Not calculated
 Ti 334.940† 582519.8 19797.2 ug/L 24.59 19797.2 ug/L 24.59 0.12%
 QC value within limits for Ti 334.940 Recovery = 98.99%
 Tl 190.801† -179.9 -38.1544 ug/L 8.05690 -38.1544 ug/L 8.05690 21.12%
 QC value within limits for Tl 190.801 Recovery = Not calculated
 V 292.395† 844729.7 20234.8 ug/L 394.80 20234.8 ug/L 394.80 1.95%
 QC value within limits for V 292.395 Recovery = 101.17%
 Zn 206.200† 119.8 16.5991 ug/L 2.93087 16.5991 ug/L 2.93087 17.66%
 QC value within limits for Zn 206.200 Recovery = Not calculated
 All analyte(s) passed QC.

Sequence No.: 35

Sample ID: 5K02031-IFB1

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 105

Date Collected: 11/3/2015 12:24:49 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-IFB1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	185007.7	185007.7	102.494 %			12:25:13 PM
1	Al 396.153†	177455.6	173090.2	95236.3 ug/L		95236.3 ug/L	12:25:13 PM
1	Ba 455.398†	137759.2	133834.1	516.471 ug/L		516.471 ug/L	12:25:13 PM
1	Ca 315.887†	191088.7	186197.8	91.4855 mg/L		91.4855 mg/L	12:25:13 PM
1	Fe 238.204†	193228.6	188497.3	36129.5 ug/L		36129.5 ug/L	12:25:13 PM
1	K 766.490†	206.8	-10.1	0.0618363 mg/L		0.0618363 mg/L	12:25:19 PM
1	Li 670.784†	136.2	65.6	4.11551 ug/L		4.11551 ug/L	12:25:19 PM
1	Mg 279.071†	31915.0	31132.2	97.4171 mg/L		97.4171 mg/L	12:25:19 PM
1	Na 589.592†	1075.9	283.8	0.0776714 mg/L		0.0776714 mg/L	12:25:19 PM
1	Sr 407.771†	1992.6	136.1	3.03402 ug/L		3.03402 ug/L	12:25:19 PM
1	Ti 334.940†	514.0	593.4	28.6080 ug/L		28.6080 ug/L	12:25:19 PM
1	Y 360.076	271824.6	271824.6	101.429 %			12:25:29 PM
1	Ag 328.068†	77731.6	76679.6	1020.02 ug/L		1020.02 ug/L	12:25:29 PM
1	As 188.979†	-20.2	36.7	61.0911 ug/L		61.0911 ug/L	12:25:34 PM
1	B 249.677†	345.6	-60.8	-0.892712 ug/L		-0.892712 ug/L	12:25:34 PM
1	Be 234.861†	19824.5	20528.6	44.8299 ug/L		44.8299 ug/L	12:25:29 PM
1	Cd 214.437†	29561.6	28588.0	940.072 ug/L		940.072 ug/L	12:25:29 PM
1	Ce 413.764†	699.8	4.3	-0.793543 ug/L		-0.793543 ug/L	12:25:29 PM
1	Co 228.616†	7689.8	7647.1	472.451 ug/L		472.451 ug/L	12:25:34 PM
1	Cr 205.557†	5332.7	5299.1	504.926 ug/L		504.926 ug/L	12:25:34 PM
1	Cu 327.397†	24730.5	24416.5	552.280 ug/L		552.280 ug/L	12:25:29 PM
1	Mn 257.610†	98273.5	96684.3	512.076 ug/L		512.076 ug/L	12:25:29 PM
1	Mo 202.031†	190.0	53.3	13.5961 ug/L		13.5961 ug/L	12:25:34 PM
1	Ni 231.604†	9621.4	8886.5	964.756 ug/L		964.756 ug/L	12:25:34 PM
1	Pb 220.353†	1425.0	1317.3	965.118 ug/L		965.118 ug/L	12:25:34 PM
1	S 180.669†	303.6	294.5	-80.2342 ug/L		-80.2342 ug/L	12:25:34 PM
1	Sb 217.582†	-48.7	-44.6	12.8495 ug/L		12.8495 ug/L	12:25:34 PM
1	Se 196.026†	-60.8	-0.0	14.3688 ug/L		14.3688 ug/L	12:25:34 PM
1	Sn 189.927†	2.1	-6.2	6.51020 ug/L		6.51020 ug/L	12:25:34 PM
1	Tl 190.801†	-79.4	-2.6	4.87998 ug/L		4.87998 ug/L	12:25:34 PM
1	V 292.395†	22217.4	21930.4	524.675 ug/L		524.675 ug/L	12:25:29 PM
1	Zn 206.200†	8865.9	8772.8	954.456 ug/L		954.456 ug/L	12:25:34 PM

000524

2	Sc 357.234	185578.8	185578.8	102.810 %			12:25:21 PM
2	Al 396.153†	178896.8	173959.2	95714.6 ug/L	95714.6 ug/L		12:25:21 PM
2	Ba 455.398†	138936.5	134565.5	519.285 ug/L	519.285 ug/L		12:25:21 PM
2	Ca 315.887†	193031.4	187513.6	92.1317 mg/L	92.1317 mg/L		12:25:21 PM
2	Fe 238.204†	195175.5	189810.7	36381.3 ug/L	36381.3 ug/L		12:25:21 PM
2	K 766.490†	213.9	-3.8	0.0693761 mg/L	0.0693761 mg/L		12:25:27 PM
2	Li 670.784†	125.9	55.1	3.91570 ug/L	3.91570 ug/L		12:25:27 PM
2	Mg 279.071†	32211.5	31324.7	98.0195 mg/L	98.0195 mg/L		12:25:27 PM
2	Na 589.592†	1132.8	336.0	0.0870140 mg/L	0.0870140 mg/L		12:25:27 PM
2	Sr 407.771†	1996.2	133.6	3.03025 ug/L	3.03025 ug/L		12:25:27 PM
2	Ti 334.940†	468.9	547.9	27.0735 ug/L	27.0735 ug/L		12:25:27 PM
2	Y 360.076	261306.3	261306.3	97.5044 %			12:25:35 PM
2	Ag 328.068†	75163.6	77130.7	1026.06 ug/L	1026.06 ug/L		12:25:35 PM
2	As 188.979†	-19.4	36.7	61.0286 ug/L	61.0286 ug/L		12:25:40 PM
2	B 249.677†	372.7	-19.3	1.77769 ug/L	1.77769 ug/L		12:25:40 PM
2	Be 234.861†	19176.5	20650.8	45.0666 ug/L	45.0666 ug/L		12:25:35 PM
2	Cd 214.437†	28616.8	28792.2	946.760 ug/L	946.760 ug/L		12:25:35 PM
2	Ce 413.764†	816.7	152.1	3.77974 ug/L	3.77974 ug/L		12:25:35 PM
2	Co 228.616†	7778.7	8043.5	496.867 ug/L	496.867 ug/L		12:25:40 PM
2	Cr 205.557†	5324.7	5502.5	524.161 ug/L	524.161 ug/L		12:25:40 PM
2	Cu 327.397†	23905.0	24551.4	555.318 ug/L	555.318 ug/L		12:25:35 PM
2	Mn 257.610†	94777.3	96998.7	513.734 ug/L	513.734 ug/L		12:25:35 PM
2	Mo 202.031†	194.6	65.5	15.8367 ug/L	15.8367 ug/L		12:25:40 PM
2	Ni 231.604†	9698.3	9347.1	1014.85 ug/L	1014.85 ug/L		12:25:40 PM
2	Pb 220.353†	1431.5	1380.5	1011.43 ug/L	1011.43 ug/L		12:25:40 PM
2	S 180.669†	304.6	307.6	-11.2467 ug/L	-11.2467 ug/L		12:25:40 PM
2	Sb 217.582†	-52.6	-50.5	7.18955 ug/L	7.18955 ug/L		12:25:40 PM
2	Se 196.026†	-44.5	14.3	38.4689 ug/L	38.4689 ug/L		12:25:40 PM
2	Sn 189.927†	-8.6	-17.1	-1.04595 ug/L	-1.04595 ug/L		12:25:40 PM
2	Tl 190.801†	-80.1	-6.4	0.892342 ug/L	0.892342 ug/L		12:25:40 PM
2	V 292.395†	21479.3	22055.1	527.695 ug/L	527.695 ug/L		12:25:35 PM
2	Zn 206.200†	8858.5	9117.1	991.937 ug/L	991.937 ug/L		12:25:40 PM

CKD

Mean Data: 5K02031-IFB1|FB3

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	185293.2	102.652 %	0.2237			0.22%
Y 360.076	266565.5	99.4668 %	2.77527			2.79%
Ag 328.068†	76905.2	1023.04 ug/L	4.271	1023.04 ug/L	4.271	0.42%
QC value within limits for Ag 328.068 Recovery = 102.30%						
Al 396.153†	173524.7	95475.5 ug/L	338.19	95475.5 ug/L	338.19	0.35%
QC value within limits for Al 396.153 Recovery = 95.48%						
As 188.979†	36.7	61.0599 ug/L	0.04418	61.0599 ug/L	0.04418	0.07%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-40.0	0.442490 ug/L	1.8882616	0.442490 ug/L	1.8882616	426.74%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 455.398†	134199.8	517.878 ug/L	1.9895	517.878 ug/L	1.9895	0.38%
QC value within limits for Ba 455.398 Recovery = 103.58%						
Be 234.861†	20589.7	44.9483 ug/L	0.16734	44.9483 ug/L	0.16734	0.37%
QC value within limits for Be 234.861 Recovery = 89.90%						
Ca 315.887†	186855.7	91.8086 mg/L	0.45692	91.8086 mg/L	0.45692	0.50%
QC value within limits for Ca 315.887 Recovery = 91.81%						
Cd 214.437†	28690.1	943.416 ug/L	4.7290	943.416 ug/L	4.7290	0.50%
QC value within limits for Cd 214.437 Recovery = 94.34%						
Ce 413.764†	78.2	1.49310 ug/L	3.233803	1.49310 ug/L	3.233803	216.58%
Co 228.616†	7845.3	484.659 ug/L	17.2644	484.659 ug/L	17.2644	3.56%
QC value within limits for Co 228.616 Recovery = 96.93%						
Cr 205.557†	5400.8	514.544 ug/L	13.6009	514.544 ug/L	13.6009	2.64%
QC value within limits for Cr 205.557 Recovery = 102.91%						
Cu 327.397†	24484.0	553.799 ug/L	2.1478	553.799 ug/L	2.1478	0.39%
QC value within limits for Cu 327.397 Recovery = 110.76%						
Fe 238.204†	189154.0	36255.4 ug/L	178.03	36255.4 ug/L	178.03	0.49%
QC value within limits for Fe 238.204 Recovery = 90.64%						
K 766.490†	-6.9	0.0656062 mg/L	0.00533145	0.0656062 mg/L	0.00533145	8.13%
QC value within limits for K 766.490 Recovery = Not calculated						
Li 670.784†	60.3	4.01560 ug/L	0.141288	4.01560 ug/L	0.141288	3.52%
QC value within limits for Li 670.784 Recovery = Not calculated						
Mg 279.071†	31228.5	97.7183 mg/L	0.42595	97.7183 mg/L	0.42595	0.44%
QC value within limits for Mg 279.071 Recovery = 97.72%						
Mn 257.610†	96841.5	512.905 ug/L	1.1723	512.905 ug/L	1.1723	0.23%
QC value within limits for Mn 257.610 Recovery = 102.58%						
Mo 202.031†	59.4	14.7164 ug/L	1.58438	14.7164 ug/L	1.58438	10.77%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592†	309.9	0.0823427 mg/L	0.00660618	0.0823427 mg/L	0.00660618	8.02%
QC value within limits for Na 589.592 Recovery = Not calculated						

000525

Ni 231.604† 9116.8 989.804 ug/L 35.4233 989.804 ug/L 35.4233 3.58% CKD
 QC value within limits for Ni 231.604 Recovery = 98.98%
 Pb 220.353† 1348.9 988.273 ug/L 32.7460 988.273 ug/L 32.7460 3.31%
 QC value within limits for Pb 220.353 Recovery = 98.83%
 S 180.669† 301.0 -45.7405 ug/L 48.78155 -45.7405 ug/L 48.78155 106.65%
 QC value within limits for S 180.669 Recovery = Not calculated
 Sb 217.582† -47.6 10.0195 ug/L 4.00218 10.0195 ug/L 4.00218 39.94%
 QC value within limits for Sb 217.582 Recovery = Not calculated
 Se 196.026† 7.1 26.4189 ug/L 17.04137 26.4189 ug/L 17.04137 64.50%
 QC value within limits for Se 196.026 Recovery = Not calculated
 Sn 189.927† -11.7 2.73213 ug/L 5.343005 2.73213 ug/L 5.343005 195.56%
 QC value within limits for Sn 189.927 Recovery = Not calculated
 Sr 407.771† 134.8 3.03214 ug/L 0.002666 3.03214 ug/L 0.002666 0.09%
 QC value within limits for Sr 407.771 Recovery = Not calculated
 Ti 334.940† 570.7 27.8408 ug/L 1.08509 27.8408 ug/L 1.08509 3.90%
 QC value within limits for Ti 334.940 Recovery = Not calculated
 Tl 190.801† -4.5 2.88616 ug/L 2.819687 2.88616 ug/L 2.819687 97.70%
 QC value within limits for Tl 190.801 Recovery = Not calculated
 V 292.395† 21992.8 526.185 ug/L 2.1356 526.185 ug/L 2.1356 0.41%
 QC value within limits for V 292.395 Recovery = 105.24%
 Zn 206.200† 8945.0 973.196 ug/L 26.5034 973.196 ug/L 26.5034 2.72%
 QC value within limits for Zn 206.200 Recovery = 97.32%

All analyte(s) passed QC.

User canceled analysis.

=====

Analysis Begun

Start Time: 11/3/2015 12:30:29 PM

Plasma On Time: 11/3/2015 10:27:28 AM

Logged In Analyst: Metals Analyst

Technique: ICP Continuous

Spectrometer: Optima 8300 , S/N No Serial #

Autosampler: ESI

Sample Information File: C:\Users\Public\PerkinElmer Syngistix\ICP\Data\Sample Information\5K02031.sifx

Batch ID:

Results Data Set: 5K03027

Results Library: C:\Users\Public\PerkinElmer Syngistix\ICP\Data\Results\Results.mdb

Sequence No.: 32

Autosampler Location: 2

Sample ID: 5K02031-CRL1

Date Collected: 11/3/2015 12:30:31 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time: 60

Auto Dilution Factor: 1

Replicate Data: 5K02031-CRL1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	185675.7	185675.7	102.864	%		12:31:01 PM
1	Al 396.153†	238.8	184.5	95.0220	ug/L	95.0220 ug/L	12:31:06 PM
1	Ba 455.398†	3321.7	2655.8	11.8815	ug/L	11.8815 ug/L	12:31:01 PM
1	Ca 315.887†	1270.7	993.7	0.532759	mg/L	0.532759 mg/L	12:31:06 PM
1	Fe 238.204†	167.5	132.8	23.1018	ug/L	23.1018 ug/L	12:31:06 PM
1	K 766.490†	272.1	52.7	0.136552	mg/L	0.136552 mg/L	12:31:01 PM
1	Li 670.784†	564.5	481.5	11.9857	ug/L	11.9857 ug/L	12:31:01 PM
1	Mg 279.071†	177.1	165.9	0.542523	mg/L	0.542523 mg/L	12:31:06 PM
1	Na 589.592†	3717.0	2847.6	0.537151	mg/L	0.537151 mg/L	12:31:01 PM
1	Sr 407.771†	33818.9	31069.3	50.3214	ug/L	50.3214 ug/L	12:31:01 PM
1	Ti 334.940†	2878.4	2890.2	104.579	ug/L	104.579 ug/L	12:31:06 PM
1	Y 360.076	274837.8	274837.8	102.554	%		12:31:14 PM
1	Ag 328.068†	699.0	724.9	10.2196	ug/L	10.2196 ug/L	12:31:19 PM
1	As 188.979†	-3.6	53.1	89.7617	ug/L	89.7617 ug/L	12:31:19 PM
1	B 249.677†	1305.1	871.1	52.8286	ug/L	52.8286 ug/L	12:31:19 PM
1	Be 234.861†	-718.8	282.6	1.28485	ug/L	1.28485 ug/L	12:31:19 PM
1	Cd 214.437†	875.3	296.4	15.1666	ug/L	15.1666 ug/L	12:31:19 PM
1	Ce 413.764†	533.0	-165.9	-5.09156	ug/L	-5.09156 ug/L	12:31:14 PM
1	Co 228.616†	85.0	148.6	10.6979	ug/L	10.6979 ug/L	12:31:19 PM
1	Cr 205.557†	488.6	517.9	50.9308	ug/L	50.9308 ug/L	12:31:19 PM
1	Cu 327.397†	524.8	546.3	14.4232	ug/L	14.4232 ug/L	12:31:14 PM
1	Mn 257.610†	2333.2	2070.6	13.1278	ug/L	13.1278 ug/L	12:31:19 PM
1	Mo 202.031†	675.1	524.3	100.177	ug/L	100.177 ug/L	12:31:19 PM
1	Ni 231.604†	670.7	54.6	7.71605	ug/L	7.71605 ug/L	12:31:19 PM
1	Pb 220.353†	179.6	87.5	64.1353	ug/L	64.1353 ug/L	12:31:19 PM
1	S 180.669†	76.4	69.6	442.252	ug/L	442.252 ug/L	12:31:19 PM

1	Sb 217.582†	87.7	88.9	106.124 ug/L	106.124 ug/L	12:31:19 PM
1	Se 196.026†	-25.9	34.6	72.6214 ug/L	72.6214 ug/L	12:31:19 PM
1	Sn 189.927†	160.2	147.9	112.915 ug/L	112.915 ug/L	12:31:19 PM
1	Tl 190.801†	29.0	104.1	116.465 ug/L	116.465 ug/L	12:31:19 PM
1	V 292.395†	396.4	412.6	13.2561 ug/L	13.2561 ug/L	12:31:19 PM
1	Zn 206.200†	183.5	210.7	23.4631 ug/L	23.4631 ug/L	12:31:19 PM
2	Sc 357.234	183900.5	183900.5	101.880 %		12:31:07 PM
2	Al 396.153†	194.6	143.3	72.5363 ug/L	72.5363 ug/L	12:31:12 PM
2	Ba 455.398†	3149.1	2517.6	11.3498 ug/L	11.3498 ug/L	12:31:07 PM
2	Ca 315.887†	1300.4	1034.8	0.552964 mg/L	0.552964 mg/L	12:31:12 PM
2	Fe 238.204†	159.1	126.2	21.8329 ug/L	21.8329 ug/L	12:31:12 PM
2	K 766.490†	255.7	39.2	0.120418 mg/L	0.120418 mg/L	12:31:07 PM
2	Li 670.784†	589.2	511.0	12.5439 ug/L	12.5439 ug/L	12:31:07 PM
2	Mg 279.071†	160.6	151.4	0.497074 mg/L	0.497074 mg/L	12:31:12 PM
2	Na 589.592†	3765.2	2929.8	0.551882 mg/L	0.551882 mg/L	12:31:07 PM
2	Sr 407.771†	33557.8	31130.4	50.4148 ug/L	50.4148 ug/L	12:31:07 PM
2	Ti 334.940†	2873.4	2912.2	105.328 ug/L	105.328 ug/L	12:31:12 PM
2	Y 360.076	276192.6	276192.6	103.059 %		12:31:21 PM
2	Ag 328.068†	706.3	728.6	10.3072 ug/L	10.3072 ug/L	12:31:26 PM
2	As 188.979†	6.8	63.3	106.624 ug/L	106.624 ug/L	12:31:26 PM
2	B 249.677†	1283.0	843.4	51.0324 ug/L	51.0324 ug/L	12:31:26 PM
2	Be 234.861†	-662.1	341.0	1.49562 ug/L	1.49562 ug/L	12:31:26 PM
2	Cd 214.437†	854.3	271.9	14.3602 ug/L	14.3602 ug/L	12:31:26 PM
2	Ce 413.764†	662.6	-42.6	-1.27582 ug/L	-1.27582 ug/L	12:31:21 PM
2	Co 228.616†	73.1	136.6	9.94827 ug/L	9.94827 ug/L	12:31:26 PM
2	Cr 205.557†	511.1	537.4	52.7787 ug/L	52.7787 ug/L	12:31:26 PM
2	Cu 327.397†	507.1	526.6	13.9814 ug/L	13.9814 ug/L	12:31:21 PM
2	Mn 257.610†	2343.7	2069.7	13.1227 ug/L	13.1227 ug/L	12:31:26 PM
2	Mo 202.031†	651.6	498.3	95.3976 ug/L	95.3976 ug/L	12:31:26 PM
2	Ni 231.604†	679.5	59.9	8.28478 ug/L	8.28478 ug/L	12:31:26 PM
2	Pb 220.353†	165.3	72.7	53.2688 ug/L	53.2688 ug/L	12:31:26 PM
2	S 180.669†	77.0	69.9	443.377 ug/L	443.377 ug/L	12:31:26 PM
2	Sb 217.582†	86.5	87.4	104.567 ug/L	104.567 ug/L	12:31:26 PM
2	Se 196.026†	21.7	80.9	150.562 ug/L	150.562 ug/L	12:31:26 PM
2	Sn 189.927†	157.7	144.7	110.737 ug/L	110.737 ug/L	12:31:26 PM
2	Tl 190.801†	18.0	93.2	105.192 ug/L	105.192 ug/L	12:31:26 PM
2	V 292.395†	393.1	407.5	13.0235 ug/L	13.0235 ug/L	12:31:26 PM
2	Zn 206.200†	152.0	179.4	20.0500 ug/L	20.0500 ug/L	12:31:26 PM

CKD

Mean Data: 5K02031-CRL1 CRL2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	184788.1	102.372 %	0.6954			0.68%
Y 360.076	275515.2	102.806 %	0.3575			0.35%
Ag 328.068†	726.7	10.2634 ug/L	0.06196	10.2634 ug/L	0.06196	0.60%
QC value within limits for Ag 328.068 Recovery = 102.63%						
Al 396.153†	163.9	83.7792 ug/L	15.89974	83.7792 ug/L	15.89974	18.98%
QC value greater than the upper limit for Al 396.153 Recovery = 167.56%						
As 188.979†	58.2	98.1929 ug/L	11.92350	98.1929 ug/L	11.92350	12.14%
QC value within limits for As 188.979 Recovery = 98.19%						
B 249.677†	857.2	51.9305 ug/L	1.27008	51.9305 ug/L	1.27008	2.45%
QC value within limits for B 249.677 Recovery = 103.86%						
Ba 455.398†	2586.7	11.6157 ug/L	0.37599	11.6157 ug/L	0.37599	3.24%
QC value within limits for Ba 455.398 Recovery = 116.16%						
Be 234.861†	311.8	1.39023 ug/L	0.149039	1.39023 ug/L	0.149039	10.72%
QC value greater than the upper limit for Be 234.861 Recovery = 139.02%						
Ca 315.887†	1014.2	0.542861 mg/L	0.0142871	0.542861 mg/L	0.0142871	2.63%
QC value within limits for Ca 315.887 Recovery = 108.57%						
Cd 214.437†	284.1	14.7634 ug/L	0.57022	14.7634 ug/L	0.57022	3.86%
QC value greater than the upper limit for Cd 214.437 Recovery = 147.63%						
Ce 413.764†	-104.2	-3.18369 ug/L	2.698132	-3.18369 ug/L	2.698132	84.75%
Co 228.616†	142.6	10.3231 ug/L	0.53008	10.3231 ug/L	0.53008	5.13%
QC value within limits for Co 228.616 Recovery = 103.23%						
Cr 205.557†	527.7	51.8547 ug/L	1.30661	51.8547 ug/L	1.30661	2.52%
QC value within limits for Cr 205.557 Recovery = 103.71%						
Cu 327.397†	536.5	14.2023 ug/L	0.31241	14.2023 ug/L	0.31241	2.20%
QC value greater than the upper limit for Cu 327.397 Recovery = 142.02%						
Fe 238.204†	129.5	22.4673 ug/L	0.89730	22.4673 ug/L	0.89730	3.99%
QC value greater than the upper limit for Fe 238.204 Recovery = 224.67%						
K 766.490†	45.9	0.128485 mg/L	0.0114085	0.128485 mg/L	0.0114085	8.88%
QC value within limits for K 766.490 Recovery = 128.48%						
Li 670.784†	496.3	12.2648 ug/L	0.39468	12.2648 ug/L	0.39468	3.22%
QC value greater than the upper limit for Li 670.784 Recovery = 153.31%						
Mg 279.071†	158.7	0.519799 mg/L	0.0321368	0.519799 mg/L	0.0321368	6.18%
QC value within limits for Mg 279.071 Recovery = 103.96%						

000527

Mn 257.610† 2070.1 13.1253 ug/L 0.00357 13.1253 ug/L 0.00357 0.03% CKD
 QC value greater than the upper limit for Mn 257.610 Recovery = 131.25%
 Mo 202.031† 511.3 97.7874 ug/L 3.37964 97.7874 ug/L 3.37964 3.46%
 QC value within limits for Mo 202.031 Recovery = 97.79%
 Na 589.592† 2888.7 0.544516 mg/L 0.0104164 0.544516 mg/L 0.0104164 1.91%
 QC value within limits for Na 589.592 Recovery = 108.90%
 Ni 231.604† 57.3 8.00042 ug/L 0.402152 8.00042 ug/L 0.402152 5.03%
 QC value within limits for Ni 231.604 Recovery = 80.00%
 Pb 220.353† 80.1 58.7021 ug/L 7.68375 58.7021 ug/L 7.68375 13.09%
 QC value within limits for Pb 220.353 Recovery = 117.40%
 S 180.669† 69.7 442.814 ug/L 0.7953 442.814 ug/L 0.7953 0.18%
 QC value within limits for S 180.669 Recovery = 88.56%
 Sb 217.582† 88.1 105.345 ug/L 1.1013 105.345 ug/L 1.1013 1.05%
 QC value within limits for Sb 217.582 Recovery = 105.35%
 Se 196.026† 57.7 111.592 ug/L 55.1123 111.592 ug/L 55.1123 49.39%
 QC value within limits for Se 196.026 Recovery = 111.59%
 Sn 189.927† 146.3 111.826 ug/L 1.5400 111.826 ug/L 1.5400 1.38%
 QC value within limits for Sn 189.927 Recovery = 111.83%
 Sr 407.771† 31099.8 50.3681 ug/L 0.06603 50.3681 ug/L 0.06603 0.13%
 QC value within limits for Sr 407.771 Recovery = 100.74%
 Ti 334.940† 2901.2 104.954 ug/L 0.5294 104.954 ug/L 0.5294 0.50%
 QC value within limits for Ti 334.940 Recovery = 104.95%
 Tl 190.801† 98.6 110.828 ug/L 7.9713 110.828 ug/L 7.9713 7.19%
 QC value within limits for Tl 190.801 Recovery = 110.83%
 V 292.395† 410.1 13.1398 ug/L 0.16445 13.1398 ug/L 0.16445 1.25%
 QC value greater than the upper limit for V 292.395 Recovery = 131.40%
 Zn 206.200† 195.0 21.7565 ug/L 2.41341 21.7565 ug/L 2.41341 11.09%
 QC value within limits for Zn 206.200 Recovery = 108.78%
 QC Failed. Continue with analysis.
 User canceled analysis.

=====
Analysis Begun

Start Time: 11/3/2015 12:32:24 PM

Plasma On Time: 11/3/2015 10:27:28 AM

Logged In Analyst: Metals Analyst

Technique: ICP Continuous

Spectrometer: Optima 8300 , S/N No Serial #

Autosampler: ESI

Sample Information File: C:\Users\Public\PerkinElmer Syngistix\ICP\Data\Sample Information\
5K02031.sifx

Batch ID:

Results Data Set: 5K03027

Results Library: C:\Users\Public\PerkinElmer Syngistix\ICP\Data\Results\Results.mdb

=====
Sequence No.: 36

Autosampler Location: 106

Sample ID: 5K02031-IFB2

Date Collected: 11/3/2015 12:32:25 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Replicate Data: 5K02031-IFB2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	188684.8	188684.8	104.531 %		12:32:52 PM
1	Al 396.153†	2090.8	1952.4	1051.03 ug/L	1051.03 ug/L	12:32:57 PM
1	Ba 455.398†	485.1	-109.3	1.24519 ug/L	1.24519 ug/L	12:32:52 PM
1	Ca 315.887†	10421.8	9728.4	4.82237 mg/L	4.82237 mg/L	12:32:57 PM
1	Fe 238.204†	-23.7	-52.6	-9.06964 ug/L	-9.06964 ug/L	12:32:57 PM
1	K 766.490†	292.8	68.3	0.155098 mg/L	0.155098 mg/L	12:32:52 PM
1	Li 670.784†	147.0	73.3	4.26183 ug/L	4.26183 ug/L	12:32:52 PM
1	Mg 279.071†	1604.2	1528.4	4.80486 mg/L	4.80486 mg/L	12:32:57 PM
1	Na 589.592†	29801.5	27743.9	4.99902 mg/L	4.99902 mg/L	12:32:52 PM
1	Sr 407.771†	1824.4	-62.7	2.73012 ug/L	2.73012 ug/L	12:32:57 PM
1	Ti 334.940†	611518.1	585103.9	19885.1 ug/L	19885.1 ug/L	12:32:52 PM
1	Y 360.076	268006.0	268006.0	100.004 %		12:33:07 PM
1	Ag 328.068†	-322.5	-279.2	4.48017 ug/L	4.48017 ug/L	12:33:07 PM
1	As 188.979†	670.2	726.8	1064.00 ug/L	1064.00 ug/L	12:33:12 PM
1	B 249.677†	15278.5	14876.3	959.694 ug/L	959.694 ug/L	12:33:07 PM
1	Be 234.861†	-882.6	100.9	0.402958 ug/L	0.402958 ug/L	12:33:12 PM
1	Cd 214.437†	560.4	3.4	5.45991 ug/L	5.45991 ug/L	12:33:12 PM
1	Ce 413.764†	497.5	-188.1	-5.33673 ug/L	-5.33673 ug/L	12:33:07 PM
1	Co 228.616†	629.1	694.8	-1.59539 ug/L	-1.59539 ug/L	12:33:12 PM
1	Cr 205.557†	211299.3	211331.6	20018.7 ug/L	20018.7 ug/L	12:33:07 PM

1	Cu 327.397†	926003.2	925997.7	20843.4 ug/L	20843.4 ug/L	12:33:06 PM
1	Mn 257.610†	3831371.2	3831001.4	20205.1 ug/L	20205.1 ug/L	12:33:06 PM
1	Mo 202.031†	5619.2	5484.9	1012.22 ug/L	1012.22 ug/L	12:33:12 PM
1	Ni 231.604†	184617.9	184010.6	20031.8 ug/L	20031.8 ug/L	12:33:07 PM
1	Pb 220.353†	126.3	38.6	36.4863 ug/L	36.4863 ug/L	12:33:12 PM
1	S 180.669†	33.3	28.4	-5.76837 ug/L	-5.76837 ug/L	12:33:12 PM
1	Sb 217.582†	957.1	960.5	997.598 ug/L	997.598 ug/L	12:33:12 PM
1	Se 196.026†	593.2	653.1	1113.70 ug/L	1113.70 ug/L	12:33:12 PM
1	Sn 189.927†	2.7	-5.7	6.88140 ug/L	6.88140 ug/L	12:33:12 PM
1	Tl 190.801†	722.1	797.9	979.450 ug/L	979.450 ug/L	12:33:12 PM
1	V 292.395†	862012.0	862000.9	20671.7 ug/L	20671.7 ug/L	12:33:06 PM
1	Zn 206.200†	39.8	71.7	10.9563 ug/L	10.9563 ug/L	12:33:07 PM
2	Sc 357.234	186578.5	186578.5	103.364 %		12:32:58 PM
2	Al 396.153†	2086.7	1971.1	1062.16 ug/L	1062.16 ug/L	12:33:03 PM
2	Ba 455.398†	509.0	-80.9	1.35440 ug/L	1.35440 ug/L	12:32:58 PM
2	Ca 315.887†	10480.7	9897.9	4.90560 mg/L	4.90560 mg/L	12:33:03 PM
2	Fe 238.204†	-60.4	-88.4	-16.2033 ug/L	-16.2033 ug/L	12:33:03 PM
2	K 766.490†	141.2	-75.2	-0.0156399 mg/L	-0.0156399 mg/L	12:32:58 PM
2	Li 670.784†	64.5	-5.0	2.78167 ug/L	2.78167 ug/L	12:32:58 PM
2	Mg 279.071†	1613.2	1554.4	4.88635 mg/L	4.88635 mg/L	12:33:03 PM
2	Na 589.592†	29514.4	27788.0	5.00692 mg/L	5.00692 mg/L	12:32:58 PM
2	Sr 407.771†	1815.8	-51.3	2.74758 ug/L	2.74758 ug/L	12:33:03 PM
2	Ti 334.940†	606567.1	586918.4	19946.8 ug/L	19946.8 ug/L	12:32:58 PM
2	Y 360.076	274085.7	274085.7	102.273 %		12:33:15 PM
2	Ag 328.068†	-201.5	-153.8	6.09207 ug/L	6.09207 ug/L	12:33:15 PM
2	As 188.979†	638.3	680.8	987.669 ug/L	987.669 ug/L	12:33:20 PM
2	B 249.677†	15751.1	14999.5	967.627 ug/L	967.627 ug/L	12:33:15 PM
2	Be 234.861†	-855.6	146.9	0.568935 ug/L	0.568935 ug/L	12:33:20 PM
2	Cd 214.437†	566.1	-3.5	5.23336 ug/L	5.23336 ug/L	12:33:20 PM
2	Ce 413.764†	474.3	-221.8	-6.39686 ug/L	-6.39686 ug/L	12:33:15 PM
2	Co 228.616†	643.5	694.9	-1.71945 ug/L	-1.71945 ug/L	12:33:20 PM
2	Cr 205.557†	215320.9	210577.1	19947.1 ug/L	19947.1 ug/L	12:33:15 PM
2	Cu 327.397†	939145.2	918308.2	20670.5 ug/L	20670.5 ug/L	12:33:14 PM
2	Mn 257.610†	3902376.6	3815445.8	20123.1 ug/L	20123.1 ug/L	12:33:14 PM
2	Mo 202.031†	5619.6	5360.7	989.381 ug/L	989.381 ug/L	12:33:20 PM
2	Ni 231.604†	188459.8	183672.1	19994.9 ug/L	19994.9 ug/L	12:33:15 PM
2	Pb 220.353†	113.0	22.9	25.0012 ug/L	25.0012 ug/L	12:33:20 PM
2	S 180.669†	27.7	22.2	-46.7958 ug/L	-46.7958 ug/L	12:33:20 PM
2	Sb 217.582†	962.2	944.2	981.137 ug/L	981.137 ug/L	12:33:20 PM
2	Se 196.026†	559.1	606.6	1035.45 ug/L	1035.45 ug/L	12:33:20 PM
2	Sn 189.927†	-1.4	-9.7	4.11949 ug/L	4.11949 ug/L	12:33:20 PM
2	Tl 190.801†	715.4	775.2	956.051 ug/L	956.051 ug/L	12:33:20 PM
2	V 292.395†	875718.4	856282.5	20534.1 ug/L	20534.1 ug/L	12:33:14 PM
2	Zn 206.200†	27.7	58.9	9.56877 ug/L	9.56877 ug/L	12:33:15 PM

CKD

Mean Data: 5K02031-IFB2 IFB4

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	187631.6	103.947 %	0.8251			0.79%
Y 360.076	271045.9	101.139 %	1.6041			1.59%
Ag 328.068†	-216.5	5.28612 ug/L	1.139787	5.28612 ug/L	1.139787	21.56%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153†	1961.8	1056.60 ug/L	7.870	1056.60 ug/L	7.870	0.74%
QC value within limits for Al 396.153 Recovery = 105.66%						
As 188.979†	703.8	1025.84 ug/L	53.977	1025.84 ug/L	53.977	5.26%
QC value within limits for As 188.979 Recovery = 102.58%						
B 249.677†	14937.9	963.661 ug/L	5.6096	963.661 ug/L	5.6096	0.58%
QC value within limits for B 249.677 Recovery = 96.37%						
Ba 455.398†	-95.1	1.29980 ug/L	0.077228	1.29980 ug/L	0.077228	5.94%
QC value within limits for Ba 455.398 Recovery = Not calculated						
Be 234.861†	123.9	0.485946 ug/L	0.1173637	0.485946 ug/L	0.1173637	24.15%
QC value within limits for Be 234.861 Recovery = Not calculated						
Ca 315.887†	9813.2	4.86399 mg/L	0.058853	4.86399 mg/L	0.058853	1.21%
QC value within limits for Ca 315.887 Recovery = 97.28%						
Cd 214.437†	-0.1	5.34664 ug/L	0.160193	5.34664 ug/L	0.160193	3.00%
QC value within limits for Cd 214.437 Recovery = Not calculated						
Ce 413.764†	-204.9	-5.86679 ug/L	0.749632	-5.86679 ug/L	0.749632	12.78%
Co 228.616†	694.8	-1.65742 ug/L	0.087729	-1.65742 ug/L	0.087729	5.29%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 205.557†	210954.4	19982.9 ug/L	50.63	19982.9 ug/L	50.63	0.25%
QC value within limits for Cr 205.557 Recovery = 99.91%						
Cu 327.397†	922152.9	20757.0 ug/L	122.31	20757.0 ug/L	122.31	0.59%
QC value within limits for Cu 327.397 Recovery = 103.78%						
Fe 238.204†	-70.5	-12.6365 ug/L	5.04428	-12.6365 ug/L	5.04428	39.92%
QC value within limits for Fe 238.204 Recovery = Not calculated						

000529

K 766.490† -3.5 0.0697292 mg/L 0.12073022 0.0697292 mg/L 0.12073022 173.14% CKD
 QC value within limits for K 766.490 Recovery = Not calculated
 Li 670.784† 34.1 3.52175 ug/L 1.046631 3.52175 ug/L 1.046631 29.72%
 QC value within limits for Li 670.784 Recovery = Not calculated
 Mg 279.071† 1541.4 4.84560 mg/L 0.057619 4.84560 mg/L 0.057619 1.19%
 QC value within limits for Mg 279.071 Recovery = 96.91%
 Mn 257.610† 3823223.6 20164.1 ug/L 58.01 20164.1 ug/L 58.01 0.29%
 QC value within limits for Mn 257.610 Recovery = 100.82%
 Mo 202.031† 5422.8 1000.80 ug/L 16.149 1000.80 ug/L 16.149 1.61%
 QC value within limits for Mo 202.031 Recovery = 100.08%
 Na 589.592† 27766.0 5.00297 mg/L 0.005584 5.00297 mg/L 0.005584 0.11%
 QC value within limits for Na 589.592 Recovery = 100.06%
 Ni 231.604† 183841.3 20013.3 ug/L 26.08 20013.3 ug/L 26.08 0.13%
 QC value within limits for Ni 231.604 Recovery = 100.07%
 Pb 220.353† 30.7 30.7437 ug/L 8.12117 30.7437 ug/L 8.12117 26.42%
 QC value within limits for Pb 220.353 Recovery = Not calculated
 S 180.669† 25.3 -26.2821 ug/L 29.01080 -26.2821 ug/L 29.01080 110.38%
 QC value within limits for S 180.669 Recovery = Not calculated
 Sb 217.582† 952.4 989.368 ug/L 11.6393 989.368 ug/L 11.6393 1.18%
 QC value within limits for Sb 217.582 Recovery = 98.94%
 Se 196.026† 629.8 1074.58 ug/L 55.331 1074.58 ug/L 55.331 5.15%
 QC value within limits for Se 196.026 Recovery = 107.46%
 Sn 189.927† -7.7 5.50044 ug/L 1.952964 5.50044 ug/L 1.952964 35.51%
 QC value within limits for Sn 189.927 Recovery = Not calculated
 Sr 407.771† -57.0 2.73885 ug/L 0.012341 2.73885 ug/L 0.012341 0.45%
 QC value within limits for Sr 407.771 Recovery = Not calculated
 Ti 334.940† 586011.1 19915.9 ug/L 43.62 19915.9 ug/L 43.62 0.22%
 QC value within limits for Ti 334.940 Recovery = 99.58%
 Tl 190.801† 786.5 967.751 ug/L 16.5462 967.751 ug/L 16.5462 1.71%
 QC value within limits for Tl 190.801 Recovery = 96.78%
 V 292.395† 859141.7 20602.9 ug/L 97.32 20602.9 ug/L 97.32 0.47%
 QC value within limits for V 292.395 Recovery = 103.01%
 Zn 206.200† 65.3 10.2625 ug/L 0.98110 10.2625 ug/L 0.98110 9.56%
 QC value within limits for Zn 206.200 Recovery = Not calculated
 All analyte(s) passed QC.

Sequence No.: 37

Sample ID: 5K02031-CCV

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 4

Date Collected: 11/3/2015 12:34:28 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	184635.7	184635.7	102.288	%		12:34:54 PM
1	Al 396.153†	4731.3	4577.8	2497.71	ug/L	2497.71 ug/L	12:35:00 PM
1	Ba 455.398†	129998.1	126517.3	488.326	ug/L	488.326 ug/L	12:34:54 PM
1	Ca 315.887†	10388.6	9914.6	4.91380	mg/L	4.91380 mg/L	12:35:00 PM
1	Fe 238.204†	2928.4	2833.0	540.831	ug/L	540.831 ug/L	12:35:00 PM
1	K 766.490†	4464.1	4152.4	5.01282	mg/L	5.01282 mg/L	12:35:00 PM
1	Li 670.784†	26471.6	25812.2	491.163	ug/L	491.163 ug/L	12:34:54 PM
1	Mg 279.071†	1693.5	1649.3	5.18315	mg/L	5.18315 mg/L	12:35:00 PM
1	Na 589.592†	28592.0	27186.7	4.89914	mg/L	4.89914 mg/L	12:34:54 PM
1	Sr 407.771†	328155.5	319008.2	490.492	ug/L	490.492 ug/L	12:34:54 PM
1	Ti 334.940†	14902.9	14661.5	504.596	ug/L	504.596 ug/L	12:35:00 PM
1	Y 360.076	271184.5	271184.5	101.190	%		12:35:10 PM
1	Ag 328.068†	37102.6	36709.5	493.392	ug/L	493.392 ug/L	12:35:10 PM
1	As 188.979†	1441.7	1481.4	2461.37	ug/L	2461.37 ug/L	12:35:15 PM
1	B 249.677†	8191.3	7693.4	493.263	ug/L	493.263 ug/L	12:35:10 PM
1	Be 234.861†	12764.2	13597.5	48.9056	ug/L	48.9056 ug/L	12:35:15 PM
1	Cd 214.437†	15216.3	14480.2	482.441	ug/L	482.441 ug/L	12:35:10 PM
1	Ce 413.764†	16742.2	15859.7	491.688	ug/L	491.688 ug/L	12:35:10 PM
1	Co 228.616†	8050.5	8021.4	495.464	ug/L	495.464 ug/L	12:35:15 PM
1	Cr 205.557†	5382.6	5360.8	509.350	ug/L	509.350 ug/L	12:35:15 PM
1	Cu 327.397†	22739.5	22506.6	508.905	ug/L	508.905 ug/L	12:35:10 PM
1	Mn 257.610†	96058.6	94724.2	501.739	ug/L	501.739 ug/L	12:35:10 PM
1	Mo 202.031†	2812.8	2645.7	490.209	ug/L	490.209 ug/L	12:35:15 PM
1	Ni 231.604†	5275.2	4613.8	504.249	ug/L	504.249 ug/L	12:35:15 PM
1	Pb 220.353†	779.7	682.9	501.309	ug/L	501.309 ug/L	12:35:15 PM
1	S 180.669†	789.7	775.5	4826.74	ug/L	4826.74 ug/L	12:35:15 PM
1	Sb 217.582†	2391.8	2367.1	2452.78	ug/L	2452.78 ug/L	12:35:15 PM
1	Se 196.026†	1449.2	1492.1	2528.60	ug/L	2528.60 ug/L	12:35:15 PM

000530

CKD

1	Sn 189.927†	3567.4	3517.2	2439.58 ug/L	2439.58 ug/L	12:35:15 PM
1	Tl 190.801†	2329.8	2378.1	2484.99 ug/L	2484.99 ug/L	12:35:15 PM
1	V 292.395†	20997.5	20776.5	509.894 ug/L	509.894 ug/L	12:35:10 PM
1	Zn 206.200†	4574.6	4552.7	495.999 ug/L	495.999 ug/L	12:35:15 PM
2	Sc 357.234	185519.0	185519.0	102.777 %		12:35:01 PM
2	Al 396.153†	4742.9	4567.0	2491.90 ug/L	2491.90 ug/L	12:35:07 PM
2	Ba 455.398†	130874.3	126764.8	489.278 ug/L	489.278 ug/L	12:35:01 PM
2	Ca 315.887†	10427.5	9904.1	4.90864 mg/L	4.90864 mg/L	12:35:07 PM
2	Fe 238.204†	2941.4	2832.0	540.647 ug/L	540.647 ug/L	12:35:07 PM
2	K 766.490†	4490.3	4157.2	5.01851 mg/L	5.01851 mg/L	12:35:07 PM
2	Li 670.784†	26714.3	25925.2	493.302 ug/L	493.302 ug/L	12:35:01 PM
2	Mg 279.071†	1700.7	1648.4	5.18041 mg/L	5.18041 mg/L	12:35:07 PM
2	Na 589.592†	28546.6	27009.4	4.86738 mg/L	4.86738 mg/L	12:35:01 PM
2	Sr 407.771†	330237.8	319506.8	491.254 ug/L	491.254 ug/L	12:35:01 PM
2	Ti 334.940†	14942.0	14630.1	503.531 ug/L	503.531 ug/L	12:35:07 PM
2	Y 360.076	275075.8	275075.8	102.642 %		12:35:16 PM
2	Ag 328.068†	37525.7	36602.9	491.923 ug/L	491.923 ug/L	12:35:16 PM
2	As 188.979†	1448.6	1467.9	2438.99 ug/L	2438.99 ug/L	12:35:21 PM
2	B 249.677†	8220.9	7607.7	487.731 ug/L	487.731 ug/L	12:35:16 PM
2	Be 234.861†	12843.2	13496.0	48.5397 ug/L	48.5397 ug/L	12:35:21 PM
2	Cd 214.437†	15446.7	14491.9	482.827 ug/L	482.827 ug/L	12:35:16 PM
2	Ce 413.764†	16797.5	15679.5	486.105 ug/L	486.105 ug/L	12:35:16 PM
2	Co 228.616†	8074.4	7932.2	489.970 ug/L	489.970 ug/L	12:35:21 PM
2	Cr 205.557†	5347.4	5251.2	498.993 ug/L	498.993 ug/L	12:35:21 PM
2	Cu 327.397†	23124.0	22563.2	510.177 ug/L	510.177 ug/L	12:35:16 PM
2	Mn 257.610†	97067.4	94364.1	499.840 ug/L	499.840 ug/L	12:35:16 PM
2	Mo 202.031†	2841.3	2634.2	488.096 ug/L	488.096 ug/L	12:35:21 PM
2	Ni 231.604†	5227.5	4493.6	491.161 ug/L	491.161 ug/L	12:35:21 PM
2	Pb 220.353†	768.8	661.4	485.551 ug/L	485.551 ug/L	12:35:21 PM
2	S 180.669†	769.8	745.2	4634.29 ug/L	4634.29 ug/L	12:35:21 PM
2	Sb 217.582†	2408.2	2349.6	2434.79 ug/L	2434.79 ug/L	12:35:21 PM
2	Se 196.026†	1435.3	1458.2	2471.64 ug/L	2471.64 ug/L	12:35:21 PM
2	Sn 189.927†	3586.1	3485.5	2417.72 ug/L	2417.72 ug/L	12:35:21 PM
2	Tl 190.801†	2339.8	2355.3	2461.25 ug/L	2461.25 ug/L	12:35:21 PM
2	V 292.395†	21339.1	20815.9	510.792 ug/L	510.792 ug/L	12:35:16 PM
2	Zn 206.200†	4547.7	4462.4	486.175 ug/L	486.175 ug/L	12:35:21 PM

Mean Data: 5K02031-CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	185077.4	102.532 %	0.3460			0.34%
Y 360.076	273130.1	101.916 %	1.0267			1.01%
Ag 328.068†	36656.2	492.657 ug/L	1.0391	492.657 ug/L	1.0391	0.21%
QC value within limits for Ag 328.068 Recovery = 98.53%						
Al 396.153†	4572.4	2494.81 ug/L	4.109	2494.81 ug/L	4.109	0.16%
QC value within limits for Al 396.153 Recovery = 99.79%						
As 188.979†	1474.7	2450.18 ug/L	15.829	2450.18 ug/L	15.829	0.65%
QC value within limits for As 188.979 Recovery = 98.01%						
B 249.677†	7650.6	490.497 ug/L	3.9113	490.497 ug/L	3.9113	0.80%
QC value within limits for B 249.677 Recovery = 98.10%						
Ba 455.398†	126641.0	488.802 ug/L	0.6731	488.802 ug/L	0.6731	0.14%
QC value within limits for Ba 455.398 Recovery = 97.76%						
Be 234.861†	13546.8	48.7227 ug/L	0.25873	48.7227 ug/L	0.25873	0.53%
QC value within limits for Be 234.861 Recovery = 97.45%						
Ca 315.887†	9909.4	4.91122 mg/L	0.003647	4.91122 mg/L	0.003647	0.07%
QC value within limits for Ca 315.887 Recovery = 98.22%						
Cd 214.437†	14486.1	482.634 ug/L	0.2731	482.634 ug/L	0.2731	0.06%
QC value within limits for Cd 214.437 Recovery = 96.53%						
Ce 413.764†	15769.6	488.896 ug/L	3.9479	488.896 ug/L	3.9479	0.81%
Co 228.616†	7976.8	492.717 ug/L	3.8846	492.717 ug/L	3.8846	0.79%
QC value within limits for Co 228.616 Recovery = 98.54%						
Cr 205.557†	5306.0	504.171 ug/L	7.3234	504.171 ug/L	7.3234	1.45%
QC value within limits for Cr 205.557 Recovery = 100.83%						
Cu 327.397†	22534.9	509.541 ug/L	0.8999	509.541 ug/L	0.8999	0.18%
QC value within limits for Cu 327.397 Recovery = 101.91%						
Fe 238.204†	2832.5	540.739 ug/L	0.1302	540.739 ug/L	0.1302	0.02%
QC value within limits for Fe 238.204 Recovery = 108.15%						
K 766.490†	4154.8	5.01567 mg/L	0.004022	5.01567 mg/L	0.004022	0.08%
QC value within limits for K 766.490 Recovery = 100.31%						
Li 670.784†	25868.7	492.233 ug/L	1.5128	492.233 ug/L	1.5128	0.31%
QC value within limits for Li 670.784 Recovery = 98.45%						
Mg 279.071†	1648.9	5.18178 mg/L	0.001941	5.18178 mg/L	0.001941	0.04%
QC value within limits for Mg 279.071 Recovery = 103.64%						
Mn 257.610†	94544.2	500.789 ug/L	1.3424	500.789 ug/L	1.3424	0.27%
QC value within limits for Mn 257.610 Recovery = 100.16%						

000531

Mo 202.031†	2639.9	489.152 ug/L	1.4941	489.152 ug/L	1.4941	0.31%	CKD
QC value within limits for Mo 202.031		Recovery = 97.83%					
Na 589.592†	27098.0	4.88326 mg/L	0.022461	4.88326 mg/L	0.022461	0.46%	
QC value within limits for Na 589.592		Recovery = 97.67%					
Ni 231.604†	4553.7	497.705 ug/L	9.2545	497.705 ug/L	9.2545	1.86%	
QC value within limits for Ni 231.604		Recovery = 99.54%					
Pb 220.353†	672.1	493.430 ug/L	11.1426	493.430 ug/L	11.1426	2.26%	
QC value within limits for Pb 220.353		Recovery = 98.69%					
S 180.669†	760.4	4730.52 ug/L	136.084	4730.52 ug/L	136.084	2.88%	
QC value within limits for S 180.669		Recovery = 94.61%					
Sb 217.582†	2358.3	2443.78 ug/L	12.718	2443.78 ug/L	12.718	0.52%	
QC value within limits for Sb 217.582		Recovery = 97.75%					
Se 196.026†	1475.1	2500.12 ug/L	40.274	2500.12 ug/L	40.274	1.61%	
QC value within limits for Se 196.026		Recovery = 100.00%					
Sn 189.927†	3501.3	2428.65 ug/L	15.456	2428.65 ug/L	15.456	0.64%	
QC value within limits for Sn 189.927		Recovery = 97.15%					
Sr 407.771†	319257.5	490.873 ug/L	0.5390	490.873 ug/L	0.5390	0.11%	
QC value within limits for Sr 407.771		Recovery = 98.17%					
Ti 334.940†	14645.8	504.063 ug/L	0.7528	504.063 ug/L	0.7528	0.15%	
QC value within limits for Ti 334.940		Recovery = 100.81%					
Tl 190.801†	2366.7	2473.12 ug/L	16.784	2473.12 ug/L	16.784	0.68%	
QC value within limits for Tl 190.801		Recovery = 98.92%					
V 292.395†	20796.2	510.343 ug/L	0.6350	510.343 ug/L	0.6350	0.12%	
QC value within limits for V 292.395		Recovery = 102.07%					
Zn 206.200†	4507.5	491.087 ug/L	6.9467	491.087 ug/L	6.9467	1.41%	
QC value within limits for Zn 206.200		Recovery = 98.22%					
All analyte(s) passed QC.							

Sequence No.: 38

Sample ID: 5K02031-CCB

Analyst:

Initial Sample Wt:

Dilution:

Wash Time: 60

Autosampler Location: 1

Date Collected: 11/3/2015 12:36:29 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Auto Dilution Factor: 1

Replicate Data: 5K02031-CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 357.234	190711.6	190711.6	105.654 %		12:36:55 PM
1	Al 396.153†	63.2	12.1	3.07700 ug/L	3.07700 ug/L	12:37:00 PM
1	Ba 455.398†	788.7	173.2	2.33162 ug/L	2.33162 ug/L	12:36:55 PM
1	Ca 315.887†	290.0	32.9	0.0609222 mg/L	0.0609222 mg/L	12:37:00 PM
1	Fe 238.204†	44.8	12.4	0.140632 ug/L	0.140632 ug/L	12:37:00 PM
1	K 766.490†	227.6	3.6	0.0781129 mg/L	0.0781129 mg/L	12:36:55 PM
1	Li 670.784†	260.9	179.6	6.27238 ug/L	6.27238 ug/L	12:36:55 PM
1	Mg 279.071†	11.1	4.3	0.0367432 mg/L	0.0367432 mg/L	12:37:00 PM
1	Na 589.592†	882.2	69.1	0.0391875 mg/L	0.0391875 mg/L	12:36:55 PM
1	Sr 407.771†	1991.9	77.2	2.94411 ug/L	2.94411 ug/L	12:37:00 PM
1	Ti 334.940†	174.8	257.3	15.1047 ug/L	15.1047 ug/L	12:37:00 PM
1	Y 360.076	273915.7	273915.7	102.209 %		12:37:09 PM
1	Ag 328.068†	-43.5	0.7	0.693889 ug/L	0.693889 ug/L	12:37:14 PM
1	As 188.979†	-64.1	-6.1	-7.76656 ug/L	-7.76656 ug/L	12:37:14 PM
1	B 249.677†	402.3	-7.9	-4.12317 ug/L	-4.12317 ug/L	12:37:14 PM
1	Be 234.861†	-1002.6	2.5	0.279641 ug/L	0.279641 ug/L	12:37:14 PM
1	Cd 214.437†	578.7	9.1	5.70650 ug/L	5.70650 ug/L	12:37:14 PM
1	Ce 413.764†	772.0	69.8	2.16517 ug/L	2.16517 ug/L	12:37:09 PM
1	Co 228.616†	-60.1	6.9	1.99801 ug/L	1.99801 ug/L	12:37:14 PM
1	Cr 205.557†	24.1	65.0	8.13308 ug/L	8.13308 ug/L	12:37:14 PM
1	Cu 327.397†	369.8	396.4	10.9939 ug/L	10.9939 ug/L	12:37:09 PM
1	Mn 257.610†	1130.4	901.5	6.96250 ug/L	6.96250 ug/L	12:37:14 PM
1	Mo 202.031†	150.4	13.2	6.20858 ug/L	6.20858 ug/L	12:37:14 PM
1	Ni 231.604†	674.5	60.6	8.14919 ug/L	8.14919 ug/L	12:37:14 PM
1	Pb 220.353†	101.3	11.5	8.00585 ug/L	8.00585 ug/L	12:37:14 PM
1	S 180.669†	8.5	3.5	32.6791 ug/L	32.6791 ug/L	12:37:14 PM
1	Sb 217.582†	-11.4	-7.7	6.55767 ug/L	6.55767 ug/L	12:37:14 PM
1	Se 196.026†	-45.8	15.1	39.8165 ug/L	39.8165 ug/L	12:37:14 PM
1	Sn 189.927†	-7.7	-15.8	-0.130025 ug/L	-0.130025 ug/L	12:37:14 PM
1	Tl 190.801†	-73.8	3.6	11.5413 ug/L	11.5413 ug/L	12:37:14 PM
1	V 292.395†	172.1	194.5	5.96559 ug/L	5.96559 ug/L	12:37:14 PM
1	Zn 206.200†	-37.3	-4.7	0.0493317 ug/L	0.0493317 ug/L	12:37:14 PM
2	Sc 357.234	185368.2	185368.2	102.694 %		12:37:01 PM
2	Al 396.153†	39.9	-8.9	-8.29014 ug/L	-8.29014 ug/L	12:37:06 PM
2	Ba 455.398†	655.2	64.7	1.91440 ug/L	1.91440 ug/L	12:37:01 PM
2	Ca 315.887†	285.3	36.1	0.0625320 mg/L	0.0625320 mg/L	12:37:06 PM

2	Fe 238.204†	39.0	8.0	-0.702434 ug/L	-0.702434 ug/L	12:37:06 PM
2	K 766.490†	158.3	-57.7	0.0052190 mg/L	0.0052190 mg/L	12:37:01 PM
2	Li 670.784†	230.2	156.8	5.84217 ug/L	5.84217 ug/L	12:37:01 PM
2	Mg 279.071†	3.4	-2.9	0.0142331 mg/L	0.0142331 mg/L	12:37:06 PM
2	Na 589.592†	929.3	139.1	0.0517305 mg/L	0.0517305 mg/L	12:37:01 PM
2	Sr 407.771†	1898.3	40.5	2.88795 ug/L	2.88795 ug/L	12:37:06 PM
2	Ti 334.940†	119.2	207.9	13.4278 ug/L	13.4278 ug/L	12:37:06 PM
2	Y 360.076	274726.9	274726.9	102.512 %		12:37:15 PM
2	Ag 328.068†	-49.0	-4.5	0.595041 ug/L	0.595041 ug/L	12:37:20 PM
2	As 188.979†	-59.3	-1.2	0.380319 ug/L	0.380319 ug/L	12:37:20 PM
2	B 249.677†	423.4	11.5	-2.87336 ug/L	-2.87336 ug/L	12:37:20 PM
2	Be 234.861†	-943.2	63.4	0.499268 ug/L	0.499268 ug/L	12:37:20 PM
2	Cd 214.437†	582.4	11.0	5.76912 ug/L	5.76912 ug/L	12:37:20 PM
2	Ce 413.764†	671.5	-30.5	-0.945033 ug/L	-0.945033 ug/L	12:37:15 PM
2	Co 228.616†	-63.7	3.5	1.79119 ug/L	1.79119 ug/L	12:37:20 PM
2	Cr 205.557†	-6.1	35.5	5.34632 ug/L	5.34632 ug/L	12:37:20 PM
2	Cu 327.397†	354.6	380.4	10.6324 ug/L	10.6324 ug/L	12:37:15 PM
2	Mn 257.610†	1007.0	777.9	6.31074 ug/L	6.31074 ug/L	12:37:20 PM
2	Mo 202.031†	132.0	-5.3	2.81925 ug/L	2.81925 ug/L	12:37:20 PM
2	Ni 231.604†	605.3	-8.9	0.584979 ug/L	0.584979 ug/L	12:37:20 PM
2	Pb 220.353†	79.2	-10.4	-8.02960 ug/L	-8.02960 ug/L	12:37:20 PM
2	S 180.669†	-4.1	-8.9	-45.9102 ug/L	-45.9102 ug/L	12:37:20 PM
2	Sb 217.582†	-16.5	-12.7	1.42697 ug/L	1.42697 ug/L	12:37:20 PM
2	Se 196.026†	-61.9	-0.5	13.5182 ug/L	13.5182 ug/L	12:37:20 PM
2	Sn 189.927†	-1.3	-9.5	4.19620 ug/L	4.19620 ug/L	12:37:20 PM
2	Tl 190.801†	-68.9	8.5	16.6435 ug/L	16.6435 ug/L	12:37:20 PM
2	V 292.395†	148.3	170.8	5.32144 ug/L	5.32144 ug/L	12:37:20 PM
2	Zn 206.200†	-38.3	-5.5	-0.0432261 ug/L	-0.0432261 ug/L	12:37:20 PM

CKD

Mean Data: 5K02031-CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 357.234	188039.9	104.174 %		2.0932			2.01%
Y 360.076	274321.3	102.361 %		0.2140			0.21%
Ag 328.068†	-1.9	0.644465 ug/L		0.0698955	0.644465 ug/L	0.0698955	10.85%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153†	1.6	-2.60657 ug/L		8.037782	-2.60657 ug/L	8.037782	308.37%
QC value within limits for Al 396.153 Recovery = Not calculated							
As 188.979†	-3.6	-3.69312 ug/L		5.760710	-3.69312 ug/L	5.760710	155.98%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	1.8	-3.49827 ug/L		0.883747	-3.49827 ug/L	0.883747	25.26%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 455.398†	118.9	2.12301 ug/L		0.295022	2.12301 ug/L	0.295022	13.90%
QC value within limits for Ba 455.398 Recovery = Not calculated							
Be 234.861†	33.0	0.389455 ug/L		0.1553000	0.389455 ug/L	0.1553000	39.88%
QC value within limits for Be 234.861 Recovery = Not calculated							
Ca 315.887†	34.5	0.0617271 mg/L		0.00113833	0.0617271 mg/L	0.00113833	1.84%
QC value within limits for Ca 315.887 Recovery = Not calculated							
Cd 214.437†	10.1	5.73781 ug/L		0.044276	5.73781 ug/L	0.044276	0.77%
QC value within limits for Cd 214.437 Recovery = Not calculated							
Ce 413.764†	19.6	0.610067 ug/L		2.1992442	0.610067 ug/L	2.1992442	360.49%
Co 228.616†	5.2	1.89460 ug/L		0.146243	1.89460 ug/L	0.146243	7.72%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 205.557†	50.3	6.73970 ug/L		1.970537	6.73970 ug/L	1.970537	29.24%
QC value within limits for Cr 205.557 Recovery = Not calculated							
Cu 327.397†	388.4	10.8132 ug/L		0.25562	10.8132 ug/L	0.25562	2.36%
QC value greater than the upper limit for Cu 327.397 Recovery = Not calculated							
Fe 238.204†	10.2	-0.280901 ug/L		0.5961373	-0.280901 ug/L	0.5961373	212.22%
QC value within limits for Fe 238.204 Recovery = Not calculated							
K 766.490†	-27.1	0.0416659 mg/L		0.05154378	0.0416659 mg/L	0.05154378	123.71%
QC value within limits for K 766.490 Recovery = Not calculated							
Li 670.784†	168.2	6.05728 ug/L		0.304204	6.05728 ug/L	0.304204	5.02%
QC value within limits for Li 670.784 Recovery = Not calculated							
Mg 279.071†	0.7	0.0254881 mg/L		0.01591709	0.0254881 mg/L	0.01591709	62.45%
QC value within limits for Mg 279.071 Recovery = Not calculated							
Mn 257.610†	839.7	6.63662 ug/L		0.460863	6.63662 ug/L	0.460863	6.94%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	3.9	4.51392 ug/L		2.396620	4.51392 ug/L	2.396620	53.09%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592†	104.1	0.0454590 mg/L		0.00886923	0.0454590 mg/L	0.00886923	19.51%
QC value within limits for Na 589.592 Recovery = Not calculated							
Ni 231.604†	25.9	4.36709 ug/L		5.348706	4.36709 ug/L	5.348706	122.48%
QC value within limits for Ni 231.604 Recovery = Not calculated							
Pb 220.353†	0.5	-0.0118739 ug/L		11.3387747	-0.0118739 ug/L	11.3387747	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated							

000533

S 180.669†	-2.7	-6.61553 ug/L	55.571065	-6.61553 ug/L	55.571065	840.01%	CKD
QC value within limits for S 180.669 Recovery = Not calculated							
Sb 217.582†	-10.2	3.99232 ug/L	3.627952	3.99232 ug/L	3.627952	90.87%	
QC value within limits for Sb 217.582 Recovery = Not calculated							
Se 196.026†	7.3	26.6674 ug/L	18.59572	26.6674 ug/L	18.59572	69.73%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Sn 189.927†	-12.7	2.03309 ug/L	3.059103	2.03309 ug/L	3.059103	150.47%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 407.771†	58.9	2.91603 ug/L	0.039711	2.91603 ug/L	0.039711	1.36%	
QC value within limits for Sr 407.771 Recovery = Not calculated							
Ti 334.940†	232.6	14.2663 ug/L	1.18575	14.2663 ug/L	1.18575	8.31%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	6.1	14.0924 ug/L	3.60782	14.0924 ug/L	3.60782	25.60%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
V 292.395†	182.6	5.64351 ug/L	0.455478	5.64351 ug/L	0.455478	8.07%	
QC value within limits for V 292.395 Recovery = Not calculated							
Zn 206.200†	-5.1	0.0030528 ug/L	0.06544827	0.0030528 ug/L	0.06544827	>999.9%	
QC value within limits for Zn 206.200 Recovery = Not calculated							

QC Failed. Continue with analysis.

=====

Analytical Sequence

Method: Aqueous_6010C_354_GE

Seq.	Loc.	ID	Status
1	1	5K02031-CAL1	Applied
2	2	5K02031-CAL2	Applied
3	3	5K02031-CAL3	Applied
4	4	5K02031-CAL4	Applied
5	5	5K02031-CAL5	Applied
6	101	5K02031-SCV1	QC Failed
7	1	5K02031-CCB	QC Passed
8	2	5K02031-CRL1	QC Failed
9	103	5K02031-IFA1	QC Failed
10	104	5K02031-IFA2	QC Passed
11	105	5K02031-IFB1	QC Passed
12	106	5K02031-IFB2	QC Passed
13	4	5K02031-CCV	QC Passed
14	1	5K02031-CCB	QC Failed
15	201	1511696-BLK1	Analyzed
16	202	1511696-BS1	Analyzed
17	203	1510440-04	Analyzed
18	204	1511696-MS1	Analyzed
19	205	1511696-MSD1	Analyzed
20	206	1510440-07	Analyzed
21	207	1510440-12	Analyzed
22	208	1510440-13	Analyzed
23	215	1510440-07	Analyzed
24	209	1510440-16	Analyzed
25	4	5K02031-CCV	QC Passed
26	1	5K02031-CCB	QC Passed
27	210	5K02031-SRD1	Analyzed
28	211	1511696-PS1	Analyzed
29	212	1510440-16	Analyzed
30	213	5K02031-SRD2	Analyzed
31	214	1511696-PS2	Analyzed
32	2	5K02031-CRL1	QC Failed
33	103	5K02031-IFA1	Cancelled
34	104	5K02031-IFA2	QC Passed
35	105	5K02031-IFB1	QC Passed
36	106	5K02031-IFB2	QC Passed
37	4	5K02031-CCV	QC Passed
38	1	5K02031-CCB	QC Failed

SECTION - F

INORGANIC – WET CHEMISTRY

TriMatrix Laboratories, Inc.

MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

SDG: 1510440

SM 4500-C1 E-2011

SAMPLE ID SUMMARY

SM 4500-CI E-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Client Sample Id:

Lab Sample Id:

<u>C-1</u>	<u>1510440-01</u>
<u>C-2</u>	<u>1510440-02</u>
<u>C-3</u>	<u>1510440-03</u>
<u>C-4</u>	<u>1510440-04</u>
<u>C-5</u>	<u>1510440-05</u>
<u>C-6</u>	<u>1510440-06</u>
<u>C-7</u>	<u>1510440-07</u>
<u>C-8</u>	<u>1510440-08</u>
<u>C-9</u>	<u>1510440-09</u>
<u>C-10</u>	<u>1510440-10</u>
<u>C-11</u>	<u>1510440-11</u>
<u>EB-101915</u>	<u>1510440-12</u>
<u>EB-102015</u>	<u>1510440-13</u>
<u>W-A</u>	<u>1510440-16</u>

STATEMENT OF DATA QUALIFICATIONS
SM 4500-Cl E-2011
Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington H

Project: GE Caribe - Vieques, PR

Qualification: The analyte concentration in the associated MB was greater than the MDL but less than the RL. The positive sample result, which was less than 5 times the MB value, is considered estimated.

Sample/Analyte: 1510440-12 EB-101915

Chloride

1510440-13 EB-102015

Chloride

PROJECT TECHNICAL NARRATIVE(S)
SM 4500-Cl E-2011
Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Narrative: The analyte concentration in the associated MB was greater than the MDL but less than the RL. The positive sample result, which was greater than 5 times the MB value, is not qualified.

Sample/Analyte:	1510440-01	C-1	Chloride
	1510440-02	C-2	Chloride
	1510440-03	C-3	Chloride
	1510440-04	C-4	Chloride
	1510440-05	C-5	Chloride
	1510440-06	C-6	Chloride
	1510440-07	C-7	Chloride
	1510440-08	C-8	Chloride
	1510440-09	C-9	Chloride
	1510440-10	C-10	Chloride
	1510440-11	C-11	Chloride
	1510440-16	W-A	Chloride

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E-2011

C-1

Laboratory: TriMatrix Laboratories, Inc.SDG: 1510440Client: MWH Americas - Farmington Hills, MIProject: GE Caribe - Vieques, PRMatrix: WaterLaboratory ID: 1510440-01Sampled: 10/19/15 11:15Prepared: 10/29/15 06:45Solids: NAPreparation: General Inorganic PrepQC Batch: 1511643Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	1	11	mg/L	0.25	1.0		10/29/15 09:42

000540

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E-2011

C-2

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-02

Sampled: 10/19/15 11:55

Prepared: 10/29/15 06:45

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1511643

Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	1	18	mg/L	0.25	1.0		10/29/15 09:42

000541

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E-2011

C-3

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-03

Sampled: 10/19/15 13:13

Prepared: 10/29/15 06:45

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1511643

Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	1	7.9	mg/L	0.25	1.0		10/29/15 09:42

000542

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E-2011

C-4

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-04

Sampled: 10/20/15 12:05

Prepared: 10/29/15 06:45

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1511643

Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	5	240	mg/L	1.2	5.0		10/29/15 10:00

000543

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E-2011

C-5

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-05

Sampled: 10/20/15 10:10

Prepared: 10/29/15 06:45

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1511643

Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	5	340	mg/L	1.2	5.0		10/29/15 10:08

000544

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E-2011

C-6

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-06

Sampled: 10/20/15 09:30

Prepared: 10/29/15 06:45

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1511643

Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	2	150	mg/L	0.50	2.0		10/29/15 10:08

000545

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E-2011

C-7

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-07

Sampled: 10/20/15 11:40

Prepared: 10/29/15 06:45

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1511643

Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	5	450	mg/L	1.2	5.0		10/29/15 10:08

000546

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E-2011

C-8

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-08

Sampled: 10/20/15 11:05

Prepared: 10/29/15 06:45

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1511643

Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	5	280	mg/L	1.2	5.0		10/29/15 10:08

000547

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E-2011

C-9

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-09

Sampled: 10/20/15 13:55

Prepared: 10/29/15 06:45

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1511643

Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	1	33	mg/L	0.25	1.0		10/29/15 09:44

000548

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E-2011

C-10

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-10

Sampled: 10/19/15 14:20

Prepared: 10/29/15 06:45

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1511643

Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	2	130	mg/L	0.50	2.0		10/29/15 10:08

000549

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E-2011

C-11

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-11

Sampled: 10/20/15 14:30

Prepared: 10/29/15 06:45

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1511643

Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	1	14	mg/L	0.25	1.0		10/29/15 09:44

000550

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E-2011

EB-101915

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-12

Sampled: 10/19/15 12:40

Prepared: 10/29/15 06:45

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1511643

Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	1	1.0	mg/L	0.25	1.0		10/29/15 09:44

000551

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E-2011

EB-102015

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-13

Sampled: 10/20/15 09:05

Prepared: 10/29/15 06:45

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1511643

Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	1	1.0	mg/L	0.25	1.0		10/29/15 09:50

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E-2011

W-A

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-16

Sampled: 10/20/15 12:00

Prepared: 10/29/15 06:45

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1511643

Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	5	240	mg/L	1.2	5.0		10/29/15 10:08

000553

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 4500-CI E-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K04054

Calibration: 5K04026

Instrument: 298

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	5K04054-CAL1	102915CLM-001	10/29/15 07:07
Cal Standard	5K04054-CAL2	102915CLM-002	10/29/15 07:07
Cal Standard	5K04054-CAL3	102915CLM-003	10/29/15 07:07
Cal Standard	5K04054-CAL4	102915CLM-004	10/29/15 07:07
Cal Standard	5K04054-CAL5	102915CLM-005	10/29/15 07:07
Cal Standard	5K04054-CAL6	102915CLM-006	10/29/15 07:07
Cal Standard	5K04054-CAL7	102915CLM-007	10/29/15 07:07
Cal Standard	5K04054-CAL8	102915CLM-008	10/29/15 07:08
Calibration Check	5K04054-CCV1	102915CLM-009	10/29/15 07:20
Calibration Blank	5K04054-CCB1	102915CLM-010	10/29/15 07:20
Low Cal Check	5K04054-LCV1	102915CLM-011	10/29/15 07:20
High Cal Check	5K04054-HCV1	102915CLM-012	10/29/15 07:20
Instrument RL Check	5K04054-CRL1	102915CLM-013	10/29/15 07:20
Secondary Cal Check	5K04054-SCV1	102915CLM-014	10/29/15 07:20
LCS	1511643-BS1	102915CLM-018	10/29/15 07:20
Blank	1511643-BLK1	102915CLM-031	10/29/15 07:54
Calibration Check	5K04054-CCV2	102915CLM-032	10/29/15 07:55
Calibration Blank	5K04054-CCB2	102915CLM-033	10/29/15 07:55
C-1	1510440-01	102915CLM-086	10/29/15 09:42
C-1	1511643-MS1	102915CLM-087	10/29/15 09:42
C-1	1511643-MSD1	102915CLM-088	10/29/15 09:42
C-2	1510440-02	102915CLM-089	10/29/15 09:42
C-3	1510440-03	102915CLM-090	10/29/15 09:42
C-9	1510440-09	102915CLM-093	10/29/15 09:44
C-11	1510440-11	102915CLM-094	10/29/15 09:44
EB-101915	1510440-12	102915CLM-095	10/29/15 09:44
EB-102015	1510440-13	102915CLM-096	10/29/15 09:50
Calibration Check	5K04054-CCV3	102915CLM-097	10/29/15 09:50
Calibration Blank	5K04054-CCB3	102915CLM-098	10/29/15 09:50
C-4	1510440-04	102915CLM-111	10/29/15 10:00
C-5	1510440-05	102915CLM-114	10/29/15 10:08
C-6	1510440-06	102915CLM-115	10/29/15 10:08

000554

ANALYSIS BATCH (SEQUENCE) SUMMARY
SM 4500-CI E-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K04054

Calibration: 5K04026

Instrument: 298

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
C-7	1510440-07	102915CLM-116	10/29/15 10:08
C-8	1510440-08	102915CLM-117	10/29/15 10:08
C-10	1510440-10	102915CLM-118	10/29/15 10:08
W-A	1510440-16	102915CLM-119	10/29/15 10:08
Calibration Check	5K04054-CCV4	102915CLM-123	10/29/15 10:11
Calibration Blank	5K04054-CCB4	102915CLM-124	10/29/15 10:11
Low Cal Check	5K04054-LCV2	102915CLM-305	10/29/15 14:35
High Cal Check	5K04054-HCV2	102915CLM-306	10/29/15 14:35
Instrument RL Check	5K04054-CRL2	102915CLM-307	10/29/15 14:35
Calibration Check	5K04054-CCV5	102915CLM-308	10/29/15 14:36
Calibration Blank	5K04054-CCB5	102915CLM-309	10/29/15 14:36

INITIAL AND CONTINUING CALIBRATION CHECK

SM 4500-Cl E-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K04054

Calibration: 5K04026

Control Limit: +/- 15.00%

Instrument ID: 298

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
5K04054-CCV1	Chloride	40.0	40.6	102	mg/L	10/29/15 07:20
5K04054-CCV2	Chloride	40.0	40.4	101	mg/L	10/29/15 07:55
5K04054-CCV3	Chloride	40.0	40.6	101	mg/L	10/29/15 09:50
5K04054-CCV4	Chloride	40.0	40.5	101	mg/L	10/29/15 10:11
5K04054-CCV5	Chloride	40.0	41.3	103	mg/L	10/29/15 14:36

* Values outside of QC limits

000556

LOW-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-Cl E-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Laboratory ID: 5K04054-LCV1

Instrument: 298

Sequence: 5K04054

Calibration: 5K04026

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	20.0	19.9	-0.7		mg/L

* Values outside of QC limits

000557

LOW-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-Cl E-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Laboratory ID: 5K04054-LCV2

Instrument: 298

Sequence: 5K04054

Calibration: 5K04026

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	20.0	21.3	6.5		mg/L

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-CI E-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Laboratory ID: 5K04054-HCV1

Instrument: 298

Sequence: 5K04054

Calibration: 5K04026

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	75.0	75.4	0.5		mg/L

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-Cl E-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Laboratory ID: 5K04054-HCV2

Instrument: 298

Sequence: 5K04054

Calibration: 5K04026

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	75.0	81.9	9.2		mg/L

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 4500-Cl E-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Laboratory ID: 5K04054-SCV1

Instrument: 298

Sequence: 5K04054

Calibration: 5K04026

Analyte	Expected	Found	% R	QC Limit	Units
Chloride	50.0	50.8	102	90-110	mg/L

* Values outside of QC limits

CRDL STANDARD

SM 4500-Cl E-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K04054

Calibration: 5K04026

Instrument ID: 298

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
5K04054-CRL1	Chloride	1.00	1.18	118	mg/L	50 - 150
5K04054-CRL2	Chloride	1.00	1.15	115	mg/L	50 - 150

* Values outside of QC limits

BLANKS
SM 4500-Cl E-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K04054

Calibration: 5K04026

Instrument ID: 298

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
5K04054-CCB1	Chloride	0.31	mg/L	0.25	1.0	J	10/29/15 07:20
5K04054-CCB2	Chloride	0.27	mg/L	0.25	1.0	J	10/29/15 07:55
5K04054-CCB3	Chloride	0.50	mg/L	0.25	1.0	J	10/29/15 09:50
5K04054-CCB4	Chloride	0.20	mg/L	0.25	1.0	U	10/29/15 10:11
5K04054-CCB5	Chloride	0.33	mg/L	0.25	1.0	J	10/29/15 14:36

* Values outside of QC limits

QC BATCH SUMMARY

SM 4500-CI E-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

QC Batch: 1511643

QC Batch Matrix: Water

Preparation: General Inorganic Prep

Sample Name	Lab Sample ID	Date Prepared	Observations
C-1	1510440-01	10/29/15 06:45	
C-2	1510440-02	10/29/15 06:45	
C-3	1510440-03	10/29/15 06:45	
C-4	1510440-04	10/29/15 06:45	
C-5	1510440-05	10/29/15 06:45	
C-6	1510440-06	10/29/15 06:45	
C-7	1510440-07	10/29/15 06:45	
C-8	1510440-08	10/29/15 06:45	
C-9	1510440-09	10/29/15 06:45	
C-10	1510440-10	10/29/15 06:45	
C-11	1510440-11	10/29/15 06:45	
EB-101915	1510440-12	10/29/15 06:45	
EB-102015	1510440-13	10/29/15 06:45	
W-A	1510440-16	10/29/15 06:45	
Blank	1511643-BLK1	10/29/15 06:45	
LCS	1511643-BS1	10/29/15 06:45	
C-1	1511643-MS1	10/29/15 06:45	
C-1	1511643-MSD1	10/29/15 06:45	

000564

METHOD BLANK DATA SHEET
SM 4500-Cl E-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511643-BLK1

File ID: 102915CLM-031

Prepared: 10/29/15 06:45

Analyzed: 10/29/15 07:54

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

QC Batch: 1511643

Sequence: 5K04054

Calibration: 5K04026

Instrument: 298

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
16887-00-6	Chloride	1.0	mg/L	0.25	1.0	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SM 4500-Cl E-2011

C-1

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511643-MS1

Preparation: General Inorganic Prep

QC Batch: 1511643

Initial/Final: 10 mL / 10 mL

Analyte	Spike Added	Sample Conc.	MS Conc.	MS % Rec. #	QC Limits Rec.	Units
Chloride	50.0	11.2	61.8	101	72 - 123	mg/L

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

* Values outside of QC limits

000566

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY
SM 4500-Cl E-2011

C-1

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511643-MSD1

Preparation: General Inorganic Prep

QC Batch: 1511643

Initial/Final: 10 mL / 10 mL

Analyte	Spike Added	MSD Conc.	MSD % Rec. #	% RPD #	QC Limits		Units
					RPD	Rec.	
Chloride	50.0	61.9	101	0.06	20	72 - 123	mg/L

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

* Values outside of QC limits

000567

LCS / LCS DUPLICATE RECOVERY
SM 4500-Cl E-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511643-BS1

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

QC Batch: 1511643

Sequence: 5K04054

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Chloride	50.0	48.5	97	90 - 106	mg/L

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

* Values outside of QC limits

HOLDING TIME SUMMARY

SM 4500-Cl E-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Analyte: Chloride

Sample Name	Date Collected	Date Received	Date Leached	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
C-1	10/19/15	10/22/15		10/29/15	10	NA	10/29/15	10	28	
C-2	10/19/15	10/22/15		10/29/15	10	NA	10/29/15	10	28	
C-3	10/19/15	10/22/15		10/29/15	10	NA	10/29/15	10	28	
C-4	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	28	
C-5	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	28	
C-6	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	28	
C-7	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	28	
C-8	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	28	
C-9	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	28	
C-10	10/19/15	10/22/15		10/29/15	10	NA	10/29/15	10	28	
C-11	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	28	
EB-101915	10/19/15	10/22/15		10/29/15	10	NA	10/29/15	10	28	
EB-102015	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	28	
W-A	10/20/15	10/22/15		10/29/15	9	NA	10/29/15	9	28	

Inorganic - Wet Chemistry, Water, Oct-29-15

Instrument = 298, Calibration = 5K04026

Sequence Analyses:

Chloride 4500-Cl E

Lab Number	Analysis	Contain	STD ID	ISTD ID	Client / QC Type	Extraction Comments
5K04054-CAL1	QC		5100145		CAL STANDARD	
5K04054-CAL2	QC		5100156		CAL STANDARD	
5K04054-CAL3	QC		5100155		CAL STANDARD	
5K04054-CAL4	QC		5100154		CAL STANDARD	
5K04054-CAL5	QC		5100153		CAL STANDARD	
5K04054-CAL6	QC		5100152		CAL STANDARD	
5K04054-CAL7	QC		5100151		CAL STANDARD	
5K04054-CAL8	QC		5100150		CAL STANDARD	
5K04054-CCV1	QC		5100152		CALIBRATION CHECK	
5K04054-CCB1	QC		5100145		CALIBRATION BLANK	
5K04054-LCV1	QC		5100153		LOW CAL CHECK	
5K04054-HCV1	QC		5100151		HIGH CAL CHECK	
5K04054-CRL1	QC		5100156		INSTRUMENT RL CHECK	
5K04054-SCV1	QC		5100157		SECONDARY CAL CHECK	
1511643-BLK1	QC				BLANK	
1511643-BS1	QC				LCS	
5K04054-CCV2	QC		5100152		CALIBRATION CHECK	
5K04054-CCB2	QC		5100145		CALIBRATION BLANK	
1510440-01	Chloride 4500-Cl E	G			MWH Americas - Farmington Hills, MI	
1511643-MS1	QC				MATRIX SPIKE	
1511643-MSD1	QC				MATRIX SPIKE DUP	
1510440-02	Chloride 4500-Cl E	G			MWH Americas - Farmington Hills, MI	
1510440-03	Chloride 4500-Cl E	G			MWH Americas - Farmington Hills, MI	
1510440-09	Chloride 4500-Cl E	G			MWH Americas - Farmington Hills, MI	
1510440-11	Chloride 4500-Cl E	G			MWH Americas - Farmington Hills, MI	
1510440-12	Chloride 4500-Cl E	G			MWH Americas - Farmington Hills, MI	
1510440-13	Chloride 4500-Cl E	G			MWH Americas - Farmington Hills, MI	
5K04054-CCV3	QC		5100152		CALIBRATION CHECK	
5K04054-CCB3	QC		5100145		CALIBRATION BLANK	
1510440-04	Chloride 4500-Cl E	G			MWH Americas - Farmington Hills, MI	
1510440-05	Chloride 4500-Cl E	G			MWH Americas - Farmington Hills, MI	
1510440-06	Chloride 4500-Cl E	G			MWH Americas - Farmington Hills, MI	
1510440-07	Chloride 4500-Cl E	G			MWH Americas - Farmington Hills, MI	

Comments:

Analyst
Initials:

Inorganic - Wet Chemistry, Water, Oct-29-15

Instrument = 298, Calibration = 5K04026

1510440-08	Chloride 4500-Cl E	G			MWH Americas - Farmington Hills, MI
1510440-10	Chloride 4500-Cl E	G			MWH Americas - Farmington Hills, MI
1510440-16	Chloride 4500-Cl E	G			MWH Americas - Farmington Hills, MI
5K04054-CCV4	QC		5100152		CALIBRATION CHECK
5K04054-CCB4	QC		5100145		CALIBRATION BLANK
5K04054-LCV2	QC		5100153		LOW CAL CHECK
5K04054-HCV2	QC		5100151		HIGH CAL CHECK
5K04054-CRL2	QC		5100156		INSTRUMENT RL CHECK
5K04054-CCV5	QC		5100152		CALIBRATION CHECK
5K04054-CCB5	QC		5100145		CALIBRATION BLANK

Comments:

Analyst
Initials:

000571

seq_TriMatrix.rpt

PREPARATION BATCH **1511643**

Page 1 of 1

Printed: 10/29/2015 8:11:50AM

11/5-15

Inorganic - Wet Chemistry, Water, General Inorganic Prep

(No Surrogate)

due 11/6/15
4MD

Batch Comments: (none)

Standard Description Solvent
 5050179 Chloride 10000 ppm di h2O
 5101033 Konelab Chloride Color Reagent di H2O

LotNum
 111353
 varies

Work Order Analysis
 1510440 Chloride 4500-Cl E

Work Order Analysis

Work Order Analysis

Balance ID: none

pH Meter: none

Lab Number	Container	Prepared	By	Initial (mL)	Final (mL)	Surrogate	Source ID	Spike ID	Wt Spike	Client/QC Type	Extraction Comments
1511643-BLK1		Oct-29-15 06:45	LMA	10	10					BLANK	
1511643-BS1		Oct-29-15 06:45	LMA	10	10			5050179	50	LCS	
1511643-MS1		Oct-29-15 06:45	LMA	10	10			5050179	50	MATRIX SPIKE	
1511643-MSD1		Oct-29-15 06:45	LMA	10	10			5050179	50	MATRIX SPIKE DUP	
1510440-01	G	Oct-29-15 06:45	LMA	10	10					MWH Americas - Farmington Hills, MI	
1510440-02	G	Oct-29-15 06:45	LMA	10	10					MWH Americas - Farmington Hills, MI	
1510440-03	G	Oct-29-15 06:45	LMA	10	10					MWH Americas - Farmington Hills, MI	
1510440-04	G	Oct-29-15 06:45	LMA	10	10					MWH Americas - Farmington Hills, MI	
1510440-05	G	Oct-29-15 06:45	LMA	10	10					MWH Americas - Farmington Hills, MI	
1510440-06	G	Oct-29-15 06:45	LMA	10	10					MWH Americas - Farmington Hills, MI	
1510440-07	G	Oct-29-15 06:45	LMA	10	10					MWH Americas - Farmington Hills, MI	
1510440-08	G	Oct-29-15 06:45	LMA	10	10					MWH Americas - Farmington Hills, MI	
1510440-09	G	Oct-29-15 06:45	LMA	10	10					MWH Americas - Farmington Hills, MI	
1510440-10	G	Oct-29-15 06:45	LMA	10	10					MWH Americas - Farmington Hills, MI	
1510440-11	G	Oct-29-15 06:45	LMA	10	10					MWH Americas - Farmington Hills, MI	
1510440-12	G	Oct-29-15 06:45	LMA	10	10					MWH Americas - Farmington Hills, MI	
1510440-13	G	Oct-29-15 06:45	LMA	10	10					MWH Americas - Farmington Hills, MI	
1510440-16	G	Oct-29-15 06:45	LMA	10	10					MWH Americas - Farmington Hills, MI	

Comments:

Analyst
Initials:

TriMatrix Laboratories Inst #298
Konelab User

10/29/2015 7:07

Test Chloride

Accepted 10/29/2015 7:07

Resp. = A * Conc. ^ 2 + B * Conc. + C

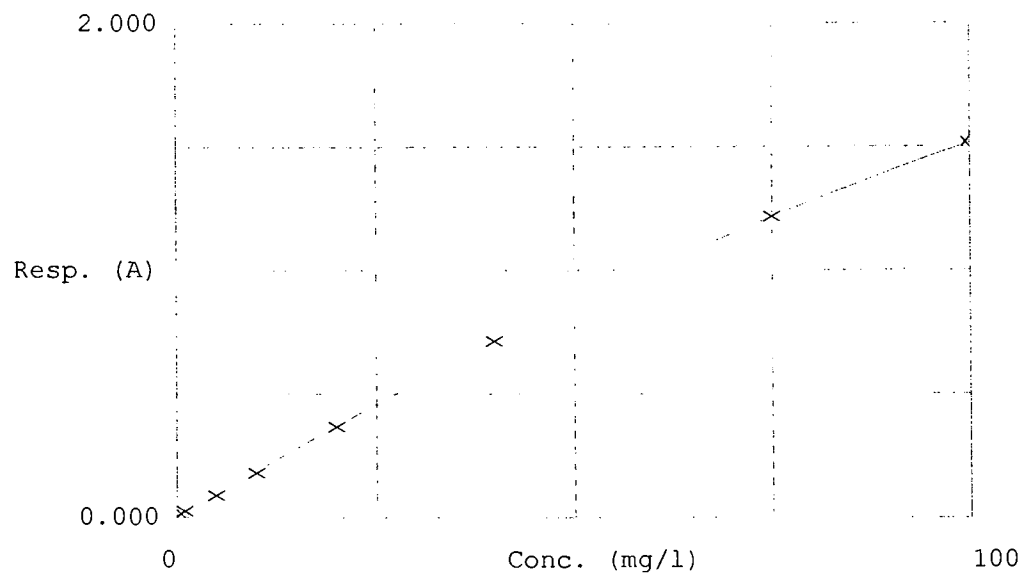
A = -0.00004

B = 0.01928

C = 0.00135

Coeff. of det. 0.999849

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	Cl-0	0.01114	0.50796	0.00000	
2	Cl-1	0.02551	1.25595	1.00000	
3	Cl-5	0.08877	4.57758	5.00000	
4	Cl-10	0.18041	9.47745	10.00000	
5	Cl-20	0.36681	19.79015	20.00000	
6	Cl-40	0.71442	40.49128	40.00000	
7	Cl-75	1.21464	74.96345	75.00000	
8	Cl-100	1.51561	99.93455	100.00000	

TriMatrix Laboratories Inst #298
Konelab User

Date : 10/29/2015

Time : 14:45

Test Unit	Chloride mg/l				
Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
C1 CCV	40.6382	0.717	10/29/2015 7:20		
C1 CCB	0.3141	0.007	10/29/2015 7:20		
cl 20	19.8552	0.368	10/29/2015 7:20		
cl 75	75.4053	1.220	10/29/2015 7:20		
crl	1.1834	0.024	10/29/2015 7:20		
scv	50.7628	0.874	10/29/2015 7:20		
1511641-blk1	0.4883	0.011	10/29/2015 7:20		
1511641-bs1	48.9324	0.846	10/29/2015 7:20		
1511642-blk1	<u>Reanalyze</u>	0.014	-		
1511642-bs1	48.5992	0.841	10/29/2015 7:20		
1511643-blk1	<u>Reanalyze</u>	0.014	-		
1511643-bs1	48.4907	0.839	10/29/2015 7:20		
C1 CCV	39.9042	0.705	10/29/2015 7:23		
C1 CCB	0.2929	0.007	10/29/2015 7:23		
100 1+1	101.4489	0.873	10/29/2015 7:23	1+1.0	
250 1+4	253.5240	0.873	10/29/2015 7:23	1+4.0	
500 1+9	507.4792	0.874	10/29/2015 7:23	1+9.0	
1000 1+24/+49	1e+003	0.718	10/29/2015 7:23	1+24.0	1017.423
1000 1+24/+49	975.2296	0.362	10/29/2015 7:28	1+49.0	
C1 CCV	40.6837	0.717	10/29/2015 7:29		
C1 CCB	0.2515	0.006	10/29/2015 7:29		
C1 CCV	40.5961	0.716	10/29/2015 7:54		
C1 CCB	0.3761	0.009	10/29/2015 7:54		
1511642-blk1	0.3635	0.008	10/29/2015 7:54		
1511643-blk1	0.2664	0.006	10/29/2015 7:54		
C1 CCV	40.4285	0.713	10/29/2015 7:55		
C1 CCB	0.2723	0.007	10/29/2015 7:55		
C1 CCV	40.5231	0.715	10/29/2015 9:21		
C1 CCB	0.4512	0.010	10/29/2015 9:21		
1510425-19	23.8630	0.438	10/29/2015 9:21		
1510443-01	30.4763	0.551	10/29/2015 9:21		
1510443-02	28.8539	0.523	10/29/2015 9:21		
1510443-03	23.1871	0.426	10/29/2015 9:21		
1510444-01	1.7175	0.034	10/29/2015 9:21		
1511641-ms1	52.6393	0.902	10/29/2015 9:21		
1511641-msd1	51.5710	0.886	10/29/2015 9:21		
1510444-02	1.7387	0.035	10/29/2015 9:21		
1510444-03	1.2103	0.025	10/29/2015 9:21		
1510444-04	18.3448	0.341	10/29/2015 9:21		
C1 CCV	40.4707	0.714	10/29/2015 9:24		
C1 CCB	0.4250	0.010	10/29/2015 9:24		
1510444-05	2.0426	0.041	10/29/2015 9:24		
1510444-06	2.0756	0.041	10/29/2015 9:24		
1510444-07	1.6165	0.032	10/29/2015 9:24		
1510444-08	0.5822	0.013	10/29/2015 9:24		
1510446-01	36.2451	0.646	10/29/2015 9:24		
1510446-02	<u>Dilute</u>	2.030	-		
1510446-03	40.6572	0.717	10/29/2015 9:24		
1510446-04	41.4251	0.729	10/29/2015 9:24		
1510447-01	<u>Dilute</u>	-	-		
1510451-01	4.7970	0.093	10/29/2015 9:24		
C1 CCV	40.3434	0.712	10/29/2015 9:31		
C1 CCB	0.4983	0.011	10/29/2015 9:31		

TriMatrix Laboratories Inst #298
Konelab User

Date : 10/29/2015
Time : 14:45

Test Unit	Chloride mg/l				
Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1510451-02	1.6479	0.033	10/29/2015 9:31		
1510451-03	1.3488	0.027	10/29/2015 9:31		
1510449-01	25.4648	0.466	10/29/2015 9:31		
1510449-02	31.8906	0.574	10/29/2015 9:31		
1510449-03	33.2613	0.597	10/29/2015 9:31		
1510449-04	28.6105	0.519	10/29/2015 9:31		
1510449-05	30.2709	0.547	10/29/2015 9:31		
1510449-06	40.3386	0.712	10/29/2015 9:31		
1510449-07	35.9289	0.641	10/29/2015 9:31		
1510449-08	32.7859	0.589	10/29/2015 9:32		
C1 CCV	40.3616	0.712	10/29/2015 9:34		
C1 CCB	0.4718	0.010	10/29/2015 9:34		
1510449-11	22.5614	0.415	10/29/2015 9:34		
1511642-ms1	72.4288	1.181	10/29/2015 9:34		
1511642-msd1	72.0783	1.177	10/29/2015 9:34		
1510449-12	37.6106	0.668	10/29/2015 9:34		
1510449-13	16.5679	0.310	10/29/2015 9:34		
1510449-14	29.2147	0.529	10/29/2015 9:34		
1510449-15	30.4081	0.550	10/29/2015 9:34		
1510449-16	43.4356	0.761	10/29/2015 9:35		
1510449-17	30.1345	0.545	10/29/2015 9:35		
1510449-18	37.2941	0.663	10/29/2015 9:35		
C1 CCV	40.3156	0.712	10/29/2015 9:42		
C1 CCB	0.5096	0.011	10/29/2015 9:42		
1510478-01	4.7115	0.091	10/29/2015 9:42		
1510478-02	4.7910	0.093	10/29/2015 9:42		
1510478-03	2.9323	0.058	10/29/2015 9:42		
1510478-04	3.0929	0.061	10/29/2015 9:42		
1510440-01	11.2432	0.213	10/29/2015 9:42		
1511643-ms1	61.8215	1.036	10/29/2015 9:42		
1511643-msd1	61.8605	1.036	10/29/2015 9:42		
1510440-02	18.0278	0.336	10/29/2015 9:42		
1510440-03	7.8633	0.150	10/29/2015 9:42		
1510440-04	<u>Dilute</u>	2.735	-		
C1 CCV	40.5787	0.716	10/29/2015 9:44		
C1 CCB	0.4419	0.010	10/29/2015 9:44		
1510440-05	<u>Dilute</u>	3.360	-		
1510440-06	<u>J</u>	2.018	-		
1510440-07	<u>J</u>	3.918	-		
1510440-08	<u>d</u>	2.980	-		
1510440-09	33.1127	0.595	10/29/2015 9:44		
1510440-10	<u>Dilute</u>	1.876	-		
1510440-11	13.7869	0.259	10/29/2015 9:44		
1510440-12	0.5531	0.012	10/29/2015 9:44		
1510440-13	0.6250	0.013	10/29/2015 9:50		
1510440-16	<u>Dilute</u>	2.682	-		
C1 CCV	40.5607	0.716	10/29/2015 9:50		
C1 CCB	0.5044	0.011	10/29/2015 9:50		
1511646-blk1	0.4321	0.010	10/29/2015 9:50		
1511646-bs1	49.3369	0.852	10/29/2015 9:50		
1510491-01	<u>Dilute</u>	2.972	-		
1510544-01	0.4534	0.010	10/29/2015 9:52		
1511646-ms1	50.6814	0.873	10/29/2015 9:52		

TriMatrix Laboratories Inst #298
Konelab User

Date : 10/29/2015

Time : 14:45

Test Unit	Chloride mg/l				
Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1511646-msd1	49.0216	0.847	10/29/2015 9:52		
1510552-01	<u>Dilute</u>	1.846	-		
1511645-blk1	0.5506	0.012	10/29/2015 9:52		
1511645-bs1	49.9711	0.862	10/29/2015 9:52		
1510476-01	<u>Dilute</u>	2.454	-		
C1 CCV	40.5742	0.716	10/29/2015 9:54		
C1 CCB	0.5349	0.012	10/29/2015 9:54		
1510446-02	152.7914	1.233	10/29/2015 9:54	1+1.0	
1510447-01	<u>Dilute</u>	-	-	1+49.0	
C1 CCV	40.2968	0.711	10/29/2015 9:59		
C1 CCB	0.2596	0.006	10/29/2015 9:59		
1510440-04	240.2904	0.833	10/29/2015 10:00	1+4.0	
C1 CCV	40.5206	0.715	10/29/2015 10:01		
C1 CCB	0.2442	0.006	10/29/2015 10:01		
1510440-05	344.3872	1.133	10/29/2015 10:08	1+4.0	
1510440-06	147.0584	1.196	10/29/2015 10:08	1+1.0	
1510440-07	448.7024	1.399	10/29/2015 10:08	1+4.0	
1510440-08	282.9047	0.960	10/29/2015 10:08	1+4.0	
1510440-10	128.5177	1.070	10/29/2015 10:08	1+1.0	
1510440-16	239.2664	0.830	10/29/2015 10:08	1+4.0	
1510491-01	284.3953	0.964	10/29/2015 10:09	1+4.0	
1510552-01	129.2845	1.075	10/29/2015 10:09	1+1.0	
1510476-01	193.7461	1.481	10/29/2015 10:10	1+1.0	
C1 CCV 4	40.4570	0.714	10/29/2015 10:11		
C1 CCB	0.1983	0.005	10/29/2015 10:11		
C1 CCV	40.7967	0.719	10/29/2015 10:55		
C1 CCB	0.4684	0.010	10/29/2015 10:55		
1510476-02	<u>Dilute</u>	3.345	-		
1510476-03		3.386	-		
1510476-04		9.707	-		
1511645-ms1		9.708	-		
1511645-msd1		9.710	-		
1510501-01		2.722	-		
1510501-02		9.713	-		
1511660-blk1	0.8376	0.017	10/29/2015 10:55		
1511660-bs1	49.8957	0.861	10/29/2015 10:55		
1510452-01	47.3990	0.823	10/29/2015 10:55		
C1 CCV	40.4410	0.714	10/29/2015 10:58		
C1 CCB	0.4022	0.009	10/29/2015 10:58		
1511660-ms1	96.4164	1.476	10/29/2015 10:58		
1511660-msd1	95.2066	1.463	10/29/2015 10:58		
1510452-02	20.2319	0.375	10/29/2015 10:58		
1510452-03	20.2999	0.376	10/29/2015 10:58		
1510452-04	5.3056	0.103	10/29/2015 10:58		
1510452-05	44.0320	0.770	10/29/2015 10:58		
1510452-06	1.7083	0.034	10/29/2015 10:58		
1510452-07	75.1577	1.217	10/29/2015 10:58		
1510452-08	49.1620	0.849	10/29/2015 10:58		
1510452-09	70.9414	1.161	10/29/2015 10:58		
C1 CCV	40.7340	0.718	10/29/2015 11:05		
C1 CCB	0.4204	0.009	10/29/2015 11:05		
1510452-10	0.4521	0.010	10/29/2015 11:05		
1510452-11	43.5531	0.763	10/29/2015 11:05		

TriMatrix Laboratories Inst #298
Konelab User

Date : 10/29/2015

Time : 14:45

Test Unit	Chloride mg/l				
Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1510452-12	1.9377	0.039	10/29/2015 11:05		
1510478-05	16.8397	0.314	10/29/2015 11:05		
1510478-06	0.6596	0.014	10/29/2015 11:05		
1510482-01	39.5641	0.700	10/29/2015 11:05		
1510482-02	<u>Dilute</u>	1.520	-		
1510482-03	23.3906	0.430	10/29/2015 11:06		
1510482-04	16.4553	0.307	10/29/2015 11:06		
1510482-05	22.1645	0.408	10/29/2015 11:06		
C1 CCV	40.9279	0.721	10/29/2015 11:08		
C1 CCB	0.4224	0.009	10/29/2015 11:08		
1510482-06	24.2901	0.445	10/29/2015 11:08		
1511661-blk1	0.5807	0.013	10/29/2015 11:08		
1511661-bs1	50.0365	0.863	10/29/2015 11:08		
1510482-07	26.4934	0.483	10/29/2015 11:08		
1510482-08	18.7345	0.348	10/29/2015 11:08		
1510482-09	1.5120	0.030	10/29/2015 11:08		
1510482-10	<u>Dilute</u>	4.595	-		
1510482-11	<u>↓</u>	6.734	-		
1510484-04	<u>↓</u>	9.701	-		
1510529-01	28.9551	0.525	10/29/2015 11:15		
C1 CCV	40.6283	0.717	10/29/2015 11:15		
C1 CCB	0.5274	0.012	10/29/2015 11:15		
1510529-03	54.1566	0.924	10/29/2015 11:15		
msd14 1511661-ms1	102.5632	1.545	10/29/2015 11:15		
1511661-msd1	103.9099	1.559	10/29/2015 11:15		
1510529-05	40.3745	0.713	10/29/2015 11:15		
1510531-01	36.4008	0.649	10/29/2015 11:15		
1510532-01	87.7057	1.375	10/29/2015 11:15		
1510532-02	18.3268	0.341	10/29/2015 11:18		
1510532-03	<u>Dilute</u>	1.751	-		
1510532-04	81.3790	1.297	10/29/2015 11:18		
1510532-05	<u>Dilute</u>	2.067	-		
C1 CCV	41.4732	0.730	10/29/2015 11:18		
C1 CCB	0.6057	0.013	10/29/2015 11:18		
1510532-06	<u>Dilute</u>	1.601	-		
1510532-07	31.5061	0.568	10/29/2015 11:18		
1510532-08	<u>Dilute</u>	1.670	-		
1510532-09	<u>↓</u>	1.608	-		
1510532-10	31.6033	0.570	10/29/2015 11:18		
1511662-blk1	0.5693	0.012	10/29/2015 11:18		
1511662-bs1	49.3982	0.853	10/29/2015 11:24		
1510509-01	<u>Dilute</u>	1.925	-		
1511662-ms1	<u>↓</u>	2.308	-		
1511662-msd1	<u>↓</u>	2.311	-		
C1 CCV	40.9437	0.722	10/29/2015 11:24		
C1 CCB	0.6801	0.014	10/29/2015 11:24		
1510509-02	<u>Dilute</u>	1.778	-		
1510509-03	<u>↓</u>	1.794	-		
1510509-04	<u>↓</u>	1.938	-		
1510509-05	98.3713	1.498	10/29/2015 11:26		
1510509-06	<u>Dilute</u>	1.736	-		
1510509-07	<u>↓</u>	1.662	-		
1510509-08	<u>↓</u>	1.575	-		

TriMatrix Laboratories Inst #298
Konelab UserDate : 10/29/2015
Time : 14:45

Test Unit	Chloride mg/l				
Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
MSD14 1511661-ms2	133.1068	1.881	10/29/2015 11:26		
1511661-msd2	134.4214	1.895	10/29/2015 11:26		
1510447-01x100	<u>Dilute</u>	1.854	-		1+99.0
C1 CCV	40.5445	0.715	10/29/2015 11:29		
C1 CCB	0.2900	0.007	10/29/2015 11:29		
1510476-02	306.0184	1.027	10/29/2015 11:29	1+4.0	
1510476-03	311.9247	1.044	10/29/2015 11:29	1+4.0	
1510476-04	3e+003	0.905	10/29/2015 11:29	1+49.0	2643.36
1511645-ms1	3e+003	0.882	10/29/2015 11:29	1+49.0	2503.958
1511645-msd1	3e+003	0.877	10/29/2015 11:37	1+49.0	2549.563
1510501-01	242.2561	0.839	10/29/2015 11:37	1+4.0	
1510501-02	2e+003	1.174	10/29/2015 11:37	1+24.0	1796.617
1510482-02	99.5822	0.859	10/29/2015 11:37	1+1.0	
1510482-10	<u>Dilute</u>	1.658	-	1+4.0	
1510482-11	738.5992	1.200	10/29/2015 11:37	1+9.0	
C1 CCV	40.8073	0.719	10/29/2015 11:38		
C1 CCB	0.2920	0.007	10/29/2015 11:38		
1510484-04	2e+003	1.052	10/29/2015 11:38	1+24.0	1574.966
C1 CCV	40.7711	0.719	10/29/2015 11:39		
C1 CCB	0.2093	0.005	10/29/2015 11:39		
1510532-03	121.4126	1.020	10/29/2015 11:46	1+1.0	
1510532-05	154.0338	1.241	10/29/2015 11:46	1+1.0	
1510532-06	107.9071	0.921	10/29/2015 11:46	1+1.0	
1510532-08	114.3304	0.969	10/29/2015 11:46	1+1.0	
1510532-09	107.6826	0.920	10/29/2015 11:47	1+1.0	
1510509-01	140.4546	1.152	10/29/2015 11:47	1+1.0	
1511662-ms1	187.3477	1.445	10/29/2015 11:50	1+1.0	
1511662-msd1	187.4800	1.446	10/29/2015 11:50	1+1.0	
1510509-02	125.3887	1.048	10/29/2015 11:50	1+1.0	
1510509-03	126.8974	1.058	10/29/2015 11:50	1+1.0	
C1 CCV	41.1717	0.725	10/29/2015 11:50		
C1 CCB	0.1888	0.005	10/29/2015 11:50		
1510509-04	140.6589	1.153	10/29/2015 11:56	1+1.0	
1510509-06	119.7706	1.008	10/29/2015 11:56	1+1.0	
1510509-07	113.3757	0.962	10/29/2015 11:57	1+1.0	
1510509-08	106.2050	0.909	10/29/2015 11:57	1+1.0	
1510447-01x100	1e+004	1.101	10/29/2015 11:57	1+1.0	1+99.0/3304.65
C1 CCV	40.8874	0.721	10/29/2015 11:57		
C1 CCB	0.2540	0.006	10/29/2015 11:57		
1510482-10	573.4678	0.971	10/29/2015 12:04	1+9.0	
C1 CCV	40.6335	0.717	10/29/2015 12:05		
C1 CCB	0.2788	0.007	10/29/2015 12:05		
C1 CCV	40.7641	0.719	10/29/2015 12:55		
C1 CCB	0.4463	0.010	10/29/2015 12:55		
1510509-09	<u>Dilute</u>	1.941	-		
1510509-10	0.5163	0.011	10/29/2015 12:55		
1510509-11	<u>Dilute</u>	1.553	-		
1510509-12		1.907	-		
1510509-13		1.946	-		
1510509-14		1.652	-		
1510509-15		1.677	-		
1510509-16		1.871	-		
1510509-17		1.830	-		

TriMatrix Laboratories Inst #298
Konelab UserDate : 10/29/2015
Time : 14:45

Test Unit	Chloride mg/l				
Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
C1 CCV	40.8946	0.721	10/29/2015 12:56		
C1 CCB	0.2559	0.006	10/29/2015 12:56		
C1 CCV	40.4493	0.714	10/29/2015 13:12		
C1 CCB	0.4104	0.009	10/29/2015 13:12		
1510509-09	140.5741	1.153	10/29/2015 13:12	1+1.0	
1510509-11	104.2180	0.894	10/29/2015 13:12	1+1.0	
1510509-12	138.5138	1.139	10/29/2015 13:12	1+1.0	
1510509-13	141.0567	1.156	10/29/2015 13:12	1+1.0	
1510509-14	110.4952	0.941	10/29/2015 13:14	1+1.0	
1510509-15	113.2832	0.961	10/29/2015 13:14	1+1.0	
1510509-16	132.2975	1.096	10/29/2015 13:14	1+1.0	
1510509-17	130.9052	1.086	10/29/2015 13:14	1+1.0	
C1 CCV	41.1123	0.724	10/29/2015 13:15		
C1 CCB	0.1949	0.005	10/29/2015 13:15		
C1 CCV	41.5340	0.731	10/29/2015 13:45		
C1 CCB	0.4896	0.011	10/29/2015 13:45		
1511676-blk1	0.4907	0.011	10/29/2015 13:45		
1511676-bs1	49.9787	0.862	10/29/2015 13:45		
1510534-01	91.4883	1.420	10/29/2015 13:45		
1510534-02	<u>Dilute</u>	1.710	-		
1510534-03	<u>↓</u>	1.716	-		
1510534-04	<u>↓</u>	1.735	-		
1510534-05	<u>↓</u>	1.589	-		
1510534-06	96.0733	1.472	10/29/2015 13:45		
1510534-07	<u>Dilute</u>	1.980	-		
1510534-08	<u>↓</u>	2.286	-		
C1 CCV	41.2206	0.726	10/29/2015 13:48		
C1 CCB	0.4587	0.010	10/29/2015 13:48		
1510534-09	72.0471	1.176	10/29/2015 13:48		
1510534-10	52.2707	0.896	10/29/2015 13:48		
1510534-11	44.6703	0.780	10/29/2015 13:48		
1510534-12	18.3936	0.342	10/29/2015 13:48		
1510534-13	86.6943	1.362	10/29/2015 13:48		
1511676-ms1	132.7731	1.877	10/29/2015 13:48		
1511676-msd1	130.9117	1.857	10/29/2015 13:48		
1510534-14	88.6572	1.386	10/29/2015 13:48		
1510534-15	89.6512	1.398	10/29/2015 13:48		
1510534-16	<u>Dilute</u>	3.043	-		
C1 CCV	41.3095	0.727	10/29/2015 13:55		
C1 CCB	0.5026	0.011	10/29/2015 13:55		
1510534-18	<u>Dilute</u>	2.378	-		
1510534-20	50.2093	0.865	10/29/2015 13:55		
1510534-21	34.9285	0.624	10/29/2015 13:55		
1510534-24	72.2418	1.179	10/29/2015 13:55		
1511677-blk1	0.6603	0.014	10/29/2015 13:55		
1511677-bs1	50.4579	0.869	10/29/2015 13:55		
1510534-22	75.6217	1.223	10/29/2015 13:55		
1511677-ms1	123.3292	1.773	10/29/2015 13:55		
1511677-msd1	123.8408	1.779	10/29/2015 13:55		
1510534-23	30.7940	0.556	10/29/2015 13:55		
C1 CCV	41.6214	0.732	10/29/2015 13:58		
C1 CCB	0.5112	0.011	10/29/2015 13:58		
1510534-25	93.9085	1.448	10/29/2015 13:58		

000579

TriMatrix Laboratories Inst #298
Konelab User

Date : 10/29/2015
Time : 14:45

Test Unit	Chloride mg/l				
Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1510534-26	<u>Dilute</u>	2.947	-		
1510534-27	94.6801	1.457	10/29/2015 13:58		
1510534-28	<u>Dilute</u>	2.624	-		
1510534-29	<u>2</u>	2.176	-		
1510547-01	75.2690	1.219	10/29/2015 13:58		
1510547-02	<u>Dilute</u>	1.576	-		
1510548-01	41.8569	0.736	10/29/2015 13:58		
1510548-04	<u>Dilute</u>	1.647	-		
1510559-01	44.2339	0.773	10/29/2015 13:58		
Cl CCV	41.3473	0.728	10/29/2015 14:05		
Cl CCB	0.5355	0.012	10/29/2015 14:05		
1511677-ms2	91.9391	1.425	10/29/2015 14:05		
1511677-msd2	91.7594	1.423	10/29/2015 14:05		
1510559-03	6.2481	0.120	10/29/2015 14:05		
1510559-05	46.5270	0.809	10/29/2015 14:05		
1510559-07	25.3897	0.464	10/29/2015 14:05		
1510559-11	32.6602	0.587	10/29/2015 14:05		
1510559-13	17.1787	0.320	10/29/2015 14:05		
1510559-15	16.9937	0.317	10/29/2015 14:05		
1510559-17	20.9996	0.388	10/29/2015 14:05		
Cl CCV	41.2641	0.727	10/29/2015 14:06		
Cl CCB	0.2980	0.007	10/29/2015 14:06		
1510534-02	115.3193	0.976	10/29/2015 14:13	1+1.0	
1510534-03	117.8522	0.994	10/29/2015 14:13	1+1.0	
1510534-04	121.7005	1.022	10/29/2015 14:13	1+1.0	
1510534-05	108.1717	0.923	10/29/2015 14:13	1+1.0	
1510534-07	145.5719	1.186	10/29/2015 14:13	1+1.0	
1510534-08	179.4911	1.399	10/29/2015 14:13	1+1.0	
1510534-16	287.2098	0.973	10/29/2015 14:14	1+4.0	
1510534-18	193.0606	1.478	10/29/2015 14:14	1+1.0	
Cl CCV	41.1672	0.725	10/29/2015 14:15		
Cl CCB	0.2441	0.006	10/29/2015 14:15		
1510534-26	274.0941	0.934	10/29/2015 14:22	1+4.0	
1510534-28	225.2433	0.786	10/29/2015 14:22	1+4.0	
1510534-29	165.9446	1.317	10/29/2015 14:22	1+1.0	
1510547-02	105.0843	0.900	10/29/2015 14:22	1+1.0	
1510548-04	74.5314	0.663	10/29/2015 14:22	1+1.0	
Cl CCV	41.1424	0.725	10/29/2015 14:23		
Cl CCB	0.2731	0.007	10/29/2015 14:23		
Cl CCV	41.5175	0.731	10/29/2015 14:35		
Cl CCB	0.4556	0.010	10/29/2015 14:35		
cl 20	21.3028	0.393	10/29/2015 14:35		
cl 75	81.9154	1.304	10/29/2015 14:35		
crl	1.1522	0.024	10/29/2015 14:35		
Cl CCV 5	41.2591	0.727	10/29/2015 14:36		
Cl CCB	0.3312	0.008	10/29/2015 14:36		

TriMatrix Laboratories, Inc.

MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

SDG: 1510440

SM 5310 C-2011

SAMPLE ID SUMMARY

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Client Sample Id:

Lab Sample Id:

<u>C-1</u>	<u>1510440-01</u>
<u>C-2</u>	<u>1510440-02</u>
<u>C-3</u>	<u>1510440-03</u>
<u>C-4</u>	<u>1510440-04</u>
<u>C-5</u>	<u>1510440-05</u>
<u>C-6</u>	<u>1510440-06</u>
<u>C-7</u>	<u>1510440-07</u>
<u>C-8</u>	<u>1510440-08</u>
<u>C-9</u>	<u>1510440-09</u>
<u>C-10</u>	<u>1510440-10</u>
<u>C-11</u>	<u>1510440-11</u>
<u>EB-101915</u>	<u>1510440-12</u>
<u>EB-102015</u>	<u>1510440-13</u>
<u>W-A</u>	<u>1510440-16</u>

STATEMENT OF DATA QUALIFICATIONS
SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington H

Project: GE Caribe - Vieques, PR

All analyses in this report section have been validated and comply with our Quality Control Program. No Qualifications are required.

PROJECT TECHNICAL NARRATIVE(S)
SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

No Project Narratives are associated with this report section.

INORGANIC ANALYSIS DATA SHEET

SM 5310 C-2011

C-1

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-01

Sampled: 10/19/15 11:15

Prepared: 10/29/15 13:00

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1512099

Initial/Final: 40 mL / 40 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-44-0	Carbon, Total Organic	1	2.5	mg/L	0.13	0.50		10/30/15 02:56

000585

INORGANIC ANALYSIS DATA SHEET

SM 5310 C-2011

C-2

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-02

Sampled: 10/19/15 11:55

Prepared: 10/29/15 13:00

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1512099

Initial/Final: 40 mL / 40 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-44-0	Carbon, Total Organic	1	1.1	mg/L	0.13	0.50		10/30/15 03:07

000586

INORGANIC ANALYSIS DATA SHEET

SM 5310 C-2011

C-3

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-03

Sampled: 10/19/15 13:13

Prepared: 10/29/15 13:00

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1512099

Initial/Final: 40 mL / 40 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-44-0	Carbon, Total Organic	1	0.63	mg/L	0.13	0.50		10/30/15 03:19

000587

INORGANIC ANALYSIS DATA SHEET

SM 5310 C-2011

C-4

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-04

Sampled: 10/20/15 12:05

Prepared: 10/29/15 13:00

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1512099

Initial/Final: 40 mL / 40 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-44-0	Carbon, Total Organic	1	1.3	mg/L	0.13	0.50		10/30/15 03:30

000588

INORGANIC ANALYSIS DATA SHEET
SM 5310 C-2011

C-5

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-05

Sampled: 10/20/15 10:10

Prepared: 10/29/15 13:00

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1512099

Initial/Final: 40 mL / 40 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-44-0	Carbon, Total Organic	1	3.3	mg/L	0.13	0.50		10/30/15 03:41

INORGANIC ANALYSIS DATA SHEET

SM 5310 C-2011

C-6

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-06

Sampled: 10/20/15 09:30

Prepared: 10/29/15 13:00

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1512099

Initial/Final: 40 mL / 40 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-44-0	Carbon, Total Organic	1	2.3	mg/L	0.13	0.50		10/30/15 03:53

000590

INORGANIC ANALYSIS DATA SHEET

SM 5310 C-2011

C-7

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-07

Sampled: 10/20/15 11:40

Prepared: 10/30/15 08:00

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1511805

Initial/Final: 40 mL / 40 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-44-0	Carbon, Total Organic	1	7.4	mg/L	0.13	0.50		10/30/15 20:06

000591

INORGANIC ANALYSIS DATA SHEET

SM 5310 C-2011

C-8

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-08

Sampled: 10/20/15 11:05

Prepared: 10/29/15 13:00

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1512099

Initial/Final: 40 mL / 40 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-44-0	Carbon, Total Organic	1	1.6	mg/L	0.13	0.50		10/30/15 04:30

INORGANIC ANALYSIS DATA SHEET

SM 5310 C-2011

C-9

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-09

Sampled: 10/20/15 13:55

Prepared: 10/29/15 13:00

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1512099

Initial/Final: 40 mL / 40 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-44-0	Carbon, Total Organic	1	1.3	mg/L	0.13	0.50		10/30/15 04:41

000593

INORGANIC ANALYSIS DATA SHEET

SM 5310 C-2011

C-10

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-10

Sampled: 10/19/15 14:20

Prepared: 10/29/15 13:00

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1512087

Initial/Final: 40 mL / 40 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-44-0	Carbon, Total Organic	1	22	mg/L	0.13	1.0		10/29/15 19:13

000594

INORGANIC ANALYSIS DATA SHEET

SM 5310 C-2011

C-11

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-11

Sampled: 10/20/15 14:30

Prepared: 10/30/15 08:00

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1511805

Initial/Final: 40 mL / 40 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-44-0	Carbon, Total Organic	1	1.1	mg/L	0.13	0.50		10/30/15 20:30

000595

INORGANIC ANALYSIS DATA SHEET

SM 5310 C-2011

EB-101915

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-12

Sampled: 10/19/15 12:40

Prepared: 10/29/15 13:00

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1512099

Initial/Final: 40 mL / 40 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-44-0	Carbon, Total Organic	1	0.50	mg/L	0.13	0.50		10/30/15 04:52

INORGANIC ANALYSIS DATA SHEET

SM 5310 C-2011

EB-102015

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-13

Sampled: 10/20/15 09:05

Prepared: 10/29/15 13:00

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1512099

Initial/Final: 40 mL / 40 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-44-0	Carbon, Total Organic	1	0.50	mg/L	0.13	0.50	U	10/30/15 05:04

INORGANIC ANALYSIS DATA SHEET

SM 5310 C-2011

W-A

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-16

Sampled: 10/20/15 12:00

Prepared: 10/29/15 13:00

Solids: NA

Preparation: General Inorganic Prep

QC Batch: 1512099

Initial/Final: 40 mL / 40 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7440-44-0	Carbon, Total Organic	1	1.3	mg/L	0.13	0.50		10/30/15 05:15

000598

ANALYSIS BATCH (SEQUENCE) SUMMARY
SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K05068

Calibration: 5J01005

Instrument: 324

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	5K05068-CCV1	102915hilo-052	10/29/15 16:07
Calibration Blank	5K05068-CCB1	102915hilo-043	10/29/15 16:21
Instrument RL Check	5K05068-CRL1	102915hilo-062	10/29/15 16:35
Blank	1512087-BLK1	102915hilo-039	10/29/15 17:03
LCS	1512087-BS1	102915hilo-041	10/29/15 17:14
Secondary Cal Check	5K05068-SCV1	102915hilo-076	10/29/15 17:24
Calibration Check	5K05068-CCV2	102915hilo-054	10/29/15 17:38
Calibration Blank	5K05068-CCB2	102915hilo-045	10/29/15 17:52
C-10	1510440-10	102915hilo-016	10/29/15 19:13
Calibration Check	5K05068-CCV3	102915hilo-056	10/29/15 19:57
Calibration Blank	5K05068-CCB3	102915hilo-047	10/29/15 20:10

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K06008

Calibration: 5J01006

Instrument: 324

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	5K06008-CCV1	102915hilo-053	10/30/15 00:07
Calibration Blank	5K06008-CCB1	102915hilo-044	10/30/15 00:21
Instrument RL Check	5K06008-CRL1	102915hilo-063	10/30/15 00:35
Blank	1512099-BLK1	102915hilo-040	10/30/15 01:04
LCS	1512099-BS1	102915hilo-042	10/30/15 01:15
Secondary Cal Check	5K06008-SCV1	102915hilo-077	10/30/15 01:26
Calibration Check	5K06008-CCV2	102915hilo-055	10/30/15 01:41
Calibration Blank	5K06008-CCB2	102915hilo-046	10/30/15 01:55
C-1	1510440-01	102915hilo-007	10/30/15 02:56
C-2	1510440-02	102915hilo-008	10/30/15 03:07
C-3	1510440-03	102915hilo-009	10/30/15 03:19
C-4	1510440-04	102915hilo-010	10/30/15 03:30
C-5	1510440-05	102915hilo-011	10/30/15 03:41
C-6	1510440-06	102915hilo-012	10/30/15 03:53
Calibration Check	5K06008-CCV3	102915hilo-057	10/30/15 04:04
Calibration Blank	5K06008-CCB3	102915hilo-048	10/30/15 04:18
C-8	1510440-08	102915hilo-014	10/30/15 04:30
C-9	1510440-09	102915hilo-015	10/30/15 04:41
EB-101915	1510440-12	102915hilo-018	10/30/15 04:52
EB-102015	1510440-13	102915hilo-019	10/30/15 05:04
W-A	1510440-16	102915hilo-020	10/30/15 05:15
Calibration Check	5K06008-CCV4	102915hilo-059	10/30/15 06:23
Calibration Blank	5K06008-CCB4	102915hilo-050	10/30/15 06:38

ANALYSIS BATCH (SEQUENCE) SUMMARY
SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K06030

Calibration: 5J01006

Instrument: 324

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	5K06030-CCV1	103015hilo-053	10/30/15 18:01
Calibration Blank	5K06030-CCB1	103015hilo-044	10/30/15 18:16
Instrument RL Check	5K06030-CRL1	103015hilo-063	10/30/15 18:30
Blank	1511805-BLK1	103015hilo-040	10/30/15 18:59
LCS	1511805-BS1	103015hilo-042	10/30/15 19:11
Secondary Cal Check	5K06030-SCV1	103015hilo-073	10/30/15 19:22
Calibration Check	5K06030-CCV2	103015hilo-055	10/30/15 19:36
Calibration Blank	5K06030-CCB2	103015hilo-046	10/30/15 19:51
C-7	1510440-07	103015hilo-002	10/30/15 20:06
C-11	1510440-11	103015hilo-004	10/30/15 20:30
Calibration Check	5K06030-CCV3	103015hilo-057	10/30/15 22:02
Calibration Blank	5K06030-CCB3	103015hilo-048	10/30/15 22:17

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K05068

Calibration: 5J01005

Control Limit: +/- 10.00%

Instrument ID: 324

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
5K05068-CCV1	Carbon, Total Organic	50.0	48.6	97	mg/L	10/29/15 16:07
5K05068-CCV2	Carbon, Total Organic	50.0	48.4	97	mg/L	10/29/15 17:38
5K05068-CCV3	Carbon, Total Organic	50.0	49.0	98	mg/L	10/29/15 19:57

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K06008

Calibration: 5J01006

Control Limit: +/- 10.00%

Instrument ID: 324

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
5K06008-CCV1	Carbon, Total Organic	5.00	4.90	98	mg/L	10/30/15 00:07
5K06008-CCV2	Carbon, Total Organic	5.00	4.90	98	mg/L	10/30/15 01:41
5K06008-CCV3	Carbon, Total Organic	5.00	5.13	103	mg/L	10/30/15 04:04
5K06008-CCV4	Carbon, Total Organic	5.00	5.07	101	mg/L	10/30/15 06:23

* Values outside of QC limits

000603

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K06030

Calibration: 5J01006

Control Limit: +/- 10.00%

Instrument ID: 324

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
5K06030-CCV1	Carbon, Total Organic	5.00	5.17	103	mg/L	10/30/15 18:01
5K06030-CCV2	Carbon, Total Organic	5.00	5.06	101	mg/L	10/30/15 19:36
5K06030-CCV3	Carbon, Total Organic	5.00	5.10	102	mg/L	10/30/15 22:02

* Values outside of QC limits

000604

SECOND-SOURCE CALIBRATION VERIFICATION

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Laboratory ID: 5K05068-SCV1

Instrument: 324

Sequence: 5K05068

Calibration: 5J01005

Analyte	Expected	Found	% R	QC Limit	Units
Carbon, Total Organic	50.0	47.8	96	90-110	mg/L

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Laboratory ID: 5K06008-SCV1

Instrument: 324

Sequence: 5K06008

Calibration: 5J01006

Analyte	Expected	Found	% R	QC Limit	Units
Carbon, Total Organic	5.00	4.86	97	90-110	mg/L

* Values outside of QC limits

000606

SECOND-SOURCE CALIBRATION VERIFICATION

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Laboratory ID: 5K06030-SCV1

Instrument: 324

Sequence: 5K06030

Calibration: 5J01006

Analyte	Expected	Found	% R	QC Limit	Units
Carbon, Total Organic	5.00	5.07	101	90-110	mg/L

* Values outside of QC limits

CRDL STANDARD

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K05068

Calibration: 5J01005

Instrument ID: 324

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
5K05068-CRL1	Carbon, Total Organic	1.00	0.707	71	mg/L	50 - 150

* Values outside of QC limits

CRDL STANDARD

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K06008

Calibration: 5J01006

Instrument ID: 324

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limits
5K06008-CRL1	Carbon, Total Organic	0.500	0.499	100	mg/L	50 - 150

* Values outside of QC limits

CRDL STANDARD

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K06030

Calibration: 5J01006

Instrument ID: 324

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
5K06030-CRL1	Carbon, Total Organic	0.500	0.660	132	mg/L	50 - 150

* Values outside of QC limits

BLANKS
SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K05068

Calibration: 5J01005

Instrument ID: 324

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
5K05068-CCB1	Carbon, Total Organic	0.0	mg/L	0.13	0.50	U	10/29/15 16:21
5K05068-CCB2	Carbon, Total Organic	0.0	mg/L	0.13	0.50	U	10/29/15 17:52
5K05068-CCB3	Carbon, Total Organic	0.0	mg/L	0.13	0.50	U	10/29/15 20:10

* Values outside of QC limits

BLANKS
SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K06008

Calibration: 5J01006

Instrument ID: 324

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
5K06008-CCB1	Carbon, Total Organic	0.0	mg/L	0.13	0.50	U	10/30/15 00:21
5K06008-CCB2	Carbon, Total Organic	0.0	mg/L	0.13	0.50	U	10/30/15 01:55
5K06008-CCB3	Carbon, Total Organic	0.0	mg/L	0.13	0.50	U	10/30/15 04:18
5K06008-CCB4	Carbon, Total Organic	0.0	mg/L	0.13	0.50	U	10/30/15 06:38

* Values outside of QC limits

BLANKS
SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Sequence: 5K06030

Calibration: 5J01006

Instrument ID: 324

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
5K06030-CCB1	Carbon, Total Organic	0.057	mg/L	0.13	0.50	U	10/30/15 18:16
5K06030-CCB2	Carbon, Total Organic	0.0	mg/L	0.13	0.50	U	10/30/15 19:51
5K06030-CCB3	Carbon, Total Organic	0.0040	mg/L	0.13	0.50	U	10/30/15 22:17

* Values outside of QC limits

QC BATCH SUMMARY

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

QC Batch: 1511805

QC Batch Matrix: Water

Preparation: General Inorganic Prep

Sample Name	Lab Sample ID	Date Prepared	Observations
C-7	1510440-07	10/30/15 08:00	
C-11	1510440-11	10/30/15 08:00	
Blank	1511805-BLK1	10/30/15 08:00	
LCS	1511805-BS1	10/30/15 08:00	

QC BATCH SUMMARY

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

QC Batch: 1512087

QC Batch Matrix: Water

Preparation: General Inorganic Prep

Sample Name	Lab Sample ID	Date Prepared	Observations
C-10	1510440-10	10/29/15 13:00	
Blank	1512087-BLK1	10/29/15 13:00	
LCS	1512087-BS1	10/29/15 13:00	

QC BATCH SUMMARY

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

QC Batch: 1512099

QC Batch Matrix: Water

Preparation: General Inorganic Prep

Sample Name	Lab Sample ID	Date Prepared	Observations
C-1	1510440-01	10/29/15 13:00	
C-2	1510440-02	10/29/15 13:00	
C-3	1510440-03	10/29/15 13:00	
C-4	1510440-04	10/29/15 13:00	
C-5	1510440-05	10/29/15 13:00	
C-6	1510440-06	10/29/15 13:00	
C-8	1510440-08	10/29/15 13:00	
C-9	1510440-09	10/29/15 13:00	
EB-101915	1510440-12	10/29/15 13:00	
EB-102015	1510440-13	10/29/15 13:00	
W-A	1510440-16	10/29/15 13:00	
Blank	1512099-BLK1	10/29/15 13:00	
LCS	1512099-BS1	10/29/15 13:00	

METHOD BLANK DATA SHEET
SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511805-BLK1

File ID: 103015hilo-040

Prepared: 10/30/15 08:00

Analyzed: 10/30/15 18:59

Preparation: General Inorganic Prep

Initial/Final: 40 mL / 40 mL

QC Batch: 1511805

Sequence: 5K06030

Calibration: 5J01006

Instrument: 324

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
7440-44-0	Carbon, Total Organic	0.50	mg/L	0.13	0.50	U

METHOD BLANK DATA SHEET
SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1512087-BLK1

File ID: 102915hilo-039

Prepared: 10/29/15 13:00

Analyzed: 10/29/15 17:03

Preparation: General Inorganic Prep

Initial/Final: 40 mL / 40 mL

QC Batch: 1512087

Sequence: 5K05068

Calibration: SJ01005

Instrument: 324

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
7440-44-0	Carbon, Total Organic	0.50	mg/L	0.13	0.50	U

METHOD BLANK DATA SHEET
SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1512099-BLK1

File ID: 102915hilo-040

Prepared: 10/29/15 13:00

Analyzed: 10/30/15 01:04

Preparation: General Inorganic Prep

Initial/Final: 40 mL / 40 mL

QC Batch: 1512099

Sequence: 5K06008

Calibration: 5J01006

Instrument: 324

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
7440-44-0	Carbon, Total Organic	0.50	mg/L	0.13	0.50	U

LCS / LCS DUPLICATE RECOVERY

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1511805-BS1

Preparation: General Inorganic Prep

Initial/Final: 25 mL / 25 mL

QC Batch: 1511805

Sequence: 5K06030

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Carbon, Total Organic	2.00	2.12	106	84 - 118	mg/L

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

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY
SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1512087-BS1

Preparation: General Inorganic Prep

Initial/Final: 25 mL / 25 mL

QC Batch: 1512087

Sequence: 5K05068

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Carbon, Total Organic	40.0	38.6	96	84 - 118	mg/L

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

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1512099-BS1

Preparation: General Inorganic Prep

Initial/Final: 25 mL / 25 mL

QC Batch: 1512099

Sequence: 5K06008

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Carbon, Total Organic	2.00	2.14	107	84 - 118	mg/L

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

* Values outside of QC limits

HOLDING TIME SUMMARY

SM 5310 C-2011

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Analyte: Carbon, Total Organic

Sample Name	Date Collected	Date Received	Date Leached	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
C-1	10/19/15	10/22/15		10/29/15	10	NA	10/30/15	11	28	
C-2	10/19/15	10/22/15		10/29/15	10	NA	10/30/15	11	28	
C-3	10/19/15	10/22/15		10/29/15	10	NA	10/30/15	11	28	
C-4	10/20/15	10/22/15		10/29/15	9	NA	10/30/15	10	28	
C-5	10/20/15	10/22/15		10/29/15	9	NA	10/30/15	10	28	
C-6	10/20/15	10/22/15		10/29/15	9	NA	10/30/15	10	28	
C-7	10/20/15	10/22/15		10/30/15	10	NA	10/30/15	10	28	
C-8	10/20/15	10/22/15		10/29/15	9	NA	10/30/15	10	28	
C-9	10/20/15	10/22/15		10/29/15	9	NA	10/30/15	10	28	
C-10	10/19/15	10/22/15		10/29/15	10	NA	10/29/15	10	28	
C-11	10/20/15	10/22/15		10/30/15	10	NA	10/30/15	10	28	
EB-101915	10/19/15	10/22/15		10/29/15	10	NA	10/30/15	11	28	
EB-102015	10/20/15	10/22/15		10/29/15	9	NA	10/30/15	10	28	
W-A	10/20/15	10/22/15		10/29/15	9	NA	10/30/15	10	28	

Inorganic - Wet Chemistry, Water, Oct-29-15

Instrument = 324, Calibration = 5J01005

Sequence Analyses:

TOC 5310 C

Lab Number	Analysis	Contain	STD ID	ISTD ID	Client / QC Type	Extraction Comments
5K05068-CCV1	QC		5110286		CALIBRATION CHECK	
5K05068-CCB1	QC				CALIBRATION BLANK	
5K05068-CRL1	QC		5110283		INSTRUMENT RL CHECK	
1512087-BLK1	QC				BLANK	
1512087-BS1	QC				LCS	
5K05068-SCV1	QC		5110286		SECONDARY CAL CHECK	
5K05068-CCV2	QC		5110286		CALIBRATION CHECK	
5K05068-CCB2	QC				CALIBRATION BLANK	
1510440-10	TOC 5310 C	I			MWH Americas - Farmington Hills, MI	
5K05068-CCV3	QC		5110286		CALIBRATION CHECK	
5K05068-CCB3	QC				CALIBRATION BLANK	

Comments:

Analyst
Initials:

PREPARATION BATCH **1512087**

Page 1 of 1

Printed: 11/5/2015 5:53:49PM

N/A 11-9-15

Inorganic - Wet Chemistry, Water, General Inorganic Prep

(No Surrogate)

Batch Comments: (none)

Solvent

di H2O

Lot/Num

104369

130270B

B0140031

LV4

Standard Description

5091280 TOC/DOC 1000ppm

5101518 TOC 5% H3PO4

5101519 TOC 10% Sodium Persulfate

na

Work Order Analysis

1510440 TOC 5310 C

Work Order Analysis

Work Order Analysis

Balance ID: nonepH Meter: none

Lab Number	Contain	Prepared	By	Initial (mL)	Final (mL)	Surrogate	Source ID	Spike ID	uL Spike	Client / QC Type	Extraction Comments
1512087-BLK1		Oct-29-15 13:00	LEW	40	40					BLANK	
1512087-BS1		Oct-29-15 13:00	LEW	25	25			5091280	1000	LCS	
1510440-10	I	Oct-29-15 13:00	LEW	40	40					MMWH Americas - Farmington Hills, MI	

Comments:

Analyst Initials:

Sequence Summary

Spl#	Vial #	Sample ID	#Reps	Method	Type	Dilution	Comments
4	3	CCV1	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
5	4	CCB1	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
6	5	crdl	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
7	6	hi check 100ppm	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
8	7	BLK HI	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
9	8	BS HI	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
10	9	scv hi	1	093015high - Sep 30, 2015; 12-50-36 PM	QC #1	1 : 1	
11	10	CCV2	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
12	11	CCB2	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
13	12	1510430-09 5x	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
14	13	ms30-09 5x	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
15	14	md30-09 5x	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
16	15	1510430-11 2x - 1x	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
17	16	r	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
18	17	1510440-07 1x	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
19	18	1510440-10 1x	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
20	19	1510440-11	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
21	20	1510449-01	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
22	21	1510449-02	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
23	22	CCV3	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
24	23	CCB3	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
25	24	1510449-03	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
26	25	1510449-04	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
27	26	1510449-05	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
28	27	1510449-06	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
29	28	1510449-07	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
30	29	1510449-08	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
31	30	1510449-11	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
32	31	ms49-11	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
33	32	md49-11	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
34	33	r	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
35	34	CCV4	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
36	35	CCB4	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
37	36	1510449-12	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
38	37	1510449-13	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
39	38	1510449-14	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
40	39	1510449-15	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
41	40	1510449-16	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
42	41	1510449-17	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
43	42	CCV5	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
44	43	CCB5	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
45	44	ccv1 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standar	1 : 1	

Sample Results

Spl #: 4 Sample ID : CCV1 Type : Check_Stan Date: 10/29/2015
 Via #: 3 Method : 093015high - Sep 30, 2015; 1:2 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	4:07 pm	-	-	-	343,877	97,300	48.650

Avg. - 343,877 97,300 48.650
 Std.Dev. 0
 % RSD. 0.00

Spl #: 5 Sample ID : CCB1 Type : Check_Stan Date: 10/29/2015
 Via #: 4 Method : 093015high - Sep 30, 2015; 1:2 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	4:21 pm	-	-	-	1,817	0.000	0.000

Avg. - 1,817 0.000 0.000
 Std.Dev. 0
 % RSD. 0.00

Spl #: 6 Sample ID : ctdl Type : Check_Stan Date: 10/29/2015
 Via #: 5 Method : 093015high - Sep 30, 2015; 1:2 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	4:35 pm	-	-	-	9,002	1.413	0.707

Avg. - 9,002 1.413 0.707
 Std.Dev. 0
 % RSD. 0.00

Spl #: 7 Sample ID : hi check 100ppm Type : Check_Stan Date: 10/29/2015
 Via #: 6 Method : 093015high - Sep 30, 2015; 1:2 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	4:49 pm	-	-	-	696,083	198,149	99.075

Avg. - 696,083 198,149 99.075
 Std.Dev. 0
 % RSD. 0.00

Spl #: 8 Sample ID : BLK HI Type : Sample Date: 10/29/2015
 Vial #: 7 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1:1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	5:03 pm	-	-	-	2,382	0.055	0.028

Avg. - - - 2,382 0.055 0.028
 Std.Dev. 0
 % RSD. 0.00

Spl #: 9 Sample ID : BS HI Type : Sample Date: 10/29/2015
 Vial #: 8 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1:1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	5:14 pm	-	-	-	271,582	77.137	38.568

Avg. - - - 271,582 77.137 38.568
 Std.Dev. 0
 % RSD. 0.00

Spl #: 10 Sample ID : scv hi Type : QC #1 Date: 10/29/2015
 Vial #: 9 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1:1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	5:24 pm	-	-	-	337,649	95.607	47.804

Avg. - - - 337,649 95.607 47.804
 Std.Dev. 0
 % RSD. 0.00

Spl #: 11 Sample ID : CCV2 Type : Check_Stan Date: 10/29/2015
 Vial #: 10 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1:1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	5:38 pm	-	-	-	342,301	96.849	48.424

Avg. - - - 342,301 96.849 48.424
 Std.Dev. 0
 % RSD. 0.00

Spl #: 12 Sample ID : CCB2 Type : Check_Stan Date: 10/29/2015 Status: Passed
 Vial #: 11 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	5:52 pm	-	-	-	1,953	0.000	0.000

Avg. - - - 1,953 0.000 0.000
 Std.Dev. 0
 % RSD. 0.00

Spl #: 13 Sample ID : 1510430-09 5x Type : Sample Date: 10/29/2015 Status: Passed
 Vial #: 12 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	6:06 pm	-	-	-	520,357	148.370	74.185

Avg. - - - 520,357 148.370 74.185
 Std.Dev. 0
 % RSD. 0.00

Spl #: 14 Sample ID : ms30-09 5x Type : Sample Date: 10/29/2015 Status: Passed
 Vial #: 13 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	6:17 pm	-	-	-	755,087	215.581	107.791

Avg. - - - 755,087 215.581 107.791
 Std.Dev. 0
 % RSD. 0.00

Spl #: 15 Sample ID : md30-09 5x Type : Sample Date: 10/29/2015 Status: Passed
 Vial #: 14 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	6:28 pm	-	-	-	767,444	219.120	109.560

Avg. - - - 767,444 219.120 109.560
 Std.Dev. 0
 % RSD. 0.00

Spl #: 16 Sample ID : 1510430-11 2x Type : Sample Date: 10/29/2015 Status: Passed
 Vial #: 15 Method : 093015high - Sep 30, 2015; 1:2 Dilution 1 : 1 Customer ID: 000000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	6:39 pm	-	-	-	2,664,097	762,199	381,100

Avg. - - - 2,664,097 762,199 381,100
 Std.Dev. 0
 % RSD. 0.00

Spl #: 17 Sample ID : 1510440-07 Type : Sample Date: 10/29/2015 Status: Passed
 Vial #: 16 Method : 093015high - Sep 30, 2015; 1:2 Dilution 1 : 1 Customer ID: 000000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	6:50 pm	-	-	-	43,673	11,878	5,939

Avg. - - - 43,673 11,878 5,939
 Std.Dev. 0
 % RSD. 0.00

Spl #: 18 Sample ID : 1510440-07 Type : Sample Date: 10/29/2015 Status: Passed
 Vial #: 17 Method : 093015high - Sep 30, 2015; 1:2 Dilution 1 : 1 Customer ID: 000000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	7:02 pm	-	-	-	83,722	23,345	11,673

Avg. - - - 83,722 23,345 11,673
 Std.Dev. 0
 % RSD. 0.00

Spl #: 19 Sample ID : 1510440-10 Type : Sample Date: 10/29/2015 Status: Passed
 Vial #: 18 Method : 093015high - Sep 30, 2015; 1:2 Dilution 1 : 1 Customer ID: 000000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	7:13 pm	-	-	-	152,668	43,087	21,544

Avg. - - - 152,668 43,087 21,544
 Std.Dev. 0
 % RSD. 0.00

Spl #: 20 Sample ID : 1510440-11 Type : Sample Date: 10/29/2015 Status: Passed
 Vial #: 19 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	7:24 pm	-	-	-	15,650	3.854	1.926
Avg.		-	-	-	15,650	3.854	1.926
Std.Dev.		-	-	-	0	-	-
% RSD.		-	-	-	0.00	-	-

Spl #: 21 Sample ID : 1510449-01 Type : Sample Date: 10/29/2015 Status: Passed
 Vial #: 20 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	7:35 pm	-	-	-	15,119	3.702	1.850
Avg.		-	-	-	15,119	3.702	1.850
Std.Dev.		-	-	-	0	-	-
% RSD.		-	-	-	0.00	-	-

Spl #: 22 Sample ID : 1510449-02 Type : Sample Date: 10/29/2015 Status: Passed
 Vial #: 21 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	7:46 pm	-	-	-	20,854	5.344	2.672
Avg.		-	-	-	20,854	5.344	2.672
Std.Dev.		-	-	-	0	-	-
% RSD.		-	-	-	0.00	-	-

Spl #: 23 Sample ID : CCV3 Type : Check_Stan Date: 10/29/2015 Status: Passed
 Vial #: 22 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	7:57 pm	-	-	-	346,220	97.971	48.985
Avg.		-	-	-	346,220	97.971	48.985
Std.Dev.		-	-	-	0	-	-
% RSD.		-	-	-	0.00	-	-

Spl #: 24 Sample ID : CCB3 Type : Check_Stan Date: 10/29/2015 Status: Passed
 Vial #: 23 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	8:10 pm	-	-	-	2,411	0.000	0.000

Avg. - - - 2,411 0.000 0.000
 Std.Dev. 0
 % RSD. 0.00

Spl #: 25 Sample ID : 1510449-03 Type : Sample Date: 10/29/2015 Status: Passed
 Vial #: 24 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	8:24 pm	-	-	-	13,226	3.160	1.580

Avg. - - - 13,226 3.160 1.580
 Std.Dev. 0
 % RSD. 0.00

Spl #: 26 Sample ID : 1510449-04 Type : Sample Date: 10/29/2015 Status: Passed
 Vial #: 25 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	8:35 pm	-	-	-	16,135	3.993	1.997

Avg. - - - 16,135 3.993 1.997
 Std.Dev. 0
 % RSD. 0.00

Spl #: 27 Sample ID : 1510449-05 Type : Sample Date: 10/29/2015 Status: Passed
 Vial #: 26 Method : 093015high - Sep 30, 2015; 1:1 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	8:46 pm	-	-	-	16,376	4.062	2.031

Avg. - - - 16,376 4.062 2.031
 Std.Dev. 0
 % RSD. 0.00

Method Summary

Method Details

Method Name: 093015high - Sep 30, 2015; 1
 Date Created: 09/30/2015
 Time Created: 11:57
 Created By: toc
 Analysis Mode: NPOC Only
 Sparging Mode: Internal
 Pre-Acid Volume (mL): 1.000
 Sparge Time (mm:ss): 02:00

Pre-Processing

Sample Dilution: Disabled
 Dilution Mode: Manual
 Dilution Factor: 1 : 1
 Sample Stirring in A/S: Disabled

Times

React 01:30 Detect 03:00
 TIC 02:30 TOC 03:00
 React 70 Detect 70
 TIC 98 TOC 98

Temp

Outlier Removal Criteria

Additional Replicates: 1
 Max. % RSD: 10.00

Peak Detection Parameters

Signal-to-Noise Ratio: 3
 Minimum Peak Width (min:sec): 00:30
 Peak Resolution to Baseline(%): 99

Volumes

Sample Volume (mL): 2.000
 Acid Volume (mL): 1.000
 Persulfate Volume(mL): 2.000
 Rinse Volume (mL): 15.000
 Rinses Per Sample: 1
 Rinses Per Replicate: 1

Other

Sys/Pressure: 20.00

Calibration Summary

Calibration Generation

Generation Mode: Manual
 # of Stds: 5
 Dilution Factor: 10 : 1
 Dilution Volume (mL): 1.000
 Add Zero as Std #1: No

Calibration Pass/Fail Criteria

Parameter RF (ugC/K-cts) 0.1000
 R2 0.950
 Offset (area) (cts) -
 Offset (mass) (ugC) -

Calibration Mode

Primary Mode: TOC
 User for ALL Modes: Enabled

Checks, QC's and Actions

Type	Target (PPM)	Tolerance (+/- %)	1st Failure	2nd Failure
CK Std	n/a	10,000.00	Re-run	Continue
QC #1	0.000	10,000.00	Re-run	Continue
QC #2	0.000	10,000.00	Re-run	Continue
QC #3	0.000	10,000.00	Re-run	Continue
QC #4	0.000	10,000.00	Re-run	Continue
SST	0.000	15,000.00	Re-run	Continue

Calibration Details

Calibration Mode: TOC
Date Calibrated: 10/02/2015
Time Calibrated: 6:38 pm
Calibrated By: loc
RF (ugC/k-cts): 0.2863
R2: 1.0000
Offset (area)(cts): 4067
Offset (mass)(ugC): -1.165
Reagent Blank (cts): 2,190

Calibration Settings

Stock Conc. For Dilutions: (PPM) 1,000.000
of Reagent Blanks: 5
Total Flowrate w/EFC: 50 ml/min
Check Standards: Subtract Offset
Regression type: Unweighted

Instrument ID: F750730372

User ID: toc

Calibration - Quick View -TOC

Revision: 1-2015-09-30; 05:13 PM
Modified By: toc
Date Created: 2015-09-30; 11:57 AM
Last Modified: 2015-09-30; 11:57 AM

Reagent Blank(cts): 2,190
RF(ugC/k-cnt): 0.2863
R2: 1.0000
Offset Area(cts): 4,067
Offset Mass(ugC): -1.16

Std #	Conc (PPM)	Volume (mL)	# Reps	Area	Std. Dev	%RSD	Date Analysed	
RW	5091282	0.000	2.000	1	3,588	0	0.00	2015-09-30; 04:05PM
1	5091283	1.000	2.000	1	10,548	0	0.00	2015-09-30; 04:19PM
2	5091284	10.000	2.000	1	74,934	0	0.00	2015-09-30; 04:29PM
3	5091285	25.000	2.000	1	178,200	0	0.00	2015-09-30; 04:40PM
4	5091286	50.000	2.000	1	354,443	0	0.00	2015-09-30; 04:51PM
5	5091287	75.000	2.000	1	527,364	0	0.00	2015-09-30; 05:02PM
6	5091288	100.000	2.000	1	702,428	0	0.00	2015-09-30; 05:13PM

Element Calibration # : 5J01005

Instrument Calibration : 093015 high

Stock # : 5091280

10% Na Persulfate : 5090956

5% H₃PO₄ : 5090955

Inorganic - Wet Chemistry, Water, Oct-29-15

Instrument = 324, Calibration = 5J01006

Sequence Analyses:
TOC 5310 C

Lab Number	Analysis	Contain	STD ID	ISTD ID	Client / QC Type	Extraction Comments
5K06008-CCV1	QC		5110285		CALIBRATION CHECK	
5K06008-CCB1	QC				CALIBRATION BLANK	
5K06008-CRL1	QC		5110284		INSTRUMENT RL CHECK	
1512099-BLK1	QC				BLANK	
1512099-BS1	QC				LCS	
5K06008-SCV1	QC		5110285		SECONDARY CAL CHECK	
5K06008-CCV2	QC		5110285		CALIBRATION CHECK	
5K06008-CCB2	QC				CALIBRATION BLANK	
1510440-01	TOC 5310 C	I			MWH Americas - Farmington Hills, MI	
1510440-02	TOC 5310 C	I			MWH Americas - Farmington Hills, MI	
1510440-03	TOC 5310 C	I			MWH Americas - Farmington Hills, MI	
1510440-04	TOC 5310 C	J			MWH Americas - Farmington Hills, MI	
1510440-05	TOC 5310 C	I			MWH Americas - Farmington Hills, MI	
1510440-06	TOC 5310 C	I			MWH Americas - Farmington Hills, MI	
5K06008-CCV3	QC		5110285		CALIBRATION CHECK	
5K06008-CCB3	QC				CALIBRATION BLANK	
1510440-08	TOC 5310 C	I			MWH Americas - Farmington Hills, MI	
1510440-09	TOC 5310 C	I			MWH Americas - Farmington Hills, MI	
1510440-12	TOC 5310 C	J			MWH Americas - Farmington Hills, MI	
1510440-13	TOC 5310 C	J			MWH Americas - Farmington Hills, MI	
1510440-16	TOC 5310 C	J			MWH Americas - Farmington Hills, MI	
5K06008-CCV4	QC		5110285		CALIBRATION CHECK	
5K06008-CCB4	QC				CALIBRATION BLANK	

Comments:

Analyst
Initials:

PREPARATION BATCH **1512099**

Page 1 of 1

Printed: 11/6/2015 8:48:21AM

Inorganic - Wet Chemistry, Water, General Inorganic Prep

(No Surrogate)

Batch Comments: (none)

LV4

Standard Description Solvent LotNum

5091280 TOC/DOC 1000ppm di H2O 104369

5101518 TOC 5% H3PO4 na 130270B

5101519 TOC 10% Sodium Persulfate na B0140031

Work Order Analysis

1510440 TOC 5310 C

Work Order Analysis

Work Order Analysis

Balance ID: none

pH Meter: none

Lab Number	Container	Prepared	By	Initial (mL)	Final (mL)	Surrogate	Source ID	Spike ID	ul Spike	Client/OC Type	Extraction Comments
1512099-BLK1		Oct-29-15 13:00	LEW	40	40					BLANK	
1512099-BS1		Oct-29-15 13:00	LEW	25	25			5091280	50	LCS	
1510440-01	I	Oct-29-15 13:00	LEW	40	40					MWH Americas - Farmington Hills, MI	
1510440-02	I	Oct-29-15 13:00	LEW	40	40					MWH Americas - Farmington Hills, MI	
1510440-03	I	Oct-29-15 13:00	LEW	40	40					MWH Americas - Farmington Hills, MI	
1510440-04	J	Oct-29-15 13:00	LEW	40	40					MWH Americas - Farmington Hills, MI	
1510440-05	I	Oct-29-15 13:00	LEW	40	40					MWH Americas - Farmington Hills, MI	
1510440-06	I	Oct-29-15 13:00	LEW	40	40					MWH Americas - Farmington Hills, MI	
1510440-08	I	Oct-29-15 13:00	LEW	40	40					MWH Americas - Farmington Hills, MI	
1510440-09	I	Oct-29-15 13:00	LEW	40	40					MWH Americas - Farmington Hills, MI	
1510440-12	J	Oct-29-15 13:00	LEW	40	40					MWH Americas - Farmington Hills, MI	
1510440-13	J	Oct-29-15 13:00	LEW	40	40					MWH Americas - Farmington Hills, MI	
1510440-16	J	Oct-29-15 13:00	LEW	40	40					MWH Americas - Farmington Hills, MI	

Comments:

all sample pH ok

Analyst Initials:

JHE

Sequence Summary

Spl#	Vial #	Sample ID	#	Reps	Method	Type	Dilution	Comments
4	3	CCV1	1	093015high	- Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
5	4	CCB1	1	093015high	- Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
6	5	cdl	1	093015high	- Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
7	6	hi check 100ppm	1	093015high	- Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
8	7	BLK HI	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
9	8	BS HI	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
10	9	sev hi	1	093015high	- Sep 30, 2015; 12-50-36 PM	QC #1	1 : 1	
11	10	CCV2	1	093015high	- Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
12	11	CCB2	1	093015high	- Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
13	12	1510430-09 5x	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
14	13	ms30-09 5x	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
15	14	md30-09 5x	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
16	15	1510430-11 2x - 1x	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
17	16	r	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
18	17	1510440-07 1x	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
19	18	1510440-10 1x	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
20	19	1510440-11	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
21	20	1510449-01	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
22	21	1510449-02	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
23	22	CCV3	1	093015high	- Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
24	23	CCB3	1	093015high	- Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
25	24	1510449-03	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
26	25	1510449-04	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
27	26	1510449-05	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
28	27	1510449-06	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
29	28	1510449-07	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
30	29	1510449-08	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
31	30	1510449-11	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
32	31	ms49-11	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
33	32	md49-11	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
34	33	r	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
35	34	CCV4	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
36	35	CCB4	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
37	36	1510449-12	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
38	37	1510449-13	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
39	38	1510449-14	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
40	39	1510449-15	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
41	40	1510449-16	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
42	41	1510449-17	1	093015high	- Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
43	42	CCV5	1	093015high	- Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
44	43	CCB5	1	093015high	- Sep 30, 2015; 12-50-36 PM	Check_Standar	1 : 1	
45	44	ccv1 Low	1	093015low	- Sep 30, 2015; 12-50-59 PM	Check_Standar	1 : 1	

46	45	ccb1 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standai	1 : 1
47	46	ctrl low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standai	1 : 1
48	47	hi check 10ppm	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standai	1 : 1
49	48	blk low	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
50	49	bs low	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
51	50	scv low	1	093015low - Sep 30, 2015; 12-50-59 PM	QC #1	1 : 1
52	51	ccv2 low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standai	1 : 1
53	52	ccb2 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standai	1 : 1
54	53	1510430-04	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
55	54	1510430-06	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
56	55	1510430-10	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
57	56	1510430-12	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
58	57	1510440-01	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
59	58	1510440-02	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
60	59	1510440-03	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
61	60	1510440-04	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
62	61	1510440-05	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
63	62	1510440-06	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
64	63	ccv3 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standai	1 : 1
65	64	ccb3 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standai	1 : 1
66	65	1510440-08	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
67	66	1510440-09	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
68	67	1510440-12	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
69	68	1510440-13	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
70	69	1510440-16	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
71	70	1510451-01	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
72	71	ms51-01	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
73	72	md51-01	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
74	73	1510451-02	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
75	74	1510451-03	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
76	75	ccv4 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standai	1 : 1
77	76	ccb4 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standai	1 : 1

Spl #: 44 Sample ID: CCB5 Type: Check_Stan Date: 10/29/2015 Status: Passed
 Vial #: 43 Method: 093015high - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	11:52 pm	-	-	-	1,807	0.000	0.000

Avg. - - - 1,807 0.000 0.000
 Std.Dev. 0
 % RSD. 0.00

Spl #: 45 Sample ID: ccv1 Low Type: Check_Stan Date: 10/30/2015 Status: Passed
 Vial #: 44 Method: 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	12:07 am	-	-	-	84,957	24.496	4.899

Avg. - - - 84,957 24.496 4.899
 Std.Dev. 0
 % RSD. 0.00

Spl #: 46 Sample ID: ccb1 Low Type: Check_Stan Date: 10/30/2015 Status: Passed
 Vial #: 45 Method: 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	12:21 am	-	-	-	1,906	0.000	0.000

Avg. - - - 1,906 0.000 0.000
 Std.Dev. 0
 % RSD. 0.00

Spl #: 47 Sample ID: crdl low Type: Check_Stan Date: 10/30/2015 Status: Passed
 Vial #: 46 Method: 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	12:35 am	-	-	-	10,887	2.494	0.499

Avg. - - - 10,887 2.494 0.499
 Std.Dev. 0
 % RSD. 0.00

Spl #: 48 Sample ID : hi check 10ppm Type : Check_Stan Date: 10/30/2015 Status: Passed
 Vial #: 47 Method : 093015low - Sep 30, 2015; 12. Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	12:50 am	-	-	-	168,517	49,318	9,864

Avg. - - - 168,517 49,318 9,864
 Std.Dev. 0
 % RSD. 0.00

Spl #: 49 Sample ID : blk low Type : Sample Date: 10/30/2015 Status: Passed
 Vial #: 48 Method : 093015low - Sep 30, 2015; 12. Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	1:04 am	-	-	-	1,979	0.000	0.000

Avg. - - - 1,979 0.000 0.000
 Std.Dev. 0
 % RSD. 0.00

Spl #: 50 Sample ID : bs low Type : Sample Date: 10/30/2015 Status: Passed
 Vial #: 49 Method : 093015low - Sep 30, 2015; 12. Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	1:15 am	-	-	-	38,073	10,702	2,141

Avg. - - - 38,073 10,702 2,141
 Std.Dev. 0
 % RSD. 0.00

Spl #: 51 Sample ID : scv low Type : QC #1 Date: 10/30/2015 Status: Passed
 Vial #: 50 Method : 093015low - Sep 30, 2015; 12. Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	1:26 am	-	-	-	84,434	24,296	4,859

Avg. - - - 84,434 24,296 4,859
 Std.Dev. 0
 % RSD. 0.00

Spl #: 52 Sample ID: ccv2 low Type: Check_Stan Date: 10/30/2015 Status: Passed
 Vial #: 51 Method: 093015low - Sep 30, 2015; 12: Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	1:41 am	-	-	-	84,973	24.501	4.900
Avg.		-	-	-	84,973	24.501	4.900
Std.Dev.		-	-	-	0	0	0
% RSD.		-	-	-	0.00	0.00	0.00

Spl #: 53 Sample ID: ccb2 Low Type: Check_Stan Date: 10/30/2015 Status: Passed
 Vial #: 52 Method: 093015low - Sep 30, 2015; 12: Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	1:55 am	-	-	-	1,750	0.000	0.000
Avg.		-	-	-	1,750	0.000	0.000
Std.Dev.		-	-	-	0	0	0
% RSD.		-	-	-	0.00	0.00	0.00

Spl #: 54 Sample ID: 1510430-04 Type: Sample Date: 10/30/2015 Status: Passed
 Vial #: 53 Method: 093015low - Sep 30, 2015; 12: Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	2:09 am	-	-	-	16,738	4.365	0.873
Avg.		-	-	-	16,738	4.365	0.873
Std.Dev.		-	-	-	0	0	0
% RSD.		-	-	-	0.00	0.00	0.00

Spl #: 55 Sample ID: 1510430-06 Type: Sample Date: 10/30/2015 Status: Passed
 Vial #: 54 Method: 093015low - Sep 30, 2015; 12: Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	2:21 am	-	-	-	15,390	3.964	0.793
Avg.		-	-	-	15,390	3.964	0.793
Std.Dev.		-	-	-	0	0	0
% RSD.		-	-	-	0.00	0.00	0.00

Spl #: 56 Sample ID : 1510430-10 Type : Sample Date: 10/30/2015
 Vial #: 55 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000 Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	2:33 am	-	-	-	22,397	6.046	1.209
Avg.		-	-	-	22,397	6.046	1.209
Std.Dev.		-	-	-	0	0	0
% RSD.		-	-	-	0.00	0.00	0.00

Spl #: 57 Sample ID : 1510430-12 Type : Sample Date: 10/30/2015
 Vial #: 56 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000 Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	2:45 am	-	-	-	17,684	4.646	0.929
Avg.		-	-	-	17,684	4.646	0.929
Std.Dev.		-	-	-	0	0	0
% RSD.		-	-	-	0.00	0.00	0.00

Spl #: 58 Sample ID : 1510440-01 Type : Sample Date: 10/30/2015
 Vial #: 57 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000 Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	2:56 am	-	-	-	43,410	12.288	2.458
Avg.		-	-	-	43,410	12.288	2.458
Std.Dev.		-	-	-	0	0	0
% RSD.		-	-	-	0.00	0.00	0.00

Spl #: 59 Sample ID : 1510440-02 Type : Sample Date: 10/30/2015
 Vial #: 58 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000 Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	3:07 am	-	-	-	19,810	5.277	1.056
Avg.		-	-	-	19,810	5.277	1.056
Std.Dev.		-	-	-	0	0	0
% RSD.		-	-	-	0.00	0.00	0.00

Spl #: 60 Sample ID: 1510440-03 Type: Sample Date: 10/30/2015 Status: Passed
 Vial #: 59 Method: 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	3:19 am	-	-	-	12,634	3,146	0.629

Avg. - - - 12,634 3,146 0.629
 Std.Dev. 0
 % RSD. 0.00

Spl #: 61 Sample ID: 1510440-04 Type: Sample Date: 10/30/2015 Status: Passed
 Vial #: 60 Method: 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	3:30 am	-	-	-	24,145	6,565	1.313

Avg. - - - 24,145 6,565 1.313
 Std.Dev. 0
 % RSD. 0.00

Spl #: 62 Sample ID: 1510440-05 Type: Sample Date: 10/30/2015 Status: Passed
 Vial #: 61 Method: 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	3:41 am	-	-	-	57,754	16,549	3.310

Avg. - - - 57,754 16,549 3.310
 Std.Dev. 0
 % RSD. 0.00

Spl #: 63 Sample ID: 1510440-06 Type: Sample Date: 10/30/2015 Status: Passed
 Vial #: 62 Method: 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	3:53 am	-	-	-	41,397	11,690	2.337

Avg. - - - 41,397 11,690 2.337
 Std.Dev. 0
 % RSD. 0.00

Spl #: 64 Sample ID: ccv3 Low Type: Check_Stan Date: 10/30/2015 Status: Passed
 Vial #: 63 Method: 093015Low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	4:04 am	-	-	-	88,874	25,660	5.132
Avg.		-	-	-	88,874	25,660	5.132
Std.Dev.		-	-	-	0	0	0
% RSD.		-	-	-	0.00	0.00	0.00

Spl #: 65 Sample ID: ccv3 Low Type: Check_Stan Date: 10/30/2015 Status: Passed
 Vial #: 64 Method: 093015Low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	4:18 am	-	-	-	2,350	0.000	0.000
Avg.		-	-	-	2,350	0.000	0.000
Std.Dev.		-	-	-	0	0.000	0.000
% RSD.		-	-	-	0.00	0.00	0.00

Spl #: 66 Sample ID: 1510440-08 Type: Sample Date: 10/30/2015 Status: Passed
 Vial #: 65 Method: 093015Low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	4:30 am	-	-	-	28,171	7.761	1.552
Avg.		-	-	-	28,171	7.761	1.552
Std.Dev.		-	-	-	0	0	0
% RSD.		-	-	-	0.00	0.00	0.00

Spl #: 67 Sample ID: 1510440-09 Type: Sample Date: 10/30/2015 Status: Passed
 Vial #: 66 Method: 093015Low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	4:41 am	-	-	-	23,721	6.439	1.288
Avg.		-	-	-	23,721	6.439	1.288
Std.Dev.		-	-	-	0	0	0
% RSD.		-	-	-	0.00	0.00	0.00

Spl #: 68 Sample ID: 1510440-12 Type: Sample Date: 10/30/2015
 Vial #: 67 Method: 093015Slow - Sep 30, 2015; 12. Dilution 1 : 1 Customer ID: 00000000 Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	4:52 am	-	-	-	5,502	1,027	0.205

Avg. - - - 5,502 1,027 0.205
 Std.Dev. 0
 % RSD. 0.00

Spl #: 69 Sample ID: 1510440-13 Type: Sample Date: 10/30/2015
 Vial #: 68 Method: 093015Slow - Sep 30, 2015; 12. Dilution 1 : 1 Customer ID: 00000000 Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	5:04 am	-	-	-	3,838	0.533	0.107

Avg. - - - 3,838 0.533 0.107
 Std.Dev. 0
 % RSD. 0.00

Spl #: 70 Sample ID: 1510440-16 Type: Sample Date: 10/30/2015
 Vial #: 69 Method: 093015Slow - Sep 30, 2015; 12. Dilution 1 : 1 Customer ID: 00000000 Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	5:15 am	-	-	-	23,980	6.516	1.303

Avg. - - - 23,980 6.516 1.303
 Std.Dev. 0
 % RSD. 0.00

Spl #: 71 Sample ID: 1510451-01 Type: Sample Date: 10/30/2015
 Vial #: 70 Method: 093015Slow - Sep 30, 2015; 12. Dilution 1 : 1 Customer ID: 00000000 Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	5:27 am	-	-	-	26,825	7.361	1.472

Avg. - - - 26,825 7.361 1.472
 Std.Dev. 0
 % RSD. 0.00

Spl #: 76 Sample ID : ccv4 Low Type : Check_Stan Date: 10/30/2015
 Vial #: 75 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	6:23 am	-	-	-	87,877	25.363	5.073

Avg. - - - 87,877 25.363 5.073
 Std.Dev. 0
 % RSD. 0.00

Spl #: 77 Sample ID : ccv4 Low Type : Check_Stan Date: 10/30/2015
 Vial #: 76 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	6:38 am	-	-	-	1,867	0.000	0.000

Avg. - - - 1,867 0.000 0.000
 Std.Dev. 0
 % RSD. 0.00

Method Summary

Method Details

Method Name: 093015low - Sep 30, 2015; 12
 Date Created: 09/30/2015
 Time Created: 11:57
 Created By: toc

Pre-Processing

Sample Dilution: Disabled
 Dilution Mode: Automatic
 Dilution Factor: 1 : 1
 Sample Stirring in A/S: Disabled

Times

React: 01:30
 Detect: 03:00
 TIC: 02:30
 TOC: 03:00
 React: 70
 Detect: 70
 TIC: 98
 TOC: 98

Analysis Mode:

NPOC Only

Outlier Removal Criteria

Additional Replicates: 2
 Max. % RSD: 10.00

Peak Detection Parameters

Signal-to-Noise Ratio: 3
 Minimum Peak Width (min:sec): 00:30
 Peak Resolution to Baseline(%): 99

Volumes

Sample Volume (mL): 5.000
 Acid Volume (mL): 1.000
 Persulfate Volume(mL): 2.000

Rinses

Rinse Volume (mL): 15.000
 Rinses Per Sample: 1
 Rinses Per Replicate: 1

Other

SysPressure: 20.00

Calibration Summary

Calibration Generation

Generation Mode: Manual
 # of Stds: 5
 Dilution Factor: 10 : 1
 Dilution Volume (mL): 1.000
 Add Zero as Std #1: No

Calibration Pass/Fail Criteria

Parameter	Low	High	Failure
RF (ugC/K-cts)	0.1000	0.3000	Continue
R2	0.950	1.000	Continue
Offset (area) (cts)	-	-	-
Offset (mass) (ugC)	-	-	-

Calibration Mode

Primary Mode: TOC
 User for ALL Modes: Enabled

Checks, QC's and Actions

Type	Target (PPM)	Tolerance (+/- %)	1st Failure	2nd Failure
CK Std	n/a	10,000.00	Re-run	Continue
QC #1	0.000	10,000.00	Re-run	Continue
QC #2	0.000	10,000.00	Re-run	Continue
QC #3	0.000	10,000.00	Re-run	Continue
QC #4	0.000	10,000.00	Re-run	Continue
SST	0.000	15,000.00	Re-run	Continue

Calibration Details

Calibration Mode:	TOC
Date Calibrated:	10/27/2015
Time Calibrated:	3:03 am
Calibrated By:	toc
RF (ugC/k-cts):	0.2971
R2:	0.9998
Offset (area)(cts):	3635
Offset (mass)(ugC):	-1.080
Reagent Blank (cts):	2,044

Calibration Settings

Stock Conc. For Dilutions: (PPM)	1,000,000
# of Reagent Blanks:	3
Total Flowrate w/EFC:	50 ml/min
Check Standards:	Subtract RW
Regression type:	Unweighted

Instrument ID: F750730372

User ID: toc

Calibration - Quick View -TOC

Revision: 1-2015-09-30; 08:01 PM
Modified By: toc
Date Created: 2015-09-30; 11:57 AM
Last Modified: 2015-09-30; 11:57 AM

Reagent Blank(cts): 2,044
RF(ugC/k-cnt): 0.2971
R2: 0.9998
Offset Area(cts): 3,635
Offset Mass(ugC): -1.08

Std #	Conc (PPM)	Volume (mL)	# Reps	Area	Std. Dev	%RSD	Date Analysed	
RW	5091289	0.000	5.000	1	2,494	0	0.00	2015-09-30; 07:12PM
1	5091290	0.500	5.000	1	11,943	0	0.00	2015-09-30; 07:27PM
2	5091291	2.500	5.000	1	46,753	0	0.00	2015-09-30; 07:38PM
3	5091292	5.000	5.000	1	88,729	0	0.00	2015-09-30; 07:49PM
4	5091293	10.000	5.000	1	171,236	0	0.00	2015-09-30; 08:01PM

Element Calibration # : 5J01006

Instrument Calibration : 093015 low

Stock # : 5091280

10% Na Persulfate : 5090956

5% H₃PO₄ : 5090955

Inorganic - Wet Chemistry, Water, Oct-30-15

Instrument = 324, Calibration = 5J01006

Sequence Analyses:
TOC 5310 C

Lab Number	Analysis	Contain	STD ID	ISTD ID	Client / QC Type	Extraction Comments
5K06030-CCV1	QC		5110285		CALIBRATION CHECK	
5K06030-CCB1	QC				CALIBRATION BLANK	
5K06030-CRL1	QC		5110319		INSTRUMENT RL CHECK	
1511805-BLK1	QC				BLANK	
1511805-BS1	QC				LCS	
5K06030-SCV1	QC		5110285		SECONDARY CAL CHECK	
5K06030-CCV2	QC		5110285		CALIBRATION CHECK	
5K06030-CCB2	QC				CALIBRATION BLANK	
1510440-07	TOC 5310 C	J			MWH Americas - Farmington Hills, MI	
1510440-11	TOC 5310 C	I			MWH Americas - Farmington Hills, MI	
5K06030-CCV3	QC		5110285		CALIBRATION CHECK	
5K06030-CCB3	QC				CALIBRATION BLANK	

Comments:

Analyst
Initials:

PREPARATION BATCH **1511805**

Page 1 of 1

Printed: 11/6/2015 10:04:56AM

Inorganic - Wet Chemistry, Water, General Inorganic Prep

(No Surrogate)

Batch Comments: (none)

11/6-15

Standard	Description	Solvent
5091280	TOC/DOC 1000ppm	di H2O
5101518	TOC 5% H3PO4	na
5101519	TOC 10% Sodium Persulfate	na

LotNum
104369
130270B
B0140031

LVH

Work Order	Analysis
1510440	TOC 5310 C

Work Order	Analysis

Work Order	Analysis

Balance ID: none

pH Meter: none

Lab Number	Container	Prepared	By	Initial (mL)	Final (mL)	ul Surrogate	Source ID	Spike ID	ul Spike	Client / QC Type	Extraction Comments
1511805-BLK1		Oct-30-15 08:00	LEW	40	40					BLANK	
1511805-BS1		Oct-30-15 08:00	LEW	25	25			5091280	50	LCS	
1510440-07	J	Oct-30-15 08:00	LEW	40	40					MWH Americas - Farmington Hills, MI	
1510440-11	I	Oct-30-15 08:00	LEW	40	40					MWH Americas - Farmington Hills, MI	

Comments:

all sample pH ok

Analyst Initials:

JEW

Sequence Summary

Spl#	Vial #	Sample ID	# Reps	Method	Type	Dilution	Comments
4	3	CCV1	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standai	1 : 1	
5	4	CCB1	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standai	1 : 1	
6	5	cdl	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standai	1 : 1	
7	6	hi check 100ppm	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standai	1 : 1	
8	7	BLK HI	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
9	8	BS HI	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
10	9	scv hi	1	093015high - Sep 30, 2015; 12-50-36 PM	QC #1	1 : 1	
11	10	CCV2	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standai	1 : 1	
12	11	CCB2	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standai	1 : 1	
13	12	1510430-11 25x	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
14	13	1510449-18	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
15	14	1510452-01	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
16	15	ms52-01	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
17	16	md52-01	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
18	17	1510452-02	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
19	18	1510452-03	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
20	19	1510452-04	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
21	20	1510452-05	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
22	21	1510452-06	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
23	22	CCV3	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standai	1 : 1	
24	23	CCB3	1	093015high - Sep 30, 2015; 12-50-36 PM	Check_Standai	1 : 1	
25	24	1510452-07	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
26	25	1510452-08	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
27	26	1510452-09	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
28	27	1510452-11	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
29	28	1510452-12	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
30	29	1510477-01	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
31	30	1510477-02	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
32	31	1510477-03	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
33	32	1510477-04	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
34	33	1510482-11 5x	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
35	34	CCV4	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
36	35	CCB4	1	093015high - Sep 30, 2015; 12-50-36 PM	Sample	1 : 1	
37	36	ccv1 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standai	1 : 1	
38	37	ccb1 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standai	1 : 1	
39	38	cdl low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standai	1 : 1	
40	39	hi check 10ppm	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standai	1 : 1	
41	40	blk low	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1	
42	41	bs low	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1	
43	42	scv low	1	093015low - Sep 30, 2015; 12-50-59 PM	QC #1	1 : 1	
44	43	ccv2 low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standai	1 : 1	
45	44	ccb2 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standai	1 : 1	

46	45	1510440-07	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
47	46	1510440-10	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
48	47	1510440-11	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
49	48	1510452-10	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
50	49	1510482-02	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
51	50	ms82-02	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
52	51	md82-02	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
53	52	1510482-03	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
54	53	1510482-04	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
55	54	1510482-05	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
56	55	ccv3 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standar	1 : 1
57	56	ccb3 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standar	1 : 1
58	57	1510482-06	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
59	58	1510482-07	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
60	59	1510482-08	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
61	60	1510482-09	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
62	61	1510489-02	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
63	62	1510489-04	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
64	63	1510489-06	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
65	64	1510489-08	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
66	65	1510489-10	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
67	66	1510534-01	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
68	67	ccv4 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standar	1 : 1
69	68	ccb4 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Check_Standar	1 : 1
70	69	1510534-02	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
71	70	1510534-03	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
72	71	ccv5 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1
73	72	ccb5 Low	1	093015low - Sep 30, 2015; 12-50-59 PM	Sample	1 : 1

Spl #: 36 Sample ID : CCB4 Type : Sample Date: 10/30/2015
 Vial #: 35 Method : 093015high - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	5:50 pm	-	-	-	15,744	3.881	1.941

Avg. - - - 15,744 3.881 1.941
 Std.Dev. 0
 % RSD. 0.00

Spl #: 37 Sample ID : ccv1 Low Type : Check_Stan Date: 10/30/2015
 Vial #: 36 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	6:01 pm	-	-	-	89,576	25.868	5.174

Avg. - - - 89,576 25.868 5.174
 Std.Dev. 0
 % RSD. 0.00

Spl #: 38 Sample ID : ccb1 Low Type : Check_Stan Date: 10/30/2015
 Vial #: 37 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	6:16 pm	-	-	-	3,459	0.287	0.057

Avg. - - - 3,459 0.287 0.057
 Std.Dev. 0
 % RSD. 0.00

Spl #: 39 Sample ID : crd1 low Type : Check_Stan Date: 10/30/2015
 Vial #: 38 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	6:30 pm	-	-	-	13,594	3.297	0.660

Avg. - - - 13,594 3.297 0.660
 Std.Dev. 0
 % RSD. 0.00

Spl #: 40 Sample ID : hl check 10ppm Type : Check_Stan Date: 10/30/2015
 Vial #: 39 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000 Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	6:45 pm	-	-	-	173,682	50.852	10.170

Avg. - - - 173,682 50.852 10.170
 Std.Dev. 0
 % RSD. 0.00

Spl #: 41 Sample ID : blk low Type : Sample Date: 10/30/2015
 Vial #: 40 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000 Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	6:59 pm	-	-	-	2,468	0.126	0.025

Avg. - - - 2,468 0.126 0.025
 Std.Dev. 0
 % RSD. 0.00

Spl #: 42 Sample ID : bs low Type : Sample Date: 10/30/2015
 Vial #: 41 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000 Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	7:11 pm	-	-	-	37,652	10.577	2.116

Avg. - - - 37,652 10.577 2.116
 Std.Dev. 0
 % RSD. 0.00

Spl #: 43 Sample ID : scv low Type : QC #1 Date: 10/30/2015
 Vial #: 42 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000 Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	7:22 pm	-	-	-	88,011	25.358	5.072

Avg. - - - 88,011 25.358 5.072
 Std.Dev. 0
 % RSD. 0.00

Spl #: 44 Sample ID : ccv2 low Type : Check_Stan Date: 10/30/2015
 Vial #: 43 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	7:36 pm	-	-	-	87,608	25,284	5.057

Avg. - - - 87,608 25,284 5.057
 Std.Dev. 0
 % RSD. 0.00

Spl #: 45 Sample ID : ccv2 Low Type : Check_Stan Date: 10/30/2015
 Vial #: 44 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	7:51 pm	-	-	-	2,226	0.000	0.000

Avg. - - - 2,226 0.000 0.000
 Std.Dev. 0
 % RSD. 0.00

Spl #: 46 Sample ID : 1510440-07 Type : Sample Date: 10/30/2015
 Vial #: 45 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	8:06 pm	-	-	-	126,657	37,017	7.403

Avg. - - - 126,657 37,017 7.403
 Std.Dev. 0
 % RSD. 0.00

Spl #: 47 Sample ID : 1510440-10 Type : Sample Date: 10/30/2015
 Vial #: 46 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	8:17 pm	-	-	-	359,569	106,203	21.241

Avg. - - - 359,569 106,203 21.241
 Std.Dev. 0
 % RSD. 0.00

Spl #: 48 Sample ID : 1510440-11 Type : Sample Date: 10/30/2015
 Vial #: 47 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	8:30 pm	-	-	-	20,451	5,468	1,094

Avg. - 20,451 5,468 1,094
 Std.Dev. 0
 % RSD. 0.00

Spl #: 49 Sample ID : 1510452-10 Type : Sample Date: 10/30/2015
 Vial #: 48 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	8:41 pm	-	-	-	3,654	0,478	0,096

Avg. - 3,654 0,478 0,096
 Std.Dev. 0
 % RSD. 0.00

Spl #: 50 Sample ID : 1510482-02 Type : Sample Date: 10/30/2015
 Vial #: 49 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	8:52 pm	-	-	-	249,969	73,647	14,729

Avg. - 249,969 73,647 14,729
 Std.Dev. 0
 % RSD. 0.00

Spl #: 51 Sample ID : ms82-02 Type : Sample Date: 10/30/2015
 Vial #: 50 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	9:04 pm	-	-	-	293,493	86,576	17,315

Avg. - 293,493 86,576 17,315
 Std.Dev. 0
 % RSD. 0.00

Spl #: 56 Sample ID : ccb3 Low Type : Check_Stan Date: 10/30/2015
 Vial #: 55 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	10:02 pm	-	-	-	88,335	25,499	5,100

Avg. - - - 88,335 25,499 5,100
 Std.Dev. 0
 % RSD. 0.00

Spl #: 57 Sample ID : ccb3 Low Type : Check_Stan Date: 10/30/2015
 Vial #: 56 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	10:17 pm	-	-	-	2,559	0,019	0,004

Avg. - - - 2,559 0,019 0,004
 Std.Dev. 0
 % RSD. 0.00

Spl #: 58 Sample ID : 1510482-06 Type : Sample Date: 10/30/2015
 Vial #: 57 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	10:31 pm	-	-	-	34,104	9,524	1,905

Avg. - - - 34,104 9,524 1,905
 Std.Dev. 0
 % RSD. 0.00

Spl #: 59 Sample ID : 1510482-07 Type : Sample Date: 10/30/2015
 Vial #: 58 Method : 093015low - Sep 30, 2015; 12 Dilution 1 : 1 Customer ID: 00000000

Status: Passed

Rep #	Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (PPM)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (PPM)
1	10:43 pm	-	-	-	54,717	15,647	3,129

Avg. - - - 54,717 15,647 3,129
 Std.Dev. 0
 % RSD. 0.00

Method Summary

Method Details

Method Name: 09301Slow - Sep 30, 2015, 12
 Date Created: 09/30/2015
 Time Created: 11:57
 Created By: toc

Pre-Processing

Sample Dilution: Disabled
 Dilution Mode: Automatic
 Dilution Factor: 1 : 1
 Sample Stirring in A/S: Disabled

Times

React	Detect	TIC	React	Detect
01:30	03:00	TIC	70	70
02:30	03:00	TOC	98	98

Analysis Mode: NPOC Only

Sparging Mode: Internal
 Pre-Acid Volume (mL): 1.000
 Sparge Time (mm:ss): 02:00

Outlier Removal Criteria

Additional Replicates: 2
 Max. % RSD: 10.00

Peak Detection Parameters

Signal-to-Noise Ratio: 3
 Minimum Peak Width (min:sec): 00:30
 Peak Resolution to Baseline(%): 99

Volumes

Sample Volume (mL): 5.000
 Acid Volume (mL): 1.000
 Persulfate Volume(mL): 2.000

Rinses

Rinse Volume (mL): 15.000
 Rinses Per Sample: 1
 Rinses Per Replicate: 1

Other

SysPressure: 20.00

Calibration Summary

Calibration Generation

Generation Mode: Manual
 # of Stds: 5
 Dilution Factor: 10 : 1
 Dilution Volume (mL): 1.000
 Add Zero as Std #1: No

Calibration Pass/Fail Criteria

Parameter	Low	High	Failure
RF (ugC/K-cts)	0.1000	0.3000	Continue
R2	0.950	1.000	Continue
Offset (area) (cts)	-	-	-
Offset (mass) (ugC)	-	-	-

Calibration Mode

Primary Mode: TOC
 User for ALL Modes: Enabled

Checks, QC's and Actions

Type	Target (PPM)	Tolerance (+/- %)	1st Failure	2nd Failure
CK Std	n/a	10,000.00	Re-run	Continue
QC #1	0.000	10,000.00	Re-run	Continue
QC #2	0.000	10,000.00	Re-run	Continue
QC #3	0.000	10,000.00	Re-run	Continue
QC #4	0.000	10,000.00	Re-run	Continue
SST	0.000	15,000.00	Re-run	Continue

Calibration Details

Calibration Mode: TOC
Date Calibrated: 10/27/2015
Time Calibrated: 3:03 am
Calibrated By: toc
RF (ugC/k-cts): 0.2971
R2: 0.9998
Offset (area)(cts): 3635
Offset (mass)(ugC): -1.080
Reagent Blank (cts): 2.044

Calibration Settings

Stock Conc. For Dilutions: (PPM) 1,000.000
of Reagent Blanks: 3
Total Flowrate w/EEC: 50 ml/min
Check Standards: Subtract RW
Regression type: Unweighted

Instrument ID: F750730372

User ID: toc

Calibration - Quick View -TOC

Revision: 1-2015-09-30; 08:01 PM
Modified By: toc
Date Created: 2015-09-30; 11:57 AM
Last Modified: 2015-09-30; 11:57 AM

Reagent Blank(cts): 2,044
RF(ugC/k-cnt): 0.2971
R2: 0.9998
Offset Area(cts): 3,635
Offset Mass(ugC): -1.08

Std #	Conc (PPM)	Volume (mL)	# Reps	Area	Std. Dev	%RSD	Date Analysed	
RW	5091289	0.000	5.000	1	2,494	0	0.00	2015-09-30; 07:12PM
1	5091290	0.500	5.000	1	11,943	0	0.00	2015-09-30; 07:27PM
2	5091291	2.500	5.000	1	46,753	0	0.00	2015-09-30; 07:38PM
3	5091292	5.000	5.000	1	88,729	0	0.00	2015-09-30; 07:49PM
4	5091293	10.000	5.000	1	171,236	0	0.00	2015-09-30; 08:01PM

Element Calibration # : 5J01006

Instrument Calibration : 093015 low

Stock # : 5091280

10% Na Persulfate : 5090956

5% H₃PO₄ : 5090955

MWH Americas - Farmington Hills, MI
GE Caribe - Vieques, PR

END OF REPORT

APPENDIX C
DATA CERTIFICATION
AND
VALIDATION PACKAGE

María de los A Negrón

Licensed Chemist

CERTIFICATION

I, María de los A Negrón, in my capacity as Licensed Chemist in Puerto Rico, hereby certify the Analytical Results from Project GE Caribe-Vieques, PR SDG1510440 and laboratory sample numbers

1510440-01; 1510440-02; 1510440-03; 1510440-04; 1510440-05;
1510440-06; 1510440-07; 1510440-08; 1510440-09; 1510440-10;
1510440-11; 1510440-12; 1510440-13; 1510440-14; 1510440-15;
1510440-16; 1510440-17.



Lcda. María de los A Negrón 12/5/15
Licensed Chemist Q5118

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-1

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-01

File ID: 1510440-01.D

Sampled: 10/19/15 11:15

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 23:33

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: SJ30014

Calibration: SJ30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	11	2.4	10	
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16		
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37		
78-87-5	1,2-Dichloropropane	1	1.0	0.26		
142-28-9	1,3-Dichloropropane	1	1.0	0.23		
594-20-7	2,2-Dichloropropane	1	1.0	0.27		



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-1

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-01

File ID: 1510440-01.D

Sampled: 10/19/15 11:15

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 23:33

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

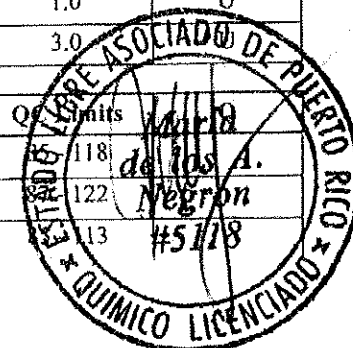
Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.
Dibromofluoromethane	40.0	39.5	99
1,2-Dichloroethane-d4	40.0	39.8	100
Toluene-d8	40.0	39.4	99



000168

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-1

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-01

File ID: 1510440-01.D

Sampled: 10/19/15 11:15

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 23:33

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.7	99	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1006028	5.897	100	5.915	
Chlorobenzene-d5	698754	10.292	100	10.305	
1,4-Dichlorobenzene-d4	341913	13.285	99	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-2

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-02

File ID: 1510440-02.D

Sampled: 10/19/15 11:55

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:02

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

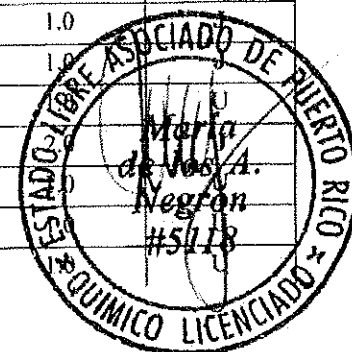
QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	0.50	0.27	1.0	J
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	0.78	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	0.93	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	0.93	0.37	1.0	U
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U



000174

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-2

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-02

File ID: 1510440-02.D

Sampled: 10/19/15 11:55

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:02

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

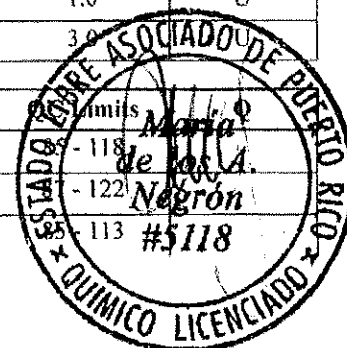
Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	0.23	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	2.3	0.23	1.0	
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.
Dibromofluoromethane	40.0	39.1	98
1,2-Dichloroethane-d4	40.0	39.8	100
Toluene-d8	40.0	39.2	98



000175

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-2

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-02

File ID: 1510440-02.D

Sampled: 10/19/15 11:55

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:02

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.6	99	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1006851	5.897	100	5.915	
Chlorobenzene-d5	699254	10.292	100	10.305	
1,4-Dichlorobenzene-d4	338509	13.286	98	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-3

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-03

File ID: 1510440-03.D

Sampled: 10/19/15 13:13

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:30

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37		
78-87-5	1,2-Dichloropropane	1	1.0	0.26		
142-28-9	1,3-Dichloropropane	1	1.0	0.23		
594-20-7	2,2-Dichloropropane	1	1.0	0.27		



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-3

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-03

File ID: 1510440-03.D

Sampled: 10/19/15 13:13

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:30

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

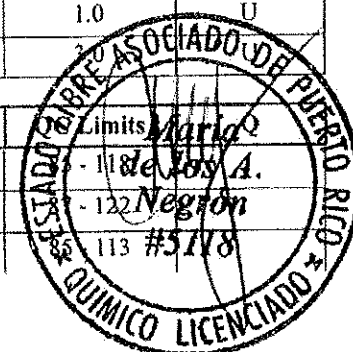
Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36		

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.
Dibromofluoromethane	40.0	39.2	98
1,2-Dichloroethane-d4	40.0	39.9	100
Toluene-d8	40.0	39.4	99



000186

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-3

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-03

File ID: 1510440-03.D

Sampled: 10/19/15 13:13

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:30

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.4	99	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1012212	5.897	101	5.915	
Chlorobenzene-d5	703326	10.292	100	10.305	
1,4-Dichlorobenzene-d4	343090	13.286	99	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-4

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-04

File ID: 1510440-04.D

Sampled: 10/20/15 12:05

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 04:17

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	4.0	0.27	1.0	
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	5.0	0.24	1.0	
156-59-2	cis-1,2-Dichloroethene	1	3.4	0.21	1.0	
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	
540-59-0	1,2-Dichloroethene (Total)	1	3.4	0.37		
78-87-5	1,2-Dichloropropane	1	1.0	0.26		
142-28-9	1,3-Dichloropropane	1	1.0	0.23		
594-20-7	2,2-Dichloropropane	1	1.0	0.27		



000191

C-4

SDG: 1510440

Project: GE Caribe - Vieques, PR

File ID: 1510440-04.D

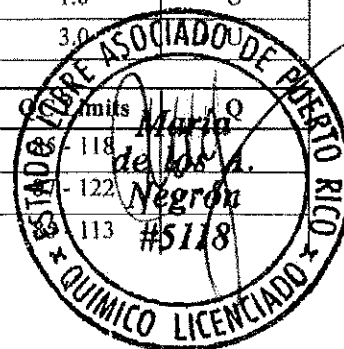
Analyzed: 10/30/15 04:17

Initial/Final: 5 mL / 5 mL

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	0.080	0.065	1.0	J
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	0.44	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	0.43	0.15	1.0	J
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	33	0.23	1.0	
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.
Dibromofluoromethane	40.0	39.6	99
1,2-Dichloroethane-d4	40.0	40.1	100
Toluene-d8	40.0	39.5	99



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-4

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-04

File ID: 1510440-04.D

Sampled: 10/20/15 12:05

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 04:17

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.6	99	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1017279	5.897	101	5.915	
Chlorobenzene-d5	706784	10.286	101	10.305	
1,4-Dichlorobenzene-d4	345943	13.279	100	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-5

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-05

File ID: 1510440-05.D

Sampled: 10/20/15 10:10

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 15:13

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37	1.0	U
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U



000004

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-5

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-05

File ID: 1510440-05.D

Sampled: 10/20/15 10:10

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 15:13

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

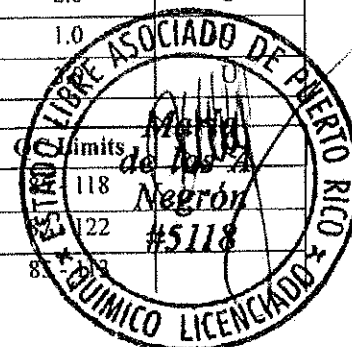
Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	0.21	0.065	1.0	J
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	0.31	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	0.24	0.23	1.0	J
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36		

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.
Dibromofluoromethane	40.0	39.5	99
1,2-Dichloroethane-d4	40.0	40.0	100
Toluene-d8	40.0	39.2	98



000205

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-5

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-05

File ID: 1510440-05.D

Sampled: 10/20/15 10:10

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 15:13

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.4	99	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	992025	5.891	102	5.915	
Chlorobenzene-d5	693011	10.286	101	10.305	
1,4-Dichlorobenzene-d4	339780	13.279	99	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-6

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-06

File ID: 1510440-06.D

Sampled: 10/20/15 09:30

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:58

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

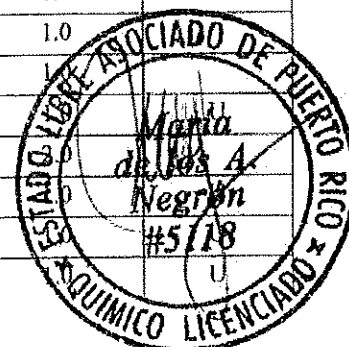
QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	8.8	0.27	1.0	
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	4.2	0.24	1.0	
156-59-2	cis-1,2-Dichloroethene	1	4.7	0.21	1.0	
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16		
540-59-0	1,2-Dichloroethene (Total)	1	4.7	0.37		
78-87-5	1,2-Dichloropropane	1	1.0	0.26		
142-28-9	1,3-Dichloropropane	1	1.0	0.23		
594-20-7	2,2-Dichloropropane	1	1.0	0.27		



000213

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-6

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-06

File ID: 1510440-06.D

Sampled: 10/20/15 09:30

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:58

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

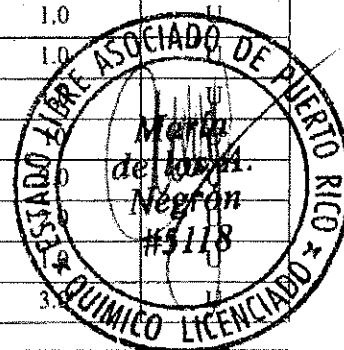
QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	0.070	0.065	1.0	J
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	0.81	0.15	1.0	J
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	19	0.23	1.0	
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060		
108-05-4	Vinyl Acetate	1	10	0.32		
75-01-4	Vinyl Chloride	1	2.0	0.21		
179601-23-1	Xylene, Meta + Para	1	2.0	0.24		
95-47-6	Xylene, Ortho	1	1.0	0.12		
1330-20-7	Xylene (Total)	1	3.0	0.36		



System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.8	99	85 - 118	
1,2-Dichloroethane-d4	40.0	40.2	101	87 - 122	
Toluene-d8	40.0	39.5	99	85 - 113	

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-6

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-06

File ID: 1510440-06.D

Sampled: 10/20/15 09:30

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 00:58

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.6	99	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1001040	5.897	100	5.915	
Chlorobenzene-d5	695874	10.286	99	10.305	
1,4-Dichlorobenzene-d4	339802	13.28	98	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-7

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-07

File ID: 1510440-07.D

Sampled: 10/20/15 11:40

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 03:49

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

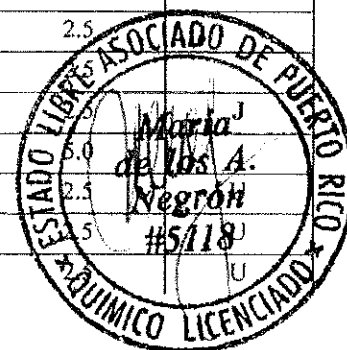
QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	2.5	6.7	6.0	25	J
71-43-2	Benzene	2.5	2.5	0.68	2.5	U
108-86-1	Bromobenzene	2.5	2.5	0.52	2.5	U
74-97-5	Bromochloromethane	2.5	2.5	0.55	2.5	U
75-27-4	Bromodichloromethane	2.5	2.5	0.65	2.5	U
75-25-2	Bromoform	2.5	2.5	0.35	2.5	U
74-83-9	Bromomethane	2.5	2.5	0.45	2.5	U
104-51-8	n-Butylbenzene	2.5	2.5	0.70	2.5	U
135-98-8	sec-Butylbenzene	2.5	2.5	0.25	2.5	U
98-06-6	tert-Butylbenzene	2.5	2.5	0.28	2.5	U
75-15-0	Carbon Disulfide	2.5	3.6	0.35	12	J
56-23-5	Carbon Tetrachloride	2.5	2.5	0.75	2.5	U
108-90-7	Chlorobenzene	2.5	2.5	0.60	2.5	U
75-00-3	Chloroethane	2.5	2.5	0.55	2.5	U
67-66-3	Chloroform	2.5	2.5	0.52	2.5	U
74-87-3	Chloromethane	2.5	2.5	0.45	2.5	U
95-49-8	2-Chlorotoluene	2.5	2.5	0.40	2.5	U
106-43-4	4-Chlorotoluene	2.5	2.5	0.75	2.5	U
124-48-1	Dibromochloromethane	2.5	2.5	0.72	2.5	U
106-93-4	1,2-Dibromoethane	2.5	12	0.35	12	U
74-95-3	Dibromomethane	2.5	2.5	0.52	2.5	U
95-50-1	1,2-Dichlorobenzene	2.5	2.5	0.55	2.5	U
541-73-1	1,3-Dichlorobenzene	2.5	2.5	0.32	2.5	U
106-46-7	1,4-Dichlorobenzene	2.5	2.5	0.52	2.5	U
75-71-8	Dichlorodifluoromethane	2.5	25	0.72	25	U
75-34-3	1,1-Dichloroethane	2.5	18	0.68	2.5	
107-06-2	1,2-Dichloroethane	2.5	2.5	0.45	2.5	U
75-35-4	1,1-Dichloroethene	2.5	29	0.60	2.5	
156-59-2	cis-1,2-Dichloroethene	2.5	370	0.52		
156-60-5	trans-1,2-Dichloroethene	2.5	0.85	0.40		
540-59-0	1,2-Dichloroethene (Total)	2.5	370	0.92		
78-87-5	1,2-Dichloropropane	2.5	2.5	0.65		
142-28-9	1,3-Dichloropropane	2.5	2.5	0.58		
594-20-7	2,2-Dichloropropane	2.5	2.5	0.68		



000025

C-7

SDG: 1510440

Project: GE Caribe - Vieques, PR

File ID: 1510440-07.D

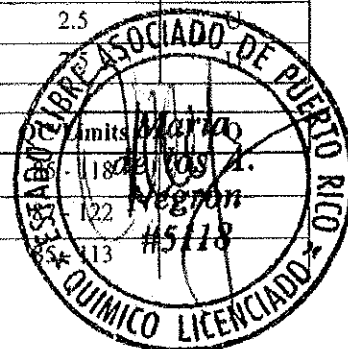
Analyzed: 10/30/15 03:49

Initial/Final: 5 mL / 5 mL

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	2.5	2.5	0.58	2.5	U
10061-01-5	cis-1,3-Dichloropropene	2.5	2.5	0.52	2.5	U
10061-02-6	trans-1,3-Dichloropropene	2.5	2.5	0.55	2.5	U
100-41-4	Ethylbenzene	2.5	0.18	0.16	2.5	J
591-78-6	2-Hexanone	2.5	25	1.4	25	U
98-82-8	Isopropylbenzene	2.5	2.5	0.28	2.5	U
99-87-6	4-Isopropyltoluene	2.5	2.5	0.78	2.5	U
1634-04-4	Methyl tert-Butyl Ether	2.5	12	0.62	12	U
75-09-2	Methylene Chloride	2.5	1.4	0.58	12	J
78-93-3	2-Butanone (MEK)	2.5	25	2.4	25	U
108-10-1	4-Methyl-2-pentanone (MIBK)	2.5	25	0.88	25	U
103-65-1	n-Propylbenzene	2.5	2.5	0.58	2.5	U
100-42-5	Styrene	2.5	2.5	0.58	2.5	U
630-20-6	1,1,1,2-Tetrachloroethane	2.5	2.5	0.62	2.5	U
79-34-5	1,1,2,2-Tetrachloroethane	2.5	2.5	0.65	2.5	U
127-18-4	Tetrachloroethene	2.5	2.5	0.38	2.5	U
108-88-3	Toluene	2.5	2.5	0.72	2.5	U
71-55-6	1,1,1-Trichloroethane	2.5	2.5	0.48	2.5	U
79-00-5	1,1,2-Trichloroethane	2.5	2.5	0.68	2.5	U
79-01-6	Trichloroethene	2.5	1.8	0.58	2.5	J
75-69-4	Trichlorofluoromethane	2.5	2.5	0.58	2.5	U
96-18-4	1,2,3-Trichloropropane	2.5	2.5	0.35	2.5	U
95-63-6	1,2,4-Trimethylbenzene	2.5	2.5	0.65	2.5	U
108-67-8	1,3,5-Trimethylbenzene	2.5	2.5	0.15	2.5	U
108-05-4	Vinyl Acetate	2.5	25	0.80	25	U
75-01-4	Vinyl Chloride	2.5	5.0	0.52	5.0	U
179601-23-1	Xylene, Meta + Para	2.5	5.0	0.60	5.0	U
95-47-6	Xylene, Ortho	2.5	2.5	0.30	2.5	U
1330-20-7	Xylene (Total)	2.5	7.5	0.90		

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.
Dibromofluoromethane	40.0	39.7	99
1,2-Dichloroethane-d4	40.0	39.9	100
Toluene-d8	40.0	39.0	97



000226

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-7

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-07

File ID: 1510440-07.D

Sampled: 10/20/15 11:40

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 03:49

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.6	99	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1018042	5.897	101	5.915	
Chlorobenzene-d5	704213	10.286	101	10.305	
1,4-Dichlorobenzene-d4	348398	13.28	101	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-8

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-08

File ID: 1510440-08.D

Sampled: 10/20/15 11:05

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 01:27

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	2.9	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.7	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.4	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	1.4	0.37	1.0	U
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U



000240

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-8

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-08

File ID: 1510440-08.D

Sampled: 10/20/15 11:05

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 01:27

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

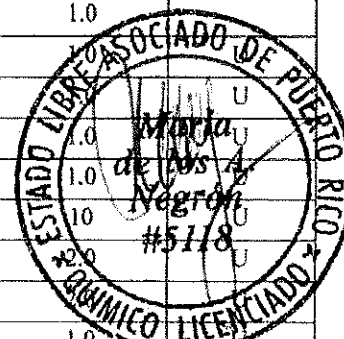
QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	0.15	0.065	1.0	J
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	12	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U



System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
Dibromofluoromethane	40.0	39.3	98	85 - 118	
1,2-Dichloroethane-d4	40.0	39.8	100	87 - 122	
Toluene-d8	40.0	39.4	98	85 - 113	

000241

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-8

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-08

File ID: 1510440-08.D

Sampled: 10/20/15 11:05

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 01:27

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.5	99	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	998366	5.897	99	5.915	
Chlorobenzene-d5	692962	10.286	99	10.305	
1,4-Dichlorobenzene-d4	339667	13.279	98	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-9

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-09

File ID: 1510440-09.D

Sampled: 10/20/15 13:55

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 01:55

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

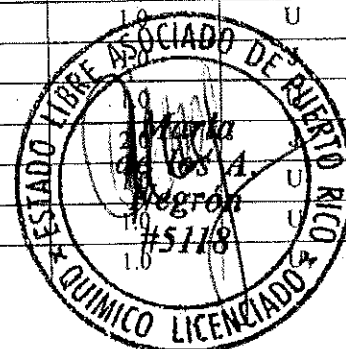
QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	0.78	0.21		
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16		
540-59-0	1,2-Dichloroethene (Total)	1	0.78	0.37		
78-87-5	1,2-Dichloropropane	1	1.0	0.26		
142-28-9	1,3-Dichloropropane	1	1.0	0.23		
594-20-7	2,2-Dichloropropane	1	1.0	0.27		



0002/1

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-9

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-09

File ID: 1510440-09.D

Sampled: 10/20/15 13:55

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 01:55

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	0.36	0.23	1.0	J
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36		

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.
Dibromofluoromethane	40.0	39.5	99
1,2-Dichloroethane-d4	40.0	39.9	100
Toluene-d8	40.0	39.6	99



000252

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-9

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-09

File ID: 1510440-09.D

Sampled: 10/20/15 13:55

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 01:55

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.6	99	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1018662	5.897	101	5.915	
Chlorobenzene-d5	711446	10.286	102	10.305	
1,4-Dichlorobenzene-d4	344168	13.28	99	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-10

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-10

File ID: 1510440-10.D

Sampled: 10/19/15 14:20

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 02:24

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

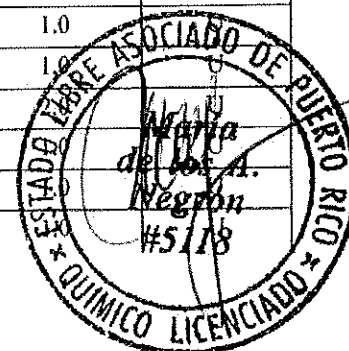
QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	110	2.4	10	
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	3.4	0.14	5.0	J
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37		
78-87-5	1,2-Dichloropropane	1	1.0	0.26		
142-28-9	1,3-Dichloropropane	1	1.0	0.23		
594-20-7	2,2-Dichloropropane	1	1.0	0.27		



000259

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-10

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-10

File ID: 1510440-10.D

Sampled: 10/19/15 14:20

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 02:24

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

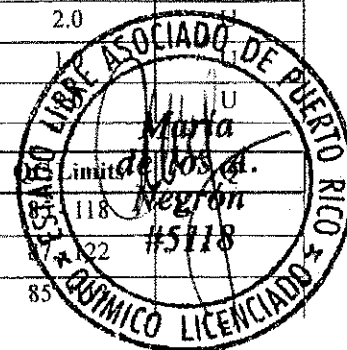
Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	13	0.55	10	
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	0.27	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	30	0.96	10	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	0.38	0.21	2.0	J
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.
Dibromofluoromethane	40.0	40.1	100
1,2-Dichloroethane-d4	40.0	40.0	100
Toluene-d8	40.0	39.4	98



000260

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-10

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-10

File ID: 1510440-10.D

Sampled: 10/19/15 14:20

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 02:24

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	40.2	101	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	976004	5.897	97	5.915	
Chlorobenzene-d5	681311	10.286	97	10.305	
1,4-Dichlorobenzene-d4	339645	13.279	98	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-11

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-11

File ID: 1510440-11.D

Sampled: 10/20/15 14:30

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 02:52

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	2.6	2.4	10	J
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	7.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	2.4	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	2.4	0.37	1.0	U
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U



000272

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

C-11

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-11

File ID: 1510440-11.D

Sampled: 10/20/15 14:30

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 02:52

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

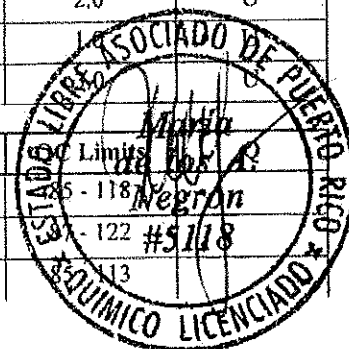
Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	0.22	0.15	1.0	J
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	48	0.23	1.0	
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12		
1330-20-7	Xylene (Total)	1	3.0	0.36		

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.
Dibromofluoromethane	40.0	39.6	99
1,2-Dichloroethane-d4	40.0	40.1	100
Toluene-d8	40.0	39.2	98



000273

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

C-11

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-11

File ID: 1510440-11.D

Sampled: 10/20/15 14:30

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 02:52

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	40.1	100	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	995728	5.897	99	5.915	
Chlorobenzene-d5	688834	10.286	98	10.305	
1,4-Dichlorobenzene-d4	340210	13.279	98	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

EB-101915

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-12

File ID: 1510440-12.D

Sampled: 10/19/15 12:40

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 21:40

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	10	2.4	10	U
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	4.2	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37	1.0	U
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U



000283

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

EB-101915

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-12

File ID: 1510440-12.D

Sampled: 10/19/15 12:40

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 21:40

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

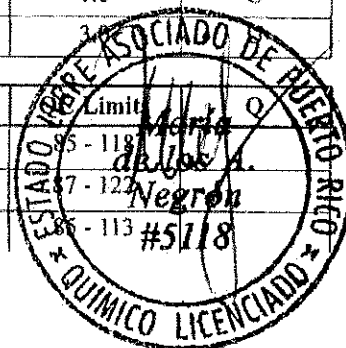
Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	0.29	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36		

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.
Dibromofluoromethane	40.0	39.5	99
1,2-Dichloroethane-d4	40.0	40.0	100
Toluene-d8	40.0	39.4	98



000264

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

EB-101915

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-12

File ID: 1510440-12.D

Sampled: 10/19/15 12:40

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 21:40

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.5	99	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1005809	5.903	100	5.915	
Chlorobenzene-d5	696516	10.292	100	10.305	
1,4-Dichlorobenzene-d4	338691	13.286	98	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

EB-102015

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-13

File ID: 1510440-13.D

Sampled: 10/20/15 09:05

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 22:08

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	4.0	2.4	10	J
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	0.44	0.26	1.0	J
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.5	0.21	1.0	
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16		
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37		
78-87-5	1,2-Dichloropropane	1	1.0	0.26		
142-28-9	1,3-Dichloropropane	1	1.0	0.23		
594-20-7	2,2-Dichloropropane	1	1.0	0.27		



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

EB-102015

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-13

File ID: 1510440-13.D

Sampled: 10/20/15 09:05

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 22:08

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

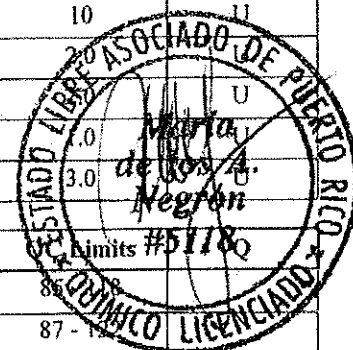
Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21		U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24		U
95-47-6	Xylene, Ortho	1	1.0	0.12		U
1330-20-7	Xylene (Total)	1	3.0	0.36		U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits
Dibromofluoromethane	40.0	39.3	98	85 - 113
1,2-Dichloroethane-d4	40.0	39.9	100	
Toluene-d8	40.0	39.4	99	



ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

EB-102015

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-13

File ID: 1510440-13.D

Sampled: 10/20/15 09:05

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 22:08

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.7	99	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1006686	5.903	100	5.915	
Chlorobenzene-d5	695547	10.292	99	10.305	
1,4-Dichlorobenzene-d4	339315	13.286	98	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

Trip Blank TM 1266

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-14

File ID: 1510440-14.D

Sampled: 10/20/15 00:00

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 14:44

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

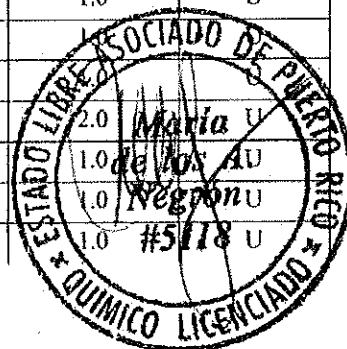
QC Batch: 1511821

Sequence: 5K02029

Calibration: SJ30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	11	2.4	10	
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21		
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16		
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37		
78-87-5	1,2-Dichloropropane	1	1.0	0.26		
142-28-9	1,3-Dichloropropane	1	1.0	0.23		
594-20-7	2,2-Dichloropropane	1	1.0	0.27		



000300

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

Trip Blank TM 1266

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-14

File ID: 1510440-14.D

Sampled: 10/20/15 00:00

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 14:44

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	1.0	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC
Dibromofluoromethane	40.0	39.3	98	
1,2-Dichloroethane-d4	40.0	40.1	100	
Toluene-d8	40.0	39.3	98	



ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

Trip Blank TM 1266

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-14

File ID: 1510440-14.D

Sampled: 10/20/15 00:00

Prepared: 10/30/15 07:00

Analyzed: 10/30/15 14:44

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511821

Sequence: 5K02029

Calibration: SJ30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.2	98	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	971550	5.891	100	5.915	
Chlorobenzene-d5	676012	10.286	99	10.305	
1,4-Dichlorobenzene-d4	333033	13.28	97	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

Trip Blank TM 0093

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-15

File ID: 1510440-15.D

Sampled: 10/20/15 00:00

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 22:36

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

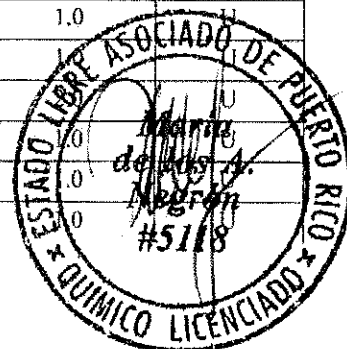
QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	11	2.4	10	
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16		U
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37		U
78-87-5	1,2-Dichloropropane	1	1.0	0.26		U
142-28-9	1,3-Dichloropropane	1	1.0	0.23		U
594-20-7	2,2-Dichloropropane	1	1.0	0.27		U



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

Trip Blank TM 0093

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-15

File ID: 1510440-15.D

Sampled: 10/20/15 00:00

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 22:36

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	0.36	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.
Dibromofluoromethane	40.0	39.5	99
1,2-Dichloroethane-d4	40.0	40.1	100
Toluene-d8	40.0	39.5	99



000309

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

Trip Blank TM 0093

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-15

File ID: 1510440-15.D

Sampled: 10/20/15 00:00

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 22:36

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.7	99	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1007322	5.897	100	5.915	
Chlorobenzene-d5	698413	10.292	100	10.305	
1,4-Dichlorobenzene-d4	339775	13.286	98	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

W-A

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-16

File ID: 1510440-16.D

Sampled: 10/20/15 12:00

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 03:20

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	2.5	2.4	10	J
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	10	0.29	10	U
75-34-3	1,1-Dichloroethane	1	3.4	0.27	1.0	
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	3.8	0.24	1.0	
156-59-2	cis-1,2-Dichloroethene	1	5.0	0.21	1.0	
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	
540-59-0	1,2-Dichloroethene (Total)	1	5.0	0.37		
78-87-5	1,2-Dichloropropane	1	1.0	0.26		
142-28-9	1,3-Dichloropropane	1	1.0	0.23		
594-20-7	2,2-Dichloropropane	1	1.0	0.27		



000316

ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

W-A

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-16

File ID: 1510440-16.D

Sampled: 10/20/15 12:00

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 03:20

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

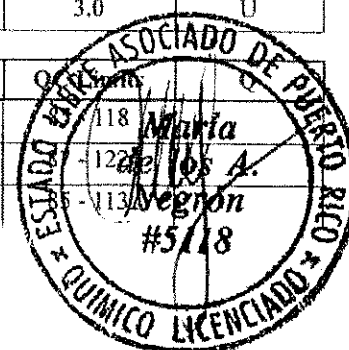
Sequence: 5130014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	5.0	0.23	5.0	U
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	0.25	0.15	1.0	J
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	22	0.23	1.0	
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.
Dibromofluoromethane	40.0	39.7	99
1,2-Dichloroethane-d4	40.0	40.2	100
Toluene-d8	40.0	39.6	99



000317

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

W-A

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-16

File ID: 1510440-16.D

Sampled: 10/20/15 12:00

Prepared: 10/29/15 18:00

Analyzed: 10/30/15 03:20

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.8	99	82 - 110	

* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1009396	5.897	100	5.915	
Chlorobenzene-d5	702492	10.286	100	10.305	
1,4-Dichlorobenzene-d4	343025	13.28	99	13.292	

* Values outside of QC limits



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

Storage Blank

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-17

File ID: 1510440-17.D

Sampled: 10/22/15 14:19

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 23:05

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	1	2.6	2.4	10	J
71-43-2	Benzene	1	1.0	0.27	1.0	U
108-86-1	Bromobenzene	1	1.0	0.21	1.0	U
74-97-5	Bromochloromethane	1	1.0	0.22	1.0	U
75-27-4	Bromodichloromethane	1	1.0	0.26	1.0	U
75-25-2	Bromoform	1	1.0	0.14	1.0	U
74-83-9	Bromomethane	1	1.0	0.18	1.0	U
104-51-8	n-Butylbenzene	1	1.0	0.28	1.0	U
135-98-8	sec-Butylbenzene	1	1.0	0.10	1.0	U
98-06-6	tert-Butylbenzene	1	1.0	0.11	1.0	U
75-15-0	Carbon Disulfide	1	5.0	0.14	5.0	U
56-23-5	Carbon Tetrachloride	1	1.0	0.30	1.0	U
108-90-7	Chlorobenzene	1	1.0	0.24	1.0	U
75-00-3	Chloroethane	1	1.0	0.22	1.0	U
67-66-3	Chloroform	1	1.0	0.21	1.0	U
74-87-3	Chloromethane	1	1.0	0.18	1.0	U
95-49-8	2-Chlorotoluene	1	1.0	0.16	1.0	U
106-43-4	4-Chlorotoluene	1	1.0	0.30	1.0	U
124-48-1	Dibromochloromethane	1	1.0	0.29	1.0	U
106-93-4	1,2-Dibromoethane	1	5.0	0.14	5.0	U
74-95-3	Dibromomethane	1	1.0	0.21	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	0.22	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	0.13	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	0.21	1.0	U
75-71-8	Dichlorodifluoromethane	1	1.0	0.29	1.0	U
75-34-3	1,1-Dichloroethane	1	1.0	0.27	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	0.18	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	0.24	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	0.21	1.0	U
156-60-5	trans-1,2-Dichloroethene	1	1.0	0.16	1.0	U
540-59-0	1,2-Dichloroethene (Total)	1	2.0	0.37	1.0	U
78-87-5	1,2-Dichloropropane	1	1.0	0.26	1.0	U
142-28-9	1,3-Dichloropropane	1	1.0	0.23	1.0	U
594-20-7	2,2-Dichloropropane	1	1.0	0.27	1.0	U



ORGANIC ANALYSIS DATA SHEET

USEPA-8260B

Storage Blank

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-17

File ID: 1510440-17.D

Sampled: 10/22/15 14:19

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 23:05

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

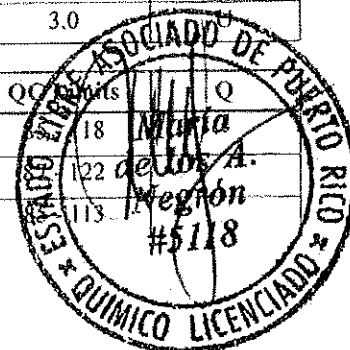
Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

CAS No.	Analyte	Dilution	CONC. (ug/L)	MDL	MRL	Q
563-58-6	1,1-Dichloropropene	1	1.0	0.23	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	0.21	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1	1.0	0.22	1.0	U
100-41-4	Ethylbenzene	1	1.0	0.065	1.0	U
591-78-6	2-Hexanone	1	10	0.55	10	U
98-82-8	Isopropylbenzene	1	1.0	0.11	1.0	U
99-87-6	4-Isopropyltoluene	1	1.0	0.31	1.0	U
1634-04-4	Methyl tert-Butyl Ether	1	5.0	0.25	5.0	U
75-09-2	Methylene Chloride	1	1.1	0.23	5.0	J
78-93-3	2-Butanone (MEK)	1	10	0.96	10	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1	10	0.35	10	U
103-65-1	n-Propylbenzene	1	1.0	0.23	1.0	U
100-42-5	Styrene	1	1.0	0.23	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1	1.0	0.25	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	0.26	1.0	U
127-18-4	Tetrachloroethene	1	1.0	0.15	1.0	U
108-88-3	Toluene	1	1.0	0.29	1.0	U
71-55-6	1,1,1-Trichloroethane	1	1.0	0.19	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	0.27	1.0	U
79-01-6	Trichloroethene	1	1.0	0.23	1.0	U
75-69-4	Trichlorofluoromethane	1	1.0	0.23	1.0	U
96-18-4	1,2,3-Trichloropropane	1	1.0	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1	1.0	0.26	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1	1.0	0.060	1.0	U
108-05-4	Vinyl Acetate	1	10	0.32	10	U
75-01-4	Vinyl Chloride	1	2.0	0.21	2.0	U
179601-23-1	Xylene, Meta + Para	1	2.0	0.24	2.0	U
95-47-6	Xylene, Ortho	1	1.0	0.12	1.0	U
1330-20-7	Xylene (Total)	1	3.0	0.36	3.0	U

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.
Dibromofluoromethane	40.0	39.3	98
1,2-Dichloroethane-d4	40.0	40.3	101
Toluene-d8	40.0	39.3	98



000330

ORGANIC ANALYSIS DATA SHEET
USEPA-8260B

Storage Blank

Laboratory: TriMatrix Laboratories, Inc.

SDG: 1510440

Client: MWH Americas - Farmington Hills, MI

Project: GE Caribe - Vieques, PR

Matrix: Water

Laboratory ID: 1510440-17

File ID: 1510440-17.D

Sampled: 10/22/15 14:19

Prepared: 10/29/15 18:00

Analyzed: 10/29/15 23:05

Solids: NA

Preparation: 5030B Aqueous Purge &

Initial/Final: 5 mL / 5 mL

QC Batch: 1511719

Sequence: 5J30014

Calibration: 5J30003

Instrument: 328

System Monitoring Compound	ADDED (ug/L)	CONC (ug/L)	% REC.	QC Limits	Q
4-Bromofluorobenzene	40.0	39.5	99	82 - 110	

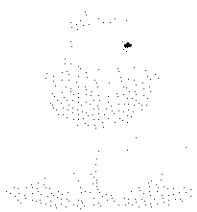
* Values outside of QC limits

Internal Standard	Area	RT	% REC.	Ref. RT	Q
Fluorobenzene	1014161	5.897	101	5.915	
Chlorobenzene-d5	700813	10.292	100	10.305	
1,4-Dichlorobenzene-d4	340425	13.286	98	13.292	

* Values outside of QC limits



USEPA
Hazardous Waste Support Branch
Validating Volatile Organic Compounds
By Gas Chromatography/Mass Spectrometry
SW-846 Method 8260B



Prepared by: George Karras Date: 12/8/06
George Karras, Chemist
Hazardous Waste Support Section

Prepared by: Russell Arnone Date: 12/8/06
Russell Arnone, Chemist
Hazardous Waste Support Section

Concurred by: Linda M. Mauer Date: 12/8/06
Linda Mauer, Chief
Hazardous Waste Support Section

Approved by: Robert Runyon Date: 12/11/06
Robert Runyon, Chief
Hazardous Waste Support Branch

Annual Review

Reviewed by: _____ Date: _____
Name

Reviewed by: _____ Date: _____
Name

Scope and Applicability

This SOP offers detailed guidance in evaluating laboratory data generated according to the USEPA SW-846, Method 8260B December 1996. The validation methods and actions discussed in this document are based on the requirements set forth in USEPA SW-846, Method 8260B and Method 8000C, Rev 3, March 2003; and "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," January, 2005. This document covers technical as well as method specific problems; however situations may arise where data limitations must be assessed based on the reviewer's own professional judgement.

Summary

To ensure a thorough evaluation of each result in a data case, the reviewer must complete the checklist within this SOP, answering specific questions while performing the prescribed "ACTIONS" in each section. Qualifiers (or flags) are applied to questionable or unusable results as instructed. The data qualifiers discussed in this document are defined on page 4.

The reviewer must prepare a detailed data assessment to be submitted along with the complete SOP checklist. The Data Assessment must list all data qualifications, reasons for qualifications, instances of missing data, and contract non-compliance.

DEFINITIONS

Acronyms

BNA - base neutral acid (another name for Semi Volatiles)
CLP - Contract Laboratory Program
CRQL - Contract Required Quantitation Limit
CF - calibration factor
%D - percent difference
DCB - decachlorobiphenyl
DDD - dichlorodiphenyldichloroethane
DDE - dichlorodiphenylethane
DDT - dichlorodiphenyltrichloroethane
DoC - Date of Collection
GC - gas chromatography
GC/ECD - gas chromatograph/electron capture detector
GC/MS - gas chromatograph/mass spectrometer
GPC - gel permeation chromatography
IS - internal standard
kg - kilogram
µg - microgram
MS - matrix spike
MSD - matrix spike duplicate
l - liter
ml - milliliter
PCB - Polychlorinated biphenyl
PE - performance evaluation
PEM - Performance Evaluation Mixture
QC - quality control
RAS - Routine Analytical Services
RIC - reconstructed ion chromatogram
RPD - relative percent difference
RRF - relative response factor
RRF - average relative response factor (from initial calibration)
RRT - relative retention time
RSD - relative standard deviation
RT - retention time
RSCC - Regional Sample Control Center
SDG - sample delivery group
SMC - system monitoring compound
SOP - standard operating procedure
SOW - Statement of Work
SVOA - semivolatile organic acid
TCL - Target Compound List
TCLP - Toxicity Characteristics Leachate Procedure
TCX - tetrachloro-m-xylene
TIC - tentatively identified compound

TOPO - Task Order Project Officer
TPO - Technical Project Officer
VOA - Volatile organic
VTSR - Validated Time of Sample Receipt

Data Qualifiers

- U -The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J -The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- N -The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
- JN -The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ -The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R -The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

LAB QUALIFIERS:

- D - The positive value is the result of an analysis at a secondary dilution factor.
- B - The analyte is present in the associated method blank as well as in the sample. This qualifier has a different meaning when validating inorganic data.
- E - The concentration of this analyte exceeds the calibration range of the instrument.
- A - Indicates a Tentatively Identified Compound (TIC) is a suspected adul- condensation product.

X,Y,Z- Laboratory defined flags. The data reviewer must change these qualifiers during validation so that the data user may understand their impact on the data.

USEPA Region II
SW846 Method 8260B VOA

Date: January 2006
SOP: HW-24, Rev. 2

YES NO N/A

I. PACKAGE COMPLETENESS AND DELIVERABLES

CASE NUMBER: Vieques 1510440 LAB: Trimatrix Laboratories

SITE NAME: GE - Caribe Vieques Puerto Rico

1.0 Data Completeness and Deliverables

1.1 Has all data been submitted in CLP deliverable
format or CLP Forms Equivalent?

[X] ___

ACTION: If not, note the effect on review of the data in
the Data Assessment narrative.

2.0 Cover Letter, SDG Narrative

2.1 Is a laboratory narrative, and/or cover letter
signed release present?

[X] ___

2.2 Are case number and SDG number(s) contained
in the narrative or cover letter?

[X] ___

ACTION: If not, note the effect on review of the data in
the Data Assessment narrative.

II. VOLATILE ANALYSES

1.0 Traffic Reports and Laboratory Narrative

1.1 Are the Traffic Reports, and/or Chain of Custodies
from the field samplers present for all samples
sign release present?

[X] ___

ACTION: If no, contact the laboratory/sampling team for replacement
of missing or illegible copies.

1.2 Is a sampling trip report present (if required)?

[X] ___

1.3 Sample Conditions/Problems

YES NO N/A

1.3.1 Do the Traffic Reports, Chain of Custodies, or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special notations affecting the quality of the data? [X]

ACTION: If all the VOA vials for a sample have air bubbles or the VOA vial analyzed had air bubbles, flag all positive results "J" and all non-detects "R".

ACTION: If any sample analyzed as a soil, other than TCLP, contains 50%-90% water, all data should be flagged as estimated ("J"). If a soil sample, other than TCLP, contains more than 90% water, flag all positive results "J" and all non-detects "R".

ACTION: If samples were not iced or if the ice was melted upon receipt at the laboratory and the temperature of the cooler was elevated ($>10^{\circ}\text{C}$), flag all positive results "J" and all non-detects non"UJ".

2.0 Holding Times

2.1 Have any volatile holding times, determined from date of collection to date of analysis, been exceeded? [X]

The maximum holding time for aqueous samples is 14 days.

The maximum holding time for soils non aqueous samples is 14 days.

NOTE: If unpreserved, aqueous samples maintained at 4°C for aromatic hydrocarbons analysis must be analyzed within 7 days. If preserved with HCL acid to a $\text{pH}<2$ and stored at 4°C , then aqueous samples must be analyzed within 14 days from time of collection. For non-aqueous samples for volatile components that are frozen (less than 7°C) or are properly cooled ($4^{\circ}\text{C} \pm 2^{\circ}\text{C}$) and perserved with NaHSO_4 , the maximum holding time is 14 days from sample collection. If

YES NO N/A

uncertain about preservation, contact the laboratory /sampling team to determine whether or not samples were preserved.

ACTION: Qualify sample results according to Table 1:

Table 1. Holding Time Actions for Trace Volatile Analysis

Matrix	Preserved	Criteria	Action	
			Detected Associated Compounds	Non-Detected Associated Compounds
Aqueous	No	≤ 7 days	No qualifications	
	No	> 7 days	J	R
	Yes	≤ 14 days	No qualifications	
	Yes	> 14 days	J	R
Non Aqueous	No	≤ 14 days	J	R
	Yes	≤ 14 days	No qualifications	
	Yes/No	> 14 days	J	R

3.0 Surrogate Recovery (CLP Form II Equivalent)

3.1 Have the volatile surrogate recoveries been listed on Surrogate Recovery forms for each of the following matrices:

- a. Water [X] — —
- b. Soil [] — X

3.2 If so, are all the samples listed on the appropriate Surrogate Recovery forms for each matrix:

- a. Water [X] — —
- b. Soil [] — X

ACTION: If large errors exist, deliverables are unavailable or information is missing, document the effect(s) in Data

YES NO N/A

Assessments and contact the laboratory/project officer/appropriate official for an explanation /resubmittal, make any necessary corrections and document effect in the Data Assessment.

- 3.3. Were the surrogate recovery limits followed per Table 2. If Table 2 criteria were not followed, the laboratory may use in-house performance criteria (per SW-846, Method 8000C, section 9.7). Other compounds may be used as surrogates, depending upon the analysis requirements. [X]

Table 2. Surrogate Spike Recovery Limits for Water and Soil/Sediments

DMC	IN-HOUSE	Recovery Limits (%)Water	Recovery Limits Soil/Sediment
4-Bromofluorobenzene		80-120	70-130
Dibromofluoromethane		80-120	70-130
Toluene-d ₈		80-120	70-130
Dichloroethane-d ₄		80-120	70-130

Note: Use above table if laboratory did not provide in house recovery criteria.

Note: Other compounds may be used as surrogated depending upon the analysis requirements.

- 3.4 Were outliers marked correctly with an asterisk? [] X

ACTION: Circle all outliers with a red pencil.

- 3.5 Were one or more volatile surrogate recoveries out of specification for any sample or method blank. Table 2. [] X

If yes, were samples reanalyzed? [] X

Were method blanks reanalyzed? [] X

YES NO N/A

ACTION: If all surrogate recoveries are > 10% but 1 or more compounds do not meet method specifications:

1. Flag all positive results as estimated ("J").
2. Flag all non-detects as estimated detection limits ("UJ") when recoveries are less than the lower acceptance limit.
3. If recoveries are greater than the upper acceptance limit, do not qualify non-detects, but qualify positive results as estimated "J".

If any surrogate has a recovery of < 10%:

1. Positive results are qualified with ("J").
2. Non-detects for that should be qualified as unusable ("R").

NOTE: Professional judgement should be used to qualify data that have method blank surrogate recoveries out of specification in both original and reanalyses. The basic concern is whether the blank problems represent an isolated problem with the blank alone or whether there is a fundamental problem with the analytical process. If one or more samples in the batch show acceptable surrogate recoveries, the reviewer may choose the blank problem to be an isolated occurrence.

3.6 Are there any transcription/calculation errors between raw data and reported data?

☐ ☒ ☐

ACTION: If large errors exist, take action as specified in section 3.2 above.

4.0 Laboratory Control Sample(Form III/Equivalent)

4.1 Is the LCS prepared, extracted, analyzed, and reported once for every 20 field samples of a similar matrix, per SDG.

☒ ☐ ☐

YES NO N/A

Note: LCS consists of an aliquot of a clean (control) matrix similar to the sample matrix and of the same weight or volume.

ACTION: If any Laboratory Control Sample data are missing, call the lab for explanation /resubmittals. Make note in the data assessment.

4.2 Were the Laboratory Control Samples analyzed at the required frequency for each of the following matrices:

A. Water	<u>[X]</u>	___	___
B. Soil	<u>[]</u>	___	<u>X</u>
C. Med Soil	<u>[]</u>	___	<u>X</u>

Note: The LCS is spiked with the same analytes at the same concentrations as the matrix spike (SW-846 8000C, Section 9.5). If different make note in data assessment. Matrix/LCS spiking standards should be prepared from volatile organic compounds which are representative of the compounds being investigating. At a minimum, the matrix spike should include 1,1-dichloroethene, trichloroethene, chlorobenzene, toluene, and benzene.

ACTION: If any MS/MD, MS/MSD or replicate data are missing, take the action specified in 3.2 above.

4.3 Have in house LCS recovery limits been developed (Method 8000C, Sect 9.7). [X] ___ ___

4.4 If in house limits are not developed, are LCS acceptance recovery limits between 70 - 130% (Method 8000c Sect 9.5)? [] ___ X

4.5 Were one or more of the volatile LCS recoveries outside the in house laboratory recovery criteria for spiked analytes? If in house limits are not present use 70 - 130% recovery limits. [] X ___

YES NO N/A

Table 3. LCS Actions for Volatile Analysis

Criteria	Action	
	Detected Spiked Compounds	Non-Detected Spiked Compounds
%R > Upper Acceptance Limit	J	No Qualifiers
%R < Lower Acceptance Limit	J	UJ
Lower Acceptance Limit $\leq$ %R	No Qualifications	

5.0 Matrix Spikes (Form III or equivalent)

5.1 Are all data for matrix spike and matrix duplicate or matrix spike duplicate (MS/MD or MS/MSD) present and complete for each matrix? X

NOTE: The laboratory should use one matrix spike and a duplicate analysis of an unspiked field sample if target analytes are expected in the sample. If the sample is not expected to contain target analytes, a MS/MSD should be analyzed (SW-846, Method 8260B, Sect 8.4.2).

5.2 Have MS/MD or MS/MSD results been summarized on modified CLP Form III? X

ACTION: If any data are missing take action as specified in section 3.2 above.

5.3 Were matrix spikes analyzed at the required frequency for each of the following matrices? (One MS/MD, MS/MSD or laboratory replicate must be performed for every 20 samples)

YES NO N/A

of similar matrix or concentration level. Laboratories analyzing one to ten samples per month are required to analyze at least one MS per month [page 8000C, section 9.5.1])

a. Water	<u>1</u>	<u>1</u>	<u>X</u>
b. Waste	<u>1</u>	<u>1</u>	<u>X</u>
c. Soil/Solid	<u>1</u>	<u>1</u>	<u>X</u>

Note: The LCS is spiked with the same analytes at the same concentrations as the matrix spike (SW-846 8000C, Section 9.5). If different make note in data assessment. Matrix/LCS spiking standards should be prepared from volatile organic compounds which are representative of the compounds being investigating. At a minimum, the matrix spike should include 1,1-dichloroethene, trichloroethene, chlorobenzene, toluene, and benzene. The concentration of the LCS should be determined as described SW-Method 8000C Section 9.5.

ACTION: If any MS/MD, MS/MSD or replicate data are missing, take the action specified in 3.2 above.

5.4 Have in house MS recovery limits been developed (Method 8000C, Sect 9.7) for each matrix. 1 1 X

5.5 Were one or more of the volatile MS/MSD recoveries outside of the in-house laboratory recovery criteria for spiked analytes? If none are present, then use 70-130% recovery as per SW-846, 8000C, Sect. 9.5.4. 1 1 X

ACTION: Circle all outliers with a red pencil.

NOTE: If any individual % recovery in the MS (or MSD) falls outside the designated range for recovery the reviewer should determine if there is a matrix effect. A matrix effect is indicated if the LCS data are within limits but the MS data exceeds the limits.

YES NO N/A

NOTE: No qualification of data is necessary on MS and MSD data alone. However, using informed professional judgement, the data reviewer may use MS and MSD results in conjunction with other QC criteria to determine the need for some qualifications.

Note: The data reviewer should first try to determine to what extent the results of the MS and MSD affect the associated data. This determination should be made with regard to the MS and MSD sample itself, as well as specific analytes for all samples associated with the MS and MSD.

Note: In those instances where it can be determined that the results of the MS and MSD affect only the sample spiked, limit qualification to this sample only. However, it may be determined through the MS and MSD results that a laboratory is having a systematic problem in the analysis of one or more analytes that affect all associated samples, and the reviewer must use professional judgement to qualify the data from all associated samples.

Note: The reviewer must use professional judgement to determine the need for qualification of non-spiked compounds.

ACTION: Follow criteria in Table 4 when professional judgement deems qualification of sample.

Table 4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Actions for Volatile Analysis

Criteria	Action	
	Detected Spiked Compounds	Non-Detected Spiked Compounds
%R > Upper Acceptance Limit	J	No Qualifiers
%R < Lower Acceptance Limit	J	UJ
Lower Acceptance Limit ≤ %R	No Qualifications	

YES NO N/A

6.0 Blank (CLP Form IV Equivalent)

6.1 Is the Method Blank Summary form present? [X] ___ ___

6.2 Frequency of Analysis: Has a method blank been analyzed for every 20 (or less) samples of similar matrix or concentration or each extraction batch? [X] ___ ___

6.3 Has a method blank been analyzed for each GC/MS system used ? [X] ___ ___

ACTION: If any blank data are missing, take action as specified above (section 3.2). If blank data is not available, reject (R) all associated positive data. However, using professional judgement, the data reviewer may substitute field blank data for missing method blank data.

6.4 Chromatography: review the blank raw data - chromatograms, quant reports or data system printouts.

Is the chromatographic performance (baseline stability) for each instrument acceptable for volatile organic compounds? [X] ___ ___

7.0 Contamination

NOTE: "Water blanks", "drill blanks" and "distilled water blanks" are validated like any other sample and are not used to qualify the data. Do not confuse them with the other QC blanks discussed below.

7.1 Do any method/instrument/reagent blanks have positive results for target analytes and/or TICs? When applied as described below, the contaminant concentration in these blanks are multiplied by the sample dilution factor and corrected for percent moisture where necessary. [] X ___

YES NO N/A

7.2 Do any field/rinse blanks have positive
volatile organic compound results?

___ X ___

ACTION: Prepare a list of the samples associated with each
of the contaminated blanks. (Attach a separate
sheet.)

NOTE: All field blank results associated to a particular
group of samples (may exceed one per case or one
per day) may be used to qualify data. Blanks may
not be qualified because of contamination in
another blank. Field blanks must be qualified
for surrogate, or calibration QC problems.

ACTION: Follow the directions in Table 5 below to qualify
sample results due to contamination. Use the
largest value from all the associated blanks.

Table 5. Volatile Organic Analysis Blank Contamination Criteria

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, Field, Trip, Instrument**	Detects	Not detected	No qualification
	< CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL	Use professional judgement
	> CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL and < blank contamination	Report the concentration for the sample with a U, or quantify the data as unusable R
		≥ CRQL and ≥ blank contamination	Use professional judgement
	= CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL	Use professional judgement
	Gross contamination	Detects	Qualify results as unusable R

* 2x the CRQL for methylene chloride, 2-butanone, and acetone

** Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.

NOTE: If gross blank contamination exists (e.g., saturated peaks, "hump-o-grams," "junk" peaks), all affected positive compounds in the associated samples should be qualified as unusable "R", due to interference. Non-detected volatile organic target compounds do not require qualification unless the contamination is so high that it interferes with the analyses of non-detected compounds.

YES NO N/A

7.3 Are there field/rinse/equipment blanks associated
with every sample? ☐ ☒ ☐

ACTION: For low level samples, note in data assessment
that there is no associated field/rinse/equipment
blank. Exception: samples taken from a drinking
water tap do not have associated field blanks.

8.0 GC/MS Apparatus and Materials

8.1 Did the lab use the proper gas chromatographic
column(s) for analysis of volatiles by Method 8260B?
Check raw data, instrument logs or contact the lab
to determine what type of column(s) was (were) used. ☒ ☐ ☐

NOTE: For the analysis of volatiles, the method requires
requires the use of 60 m. x 0.75 mm capillary
column, coated with VOCOL(Supelco) or equivalent
column. (see SW-846, page 8260B-7, section 4.9.2)

ACTION: If the specified column, or equivalent, was not used,
document the effects in the Data Assessment. Use
professional judgement to determine the acceptability of the
data.

9.0 GC/MS Instrument Performance Check (CLP Form V Equivalent)

9.1 Are the GC/MS Instrument Performance Check forms
present for Bromofluorobenzene (BFB), and do these
forms list the associated samples with date/time
analyzed? ☒ ☐ ☐

9.2 Are the enhanced bar graph spectrum and
mass/charge (m/z) listing for the BFB
provided for each twelve hour shift? ☒ ☐ ☐

9.3 Has an instrument performance check solution (BFB)

YES NO N/A

been analyzed for every twelve hours of sample analysis per instrument?(see Table 4, SW-846, page 8260B-36)

☒ ☐ ☐

ACTION: List date, time, instrument ID, and sample analyses for which no associated GC/MS GC/MS tuning data are available.

ACTION: If the laboratory/project officer cannot provide missing data, reject ("R") all data generated outside an acceptable twelve hour calibration interval.

ACTION: If mass assignment is in error, flag all associated sample data as unusable, "R".

9.4 Have the ion abundances been normalized to m/z 95?

☒ ☐ ☐

9.5 Have the ion abundance criteria been met for each instrument used?

☒ ☐ ☐

ACTION: List all data which do not meet ion abundance criteria (attach a separate sheet).

ACTION: If ion abundance criteria are not met, take action as specified in section 3.2.

9.6 Are there any transcription/calculation errors between mass lists and reported values? (Check at least two values but if errors are found, check more.)

☐ ☒ ☐

9.7 Have the appropriate number of significant figures (two) been reported?

☒ ☐ ☐

ACTION: If large errors exist, take action as specified in section 3.2.

9.8 Are the spectra of the mass calibration compounds acceptable.

☒ ☐ ☐

ACTION: Use professional judgement to determine wheather associated data should be accepted, qualified, or rejected.

YES NO N/A

10.0 Target Analytes (CLP Form I Equivalent)

10.1 Are the Organic Analysis reporting forms present with required header information on each page, for each of the following:

a. Samples and/or fractions as appropriate	<u>[X]</u>	___	___
b. Matrix spikes and matrix spike duplicates	<u>[]</u>	___	<u>X</u>
c. Blanks	<u>[X]</u>	___	___
d. Laboratory Control Samples	<u>[X]</u>	___	___

10.2 Are the reconstructed Ion Chromatograms, mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?

a. Samples and/or fractions as appropriate	<u>[X]</u>	___	___
b. Matrix spikes and matrix spike duplicates (Mass spectra not required)	<u>[]</u>	___	<u>X</u>
c. Blanks	<u>[X]</u>	___	___
d. Laboratory Control Samples	<u>[X]</u>	___	___

ACTION: If any data are missing, take action specified in 3.2 above.

10.3 Is chromatographic performance acceptable with respect to:

Baseline stability?	<u>[X]</u>	___	___

YES NO N/A

Resolution?

☒ ☐ ☐

Peak shape?

☒ ☐ ☐

Full-scale graph (attenuation)?

☒ ☐ ☐

Other: _____

ACTION: Use professional judgement to determine the acceptability of the data.

10.4 Are the lab-generated standard mass spectra of identified volatile compounds present for each sample? ☒ ☐ ☐

ACTION: If any mass spectra are missing, take action specified in 3.2 above. If the lab does not generate their own standard spectra, make a note in the Data Assessment. If spectra are missing, contact the lab.

10.5 Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration? ☒ ☐ ☐

10.6 Are all ions present in the standard mass spectrum at a relative intensity greater than 10% (of the most abundant ion) also present in the sample mass spectrum? ☒ ☐ ☐

10.7 Do the relative intensities of the characteristic ions in the sample agree within $\pm 30\%$ of the corresponding relative intensities in the reference spectrum? ☒ ☐ ☐

ACTION: Use professional judgement to determine acceptability of data. If it is determined that incorrect identifications were made, all such data should be rejected ("R"), flagged ("N") - Presumptive evidence of the presence of the compound) or changed to non detected ("U") at the calculated detection limit. In order to be

YES NO N/A

positively identified, the data must comply with the criteria listed in 9.6, 9.7, and 9.8.

ACTION: When sample carry-over is a possibility, professional judgement should be used to determine if instrument cross-contamination has affected any positive compound identification.

11.0 Tentatively Identified Compounds (TIC) (CLP Form I/TIC Equivalent)

11.1 If Tentatively Identified Compound were required for this project, are all Tentatively Identified Compound reporting forms present; and do listed TICs include scan number or retention time, estimated concentration and a qualifier? 1 X

NOTE: Add "N" qualifier to all TICs which have CAS number, if missing.

NOTE: Have the project officer/appropriate official check the project plan to determine if lab was required to identify non-target analytes (SW-846, page 8260B-23, Sect. 7.6.2).

11.2 Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:

- a. Samples and/or fractions as appropriate 1 X
- b. Blanks 1 X

ACTION: If any TIC data are missing, take action specified in 3.2 above.

ACTION: Add "JN" qualifier only to analytes identified by a CAS#.

NOTE: If TICs are present in the associated blanks take action as specified in section 3.2 above.

YES NO N/A

11.3 Are any priority pollutants listed as TIC compounds (i.e., an BNA compound listed as a VOA TIC)? X

ACTION: 1. Flag with "R" any target compound listed as a TIC.
2. Make sure all rejected compounds are properly reported if they are target compounds.

11.4 Are all ions present in the reference mass spectrum with a relative intensity greater than 10% (of the most abundant ion) also present in the sample mass spectrum? X

11.5 Do TIC and "best match" standard relative ion intensities agree within $\pm 20\%$? X

ACTION: Use professional judgement to determine acceptability of TIC identifications. If it is determined that an incorrect identification was made, change the identification to "unknown" or to some less specific identification (example: "C3 substituted benzene") as appropriate. Also, when a compound is not found in any blank, but is a suspected artifact of a common laboratory contaminant, the result should be qualified as unusable, "R". (Common lab contaminants: CO₂ (M/E 44), Siloxanes (M/E 73), Hexane, Aldol Condensation Products, Solvent Preservatives, and related byproducts).

12.0 Compound Quantitation and Reported Detection Limits

12.1 Are there any transcription/calculation errors in organic analysis reporting form results? Check at least two positive values. Verify that the correct internal standard, quantitation ion, and average initial RRF/CF were used to calculate organic analysis reporting form result. Were any errors found? X

NOTE: Structural isomers with similar mass spectra, but insufficient GC resolution (i.e. percent valley between the two peaks > 25%) should be

YES NO N/A

reported as isomeric pairs. The reviewer should check the raw data to ensure that all such isomers were included in the quantitation (i.e., add the areas of the two coeluting peaks to calculate the total concentration).

12.2 Are the method CRQL's adjusted to reflect sample dilutions and, for soils, sample moisture? 11 X

ACTION: If errors are large, take action as specified in section 3.2 above.

ACTION: When a sample is analyzed at more than one dilution, the lowest detection limits are used (unless a QC exceedance dictates the use of the higher detection limit from the diluted sample data). Replace concentrations that exceed the calibration range in the original analysis by crossing out the "E" and it's associated value on the original reporting form (if present) and substituting the data from the analysis of the diluted sample. Specify which organic analysis reporting form is to be used, then draw a red "X" across the entire page of all reporting forms that should not be used, including any in the summary package.

13.0 Standards Data (GC/MS)

13.1 Are the Reconstructed Ion Chromatograms, and data system printouts (Quant Reports) present for initial and continuing calibration? X

ACTION: If any calibration standard data are missing, take action specified in section 3.2 above.

14.0 GC/MS Initial Calibration (CLP Form VI Equivalent)

YES NO N/A

14.1 Are the Initial Calibration reporting forms present and complete for the volatile fraction? ☒ ☐ ☐

ACTION: If any calibration forms or standard raw data are missing, take action specified in section 3.2 above.

ACTION: If the percent relative standard deviation (% RSD) is > 20%, (8000C-39) qualify positive results for that analyte "J". When % RSD > 90%,. Qualify all positive results for that analyte "J" and all non-detects results for that analyte "R".

14.2 Are all average RRFs > 0.050? ☒ ☐ ☐

NOTE: (Method Requirement) For SPCC compounds, the individual RRF values must be $\geq$ the values in the following list. If individual RRF values reported are below the listed values document in the Data Assessment.

Chloromethane	0.10
1,1-Dichloroethane	0.10
Bromoform	0.10
Chlorobenzene	0.30
1,1,2,2-Tetrachloroethane	0.30

ACTION: Circle all outliers with red pencil.

ACTION: For any target analyte with average RRF < 0.05, or for the requirements for the 5 compounds in 14.2 above, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

14.3 Are response factors stable over the concentration range of the calibration. ☒ ☐ ☐

NOTE: (Method Requirement) For the following CCC compounds, the %RSD values must be $\leq$ 30.0%. If %RSD values reported are > 30.0% document in the Data Assessment.

YES NO N/A

1,1-Dichloroethene
Chloroform
1,2-Dichloropropane
Toluene
Ethylbenzene
Vinyl chloride

ACTION: Circle all outliers with a red pencil.

ACTION: If the % RSD is > 20.0%, or > 30% for the 6 compounds in 14.3 above, qualify positive results for that analyte "J" and non-detects using professional judgement. When RSD > 90%, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

NOTE: Analytes previously qualified "U" due to blank contamination are still considered as "hits" when qualifying for calibration criteria.

14.4 Was the % RSD determined using RRF or CF?

☒ ☐ ☐

If no, what method was used to determine the linearity of the initial calibration? Document any effects to the case in the Data Assessment.

14.5 Are there any transcription/calculation errors in the reporting of RRF or % RSD? (Check at least two values but if errors are found, check more.)

☐ ☒ ☐

ACTION: Circle errors with a red pencil.

ACTION: If errors are large, take action as specified in section 3.2 above.

15.0 GC/MS Calibration Verification (CLP Form VII Equivalent)

YES NO N/A

15.1 Are the Calibration Verification reporting forms present and complete for all compounds of interest? [X] ___ ___

15.2 Has a calibration verification standard been analyzed for every twelve hours of sample analysis per instrument? [X] ___ ___

ACTION: List below all sample analyses that were not within twelve hours of a calibration verification analysis for each instrument used.

ACTION: If any forms are missing or no calibration verification standard has been analyzed twelve hours prior to sample analysis, take action as specified in section 3.2 above. If calibration verification data are not available, flag all associated sample data as unusable ("R").

15.3 Was the % D determined from the calibration verification determined using RRF or CF? [X] ___ ___

If no, what method was used to determine the calibration verification? Document any effects to the case in the Data Assessment.

15.4 Do any volatile compounds have a % D (difference or drift) between the initial and continuing RRF or CF which exceeds 20% (SW-846, page 8260B-19, section 7.4.5.2). [] X ___

NOTE: (Method Requirement) For the following CCC compounds, the %D values must be $\leq 20.0\%$. If %D values reported are $> 20.0\%$ document in the Data Assessment.

1,1-Dichloroethene
Chloroform
1,2-Dichloropropane
Toluene
Ethylbenzene
Vinyl chloride

YES NO N/A

ACTION: Circle all outliers with a red pencil.

ACTION: Qualify both positive results and non-detects for the outlier compound(s) as estimated, "J". When %D is above 90%, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

15.5 Do any volatile compounds have a RRF < 0.05? 1 1 X

NOTE: (Method Requirement) For SPCC compounds, the individual RRF values must be $\geq$ the values in the following list for each calibration verification. If average RRF values reported are below the listed values document in the data assessment.

Chloromethane	0.10
1,1-Dichloroethane	0.10
Bromoform	0.10
Chlorobenzene	0.30
1,1,2,2-Tetrachloroethane	0.30

ACTION: Circle all outliers with a red pencil.

ACTION: If RRF < 0.05, or < the the requirements for the 5 compounds in section 15.5 above, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

16.0 Internal Standards (CLP Form VIII Equivalent)

16.1 Are the internal standard (IS) areas on the internal standard reporting forms of every sample and blank within the upper and lower limits (-50% to + 100%) for each initial mid-point calibration (SW-846, 8260B-20, Sect. 7.4.7)? [X]

YES NO N/A

ACTION: If errors are large or information is missing, take action as specified in section 3.2 above.

ACTION: List each outlying internal standard below.

Sample ID	IS #	Area Lower Limit	Area Upper Limit
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

(Attach additional sheets if necessary.)

- ACTION:
1. If the internal standard area count is outside the upper or lower limit, flag with "J" all positive results quantitated with this internal standard.
 2. Do not qualify non-detects when the associated IS are counts area $> + 100\%$.
 3. If the IS area is below the lower limit ($< - 50\%$), qualify all associated non-detects (U-values) "J".
 4. If extremely low area counts are reported ($< - 25\%$) or if performance exhibits a major abrupt drop off, flag all associated non-detects as unusable "R" and positive results as estimated "J".

16.2 Are the retention times of all internal standards within 30 seconds of the associated initial mid-point calibration standard (SW-846, 8260B-20, Sect. 7.4.6)? [X] _____

ACTION: Professional judgement should be used to qualify data if the retention times differ by more than 30 seconds.

YES NO N/A

17.0 Field Duplicates

17.1 Were any field duplicates submitted for
volatile analysis?

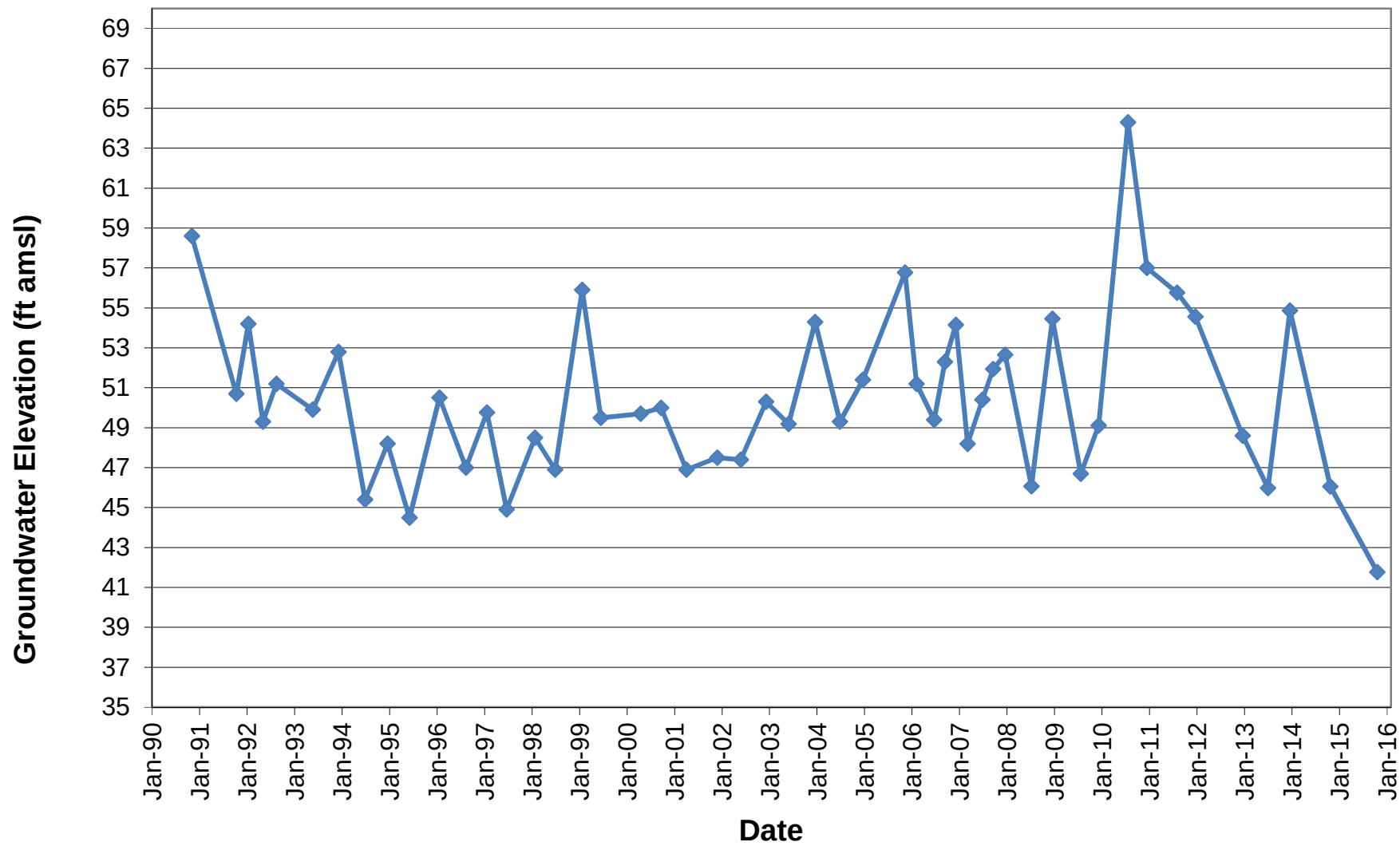
[X] — —

ACTION: Compare the reported results for field duplicates and
calculate the relative percent difference.

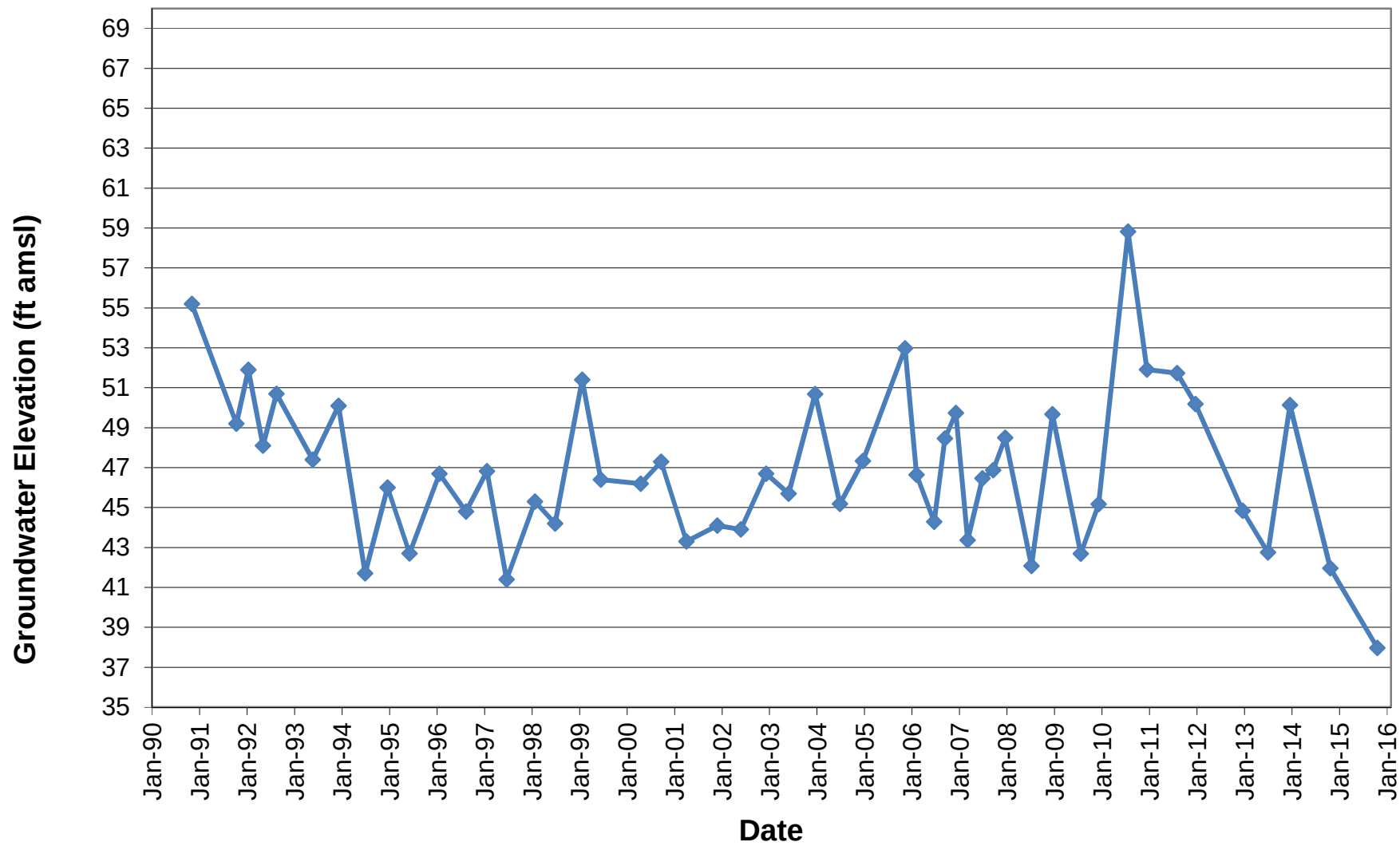
ACTION: Any gross variation between field duplicate
results must be addressed in the Data Assessment.
However, if large differences exist, take action
specified in section 3.2. above.

APPENDIX D
LONG-TERM HYDROGRAPHS

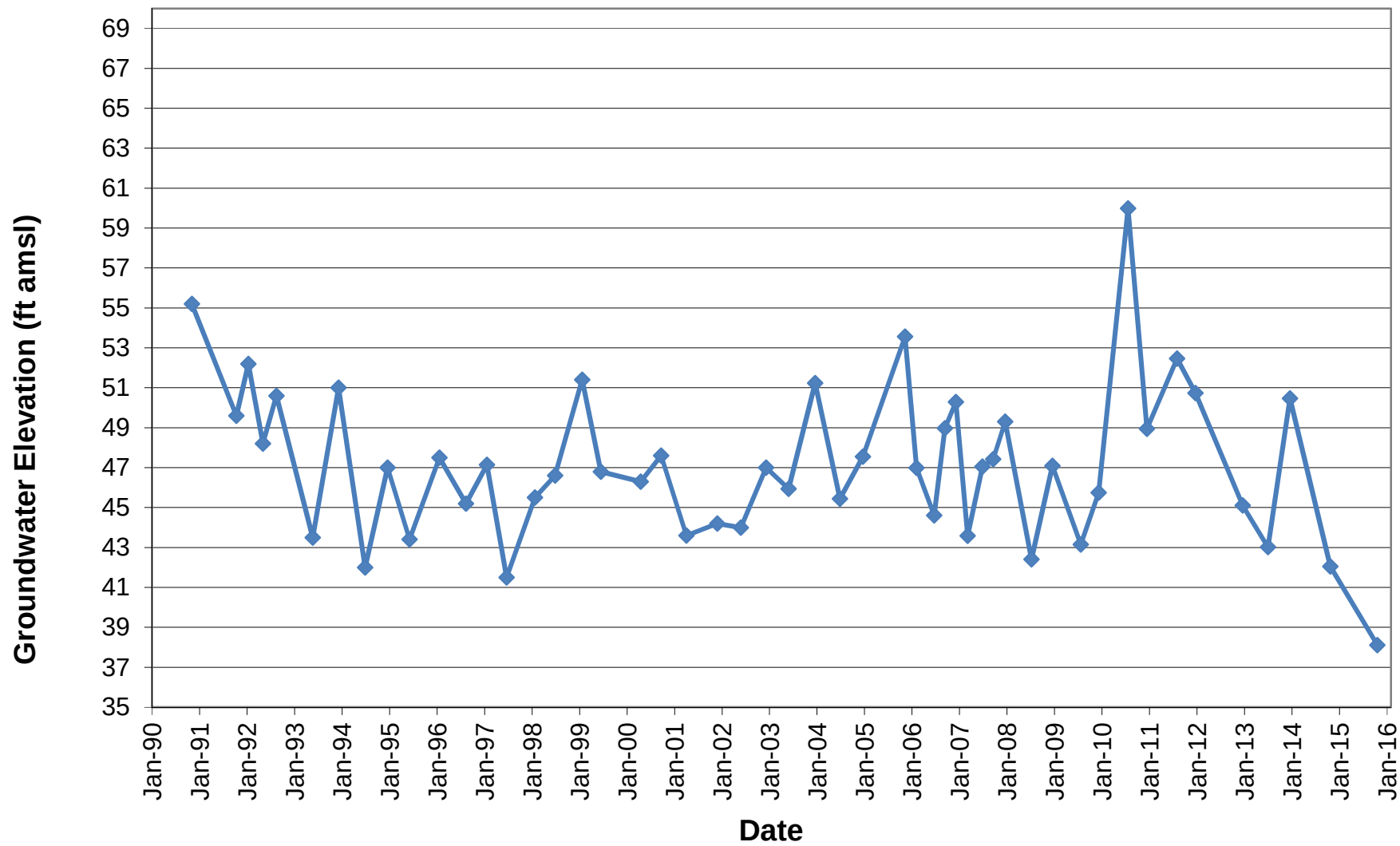
C-1 Historical Groundwater Elevation



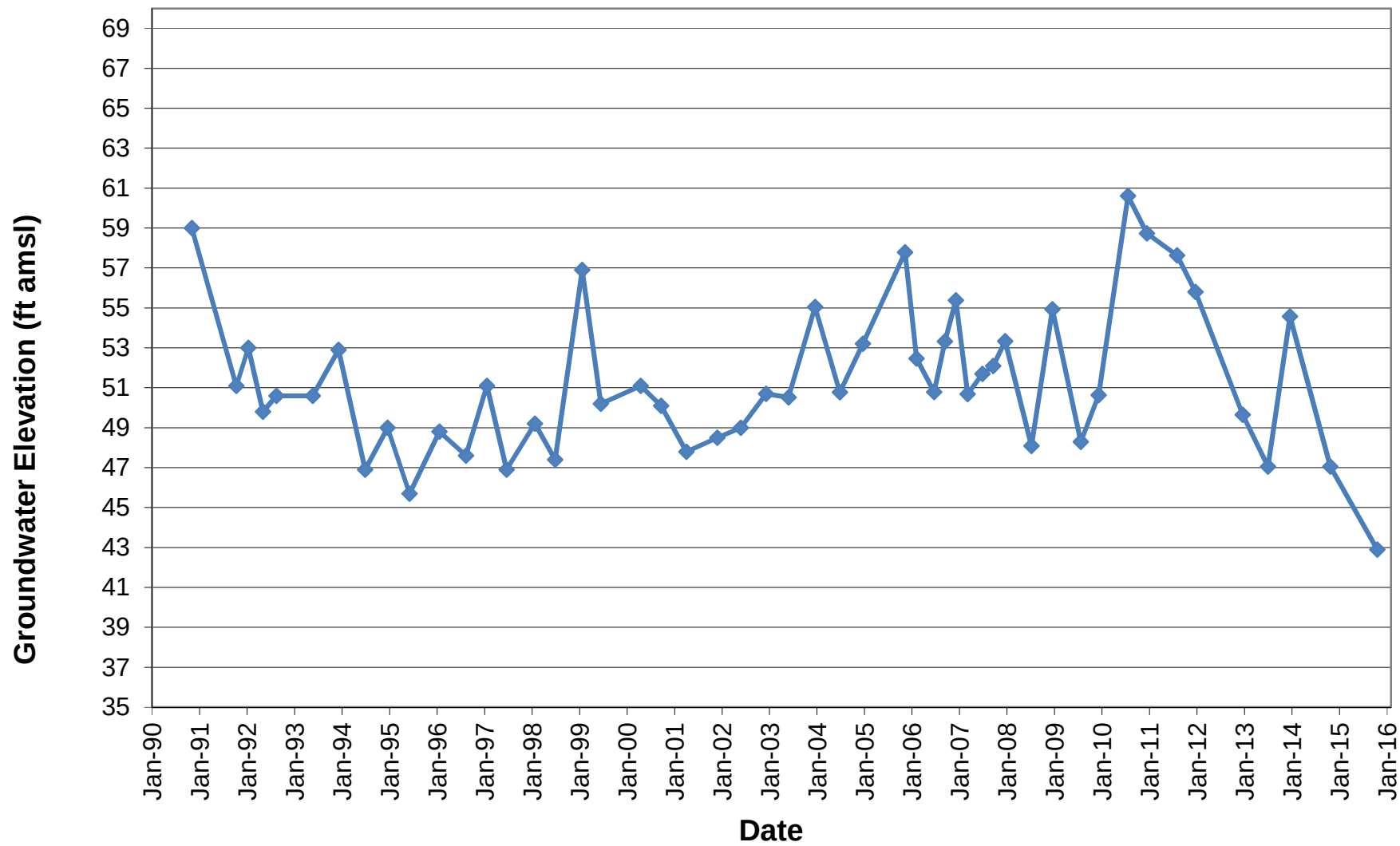
C-2 Historical Groundwater Elevation



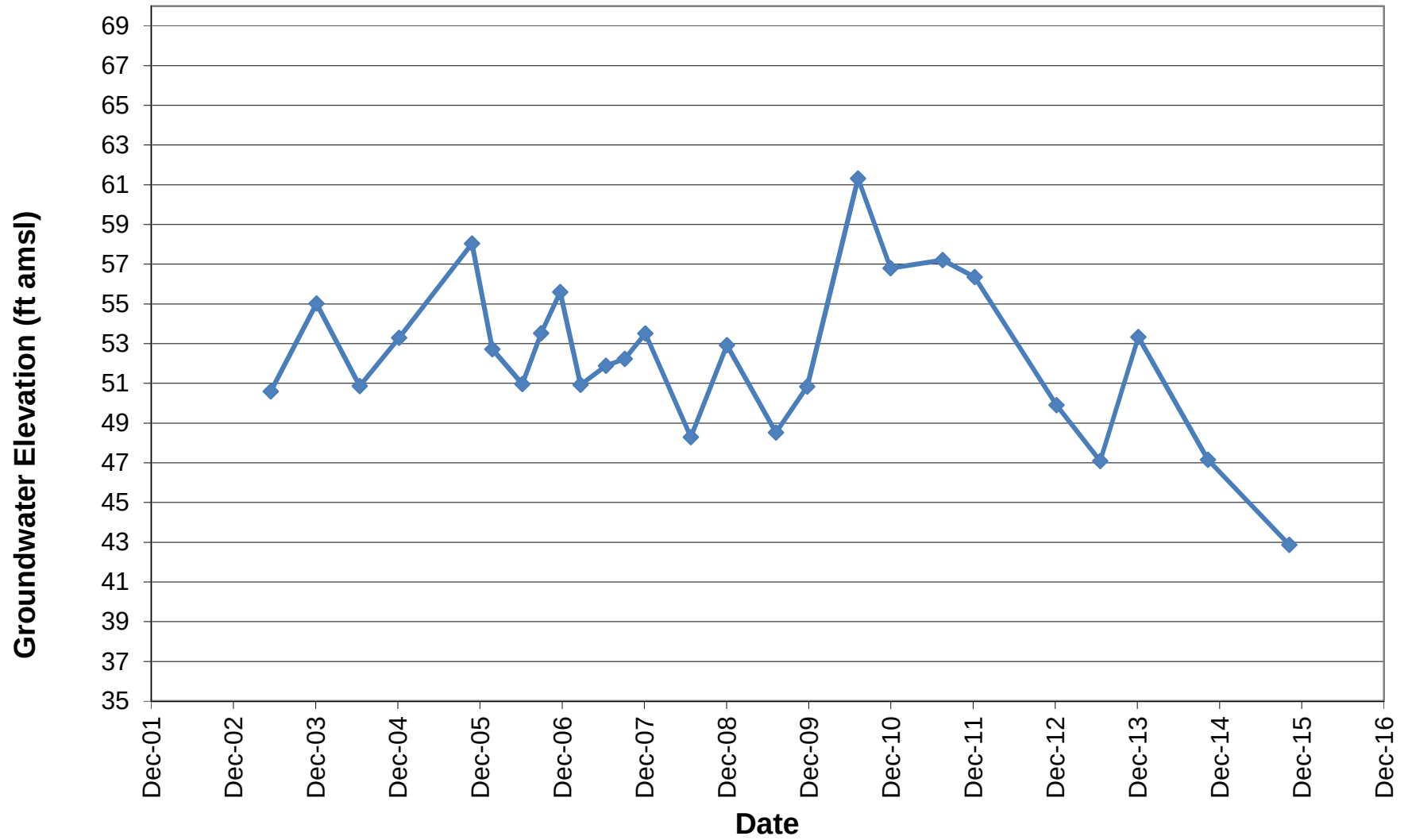
C-3 Historical Groundwater Elevation



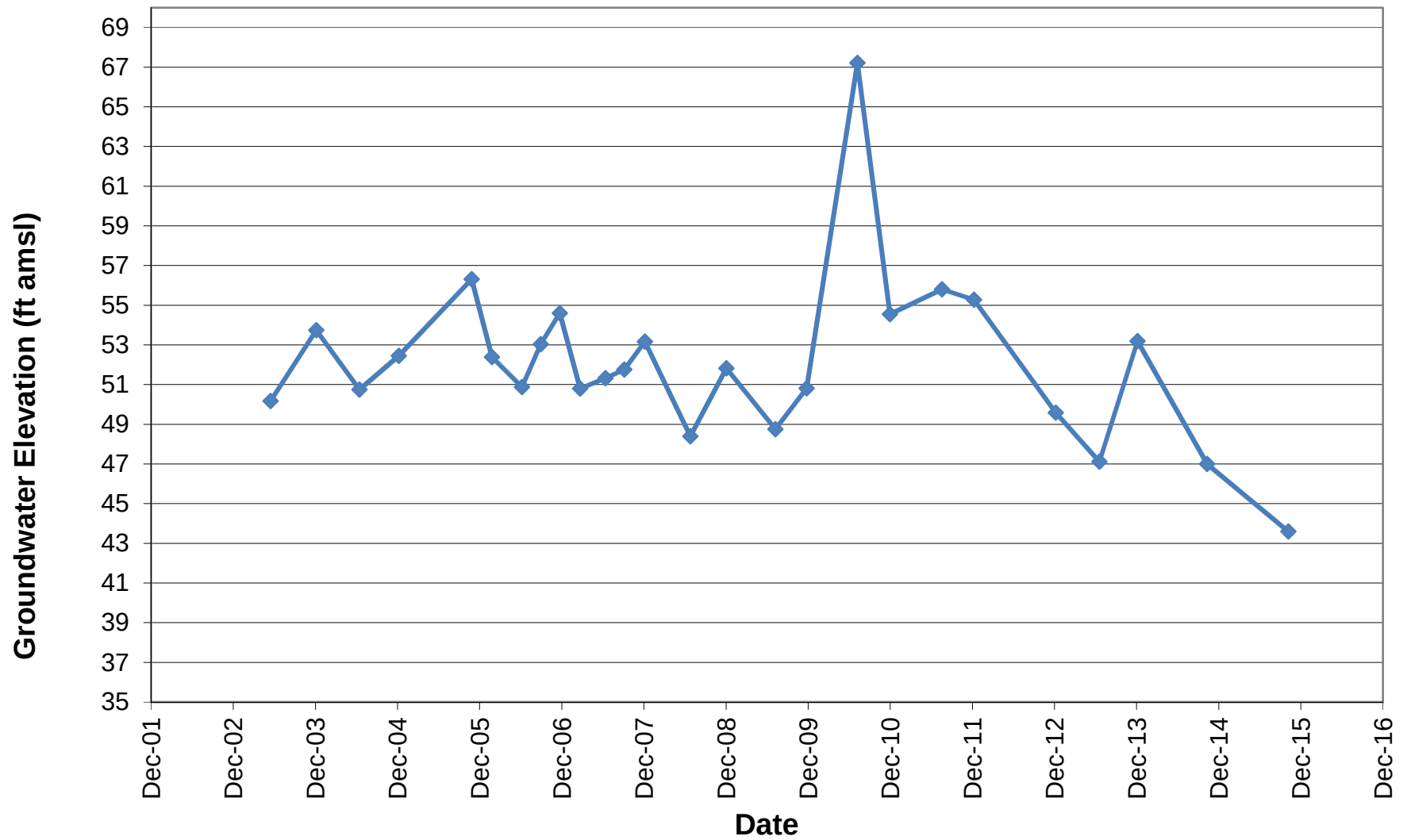
C-4 Historical Groundwater Elevation



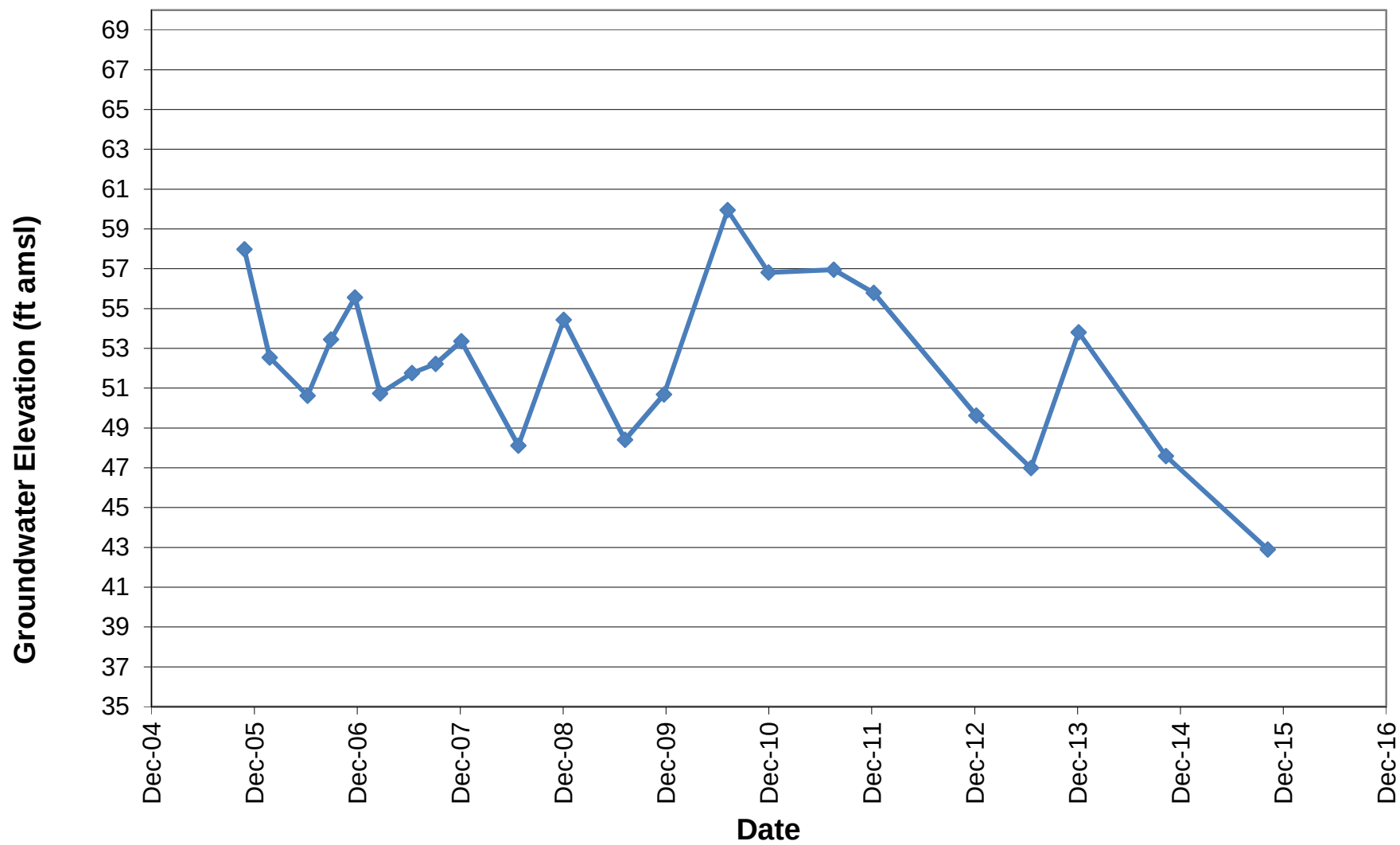
C-5 Historical Groundwater Elevation



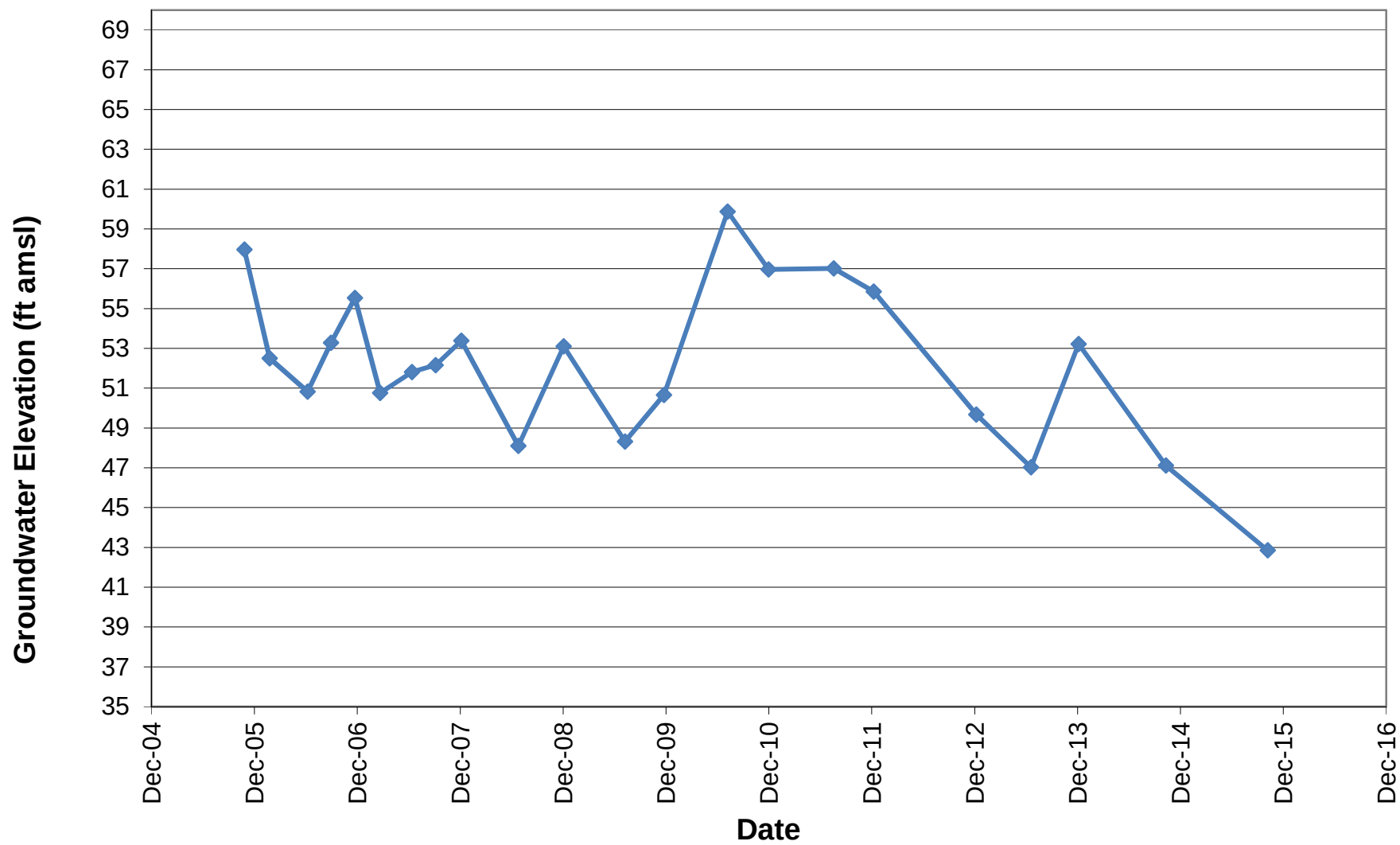
C-6 Historical Groundwater Elevation



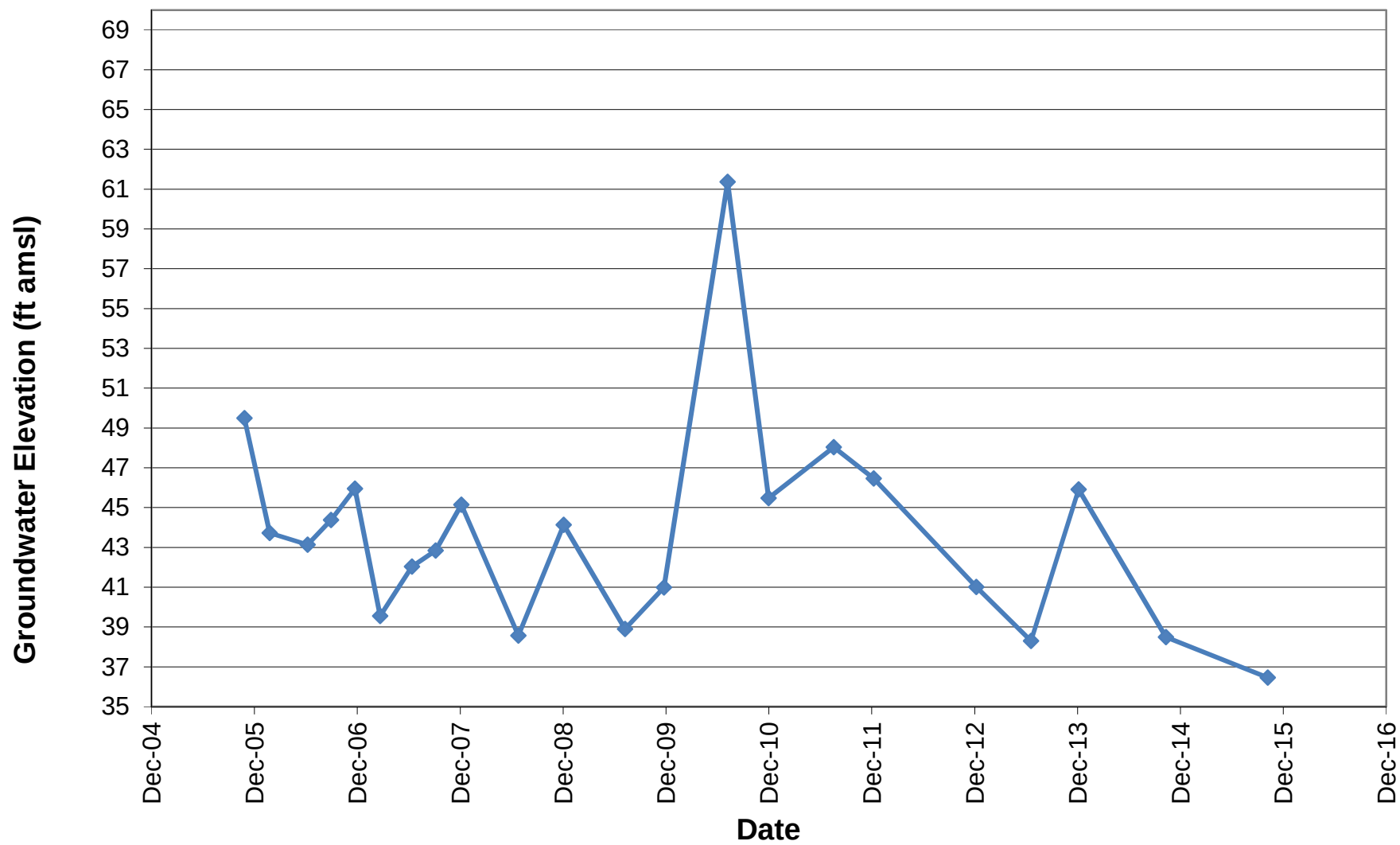
C-7 Historical Groundwater Elevation



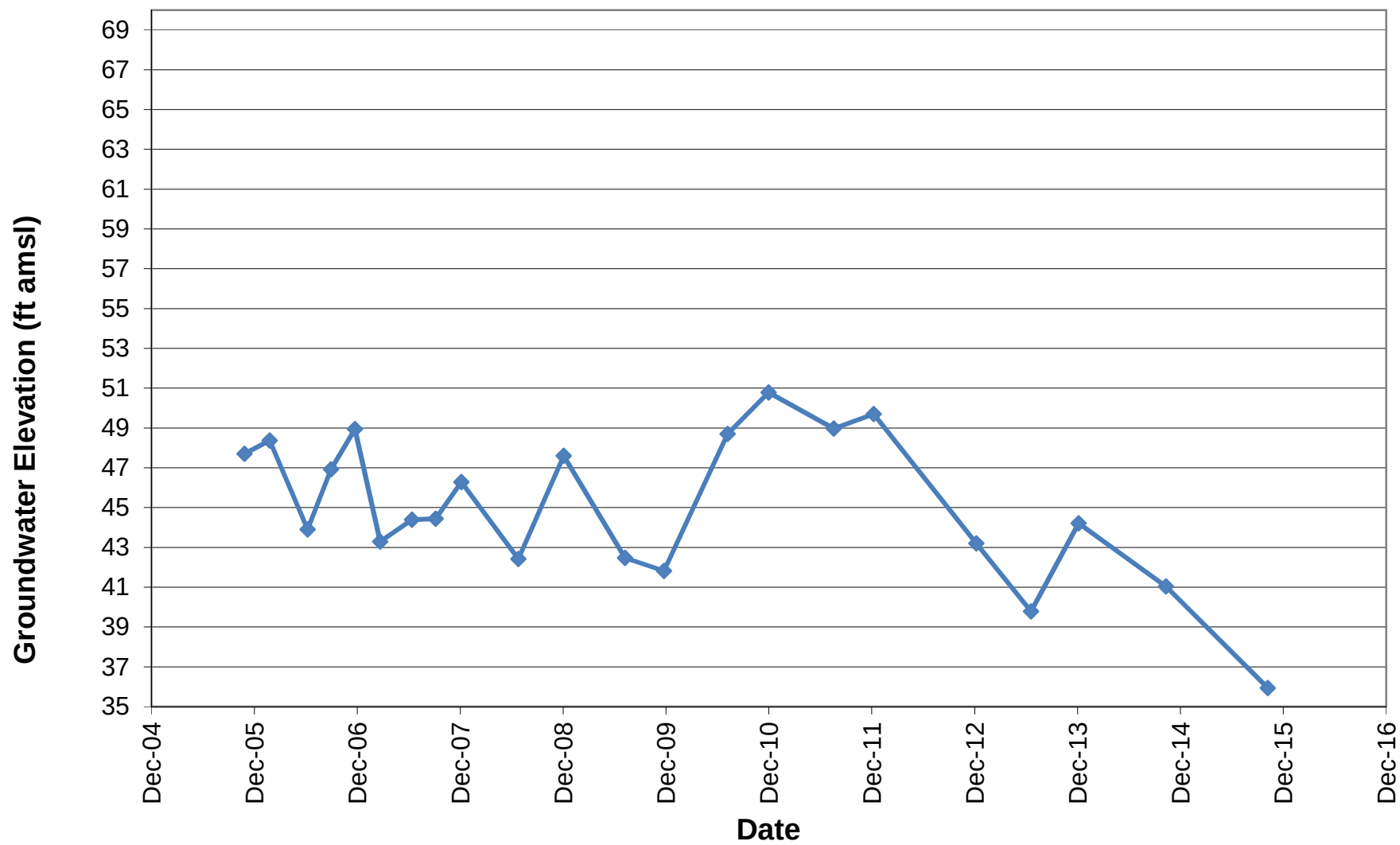
C-8 Historical Groundwater Elevation



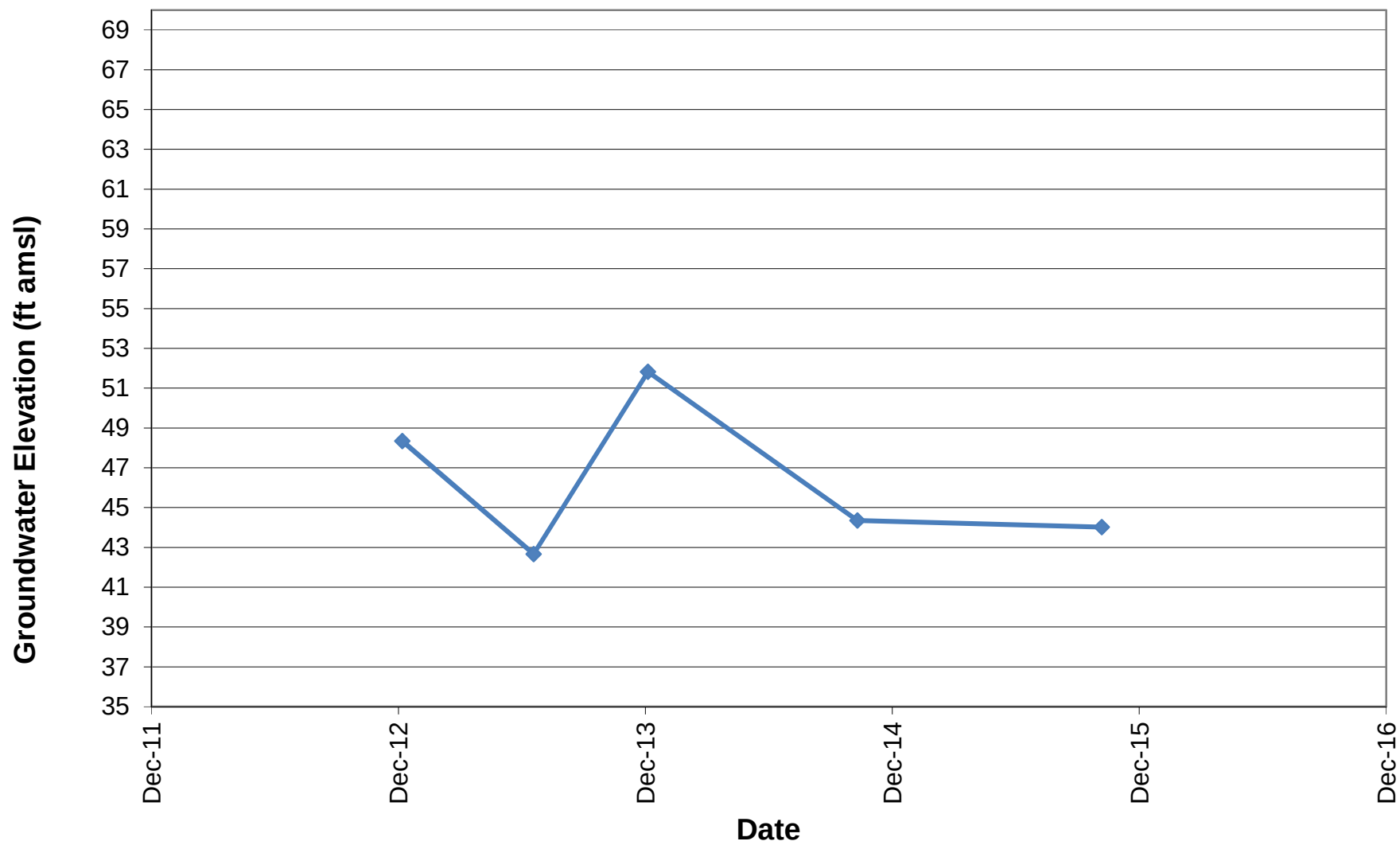
C-9 Historical Groundwater Elevation



C-10 Historical Groundwater Elevation

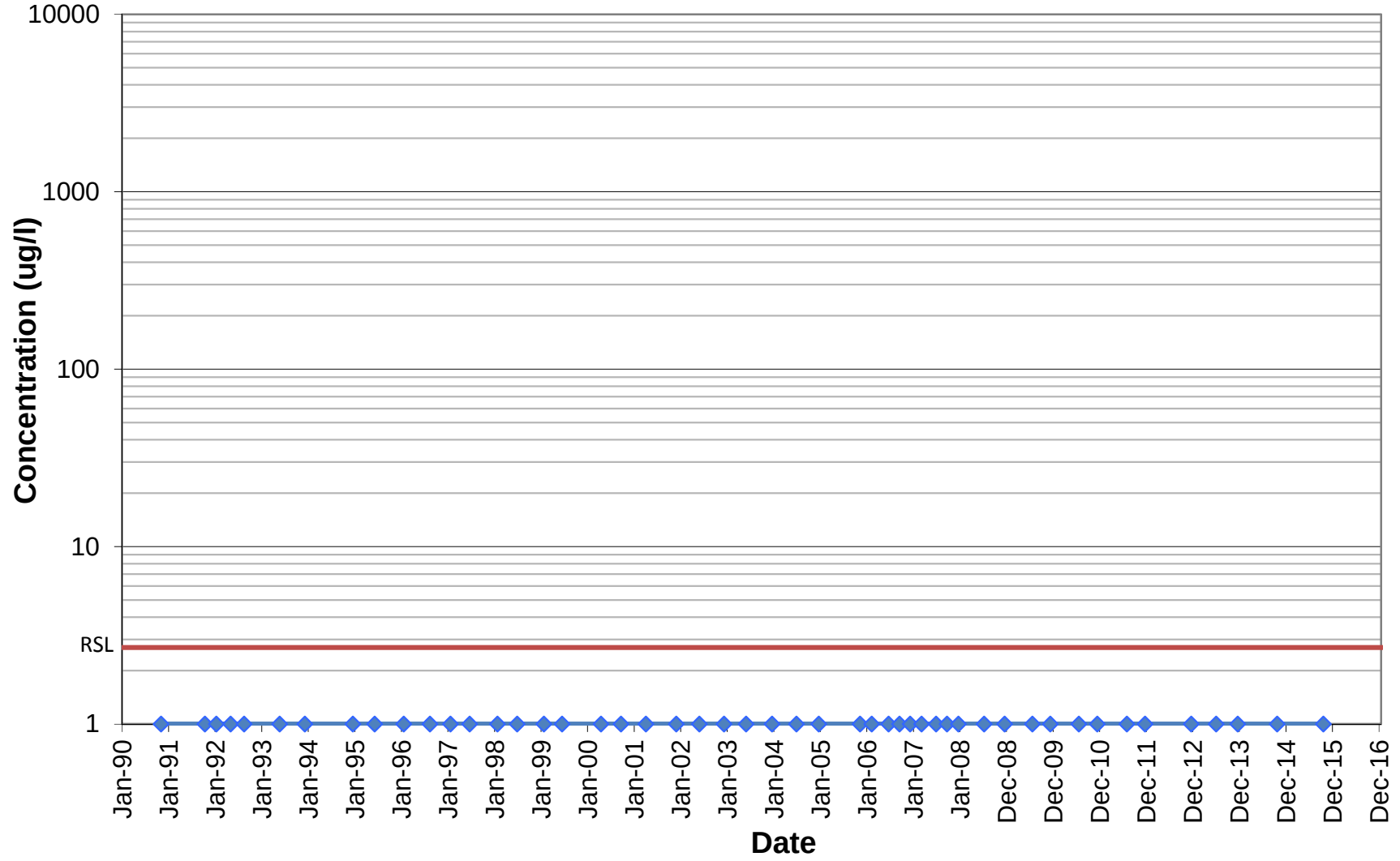


C-11 Historical Groundwater Elevation

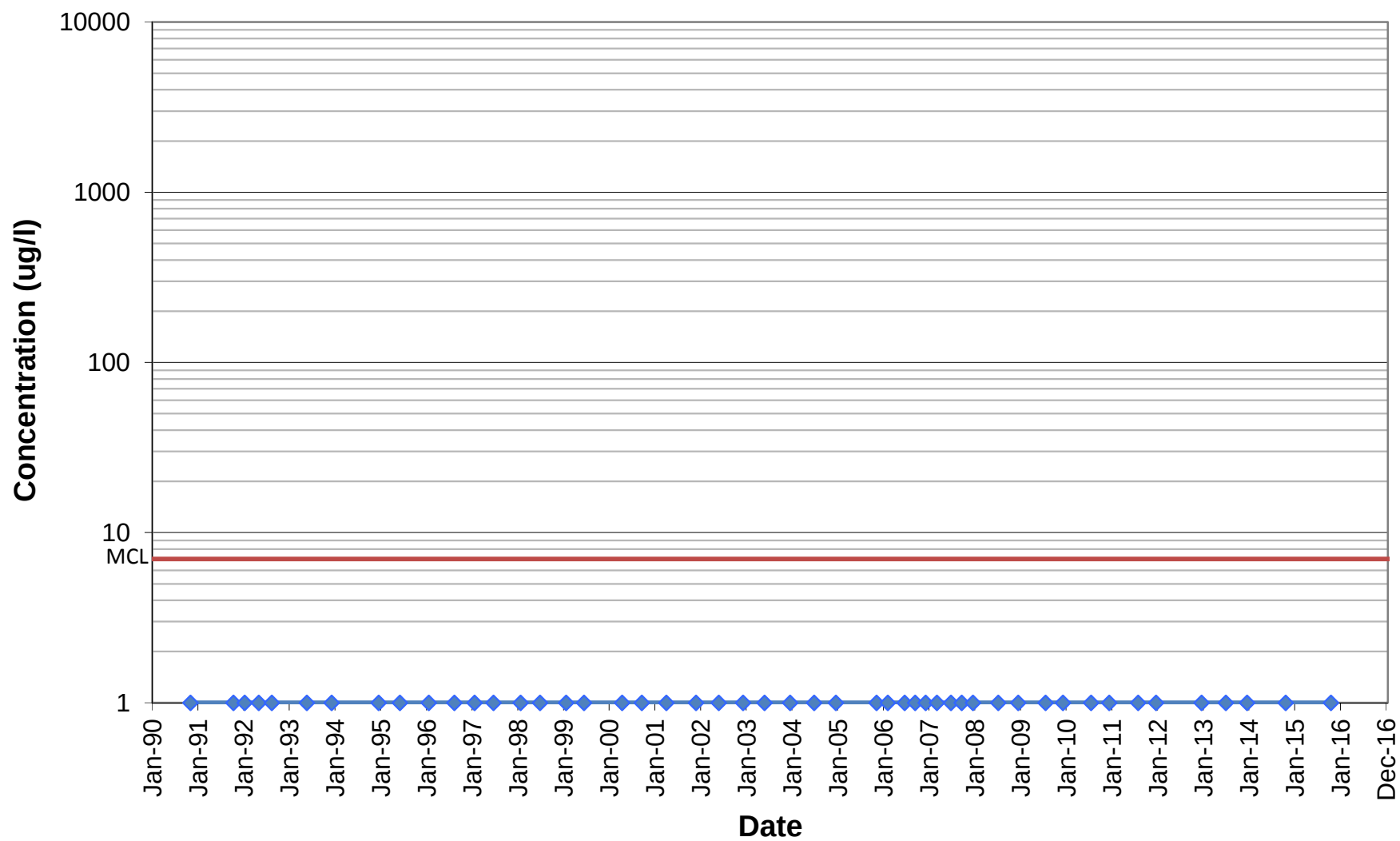


APPENDIX E
TIME SERIES PLOTS OF HISTORICAL VOC CONCENTRATIONS

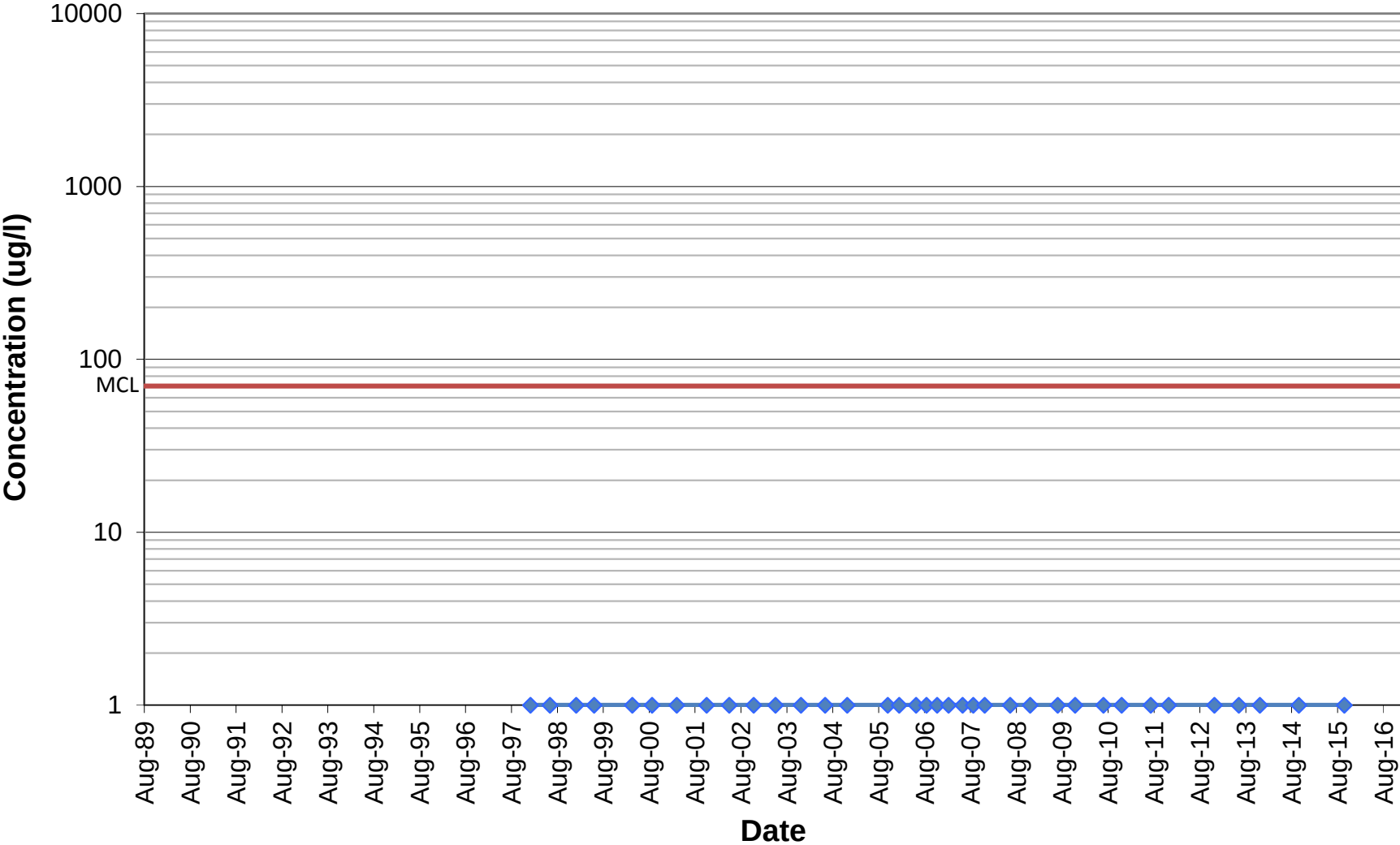
C-1 1,1-DCA Concentrations



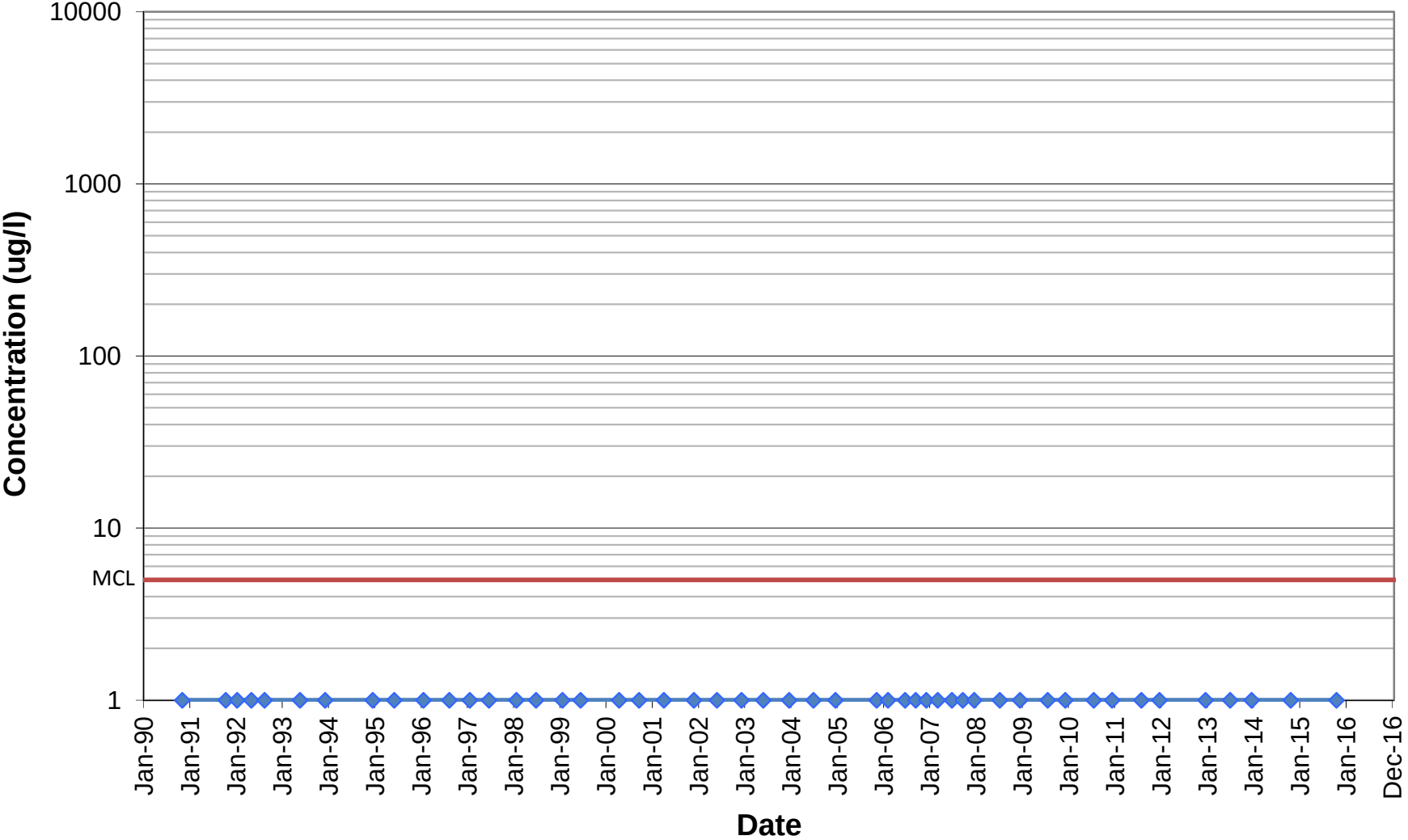
C-1 1,1 DCE Concentrations



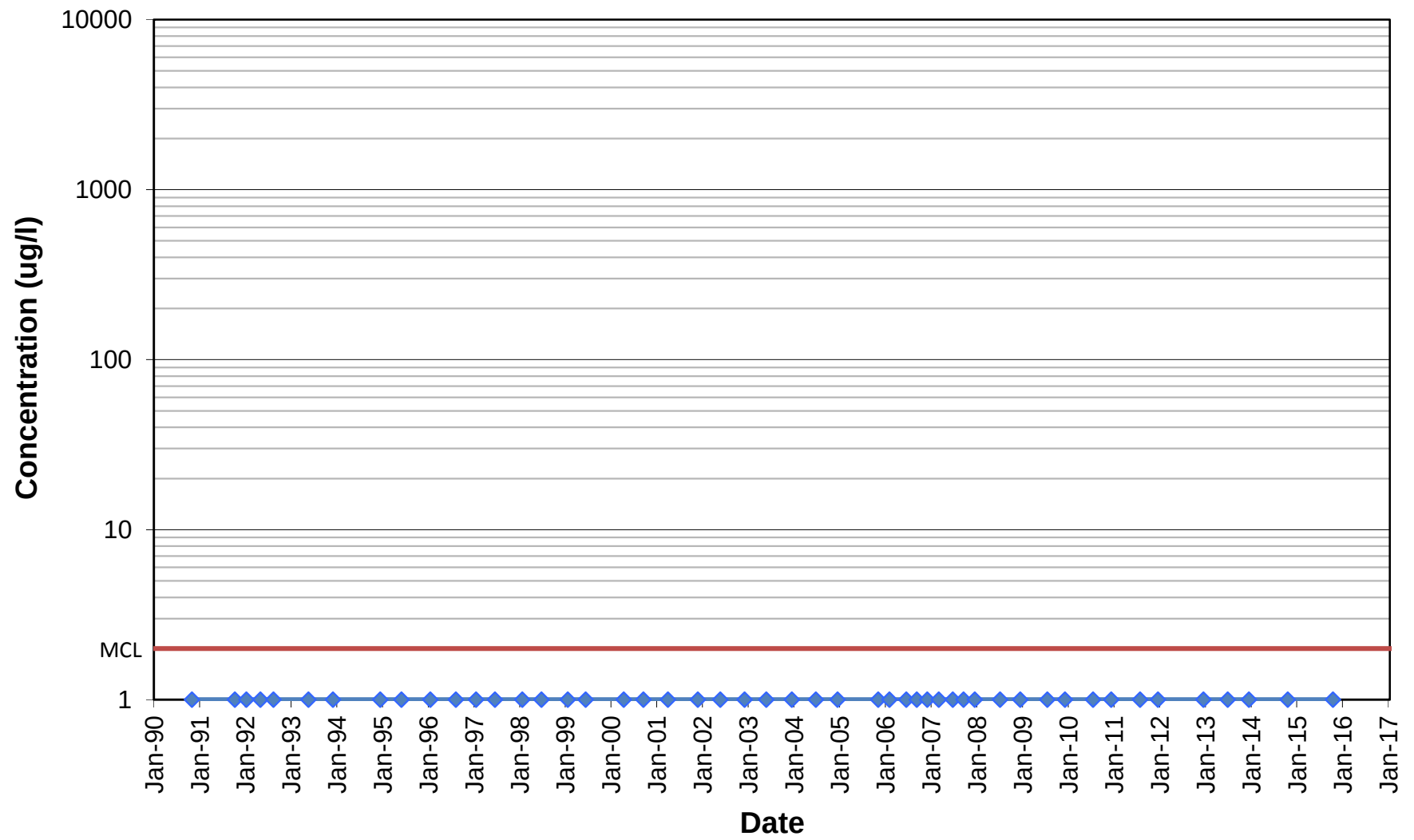
C-1 cis 1,2 DCE Concentrations



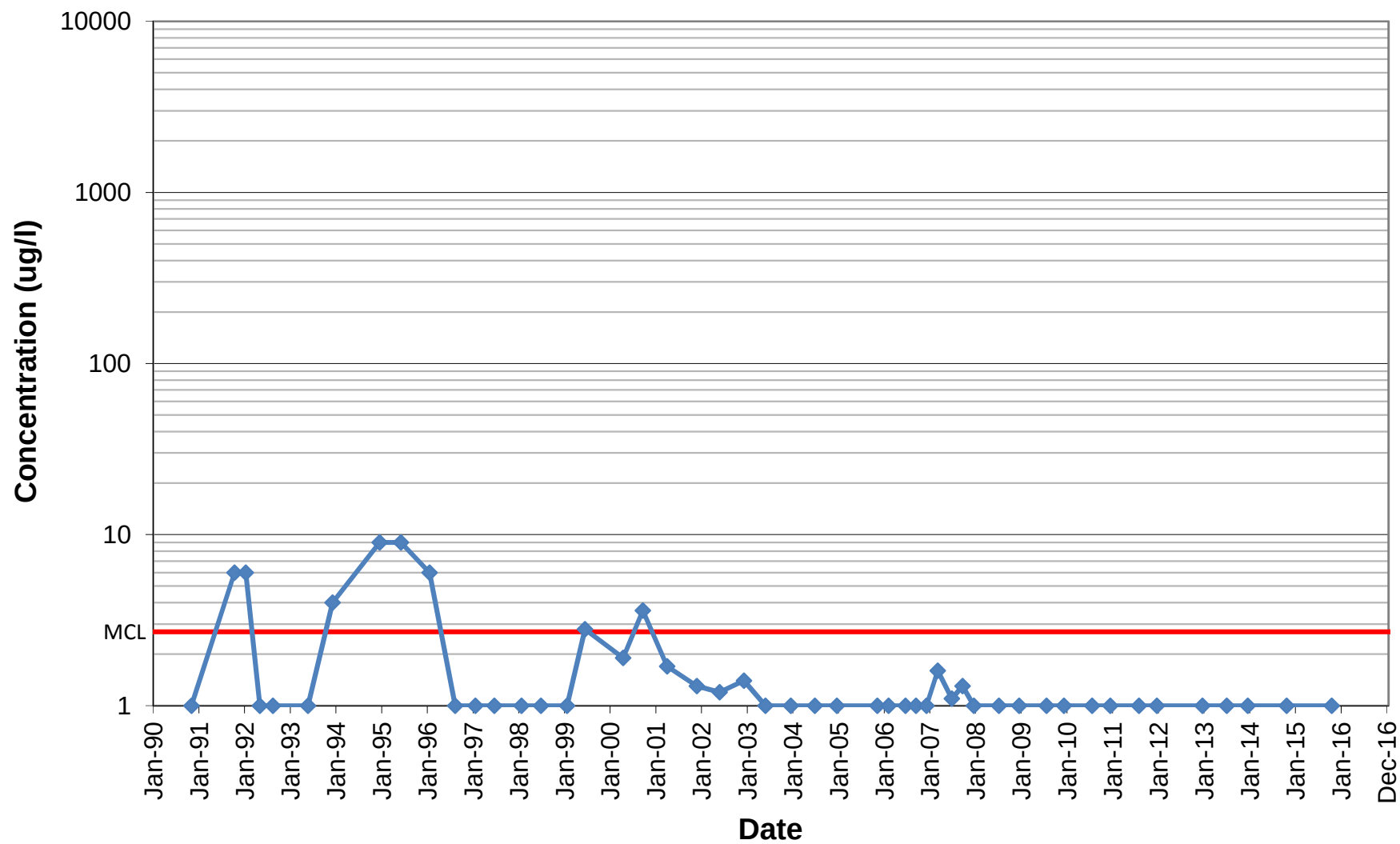
C-1 TCE Concentrations



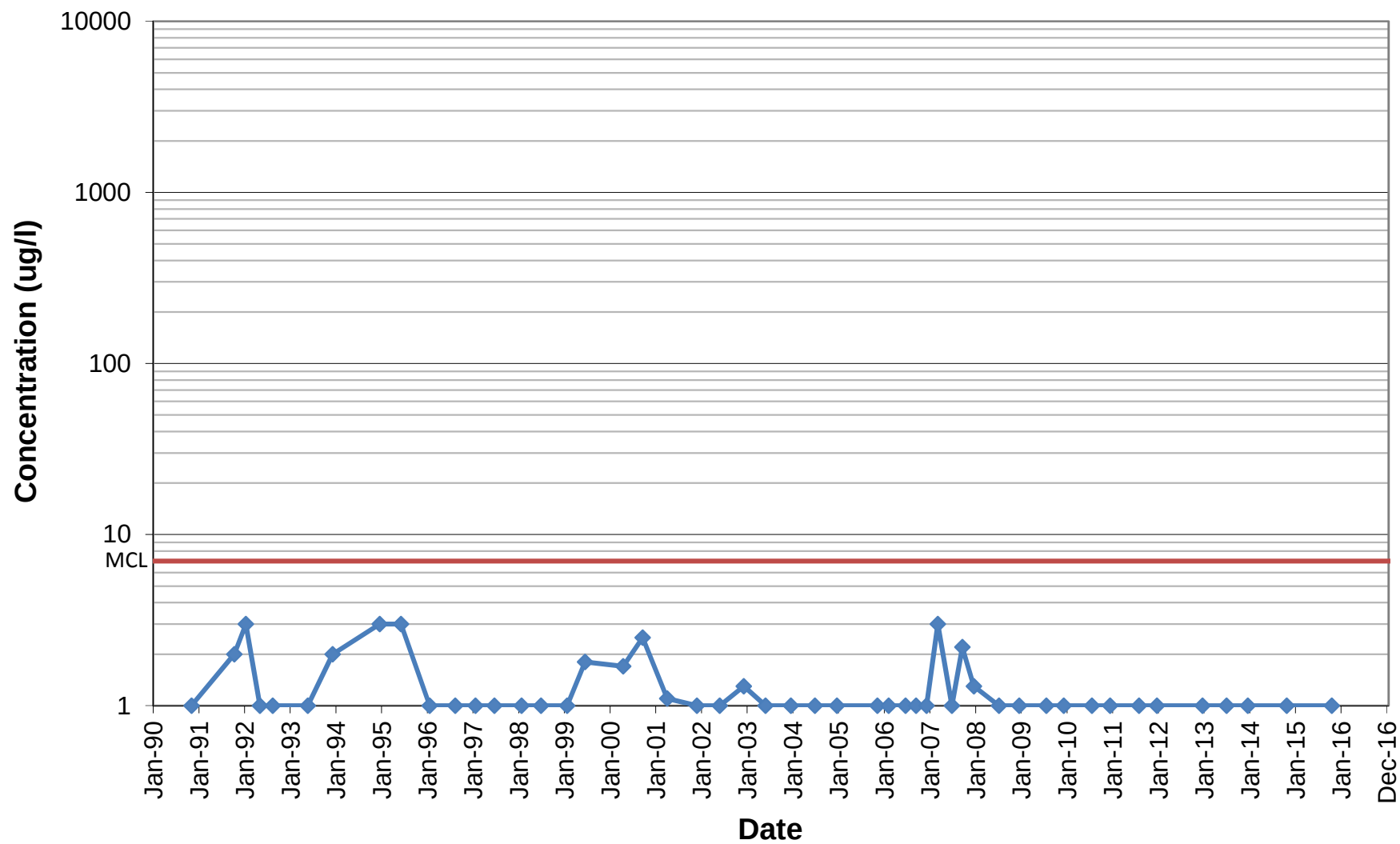
C-1 Vinyl Chloride



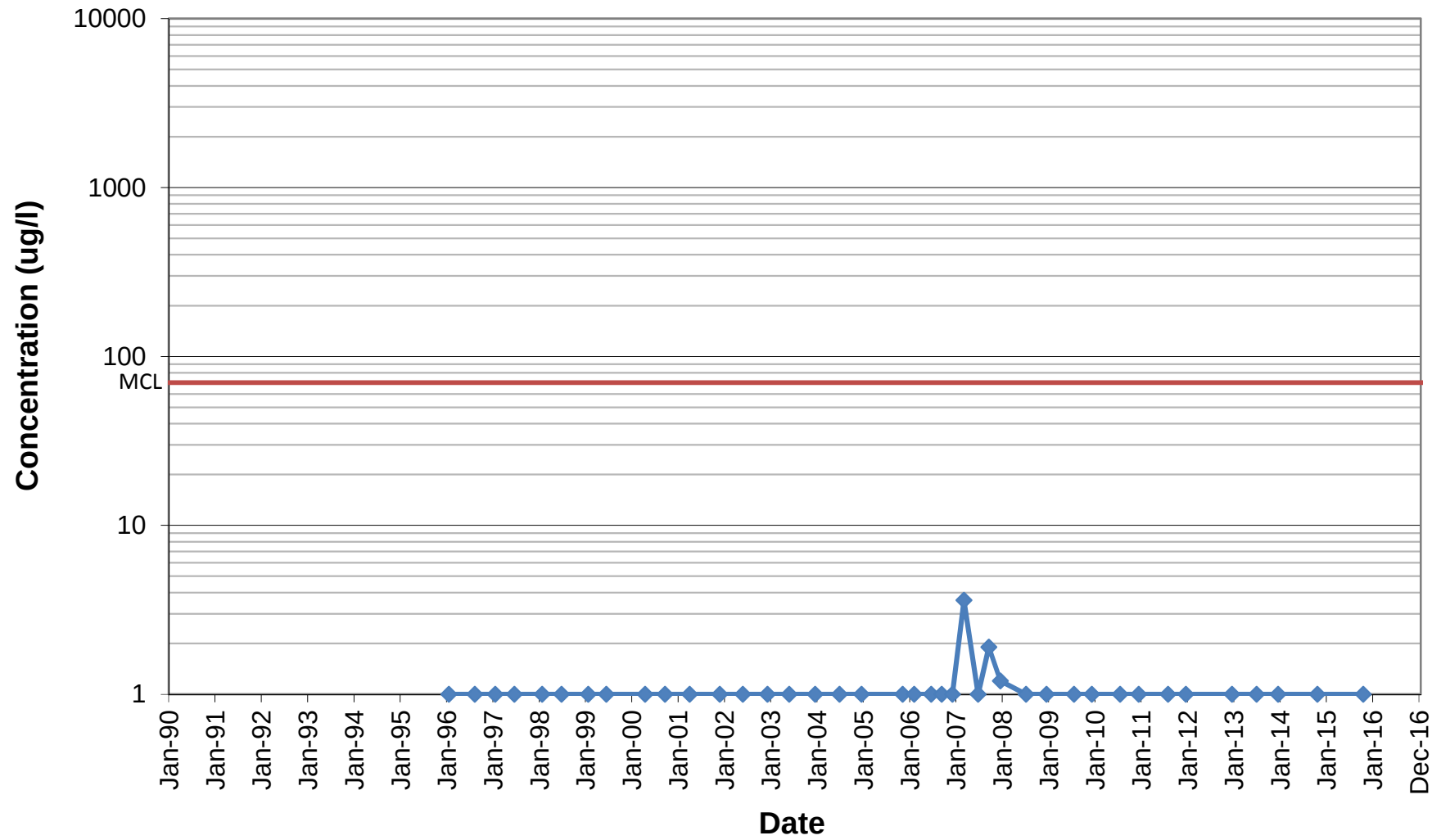
C-2 1,1 DCA Concentrations



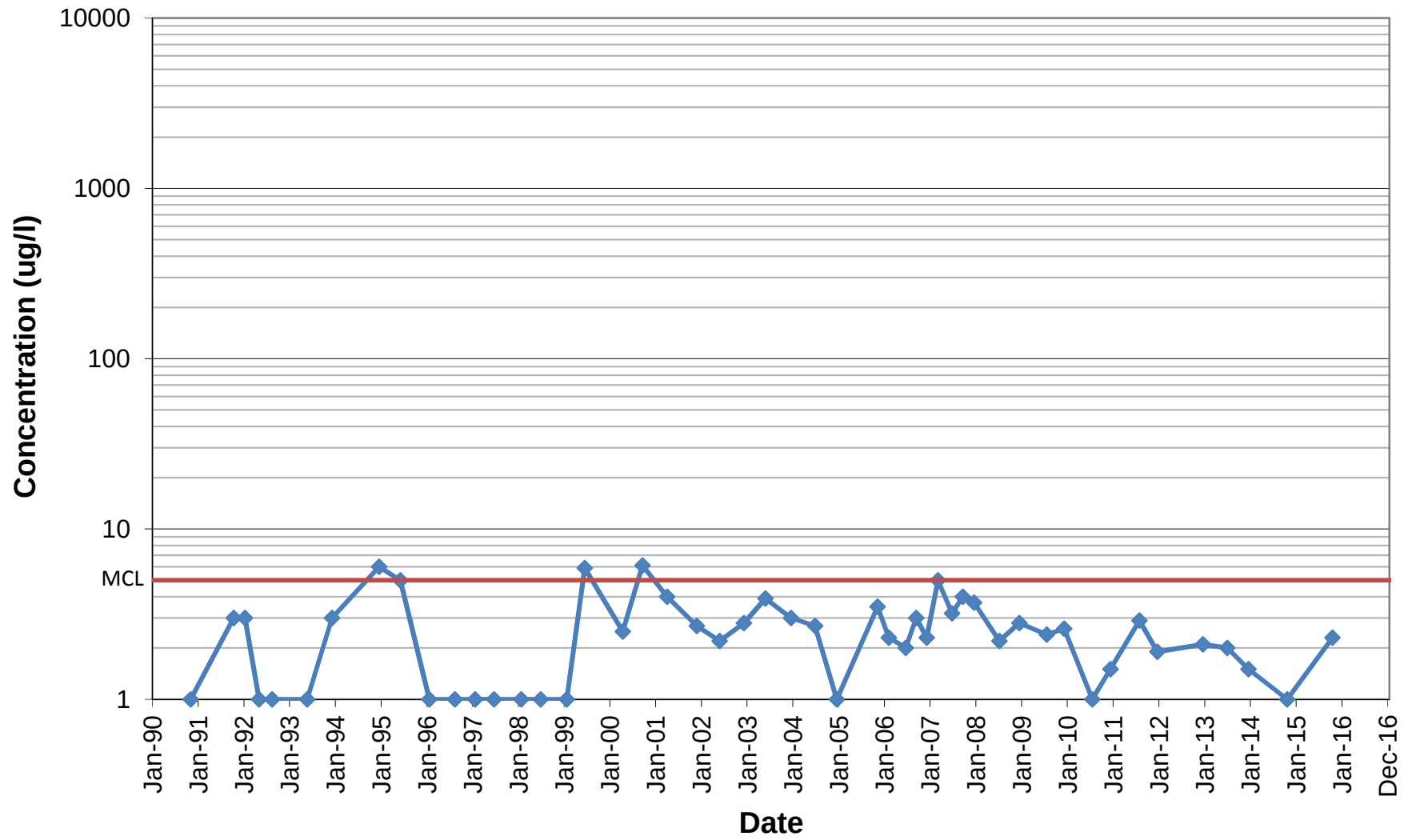
C-2 1,1 DCE Concentrations



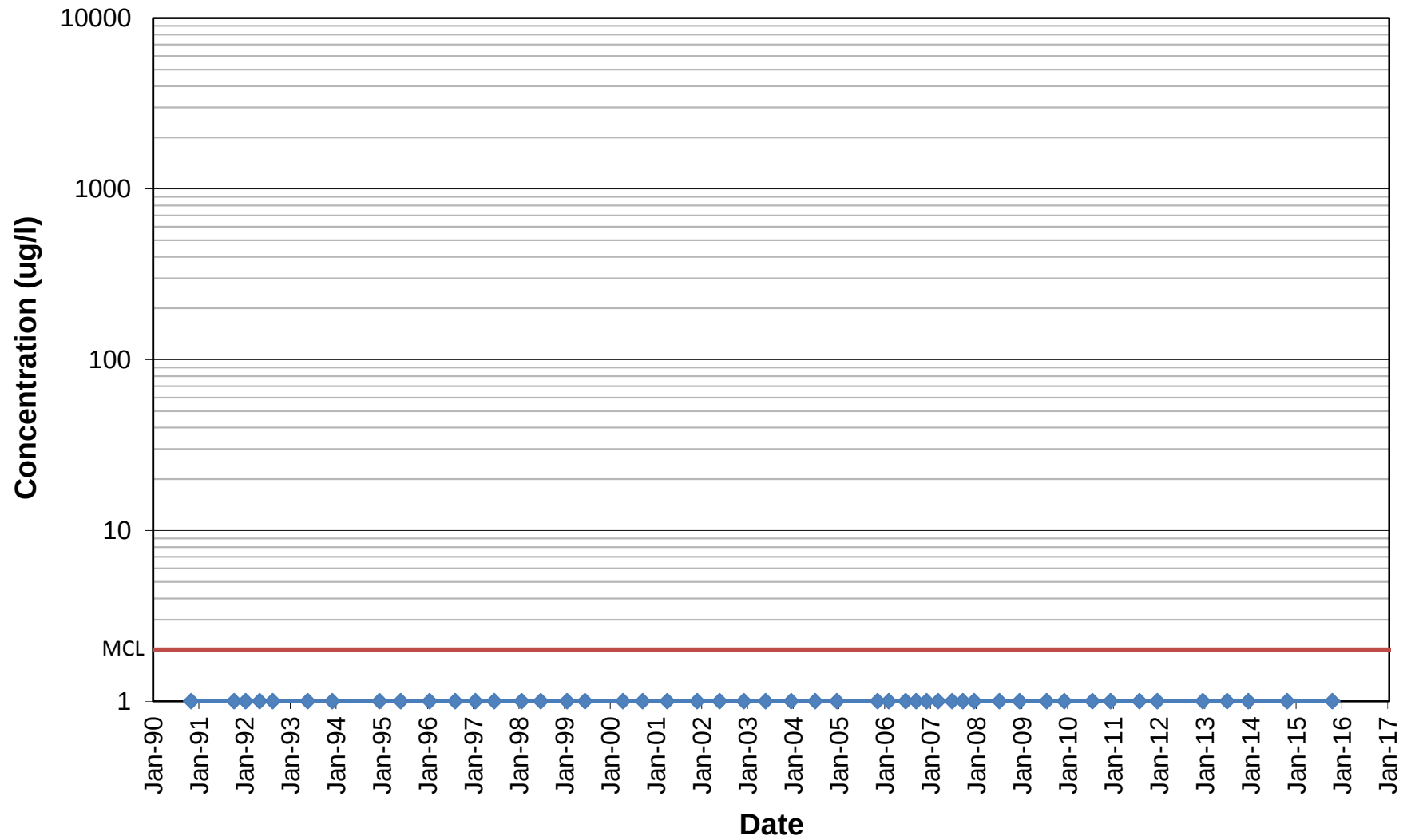
C-2 cis 1,2 DCE Concentrations



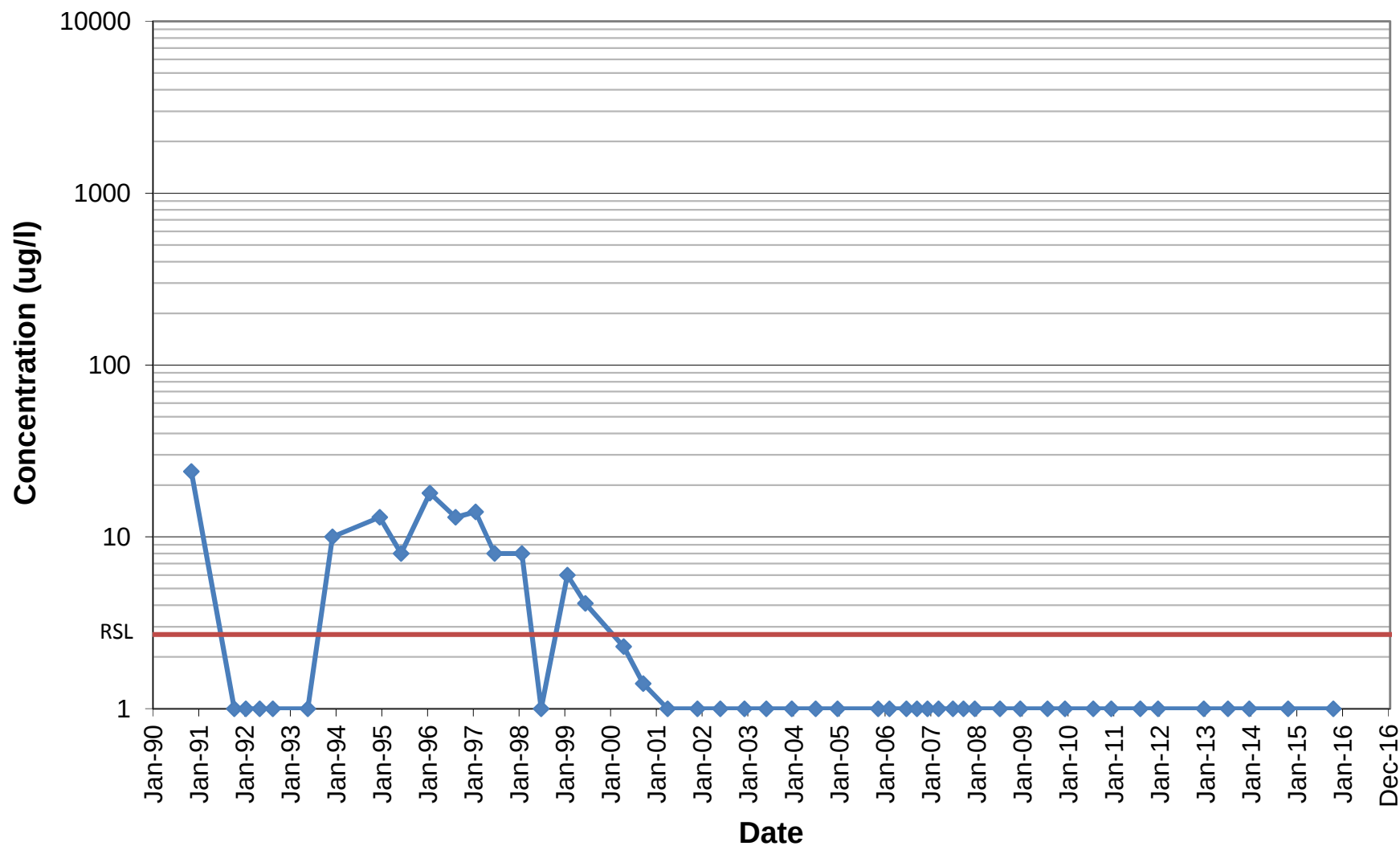
C-2 TCE Concentrations



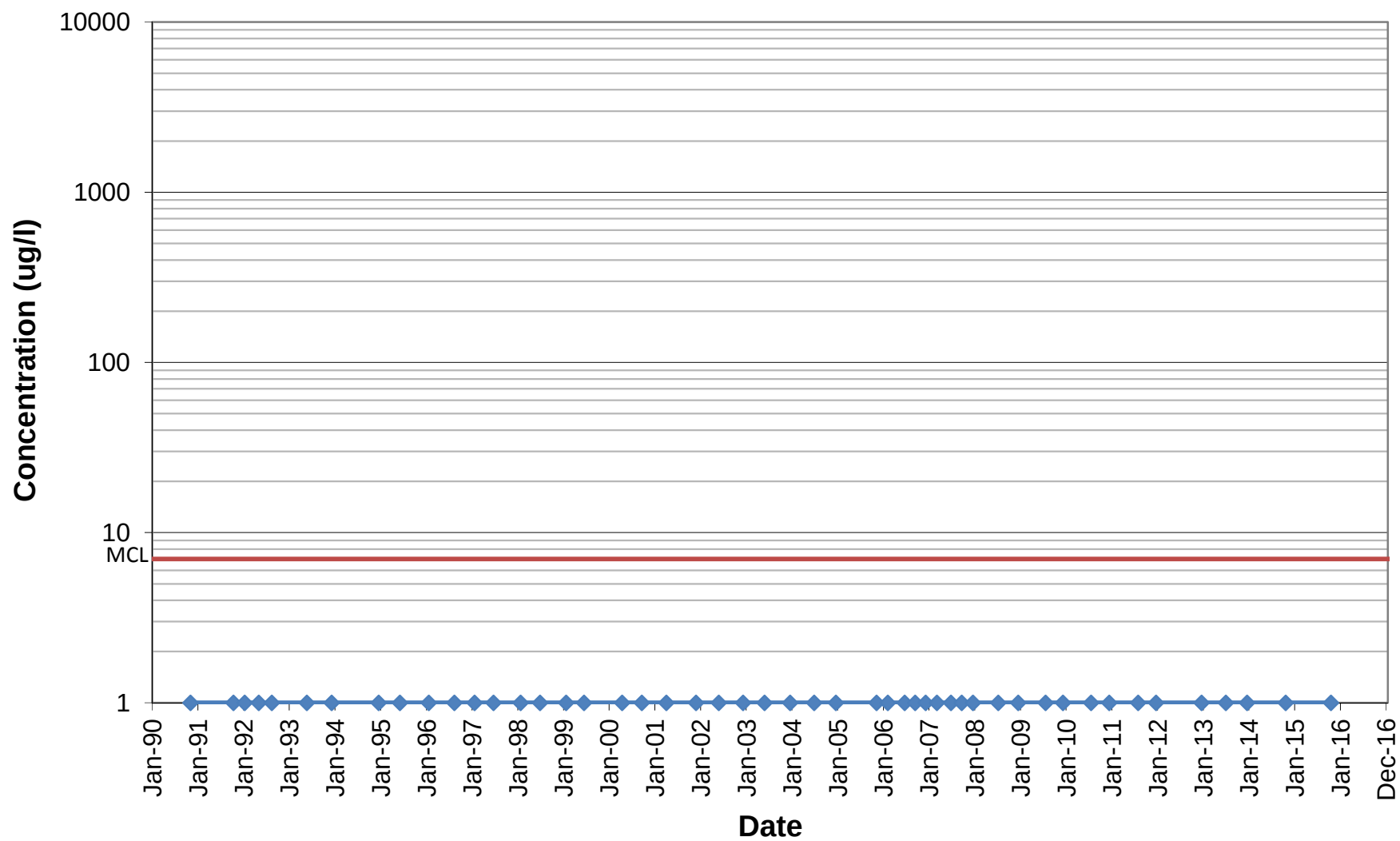
C-2 Vinyl Chloride



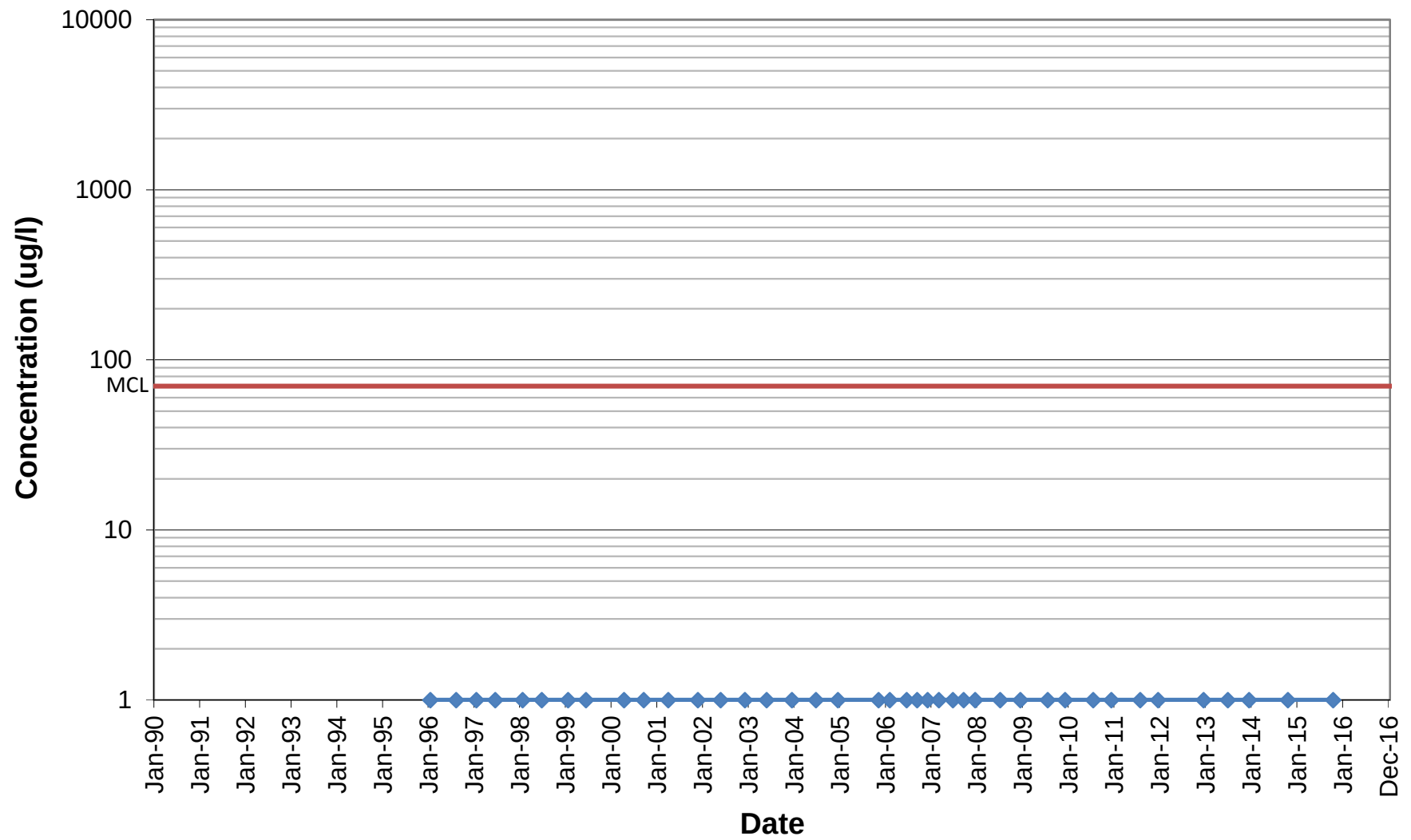
C-3 1,1 DCA Concentrations



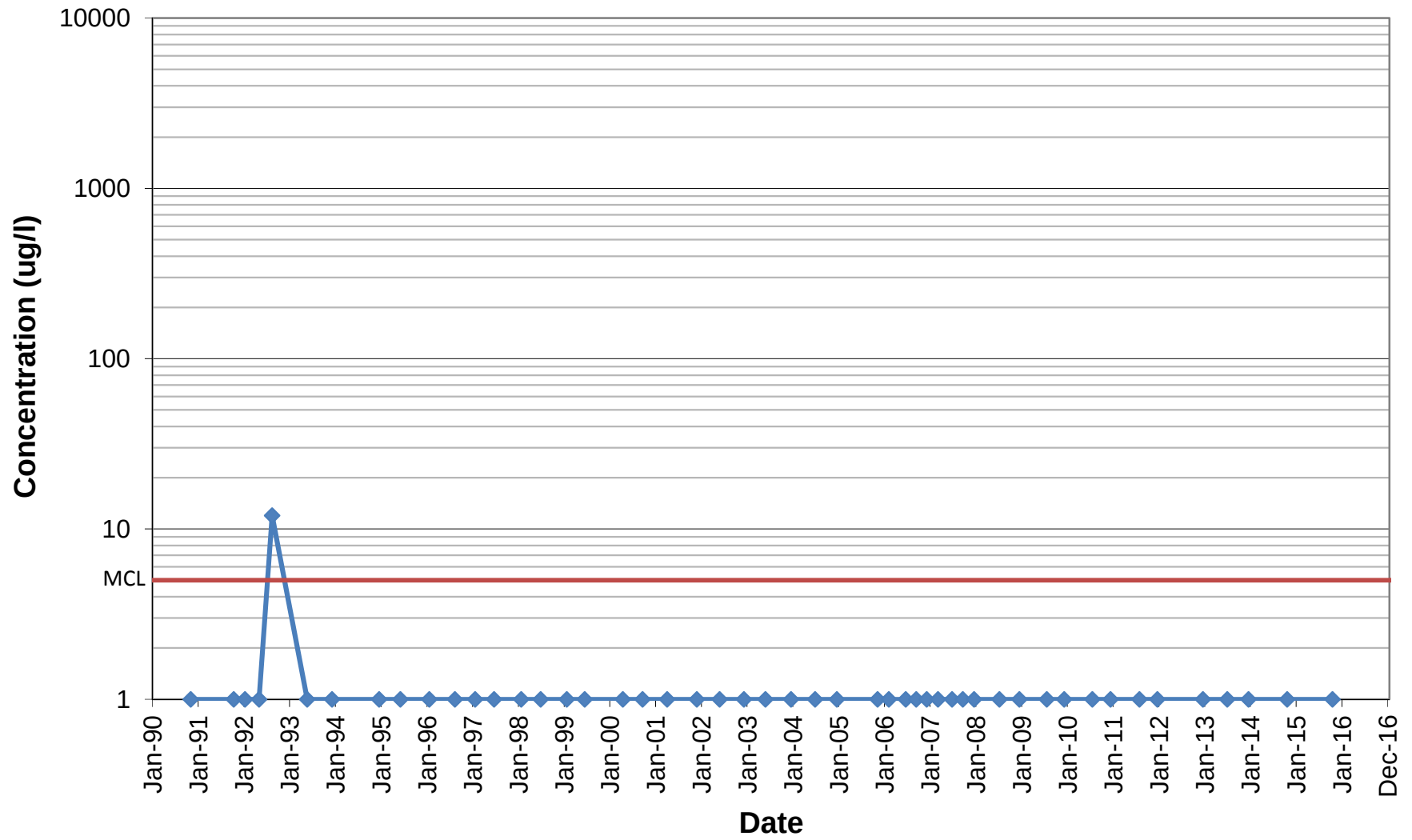
C-3 1,1 DCE Concentrations



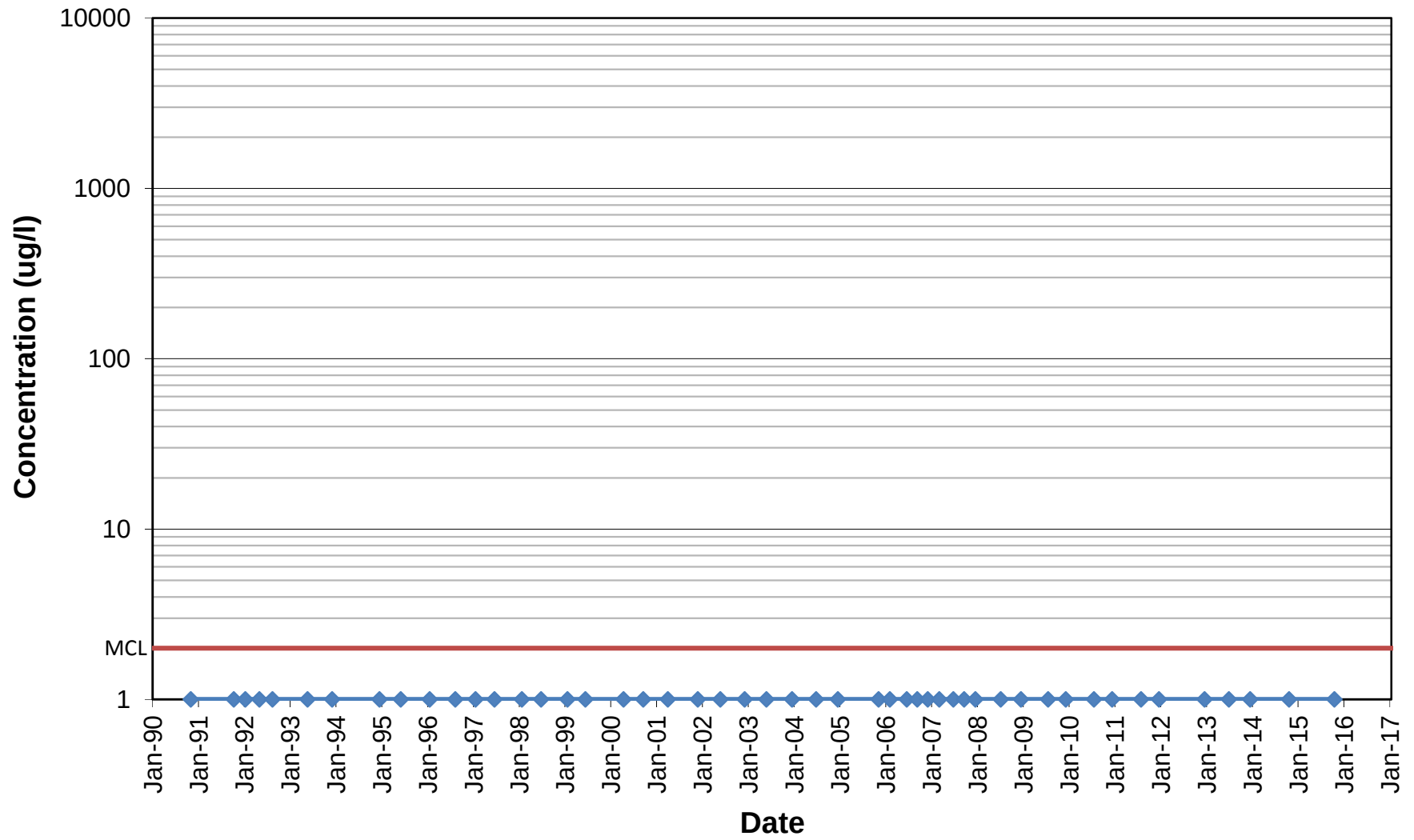
C-3 cis 1,2 DCE Concentrations



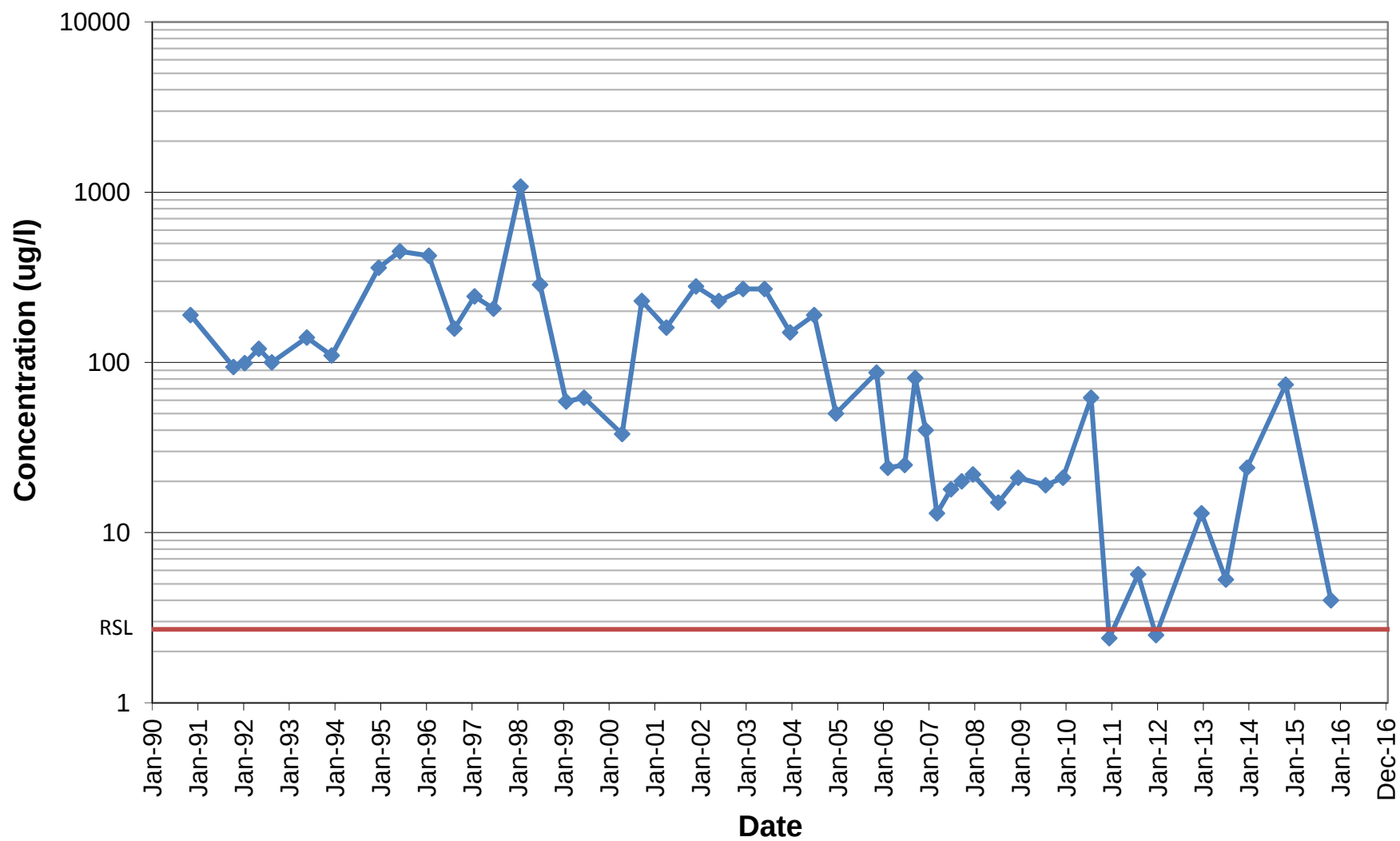
C-3 TCE Concentrations



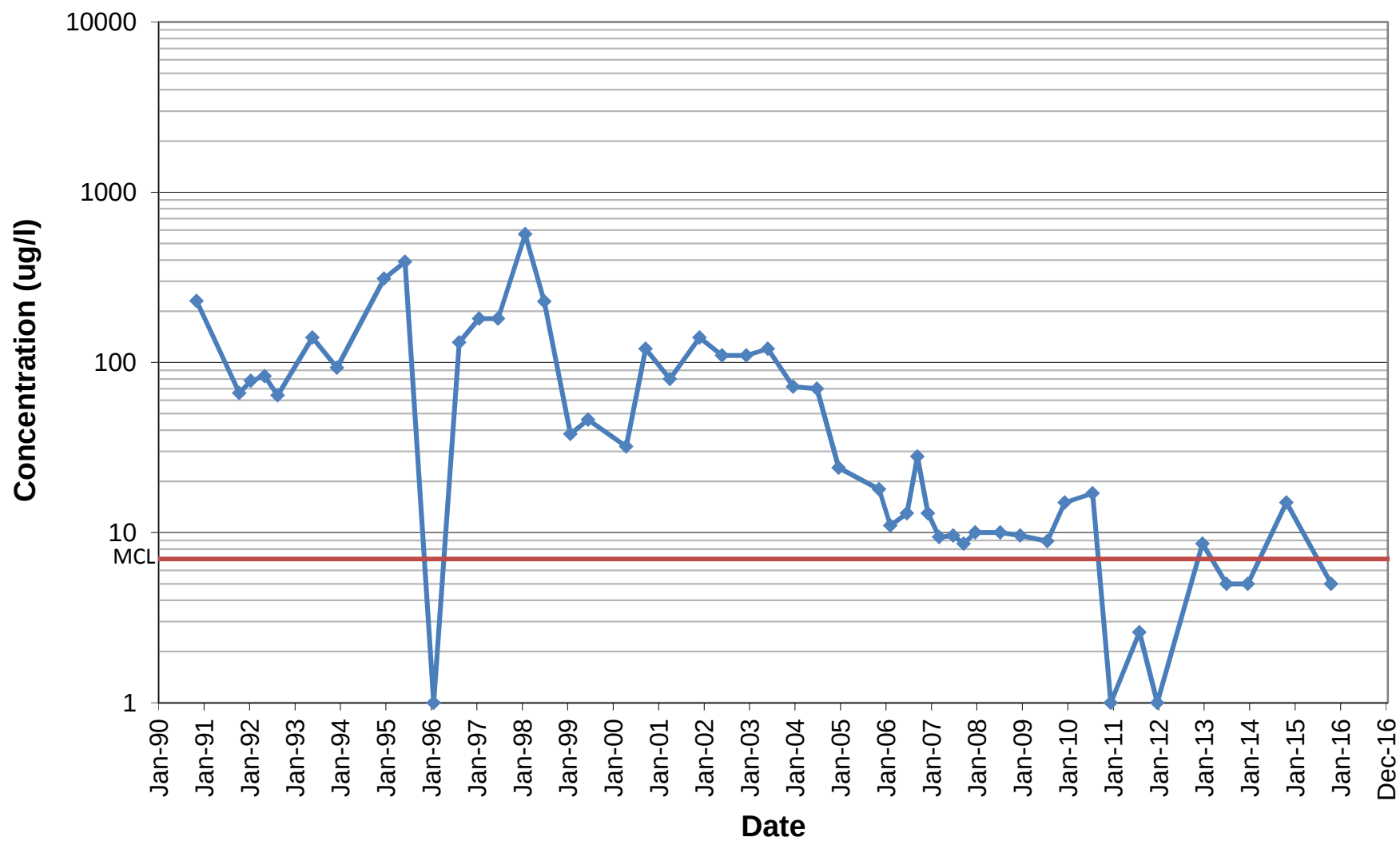
C-3 Vinyl Chloride



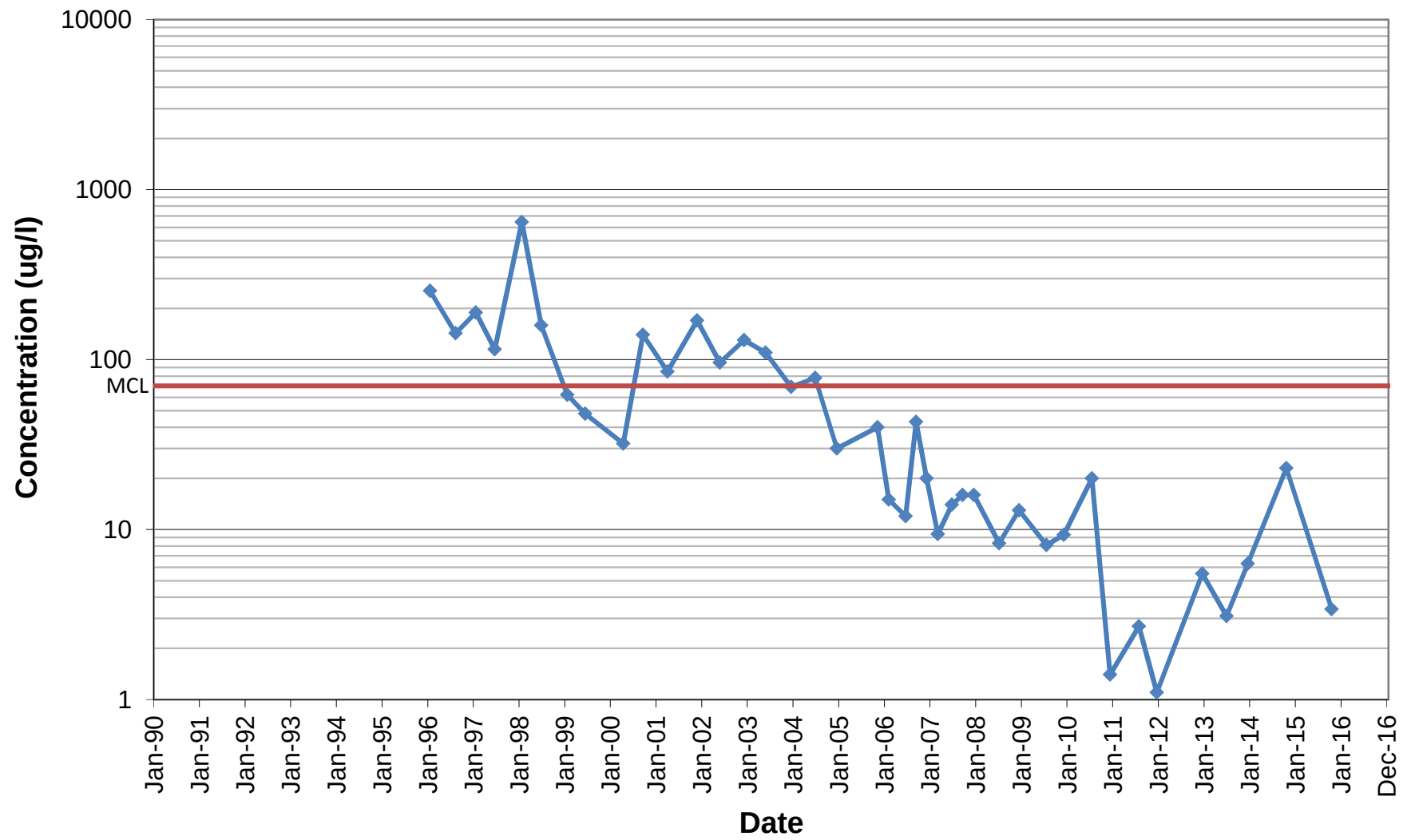
C-4 1,1 DCA Concentrations



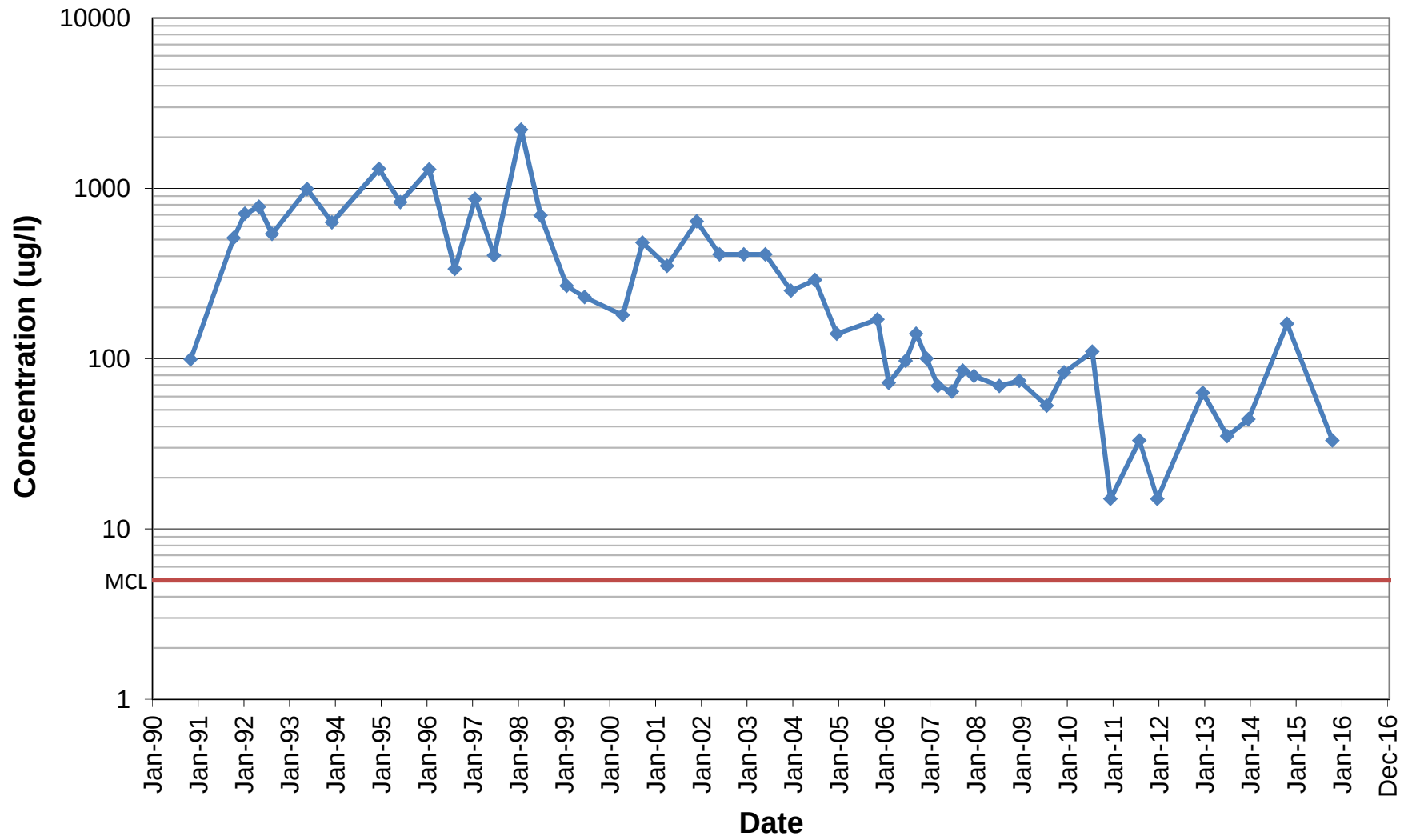
C-4 1,1 DCE Concentrations



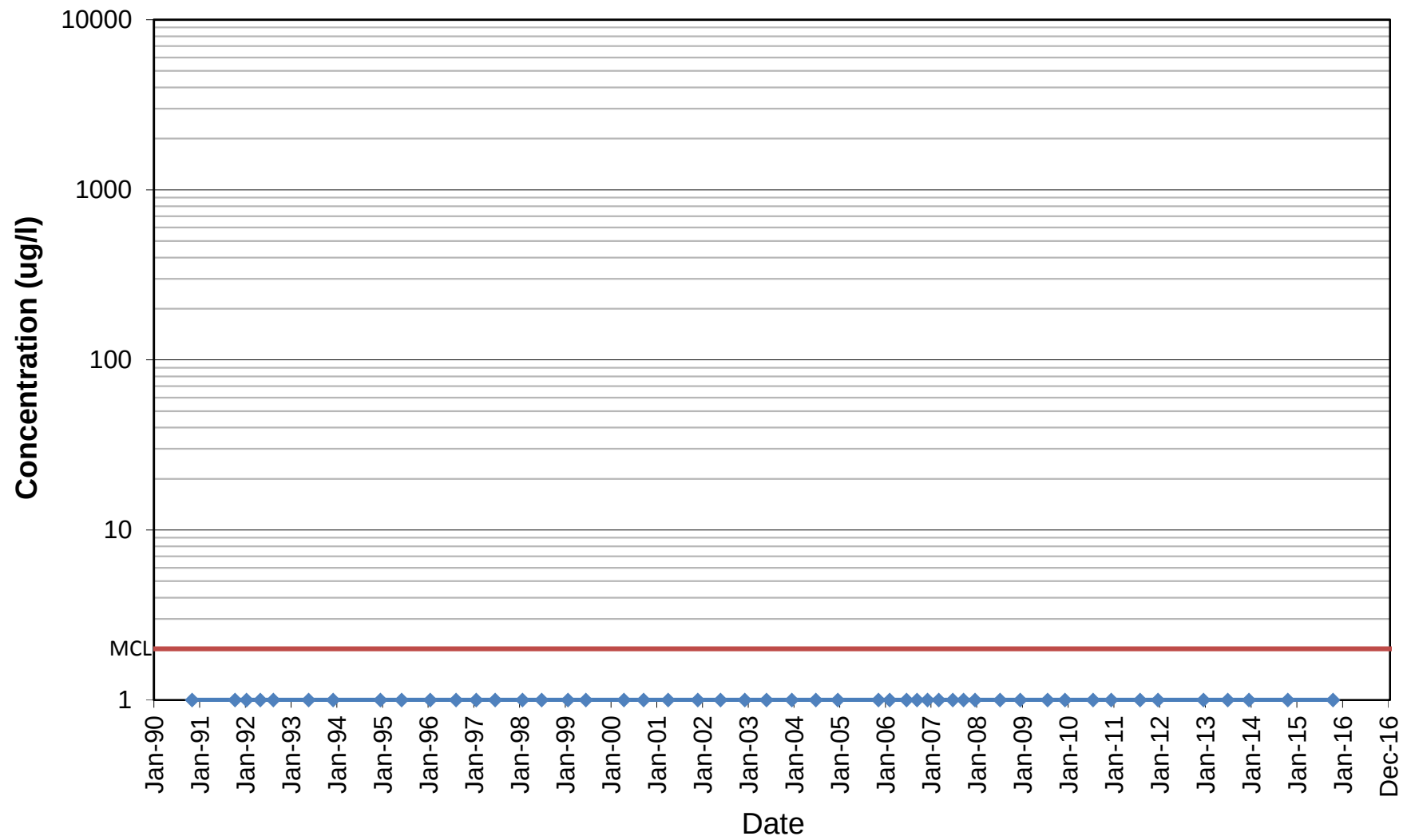
C-4 cis 1,2 DCE Concentrations



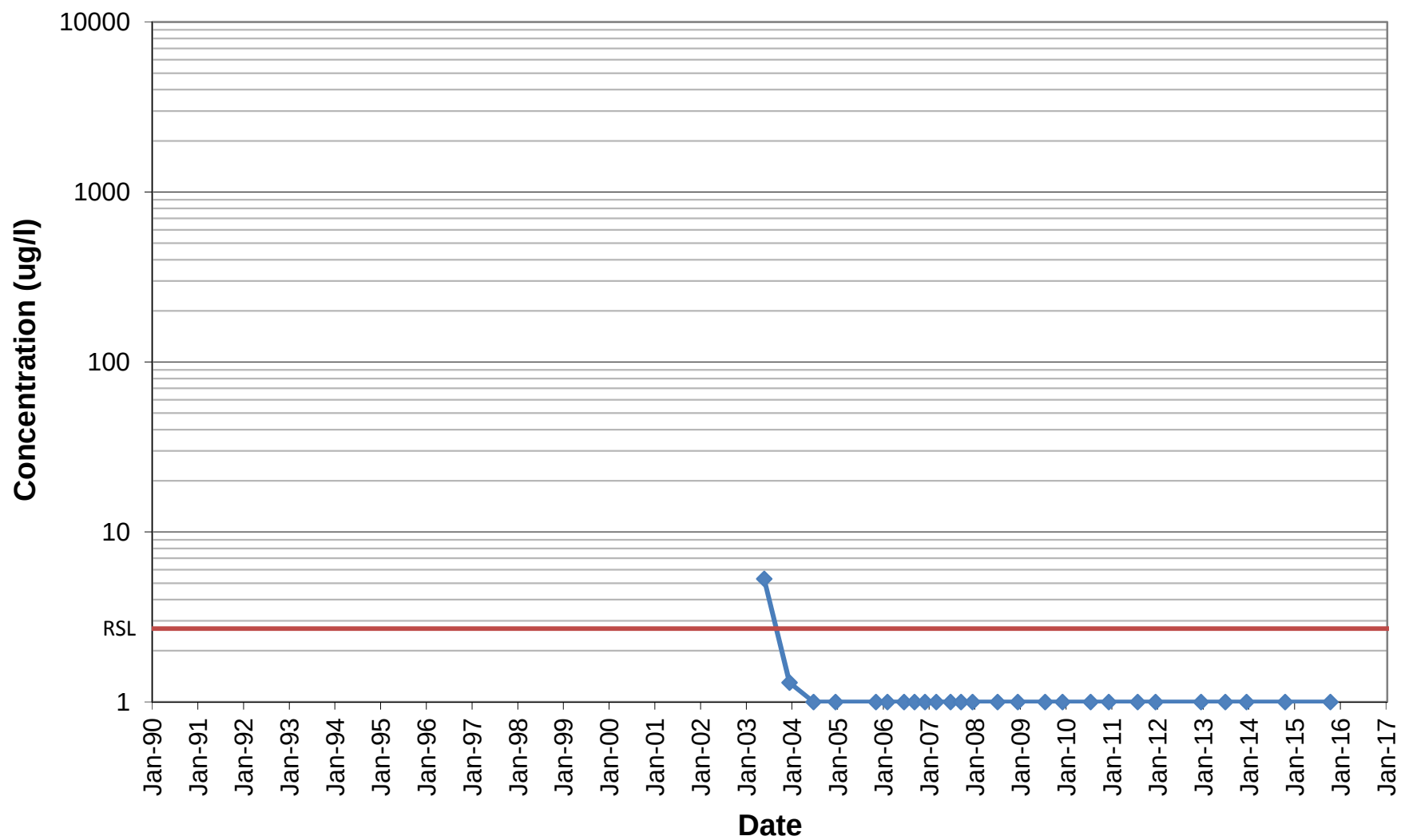
C-4 TCE Concentrations



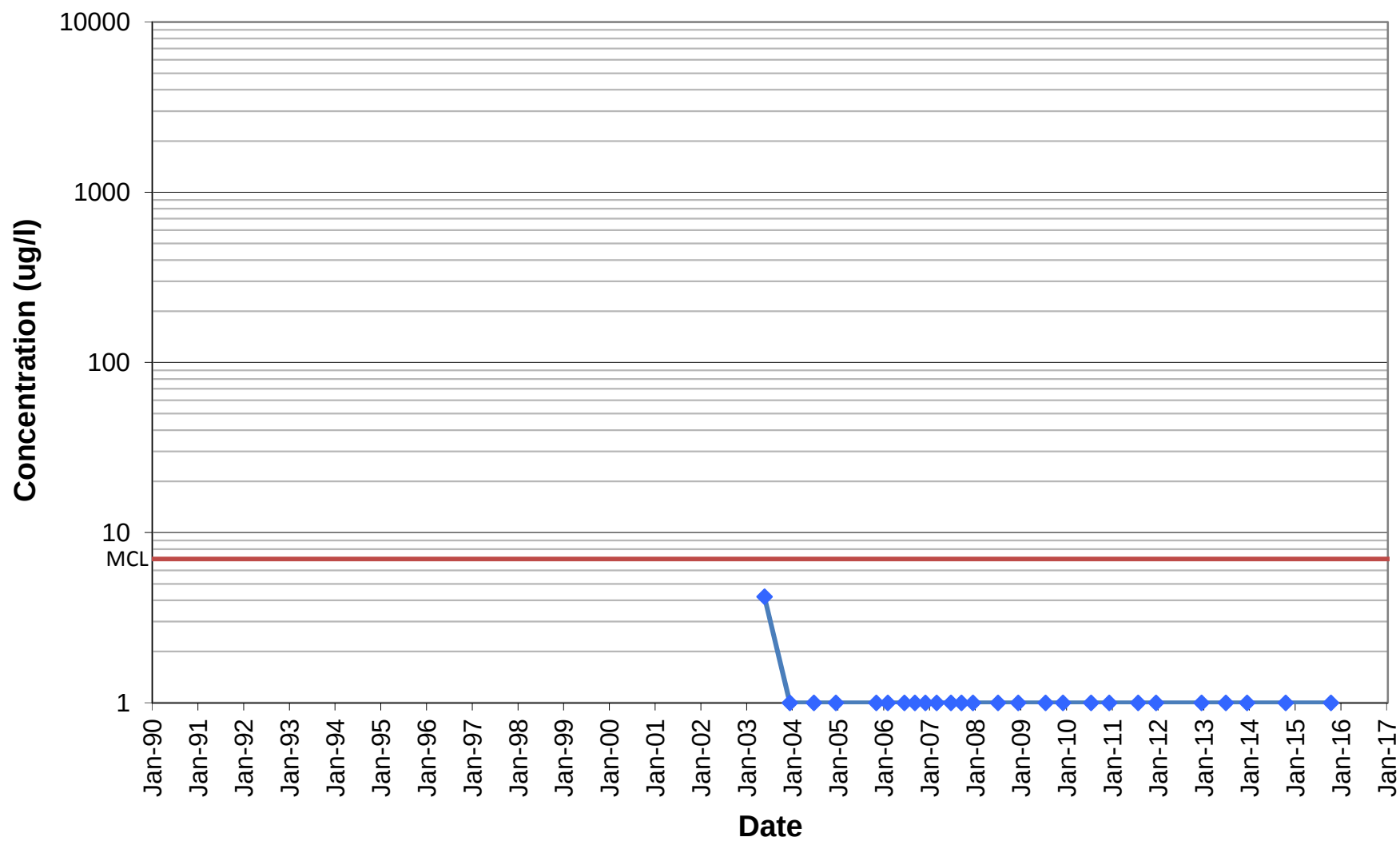
C-4 Vinyl Chloride



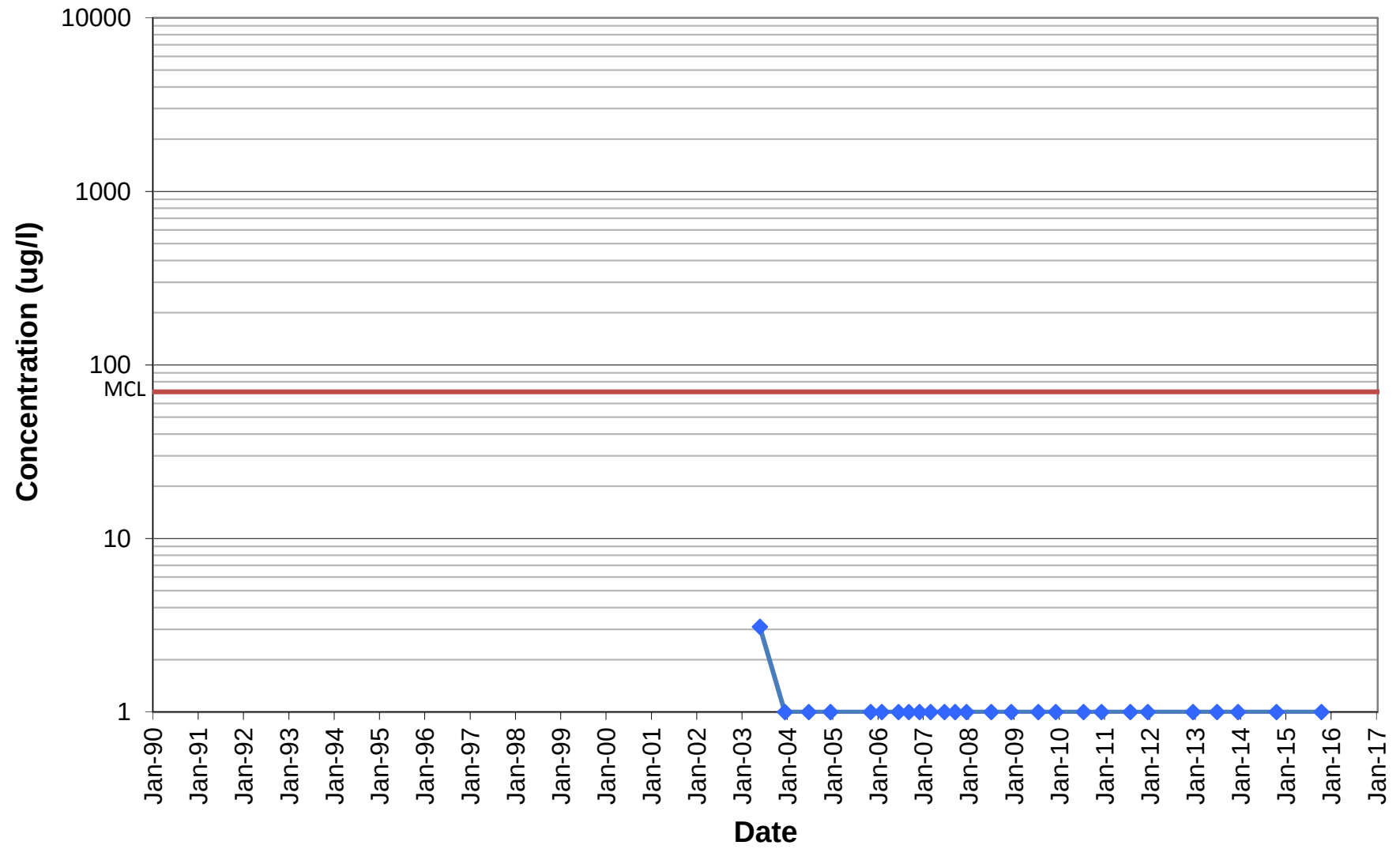
C-5 1,1 DCA Concentrations



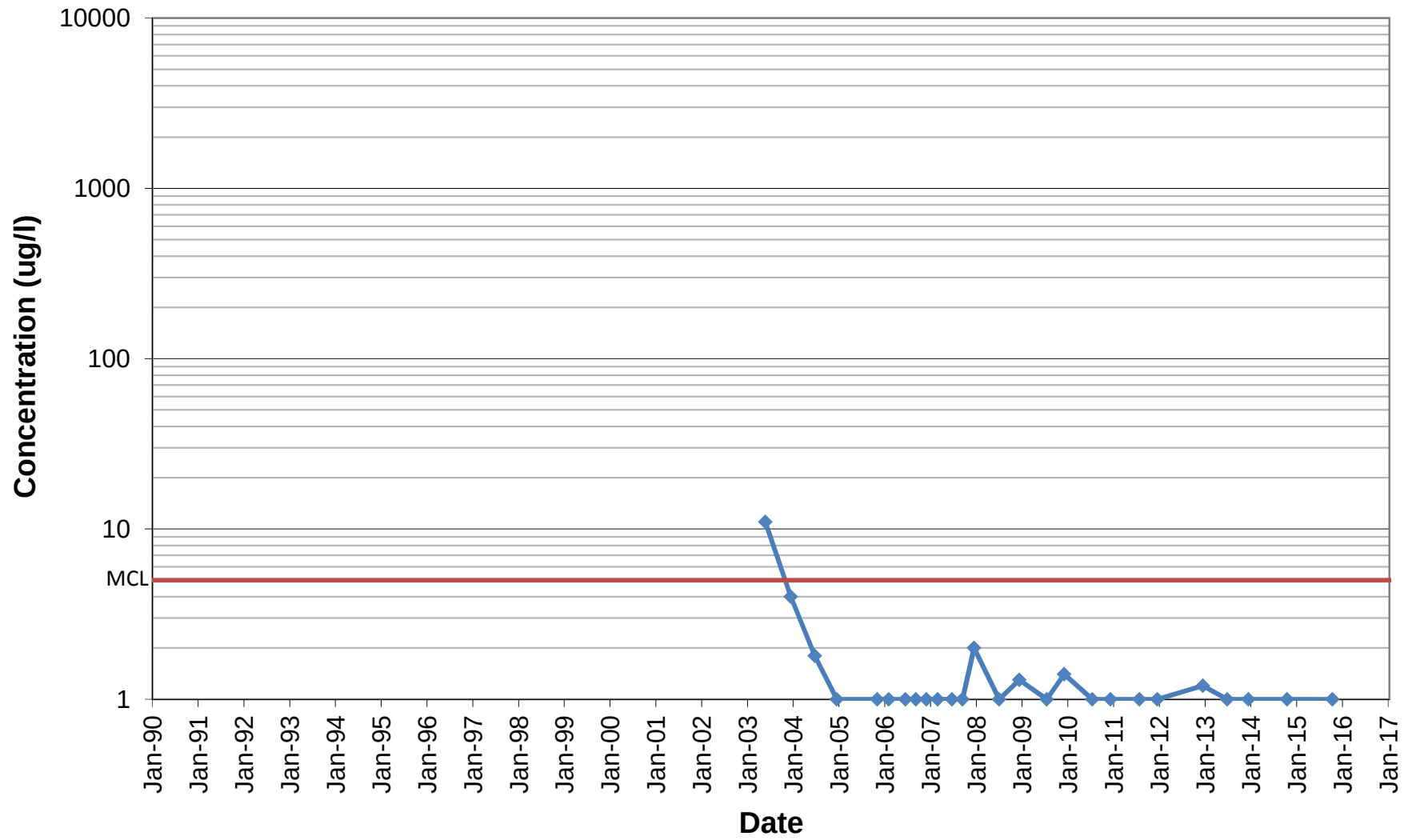
C-5 1,1 DCE Concentrations



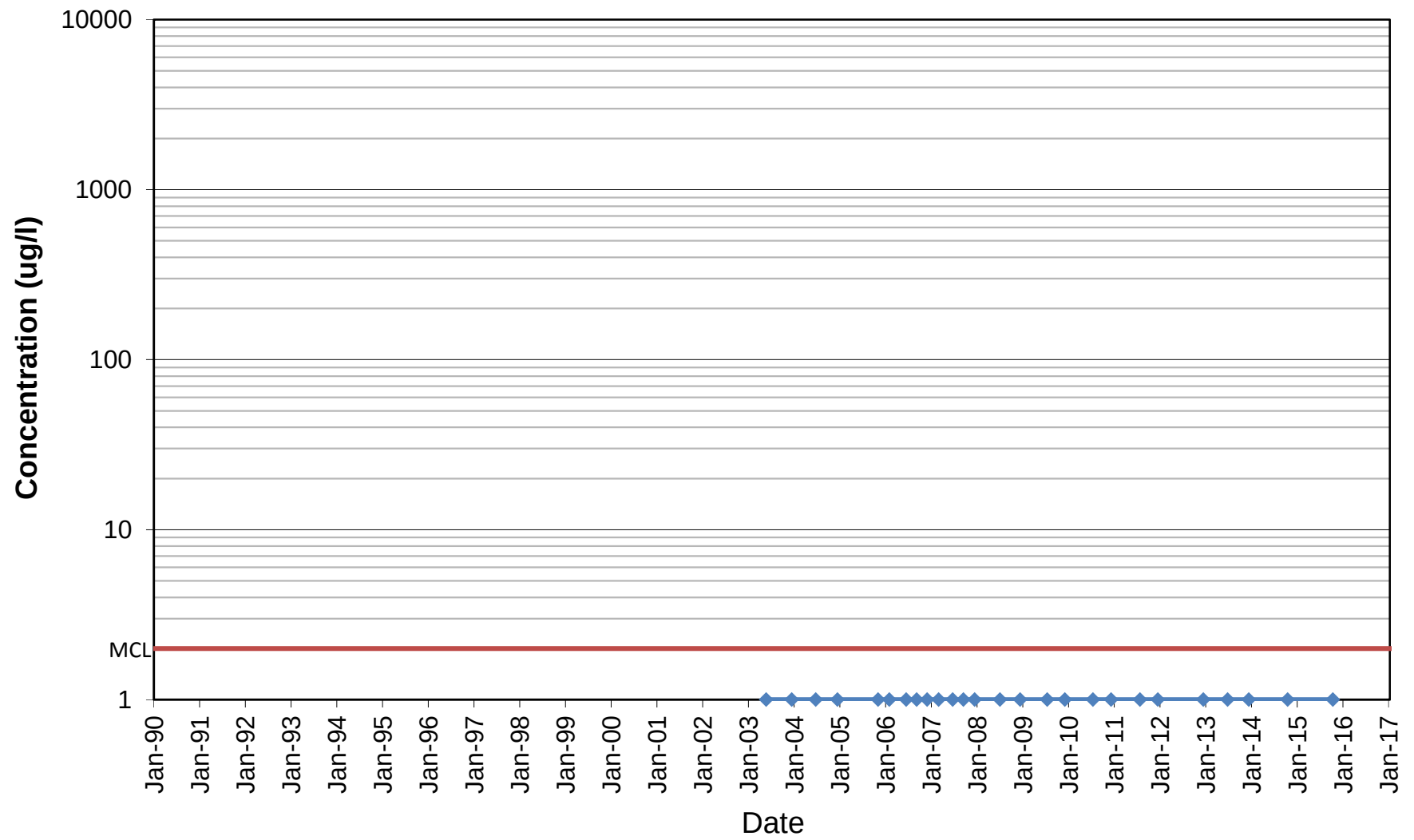
C-5 cis 1,2 DCE Concentrations



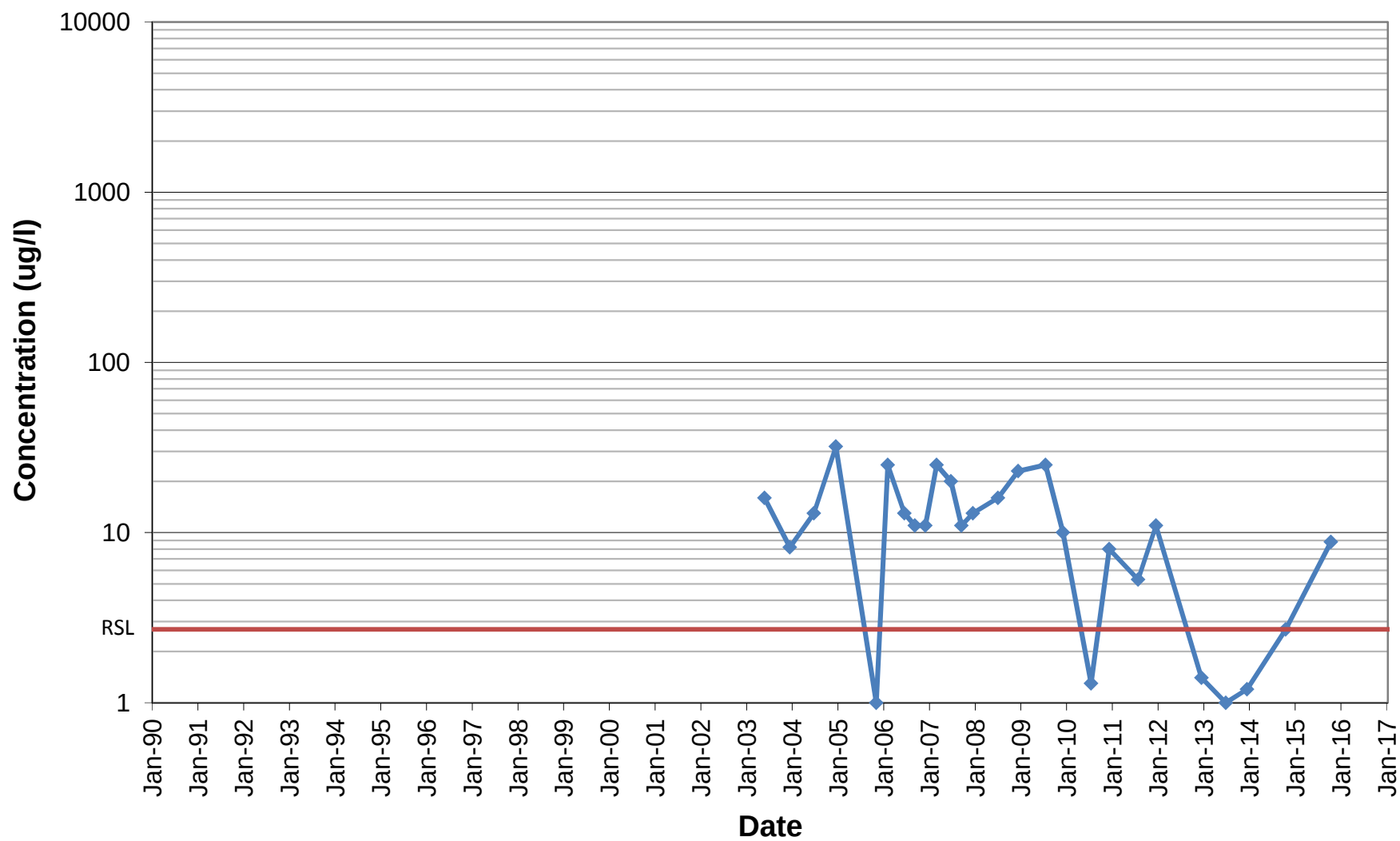
C-5 TCE Concentrations



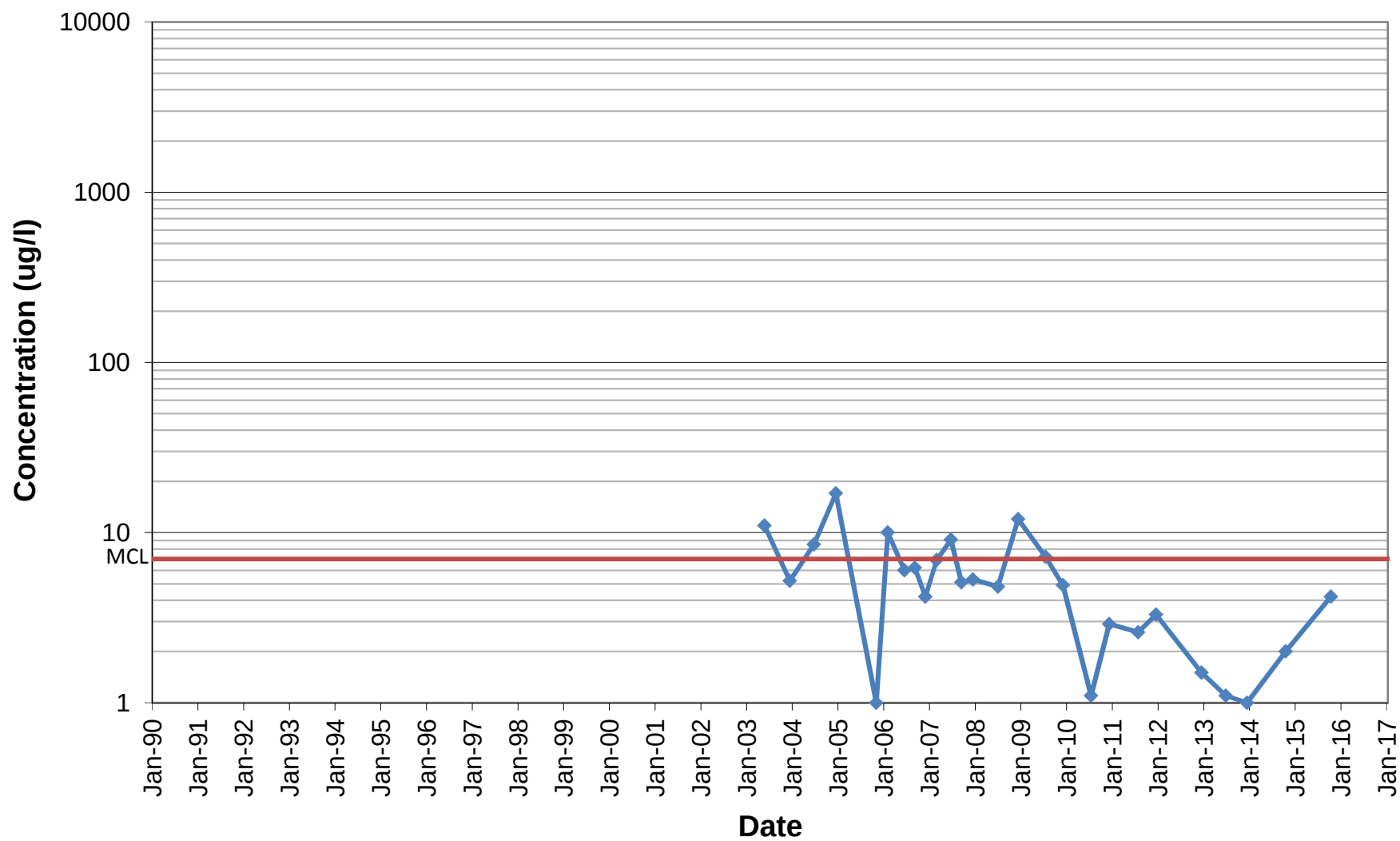
C-5 Vinyl Chloride



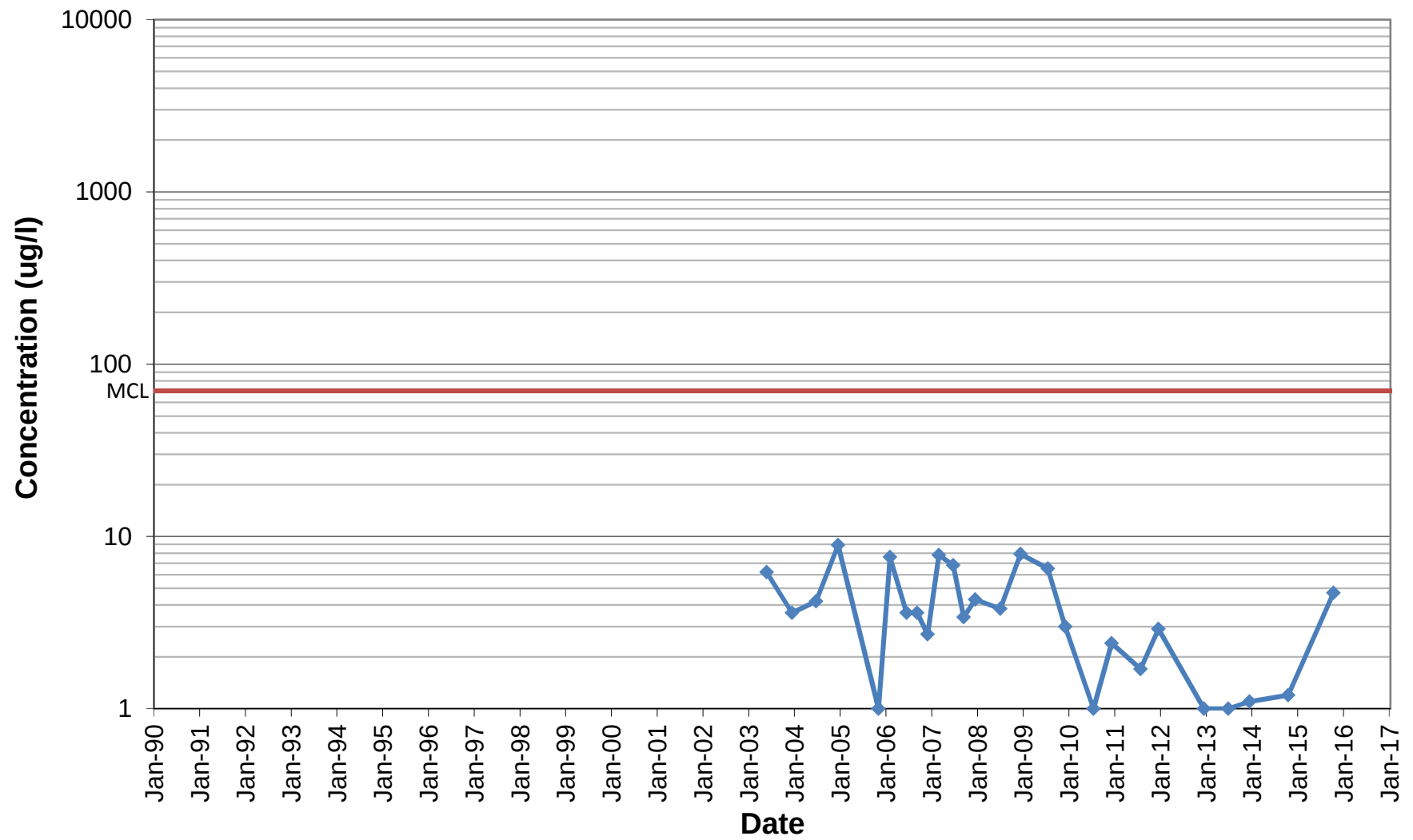
C-6 1,1 DCA Concentrations



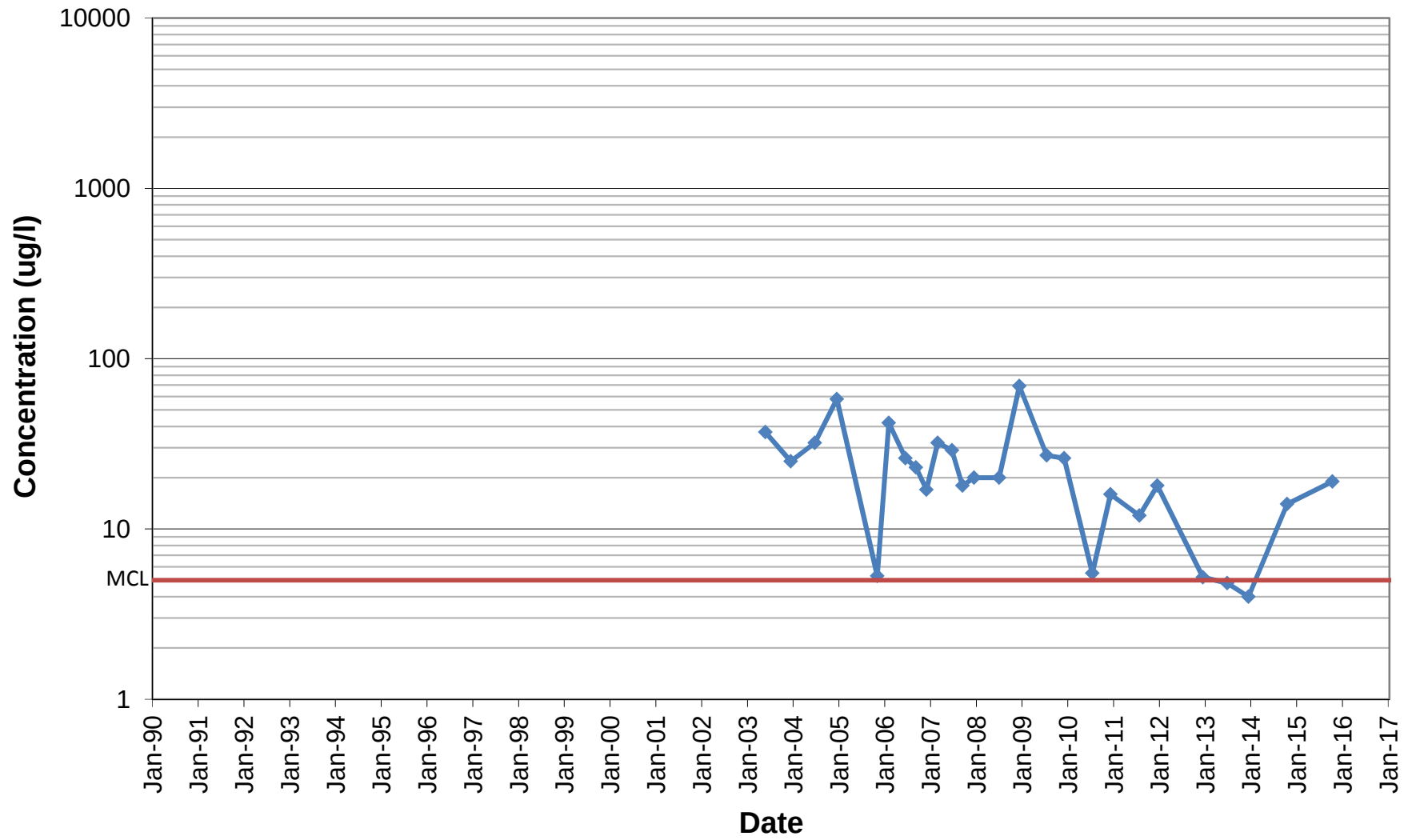
C-6 1,1 DCE Concentrations



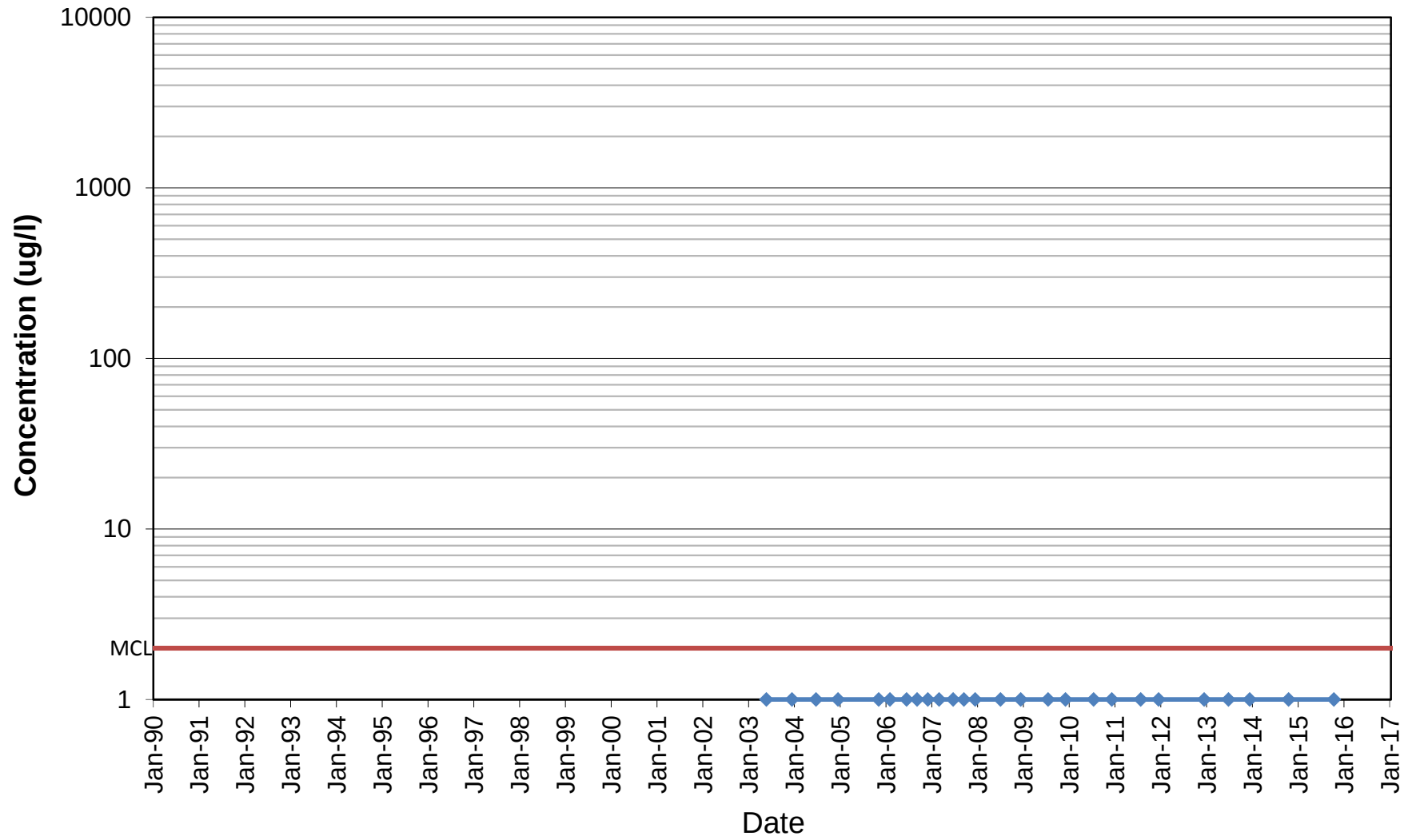
C-6 cis 1,2 DCE Concentrations



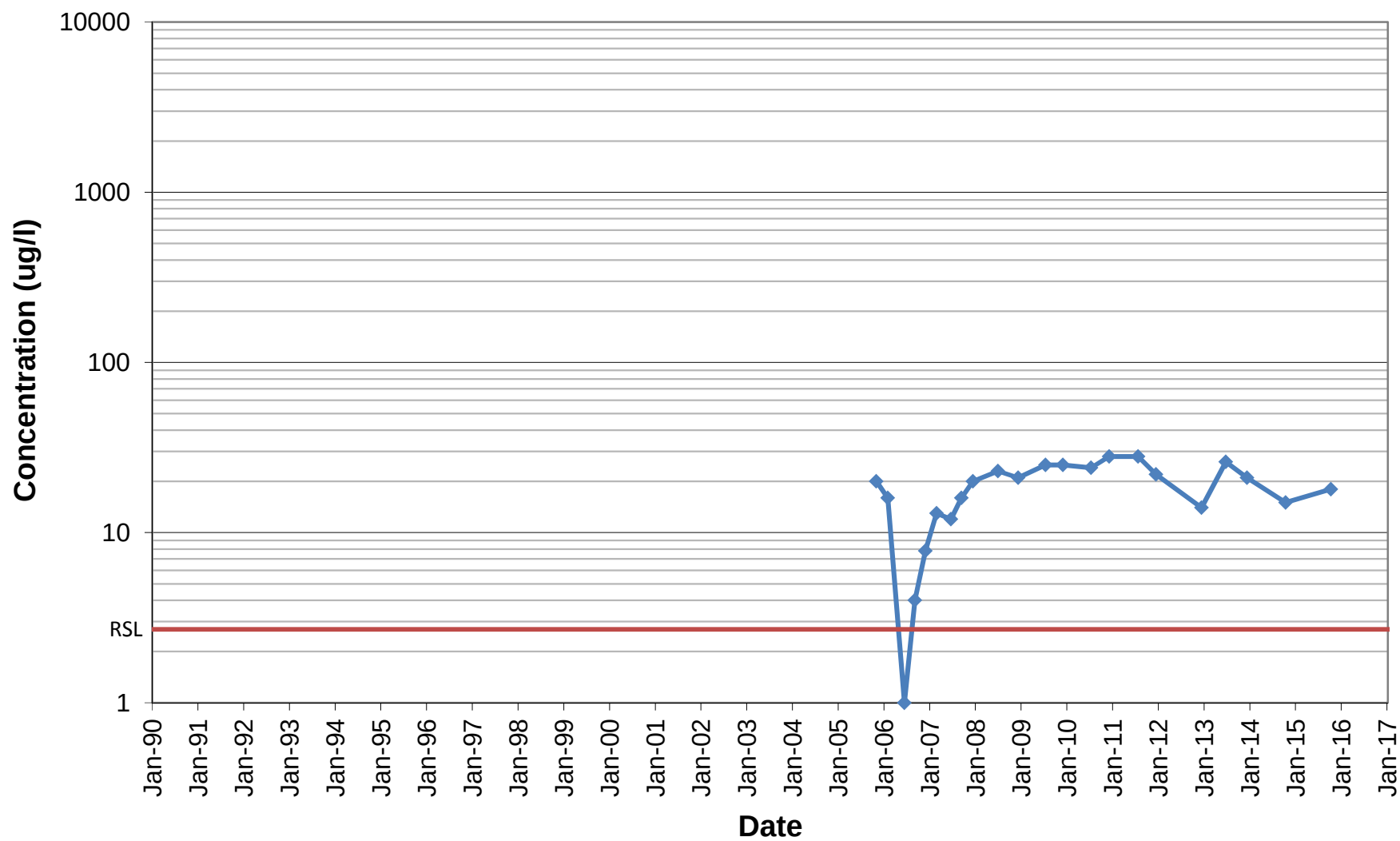
C-6 TCE Concentrations



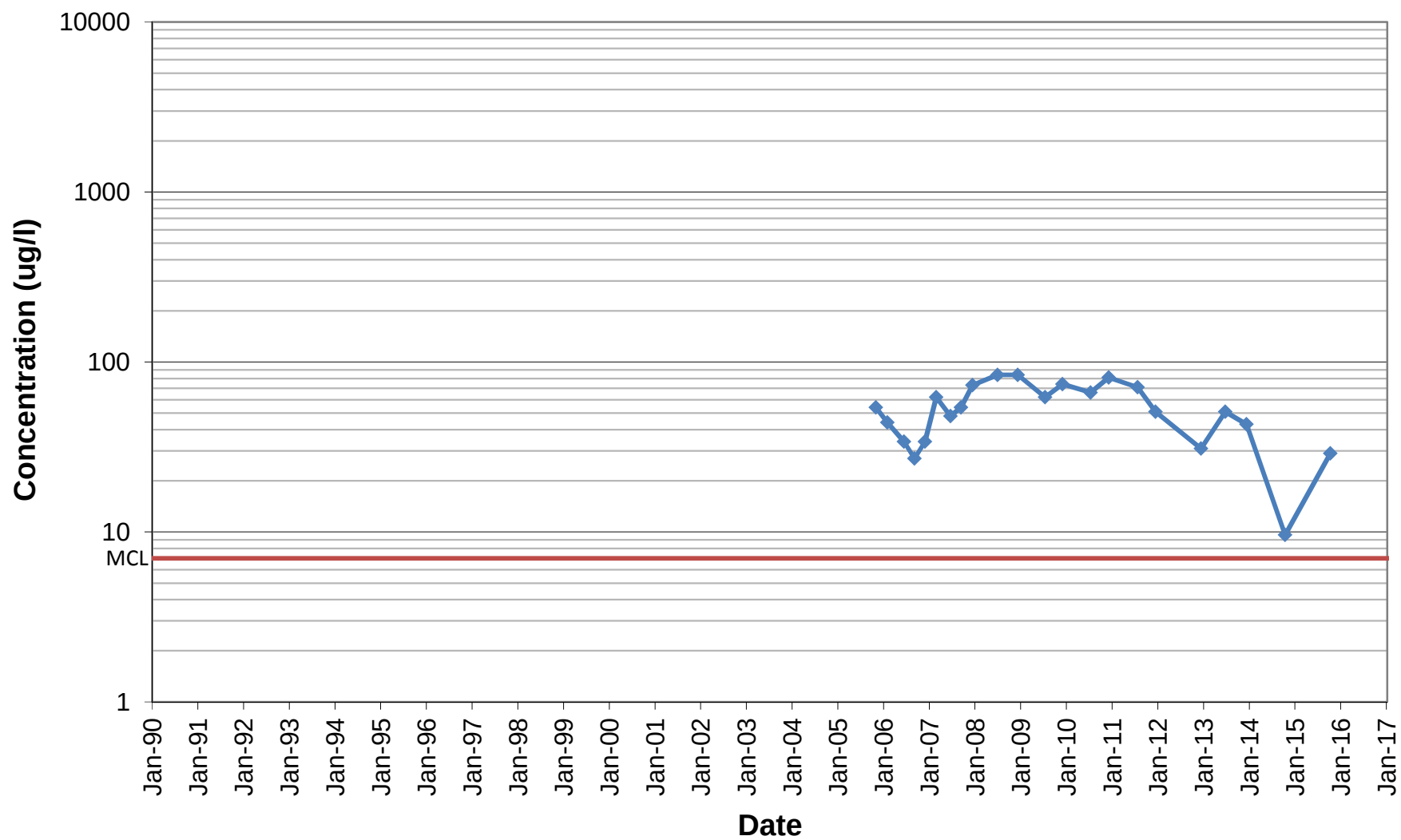
C-6 Vinyl Chloride



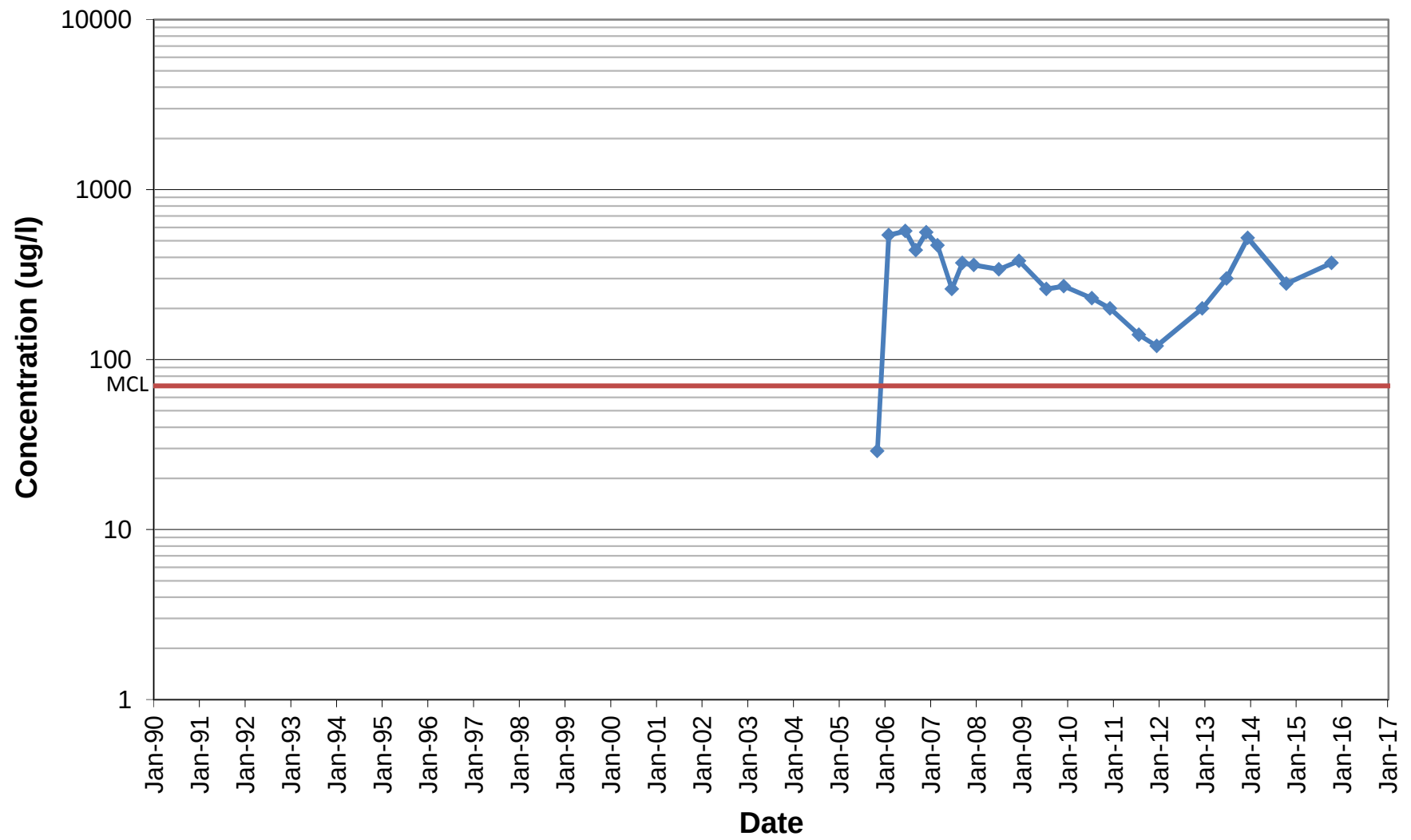
C-7 1,1 DCA Concentrations



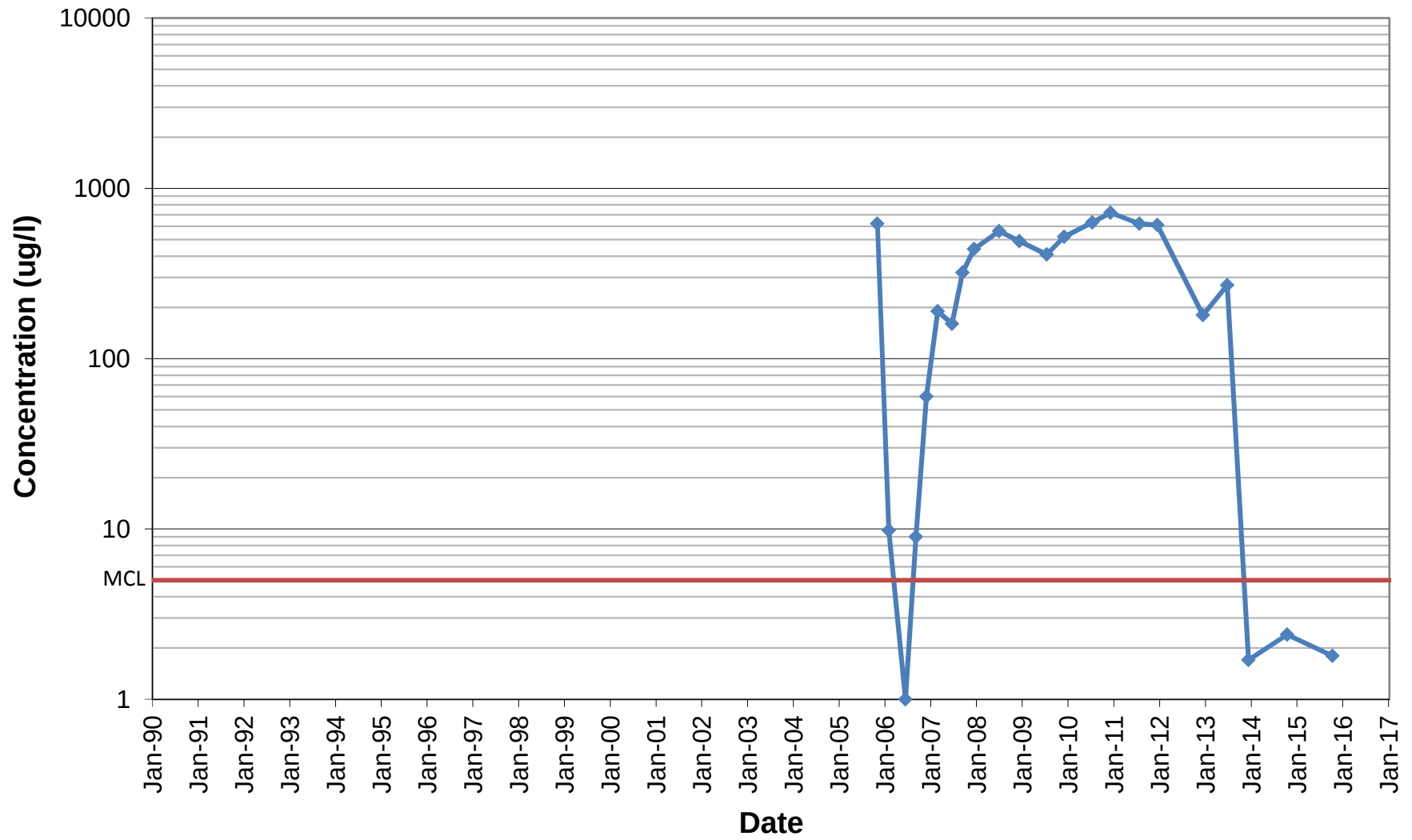
C-7 1,1 DCE Concentrations



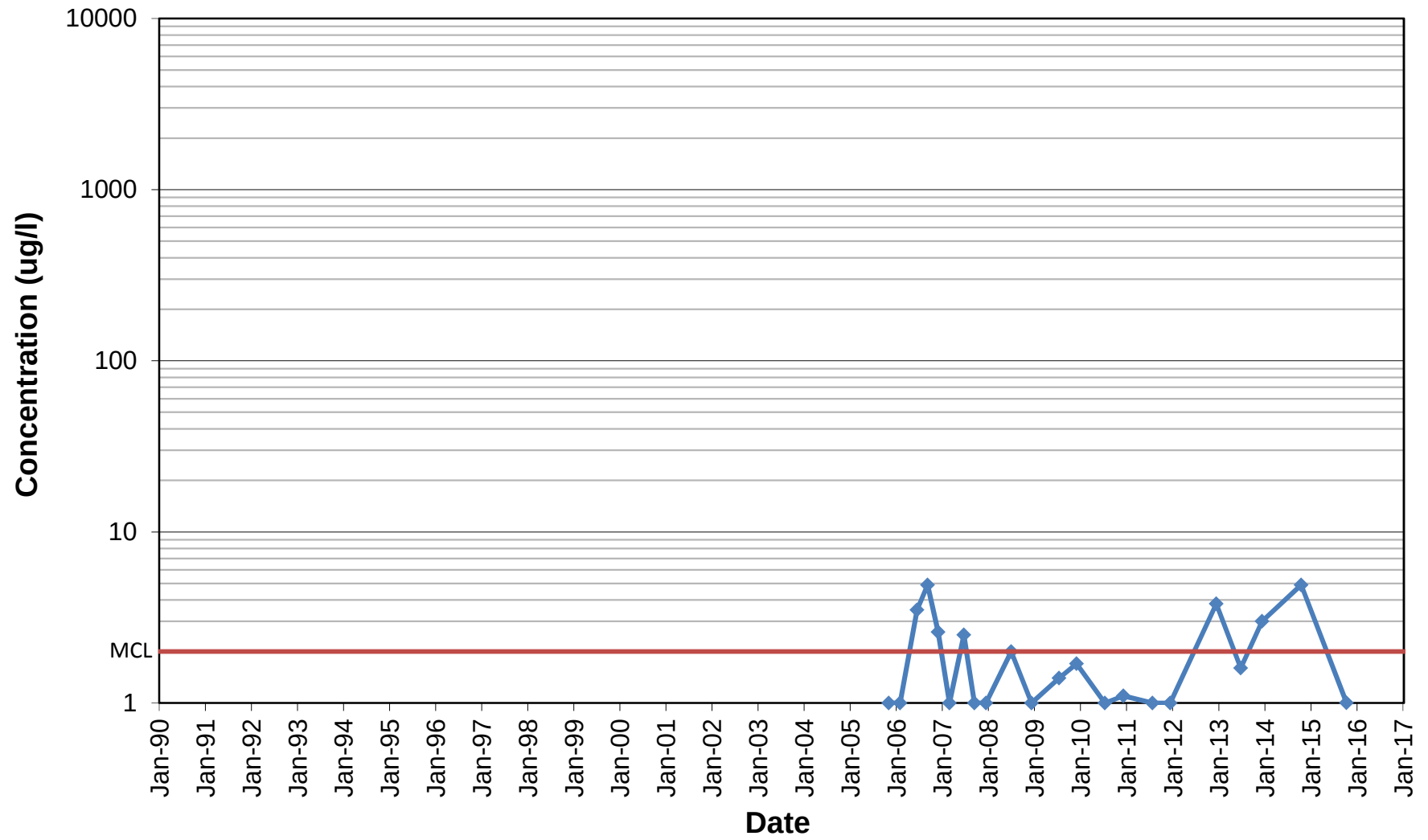
C-7 cis 1,2 DCE Concentrations



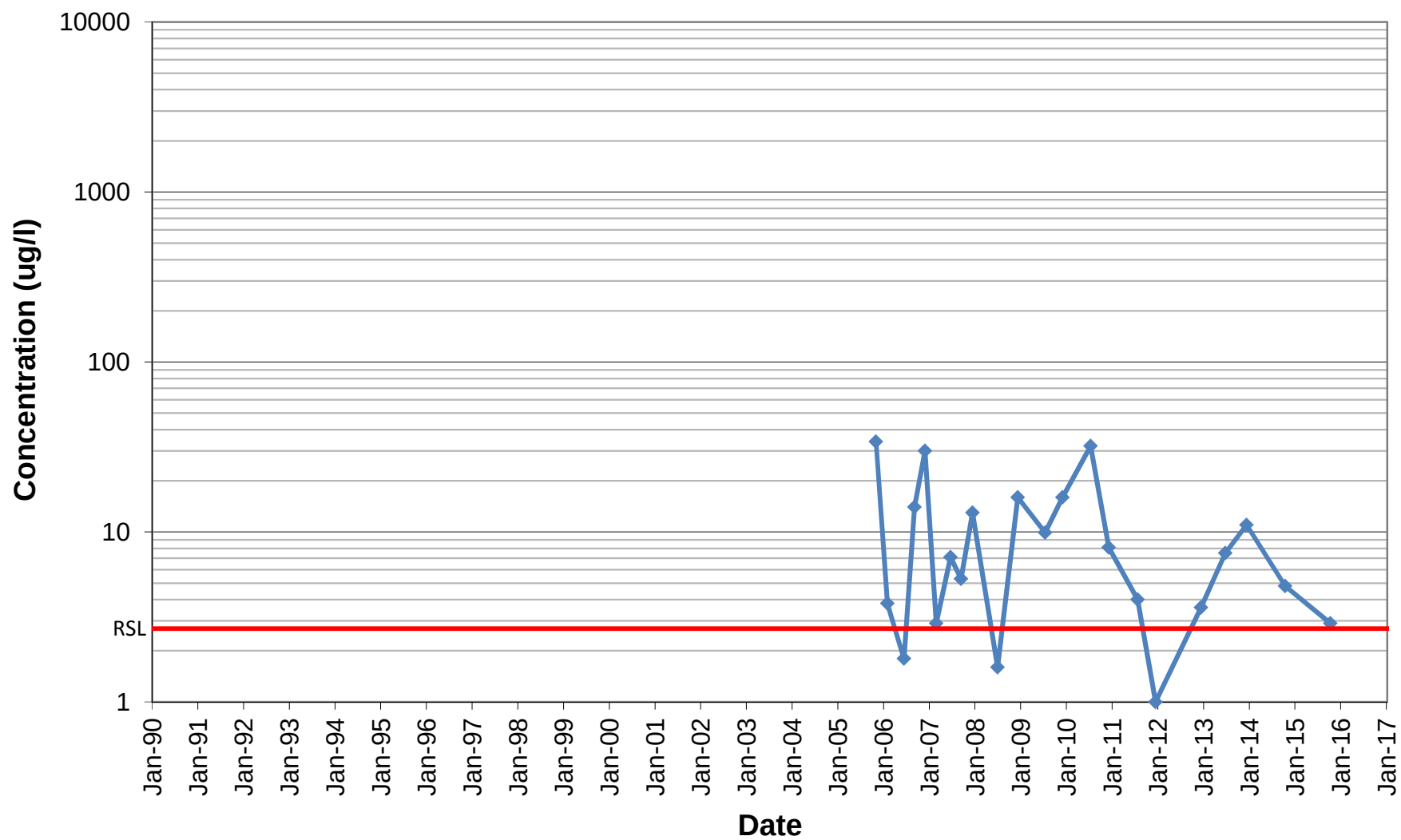
C-7 TCE Concentrations



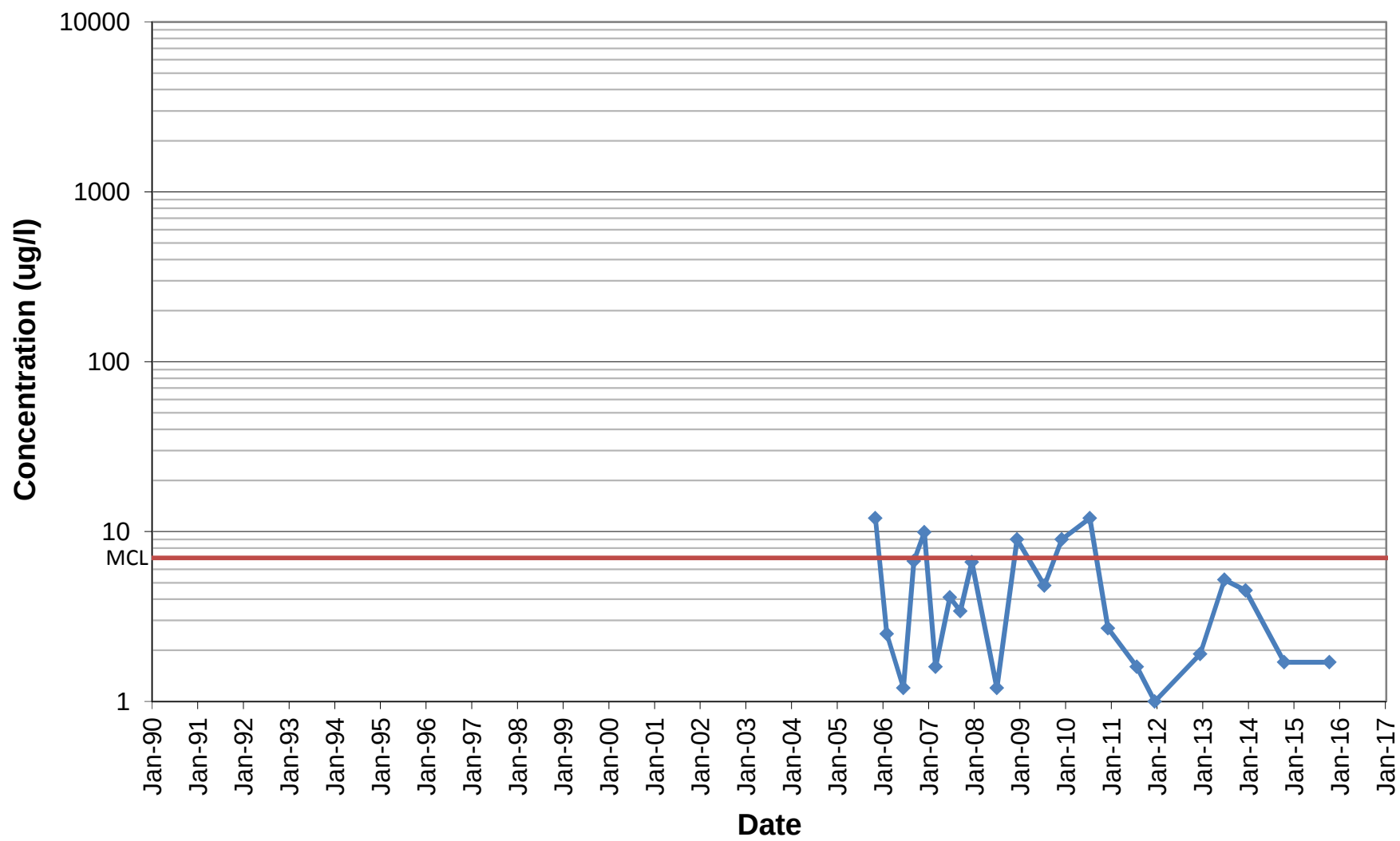
C-7 Vinyl Chloride



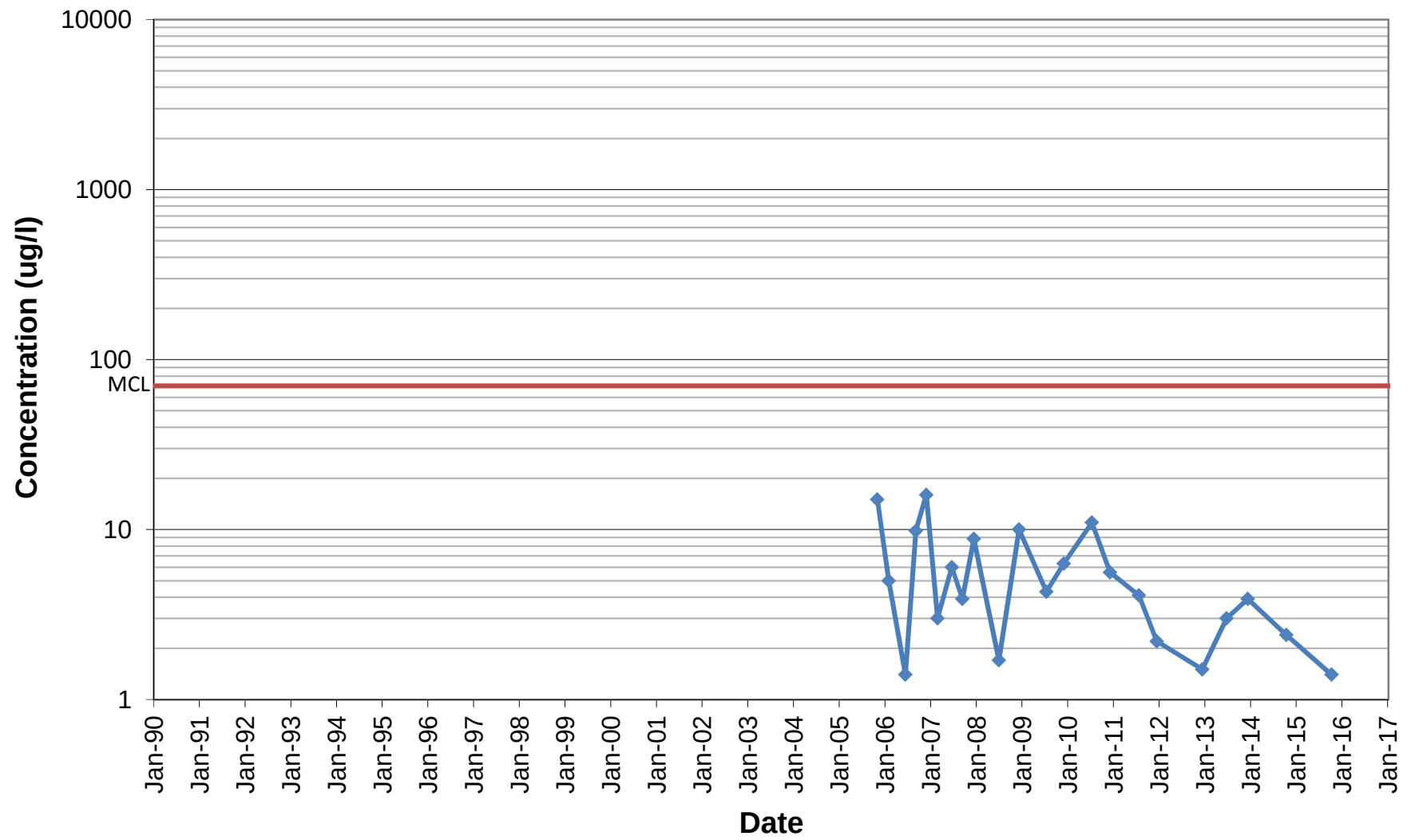
C-8 1,1 DCA Concentrations



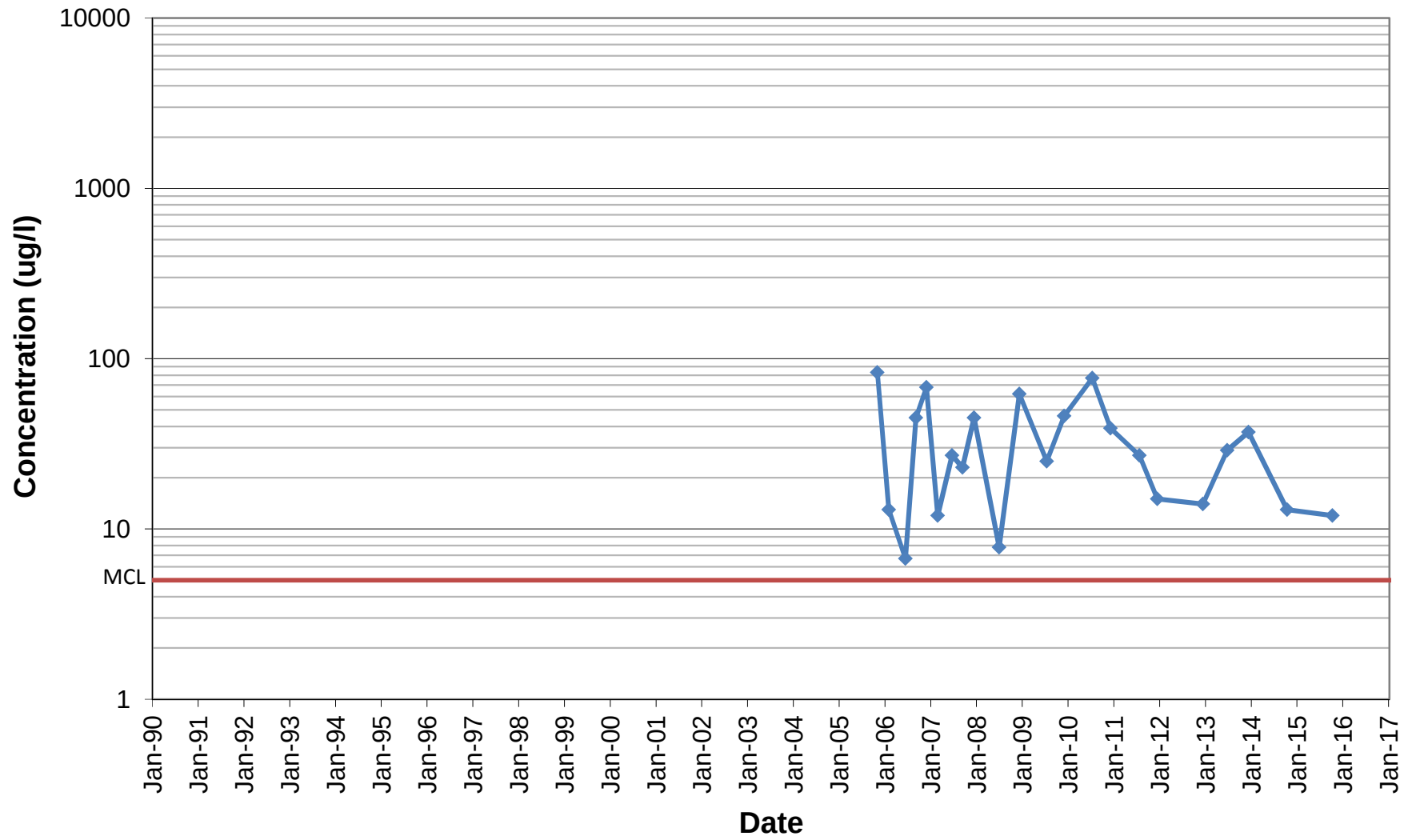
C-8 1,1 DCE Concentrations



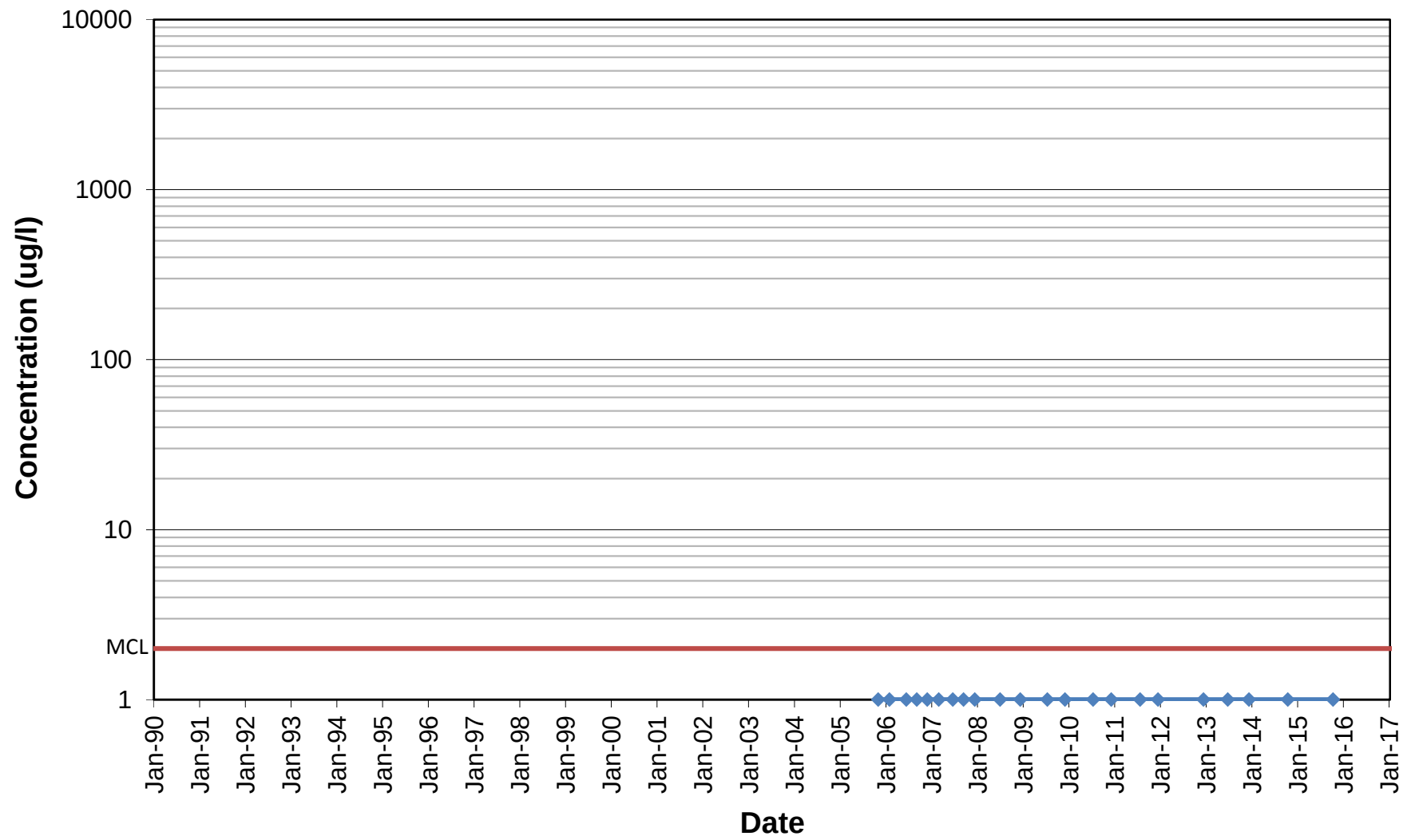
C-8 cis 1,2 DCE Concentrations



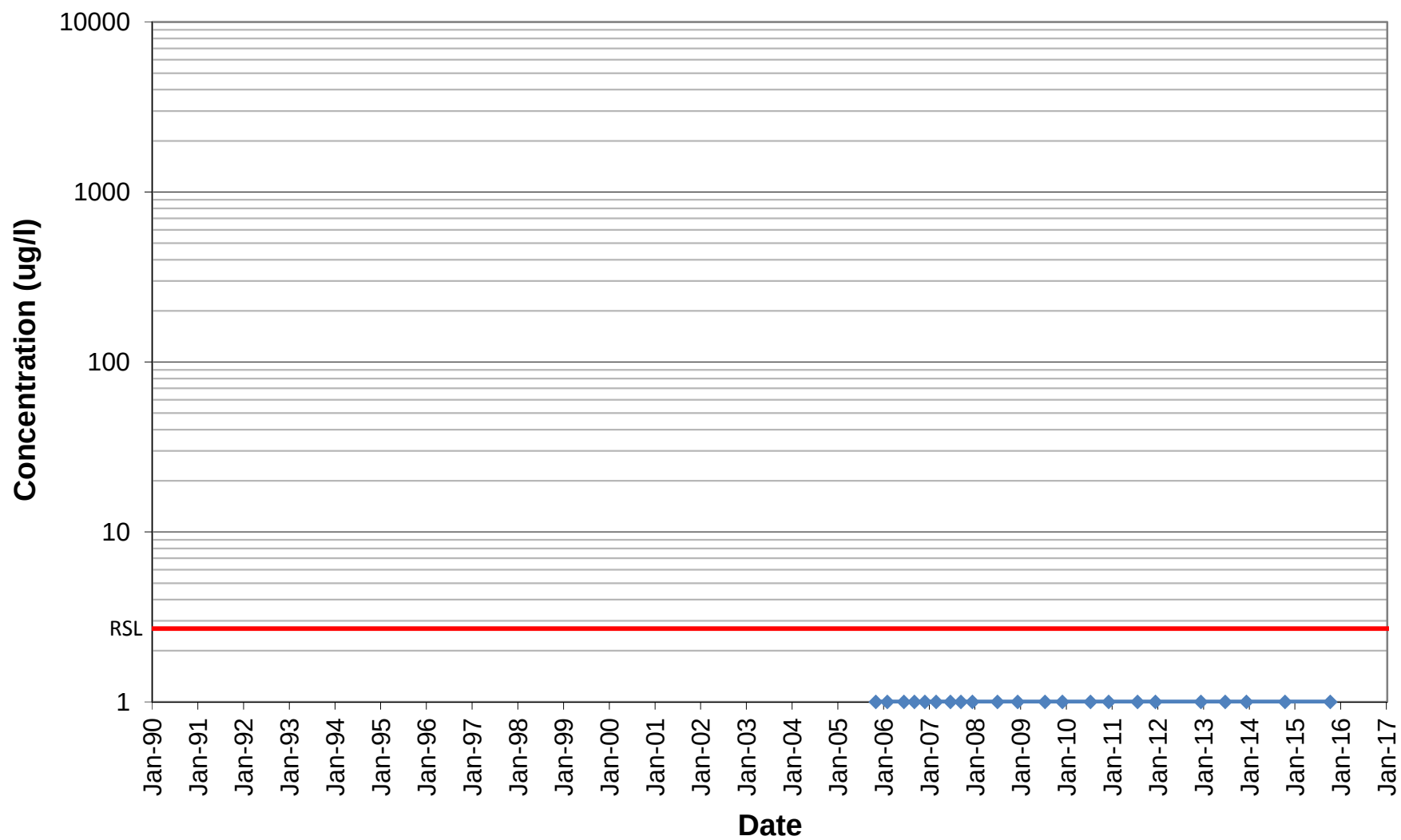
C-8 TCE Concentrations



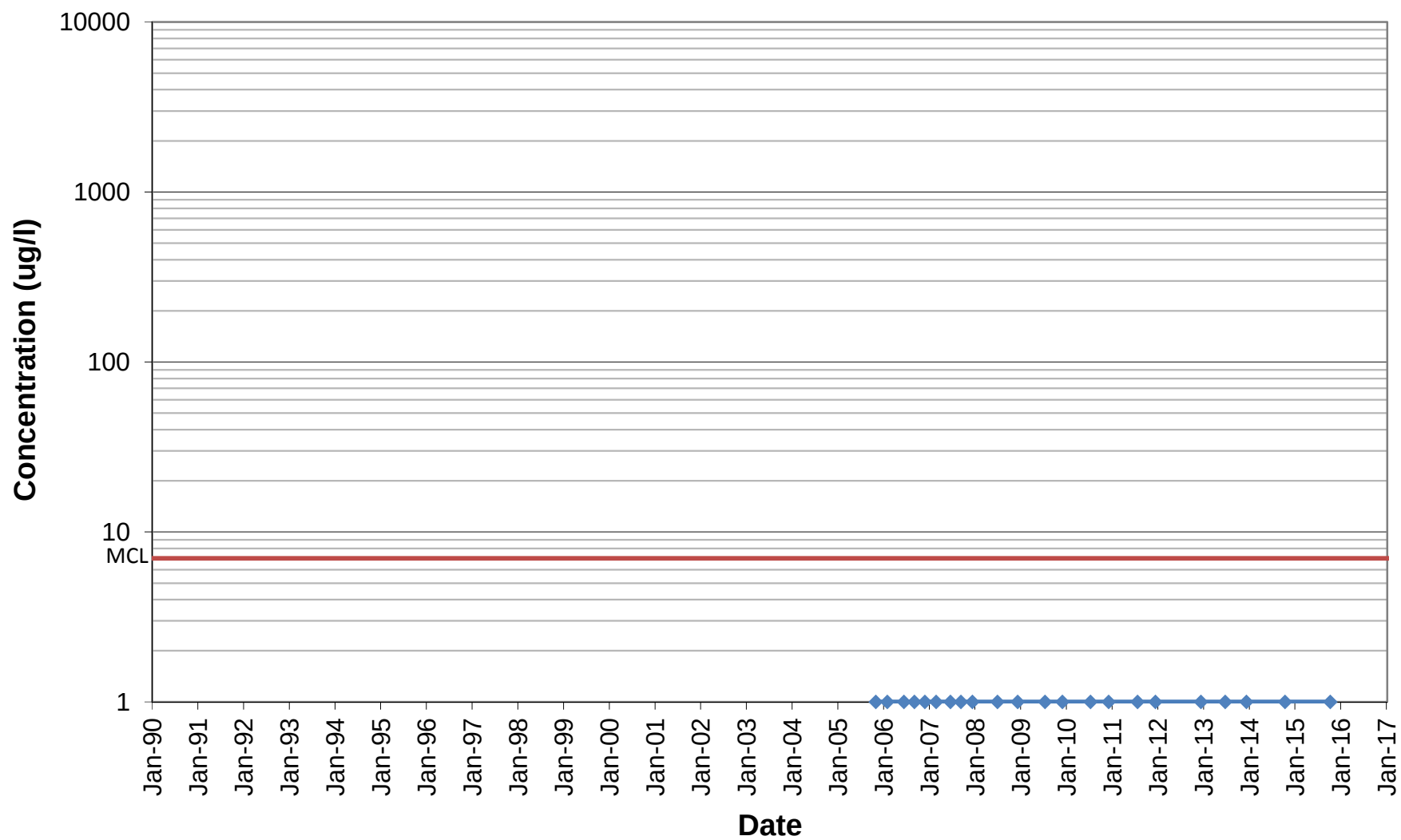
C-8 Vinyl Chloride



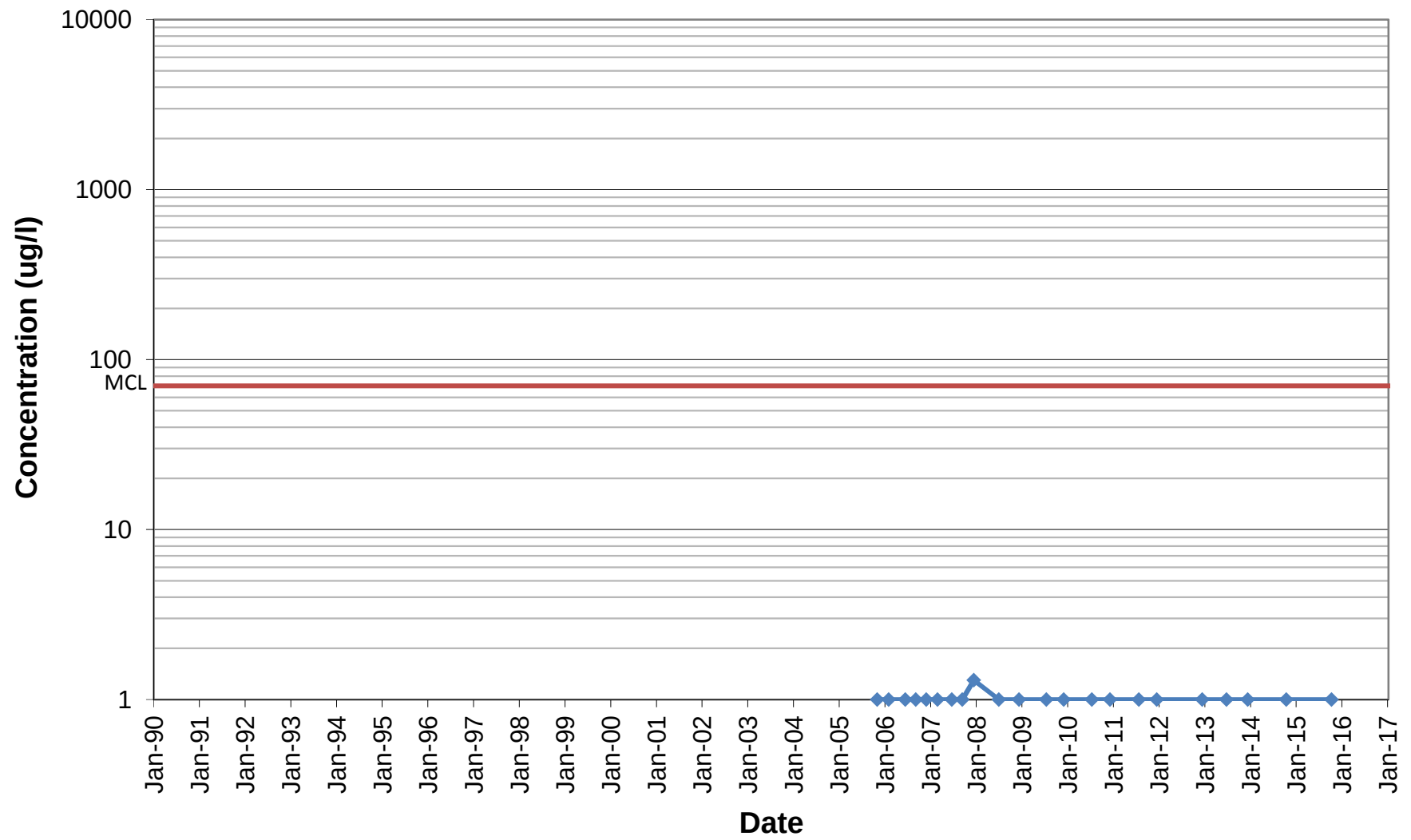
C-9 1,1 DCA Concentrations



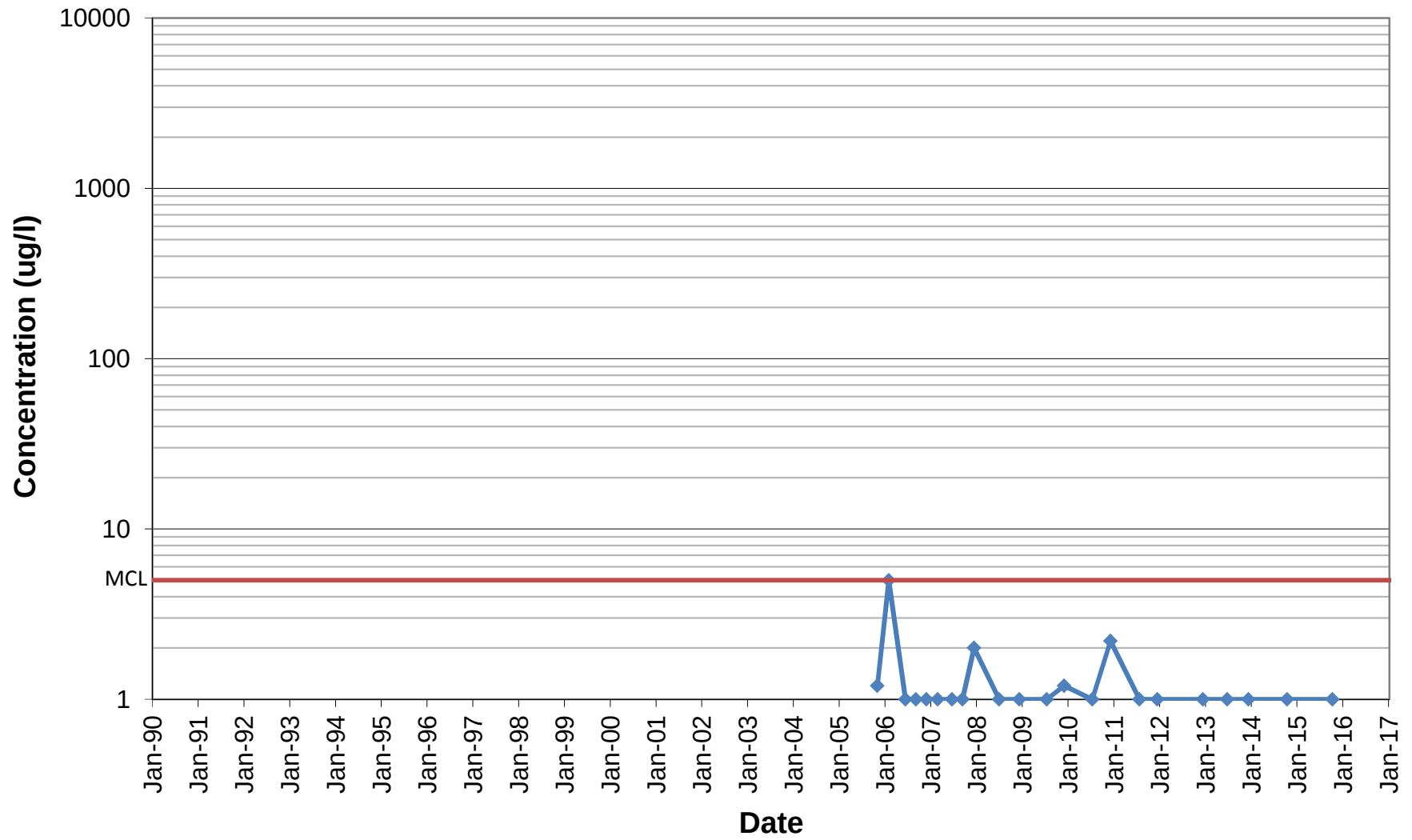
C-9 1,1 DCE Concentrations



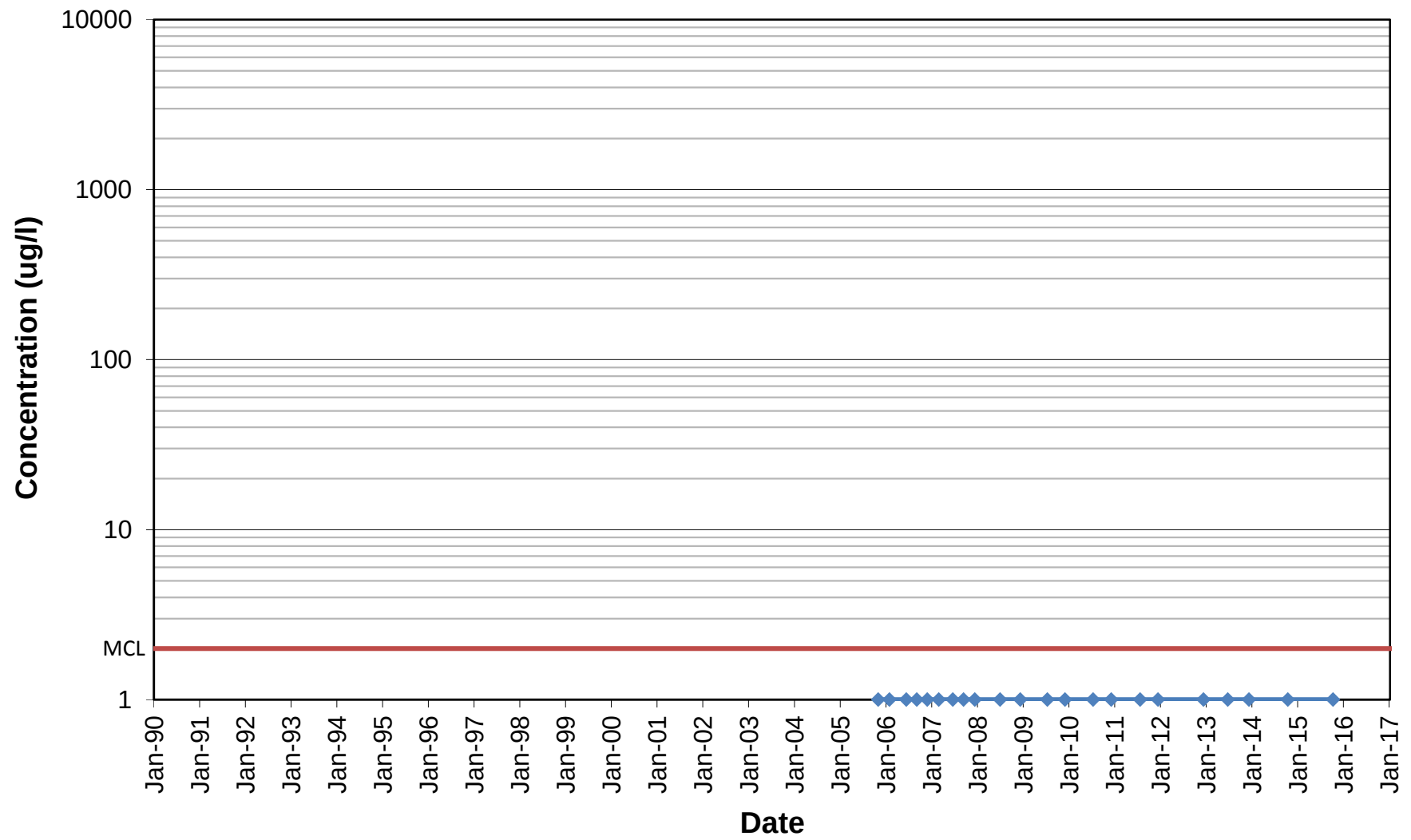
C-9 cis 1,2 DCE Concentrations



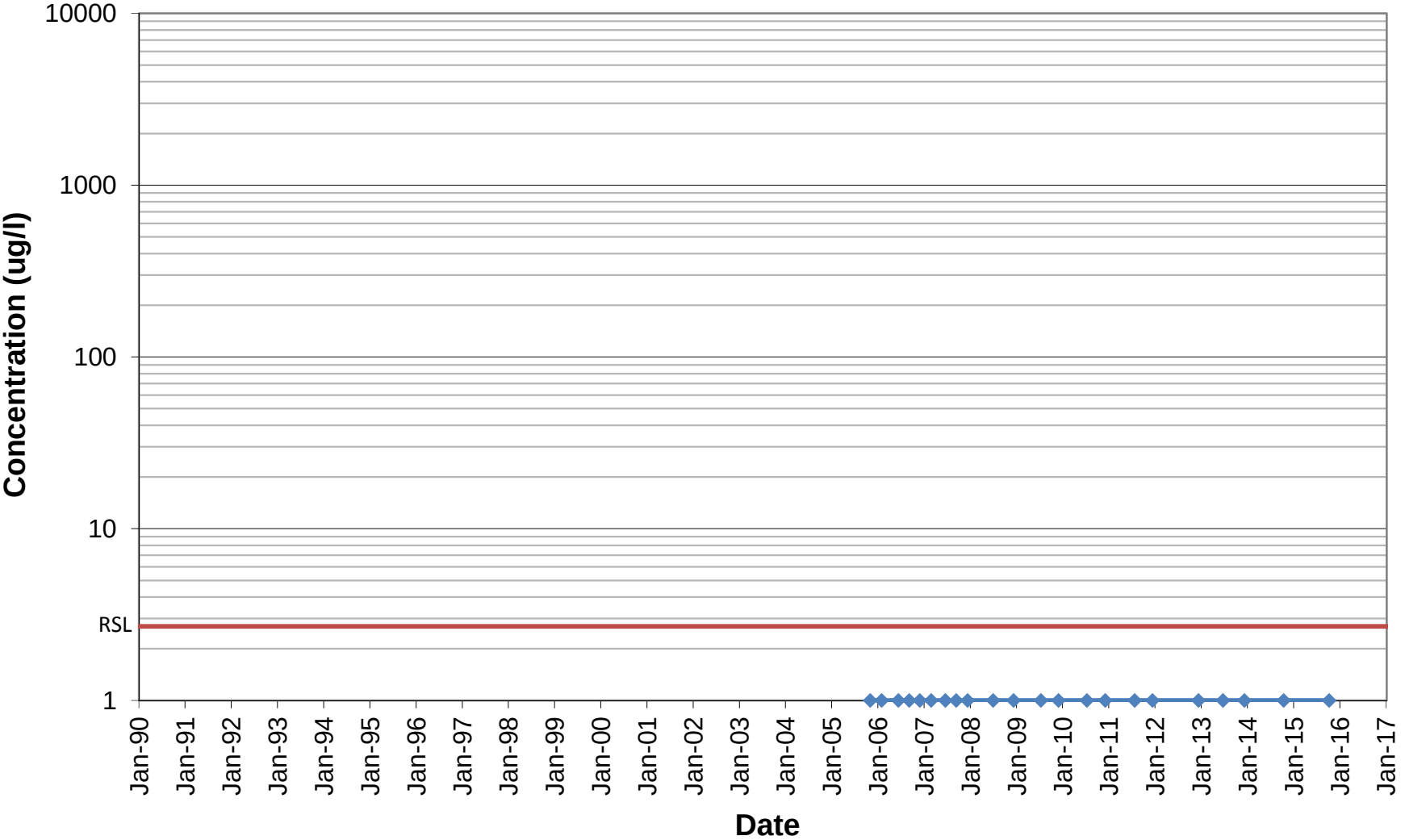
C-9 TCE Concentrations



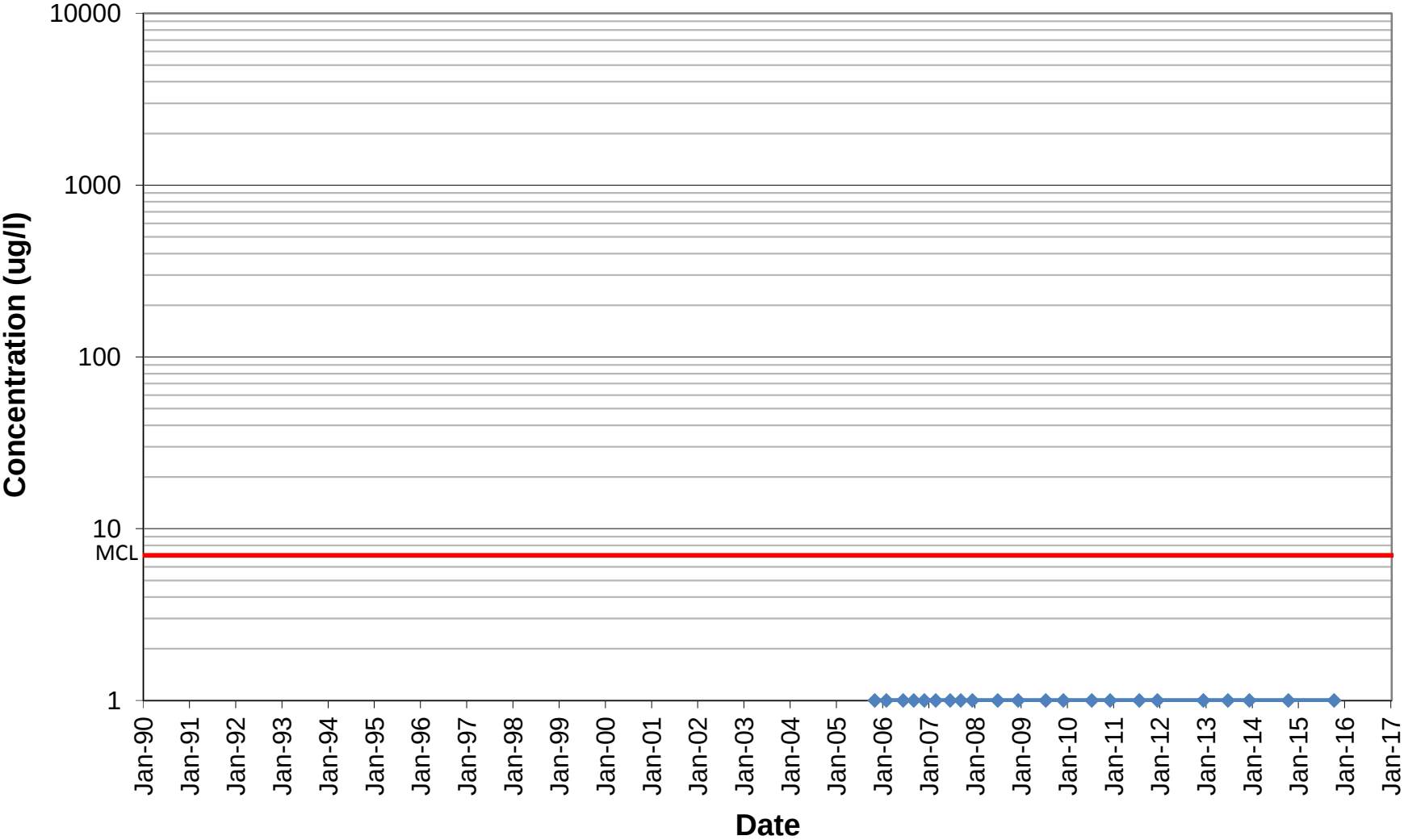
C-9 Vinyl Chloride



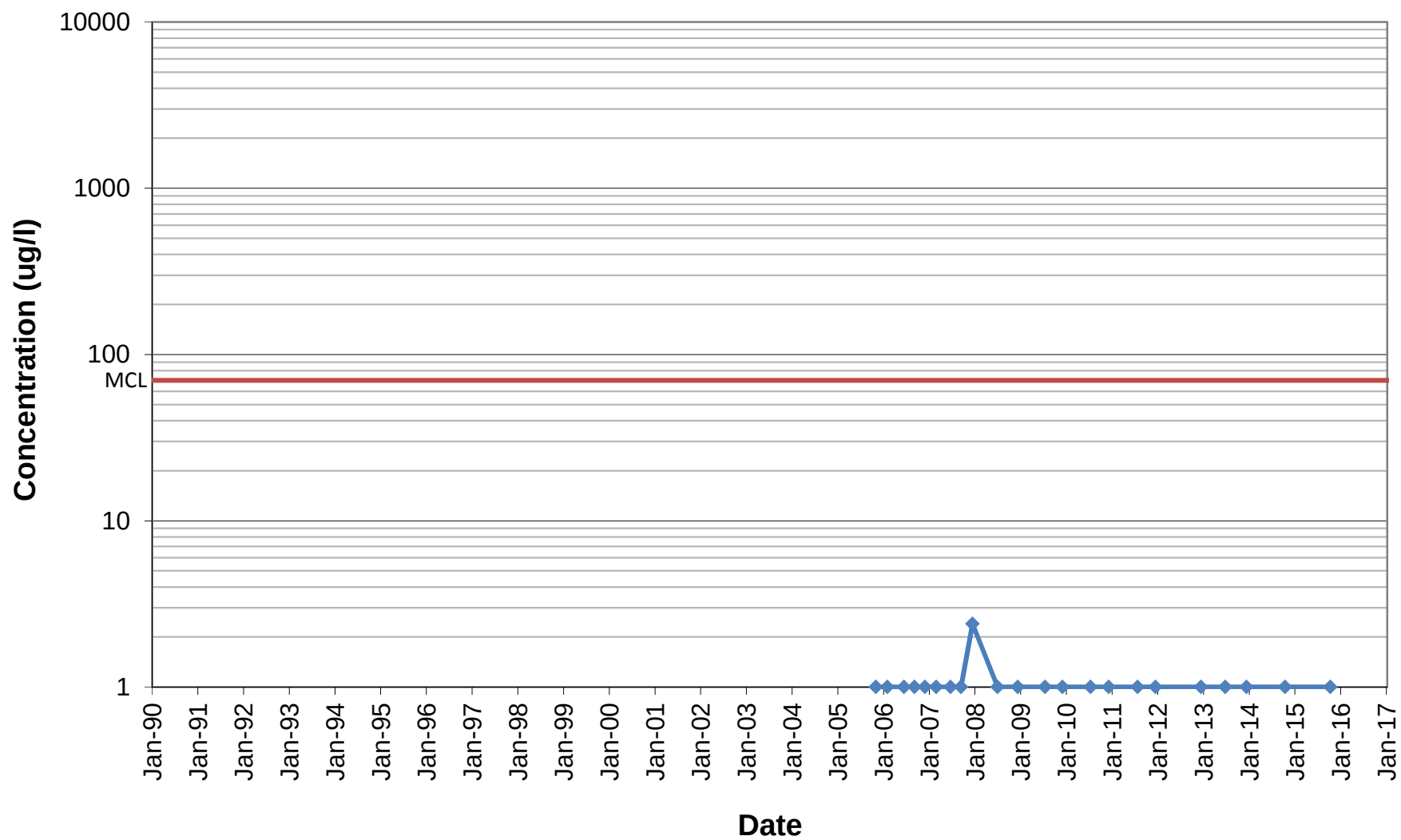
C-10 1,1 DCA Concentrations



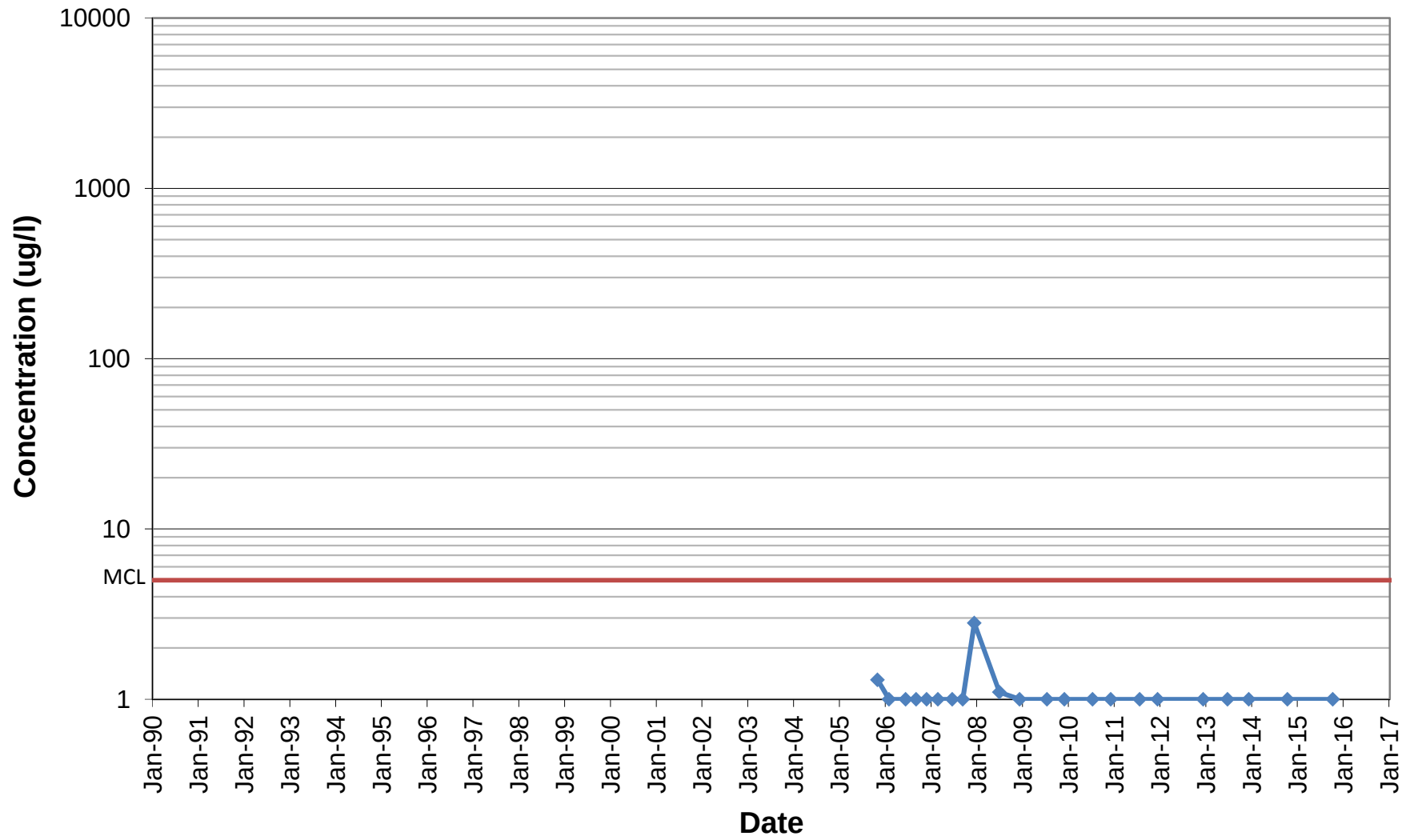
C-10 1,1 DCE Concentrations



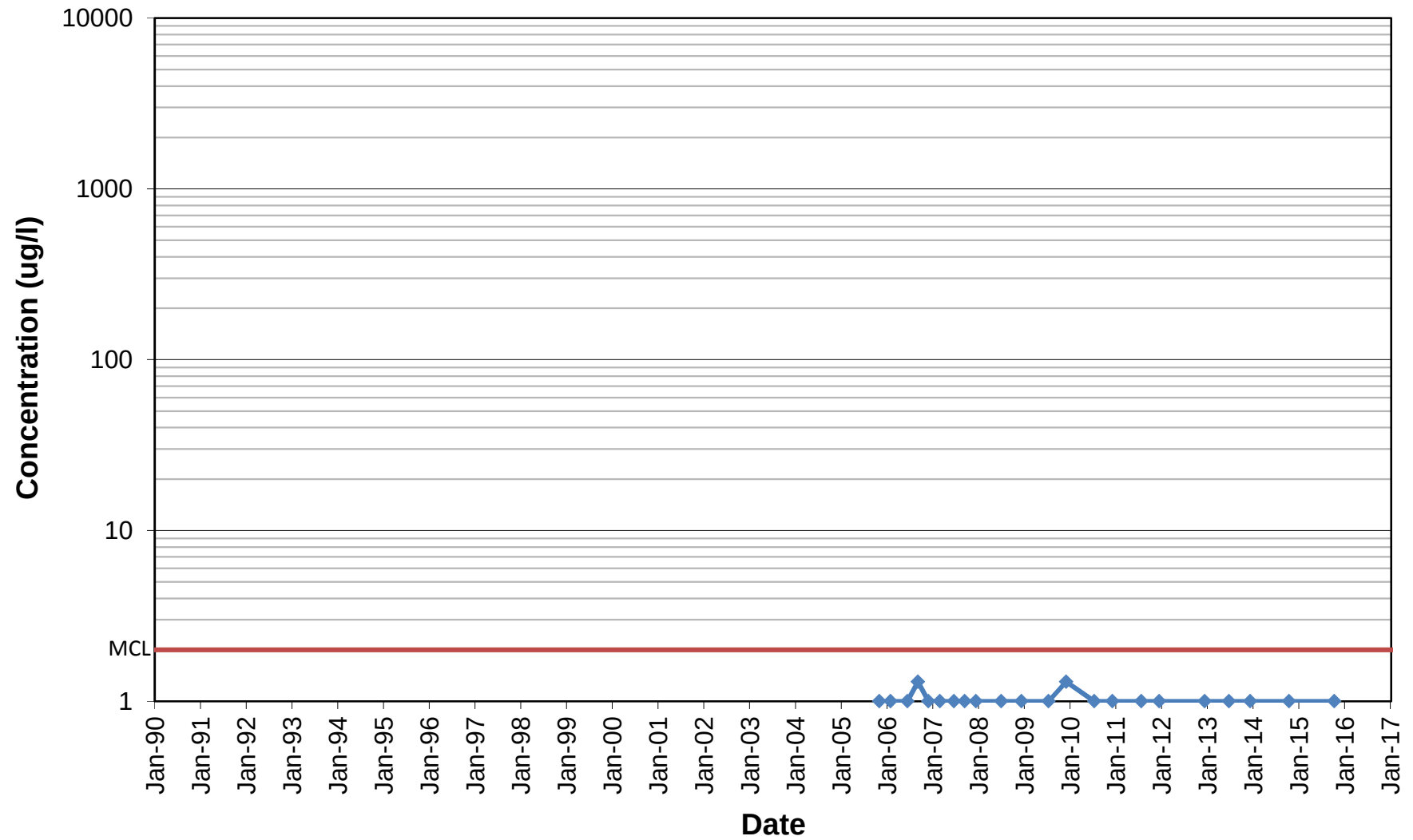
C-10 cis 1,2 DCE Concentrations



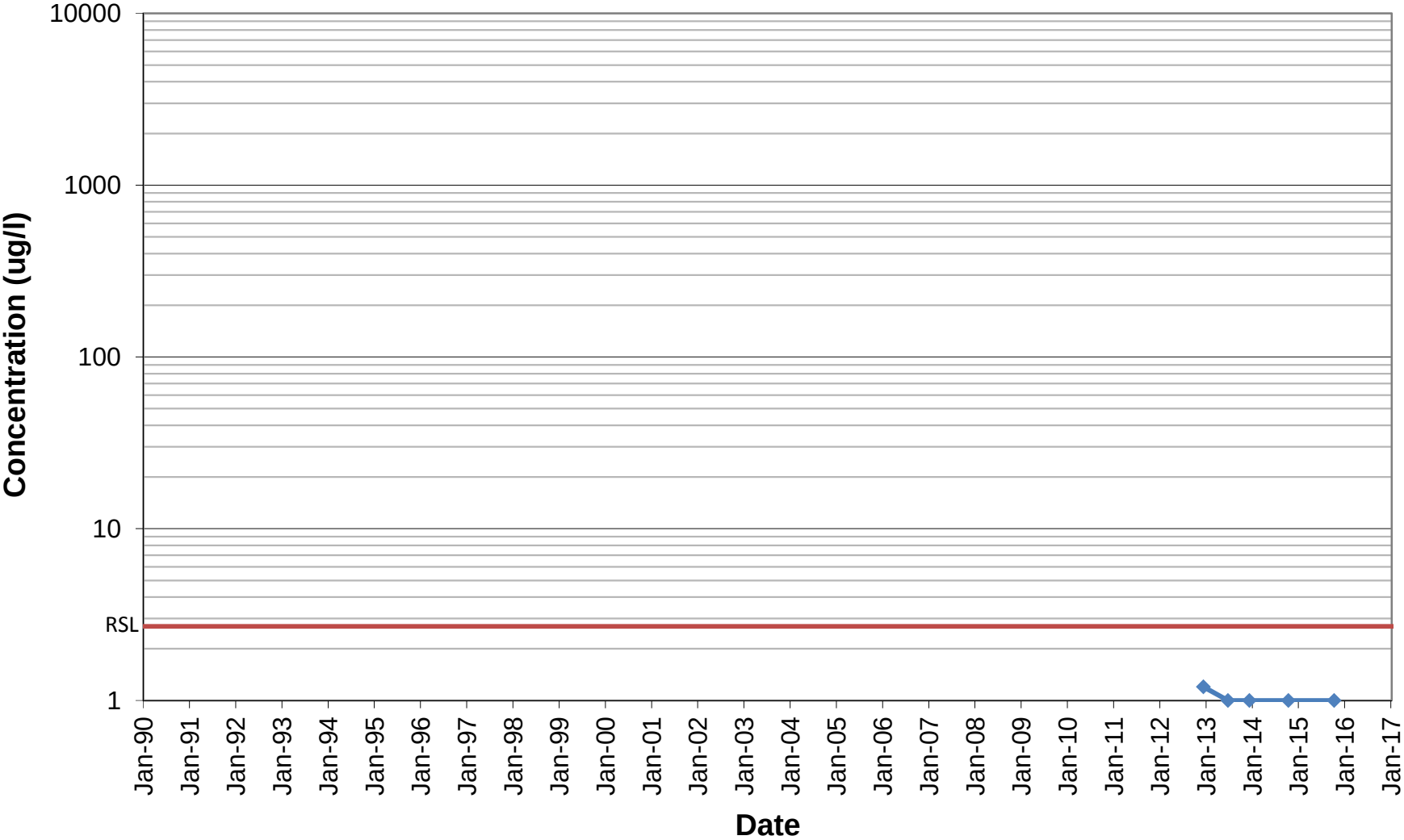
C-10 TCE Concentrations



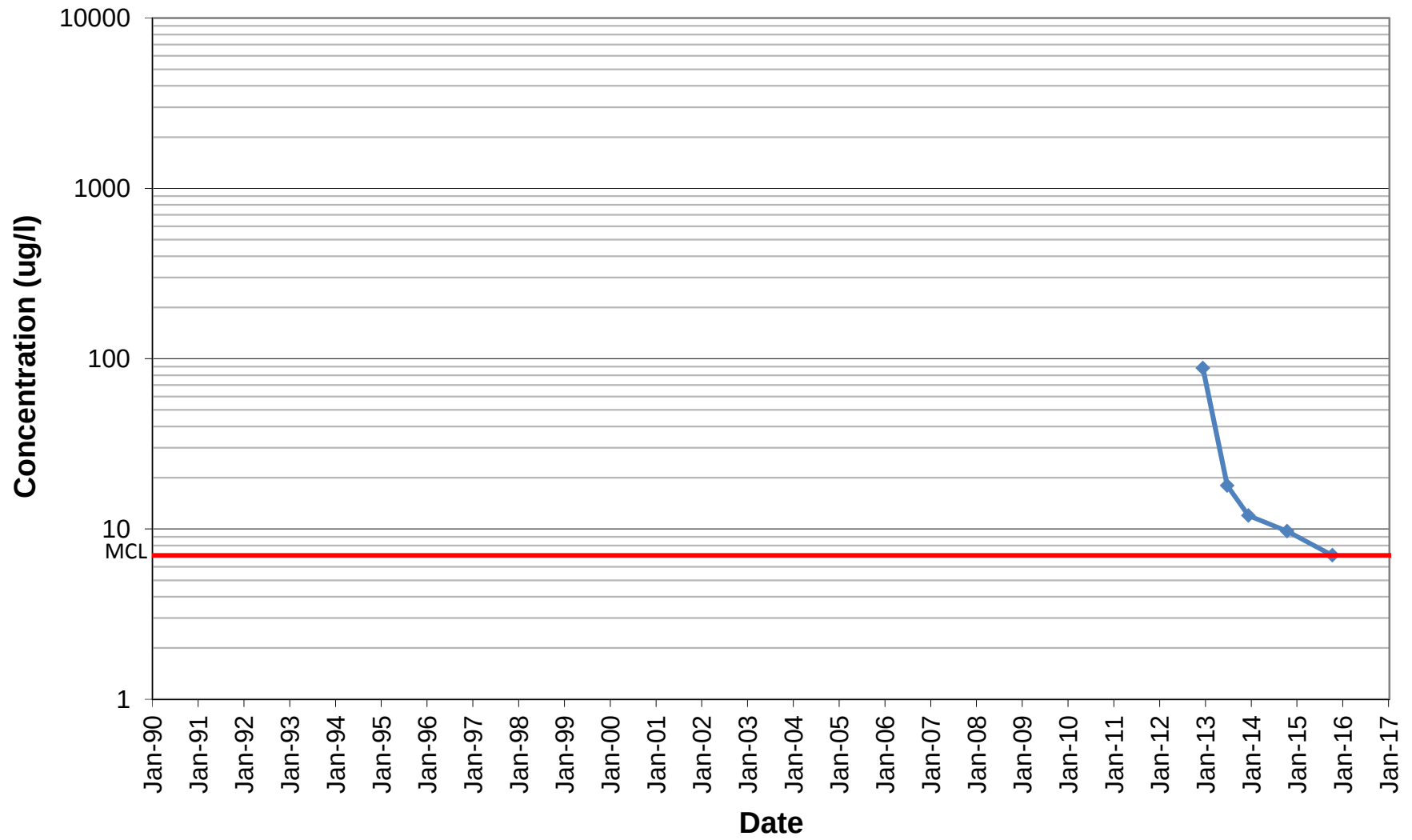
C-10 Vinyl Chloride



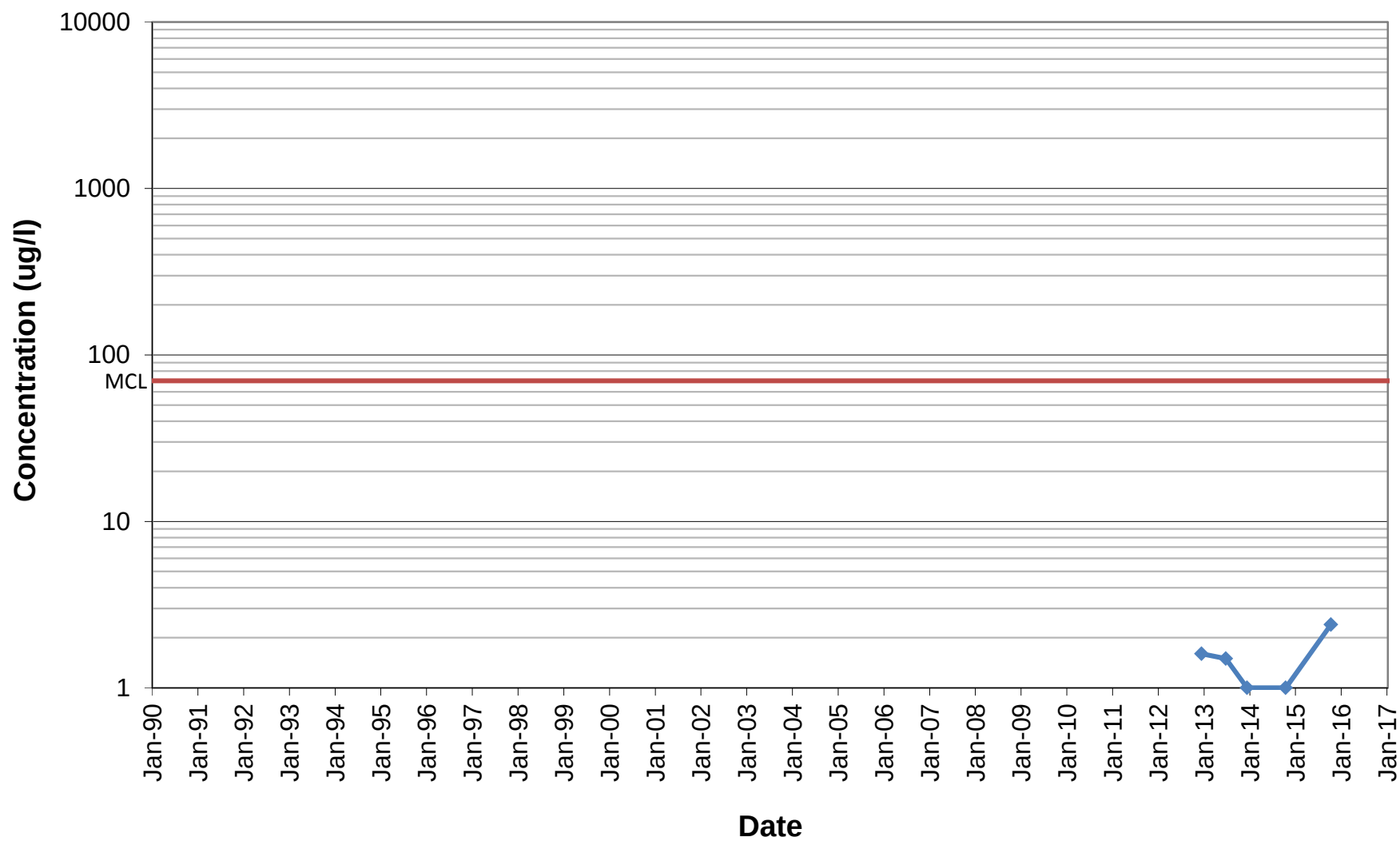
C-11 1,1 DCA Concentrations



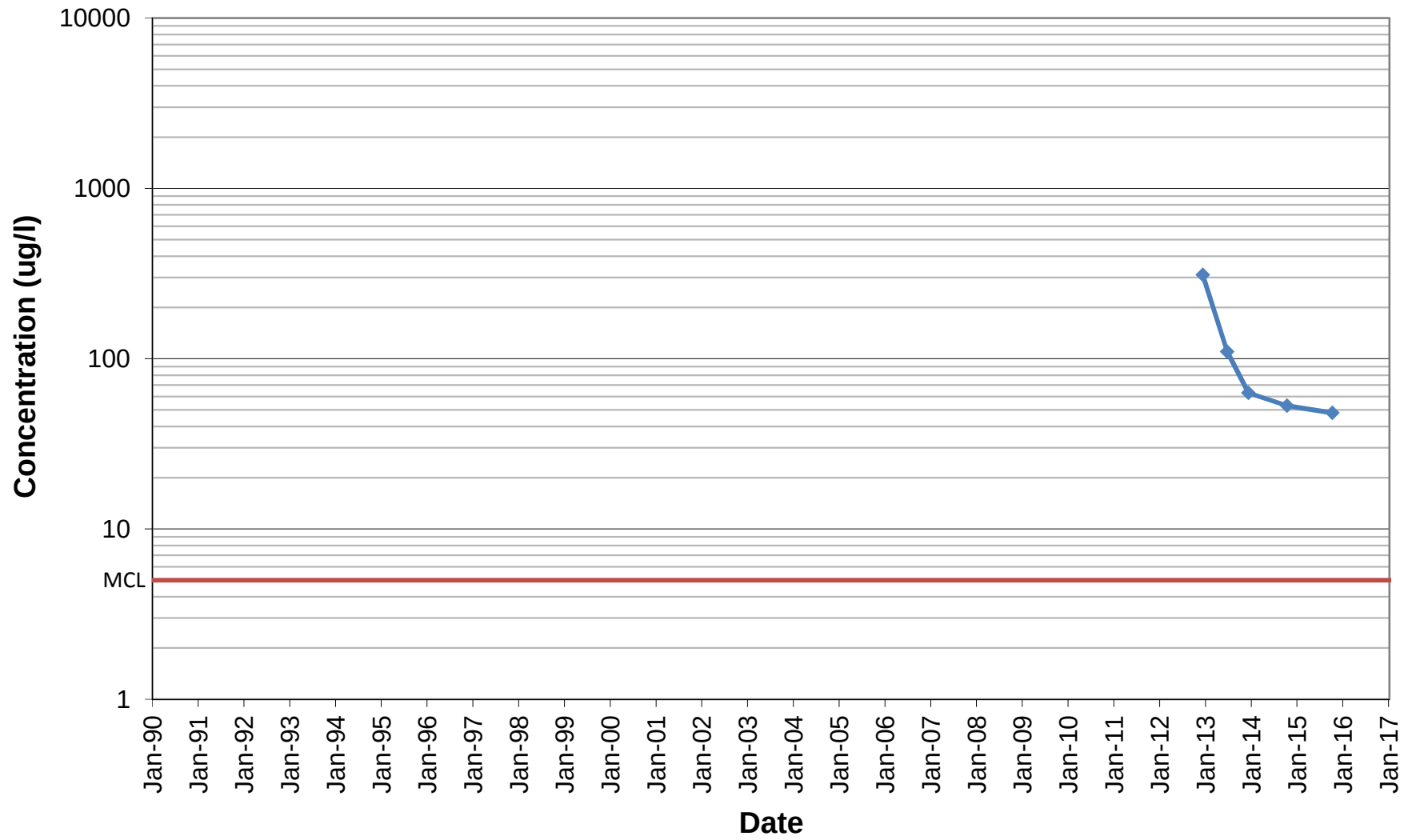
C-11 1,1 DCE Concentrations



C-11 cis 1,2 DCE Concentrations



C-11 TCE Concentrations



C-11 Vinyl Chloride

