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17 September 2015

Mr. Harry Plaza, P.E.
Remediation Project Manager
National Aeronautics and Space Administration
Kennedy Space Center, Florida 32899

RE: Launch Complex 39 Observation Gantry Area (SWMU# 107)
Annual Long-Term Monitoring Report (Year 1)
Kennedy Space Center, Florida

Dear Mr. Plaza:

This document has been prepared by Geosyntec Consultants, Inc. (Geosyntec) to present and discuss the findings of the 2014 and 2015 Long-Term Monitoring (LTM) activities that were completed at the Launch Complex 39 (LC39) Observation Gantry Area (OGA) located at the John F. Kennedy Space Center (KSC), Florida (Site). The remainder of this report includes: (i) a description of the Site location; (ii) summary of Site background and previous investigations; (iii) description of field activities completed as part of the annual LTM program at the Site; (iv) groundwater flow evaluation; (v) presentation and discussion of field and analytical results; and (vi) conclusions and recommendations. Applicable KSC Remediation Team (KSCRT) Meeting minutes are included in Attachment A. This Annual LTM Letter Report was prepared by Geosyntec Consultants (Geosyntec) for NASA under contract number NNK12CA13B, Delivery Order NNK13CA39T project number PCN ENV2188.

SITE LOCATION AND DESCRIPTION

The Site is located approximately one mile northeast of the Vehicle Assembly Building (VAB) area along Saturn Causeway (Figure 1). The Site is divided into an eastern portion comprised of four numbered buildings (K7-0140, K7-0140A, K7-0141, K7-0142) associated with the LC39 tour complex and a western portion comprised of two numbered buildings (K7-0287, K7-0288) associated with marine security (Figure 2). To the north of the Site is the East Park Crawler Site (SWMU# 043). The Site is bound to the south by the Banana River, which is designated as an Outstanding Florida Water (OFW) by Florida Department of Environmental Protection (FDEP) per Chapter 62-302.700 Florida Administrative Code (F.A.C.).

BACKGROUND AND PREVIOUS INVESTIGATIONS

Under KSC's Resource Conservation and Recovery Act (RCRA) Corrective Action program, LC39OGA was identified as Potential Release Location (PRL) 172 and a Solid Waste

Management Unit (SWMU) Assessment was conducted in April 2009. The SWMU Assessment Report (SAR) [LFR 2009[1]] identified five (5) locations of concern (LOCs) at the Site:

- LOC 1: Existing aboveground storage tank (AST)
- LOC 2: Paints, oils, and lubricants (POL) locker
- LOC 3: Former/current vehicle staging areas
- LOC 4: Retention basin
- LOC 5: Storage shed/POL locker

Previous sampling activities at the Site documented the presence of various constituents of concern (COCs) in soil and groundwater. The only COCs identified at concentrations above FDEP Soil Cleanup Target Levels (SCTLs) were polychlorinated biphenyls (PCBs), which were recommended for removal through excavation in an Interim Measure Work Plan (IMWP) [Arcadis 2013b[2]]. Kennedy Space Center Remediation Team (KSCRT) consensus was reached regarding implementation of the IMWP at the May 2013 meeting.

Volatile organic compounds (VOCs) were the only COCs detected at concentrations above FDEP Groundwater Cleanup Target Levels (GCTLs). The primary VOC detected above its GCTL was vinyl chloride (VC). An LTM Work Plan was presented to the KSCRT at the May 2014 Team meeting [Arcadis 2014a[3]], which proposed semi-annual groundwater monitoring of six proposed monitoring wells and two existing monitoring wells (MW0001 and MW0002) for VOCs (total of eight wells). The proposed monitoring program consisted of four shallow monitoring wells (LC39OGA-MW0001, LC39OGA-MW0002, LC39OGA-MW0004, and LC39OGA-MW0005; screened 5 to 15 feet below land surface [ft BLS]) and four intermediate monitoring wells (LC39OGA-MW0006 through LC39OGA-MW0009; screened from 22 to 27 ft BLS). (For further discussion, monitoring wells will be referred to without the LC39OGA- prefix.) Additionally, the LTM Work plan proposed that after two years of data collection, the LTM program for the Site would be re-evaluated. KSCRT consensus was reached on the LTM Work Plan at the May 2014 Team meeting. RCRA Facility Investigation (RFI) activities to date were documented in the November 2014 *RFI Progress Report* [Arcadis 2014b[4]].

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[1] LFR Inc. 2009a. SWMU Assessment Report and Confirmatory Sampling Work Plan. May 2009.
[2] Arcadis, 2013b. Launch Complex 39 Observation Gantry Area (K7-0140; PRL 172) Interim Measure Work Plan. June 2013.
[3] Arcadis, 2014a. Launch Complex 39 Observation Gantry Area (K7-0140; PRL 172) Long-Term Monitoring Work Plan. Advanced Data Package. May 2014.
[4] Arcadis, 2014b. Launch Complex 39 Observation Gantry Area (K7-0140; SWMU 107) RCRA Facility Investigation Progress Report. November 2014.

SUMMARY OF FIELD ACTIVITIES

The purpose of this section is to document monitoring well installation and groundwater sampling activities that occurred at LC39OGA in September and November 2014 and May 2015.

Monitoring Well Installation

On 22 and 23 September 2014, six (6) monitoring wells, MW0004 through MW0009, were installed to augment the existing monitoring network (MW0001, MW0002, and MW0003). The new monitoring wells were installed via direct-push technology (DPT) and constructed of 1-inch (in.) diameter Schedule 40 polyvinyl chloride (PVC) pipe with 0.010-in. pre-packed standard factory-slotted screens. The pre-packed well screens consisted of a 20/30 grade environmental sand filter pack and a 30/65 grade environmental sand seal placed immediately above the pre-packed well screen. The new monitoring wells were grouted to land surface above the fine sand seal, completed at the surface with an eight (8) in. flush-mount manhole, a two (2) ft by two (2) ft by four (4) in. thick concrete pad, and a locking monitoring well cap. Monitoring wells MW0004 and MW0005 were screened from five (5) to fifteen (15) ft BLS and MW0006 through MW0009 were screened from 22 to 27 ft BLS.

The wells were developed until the discharge was relatively sediment-free. A YSI556 multi-meter and turbidity meter were used for water quality measurements during development. Investigation-derived waste (IDW), generated during monitoring well installation and development activities, was containerized in 55-gallon drums. The drums were properly characterized and disposed of off-Site as non-hazardous liquids. The new monitoring wells were surveyed by a Florida-registered professional surveyor for northing, easting, top of casing and ground elevation. Northing and easting coordinate data references the North American Datum (NAD) 1983, Florida State Plane Coordinate System in feet (ft). Top of casing (TOC) elevation is in reference to the North American Vertical Datum (NAVD) 1988 in ft. Well completion forms and survey data for the new monitoring wells are included as Attachments B and C, respectively. Well construction details for LC39OGA monitoring wells are summarized in Table 1.

Groundwater Monitoring Activities

Groundwater sampling activities at LC39OGA were completed in November 2014 (end of the wet season) and May/June 2015 (end of the dry season). Monitoring well purging and sampling activities were conducted in accordance with the FDEP Standard Operating Procedures (SOPs)

[FDEP 2014[5]] and the KSC Sampling and Analysis Plan (SAP) [NASA 2011[6]]. Monitoring well locations are shown on Figure 3. Monitoring well sampling forms are provided in Attachment D. The November 2014 and May/June 2015 groundwater sampling events included the following tasks:

- groundwater level gauging of eight (8) monitoring wells within a 24-hour period;
- collection of groundwater samples from 8 monitoring wells;
- laboratory analysis of groundwater samples for VOCs during the November 2014 and May/June 2015 sampling events; and
- laboratory analysis of groundwater samples for dissolved gases during the May/June 2015 sampling event.

Due to a laboratory error, dissolved gas samples collected in May 2015 were not analyzed within their method defined holding time. As such, dissolved gas analyses were cancelled and applicable LC39OGA wells were resampled and analyzed for dissolved gases in June 2015.

November 2014 Semi-Annual Event

On 21 and 22 October 2014, Geosyntec personnel deployed passive diffusion bags (PDBs) in the eight LC39OGA monitoring wells to be sampled in November 2014. PDBs were suspended across the midsection of the screen and allowed to equilibrate a minimum of 14 days prior to retrieval. On 18 and 20 November 2014, Geosyntec personnel collected groundwater samples from the PDBs retrieved from the eight monitoring wells. Groundwater quality parameters were not collected during this sampling event. Groundwater samples collected for chemical analyses were placed on ice prior to being submitted to Test America in Pensacola, Florida under chain-of-custody protocol for analysis of VOCs by Environmental Protection Agency (EPA) Method 8260.

May/June 2015 Semi-Annual Event

Geosyntec personnel mobilized to LC39OGA on 11 May 2015 to gauge the depth to groundwater and collect groundwater samples from LC39OGA monitoring wells except MW0003, which is not included in the LTM program. Groundwater samples collected for chemical analyses were placed on ice prior to being submitted to Test America in Pensacola, Florida under chain-of-custody protocol for analysis of VOCs by Environmental Protection

[5] FDEP 2014. Florida Department of Environmental Protection. 30 July 2014. Chapter 62-160, Florida Administrative Code, Quality Assurance, Standard Operating Procedures for Field Activities, DEP-SOP-001/01.
[6] NASA 2011. National Aeronautics and Space Administration. June 2011. *Sampling and Analysis Plan for the RCRA Corrective Action Program at the John F. Kennedy Space Center, Florida* (*Revision 4*), prepared by Geosyntec Consultants, NASA Document Number KSC-TA-6169.

Agency (EPA) Method 8260. Groundwater samples were also submitted for analysis of dissolved gases by method RSK-175. However, due to a laboratory error, the dissolved gas samples were not analyzed within method defined hold time. Therefore, on 9 and 10 June 2015, Geosyntec personnel remobilized to LC39OGA to collect additional groundwater samples for dissolved gas analyses.

GROUNDWATER FLOW

Depth to groundwater measurements and the calculated groundwater elevations from the November 2014 and May 2015 gauging events are summarized in Table 2. The groundwater flow direction in both the shallow and intermediate zones during the November 2014 sampling event was southwest toward the OFW. During the May 2015 sampling event, the hydraulic gradient was generally flat (Figure 3).

Horizontal hydraulic gradients were calculated, based on groundwater elevation data, between monitoring wells MW0001 and MW0005 in the shallow zone, and MW0007 and MW0009 in the intermediate zone. During the November 2014 event, the horizontal hydraulic gradients were approximately 0.002 ft/ft and 0.005 ft/ft for the shallow and intermediate zones, respectively. During the May 2015 event, the horizontal hydraulic gradients in the shallow and intermediate zones were 0.0002 and 0.0004 ft/ft, respectively.

GROUNDWATER SAMPLING RESULTS

Field sampling parameters were not collected during the November 2014 groundwater sampling event since groundwater samples were collected via PDBs. The May 2015 groundwater quality parameters are summarized in Table 3. The November 2014 and May/June 2015 analytical groundwater sampling results are summarized in Table 4 and presented on Figure 4, and are compared to applicable FDEP GCTLs. Analytical laboratory reports are included in Attachment E.

Field Sampling Results

During the May/June 2015 sampling event, groundwater geochemical parameters (pH, temperature, conductivity, DO, ORP, salinity, turbidity, and TDS) were collected (Table 3) as required for purge stabilization by FDEP SOPs. Measurements of pH, ORP, and DO were also used for characterization of aquifer conditions. Site-wide pH measurements ranged from 7.2 to 7.6 standard units (SU). The oxidation-reduction potential (ORP) ranged from negative 343 to negative 260 millivolts (mV) with an average of negative 311 mV. Dissolved oxygen (DO) ranged from 0.65 to 1.24 milligrams per liter (mg/L) with an average of 0.99 mg/L.

The optimum pH for microbial activity to support reductive dechlorination of VOCs in groundwater ranges from approximately 6 to 8 SU. Given the range of pH observed in groundwater, Site conditions are capable of supporting reductive dechlorination. In addition, the negative redox results combined with DO measurements suggests the aquifer conditions are suitable for reductive dechlorination to occur.

Analytical Sampling Results

Six COCs were detected in one or more groundwater samples from the shallow and intermediate zones at concentrations above the laboratory method detection limits: 2-butanone, acetone, carbon disulfide, cis-1,2-dichloroethene (cDCE), trans-1,2-dichloroethene (tDCE), and VC. However, only VC was detected above its GCTL (1 microgram per liter [µg/L]).

In the shallow monitoring wells, VC was detected at a concentration above its GCTL in the four wells sampled during the November 2014 groundwater sampling event and two of four wells sampled during the May 2015 groundwater sampling event. VC concentrations detected above the GCTL in November 2014 ranged from 4.1 to 19 µg/L. VC concentrations detected above the GCTL in May 2015 ranged from 8.9 to 26 µg/L.

In the intermediate monitoring wells, VC was detected at a concentration above its GCTL in one of the four wells sampled during both the November 2014 and May 2015 groundwater sampling events (MW0009 at 13 µg/L [both events]).

Dissolved gas samples collected in June 2015 were analyzed for methane, ethane, and ethene. Methane and ethane were detected above laboratory reporting limits, most likely because production of ethene has been further reduced to ethane. Methane was detected in all of the wells sampled at concentrations ranging from 48 to 1,000 µg/L, which indicates groundwater conditions are favorable for reductive dechlorination. Ethane was detected in three of four wells sampled in the shallow zone at concentrations ranging from 1.1 to 2.3 µg/L. There were no detections of ethane in the intermediate zone, which is likely attributed to VC concentrations below the detection limit in three of four wells sampled. Ethane is a product of the anaerobic reduction of ethene, thus indicating complete dechlorination is occurring in the shallow groundwater.

Based on the groundwater flow direction, MW0002 and MW0007 are assumed to be downgradient wells that may be representative of potential discharge to the OFW. While GCTLs are applicable at the Site, concentrations above the laboratory detection limits at the downgradient wells are noted due to the requirements by FDEP for monitoring potential discharge to the OFW. The following constituents were detected at MW0002 and/or MW0007 at concentrations above the laboratory detection limits and below the respective GCTLs: 2-

butanone, acetone (assumed to be a laboratory contaminant), cDCE, and tDCE. VC was the only constituent detected in a downgradient well at a concentration above its GCTL (at MW0002).

In general, VC has decreased in shallow groundwater monitoring wells MW0001 and MW0002 since August 2011. The remaining monitoring wells in the LTM program at the Site were installed as part of the activities described herein. Concentration trends will be evaluated for these monitoring wells as part of the next Annual LTM Report when an appropriate data set is available to evaluate trends.

SUMMARY AND CONCLUSIONS

The results of the 2014 and 2015 Annual LTM events have been presented herein and conclusions are as follows:

- The inferred direction of groundwater flow in the shallow and intermediate zones is southwest, with a generally flat horizontal hydraulic gradient flat during the May 2015 sampling event.
- The Site borders an OFW to the south. MW0002 and MW0007 are considered representative of potential discharge to the OFW.
- VC was the only constituent detected above its GCTL during the November 2014 and May 2015 semi-annual events. In the shallow zone, VC was detected above its GCTL in four wells in November 2014 and two wells in May 2015. In the intermediate zone, VC was detected above its GCTL in one well in the November 2014 and May 2015 sample events.
- The qualitative dechlorination assessment indicates that low ORP and DO readings, as well as neutral pH values, are generally favorable for microbial activity within the dissolved plume. These conditions combined with the presence of dissolved gases (ethane) in groundwater are indicative of complete reductive dechlorination of chlorinated ethenes at the Site.

RECOMMENDATIONS

Based on the data presented in this report, Geosyntec recommends the following:

- Discontinue sampling for dissolved gases, because collected data confirms reductive dechlorination is occurring.

- Discontinue sampling of two intermediate monitoring wells, MW0006 and MW0008, where VOCs have not been detected for two consecutive sampling events and the locations do not represent downgradient monitoring locations.

- Continue semi-annual sampling a total of six monitoring wells, including four shallow wells (MW0001, MW0002, MW0004, MW0005) and two intermediate wells (MW0007 and MW0009) for VOCs with the next sampling events tentatively scheduled for November 2015 and May 2016.

CLOSURE

If you have any questions or concerns, please do not hesitate to contact either of the undersigned.

Sincerely,
Geosyntec Consultants

Crystal Towns
Senior Staff Hydrogeologist

Jill W. Johnson, P.G./Date
Florida P.G. License No. 2376
Expiration Date: 07/31/2016
Geosyntec Consultants, Inc.
Telephone: 850.477.6547

Attachments:

Table 1	Well Construction Details
Table 2	Groundwater Elevations
Table 3	Groundwater Quality Parameters
Table 4	Summary of Groundwater Analytical Data
Figure 1	Site Location Map
Figure 2	Site Layout
Figure 3	Groundwater Elevation Contours
Figure 4	Summary of Vinyl Chloride Results
Attachment A	Applicable KSCRT Meeting Minutes
Attachment B	Monitoring Well Completion Forms
Attachment C	Monitoring Well Survey Report
Attachment D	Monitoring Well Sampling Forms
Attachment E	Analytical Laboratory Reports

Copy to:

Jim Langenbach, P.E. – Geosyntec Consultants

TABLES

Table 1. LC39OGA Well Construction Details

Well ID	Well Diameter (inches)	Northing (feet)	Easting (feet)	TOC Elevation (ft NAVD)	Screened Interval		Screened Interval	
					from (ft btoc)	to (ft btoc)	from (ft NAVD)	to (ft NAVD)
MW0001	1	472105.38	237146.52	0.87	5	15	-4.13	-14.13
MW0002	1	472107.01	237128.89	1.11	5	15	-3.89	-13.89
MW0003	1	472082.18	237069.41	1.52	5	15	-3.48	-13.48
MW0004	1	472120.62	237126.03	1.60	5	15	-3.40	-13.40
MW0005	1	472141.96	237152.80	2.17	5	15	-2.83	-12.83
MW0006	1	472104.65	237140.98	1.12	22	27	-20.88	-25.88
MW0007	1	472108.02	237128.53	1.32	22	27	-20.68	-25.68
MW0008	1	472121.74	237126.39	1.62	22	27	-20.38	-25.38
MW0009	1	472142.69	237153.37	2.24	22	27	-19.76	-24.76

Notes:

1. ft NAVD = feet above or below the North American Vertical Datum of 1988.
2. Northing and Easting coordinates are referenced to the North American Datum of 1983.
3. ft btoc = feet below top of casing.
4. All monitoring well IDs have the "LC39OGA-" prefix.

Table 2. LC39OGA Groundwater Elevations

Well ID	Screened Interval (ft BLS)	TOC Elevation (ft NAVD)	11/19/2014		5/11/2015	
			Depth to Water (ft btoc)	Groundwater Elevation (ft NAVD)	Depth to Water (ft btoc)	Groundwater Elevation (ft NAVD)
MW0001	5 to 15	0.87	0.80	0.07	0.72	0.15
MW0002	5 to 15	1.11	0.50	0.61	0.59	0.52
MW0004	5 to 15	1.60	1.30	0.30	1.32	0.28
MW0005	5 to 15	2.17	1.42	0.75	1.94	0.23
MW0006	22 to 27	1.12	0.85	0.27	0.79	0.33
MW0007	22 to 27	1.32	1.12	0.20	0.98	0.34
MW0008	22 to 27	1.62	1.31	0.31	1.28	0.34
MW0009	22 to 27	2.24	1.70	0.54	1.85	0.39

Notes:

1. TOC = Top of Casing.
2. ft NAVD = feet above or below the North American Vertical Datum of 1988.
3. ft btoc = feet below top of casing.
4. All monitoring well IDs have the "LC39OGA-" prefix.

Table 3. LC39OGA Groundwater Quality Parameters

Well ID	Screened Interval (ft BLS)	Temperature (ºC)	pH (S.U.)	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)
MW0001	5 to 15	24.32	7.50	2.98	8.12	1.55	-337.3	1.24	1.94
MW0002	5 to 15	25.33	7.28	1.94	6.58	0.98	-324.4	0.65	1.26
MW0004	5 to 15	24.98	7.24	1.34	11.60	0.67	-259.8	0.92	0.87
MW0005	5 to 15	25.51	7.15	2.43	2.06	1.25	-281.7	1.08	1.58
MW0006	22 to 27	25.45	7.34	29.70	4.05	18.36	-343.3	1.10	19.30
MW0007	22 to 27	24.95	7.21	28.53	2.62	17.58	-326.5	0.88	18.55
MW0008	22 to 27	25.09	7.31	11.23	1.83	6.37	-298.4	0.97	7.30
MW0009	22 to 27	25.43	7.57	4.37	8.30	2.32	-259.9	1.08	2.84

Notes:

1. ft BLS = feet below land surface.
2. ºC = degrees Celsius.
3. S.U. = Standard Units.
4. mS/cm = milliSiemens per centimeter.
5. NTU = Nephelometric Turbidity Units.
6. mV = millivolts.
7. mg/L = milligrams/liter.
8. g/L = grams per liter.
9. All monitoring well IDs have the "LC39OGA-" prefix.
10. Groundwater quality parameters collected on 11 and 12 May 2015.

Table 4. LC39OGA Summary of Groundwater Analytical Data

Well ID:		MW0001			MW0002			MW0004		MW0005		MW0006		MW0007		MW0008		MW0009	
Screened Interval (ft BLS):		5 to 15			5 to 15			5 to 15		5 to 15		22 to 27		22 to 27		22 to 27		22 to 27	
Date:		Aug-11	Nov-14	May-15	Aug-11	Nov-14	May-15	Nov-14	May-15	Nov-14	May-15	Nov-14	May-15	Nov-14	May-15	Nov-14	May-15	Nov-14	May-15
Screening Criteria	GCTL																		
VOCs (µg/L)																			
2-Butanone	4,200	NA	2.6 U	2.6 U	NA	21 I	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
Acetone	6,300	NA	21 I	10 U	NA	**48**	10 U	21 I	10 U	20 I	10 U	22 I	10 U	15 I	10 U	15 I	10 U	20 I	10 U
Carbon Disulfide	700	NA	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.62 I	0.5 U	0.62 I	0.5 U	0.67 I	0.5 U	**1.1**	0.5 U	0.57 I	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethene	70	NA	0.64 I	0.69 I	NA	**2.1**	**3.3**	**3.9**	**4.6**	0.5 U	0.5 U	0.79 I	0.61 I	**1.3**	**1**	**2.2**	**3**	**6**	**5**
trans-1,2-dichloroethene	100	NA	**22**	**21**	NA	**4.3**	**3.9**	**1.6**	**1.7**	**5.3**	**2.2**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.1**
Vinyl Chloride	1	**8.0**	**4.1**	0.5 U	**37.5**	**19**	**26**	**10**	**8.9**	**4.3**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.61 I	0.5 U	**13**	**13**
Dissolved Gases (µg/L)																			
Ethane	--	NA	NA	7.5 U	NA	NA	**1.1**	NA	**2.3**	NA	**1.3**	NA	0.75 U	NA	0.75 U	NA	0.75 U	NA	0.75 U
Methane	--	NA	NA	**380**	NA	NA	**510**	NA	**400**	NA	**1000**	NA	**48**	NA	**110**	NA	**210**	NA	**220**

Notes:
1. ft BLS = feet Below Land Surface.
2. GCTL = Groundwater Cleanup Target Levels (Chapter 62-777, FAC).
3. µg/L = micrograms per liter
4. U = Not detected.
5. I = analyte detected below quantitation limits.
6. NA = Not Analyzed.
7. Bold text indicates detection above laboratory reporting limit.
8. Yellow shaded, bold text indicates concentration is above GCTL.
9. All monitoring well IDs have the "LC39OGA-" prefix.

FIGURES

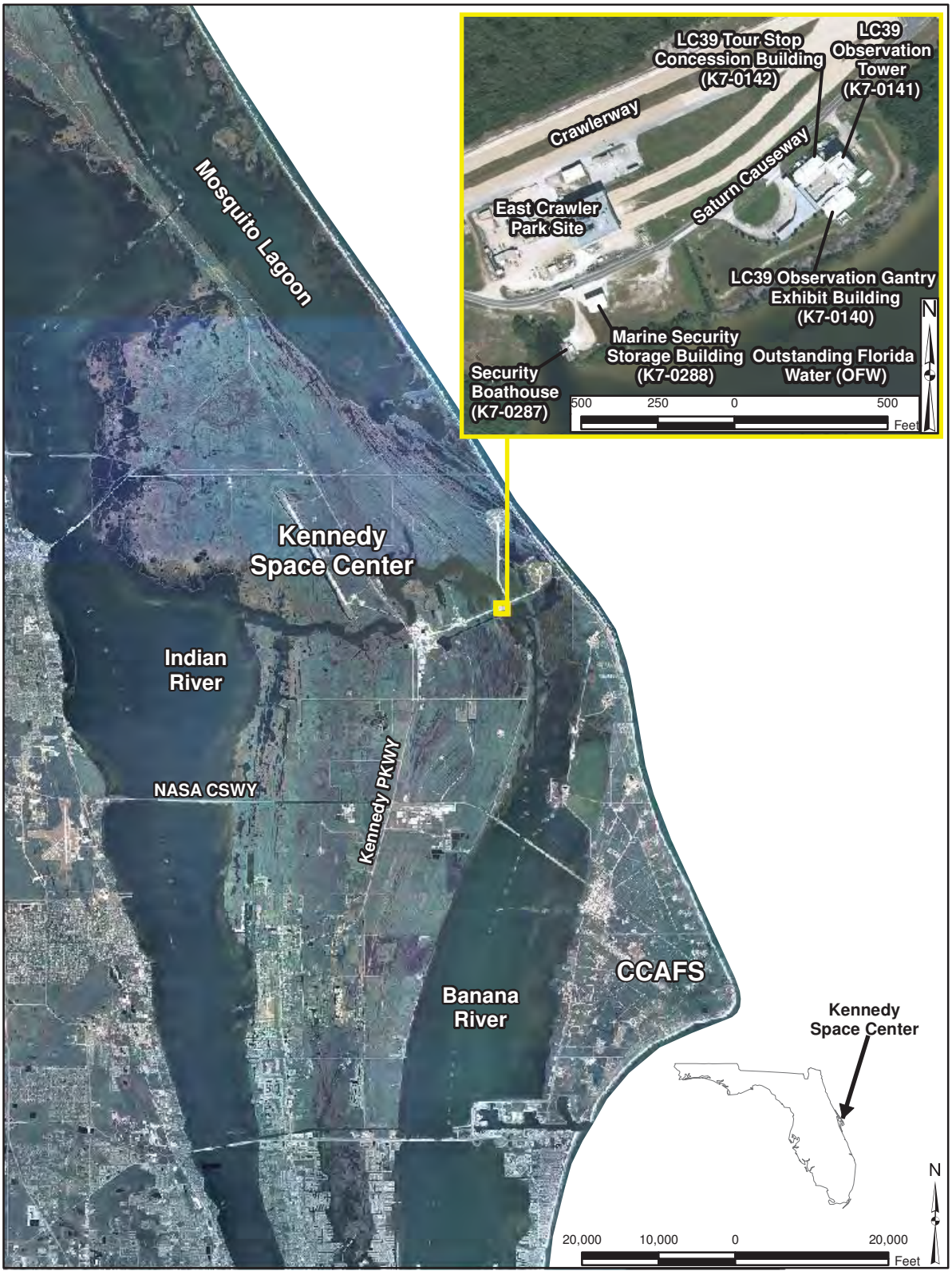
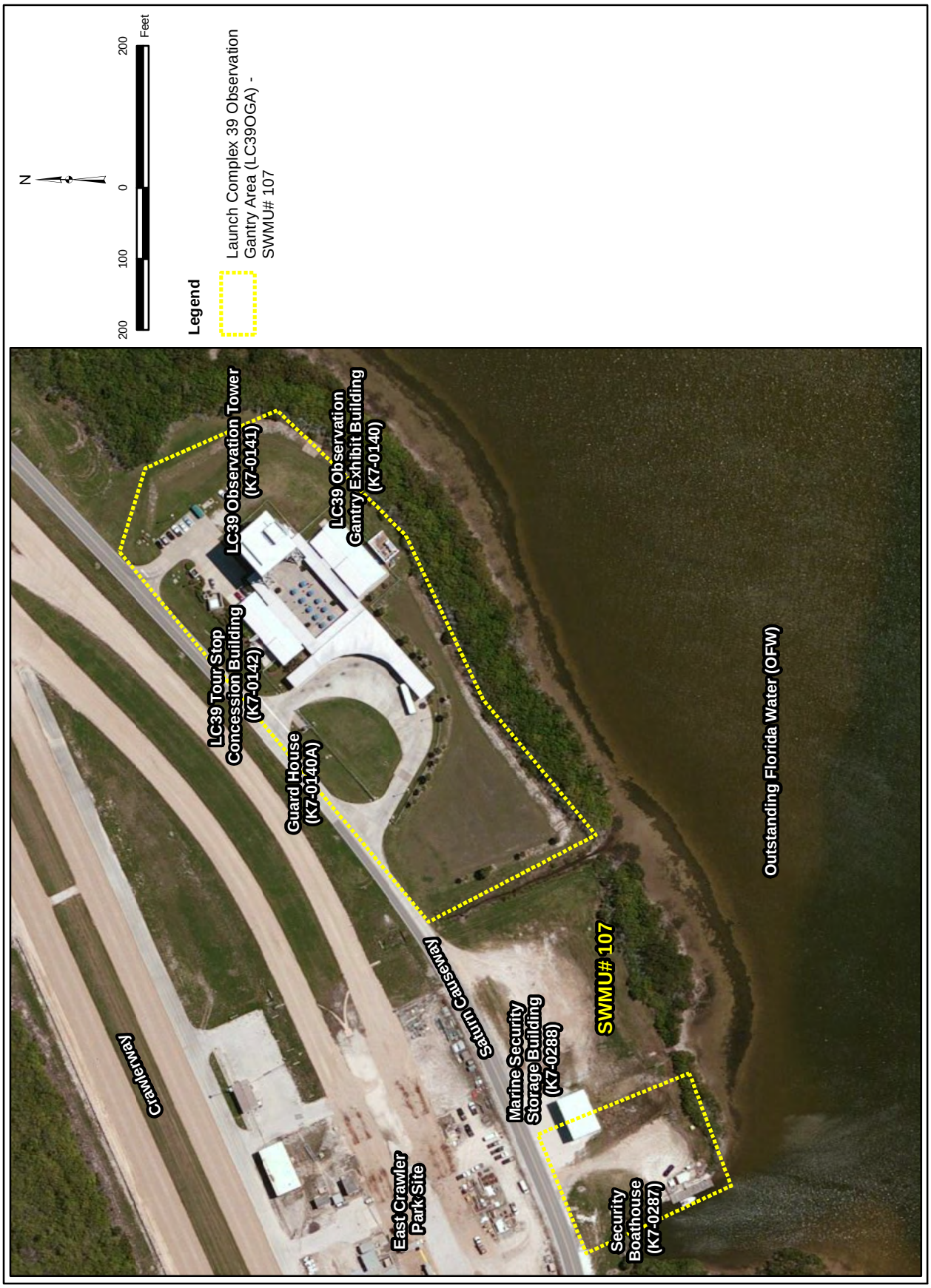


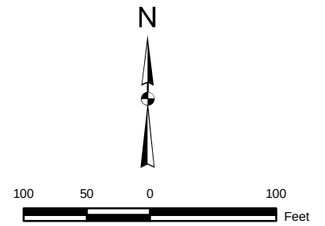
Figure 1
Site Location Map

Path: (Titusville-01\DATA) T:\0GIS\FR0746\MXDs\SEPT2015_OGA\Figure_1_LC39OGA.mxd 16 September 2015 JRB



Path: (Pensacola-01\Data\)P:\GIS\FR0746C_LC39OGA\MXDs\OGA_Site_Layout.mxd 17 September 2015 CWT

Figure 2
Site Layout



Legend

- Shallow Monitoring Well Location showing (Screen Interval) and [Groundwater Elevation]
- Intermediate Monitoring Well Location showing (Screen Interval) and [Groundwater Elevation]
- Groundwater Elevation Contour
- Groundwater Flow Direction

Notes:
1. Screen interval is presented in feet, below land surface (ft, BLS).
2. Elevation is referenced to the North American Datum of 1988.
3. * indicates value is not used to generate contour.
4. NM indicates not measured.
5. Water level measurements were collected on 19 November 2014 and 11 May 2015.
6. Contours are not drawn for May 2015 due to low hydraulic gradient.
7. All monitoring well IDs have the "LC39OGA-" prefix.

Path: (Pensacola-01\Data\)P:\GIS\FR0746C_LC39OGA\MXDs\Groundwater_Elev_OGA_2014-2015.mxd 17 September 2015 CWT

Figure 3
Groundwater Elevation Contours

Legend

- Monitoring Well Location {5 to 15 ft screen interval}
- Monitoring Well Location {22 to 27 ft screen interval}
- Monitoring Well Location {22 to 27 ft screen interval} Not part of LTM Network

Notes:
1. Screen intervals are presented in feet (ft) below land surface.
2. Results are presented in micrograms per liter.
3. U indicates not detected above method detection limit.
4. I indicates the reported value is between the method detection limit and the practical quantitation limit.
5. Yellow, shaded bold text indicates concentration is above the Florida Department of Environmental Protection (FDEP) Groundwater Cleanup Target Level (GCTL) for vinyl chloride of 1 microgram per liter.

Path: (Pensacola-01\DATA) P:\GIS\FR0746C_LC39OGA\MXDs\OGA_GW_Results.mxd 17 September 2015 CWT

Figure 4
Summary of Vinyl Chloride Results

ATTACHMENT A

APPLICABLE KSCRT MEETING MINUTES

2013 Meeting Minutes

Revision 1 Meeting Minutes for January 31st and February 1st, 2013.
Attendees:

John Armstrong/FDEP
Rosaly Santos-Ebaugh/NASA
Mike Deliz/NASA
Anne Chrest/NASA
Dinh Vo/NASA
Bob Kline/NASA
Sue Tzareff/IHA
Michele Cielukowski/IHA
Michelle Moore/IHA
Todd Weldon/IHA
Tom Peel/Geosyntec
Melissa Hensley/Geosyntec
Rebecca Daprato/Geosyntec
Jim Langenbach/Geosyntec
Jill Johnson/Geosyntec
Eric Sager/Geosyntec
Mark Speranza/Tetra Tech
Matt Shelton/Tetra Tech
Debbie Wilson/Tetra Tech
Rob Simcik/Tetra Tech
Deda Johansen/Jacobs

1305-M05	Susan Sitkoff/ Arcadis	<u>Launch Complex 39 Observation Gantry Area (PRL 172)</u> **Goal**: Present Step 1 Engineering Evaluation and obtain team consensus on proposed corrective action objectives and retained technology for Step 3 EE to mitigate potential discharge to the OFW. **Discussion**: Preliminary confirmatory sampling completed and presented to the KSCRT at December 2011 team meeting and consensus reached for: • NFA at LOC 1, 2, 4, and 5, • Complete delineation of PCB-affected soil at LOC 3 (presented separately in the Confirmatory Sampling ADP (May 2013)), and • Prepare Step 1 Engineering Evaluation for site-wide groundwater to identify potential sources/hot spots given constituents at GW/SW interface of OFW above background. Groundwater investigation conducted from September 2009 to July 2012. Total of 218 groundwater samples collected from 52 locations. Only groundwater COC is vinyl chloride, detected in 25 of 218 samples. There are only three wells on the site and their layout is such that groundwater elevation contours could not be generated. There was no budget to collect a lithology sample. No surface water samples were collected. Studies are out that indicate that before the contamination reaches the surface water body, it is removed biologically. It will be difficult to measure whether or not there is actual discharge to the OFW. Suggestion was made to treat the entire plume and not just the area adjacent to OFW.

At Building 60600 on CCAFS, Henry samplers were used in the river. The results showed levels of VC between ND and less than 1 µg/L. Stormwater management system at this facility was later re-routed. Monitoring at another site on CCAFS does require that there is periodic sampling of the groundwater/surface water interface. There were no specific actions at these sites and there is contamination at the shoreline.

FDEP would prefer doing something active at this site. NASA would prefer additional remedial alternative in addition to the option than what was recommended.

Phytoremediation would be a passive option. Having higher hits up-gradient, should NASA look at treating the entire site, only do the wall, or do something passive. Team wants an EE Step 2 for this site.

An OFW cannot receive any detectable concentrations. VC detected in monitoring wells adjacent to OFW above screening criteria.

Team consensus reached to do an EE Step 2 evaluating air sparge wall, air sparge full plume treatment, solar sparge system, phytoremediation, and MNA (requiring additional data collection).

Results: Decision item 1305-D14

1305-M06	Susan Sitkoff/ Arcadis	<u>Launch Complex 39 Observation Gantry Area (PRL 172)</u> **Goal**: present soil sampling results for LOC 3 and obtain consensus on delineation and site work plan. **Discussion**: Soil samples collected from 0-0.5, 0.5-2.0, 2.0-3.0, and 3.0-4.0 feet BLS to delineate PCBs at LOC 3. Sixty soil borings were made and 108 samples were collected and analyzed for PCBs. Total PCB concentrations ranged from below screening criteria to 11.01 mg/kg. Maximum depth of PCB affected soil was 2.0 ft BLS. Retention pond at this site was dug during construction of the gantry. Team consensus reached on delineation, excavation perimeter as revised (SB0042 to SB0043 to SB0051 to SB0059 to SB0058 to SB0056) and depths for Area A to 0.5 ft BLS, Area B to 2.0 ft BLS, and Area C to 2.0 ft BLS. Team consensus reached for NFA following excavation. **Results**: Decision items 1305-D15 to D16
1311-M09	Scott Starr/ Arcadis	<u>LC39 Observation Gantry (PRL 172)</u> **Goal**: Present Step 2 Engineering Evaluation Update after discussions with NASA and FDEP.

Discussion: VC is the primary COC for the site. Total mass present at the site is approximately 0.28 lbs. Step 2 EE submitted to Team for review in September 2013 based on CAO to achieve no detectable COCs in sentinel monitoring wells adjacent the OFW. The Step 2 EE recommended implementation of air sparging of the entire plume. Based on written Team comments further discussions with FDEP were held to discuss the CAO and whether "the Team was taking the right approach?". Based on discussion with FDEP, it indicated that FDEP was amenable to consider revision of the CAO to demonstrate that potential seepage of COCs into the OFW are de minimis given the minimal mass present, no source area identified, and high cost per pound of mass removal for implementation of active remediation. Options were presented for demonstrating de minimis potential seepage of COCs given certain identified data gaps including an insufficient monitoring well network to provide information on groundwater flow direction and velocities, minimal information on lithology, and no geochemical data or microbial community data to evaluate MNA. The options included: 1) use existing data and assumed natural attenuation rates to estimate potential life cycle loading; 2) utilize existing data to show rate of mass flux across potential seepage area assuming contaminant transport equals groundwater velocity and no attenuation; 3) similar to option 2 with additional collection of geochemical groundwater data to assess effects of attenuation; and 4) utilize passive flux meters to estimate groundwater velocity and mass flux at OFW. FDEP (John) recommended elimination of Option 4 because previous use of flux meters has not provided sufficient certainty for decision making. FDEP indicated that Option 1 would be sufficient and it would require ranges of potential annual seepage rates assuming worst case and under reasonable attenuation scenarios. The Team recommended using data from 516S which is just south of the Site adjacent to the same OFW to supplement the data gaps in preparing the evaluation. FDEP concurred that an ADP type package would be sufficient to provide to FDEP senior management that includes the range of estimated discharge and the cost range for implementing active remediation.

Team consensus obtained to estimate ranges of discharge using data from 516S and provide costs for active remediation demonstrating the high cost per pound removal. ARCADIS will coordinate with Tetra Tech to obtain data on 516S.

Results: Decision item 1311-D34

2014 Meeting Minutes

Revision 1 Meeting Minutes for February 6-7, 2014

Attendees:

John Armstrong/FDEP
Rosaly Santos-Ebaugh/NASA
Mike Deliz/NASA
Dinh Vo/NASA
Harry Plaza/NASA
Bob Kline/NASA
Anne Chrest/NASA
Sue Tzareff/IHA
Michele Cielukowski/IHA
Amanda Beatty/IHA
Bud Timmons/IHA
Rebecca Daprato/Geosyntec
Jim Langenbach/Geosyntec
Thomas Peel/Geosyntec
Cathy Soistman/Geosyntec
Melissa Hensley/Geosyntec
Eric Sager/Geosyntec
Mark Speranza/Tetra Tech
Mark Jonnet/Tetra Tech
Chris Hook/Tetra Tech
Jennifer Buel/Tetra Tech
Debbie Wilson/Tetra Tech
Rob Simcik/Tetra Tech
Deda Johansen/Jacobs
Chris Adkison/Jacobs
Harlan Faircloth/CORE

1406-M10	Harry Plaza/ NASA	<u>LC39 Observation Gantry Area (PRL 0172)</u> **Goal**: Obtain team consensus on path forward. **Discussion**: FDEP management feels at this time that the site does not qualify for a de minimis status due to the strict requirements for no discharge to OFWs. FDEP management recognizes that budget limitations may delay the implementation of any active remediation at the site (perhaps for years) and suggested a strategically located temporary sparge wells be employed at the hottest wells in particular those closest to the canal. FDEP realizes that this is a low priority issue for NASA. NASA has incorporated the proposed LTM plan by including the LC39 Observation Gantry Area in the VAB Area LTM Program. The Team will receive annual briefings and letter reports each year until the Team decides to revisit the conditions at the Site. Team consensus reached to monitor eight wells semi-annually for two years, after which time the Team will re-evaluate the path forward for the site. **Results**: Decision item 1406-D27
1408-M06	Scott Starr/ Arcadis	<u>Launch Complex 39 Observation Gantry (SWMU 107)</u> **Goal**: Onboard review of the LUCIP **Discussion**: Based on discussions, the SB will be deferred. Instead, an RFI progress report will be created and FDEP will assist with the language for the recommendations of that document. Site will be

assigned a SWMU number and this change would be made globally in the LUCIP.

Team consensus reached on LUCIP with the following revisions: globally, add SWMU #; page 2 under site contamination and control qualify last sentence “Potential indoor air quality“; and on Figure 2 revise site boundary to include complete groundwater contamination area.

Results: Decision item 1408-D08

ATTACHMENT B

MONITORING WELL COMPLETION FORMS

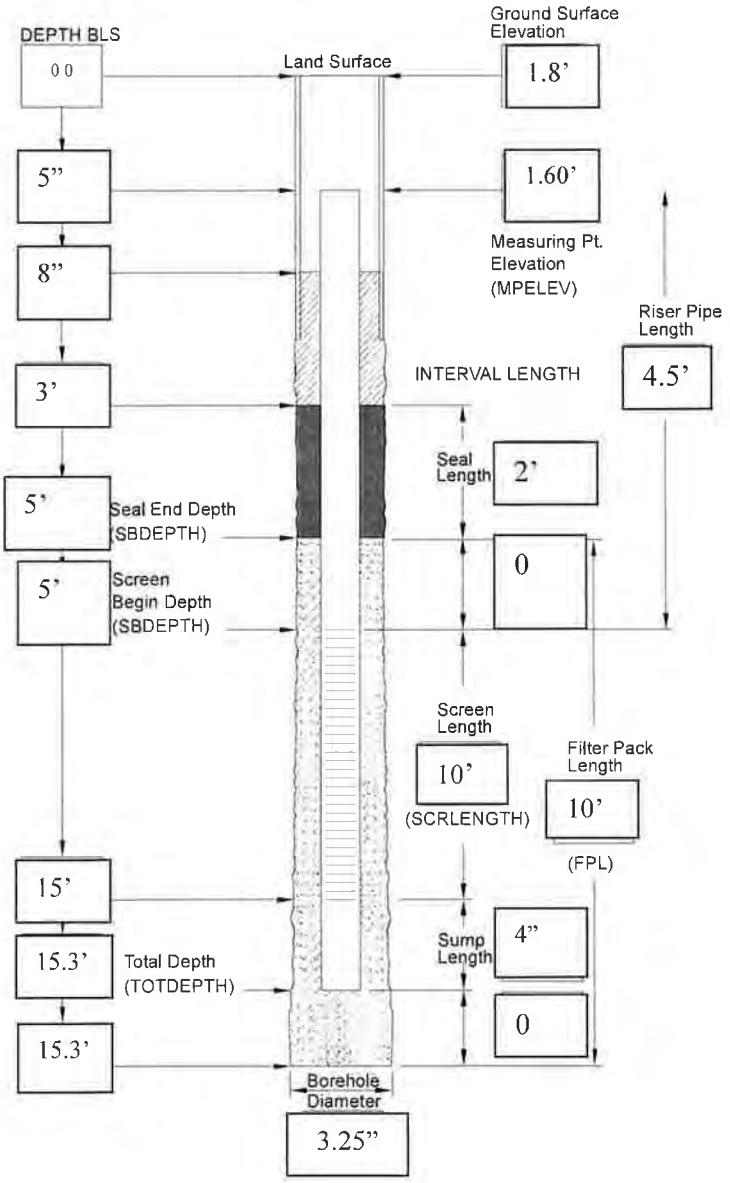
Project #FR0746C

FORM C
Fieldbook Sept. 2014

WELL CONSTRUCTION LOG
STANDARD FLUSH MOUNT

Well I.D. (LOCID): LC39OGA-MW0004
Drilling Company: Environmental Drilling Services
Drillers: Chris Phelps & Keith Olson
Geologist/Engineer: Ben Coppenger
Signature: [signature]

Site: LC390GA
Installation Method: Direct-push technology
Casing Installation Date (INSDATE): 9-22-2014
Well Type (WTCCODE): Groundwater Monitoring
Well Completion Method (WCMCODE): Flush
Geologic Completion Zone (GZCODE): Surficial



Comments

Well Completion
Guard Posts (Y / **N**) Date: 9-22-2014
Surface Pad Size: 2 ft x 2 ft
Protective Casing or Cover
Diameter/Type: 8" Steel manhole
Depth BGS: 8" Weep Hole (Y / **N**)
Grout
Composition/Proportions:
Type I/II neat cement grout & water (50/50)
Placement Method: Hand pour

Seal Date: 9-22-2014
Type: Fine sand 30/65
Source: Standard Sand and Silica Company
Set-up/Hydration Time: NA
Placement Method: Surface pour
Vol. Fluid Added: NA
Filter Pack
Type: Pre-pack 20/30 sand
Source: Atlantic Drilling Supply
Amount Used: 10'
Placement Method: Pre-pack
Well Riser Pipe
Casing Material (CMACODE): Schedule 40 PVC
Casing Inside Diameters (CASDIAM): 1 in.
Screen
Material: Schedule 40 PVC
Inside Diameter (SCRDIAM): 1 in.
Screen Slot Size: (SOUA): 0.010 in.
Percent Open Area (PCTOPEN): NA
Sump or Bottom Cap (**Y** / N)
Type/Length: 4" Schedule 40 PVC
Backfill Plug (Y / **N**)
Material: NA
Placement Method: NA
Set-up/Hydration Time: NA
Total Water Volume During Construction
Introduced (Gal): 0 Recovered (Gal): 9
Reviewed By: [signature] Date: 9/30/14

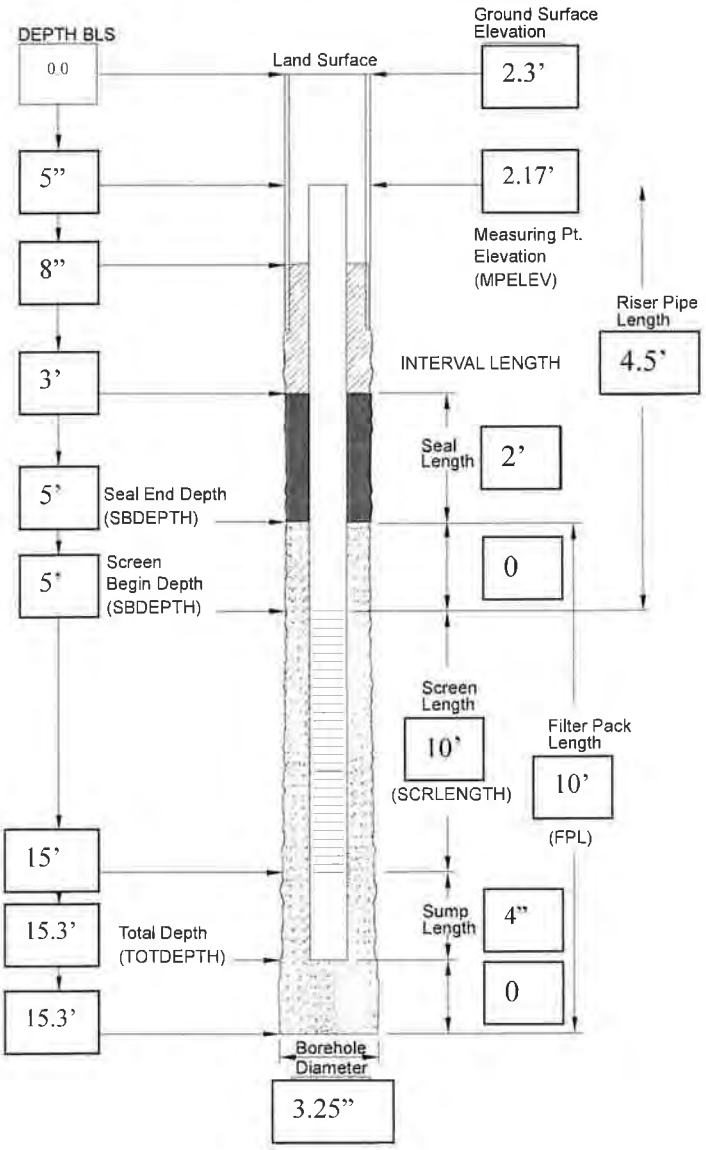
Project #FR0746C

FORM C
Fieldbook Sept. 2014

WELL CONSTRUCTION LOG
STANDARD FLUSH MOUNT

Well I.D. (LOCID): LC39OGA-MW0005
Drilling Company: Environmental Drilling Services
Drillers: Chris Phelps & Keith Olson
Geologist/Engineer: Ben Coppenger
Signature:

Site: LC390GA
Installation Method: Direct-push technology
Casing Installation Date (INSDATE): 9-22-2014
Well Type (WTCCODE): Groundwater Monitoring
Well Completion Method (WCMCODE): Flush
Geologic Completion Zone (GZCODE): Surficial



Well Completion
Guard Posts (Y / **N**) Date: 9-22-2014
Surface Pad Size: 2 ft x 2 ft
Protective Casing or Cover
Diameter/Type: 8" Steel manhole
Depth BGS: 8" Weep Hole (Y / **N**)
Grout
Composition/Proportions:
Type I/II neat cement grout & water (50/50)
Placement Method: Hand surface pour

Seal Date: 9-22-2014
Type: Fine sand 30/65
Source: Standard Sand and Silica Company
Set-up/Hydration Time: NA
Placement Method: Surface pour
Vol. Fluid Added: 0
Filter Pack
Type: Pre-pack 20/30 sand
Source: Atlantic Drilling Supply
Amount Used: 10"
Placement Method: Pre-pack
Well Riser Pipe
Casing Material (CMACODE): Schedule 40 PVC
Casing Inside Diameters (CASDIAM): 1 in.
Screen
Material: Schedule 40 PVC
Inside Diameter (SCRDIAM): 1 in.
Screen Slot Size: (SOUA): 0.010 in.
Percent Open Area (PCTOPEN): NA
Sump or Bottom Cap (**Y** / N)
Type/Length: 4" Schedule 40 PVC
Backfill Plug (Y / **N**)
Material: NA
Placement Method: NA
Set-up/Hydration Time: NA
Total Water Volume During Construction
Introduced (Gal): 0 Recovered (Gal): 5
Reviewed By: Date: 9/30/14

Comments

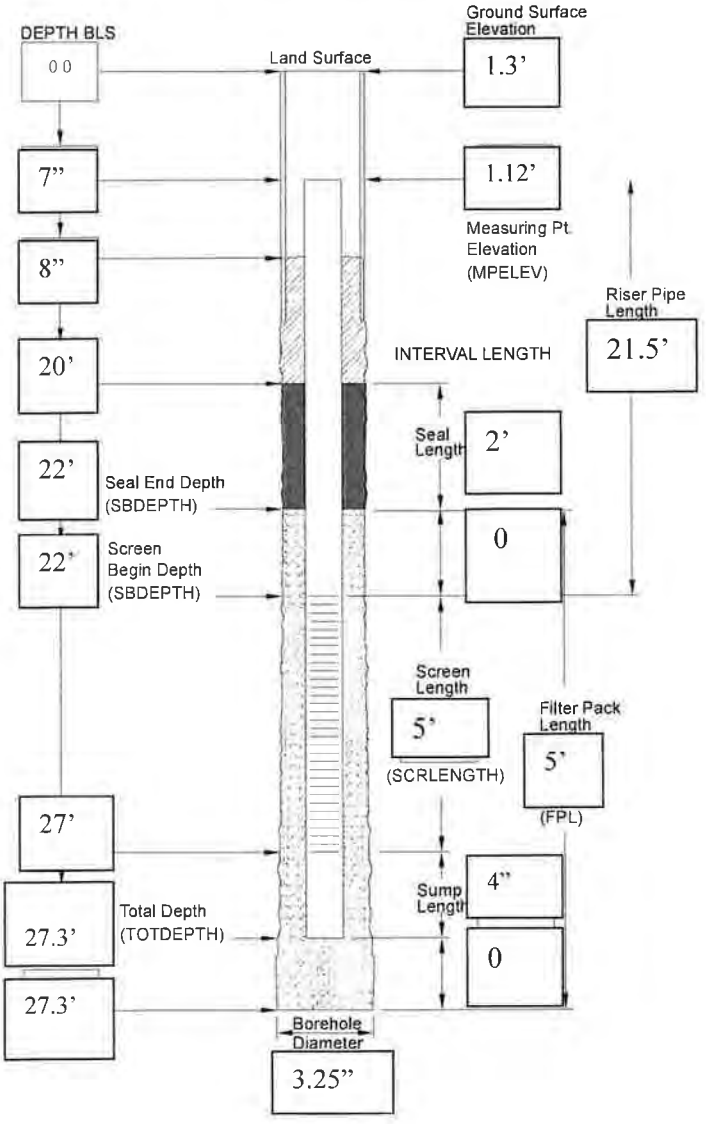
Project #FR0746C

FORM C
Fieldbook Sept. 2014

WELL CONSTRUCTION LOG
STANDARD FLUSH MOUNT

Well I.D. (LOCID): LC39OGA-MW0006
Drilling Company: Environmental Drilling Services
Drillers: Chris Phelps & Keith Olson
Geologist/Engineer: Ben Coppenger
Signature:

Site: LC390GA
Installation Method: Direct-push technology
Casing Installation Date (INSDATE): 9-23-2014
Well Type (WTCCODE): Groundwater Monitoring
Well Completion Method (WCMCODE): Flush
Geologic Completion Zone (GZCODE): Surficial



Well Completion
Guard Posts (Y / **N**) Date: 9-23-2014
Surface Pad Size: 2 ft x 2 ft
Protective Casing or Cover
Diameter/Type: 8" Steel manhole
Depth BGS: 8" Weep Hole (Y / **N**)
Grout
Composition/Proportions:
Type I/II neat cement grout & water (50/50)
Placement Method: Tremie tube
Seal Date: 9-23-2014
Type: Fine sand 30/65
Source: Standard Sand and Silica Company
Set-up/Hydration Time: NA
Placement Method: Tremie tube
Vol. Fluid Added: 0
Filter Pack
Type: Pre-pack 20/30 sand
Source: Atlantic Drilling Supply
Amount Used: 5'
Placement Method: Pre-pack
Well Riser Pipe
Casing Material (CMACODE): Schedule 40 PVC
Casing Inside Diameters (CASDIAM): 1 in.
Screen
Material: 4" Schedule 40 PVC
Inside Diameter (SCRDIAM): 1 in.
Screen Slot Size: (SOUA): 0.010 in.
Percent Open Area (PCTOPEN): NA
Sump or Bottom Cap (**Y** / N)
Type/Length:
Backfill Plug (Y / **N**)
Material: NA
Placement Method: NA
Set-up/Hydration Time: NA
Total Water Volume During Construction
Introduced (Gal): 0 Recovered (Gal): 3
Reviewed By: Date: 9/30/14

Comments

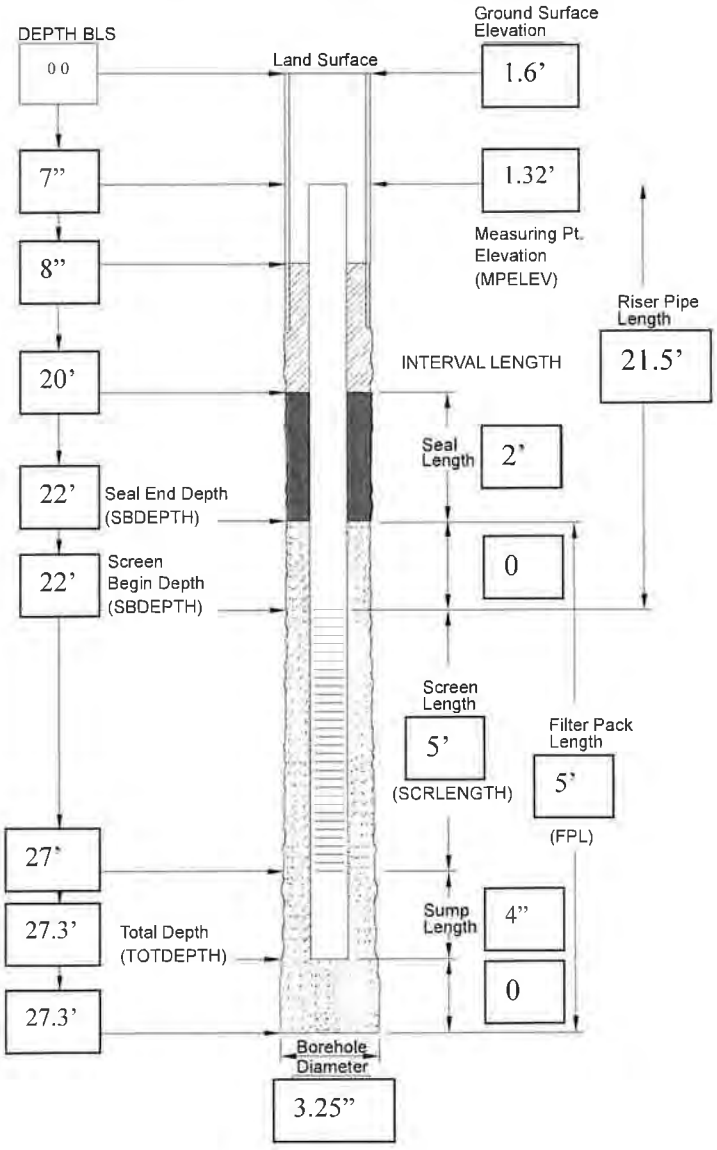
Project #FR0746C

FORM C
Fieldbook Sept. 2014

WELL CONSTRUCTION LOG
STANDARD FLUSH MOUNT

Well I.D. (LOCID): LC39OGA-MW0007
Drilling Company: Environmental Drilling Services
Drillers: Chris Phelps & Keith Olson
Geologist/Engineer: Ben Coppenger
Signature:

Site: LC390GA
Installation Method: Direct-push technology
Casing Installation Date (INSDATE): 9-23-2014
Well Type (WTCCODE): Groundwater Monitoring
Well Completion Method (WCMCODE): Flush
Geologic Completion Zone (GZCODE): Surficial



Well Completion
Guard Posts (Y / **N**) Date: 9-23-2014
Surface Pad Size: 2 ft x 2 ft
Protective Casing or Cover
Diameter/Type: 8" Steel manhole
Depth BGS: 8" Weep Hole (Y / **N**)
Grout
Composition/Proportions:
Type I/II neat cement grout & water (50/50)
Placement Method: Tremie tube

Seal Date: 9-23-2014
Type: Fine sand 30/65
Source: Standard Sand and Silica Company
Set-up/Hydration Time: NA
Placement Method: Tremie tube
Vol. Fluid Added: 0
Filter Pack
Type: Pre-pack 20/30 sand
Source: Atlantic Drilling Supply
Amount Used: 5'
Placement Method: Pre-pack
Well Riser Pipe
Casing Material (CMACODE): Schedule 40 PVC
Casing Inside Diameters (CASDIAM): 1 in.
Screen
Material: Schedule 40 PVC
Inside Diameter (SCRDIAM): 1 in.
Screen Slot Size: (SOUA): 0.010 in.
Percent Open Area (PCTOPEN): NA
Sump or Bottom Cap (**Y** / N)
Type/Length: 1" diameter/4" length sch 40 PVC solid
Backfill Plug (Y / **N**)
Material: NA
Placement Method: NA
Set-up/Hydration Time: NA
Total Water Volume During Construction
Introduced (Gal): 0 Recovered (Gal): 5
Reviewed By: Date: 9/30/14

Comments

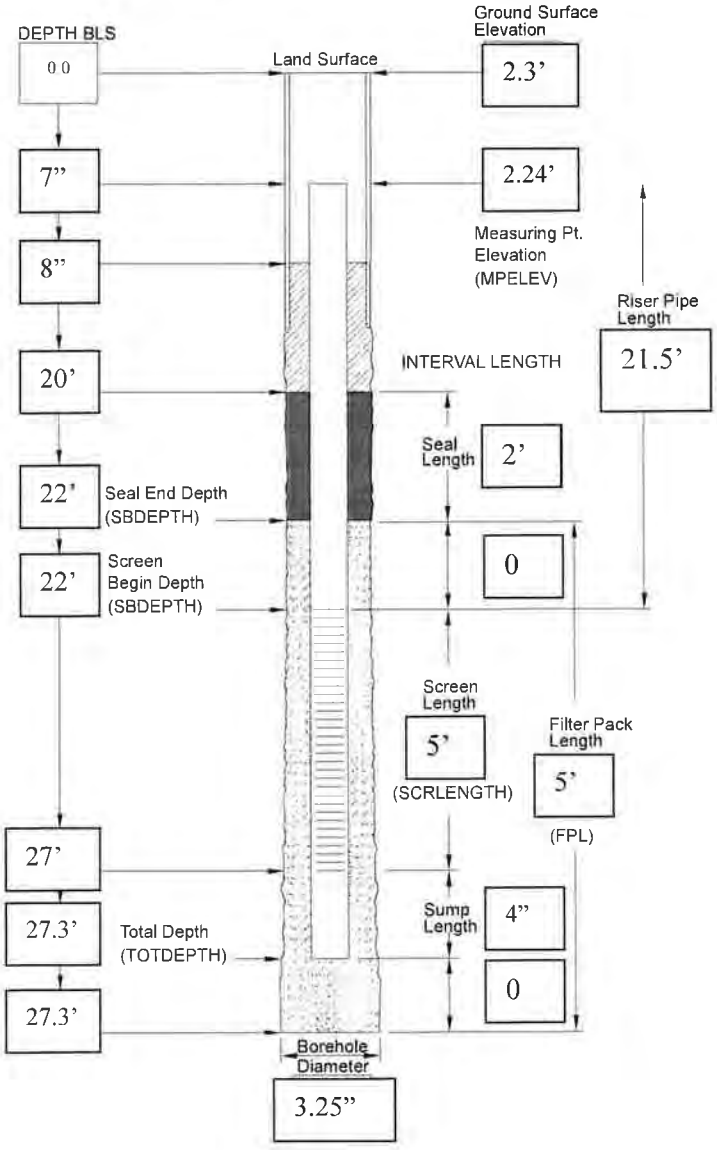
Project #FR0746C

FORM C
Fieldbook Sept. 2014

WELL CONSTRUCTION LOG
STANDARD FLUSH MOUNT

Well I.D. (LOCID): LC39OGA-MW0008
Drilling Company: Environmental Drilling Services
Drillers: Chris Phelps & Keith Olson
Geologist/Engineer: Ben Coppenger
Signature: [signature]

Site: LC390GA
Installation Method: Direct-push technology
Casing Installation Date (INSDATE): 9-22-2014
Well Type (WTCODE): Groundwater Monitoring
Well Completion Method (WCMCODE): Flush
Geologic Completion Zone (GZCODE): Surficial



Well Completion
Guard Posts (Y / **N**) Date: 9-23-2014
Surface Pad Size: 2 ft x 2 ft
Protective Casing or Cover
Diameter/Type: 8" steel manhole
Depth BGS: 8" Weep Hole (Y / **N**)
Grout
Composition/Proportions:
Type I/II neat cement grout & water (50/50)
Placement Method: Tremie tube

Seal Date: 9-23-2014
Type: Fine sand 30/65
Source: Standard Sand and Silica Company
Set-up/Hydration Time: NA
Placement Method: Tremie tube
Vol. Fluid Added: 0
Filter Pack
Type: Pre-pack 20/30 sand
Source: Atlantic Drilling Supply
Amount Used: 5'
Placement Method: Pre-pack
Well Riser Pipe
Casing Material (CMACODE): Schedule 40 PVC
Casing Inside Diameters (CASDIAM): 1 in.
Screen
Material: Schedule 40 PVC
Inside Diameter (SCRDIAM): 1 in.
Screen Slot Size: (SOUA): 0.010 in.
Percent Open Area (PCTOPEN): NA
Sump or Bottom Cap (**Y** / N)
Type/Length: 4" Schedule 40 PVC
Backfill Plug (Y / **N**)
Material: NA
Placement Method: NA
Set-up/Hydration Time: NA
Total Water Volume During Construction
Introduced (Gal): 0 Recovered (Gal): 10
Reviewed By: [signature] Date: 9/30/14

Comments

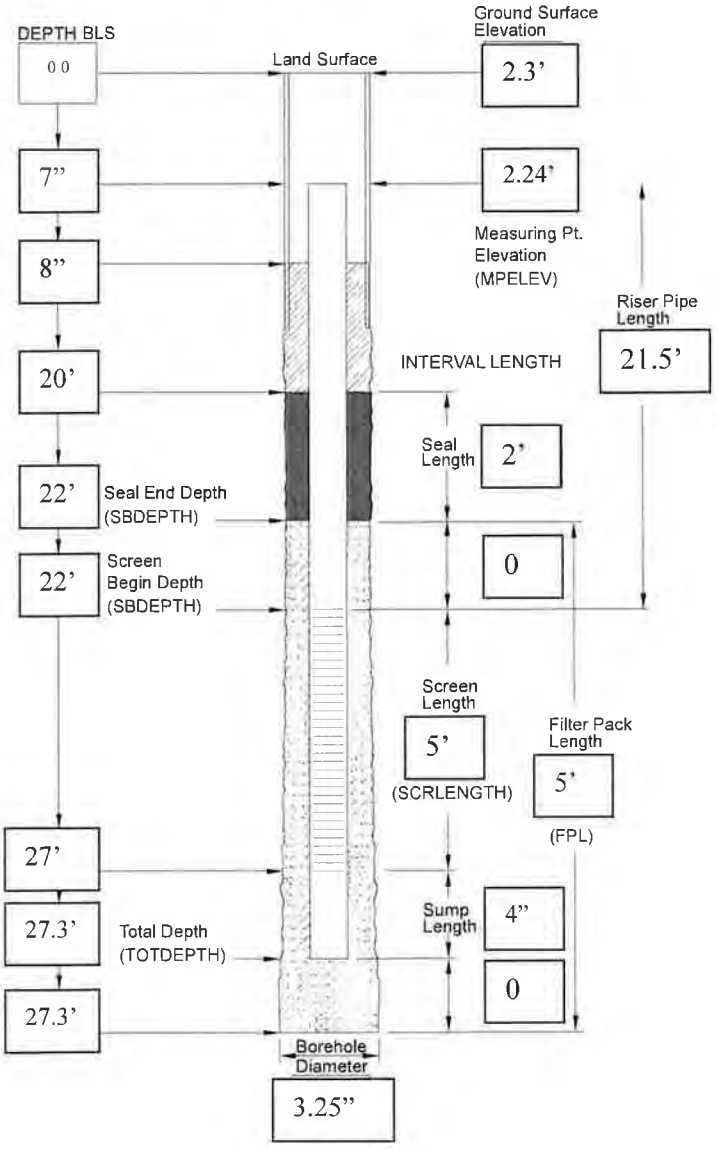
Project #FR0746C

FORM C
Fieldbook Sept. 2014

WELL CONSTRUCTION LOG
STANDARD FLUSH MOUNT

Well I.D. (LOCID): LC39OGA-MW0009
Drilling Company: Environmental Drilling Services
Drillers: Chris Phelps & Keith Olson
Geologist/Engineer: Ben Coppenger
Signature:

Site: LC390GA
Installation Method: Direct-push technology
Casing Installation Date (INSDATE): 9-23-2014
Well Type (WTCCODE): Groundwater Monitoring
Well Completion Method (WCMCODE): Flush
Geologic Completion Zone (GZCODE): Surficial



Well Completion
Guard Posts (Y / **N**) Date: 9-23-2014
Surface Pad Size: 2 ft x 2 ft
Protective Casing or Cover
Diameter/Type: 8" Steel manhole
Depth BGS: 8" Weep Hole (Y / **N**)
Grout
Composition/Proportions:
Type I/II neat cement grout & water (50/50)
Placement Method: Tremie tube

Seal Date: 9-23-2014
Type: Fine sand 30/65
Source: Standard Sand and Silica Company
Set-up/Hydration Time: NA
Placement Method: Tremie tube
Vol. Fluid Added: 0
Filter Pack
Type: Pre-pack 20/30 sand
Source: Atlantic Drilling Supply
Amount Used: 5'
Placement Method: Pre-pack
Well Riser Pipe
Casing Material (CMACODE): Schedule 40 PVC
Casing Inside Diameters (CASDIAM): 1 in.
Screen
Material: Schedule 40 PVC
Inside Diameter (SCRDIAM): 1 in.
Screen Slot Size: (SOUA): 0.010 in.
Percent Open Area (PCTOPEN): NA
Sump or Bottom Cap (**Y** / N)
Type/Length: 4" Schedule 40 PVC
Backfill Plug (Y / **N**)
Material: NA
Placement Method: NA
Set-up/Hydration Time: NA
Total Water Volume During Construction
Introduced (Gal): 0 Recovered (Gal): 5
Reviewed By: Date: 9/30/14

Comments

ATTACHMENT C

MONITORING WELL SURVEY REPORT

KUGELMANN LAND SURVEYING, INC
30 N. TROPICAL TRAIL, SUITE B, MERRITT ISLAND, FL 32953
PH: (321) 459-0930 klsinc@cfl.rr.com LB 6575

GEOSYNTEC CONSULTANTS 9/25/2014 KLS#2014063
MONITORING WELLS

(FEET)

#	NORTHING	EASTING	TOC EL	GND EL	DESC	ID
3	1544292.94	766126.77	4.40	1.5	MW	C5ES MW0011S
6	1546411.60	766920.17	5.79	6.1	MW	WCPS MW0013S
7	1546441.53	766901.37	5.52	5.7	MW	WCPS MW0011S (EX)
10	1548949.06	777970.97	1.60	1.8	MW	LC39OGA MW0004
11	1548952.71	777972.15	1.62	1.8	MW	LC39OGA MW0008
12	1548907.70	777979.17	1.32	1.6	MW	LC39OGA MW0007
15	1548896.66	778020.02	1.12	1.3	MW	LC39OGA MW0006
16	1548898.93	778038.12	0.92	N/A	MW	LC39OGA MW0001 (EX)
17	1549019.07	778058.81	2.17	2.3	MW	LC39OGA MW0005
18	1549021.46	778060.67	2.24	2.3	MW	LC39OGA MW0009

(METRIC)

#	NORTHING	EASTING	TOC EL	GND EL	DESC	ID
3	470701.435	233515.909	1.341	0.46	MW	C5ES MW0011S
6	471347.204	233757.738	1.765	1.85	MW	WCPS MW0013S
7	471356.325	233752.009	1.683	1.75	MW	WCPS MW0011S (EX)
10	472120.623	237126.030	0.488	0.53	MW	LC39OGA MW0004
11	472121.736	237126.386	0.494	0.53	MW	LC39OGA MW0008
12	472108.016	237128.527	0.402	0.48	MW	LC39OGA MW0007
15	472104.651	237140.979	0.341	0.40	MW	LC39OGA MW0006
16	472105.343	237146.495	0.280	N/A	MW	LC39OGA MW0001 (EX)
17	472141.963	237152.803	0.661	0.70	MW	LC39OGA MW0005
18	472142.689	237153.369	0.683	0.70	MW	LC39OGA MW0009

SURVEYOR'S NOTES:

1. THE PURPOSE OF THIS SURVEY IS TO DETERMINE THE HORIZONTAL AND VERTICAL POSITION OF GROUND WATER MONITORING WELLS AT VARIOUS LOCATIONS AT KENNEDY SPACE CENTER; C5 ELECTRICAL SUBSTATION, LAUNCH COMPLEX 39 OBSERVATION GANTRY AREA, AND WEST CRAWLER PARK SITE.
2. THE COORDINATES DEPICTED HEREON ARE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83), 1990 ADJUSTMENT AND ARE BASED ON UNITED STATES COAST & GEODETIC MONUMENT 'WRIGHT', HAVING PUBLISHED COORDINATES OF NORTH 1544816.330 AND EAST 768783.060 FEET.
3. THE ELEVATIONS DEPICTED HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AND ARE BASED ON UNITED STATES COAST & GEODETIC MONUMENT 'WRIGHT', HAVING AN PUBLISHED ELEVATION OF 7.450 FEET.
4. THIS SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF THE CLIENT(S) SHOWN HEREON AND COPIES ARE VALID ONLY WHEN SIGNED, DATED AND EMBOSSED WITH THE SURVEYOR'S SEAL.

ABBREVIATIONS	
TOC	TOP OF CASING
GND	GROUND
EL	ELEVATION
MW	MONITORING WELL
ID	IDENTIFICATION

ATTACHMENT D

MONITORING WELL SAMPLING FORMS

Monitoring Well Sampling

Site: LC390GA Project No.: FR0746C Phase: 09 Date: 5-11-15 Sampled By: Ben Coppinger

Station (Well ID): MW0001 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) ☒ Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geopump Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) YSI 556 MPS Water Level Meter: Solinst

Time @ Start of Purging: 1346 Time @ End of Purging: 1404 Total Purging Time: 18 min. Depth of Pump or Intake Tubing: 10 ft BTOC

Depth to Water: 0.69 ft BTOC Total Well Depth: 15 ft BLS Screen Interval: 5-15 ft BLS Well diameter: 1 in Well Volume: 0.59 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4″ = 0.02; 1″ = 0.041; 2″ = 0.163; 4″ = 0.653; 6″ = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
1346	Start	24.46	7.89	3.465	811	1.81	-309.2	15.31	2.229	Grey	
1356	1.0	23.91	7.52	2.990	31.6	1.56	-329.2	1.87	1.944	grey	
1400	1.4	24.30	7.50	2.981	10.1	1.55	-336.7	1.35	1.938	Clear	
1402	1.6	24.31	7.50	2.981	8.23	1.55	-337.0	1.30	1.938	Clear	
1404	1.8	24.32	7.50	2.982	8.12	1.55	-337.3	1.24	1.938	Clear	

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 20 ft) + (Flow Through Cell Volume 0.25 gal) = 0.30 gallons [3 × Equip. Vol 0.90 gal]
[Tubing Inner Diameter Capacity Factors: 1/8″ = 0.0006; 1/4″ = 0.0026]

Sample ID: LC390GA-MW0001-010.0-20150511 Time Collected: 1404 Comments: VOC 8260B + Dissolved gases

Monitoring Well Sampling

Site: LC390 GA Project No.: FR0746C Phase: 09 Date: 6-9-15 Sampled By: Ben Coppenger

Station (Well ID): MW0001 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) ☒ Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geoquip Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) YSI 556 MPS Water Level Meter: Solinst

Time @ Start of Purging: 1408 Time @ End of Purging: 1424 Total Purging Time: 16 min. Depth of Pump or Intake Tubing: 10 ft BTOC

Depth to Water: 0.95 ft BTOC Total Well Depth: 15 ft BLS Screen Interval: 5-15 ft BLS Well diameter: 1 in Well Volume: 0.58 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4" = 0.02; 1" = 0.041; 2" = 0.163; 4" = 0.653; 6" = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
1408	Start	24.85	8.13	3.215	124	1.68	-312.4	24.07	2.078	Gray	
1418	1.0	24.80	7.74	3.090	13.9	1.61	-331.0	1.94	2006	Clear	
1420	1.2	24.75	7.73	3.085	12.8	1.61	-334.3	1.64	2.003	Clear	
1422	1.4	24.74	7.71	3.087	11.2	1.61	-336.8	1.46	2.005	Clear	
1424	1.6	24.72	7.71	3.085	11.4	1.61	-335.6	1.40	2.005	Clear	

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 20 ft) + (Flow Through Cell Volume 0.25 gal) = 0.30 gallons [3 × Equip. Vol = 0.90 gal]
[Tubing Inner Diameter Capacity Factors: 1/8" = 0.0006; 1/4" = 0.0026]

Sample ID: LC390GA-MW0001-010.0-20150609 Time Collected: 1424 Comments: Dissolved Gases

Monitoring Well Sampling

Site: LC390GA Project No.: FR0746C Phase: 09 Date: 5-11-15 Sampled By: Ben Copperger

Station (Well ID): MW0002 Purge Method: Pump [X] Bailer [ ] Pump Type: ___ Submersible (__ Teflon __ SS __ Other) [X] Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geopump Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) YSI 556 MPS Water Level Meter: Solinst

Time @ Start of Purging: 1518 Time @ End of Purging: 1552 Total Purging Time: 34 min. Depth of Pump or Intake Tubing: 10 ft BTOC

Depth to Water: 0.60 ft BTOC Total Well Depth: 15 ft BLS Screen Interval: 5-15 ft BLS Well diameter: 1 in Well Volume: 0.60 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4" = 0.02; 1" = 0.041; 2" = 0.163; 4" = 0.653; 6" = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
1518	Start	26.98	8.21	2.747	595	1.37	-295.9	6.28	1.657	Grey	
1528	1.0	25.31	7.41	1.932	132	0.98	-322.1	1.49	1.256	Grey	
1538	2.0	25.39	7.31	1.932	27.1	0.98	-326.3	0.84	1.256	Clear	
1548	3.0	25.38	7.28	1.936	8.00	0.98	-323.5	0.67	1.259	clear	
1550	3.2	25.37	7.28	1.936	7.98	0.98	-323.8	0.65	1.259	clear	
1552	3.4	25.33	7.28	1.937	6.58	0.98	-324.4	0.65	1.258	clear	

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 20 ft) + (Flow Through Cell Volume 0.25 gal) = 0.30 gallons [3 × Equip. Vol = 0.90 gal]
[Tubing Inner Diameter Capacity Factors: 1/8" = 0.0006; 1/4" = 0.0026]

Sample ID: LC390GA-MW0002-010.0-20150511 Time Collected: 1552 Comments: VOC 8260B + dissolved gases

Monitoring Well Sampling

Site: LC390GA Project No.: FR0746C Phase: 09 Date: 6/10/15 Sampled By: Ben Coppenger

Station (Well ID): MW0002 Purge Method: Pump X Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geopump Purge Rate: 0.1 gpm Water Quality Meter (Make & Model): YSI 556 MPS Water Level Meter: Solinst

Time @ Start of Purging: 0932 Time @ End of Purging: 0946 Total Purging Time: 14 min. Depth of Pump or Intake Tubing: 10 ft BTOC

Depth to Water: 1.42 ft BTOC Total Well Depth: 15 ft BLS Screen Interval: ~~BLS~~ 5-15 ft BLS Well diameter: 1 in Well Volume: 0.56 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4″ = 0.02; 1″ = 0.041; 2″ = 0.163; 4″ = 0.653; 6″ = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
0932	Start	25.35	7.36	2.181	209	1.11	-267.5	35.23	1.411	Grey	
0942	1.0	25.02	7.41	2.098	16.5	1.07	-304.9	1.51	1.364	Clear	
0944	1.2	25.02	7.41	2.098	15.8	1.07	-305.8	1.47	1.364	Clear	
0946	1.4	25.03	7.41	2.098	15.4	1.07	-306.3	1.39	1.364	Clear	

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 20 ft) + (Flow Through Cell Volume 0.25 gal) = 0.30 gallons [3 × Equip. Vol = 0.90 gal]
[Tubing Inner Diameter Capacity Factors: 1/8″ = 0.0006; 1/4″ = 0.0026]

Sample ID: LC390GA-MW0002-010.0-20150610 Time Collected: 0946 Comments: Dissolved Gases

Monitoring Well Sampling

Site: LC390GA Project No.: FR0746C Phase: 09 Date: 5-12-15 Sampled By: Ben Coppenger

Station (Well ID): MW0004 Purge Method: Pump [X] Bailer [ ] Pump Type: ___ Submersible (__ Teflon __ SS __ Other) [X] Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geopump Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) YSI 556 MPS Water Level Meter: Solinst

Time @ Start of Purging: 1025 Time @ End of Purging: 1042 Total Purging Time: 17 min. Depth of Pump or Intake Tubing: 10 ft BTOC

Depth to Water: 1.70 ft BTOC Total Well Depth: 15 ft BLS Screen Interval: 5-15 ft BLS Well diameter: 1 in Well Volume: 0.55 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4" = 0.02; 1" = 0.041; 2" = 0.163; 4" = 0.653; 6" = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
1025	Start	25.88	7.92	1.554	3.78	0.77	-252.3	4.91	0.984	Clear	
1035	1.0	24.91	7.33	1.352	27.6	0.67	-256.2	1.42	0.878	grey	
1038	1.3	25.01	7.25	1.338	16.1	0.67	-253.1	0.98	0.869	Clear	
1040	1.5	25.00	7.25	1.337	13.1	0.67	-255.5	0.95	0.869	Clear	
1042	1.7	24.98	7.24	1.337	11.6	0.67	-259.8	0.92	0.868	Clear	

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 20 ft) + (Flow Through Cell Volume 0.25 gal) = 0.30 gallons [3 × Equip. Vol = 0.90 gal]
[Tubing Inner Diameter Capacity Factors: 1/8" = 0.0006; 1/4" = 0.0026]

Sample ID: LC390GA-MW0004-010.0-20150512 Time Collected: 1042 Comments: VOC 8260B + Dissolved Gases

Monitoring Well Sampling

Site: LC390GA Project No.: 1-R0746C Phase: 09 Date: 6-10-15 Sampled By: Ben Coppenger

Station (Well ID): MW0004 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) ☒ Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geopump Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) YSI 556 MPS Water Level Meter: Solinst

Time @ Start of Purging: 1024 Time @ End of Purging: 1048 Total Purging Time: 24 min. Depth of Pump or Intake Tubing: 10 ft BTOC

Depth to Water: 1.73 ft BTOC Total Well Depth: 15 ft BLS Screen Interval: 5-15 ft BLS Well diameter: 1 in Well Volume: 0.54 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4″ = 0.02; 1″ = 0.041; 2″ = 0.163; 4″ = 0.653; 6″ = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
1024	Start	24.98	8.56	1.663	779	0.83	-290.0	7.10	1.052	Grey	
1034	1.0	24.77	7.62	1.467	66.1	0.74	-315.4	1.56	0.955	Light Grey	
1044	2.0	24.76	7.46	1.459	16.0	0.73	-321.4	0.86	0.947	Clear	
1046	2.2	24.75	7.46	1.459	13.6	0.73	-322.9	0.83	0.950	Clear	
1048	2.4	24.76	7.45	1.465	13.2	0.73	-321.4	0.80	0.954	Clear	

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 20 ft) + (Flow Through Cell Volume 0.25 gal) = 0.30 gallons [3 × Equip. Vol = 0.90 gal]
[Tubing Inner Diameter Capacity Factors: 1/8″ = 0.0006; 1/4″ = 0.0026]

Sample ID: LC390GA-MW0004-010.0-20150610 Time Collected: 1048 Comments: Dissolved Gases

Monitoring Well Sampling

Site: LC3906A Project No.: FR0746C Phase: 09 Date: 5-11-15 Sampled By: Ben Cappenos

Station (Well ID): ~~LC3906A-MW0005~~ BC Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) ☒ Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geopump Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) YSI 556 MPS Water Level Meter: Solinst

Time @ Start of Purging: 1132 Time @ End of Purging: 1146 Total Purging Time: 14 min. Depth of Pump or Intake Tubing: 10 ft BTOC

Depth to Water: 2.30 ft BTOC Total Well Depth: 15 ft BLS Screen Interval: 5-15 ft BLS Well diameter: 1 in Well Volume: 0.52 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4" = 0.02; 1" = 0.041; 2" = 0.163; 4" = 0.653; 6" = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
1132	Start	26.62	7.09	1.991	6.28	1.03	−107.2	7.63	1.389	Clear	
1142	1.0	~~26~~ 25.58	7.16	2.442	2.54	1.25	−284.5	1.20	1.587	Clear	
1144	~~0.2~~ 1.2	25.53	7.16	2.439	2.11	1.25	−283.9	1.13	1.586	Clear	
1146	~~0.2~~ 1.4	25.51	7.15	2.433	2.06	1.25	−281.7	1.08	1.581	Clear	

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 20 ft) + (Flow Through Cell Volume 0.25 gal) = 0.30 gallons [3 × Equip. Vol = 0.90 gal]
[Tubing Inner Diameter Capacity Factors: 1/8" = 0.0006; 1/4" = 0.0026]

Sample ID: LC3906A-MW0005-010.0-20150511 Time Collected: 1146 Comments: VOC 8260B + Dissolved gases

Monitoring Well Sampling

Site: LC390GA Project No.: FR0746C Phase: 09 Date: 6-9-15 Sampled By: Ben Coppenger

Station (Well ID): MW0005 Purge Method: Pump X Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geopump Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) YSI 556 MPS Water Level Meter: Solinst

Time @ Start of Purging: 1246 Time @ End of Purging: 1300 Total Purging Time: 14 min. Depth of Pump or Intake Tubing: 10 ft BTOC

Depth to Water: 2.27 ft BTOC Total Well Depth: 15 ft BLS Screen Interval: 5-15 ft BLS Well diameter: 1 in Well Volume: 0.52 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4" = 0.02; 1" = 0.041; 2" = 0.163; 4" = 0.653; 6" = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
1246	Start	25.23	7.54	2.944	16.5	1.53	-299.5	5.56	1.909	Clear	
1256	1.0	25.07	7.46	2.905	4.76	1.51	-323.8	1.72	1.889	Clear	
1258	1.2	25.09	7.45	2.906	4.49	1.51	-325.6	1.62	1.890	Clear	
1300	1.4	25.12	7.45	2.907	3.98	1.51	-327.0	1.47	1.890	Clear	

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 20 ft) + (Flow Through Cell Volume 0.25 gal) = 0.30 gallons [3 × Equip. Vol = 0.90 gal]
[Tubing Inner Diameter Capacity Factors: 1/8" = 0.0006; 1/4" = 0.0026]

Sample ID LC390GA-MW0005-010.0-20150609 Time Collected: 1300 Comments: Dissolved Gases

Monitoring Well Sampling

Site: LC390GA Project No.: FR0746C Phase: 09 Date: 5-11-15 Sampled By: Ben Coppenger

Station (Well ID): MW0006 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) ☒ Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geopump Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) YSI 556 Water Level Meter: Solinst

Time @ Start of Purging: 1420 Time @ End of Purging: 1436 Total Purging Time: 16 min. Depth of Pump or Intake Tubing: 24.5 ft BTOC

Depth to Water: 0.79 ft BTOC Total Well Depth: 27 ft BLS Screen Interval: 22-27 ft BLS Well diameter: 1 in Well Volume: 1.01 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4" = 0.02; 1" = 0.041; 2" = 0.163; 4" = 0.653; 6" = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
1420	Start	26.01	7.67	24.36	156	15.09	-301.8	6.05	16.78	grey	
1432	1.2	25.47	7.35	29.76	4.01	18.39	-344.6	1.21	19.33	Clear	
1434	1.4	25.44	7.34	29.72	3.58	18.38	-343.7	1.16	19.31	Clear	
1436	1.6	25.45	7.34	29.70	4.05	18.36	-343.3	1.10	19.30	Clear	

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 35 ft) + (Flow Through Cell Volume 0.25 gal) = 0.34 gallons [3 × Equip. Vol = 1.02 gal]
[Tubing Inner Diameter Capacity Factors: 1/8" = 0.0006; 1/4" = 0.0026]

Sample ID: LC390GA-MW0006-024.5-20150511 Time Collected: 1436 Comments: VOC 8260B + dissolved gases

Monitoring Well Sampling

Site: LC390GA Project No.: FR0746C Phase: 09 Date: 6-9-15 Sampled By: Ben Coppersar

Station (Well ID): MW0006 Purge Method: Pump X Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geopump Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) YSI 556 MPS Water Level Meter: Solinst

Time @ Start of Purging: 1438 Time @ End of Purging: 1454 Total Purging Time: 16 min. Depth of Pump or Intake Tubing: 24.5 ft BTOC

Depth to Water: 1.17 ft BTOC Total Well Depth: 27 ft BLS Screen Interval: 22-27 ft BLS Well diameter: 1 in Well Volume: 1.06 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4″ = 0.02; 1″ = 0.041; 2″ = 0.163; 4″ = 0.653; 6″ = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
1438	Start	25.69	7.69	30.71	2.24	19.05	-330.7	5.60	19.99	Clear	
1450	1.2	25.46	7.50	31.07	1.27	19.29	-350.4	1.59	20.19	Clear	
1452	1.4	25.47	7.50	31.06	1.18	19.29	-351.1	1.50	20.19	Clear	
1454	1.6	25.44	7.49	31.07	1.12	19.30	-352.2	1.43	20.20	Clear	

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 35 ft) + (Flow Through Cell Volume 0.25 gal) = 0.34 gallons [3 × Equip. Vol = 1.02 gal]
[Tubing Inner Diameter Capacity Factors: 1/8″ = 0.0006; 1/4″ = 0.0026]

Sample ID: LC390GA-MW0006-024.5-20150609 Time Collected: 1454 Comments: Dissolved Gases

Monitoring Well Sampling

Site: LC39 OGA Project No.: FR0746C Phase: 09 Date: 5-12-15 Sampled By: Ben Coppenger

Station (Well ID): MW0007 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geopump Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) YSI 556 MPS Water Level Meter: Solinst

Time @ Start of Purging: 0942 Time @ End of Purging: 0958 Total Purging Time: 16 min. Depth of Pump or Intake Tubing: 24.5 ft BTOC

Depth to Water: 0.97 ft BTOC Total Well Depth: 27 ft BLS Screen Interval: 22-27 ft BLS Well diameter: 1 in Well Volume: 1.1 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4″ = 0.02; 1″ = 0.041; 2″ = 0.163; 4″ = 0.653; 6″ = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
0942	Start	24.62	6.89	25.88	10.5	~~1.5~~ 16.1	-287.7	4.90	17.30	Clear	
0954	1.2	24.94	7.20	28.54	2.77	17.58	-324.7	0.92	18.55	Clear	
0956	1.4	24.94	7.20	28.54	2.68	17.58	-327.0	0.89	18.55	Clear	
0958	1.6	24.95	7.21	28.53	2.62	17.58	-326.5	0.88	18.55	Clear	

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 35 ft) + (Flow Through Cell Volume 0.25 gal) = 0.34 gallons [3 × Equip. Vol = 1.02 gal]
[Tubing Inner Diameter Capacity Factors: 1/8″ = 0.0006; 1/4″ = 0.0026]

Sample ID: LC39OGA-MW0007-024.5-20150512 Time Collected: 0958 Comments: VOC 8260B + Dissolved gases

Monitoring Well Sampling

Site: LC390GA Project No.: FR0746C Phase: 09 Date: 6-10-15 Sampled By: Ben Coppenger

Station (Well ID): MW0007 Purge Method: Pump [X] Bailer [ ] Pump Type: ___ Submersible (__ Teflon __ SS __ Other) [X] Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geopump Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) YSI 556 MPS Water Level Meter: Solinst

Time @ Start of Purging: 0956 Time @ End of Purging: 1012 Total Purging Time: 16 min. Depth of Pump or Intake Tubing: 24.5 ft BTOC

Depth to Water: 1.40 ft BTOC Total Well Depth: 27 ft BLS Screen Interval: 22-27 ft BLS Well diameter: 1 in Well Volume: 1.05 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4" = 0.02; 1" = 0.041; 2" = 0.163; 4" = 0.653; 6" = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
0956	Start	25.27	7.24	24.46	2.99	15.02	-320.8	6.36	16.62	clear	
~~0958~~ 1007	1.1	24.92	7.40	28.77	1.82	17.73	-326.7	1.19	18.67	Clear	
1010	1.4	24.92	7.40	28.77	1.79	17.72	-327.0	1.18	18.67	Clear	
1012	1.6	24.92	7.40	28.76	1.61	17.72	-327.7	1.18	18.67	clear	
~~1014~~	~~1.8~~										

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 35 ft) + (Flow Through Cell Volume 0.25 gal) = 0.34 gallons [3 × Equip. Vol = 1.02 gal]
[Tubing Inner Diameter Capacity Factors: 1/8" = 0.0006; 1/4" = 0.0026]

Sample ID: LC390GA-MW0007-024.5-20150610 Time Collected: 1012 Comments: Dissolved Gases

Monitoring Well Sampling

Site: LC390GA Project No.: FR0746C Phase: 09 Date: 5-12-15 Sampled By: Ben Coppenger

Station (Well ID): MW0008 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) ☒ Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geopump Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) YSI 556 MPS Water Level Meter: Solinst

Time @ Start of Purging: 1110 Time @ End of Purging: 1126 Total Purging Time: 16 min. Depth of Pump or Intake Tubing: 24.5 ft BTOC

Depth to Water: 1.33 ft BTOC Total Well Depth: 27 ft BLS Screen Interval: 22-27 ft BLS Well diameter: 1 in Well Volume: 1.1 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4" = 0.02; 1" = 0.041; 2" = 0.163; 4" = 0.653; 6" = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
1110	Start	25.59	7.68	3.582	15.3	1.91	-162.4	4.76	2.508	clear	
1122	1.2	25.13	7.31	11.24	3.54	6.38	-298.0	1.04	7.302	clear	
1124	1.4	25.10	7.31	11.23	1.71	6.37	-297.4	1.00	7.300	clear	
1126	1.6	25.09	7.31	11.23	1.83	6.37	-298.4	0.97	7.297	clear	

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 35 ft) + (Flow Through Cell Volume 0.25 gal) = 0.34 gallons [3 × Equip. Vol = 1.0 gal]
[Tubing Inner Diameter Capacity Factors: 1/8" = 0.0006; 1/4" = 0.0026]

Sample ID: LC390GA-MW0008-024.5-20150512 Time Collected: 1126 Comments: VOC 8260B + dissolved gases

Monitoring Well Sampling

Site: LC390GA Project No.: FR0746K Phase: 09 Date: 6-10-15 Sampled By: Ben Coppenger

Station (Well ID): MW0008 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) ☒ Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geopump Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) YSI 556 MPS Water Level Meter: Solinst

Time @ Start of Purging: 1050 Time @ End of Purging: 1106 Total Purging Time: 16 min. Depth of Pump or Intake Tubing: 24.5 ft BTOC

Depth to Water: 1.68 ft BTOC Total Well Depth: 27 ft BLS Screen Interval: 22-27 ft BLS Well diameter: 1 in Well Volume: 1.04 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4″ = 0.02; 1″ = 0.041; 2″ = 0.163; 4″ = 0.653; 6″ = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
1050 ~~25.42~~	Start	25.42	7.49	8.800	14.7	5.02	-296.6	5.82	6.131	Clear	
1101 ~~1100~~	1.1	25.28	7.49	11.56	5.03	6.58	-325.4	1.13	7.517	Clear	
1104	1.4	25.23	7.49	11.56	4.76	6.57	-329.1	0.98	7.511	Clear	
1106	1.6	25.20	7.49	11.55	3.21	6.57	-330.4	0.92	7.503	clear	

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 35 ft) + (Flow Through Cell Volume 0.25 gal) ~~0.35~~ 0.34 gallons [3 × Equip. Vol = 1.02 gal]
[Tubing Inner Diameter Capacity Factors: 1/8″ = 0.0006; 1/4″ = 0.0026]

Sample ID: LC390GA-MW0008-024.5-20150610 Time Collected: 1106 Comments: Dissolved Gases

Monitoring Well Sampling

Site: LC390GA Project No.: FR0746C Phase: 09 Date: 5-11-15 Sampled By: Ben Coppenger

Station (Well ID): MW0009 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) ☒ Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geopump Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) YSI 556 MPS Water Level Meter: Solinst

Time @ Start of Purging: 1208 Time @ End of Purging: 1224 Total Purging Time: 16 min. Depth of Pump or Intake Tubing: 24.5 ft BTOC

Depth to Water: 1.85 ft BTOC Total Well Depth: 27 ft BLS Screen Interval: 22-27 ft BLS Well diameter: 1 in Well Volume: 1.1 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4" = 0.02; 1" = 0.041; 2" = 0.163; 4" = 0.653; 6" = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
1208	Start	26.56	8.38	0.634	44.7	0.34	-218.6	7.29	0.572	Gray	
1220	1.2	25.44	7.59	4.351	16.1	2.31	-258.1	1.46	2.834	Clear	
1222	1.4	25.46	7.56	4.363	6.43	2.32	-254.4	1.25	2.837	Clear	
1224	1.6	25.43	7.57	4.372	8.30	2.32	-259.9	1.08	2.844	Clear	

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 35 ft) + (Flow Through Cell Volume 0.25 gal) = 0.34 gallons [3 × Equip. Vol = 1.02 gal]
[Tubing Inner Diameter Capacity Factors: 1/8" = 0.0006; 1/4" = 0.0026]

Sample ID: LC390GA-MW0009-024.5-20150511 Time Collected: 1224 Comments: VOC 8260B + Dissolved Gases

Monitoring Well Sampling

Site: LC39 OGA Project No.: FR0746C Phase: 09 Date: 6-9-15 Sampled By: Ben Coppenger

Station (Well ID): MW0009 Purge Method: Pump X Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic ___ Centrifugal ___ Bladder

Pump (Make & Model): Geopump Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) YSI 556 Water Level Meter: ~~HACH~~ Solinst

Time @ Start of Purging: 1218 Time @ End of Purging: 1238 Total Purging Time: 18 min. Depth of Pump or Intake Tubing: 24.5 ft BTOC

Depth to Water: 2.20 ft BTOC Total Well Depth: 27 ft BLS Screen Interval: 22-27 ft BLS Well diameter: 1 in Well Volume: 1.02 gal

Well Volume = (Total Well Depth – Depth to Water) × Well Capacity [Well Capacity Factors: 3/4″ = 0.02; 1″ = 0.041; 2″ = 0.163; 4″ = 0.653; 6″ = 1.469]

Time	Cumulative Purge Volume (gal)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
1218	Start	25.20	7.16	3.681	83.5	1.95	-58.3	15.61	2.505	Gray	
~~1220~~	~~1.8~~										
1230	1.2	24.91	7.56	4.594	14.7	2.45	-243.0	2.24	2.987	Clear	
1234	~~0.4~~ 1.4	24.92	7.59	4.603	9.92	2.46	-252.9	1.60	2.997	Clear	
1236	~~0.6~~ 1.6	24.90	7.59	4.602	10.6	2.45	-250.5	1.43	2.991	Clear	
1238	1.8	24.88	7.59	4.609	9.82	2.46	-249.3	1.38	2.997	Clear	

Notes:

1. When purging well with pump or intake tubing within the well screen, purge minimum of one equipment volume prior to first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart; must purge minimum of three equipment volumes prior to collecting sample.
2. When purging a well with partially submerged well screen, purge minimum of one well volume prior to collecting first stabilization parameter measurements. Take additional stabilization parameter measurements no sooner than 2 minutes apart, must purge minimum of three equipment volumes prior to collecting sample.
3. Three consecutive measurements of the five stabilization parameters listed, must be within the stated limits for sampling: temperature: ±0.2 °C; pH: ±0.2 standard units; specific conductance: ±5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and turbidity ≤ 20 NTUs.
4. For high DO and/or Turbidity, check flow through cell for air bubbles – this may be causing erroneous readings. Turbidity should be verified visually and with a separate turbidity meter (if available). All attempts should be made to get the parameters within the specified limits. Verify initial calibration on water quality meters was performed correctly before using again.
5. If DO and/or turbidity stabilization parameter limits cannot be met (temp, pH, conductivity ranges remain within limits), the sampling team leader may decide whether or not to collect a sample or to continue purging five volumes of the screened interval; alternative stabilization parameter limits after purging five volumes of the screened interval are as follows: DO ± 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 35 ft) + (Flow Through Cell Volume 0.25 gal) = 0.34 gallons [3 × Equip. Vol = 1.02 gal]
[Tubing Inner Diameter Capacity Factors: 1/8″ = 0.0006; 1/4″ = 0.0026]

Sample ID: LC39OGA-MW009-024.5-20150609 Time Collected: 1238 Comments: Dissolved Gases

Geosyntec consultants

Water Quality Instrument Calibration Form

Project/Site: VAB Area Project #: FR0746C Field Personnel: D. Silemore

Water Quality Meter - Model/Serial#: YSI-556 Turbidimeter - Model/Serial#: Hach 2100Q

Dissolved Oxygen (FDEP SOP FT 1500)	Date	Time	Temp (°C)	Saturation (mg/L)*	Reading (mg/L)	Reading (%)	Pass or Fail
					Acceptance Criteria:+/-0.3 mg/L		
(CAL) ICV CCV	11/21/14	801	25.41	8.203	7.19-8.21	98.7-100.5	(P) F
CAL ICV (CCV)	11/21/14	1435	25.00	8.263	8.29	100.0	(P) F
CAL ICV CCV							P F
CAL ICV CCV							P F

Specific Conductance (FDEP SOP FT 1200)	Date	Time	Standard Lot #	Standard Exp. Date	Standard (mS/cm)	Reading (mS/cm)	Pass or Fail
Specific Conductance Probe Cleaned? (Yes) No					Acceptance Criteria: +/- 5%		
(CAL) ICV CCV	11/21/14	FT802	7168	5/16/14	1.413	1.115-1.414	(P) F
CAL ICV (CCV)	11/21/14	1436	"	"	"	1.345	(P) F
CAL ICV CCV							P F
CAL ICV CCV							P F

pH (FDEP SOP FT 1100)	Date	Time	Standard Lot #	Standard Exp. Date	Standard (SU)	Reading (SU)	Pass or Fail
					Acceptance Criteria: +/- 0.2 SU		
(CAL) ICV CCV	11/21/14	804	2405440	4/16	7.00	7.11-7.01	(P) F
(CAL) ICV CCV	"	808	2405B	5/16	4.00	4.09-4.01	(P) F
CAL ICV CCV	"	811	2404751	10/15	10.00	10.05-10.01	(P) F
CAL ICV CCV	11/21/14	1436				7.03	(P) F
CAL ICV CCV	↓	1437		SAME		4.09	(P) F
CAL ICV CCV		1438				10.05	(P) F

ORP (FDEP SOP N/A)	Date	Time	Standard Lot #	Standard Exp. Date	Standard (mV @ Temp °C)	Reading (mV)	Pass or Fail
Dissolved Oxygen Membrane Changed? Yes (No)					Geosyntec Acceptance Criteria: +/- 5%		
(CAL) ICV CCV	11/21/14	813	3AK643	11/16	240@25°	241.2-240.0	(P) F
CAL ICV (CCV)	11/21/14	1440	"	"	"	240.5	(P) F
CAL ICV CCV							P F
CAL ICV CCV							P F

Turbidity 0.1-10 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 10%		
(CAL) ICV CCV	11/21/14	10.0	10.0	(P) F
CAL ICV (CCV)	"	10.0	9.7	(P) F
CAL ICV CCV				P F
CAL ICV CCV				P F

Turbidity 11-40 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 8%		
(CAL) ICV CCV	11/21/14	20.0	19.9	(P) F
CAL ICV (CCV)	↓	20.0	20.1	(P) F
CAL ICV CCV				P F
CAL ICV CCV				P F

Turbidity 41-100 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 6.5%		
CAL ICV CCV				P F
CAL ICV CCV				P F
CAL ICV CCV				P F
CAL ICV CCV				P F
CAL ICV CCV				P F
CAL ICV CCV				P F

Turbidity >100 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 5%		
CAL ICV CCV				P F
CAL ICV CCV				P F
CAL ICV CCV				P F
CAL ICV CCV				P F

Notes:

CAL = Initial Calibration

ICV = Initial Calibration Verification

CCV = Continuing Calibration Verification

* See Table FS 2200-2 on the back of this form

Allow adequate time for the dissolved oxygen sensor to equilibrate during air calibration

Calibrate specific conductance using at least two standards that bracket the range of expected sample readings (unless readings <0.1 mS/cm is acceptable)

Calibrate pH using at least two standards (typ. pH 4 and 7) that bracket the range of expected sample readings; always start with pH 7; add a third calibration point if neede

If parameter fails to calibrate within SOP acceptance criteria then append sample results with a "J" qualifier

Geosyntec
consultants

Water Quality Instrument Calibration Form

Project/Site: LC390GA Project #: FR0746C Field Personnel: Ben Coppenger

Water Quality Meter - Model/Serial#: YSI 556 MPS 06M1171AG Turbidimeter - Model/Serial#: HACH 2100Q 023991

Dissolved Oxygen (FDEP SOP FT 1500)	Date	Time	Temp (°C)	Saturation (mg/L)*	Reading (mg/L)	Reading (%)	Pass or Fail
					Acceptance Criteria:+/-0.3 mg/L		
(CAL) (ICV) CCV	5-11-15	1058 ~~1008~~	25.91	8.128	7.91/8.128	95/100	(P) F
CAL ICV CCV							P F
CAL ICV CCV							P F
CAL ICV CCV							P F

Specific Conductance (FDEP SOP FT 1200)	Date	Time	Standard Lot #	Standard Exp. Date	Standard (mS/cm)	Reading (mS/cm)	Pass or Fail
Specific Conductance Probe Cleaned? Yes No					**Acceptance Criteria: +/- 5%**		
(CAL) (ICV) CCV	5-11-15	1118	1146	1-16	1.413	1.461/1.413	(P) F
CAL ICV CCV							P F
CAL ICV CCV							P F
CAL ICV CCV							P F

pH (FDEP SOP FT 1100)	Date	Time	Standard Lot #	Standard Exp. Date	Standard (SU)	Reading (SU)	Pass or Fail
					Acceptance Criteria: +/- 0.2 SU		
(CAL) (ICV) CCV	5-11-15	1106	2410694	9-16	~~4~~ 7	7.08/7.0	(P) F
CAL ICV CCV	"	1108	2412615	11-16	~~7~~ 4	3.86/4.0	(P) F
CAL ICV CCV	"	1116	2409C24	3-16	10	9.88/10.0	(P) F
CAL ICV CCV							P F
CAL ICV CCV							P F
CAL ICV CCV							P F

ORP (FDEP SOP N/A)	Date	Time	Standard Lot #	Standard Exp. Date	Standard (mV @ Temp °C)	Reading (mV)	Pass or Fail
Dissolved Oxygen Membrane Changed? Yes No					**Geosyntec Acceptance Criteria: +/- 5%**		
(CAL) (ICV) CCV	5-11-15	1122	8039	9-19	240	238/240	(P) F
CAL ICV CCV							P F
CAL ICV CCV							P F
CAL ICV CCV							P F

Turbidity 0.1-10 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 10%		
(CAL) (ICV) CCV	5-11-15	10	9.77/10	(P) F
CAL ICV CCV				P F
CAL ICV CCV				P F
CAL ICV CCV				P F

Turbidity 11-40 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 8%		
(CAL) (ICV) CCV	5-11-15	20	19.5/20	P F
CAL ICV CCV				P F
CAL ICV CCV				P F
CAL ICV CCV				P F

Turbidity 41-100 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 6.5%		
(CAL) (ICV) CCV	5-11-15	100	99.4/100	(P) F
CAL ICV CCV				P F
CAL ICV CCV				P F
CAL ICV CCV				P F
CAL ICV CCV				P F
CAL ICV CCV				P F

Turbidity >100 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 5%		
(CAL) (ICV) CCV	5-11-15	800	803/800	(P) F
CAL ICV CCV				P F
CAL ICV CCV				P F
CAL ICV CCV				P F

Notes:

CAL = Initial Calibration
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
* See Table FS 2200-2 on the back of this form

Allow adequate time for the dissolved oxygen sensor to equilibrate during air calibration
Calibrate specific conductance using at least two standards that bracket the range of expected sample readings (unless readings <0.1 mS/cm is acceptable)
Calibrate pH using at least two standards (typ. pH 4 and 7) that bracket the range of expected sample readings; always start with pH 7; add a third calibration point if neede
If parameter fails to calibrate within SOP acceptance criteria then append sample results with a "J" qualifier

Geosyntec consultants

Water Quality Instrument Calibration Form

Project/Site: LC39 OGA Project #: FR0746C Field Personnel: Ben Coppenger

Water Quality Meter - Model/Serial#: YSI 556 MPS 06m1171AG Turbidimeter - Model/Serial#: HACH 2100Q 023991

Dissolved Oxygen (FDEP SOP FT 1500)	Date	Time	Temp (°C)	Saturation (mg/L)*	Reading (mg/L)	Reading (%)	Pass or Fail
					Acceptance Criteria:+/-0.3 mg/L		
(CAL) ICV CCV	5-12-15	0902	28.61	7.745	7.428 / 7.74	96.2/100	(P) F
CAL ICV (CCV)	5-12-15	1410	24.19	8.387	8.262 / 8.38	98/100	(P) F
CAL ICV CCV							P F
CAL ICV CCV							P F

Specific Conductance (FDEP SOP FT 1200)	Date	Time	Standard Lot #	Standard Exp. Date	Standard (mS/cm)	Reading (mS/cm)	Pass or Fail
Specific Conductance Probe Cleaned? Yes (No)					Acceptance Criteria: +/- 5%		
(CAL) ICV CCV	5-12-15	0910	11461	1-16	1.413	1.459/1.4	(P) F
CAL (ICV) CCV	5-12-15	1354	11461	1-16	1.413	1.445	(P) F
CAL ICV CCV							P F
CAL ICV CCV							P F

pH (FDEP SOP FT 1100)	Date	Time	Standard Lot #	Standard Exp. Date	Standard (SU)	Reading (SU)	Pass or Fail
					Acceptance Criteria: +/- 0.2 SU		
(CAL) ICV CCV	5-12-15	0905	2412615	11-16	4	3.98/4.0	(P) F
CAL (ICV) CCV	↓	0903	2410694	9-16	7	7.12/7.0	(P) F
CAL ICV CCV		0908	2409C24	3-16	10	9.99/10	(P) F
(CAL) ICV CCV		1348	2412615	11-16	4	3.85	(P) F
(CAL) ICV CCV		1342	2410694	9-16	7	6.95	(P) F
(CAL) ICV CCV	↓	1352	2409C24	3-16	10	9.92	(P) F

ORP (FDEP SOP N/A)	Date	Time	Standard Lot #	Standard Exp. Date	Standard (mV @ Temp °C)	Reading (mV)	Pass or Fail
Dissolved Oxygen Membrane Changed? Yes (No)					Geosyntec Acceptance Criteria: +/- 5%		
(CAL) ICV CCV	5-12-15	0915	8039	9-19	240	237.6/240	(P) F
(CAL) ICV CCV	5-12-15	1400	8039	9-19	240	238.1	(P) F
CAL ICV CCV							P F
CAL ICV CCV							P F

Turbidity 0.1-10 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 10%		
(CAL) ICV CCV	5-12-15	10	9.98/10	(P) F
CAL (ICV) CCV	5-12-15	10	9.83	(P) F
CAL ICV CCV				P F
CAL ICV CCV				P F

Turbidity 11-40 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 8%		
(CAL) ICV CCV	5-12-15	20	19.93/20	(P) F
CAL (ICV) CCV	5-12-15	20	20.9	(P) F
CAL ICV CCV				P F
CAL ICV CCV				P F

Turbidity 41-100 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 6.5%		
(CAL) ICV CCV	5-12-15	100	100/100	(P) F
CAL (ICV) CCV	5-12-15	100	101	P F
CAL ICV CCV				P F
CAL ICV CCV				P F
CAL ICV CCV				P F
CAL ICV CCV				P F

Turbidity >100 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 5%		
(CAL) ICV CCV	5-12-15	800	803/800	(P) F
(CAL) ICV CCV	5-12-15	800	782	(P) F
CAL ICV CCV				P F
CAL ICV CCV				P F

Notes:

CAL = Initial Calibration
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
* See Table FS 2200-2 on the back of this form

Allow adequate time for the dissolved oxygen sensor to equilibrate during air calibration
Calibrate specific conductance using at least two standards that bracket the range of expected sample readings (unless readings <0.1 mS/cm is acceptable)
Calibrate pH using at least two standards (typ. pH 4 and 7) that bracket the range of expected sample readings; always start with pH 7; add a third calibration point if neede
If parameter fails to calibrate within SOP acceptance criteria then append sample results with a "J" qualifier

Geosyntec Consultants
Water Quality Instrument Calibration Form

Project/Site: LC390GA Project #: FR Field Personnel: Ben Coppenger

Water Quality Meter - Model/Serial #: YSI 556 MPS 06M1171AG Turbidimeter - Model/Serial # HACH 2100 Q 023991

Dissolved Oxygen	DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L)[1]	Reading (mg/L)	Reading (%)	Pass or Fail
						Acceptance Criteria: +/-0.3mg/L		
CAL ICV CCV		6-9-15	1102	21.53	8.829	8.62/8.88	97.3/100	P F
CAL ICV CCV		6-10-15	0805	20.23	9.056	8.91/9.05	97.9/100	P F
CAL ICV CCV		6-10-15	1300	21.03	8.915	8.51/8.59	99/100	P F
CAL ICV CCV								P F

Specific Conductance	DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail
							Acceptance Criteria: +/- 5%	
CAL ICV CCV		6-9-15	1050	1.413	11461	1-16	1.439/1.413	P F
CAL ICV CCV		6-10-15	0813	1.413	11461	1-16	1.406/1.413	P F
CAL ICV CCV		6-10-15	1312	1.413	11461	1-16	1.410/1.413	P F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

pH	DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail
							Acceptance Criteria: +/-0.2 SU	
CAL ICV CCV		6-9-15	1044	4.0	241265	11-16	4.01/4.0	P F
CAL ICV CCV		6-9-15	1042	7.0	2410694	9-16	6.92/7.0	P F
CAL ICV CCV		6-9-15	1048	10.0	2409C24	3-16	9.85/10.0	P F
CAL ICV CCV		6-10-15	0810/1306	Same as above			4.0/4.0	P F
CAL ICV CCV		6-10-15	0808/1305				6.99/7.0	P F
CAL ICV CCV		6-10-15	0812/1307				9.98/10.0	P F

ORP	SOP N/A	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail
						Geosyntec Acceptance Criteria: +/- 5%		
CAL ICV CCV		6-9-15	1052	240	47C1	7-17	254.7/240	P F
CAL ICV CCV		6-10-15	0815	240	47C1	7-17	242/240	P F
CAL ICV CCV		6-10-15	1315	240	47C1	7-17	240/240	P F
CAL ICV CCV								P F

Specific Conductance Probe Cleaned? Yes No Disolved Oxygen membrane Changed? Yes No

0.1 - 10 NTU Std ___ NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 10%	
CAL ICV CCV	6-9-15	10.7/10.0	P F
CAL ICV CCV	6-10-15	10.0/10.0	P F
CAL ICV CCV	6-10-15	10.0/10.0	P F
CAL ICV CCV			P F

11 - 40 NTU Std 20 NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 8%	
CAL ICV CCV	6-9-15	19.7/20	P F
CAL ICV CCV	6-10-15	19.9/20	P F
CAL ICV CCV	6-10-15	20.62/20	P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

41 - 100 NTU Std 100 NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 6.5%	
CAL ICV CCV	6-9-15	100/100	P F
CAL ICV CCV	6-10-15	101/100	P F
CAL ICV CCV	6-10-15	180/180	P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

>100 NTU Std 800 NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 5%	
CAL ICV CCV	6-9-15	826/800	P F
CAL ICV CCV	6-10-15	805/800	P F
CAL ICV CCV	6-10-15	800/800	P F
CAL ICV CCV			P F

1. See Table FS 2200-2 on the back of this form

CAL - Initial Calibration
ICV - Initial Calibration Verification
CCV - Continuing Calibration Verification

Allow adequate time for the dissolved oxygen sensor to equilibrate during air calibration
Calibrate specific conductance using at least two standards that bracket the range of expected sample readings (unless readings < 0.1 mS/cm then one standard of 0.1 mS/cm is acceptable)
Calibrate pH using at least two standards (typ pH 4 and 7) that bracket the range of expected sample readings; always start with pH 7; add a third calibration point if needed (i.e. pH > 7)
If parameter fails to calibrate within SOP acceptance criteria then append sample results with a "J" qualifier

Comments:

Geosyntec consultants

ATTACHMENT E

ANALYTICAL LABORATORY REPORTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-98693-1
Client Project/Site: VAB Area, LC39 OGA, FS6

For:
Geosyntec Consultants, Inc.
316 South Baylen Street
Suite 201
Pensacola, Florida 32502

Attn: Mrs. Jill Johnson

Mark Swafford

Authorized for release by:
12/2/2014 3:04:10 PM

Mark Swafford, Project Manager I
(850)474-1001
mark.swafford@testamericainc.com

Table of Contents

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 400-98693-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-98693-1

Comments
No additional comments.

Receipt
The samples were received on 11/20/2014 9:27 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8º C.

GC/MS VOA
Method 8260B: One analyte recovered outside control limits for the LCS associated with batch 400-238185. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8260B: The method blank (MB) associated with batch 400-238185 had a detection for 1,3,5-Trimethylbenzene above the method detection limit (MDL) but below the reporting limit (RL). This analyte was not detected in the associated samples.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: PRES-IW0007I-034.5-20141117 — Lab Sample ID: 400-98693-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.68	I	1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	0.93	I	1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: PRES-IW0008I-040.0-20141117 — Lab Sample ID: 400-98693-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.60	I	1.0	0.50	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.5		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	0.88	I	1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: C5ES-MW0010I-022.5-20141118 — Lab Sample ID: 400-98693-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	12	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.61	I	1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	0.63	I	1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: C5ES-MW0012S-012.5-20141118 — Lab Sample ID: 400-98693-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3-Dichlorobenzene	1.8		1.0	0.54	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	5.0		1.0	0.64	ug/L	1		8260B	Total/NA
Acetone	13	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.58	I	1.0	0.50	ug/L	1		8260B	Total/NA
Chlorobenzene	3.9		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: C5ES-MW0012I-022.5-20141118 — Lab Sample ID: 400-98693-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	12	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.59	I	1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: C5ES-MW0017S-009.5-20141118 — Lab Sample ID: 400-98693-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3-Dichlorobenzene	1.7		1.0	0.54	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	4.8		1.0	0.64	ug/L	1		8260B	Total/NA
Acetone	13	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.58	I	1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: C5ES-MW0018S-009.5-20141118 — Lab Sample ID: 400-98693-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	1.3		1.0	0.50	ug/L	1		8260B	Total/NA
Acetone	13	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.60	I	1.0	0.50	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	3.9		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	96		1.0	0.50	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: C5ES-MW0019I-018.0-20141118 — Lab Sample ID: 400-98693-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	22	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.58	I	1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	5.4		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: MLPV-IW0012I-037.5-20141118 — Lab Sample ID: 400-98693-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	12	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.54	I	1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: MLPV-IW0012D-047.5-20141118 — Lab Sample ID: 400-98693-10

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.53	I	1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	8.5		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: MLPV-IW0029D-044.5-20141118 — Lab Sample ID: 400-98693-11

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	14	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.58	I	1.0	0.50	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.77	I	1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	43		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: WCPS-IW0001SR-007.5-20141118 — Lab Sample ID: 400-98693-12

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	19	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.55	I	1.0	0.50	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	7.9		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	20		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: MLPV-IW0052-045.0-20141118 — Lab Sample ID: 400-98693-13

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	24	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.59	I	1.0	0.50	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.8		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	81		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: MLPV-IW0055-045.0-20141118 — Lab Sample ID: 400-98693-14

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	17	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.73	I	1.0	0.50	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.57	I	1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	1.1		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: PRES-IW0009-045.0-20141118 — Lab Sample ID: 400-98693-15

This Detection Summary does not include radiochemical test results.

Client Sample ID: PRES-IW0009-045.0-20141118 (Continued) — Lab Sample ID: 400-98693-15

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	20	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.57	I	1.0	0.50	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	4.3		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	2.9		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: PRES-IW0010-045.0-20141118 — Lab Sample ID: 400-98693-16

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	20	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.58	I	1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: WCPS-IW0016-020.0-20141118 — Lab Sample ID: 400-98693-17

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	24	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.60	I	1.0	0.50	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.8		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	1.9		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-MW0004-010.0-20141118 — Lab Sample ID: 400-98693-20

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	21	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.62	I	1.0	0.50	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	3.9		1.0	0.50	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	1.6		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	10		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-MW0005-010.0-20141118 — Lab Sample ID: 400-98693-21

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	20	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.62	I	1.0	0.50	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	5.3		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	4.3		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-MW0006-025.0-20141118 — Lab Sample ID: 400-98693-22

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	22	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.67	I	1.0	0.50	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.79	I	1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-MW0007-025.0-20141118 — Lab Sample ID: 400-98693-23

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	15	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	1.1		1.0	0.50	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.3		1.0	0.50	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: LC39OGA-MW0008-025.0-20141118 — Lab Sample ID: 400-98693-24

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	15	I	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.57	I	1.0	0.50	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	2.2		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	0.61	I	1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-MW0009-025.0-20141118 — Lab Sample ID: 400-98693-25

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	20	I	25	10	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	6.0		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	13		1.0	0.50	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Sample Summary

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-98693-1	PRES-IW0007I-034.5-20141117	Water	11/17/14 14:52	11/20/14 09:27
400-98693-2	PRES-IW0008I-040.0-20141117	Water	11/17/14 15:05	11/20/14 09:27
400-98693-3	C5ES-MW0010I-022.5-20141118	Water	11/18/14 09:48	11/20/14 09:27
400-98693-4	C5ES-MW0012S-012.5-20141118	Water	11/18/14 11:00	11/20/14 09:27
400-98693-5	C5ES-MW0012I-022.5-20141118	Water	11/18/14 11:07	11/20/14 09:27
400-98693-6	C5ES-MW0017S-009.5-20141118	Water	11/18/14 11:27	11/20/14 09:27
400-98693-7	C5ES-MW0018S-009.5-20141118	Water	11/18/14 10:14	11/20/14 09:27
400-98693-8	C5ES-MW0019I-018.0-20141118	Water	11/18/14 10:07	11/20/14 09:27
400-98693-9	MLPV-IW0012I-037.5-20141118	Water	11/18/14 15:49	11/20/14 09:27
400-98693-10	MLPV-IW0012D-047.5-20141118	Water	11/18/14 16:00	11/20/14 09:27
400-98693-11	MLPV-IW0029D-044.5-20141118	Water	11/18/14 15:22	11/20/14 09:27
400-98693-12	WCPS-IW0001SR-007.5-20141118	Water	11/18/14 14:33	11/20/14 09:27
400-98693-13	MLPV-IW0052-045.0-20141118	Water	11/18/14 15:36	11/20/14 09:27
400-98693-14	MLPV-IW0055-045.0-20141118	Water	11/18/14 15:05	11/20/14 09:27
400-98693-15	PRES-IW0009-045.0-20141118	Water	11/18/14 11:37	11/20/14 09:27
400-98693-16	PRES-IW0010-045.0-20141118	Water	11/18/14 09:13	11/20/14 09:27
400-98693-17	WCPS-IW0016-020.0-20141118	Water	11/18/14 14:20	11/20/14 09:27
400-98693-20	LC39OGA-MW0004-010.0-20141118	Water	11/18/14 12:33	11/20/14 09:27
400-98693-21	LC39OGA-MW0005-010.0-20141118	Water	11/18/14 12:54	11/20/14 09:27
400-98693-22	LC39OGA-MW0006-025.0-20141118	Water	11/18/14 12:10	11/20/14 09:27
400-98693-23	LC39OGA-MW0007-025.0-20141118	Water	11/18/14 11:56	11/20/14 09:27
400-98693-24	LC39OGA-MW0008-025.0-20141118	Water	11/18/14 12:30	11/20/14 09:27
400-98693-25	LC39OGA-MW0009-025.0-20141118	Water	11/18/14 13:05	11/20/14 09:27

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: PRES-IW0007I-034.5-20141117
Date Collected: 11/17/14 14:52
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 09:38	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 09:38	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 09:38	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 09:38	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 09:38	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 09:38	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 09:38	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 09:38	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 09:38	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 09:38	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 09:38	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 09:38	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 09:38	1
Acetone	**13**	**I**	25	10	ug/L			11/25/14 09:38	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 09:38	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 09:38	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 09:38	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 09:38	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 09:38	1
Carbon disulfide	**0.68**	**I**	1.0	0.50	ug/L			11/25/14 09:38	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 09:38	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 09:38	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 09:38	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 09:38	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 09:38	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 09:38	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 09:38	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 09:38	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 09:38	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 09:38	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 09:38	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 09:38	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: PRES-IW0007I-034.5-20141117
Date Collected: 11/17/14 14:52
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 09:38	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 09:38	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 09:38	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 09:38	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 09:38	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 09:38	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 09:38	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 09:38	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 09:38	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 09:38	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 09:38	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 09:38	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 09:38	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 09:38	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 09:38	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 09:38	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 09:38	1
Vinyl chloride	**0.93**	**I**	1.0	0.50	ug/L			11/25/14 09:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*78 - 118*		*11/25/14 09:38*	*1*
Dibromofluoromethane	*108*		*81 - 121*		*11/25/14 09:38*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*11/25/14 09:38*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: PRES-IW0008I-040.0-20141117
Date Collected: 11/17/14 15:05
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 10:05	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 10:05	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 10:05	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 10:05	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 10:05	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 10:05	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 10:05	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 10:05	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 10:05	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 10:05	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 10:05	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 10:05	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 10:05	1
Acetone	**13**	**I**	25	10	ug/L			11/25/14 10:05	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 10:05	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 10:05	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 10:05	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 10:05	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 10:05	1
Carbon disulfide	**0.60**	**I**	1.0	0.50	ug/L			11/25/14 10:05	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 10:05	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 10:05	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 10:05	1
cis-1,2-Dichloroethene	**1.5**		1.0	0.50	ug/L			11/25/14 10:05	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 10:05	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 10:05	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 10:05	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 10:05	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 10:05	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 10:05	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 10:05	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 10:05	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 10:05	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: PRES-IW0008I-040.0-20141117
Date Collected: 11/17/14 15:05
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 10:05	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 10:05	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 10:05	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 10:05	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 10:05	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 10:05	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 10:05	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 10:05	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 10:05	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 10:05	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 10:05	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 10:05	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 10:05	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 10:05	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 10:05	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 10:05	1
Vinyl chloride	**0.88**	**I**	1.0	0.50	ug/L			11/25/14 10:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*78 - 118*		*11/25/14 10:05*	*1*
Dibromofluoromethane	*109*		*81 - 121*		*11/25/14 10:05*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*11/25/14 10:05*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: C5ES-MW0010I-022.5-20141118
Date Collected: 11/18/14 09:48
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 11:55	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 11:55	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 11:55	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 11:55	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 11:55	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 11:55	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 11:55	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 11:55	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 11:55	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 11:55	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 11:55	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 11:55	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 11:55	1
Acetone	**12**	**I**	25	10	ug/L			11/25/14 11:55	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 11:55	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 11:55	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 11:55	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 11:55	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 11:55	1
Carbon disulfide	**0.61**	**I**	1.0	0.50	ug/L			11/25/14 11:55	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 11:55	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 11:55	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 11:55	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 11:55	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 11:55	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 11:55	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 11:55	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 11:55	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 11:55	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 11:55	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 11:55	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 11:55	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: C5ES-MW0010I-022.5-20141118
Date Collected: 11/18/14 09:48
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 11:55	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 11:55	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 11:55	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 11:55	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 11:55	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 11:55	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 11:55	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 11:55	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 11:55	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 11:55	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 11:55	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 11:55	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 11:55	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 11:55	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 11:55	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 11:55	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 11:55	1
Vinyl chloride	**0.63**	**I**	1.0	0.50	ug/L			11/25/14 11:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*78 - 118*		*11/25/14 11:55*	*1*
Dibromofluoromethane	*109*		*81 - 121*		*11/25/14 11:55*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*11/25/14 11:55*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: C5ES-MW0012S-012.5-20141118
Lab Sample ID: 400-98693-4
Date Collected: 11/18/14 11:00
Matrix: Water
Date Received: 11/20/14 09:27

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 12:22	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 12:22	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 12:22	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 12:22	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 12:22	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 12:22	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 12:22	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 12:22	1
1,3-Dichlorobenzene	**1.8**		1.0	0.54	ug/L			11/25/14 12:22	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
1,4-Dichlorobenzene	**5.0**		1.0	0.64	ug/L			11/25/14 12:22	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 12:22	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 12:22	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 12:22	1
Acetone	**13**	**I**	25	10	ug/L			11/25/14 12:22	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 12:22	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 12:22	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 12:22	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 12:22	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 12:22	1
Carbon disulfide	**0.58**	**I**	1.0	0.50	ug/L			11/25/14 12:22	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
Chlorobenzene	**3.9**		1.0	0.50	ug/L			11/25/14 12:22	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 12:22	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 12:22	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 12:22	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 12:22	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 12:22	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 12:22	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 12:22	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 12:22	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 12:22	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 12:22	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 12:22	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 12:22	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: C5ES-MW0012S-012.5-20141118
Date Collected: 11/18/14 11:00
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 12:22	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 12:22	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 12:22	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 12:22	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 12:22	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 12:22	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 12:22	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 12:22	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 12:22	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 12:22	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 12:22	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 12:22	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 12:22	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 12:22	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 12:22	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 12:22	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*78 - 118*		*11/25/14 12:22*	*1*
Dibromofluoromethane	*110*		*81 - 121*		*11/25/14 12:22*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*11/25/14 12:22*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: C5ES-MW0012I-022.5-20141118
Date Collected: 11/18/14 11:07
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 12:49	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 12:49	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 12:49	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 12:49	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 12:49	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 12:49	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 12:49	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 12:49	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 12:49	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 12:49	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 12:49	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 12:49	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 12:49	1
Acetone	**12**	**I**	25	10	ug/L			11/25/14 12:49	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 12:49	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 12:49	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 12:49	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 12:49	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 12:49	1
Carbon disulfide	**0.59**	**I**	1.0	0.50	ug/L			11/25/14 12:49	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 12:49	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 12:49	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 12:49	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 12:49	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 12:49	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 12:49	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 12:49	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 12:49	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 12:49	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 12:49	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 12:49	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 12:49	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: C5ES-MW0012I-022.5-20141118
Date Collected: 11/18/14 11:07
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 12:49	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 12:49	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 12:49	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 12:49	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 12:49	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 12:49	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 12:49	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 12:49	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 12:49	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 12:49	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 12:49	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 12:49	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 12:49	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 12:49	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 12:49	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 12:49	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			11/25/14 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*78 - 118*		*11/25/14 12:49*	*1*
Dibromofluoromethane	*109*		*81 - 121*		*11/25/14 12:49*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*11/25/14 12:49*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: C5ES-MW0017S-009.5-20141118
Date Collected: 11/18/14 11:27
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 13:17	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 13:17	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 13:17	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 13:17	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 13:17	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 13:17	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 13:17	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 13:17	1
1,3-Dichlorobenzene	**1.7**		1.0	0.54	ug/L			11/25/14 13:17	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
1,4-Dichlorobenzene	**4.8**		1.0	0.64	ug/L			11/25/14 13:17	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 13:17	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 13:17	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 13:17	1
Acetone	**13**	**I**	25	10	ug/L			11/25/14 13:17	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 13:17	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 13:17	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 13:17	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 13:17	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 13:17	1
Carbon disulfide	**0.58**	**I**	1.0	0.50	ug/L			11/25/14 13:17	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 13:17	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 13:17	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 13:17	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 13:17	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 13:17	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 13:17	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 13:17	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 13:17	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 13:17	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 13:17	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 13:17	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 13:17	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: C5ES-MW0017S-009.5-20141118
Date Collected: 11/18/14 11:27
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 13:17	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 13:17	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 13:17	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 13:17	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 13:17	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 13:17	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 13:17	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 13:17	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 13:17	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 13:17	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 13:17	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 13:17	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 13:17	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 13:17	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 13:17	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 13:17	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*78 - 118*		*11/25/14 13:17*	*1*
Dibromofluoromethane	*111*		*81 - 121*		*11/25/14 13:17*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*11/25/14 13:17*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: C5ES-MW0018S-009.5-20141118
Date Collected: 11/18/14 10:14
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 13:44	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 13:44	1
1,1-Dichloroethane	**1.3**		1.0	0.50	ug/L			11/25/14 13:44	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 13:44	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 13:44	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 13:44	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 13:44	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 13:44	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 13:44	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 13:44	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 13:44	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 13:44	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 13:44	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 13:44	1
Acetone	**13**	**I**	25	10	ug/L			11/25/14 13:44	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 13:44	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 13:44	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 13:44	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 13:44	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 13:44	1
Carbon disulfide	**0.60**	**I**	1.0	0.50	ug/L			11/25/14 13:44	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 13:44	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 13:44	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 13:44	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 13:44	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 13:44	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 13:44	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 13:44	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 13:44	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 13:44	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 13:44	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 13:44	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 13:44	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: C5ES-MW0018S-009.5-20141118
Date Collected: 11/18/14 10:14
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 13:44	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 13:44	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 13:44	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 13:44	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 13:44	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 13:44	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 13:44	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 13:44	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 13:44	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 13:44	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 13:44	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 13:44	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 13:44	1
trans-1,2-Dichloroethene	**3.9**		1.0	0.50	ug/L			11/25/14 13:44	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 13:44	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 13:44	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 13:44	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 13:44	1
Vinyl chloride	**96**		1.0	0.50	ug/L			11/25/14 13:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*78 - 118*		*11/25/14 13:44*	*1*
Dibromofluoromethane	*112*		*81 - 121*		*11/25/14 13:44*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*11/25/14 13:44*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: C5ES-MW0019I-018.0-20141118
Date Collected: 11/18/14 10:07
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 14:12	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 14:12	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 14:12	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 14:12	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 14:12	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 14:12	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 14:12	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 14:12	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 14:12	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 14:12	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 14:12	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 14:12	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 14:12	1
Acetone	**22**	**I**	25	10	ug/L			11/25/14 14:12	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 14:12	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 14:12	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 14:12	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 14:12	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 14:12	1
Carbon disulfide	**0.58**	**I**	1.0	0.50	ug/L			11/25/14 14:12	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 14:12	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 14:12	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 14:12	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 14:12	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 14:12	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 14:12	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 14:12	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 14:12	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 14:12	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 14:12	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 14:12	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 14:12	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: C5ES-MW0019I-018.0-20141118
Date Collected: 11/18/14 10:07
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 14:12	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 14:12	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 14:12	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 14:12	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 14:12	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 14:12	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 14:12	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 14:12	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 14:12	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 14:12	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 14:12	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 14:12	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 14:12	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 14:12	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 14:12	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 14:12	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 14:12	1
Vinyl chloride	**5.4**		1.0	0.50	ug/L			11/25/14 14:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*78 - 118*		*11/25/14 14:12*	*1*
Dibromofluoromethane	*107*		*81 - 121*		*11/25/14 14:12*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*11/25/14 14:12*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: MLPV-IW0012I-037.5-20141118
Date Collected: 11/18/14 15:49
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 14:39	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 14:39	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 14:39	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 14:39	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 14:39	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 14:39	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 14:39	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 14:39	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 14:39	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 14:39	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 14:39	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 14:39	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 14:39	1
Acetone	**12**	**I**	25	10	ug/L			11/25/14 14:39	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 14:39	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 14:39	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 14:39	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 14:39	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 14:39	1
Carbon disulfide	**0.54**	**I**	1.0	0.50	ug/L			11/25/14 14:39	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 14:39	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 14:39	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 14:39	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 14:39	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 14:39	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 14:39	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 14:39	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 14:39	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 14:39	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 14:39	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 14:39	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 14:39	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: MLPV-IW0012I-037.5-20141118
Date Collected: 11/18/14 15:49
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 14:39	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 14:39	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 14:39	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 14:39	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 14:39	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 14:39	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 14:39	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 14:39	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 14:39	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 14:39	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 14:39	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 14:39	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 14:39	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 14:39	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 14:39	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 14:39	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			11/25/14 14:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*78 - 118*		*11/25/14 14:39*	*1*
Dibromofluoromethane	*110*		*81 - 121*		*11/25/14 14:39*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*11/25/14 14:39*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: MLPV-IW0012D-047.5-20141118
Date Collected: 11/18/14 16:00
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-10
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 15:06	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 15:06	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 15:06	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 15:06	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 15:06	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 15:06	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 15:06	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 15:06	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 15:06	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 15:06	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 15:06	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 15:06	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 15:06	1
Acetone	**13**	**I**	25	10	ug/L			11/25/14 15:06	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 15:06	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 15:06	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 15:06	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 15:06	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 15:06	1
Carbon disulfide	**0.53**	**I**	1.0	0.50	ug/L			11/25/14 15:06	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 15:06	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 15:06	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 15:06	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 15:06	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 15:06	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 15:06	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 15:06	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 15:06	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 15:06	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 15:06	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 15:06	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 15:06	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: MLPV-IW0012D-047.5-20141118
Date Collected: 11/18/14 16:00
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-10
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 15:06	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 15:06	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 15:06	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 15:06	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 15:06	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 15:06	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 15:06	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 15:06	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 15:06	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 15:06	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 15:06	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 15:06	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 15:06	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 15:06	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 15:06	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 15:06	1
Vinyl chloride	**8.5**		1.0	0.50	ug/L			11/25/14 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*78 - 118*		*11/25/14 15:06*	*1*
Dibromofluoromethane	*111*		*81 - 121*		*11/25/14 15:06*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*11/25/14 15:06*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: MLPV-IW0029D-044.5-20141118
Date Collected: 11/18/14 15:22
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-11
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 15:34	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 15:34	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 15:34	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 15:34	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 15:34	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 15:34	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 15:34	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 15:34	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 15:34	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 15:34	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 15:34	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 15:34	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 15:34	1
Acetone	**14**	**I**	25	10	ug/L			11/25/14 15:34	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 15:34	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 15:34	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 15:34	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 15:34	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 15:34	1
Carbon disulfide	**0.58**	**I**	1.0	0.50	ug/L			11/25/14 15:34	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 15:34	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 15:34	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 15:34	1
cis-1,2-Dichloroethene	**0.77**	**I**	1.0	0.50	ug/L			11/25/14 15:34	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 15:34	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 15:34	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 15:34	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 15:34	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 15:34	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 15:34	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 15:34	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 15:34	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 15:34	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: MLPV-IW0029D-044.5-20141118
Date Collected: 11/18/14 15:22
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-11
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 15:34	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 15:34	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 15:34	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 15:34	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 15:34	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 15:34	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 15:34	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 15:34	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 15:34	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 15:34	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 15:34	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 15:34	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 15:34	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 15:34	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 15:34	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 15:34	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 15:34	1
Vinyl chloride	**43**		1.0	0.50	ug/L			11/25/14 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*78 - 118*		*11/25/14 15:34*	*1*
Dibromofluoromethane	*116*		*81 - 121*		*11/25/14 15:34*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*11/25/14 15:34*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: WCPS-IW0001SR-007.5-20141118
Date Collected: 11/18/14 14:33
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-12
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 16:01	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 16:01	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 16:01	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 16:01	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 16:01	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 16:01	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 16:01	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 16:01	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 16:01	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 16:01	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 16:01	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 16:01	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 16:01	1
Acetone	**19**	**I**	25	10	ug/L			11/25/14 16:01	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 16:01	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 16:01	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 16:01	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 16:01	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 16:01	1
Carbon disulfide	**0.55**	**I**	1.0	0.50	ug/L			11/25/14 16:01	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 16:01	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 16:01	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 16:01	1
cis-1,2-Dichloroethene	**7.9**		1.0	0.50	ug/L			11/25/14 16:01	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 16:01	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 16:01	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 16:01	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 16:01	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 16:01	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 16:01	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 16:01	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 16:01	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 16:01	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: WCPS-IW0001SR-007.5-20141118
Date Collected: 11/18/14 14:33
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-12
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 16:01	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 16:01	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 16:01	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 16:01	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 16:01	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 16:01	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 16:01	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 16:01	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 16:01	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 16:01	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 16:01	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 16:01	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 16:01	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 16:01	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 16:01	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 16:01	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 16:01	1
Vinyl chloride	**20**		1.0	0.50	ug/L			11/25/14 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*78 - 118*		*11/25/14 16:01*	*1*
Dibromofluoromethane	*110*		*81 - 121*		*11/25/14 16:01*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*11/25/14 16:01*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: MLPV-IW0052-045.0-20141118
Date Collected: 11/18/14 15:36
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-13
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 16:29	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 16:29	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 16:29	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 16:29	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 16:29	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 16:29	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 16:29	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 16:29	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 16:29	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 16:29	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 16:29	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 16:29	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 16:29	1
Acetone	**24**	**I**	25	10	ug/L			11/25/14 16:29	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 16:29	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 16:29	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 16:29	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 16:29	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 16:29	1
Carbon disulfide	**0.59**	**I**	1.0	0.50	ug/L			11/25/14 16:29	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 16:29	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 16:29	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 16:29	1
cis-1,2-Dichloroethene	**1.8**		1.0	0.50	ug/L			11/25/14 16:29	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 16:29	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 16:29	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 16:29	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 16:29	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 16:29	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 16:29	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 16:29	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 16:29	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 16:29	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: MLPV-IW0052-045.0-20141118
Date Collected: 11/18/14 15:36
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-13
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 16:29	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 16:29	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 16:29	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 16:29	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 16:29	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 16:29	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 16:29	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 16:29	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 16:29	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 16:29	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 16:29	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 16:29	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 16:29	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 16:29	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 16:29	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 16:29	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 16:29	1
Vinyl chloride	**81**		1.0	0.50	ug/L			11/25/14 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*78 - 118*		*11/25/14 16:29*	*1*
Dibromofluoromethane	*111*		*81 - 121*		*11/25/14 16:29*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*11/25/14 16:29*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: MLPV-IW0055-045.0-20141118
Date Collected: 11/18/14 15:05
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-14
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 16:56	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 16:56	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 16:56	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 16:56	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 16:56	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 16:56	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 16:56	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 16:56	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 16:56	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 16:56	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 16:56	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 16:56	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 16:56	1
Acetone	**17**	**I**	25	10	ug/L			11/25/14 16:56	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 16:56	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 16:56	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 16:56	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 16:56	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 16:56	1
Carbon disulfide	**0.73**	**I**	1.0	0.50	ug/L			11/25/14 16:56	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 16:56	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 16:56	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 16:56	1
cis-1,2-Dichloroethene	**0.57**	**I**	1.0	0.50	ug/L			11/25/14 16:56	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 16:56	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 16:56	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 16:56	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 16:56	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 16:56	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 16:56	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 16:56	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 16:56	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 16:56	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: MLPV-IW0055-045.0-20141118
Date Collected: 11/18/14 15:05
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-14
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 16:56	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 16:56	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 16:56	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 16:56	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 16:56	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 16:56	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 16:56	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 16:56	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 16:56	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 16:56	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 16:56	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 16:56	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 16:56	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 16:56	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 16:56	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 16:56	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 16:56	1
Vinyl chloride	**1.1**		1.0	0.50	ug/L			11/25/14 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*78 - 118*		*11/25/14 16:56*	*1*
Dibromofluoromethane	*111*		*81 - 121*		*11/25/14 16:56*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*11/25/14 16:56*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: PRES-IW0009-045.0-20141118
Date Collected: 11/18/14 11:37
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-15
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 17:24	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 17:24	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 17:24	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 17:24	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 17:24	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 17:24	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 17:24	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 17:24	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 17:24	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 17:24	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 17:24	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 17:24	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 17:24	1
Acetone	**20**	**I**	25	10	ug/L			11/25/14 17:24	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 17:24	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 17:24	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 17:24	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 17:24	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 17:24	1
Carbon disulfide	**0.57**	**I**	1.0	0.50	ug/L			11/25/14 17:24	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 17:24	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 17:24	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 17:24	1
cis-1,2-Dichloroethene	**4.3**		1.0	0.50	ug/L			11/25/14 17:24	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 17:24	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 17:24	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 17:24	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 17:24	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 17:24	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 17:24	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 17:24	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 17:24	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 17:24	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: PRES-IW0009-045.0-20141118
Date Collected: 11/18/14 11:37
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-15
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 17:24	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 17:24	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 17:24	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 17:24	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 17:24	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 17:24	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 17:24	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 17:24	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 17:24	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 17:24	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 17:24	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 17:24	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 17:24	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 17:24	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 17:24	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 17:24	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 17:24	1
Vinyl chloride	**2.9**		1.0	0.50	ug/L			11/25/14 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*78 - 118*		*11/25/14 17:24*	*1*
Dibromofluoromethane	*114*		*81 - 121*		*11/25/14 17:24*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*11/25/14 17:24*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: PRES-IW0010-045.0-20141118
Date Collected: 11/18/14 09:13
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-16
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 17:51	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 17:51	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 17:51	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 17:51	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 17:51	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 17:51	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 17:51	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 17:51	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 17:51	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 17:51	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 17:51	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 17:51	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 17:51	1
Acetone	**20**	**I**	25	10	ug/L			11/25/14 17:51	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 17:51	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 17:51	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 17:51	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 17:51	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 17:51	1
Carbon disulfide	**0.58**	**I**	1.0	0.50	ug/L			11/25/14 17:51	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 17:51	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 17:51	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 17:51	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 17:51	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 17:51	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 17:51	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 17:51	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 17:51	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 17:51	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 17:51	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 17:51	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 17:51	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: PRES-IW0010-045.0-20141118
Date Collected: 11/18/14 09:13
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-16
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 17:51	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 17:51	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 17:51	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 17:51	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 17:51	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 17:51	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 17:51	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 17:51	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 17:51	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 17:51	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 17:51	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 17:51	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 17:51	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 17:51	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 17:51	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 17:51	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			11/25/14 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*78 - 118*		*11/25/14 17:51*	*1*
Dibromofluoromethane	*112*		*81 - 121*		*11/25/14 17:51*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*11/25/14 17:51*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: WCPS-IW0016-020.0-20141118 — **Lab Sample ID: 400-98693-17**
Date Collected: 11/18/14 14:20 — **Matrix: Water**
Date Received: 11/20/14 09:27

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 18:18	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 18:18	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 18:18	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 18:18	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 18:18	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 18:18	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 18:18	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 18:18	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 18:18	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 18:18	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 18:18	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 18:18	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 18:18	1
Acetone	**24**	**I**	25	10	ug/L			11/25/14 18:18	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 18:18	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 18:18	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 18:18	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 18:18	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 18:18	1
Carbon disulfide	**0.60**	**I**	1.0	0.50	ug/L			11/25/14 18:18	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 18:18	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 18:18	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 18:18	1
cis-1,2-Dichloroethene	**1.8**		1.0	0.50	ug/L			11/25/14 18:18	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 18:18	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 18:18	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 18:18	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 18:18	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 18:18	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 18:18	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 18:18	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 18:18	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 18:18	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: WCPS-IW0016-020.0-20141118
Date Collected: 11/18/14 14:20
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-17
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 18:18	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 18:18	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 18:18	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 18:18	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 18:18	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 18:18	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 18:18	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 18:18	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 18:18	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 18:18	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 18:18	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 18:18	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 18:18	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 18:18	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 18:18	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 18:18	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 18:18	1
Vinyl chloride	**1.9**		1.0	0.50	ug/L			11/25/14 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*78 - 118*		*11/25/14 18:18*	*1*
Dibromofluoromethane	*115*		*81 - 121*		*11/25/14 18:18*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*11/25/14 18:18*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: LC39OGA-MW0004-010.0-20141118
Date Collected: 11/18/14 12:33
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-20
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 18:45	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 18:45	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 18:45	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 18:45	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 18:45	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 18:45	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 18:45	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 18:45	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 18:45	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 18:45	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 18:45	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 18:45	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 18:45	1
Acetone	**21**	**I**	25	10	ug/L			11/25/14 18:45	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 18:45	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 18:45	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 18:45	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 18:45	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 18:45	1
Carbon disulfide	**0.62**	**I**	1.0	0.50	ug/L			11/25/14 18:45	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 18:45	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 18:45	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 18:45	1
cis-1,2-Dichloroethene	**3.9**		1.0	0.50	ug/L			11/25/14 18:45	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 18:45	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 18:45	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 18:45	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 18:45	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 18:45	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 18:45	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 18:45	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 18:45	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 18:45	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: LC39OGA-MW0004-010.0-20141118
Date Collected: 11/18/14 12:33
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-20
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 18:45	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 18:45	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 18:45	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 18:45	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 18:45	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 18:45	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 18:45	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 18:45	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 18:45	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 18:45	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 18:45	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 18:45	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 18:45	1
trans-1,2-Dichloroethene	**1.6**		1.0	0.50	ug/L			11/25/14 18:45	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 18:45	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 18:45	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 18:45	1
Vinyl chloride	**10**		1.0	0.50	ug/L			11/25/14 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*78 - 118*		*11/25/14 18:45*	*1*
Dibromofluoromethane	*113*		*81 - 121*		*11/25/14 18:45*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*11/25/14 18:45*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: LC39OGA-MW0005-010.0-20141118
Date Collected: 11/18/14 12:54
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-21
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 19:12	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 19:12	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 19:12	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 19:12	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 19:12	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 19:12	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 19:12	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 19:12	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 19:12	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 19:12	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 19:12	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 19:12	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 19:12	1
Acetone	**20**	**I**	25	10	ug/L			11/25/14 19:12	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 19:12	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 19:12	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 19:12	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 19:12	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 19:12	1
Carbon disulfide	**0.62**	**I**	1.0	0.50	ug/L			11/25/14 19:12	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 19:12	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 19:12	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 19:12	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 19:12	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 19:12	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 19:12	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 19:12	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 19:12	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 19:12	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 19:12	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 19:12	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 19:12	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: LC39OGA-MW0005-010.0-20141118
Date Collected: 11/18/14 12:54
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-21
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 19:12	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 19:12	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 19:12	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 19:12	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 19:12	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 19:12	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 19:12	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 19:12	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 19:12	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 19:12	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 19:12	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 19:12	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 19:12	1
trans-1,2-Dichloroethene	**5.3**		1.0	0.50	ug/L			11/25/14 19:12	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 19:12	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 19:12	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 19:12	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 19:12	1
Vinyl chloride	**4.3**		1.0	0.50	ug/L			11/25/14 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*78 - 118*		*11/25/14 19:12*	*1*
Dibromofluoromethane	*111*		*81 - 121*		*11/25/14 19:12*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*11/25/14 19:12*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: LC39OGA-MW0006-025.0-20141118
Lab Sample ID: 400-98693-22
Date Collected: 11/18/14 12:10
Matrix: Water
Date Received: 11/20/14 09:27

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 19:40	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 19:40	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 19:40	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 19:40	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 19:40	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 19:40	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 19:40	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 19:40	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 19:40	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 19:40	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 19:40	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 19:40	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 19:40	1
Acetone	**22**	**I**	25	10	ug/L			11/25/14 19:40	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 19:40	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 19:40	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 19:40	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 19:40	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 19:40	1
Carbon disulfide	**0.67**	**I**	1.0	0.50	ug/L			11/25/14 19:40	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 19:40	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 19:40	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 19:40	1
cis-1,2-Dichloroethene	**0.79**	**I**	1.0	0.50	ug/L			11/25/14 19:40	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 19:40	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 19:40	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 19:40	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 19:40	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 19:40	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 19:40	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 19:40	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 19:40	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 19:40	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: LC39OGA-MW0006-025.0-20141118
Date Collected: 11/18/14 12:10
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-22
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 19:40	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 19:40	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 19:40	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 19:40	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 19:40	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 19:40	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 19:40	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 19:40	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 19:40	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 19:40	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 19:40	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 19:40	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 19:40	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 19:40	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 19:40	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 19:40	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			11/25/14 19:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*78 - 118*		*11/25/14 19:40*	*1*
Dibromofluoromethane	*114*		*81 - 121*		*11/25/14 19:40*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*11/25/14 19:40*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: LC39OGA-MW0007-025.0-20141118
Lab Sample ID: 400-98693-23
Date Collected: 11/18/14 11:56
Matrix: Water
Date Received: 11/20/14 09:27

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/28/14 15:02	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/28/14 15:02	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/28/14 15:02	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/28/14 15:02	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/28/14 15:02	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/28/14 15:02	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/28/14 15:02	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/28/14 15:02	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/28/14 15:02	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/28/14 15:02	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/28/14 15:02	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/28/14 15:02	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/28/14 15:02	1
Acetone	**15**	**I**	25	10	ug/L			11/28/14 15:02	1
Benzene	0.38	U	1.0	0.38	ug/L			11/28/14 15:02	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/28/14 15:02	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/28/14 15:02	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/28/14 15:02	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/28/14 15:02	1
Carbon disulfide	**1.1**		1.0	0.50	ug/L			11/28/14 15:02	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/28/14 15:02	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/28/14 15:02	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/28/14 15:02	1
cis-1,2-Dichloroethene	**1.3**		1.0	0.50	ug/L			11/28/14 15:02	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/28/14 15:02	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/28/14 15:02	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/28/14 15:02	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/28/14 15:02	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/28/14 15:02	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/28/14 15:02	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/28/14 15:02	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/28/14 15:02	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/28/14 15:02	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: LC39OGA-MW0007-025.0-20141118
Date Collected: 11/18/14 11:56
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-23
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/28/14 15:02	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/28/14 15:02	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/28/14 15:02	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/28/14 15:02	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/28/14 15:02	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/28/14 15:02	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/28/14 15:02	1
p-Cymene	0.71	U J3	1.0	0.71	ug/L			11/28/14 15:02	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/28/14 15:02	1
Styrene	1.0	U	1.0	1.0	ug/L			11/28/14 15:02	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/28/14 15:02	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/28/14 15:02	1
Toluene	0.70	U	1.0	0.70	ug/L			11/28/14 15:02	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/28/14 15:02	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/28/14 15:02	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/28/14 15:02	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*78 - 118*		*11/28/14 15:02*	*1*
Dibromofluoromethane	*112*		*81 - 121*		*11/28/14 15:02*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*11/28/14 15:02*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: LC39OGA-MW0008-025.0-20141118
Lab Sample ID: 400-98693-24
Date Collected: 11/18/14 12:30
Matrix: Water
Date Received: 11/20/14 09:27

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/28/14 15:28	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/28/14 15:28	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/28/14 15:28	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/28/14 15:28	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/28/14 15:28	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/28/14 15:28	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/28/14 15:28	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/28/14 15:28	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/28/14 15:28	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/28/14 15:28	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/28/14 15:28	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/28/14 15:28	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/28/14 15:28	1
Acetone	**15**	**I**	25	10	ug/L			11/28/14 15:28	1
Benzene	0.38	U	1.0	0.38	ug/L			11/28/14 15:28	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/28/14 15:28	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/28/14 15:28	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/28/14 15:28	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/28/14 15:28	1
Carbon disulfide	**0.57**	**I**	1.0	0.50	ug/L			11/28/14 15:28	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/28/14 15:28	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/28/14 15:28	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/28/14 15:28	1
cis-1,2-Dichloroethene	**2.2**		1.0	0.50	ug/L			11/28/14 15:28	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/28/14 15:28	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/28/14 15:28	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/28/14 15:28	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/28/14 15:28	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/28/14 15:28	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/28/14 15:28	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/28/14 15:28	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/28/14 15:28	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/28/14 15:28	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: LC39OGA-MW0008-025.0-20141118
Date Collected: 11/18/14 12:30
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-24
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/28/14 15:28	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/28/14 15:28	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/28/14 15:28	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/28/14 15:28	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/28/14 15:28	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/28/14 15:28	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/28/14 15:28	1
p-Cymene	0.71	U J3	1.0	0.71	ug/L			11/28/14 15:28	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/28/14 15:28	1
Styrene	1.0	U	1.0	1.0	ug/L			11/28/14 15:28	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/28/14 15:28	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/28/14 15:28	1
Toluene	0.70	U	1.0	0.70	ug/L			11/28/14 15:28	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/28/14 15:28	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/28/14 15:28	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/28/14 15:28	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/28/14 15:28	1
Vinyl chloride	**0.61**	**I**	1.0	0.50	ug/L			11/28/14 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*78 - 118*		*11/28/14 15:28*	*1*
Dibromofluoromethane	*108*		*81 - 121*		*11/28/14 15:28*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*11/28/14 15:28*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: LC39OGA-MW0009-025.0-20141118
Date Collected: 11/18/14 13:05
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-25
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/28/14 15:54	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/28/14 15:54	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/28/14 15:54	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/28/14 15:54	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/28/14 15:54	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/28/14 15:54	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/28/14 15:54	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/28/14 15:54	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/28/14 15:54	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/28/14 15:54	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/28/14 15:54	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/28/14 15:54	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/28/14 15:54	1
Acetone	**20**	**I**	25	10	ug/L			11/28/14 15:54	1
Benzene	0.38	U	1.0	0.38	ug/L			11/28/14 15:54	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/28/14 15:54	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/28/14 15:54	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/28/14 15:54	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/28/14 15:54	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/28/14 15:54	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/28/14 15:54	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/28/14 15:54	1
cis-1,2-Dichloroethene	**6.0**		1.0	0.50	ug/L			11/28/14 15:54	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/28/14 15:54	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/28/14 15:54	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/28/14 15:54	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/28/14 15:54	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/28/14 15:54	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/28/14 15:54	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/28/14 15:54	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/28/14 15:54	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/28/14 15:54	1

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: LC39OGA-MW0009-025.0-20141118
Date Collected: 11/18/14 13:05
Date Received: 11/20/14 09:27

Lab Sample ID: 400-98693-25
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/28/14 15:54	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/28/14 15:54	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/28/14 15:54	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/28/14 15:54	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/28/14 15:54	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/28/14 15:54	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/28/14 15:54	1
p-Cymene	0.71	U J3	1.0	0.71	ug/L			11/28/14 15:54	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/28/14 15:54	1
Styrene	1.0	U	1.0	1.0	ug/L			11/28/14 15:54	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/28/14 15:54	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/28/14 15:54	1
Toluene	0.70	U	1.0	0.70	ug/L			11/28/14 15:54	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/28/14 15:54	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/28/14 15:54	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/28/14 15:54	1
Vinyl chloride	**13**		1.0	0.50	ug/L			11/28/14 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*78 - 118*		*11/28/14 15:54*	*1*
Dibromofluoromethane	*114*		*81 - 121*		*11/28/14 15:54*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*11/28/14 15:54*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-237878/4
Matrix: Water
Analysis Batch: 237878

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 09:10	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 09:10	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 09:10	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 09:10	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 09:10	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 09:10	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 09:10	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 09:10	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 09:10	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 09:10	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 09:10	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 09:10	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 09:10	1
Acetone	10	U	25	10	ug/L			11/25/14 09:10	1
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 09:10	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 09:10	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 09:10	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 09:10	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 09:10	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 09:10	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 09:10	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 09:10	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 09:10	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/25/14 09:10	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/25/14 09:10	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 09:10	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 09:10	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 09:10	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 09:10	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 09:10	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-237878/4
Matrix: Water
Analysis Batch: 237878

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 09:10	1
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/25/14 09:10	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/25/14 09:10	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/25/14 09:10	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/25/14 09:10	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/25/14 09:10	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/25/14 09:10	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/25/14 09:10	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/25/14 09:10	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/25/14 09:10	1
Styrene	1.0	U	1.0	1.0	ug/L			11/25/14 09:10	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/25/14 09:10	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/25/14 09:10	1
Toluene	0.70	U	1.0	0.70	ug/L			11/25/14 09:10	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/25/14 09:10	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/25/14 09:10	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/25/14 09:10	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			11/25/14 09:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*78 - 118*		*11/25/14 09:10*	*1*
Dibromofluoromethane	*109*		*81 - 121*		*11/25/14 09:10*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*11/25/14 09:10*	*1*

Lab Sample ID: LCS 400-237878/1002
Matrix: Water
Analysis Batch: 237878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	55.6		ug/L		111	66 - 126
1,1,1-Trichloroethane	50.0	55.8		ug/L		112	66 - 130
1,1,2,2-Tetrachloroethane	50.0	44.3		ug/L		89	68 - 132
1,1,2-Trichloroethane	50.0	44.9		ug/L		90	80 - 120
1,1-Dichloroethane	50.0	44.7		ug/L		89	75 - 126
1,1-Dichloroethene	50.0	50.5		ug/L		101	50 - 134
1,1-Dichloropropene	50.0	47.3		ug/L		95	74 - 121
1,2,3-Trichlorobenzene	50.0	45.7		ug/L		91	62 - 130
1,2,3-Trichloropropane	50.0	48.0		ug/L		96	72 - 125
1,2,4-Trichlorobenzene	50.0	46.4		ug/L		93	69 - 128
1,2,4-Trimethylbenzene	50.0	45.4		ug/L		91	77 - 127
1,2-Dibromo-3-Chloropropane	50.0	53.2		ug/L		106	52 - 124
1,2-Dichlorobenzene	50.0	46.1		ug/L		92	80 - 121
1,2-Dichloroethane	50.0	53.0		ug/L		106	69 - 128
1,2-Dichloropropane	50.0	43.2		ug/L		86	77 - 126
1,3,5-Trimethylbenzene	50.0	45.7		ug/L		91	80 - 120
1,3-Dichlorobenzene	50.0	46.7		ug/L		93	77 - 124

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-237878/1002
Matrix: Water
Analysis Batch: 237878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	50.0	44.4		ug/L		89	77 - 120
1,4-Dichlorobenzene	50.0	45.4		ug/L		91	79 - 120
2,2-Dichloropropane	50.0	53.5		ug/L		107	52 - 135
2-Chlorotoluene	50.0	44.7		ug/L		89	75 - 126
2-Hexanone	200	194		ug/L		97	60 - 150
4-Chlorotoluene	50.0	44.7		ug/L		89	80 - 125
Acetone	200	286		ug/L		143	24 - 150
Benzene	50.0	44.4		ug/L		89	79 - 120
Bromobenzene	50.0	46.2		ug/L		92	80 - 121
Bromochloromethane	50.0	48.8		ug/L		98	80 - 120
Bromodichloromethane	50.0	56.9		ug/L		114	75 - 127
Bromoform	50.0	49.1		ug/L		98	65 - 121
Bromomethane	50.0	72.5		ug/L		145	10 - 150
Carbon disulfide	50.0	42.2		ug/L		84	41 - 140
Carbon tetrachloride	50.0	61.6		ug/L		123	46 - 141
Chlorobenzene	50.0	46.5		ug/L		93	80 - 120
Chloroethane	50.0	48.0		ug/L		96	37 - 150
Chloroform	50.0	50.0		ug/L		100	73 - 122
Chloromethane	50.0	40.2		ug/L		80	49 - 141
cis-1,2-Dichloroethene	50.0	45.5		ug/L		91	78 - 122
cis-1,3-Dichloropropene	50.0	47.9		ug/L		96	70 - 122
Dibromochloromethane	50.0	50.8		ug/L		102	63 - 125
Dibromomethane	50.0	50.1		ug/L		100	78 - 120
Dichlorodifluoromethane	50.0	40.1		ug/L		80	27 - 144
Ethylbenzene	50.0	46.0		ug/L		92	80 - 120
Ethylene Dibromide	50.0	47.8		ug/L		96	80 - 120
Hexachlorobutadiene	50.0	48.8		ug/L		98	35 - 150
Iodomethane	50.0	49.9		ug/L		100	58 - 141
Isopropyl ether	50.0	42.0		ug/L		84	69 - 143
Isopropylbenzene	50.0	48.1		ug/L		96	76 - 120
Methyl Ethyl Ketone	200	201		ug/L		100	62 - 137
methyl isobutyl ketone	200	182		ug/L		91	63 - 150
Methyl tert-butyl ether	50.0	45.9		ug/L		92	70 - 124
Methylene Chloride	50.0	41.4		ug/L		83	70 - 130
m-Xylene & p-Xylene	50.0	46.2		ug/L		92	70 - 130
Naphthalene	50.0	44.0		ug/L		88	45 - 131
n-Butylbenzene	50.0	45.7		ug/L		91	76 - 138
N-Propylbenzene	50.0	44.8		ug/L		90	75 - 128
o-Xylene	50.0	46.5		ug/L		93	70 - 130
p-Cymene	50.0	46.9		ug/L		94	78 - 120
sec-Butylbenzene	50.0	45.5		ug/L		91	78 - 128
Styrene	50.0	47.6		ug/L		95	79 - 124
tert-Butylbenzene	50.0	46.1		ug/L		92	80 - 120
Tetrachloroethene	50.0	47.7		ug/L		95	76 - 124
Toluene	50.0	44.6		ug/L		89	80 - 120
trans-1,2-Dichloroethene	50.0	44.3		ug/L		89	70 - 126
trans-1,3-Dichloropropene	50.0	46.2		ug/L		92	64 - 120
Trichloroethene	50.0	49.6		ug/L		99	77 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-237878/1002
Matrix: Water
Analysis Batch: 237878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichlorofluoromethane	50.0	63.8		ug/L		128	26 - 150
Vinyl acetate	100	101		ug/L		101	54 - 140
Vinyl chloride	50.0	43.0		ug/L		86	60 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*78 - 118*
Dibromofluoromethane	*110*		*81 - 121*
Toluene-d8 (Surr)	*97*		*80 - 120*

Lab Sample ID: 400-98693-3 MS
Matrix: Water
Analysis Batch: 237878

Client Sample ID: C5ES-MW0010I-022.5-20141118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.52	U	50.0	53.1		ug/L		106	42 - 135
1,1,1-Trichloroethane	0.50	U	50.0	56.7		ug/L		113	60 - 131
1,1,2,2-Tetrachloroethane	0.50	U	50.0	40.9		ug/L		82	52 - 148
1,1,2-Trichloroethane	0.50	U	50.0	41.7		ug/L		83	68 - 127
1,1-Dichloroethane	0.50	U	50.0	45.4		ug/L		91	10 - 150
1,1-Dichloroethene	0.50	U	50.0	48.5		ug/L		97	10 - 150
1,1-Dichloropropene	0.50	U	50.0	46.5		ug/L		93	59 - 126
1,2,3-Trichlorobenzene	0.70	U	50.0	43.0		ug/L		86	30 - 137
1,2,3-Trichloropropane	0.84	U	50.0	45.4		ug/L		91	67 - 130
1,2,4-Trichlorobenzene	0.82	U	50.0	43.3		ug/L		87	20 - 139
1,2,4-Trimethylbenzene	0.82	U	50.0	43.7		ug/L		87	10 - 150
1,2-Dibromo-3-Chloropropane	1.5	U	50.0	45.9		ug/L		92	50 - 133
1,2-Dichlorobenzene	0.50	U	50.0	44.6		ug/L		89	10 - 150
1,2-Dichloroethane	0.50	U	50.0	52.3		ug/L		105	10 - 150
1,2-Dichloropropane	0.50	U	50.0	42.3		ug/L		85	65 - 132
1,3,5-Trimethylbenzene	0.56	U	50.0	44.7		ug/L		89	10 - 150
1,3-Dichlorobenzene	0.54	U	50.0	45.0		ug/L		90	25 - 136
1,3-Dichloropropane	0.50	U	50.0	41.2		ug/L		82	67 - 127
1,4-Dichlorobenzene	0.64	U	50.0	44.1		ug/L		88	10 - 150
2,2-Dichloropropane	0.50	U	50.0	52.9		ug/L		106	46 - 132
2-Chlorotoluene	0.57	U	50.0	44.2		ug/L		88	10 - 150
2-Hexanone	3.1	U	200	150		ug/L		75	24 - 150
4-Chlorotoluene	0.56	U	50.0	43.4		ug/L		87	17 - 145
Acetone	12	I	200	146		ug/L		67	10 - 150
Benzene	0.38	U	50.0	43.1		ug/L		86	10 - 150
Bromobenzene	0.54	U	50.0	45.0		ug/L		90	38 - 135
Bromochloromethane	0.52	U	50.0	47.0		ug/L		94	75 - 120
Bromodichloromethane	0.50	U	50.0	55.0		ug/L		110	61 - 133
Bromoform	0.71	U	50.0	46.2		ug/L		92	54 - 125
Bromomethane	0.98	U	50.0	84.3	J3	ug/L		169	10 - 150
Carbon disulfide	0.61	I	50.0	40.4		ug/L		80	10 - 150
Carbon tetrachloride	0.50	U	50.0	61.4		ug/L		123	40 - 138
Chlorobenzene	0.50	U	50.0	44.5		ug/L		89	10 - 150
Chloroethane	0.76	U	50.0	49.5		ug/L		99	38 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-98693-3 MS
Matrix: Water
Analysis Batch: 237878

Client Sample ID: C5ES-MW0010I-022.5-20141118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	0.60	U	50.0	50.7		ug/L		101	10 - 150
Chloromethane	0.83	U	50.0	41.9		ug/L		84	26 - 150
cis-1,2-Dichloroethene	0.50	U	50.0	45.1		ug/L		90	10 - 150
cis-1,3-Dichloropropene	0.50	U	50.0	46.2		ug/L		92	52 - 130
Dibromochloromethane	0.50	U	50.0	47.5		ug/L		95	50 - 130
Dibromomethane	0.59	U	50.0	47.5		ug/L		95	69 - 123
Dichlorodifluoromethane	0.85	U	50.0	41.2		ug/L		82	10 - 150
Ethylbenzene	0.50	U	50.0	44.5		ug/L		89	10 - 150
Ethylene Dibromide	0.50	U	50.0	43.6		ug/L		87	70 - 125
Hexachlorobutadiene	0.90	U	50.0	47.6		ug/L		95	10 - 150
Iodomethane	0.68	U	50.0	52.9		ug/L		106	37 - 145
Isopropyl ether	0.70	U	50.0	41.2		ug/L		82	10 - 150
Isopropylbenzene	0.53	U	50.0	46.6		ug/L		93	10 - 150
Methyl Ethyl Ketone	2.6	U	200	147		ug/L		73	10 - 150
methyl isobutyl ketone	1.8	U	200	160		ug/L		80	20 - 150
Methyl tert-butyl ether	0.74	U	50.0	44.1		ug/L		88	10 - 150
Methylene Chloride	3.0	U	50.0	40.8		ug/L		82	10 - 150
m-Xylene & p-Xylene	1.6	U	50.0	44.2		ug/L		88	10 - 150
Naphthalene	1.0	U	50.0	39.9		ug/L		80	10 - 150
n-Butylbenzene	0.76	U	50.0	44.4		ug/L		89	10 - 150
N-Propylbenzene	0.69	U	50.0	44.1		ug/L		88	10 - 150
o-Xylene	0.60	U	50.0	44.6		ug/L		89	10 - 150
p-Cymene	0.71	U	50.0	45.6		ug/L		91	10 - 150
sec-Butylbenzene	0.70	U	50.0	44.8		ug/L		90	10 - 150
Styrene	1.0	U	50.0	45.2		ug/L		90	24 - 147
tert-Butylbenzene	0.63	U	50.0	45.6		ug/L		91	10 - 150
Tetrachloroethene	0.58	U	50.0	46.0		ug/L		92	10 - 150
Toluene	0.70	U	50.0	43.1		ug/L		86	10 - 150
trans-1,2-Dichloroethene	0.50	U	50.0	44.9		ug/L		90	66 - 126
trans-1,3-Dichloropropene	0.50	U	50.0	43.3		ug/L		87	45 - 128
Trichloroethene	0.50	U	50.0	48.9		ug/L		98	10 - 150
Trichlorofluoromethane	0.52	U	50.0	67.6		ug/L		135	29 - 144
Vinyl acetate	2.0	U	100	96.3		ug/L		96	10 - 150
Vinyl chloride	0.63	I	50.0	45.0		ug/L		89	46 - 136

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*78 - 118*
Dibromofluoromethane	*111*		*81 - 121*
Toluene-d8 (Surr)	*97*		*80 - 120*

Lab Sample ID: 400-98693-3 MSD
Matrix: Water
Analysis Batch: 237878

Client Sample ID: C5ES-MW0010I-022.5-20141118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.52	U	50.0	55.6		ug/L		111	42 - 135	5	23
1,1,1-Trichloroethane	0.50	U	50.0	56.5		ug/L		113	60 - 131	0	20
1,1,2,2-Tetrachloroethane	0.50	U	50.0	44.5		ug/L		89	52 - 148	8	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-98693-3 MSD
Matrix: Water
Analysis Batch: 237878

Client Sample ID: C5ES-MW0010I-022.5-20141118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloroethane	0.50	U	50.0	44.4		ug/L		89	68 - 127	6	19
1,1-Dichloroethane	0.50	U	50.0	46.2		ug/L		92	10 - 150	2	18
1,1-Dichloroethene	0.50	U	50.0	50.8		ug/L		102	10 - 150	4	19
1,1-Dichloropropene	0.50	U	50.0	47.6		ug/L		95	59 - 126	2	22
1,2,3-Trichlorobenzene	0.70	U	50.0	43.6		ug/L		87	30 - 137	1	44
1,2,3-Trichloropropane	0.84	U	50.0	49.5		ug/L		99	67 - 130	8	22
1,2,4-Trichlorobenzene	0.82	U	50.0	43.4		ug/L		87	20 - 139	0	44
1,2,4-Trimethylbenzene	0.82	U	50.0	45.4		ug/L		91	10 - 150	4	54
1,2-Dibromo-3-Chloropropane	1.5	U	50.0	52.7		ug/L		105	50 - 133	14	30
1,2-Dichlorobenzene	0.50	U	50.0	46.1		ug/L		92	10 - 150	3	38
1,2-Dichloroethane	0.50	U	50.0	54.1		ug/L		108	10 - 150	3	19
1,2-Dichloropropane	0.50	U	50.0	43.7		ug/L		87	65 - 132	3	18
1,3,5-Trimethylbenzene	0.56	U	50.0	45.3		ug/L		91	10 - 150	1	53
1,3-Dichlorobenzene	0.54	U	50.0	46.1		ug/L		92	25 - 136	2	44
1,3-Dichloropropane	0.50	U	50.0	44.6		ug/L		89	67 - 127	8	20
1,4-Dichlorobenzene	0.64	U	50.0	44.8		ug/L		90	10 - 150	2	45
2,2-Dichloropropane	0.50	U	50.0	54.5		ug/L		109	46 - 132	3	20
2-Chlorotoluene	0.57	U	50.0	45.0		ug/L		90	10 - 150	2	47
2-Hexanone	3.1	U	200	179		ug/L		90	24 - 150	18	24
4-Chlorotoluene	0.56	U	50.0	44.5		ug/L		89	17 - 145	3	51
Acetone	12	I	200	178		ug/L		83	10 - 150	19	22
Benzene	0.38	U	50.0	44.0		ug/L		88	10 - 150	2	19
Bromobenzene	0.54	U	50.0	47.3		ug/L		95	38 - 135	5	35
Bromochloromethane	0.52	U	50.0	48.9		ug/L		98	75 - 120	4	17
Bromodichloromethane	0.50	U	50.0	56.7		ug/L		113	61 - 133	3	19
Bromoform	0.71	U	50.0	50.7		ug/L		101	54 - 125	9	19
Bromomethane	0.98	U	50.0	84.1	J3	ug/L		168	10 - 150	0	24
Carbon disulfide	0.61	I	50.0	41.1		ug/L		81	10 - 150	2	23
Carbon tetrachloride	0.50	U	50.0	61.6		ug/L		123	40 - 138	0	21
Chlorobenzene	0.50	U	50.0	45.4		ug/L		91	10 - 150	2	30
Chloroethane	0.76	U	50.0	52.3		ug/L		105	38 - 150	6	23
Chloroform	0.60	U	50.0	51.5		ug/L		103	10 - 150	1	18
Chloromethane	0.83	U	50.0	41.6		ug/L		83	26 - 150	1	23
cis-1,2-Dichloroethene	0.50	U	50.0	46.5		ug/L		93	10 - 150	3	20
cis-1,3-Dichloropropene	0.50	U	50.0	47.3		ug/L		95	52 - 130	2	20
Dibromochloromethane	0.50	U	50.0	50.7		ug/L		101	50 - 130	6	21
Dibromomethane	0.59	U	50.0	49.4		ug/L		99	69 - 123	4	18
Dichlorodifluoromethane	0.85	U	50.0	40.6		ug/L		81	10 - 150	2	23
Ethylbenzene	0.50	U	50.0	44.9		ug/L		90	10 - 150	1	40
Ethylene Dibromide	0.50	U	50.0	48.5		ug/L		97	70 - 125	11	21
Hexachlorobutadiene	0.90	U	50.0	46.3		ug/L		93	10 - 150	3	92
Iodomethane	0.68	U	50.0	55.1		ug/L		110	37 - 145	4	36
Isopropyl ether	0.70	U	50.0	43.0		ug/L		86	10 - 150	4	24
Isopropylbenzene	0.53	U	50.0	46.3		ug/L		93	10 - 150	1	46
Methyl Ethyl Ketone	2.6	U	200	166		ug/L		83	10 - 150	12	21
methyl isobutyl ketone	1.8	U	200	180		ug/L		90	20 - 150	12	20
Methyl tert-butyl ether	0.74	U	50.0	46.4		ug/L		93	10 - 150	5	18
Methylene Chloride	3.0	U	50.0	41.2		ug/L		82	10 - 150	1	18

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-98693-3 MSD
Matrix: Water
Analysis Batch: 237878

Client Sample ID: C5ES-MW0010I-022.5-20141118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	1.6	U	50.0	44.4		ug/L		89	10 - 150	0	43
Naphthalene	1.0	U	50.0	42.8		ug/L		86	10 - 150	7	53
n-Butylbenzene	0.76	U	50.0	44.0		ug/L		88	10 - 150	1	76
N-Propylbenzene	0.69	U	50.0	44.1		ug/L		88	10 - 150	0	57
o-Xylene	0.60	U	50.0	45.5		ug/L		91	10 - 150	2	39
p-Cymene	0.71	U	50.0	45.6		ug/L		91	10 - 150	0	62
sec-Butylbenzene	0.70	U	50.0	45.2		ug/L		90	10 - 150	1	64
Styrene	1.0	U	50.0	46.0		ug/L		92	24 - 147	2	40
tert-Butylbenzene	0.63	U	50.0	46.3		ug/L		93	10 - 150	1	54
Tetrachloroethene	0.58	U	50.0	45.9		ug/L		92	10 - 150	0	35
Toluene	0.70	U	50.0	44.1		ug/L		88	10 - 150	2	26
trans-1,2-Dichloroethene	0.50	U	50.0	45.5		ug/L		91	66 - 126	1	19
trans-1,3-Dichloropropene	0.50	U	50.0	46.5		ug/L		93	45 - 128	7	20
Trichloroethene	0.50	U	50.0	49.4		ug/L		99	10 - 150	1	22
Trichlorofluoromethane	0.52	U	50.0	67.6		ug/L		135	29 - 144	0	20
Vinyl acetate	2.0	U	100	100		ug/L		100	10 - 150	4	44
Vinyl chloride	0.63	I	50.0	45.4		ug/L		90	46 - 136	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*78 - 118*
Dibromofluoromethane	*112*		*81 - 121*
Toluene-d8 (Surr)	*98*		*80 - 120*

Lab Sample ID: MB 400-238185/6
Matrix: Water
Analysis Batch: 238185

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/28/14 14:09	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/28/14 14:09	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/28/14 14:09	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/28/14 14:09	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/28/14 14:09	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/28/14 14:09	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/28/14 14:09	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
1,3,5-Trimethylbenzene	0.626	I	1.0	0.56	ug/L			11/28/14 14:09	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/28/14 14:09	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/28/14 14:09	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-238185/6
Matrix: Water
Analysis Batch: 238185

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/28/14 14:09	1
2-Hexanone	3.1	U	25	3.1	ug/L			11/28/14 14:09	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/28/14 14:09	1
Acetone	10	U	25	10	ug/L			11/28/14 14:09	1
Benzene	0.38	U	1.0	0.38	ug/L			11/28/14 14:09	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/28/14 14:09	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/28/14 14:09	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
Bromoform	0.71	U	5.0	0.71	ug/L			11/28/14 14:09	1
Bromomethane	0.98	U	1.0	0.98	ug/L			11/28/14 14:09	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
Chloroethane	0.76	U	1.0	0.76	ug/L			11/28/14 14:09	1
Chloroform	0.60	U	1.0	0.60	ug/L			11/28/14 14:09	1
Chloromethane	0.83	U	1.0	0.83	ug/L			11/28/14 14:09	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/28/14 14:09	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			11/28/14 14:09	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			11/28/14 14:09	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/28/14 14:09	1
Iodomethane	0.68	U	1.0	0.68	ug/L			11/28/14 14:09	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			11/28/14 14:09	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			11/28/14 14:09	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/28/14 14:09	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/28/14 14:09	1
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			11/28/14 14:09	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			11/28/14 14:09	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			11/28/14 14:09	1
Naphthalene	1.0	U	1.0	1.0	ug/L			11/28/14 14:09	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			11/28/14 14:09	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			11/28/14 14:09	1
o-Xylene	0.60	U	5.0	0.60	ug/L			11/28/14 14:09	1
p-Cymene	0.71	U	1.0	0.71	ug/L			11/28/14 14:09	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			11/28/14 14:09	1
Styrene	1.0	U	1.0	1.0	ug/L			11/28/14 14:09	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			11/28/14 14:09	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			11/28/14 14:09	1
Toluene	0.70	U	1.0	0.70	ug/L			11/28/14 14:09	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			11/28/14 14:09	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			11/28/14 14:09	1
Vinyl acetate	2.0	U	25	2.0	ug/L			11/28/14 14:09	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			11/28/14 14:09	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-238185/6
Matrix: Water
Analysis Batch: 238185

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		78 - 118		11/28/14 14:09	1
Dibromofluoromethane	108		81 - 121		11/28/14 14:09	1
Toluene-d8 (Surr)	94		80 - 120		11/28/14 14:09	1

Lab Sample ID: LCS 400-238185/1002
Matrix: Water
Analysis Batch: 238185

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	46.7		ug/L		93	66 - 126
1,1,1-Trichloroethane	50.0	48.8		ug/L		98	66 - 130
1,1,2,2-Tetrachloroethane	50.0	39.3		ug/L		79	68 - 132
1,1,2-Trichloroethane	50.0	47.4		ug/L		95	80 - 120
1,1-Dichloroethane	50.0	43.1		ug/L		86	75 - 126
1,1-Dichloroethene	50.0	43.2		ug/L		86	50 - 134
1,1-Dichloropropene	50.0	43.6		ug/L		87	74 - 121
1,2,3-Trichlorobenzene	50.0	42.9		ug/L		86	62 - 130
1,2,3-Trichloropropane	50.0	46.7		ug/L		93	72 - 125
1,2,4-Trichlorobenzene	50.0	42.5		ug/L		85	69 - 128
1,2,4-Trimethylbenzene	50.0	39.7		ug/L		79	77 - 127
1,2-Dibromo-3-Chloropropane	50.0	36.3		ug/L		73	52 - 124
1,2-Dichlorobenzene	50.0	41.5		ug/L		83	80 - 121
1,2-Dichloroethane	50.0	51.5		ug/L		103	69 - 128
1,2-Dichloropropane	50.0	41.1		ug/L		82	77 - 126
1,3,5-Trimethylbenzene	50.0	40.0		ug/L		80	80 - 120
1,3-Dichlorobenzene	50.0	43.5		ug/L		87	77 - 124
1,3-Dichloropropane	50.0	43.7		ug/L		87	77 - 120
1,4-Dichlorobenzene	50.0	43.4		ug/L		87	79 - 120
2,2-Dichloropropane	50.0	46.8		ug/L		94	52 - 135
2-Chlorotoluene	50.0	40.6		ug/L		81	75 - 126
2-Hexanone	200	171		ug/L		86	60 - 150
4-Chlorotoluene	50.0	46.1		ug/L		92	80 - 125
Acetone	200	207		ug/L		104	24 - 150
Benzene	50.0	41.8		ug/L		84	79 - 120
Bromobenzene	50.0	46.0		ug/L		92	80 - 121
Bromochloromethane	50.0	44.0		ug/L		88	80 - 120
Bromodichloromethane	50.0	50.5		ug/L		101	75 - 127
Bromoform	50.0	46.6		ug/L		93	65 - 121
Bromomethane	50.0	40.8		ug/L		82	10 - 150
Carbon disulfide	50.0	39.4		ug/L		79	41 - 140
Carbon tetrachloride	50.0	50.5		ug/L		101	46 - 141
Chlorobenzene	50.0	43.3		ug/L		87	80 - 120
Chloroethane	50.0	51.9		ug/L		104	37 - 150
Chloroform	50.0	47.3		ug/L		95	73 - 122
Chloromethane	50.0	42.7		ug/L		85	49 - 141
cis-1,2-Dichloroethene	50.0	42.9		ug/L		86	78 - 122
cis-1,3-Dichloropropene	50.0	45.8		ug/L		92	70 - 122
Dibromochloromethane	50.0	48.8		ug/L		98	63 - 125

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-238185/1002
Matrix: Water
Analysis Batch: 238185

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	50.0	47.3		ug/L		95	78 - 120
Dichlorodifluoromethane	50.0	45.0		ug/L		90	27 - 144
Ethylbenzene	50.0	43.2		ug/L		86	80 - 120
Ethylene Dibromide	50.0	47.4		ug/L		95	80 - 120
Hexachlorobutadiene	50.0	42.6		ug/L		85	35 - 150
Iodomethane	50.0	37.9		ug/L		76	58 - 141
Isopropyl ether	50.0	43.8		ug/L		88	69 - 143
Isopropylbenzene	50.0	39.1		ug/L		78	76 - 120
Methyl Ethyl Ketone	200	165		ug/L		83	62 - 137
methyl isobutyl ketone	200	183		ug/L		91	63 - 150
Methyl tert-butyl ether	50.0	45.2		ug/L		90	70 - 124
Methylene Chloride	50.0	43.0		ug/L		86	70 - 130
m-Xylene & p-Xylene	50.0	43.7		ug/L		87	70 - 130
Naphthalene	50.0	41.4		ug/L		83	45 - 131
n-Butylbenzene	50.0	40.4		ug/L		81	76 - 138
N-Propylbenzene	50.0	41.6		ug/L		83	75 - 128
o-Xylene	50.0	41.1		ug/L		82	70 - 130
p-Cymene	50.0	37.9	J3	ug/L		76	78 - 120
sec-Butylbenzene	50.0	43.0		ug/L		86	78 - 128
Styrene	50.0	43.7		ug/L		87	79 - 124
tert-Butylbenzene	50.0	42.8		ug/L		86	80 - 120
Tetrachloroethene	50.0	44.1		ug/L		88	76 - 124
Toluene	50.0	40.1		ug/L		80	80 - 120
trans-1,2-Dichloroethene	50.0	39.6		ug/L		79	70 - 126
trans-1,3-Dichloropropene	50.0	48.7		ug/L		97	64 - 120
Trichloroethene	50.0	43.8		ug/L		88	77 - 120
Trichlorofluoromethane	50.0	57.3		ug/L		115	26 - 150
Vinyl acetate	100	60.3		ug/L		60	54 - 140
Vinyl chloride	50.0	51.6		ug/L		103	60 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*78 - 118*
Dibromofluoromethane	*110*		*81 - 121*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: 400-98946-A-1 MS
Matrix: Water
Analysis Batch: 238185

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.52	U	50.0	43.2		ug/L		86	42 - 135
1,1,1-Trichloroethane	0.50	U	50.0	45.7		ug/L		91	60 - 131
1,1,2,2-Tetrachloroethane	0.50	U	50.0	37.7		ug/L		75	52 - 148
1,1,2-Trichloroethane	0.50	U	50.0	45.7		ug/L		91	68 - 127
1,1-Dichloroethane	0.50	U	50.0	41.2		ug/L		82	10 - 150
1,1-Dichloroethene	0.50	U	50.0	41.7		ug/L		83	10 - 150
1,1-Dichloropropene	0.50	U	50.0	42.4		ug/L		85	59 - 126
1,2,3-Trichlorobenzene	0.70	U	50.0	32.7		ug/L		65	30 - 137

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-98946-A-1 MS
Matrix: Water
Analysis Batch: 238185

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	0.84	U	50.0	38.7		ug/L		77	67 - 130
1,2,4-Trichlorobenzene	0.82	U	50.0	33.0		ug/L		66	20 - 139
1,2,4-Trimethylbenzene	0.82	U	50.0	33.0		ug/L		66	10 - 150
1,2-Dibromo-3-Chloropropane	1.5	U	50.0	32.3		ug/L		65	50 - 133
1,2-Dichlorobenzene	0.50	U	50.0	33.0		ug/L		66	10 - 150
1,2-Dichloroethane	0.50	U	50.0	50.8		ug/L		102	10 - 150
1,2-Dichloropropane	0.50	U	50.0	38.5		ug/L		77	65 - 132
1,3,5-Trimethylbenzene	0.56	U	50.0	33.5		ug/L		67	10 - 150
1,3-Dichlorobenzene	0.54	U	50.0	36.3		ug/L		73	25 - 136
1,3-Dichloropropane	0.50	U	50.0	42.2		ug/L		84	67 - 127
1,4-Dichlorobenzene	0.64	U	50.0	35.8		ug/L		72	10 - 150
2,2-Dichloropropane	0.50	U	50.0	44.2		ug/L		88	46 - 132
2-Chlorotoluene	0.57	U	50.0	39.5		ug/L		79	10 - 150
2-Hexanone	3.1	U	200	141		ug/L		70	24 - 150
4-Chlorotoluene	0.56	U	50.0	38.6		ug/L		77	17 - 145
Acetone	10	U	200	96.7		ug/L		48	10 - 150
Benzene	0.38	U	50.0	38.2		ug/L		76	10 - 150
Bromobenzene	0.54	U	50.0	41.2		ug/L		82	38 - 135
Bromochloromethane	0.52	U	50.0	44.2		ug/L		88	75 - 120
Bromodichloromethane	0.50	U	50.0	48.4		ug/L		97	61 - 133
Bromoform	0.71	U	50.0	47.5		ug/L		95	54 - 125
Bromomethane	0.98	U	50.0	44.5		ug/L		89	10 - 150
Carbon disulfide	0.50	U	50.0	38.8		ug/L		78	10 - 150
Carbon tetrachloride	0.50	U	50.0	48.4		ug/L		97	40 - 138
Chlorobenzene	0.50	U	50.0	39.5		ug/L		79	10 - 150
Chloroethane	0.76	U	50.0	49.9		ug/L		100	38 - 150
Chloroform	0.60	U	50.0	45.8		ug/L		92	10 - 150
Chloromethane	0.83	U	50.0	43.8		ug/L		88	26 - 150
cis-1,2-Dichloroethene	0.50	U	50.0	42.1		ug/L		84	10 - 150
cis-1,3-Dichloropropene	0.50	U	50.0	43.1		ug/L		86	52 - 130
Dibromochloromethane	0.50	U	50.0	48.4		ug/L		97	50 - 130
Dibromomethane	0.59	U	50.0	43.0		ug/L		86	69 - 123
Dichlorodifluoromethane	0.85	U	50.0	44.8		ug/L		90	10 - 150
Ethylbenzene	0.50	U	50.0	37.6		ug/L		75	10 - 150
Ethylene Dibromide	0.50	U	50.0	44.3		ug/L		89	70 - 125
Hexachlorobutadiene	0.90	U	50.0	31.6		ug/L		63	10 - 150
Iodomethane	0.68	U	50.0	39.1		ug/L		78	37 - 145
Isopropyl ether	0.70	U	50.0	41.3		ug/L		83	10 - 150
Isopropylbenzene	0.53	U	50.0	34.1		ug/L		68	10 - 150
Methyl Ethyl Ketone	2.6	U	200	125		ug/L		62	10 - 150
methyl isobutyl ketone	1.8	U	200	163		ug/L		81	20 - 150
Methyl tert-butyl ether	1.5		50.0	43.1		ug/L		83	10 - 150
Methylene Chloride	3.0	U	50.0	41.4		ug/L		83	10 - 150
m-Xylene & p-Xylene	1.6	U	50.0	38.3		ug/L		77	10 - 150
Naphthalene	1.0	U	50.0	34.7		ug/L		69	10 - 150
n-Butylbenzene	0.76	U	50.0	29.8		ug/L		60	10 - 150
N-Propylbenzene	0.69	U	50.0	34.7		ug/L		69	10 - 150
o-Xylene	0.60	U	50.0	35.9		ug/L		72	10 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-98946-A-1 MS
Matrix: Water
Analysis Batch: 238185

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
p-Cymene	0.71	U J3	50.0	29.6		ug/L		59	10 - 150
sec-Butylbenzene	0.70	U	50.0	34.7		ug/L		69	10 - 150
Styrene	1.0	U	50.0	39.0		ug/L		78	24 - 147
tert-Butylbenzene	0.63	U	50.0	35.4		ug/L		71	10 - 150
Tetrachloroethene	0.58	U	50.0	37.3		ug/L		75	10 - 150
Toluene	0.70	U	50.0	38.0		ug/L		76	10 - 150
trans-1,2-Dichloroethene	0.50	U	50.0	39.3		ug/L		79	66 - 126
trans-1,3-Dichloropropene	0.50	U	50.0	46.3		ug/L		93	45 - 128
Trichloroethene	0.50	U	50.0	41.9		ug/L		84	10 - 150
Trichlorofluoromethane	0.52	U	50.0	56.9		ug/L		114	29 - 144
Vinyl acetate	2.0	U	100	56.2		ug/L		56	10 - 150
Vinyl chloride	0.50	U	50.0	50.0		ug/L		100	46 - 136

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*78 - 118*
Dibromofluoromethane	*113*		*81 - 121*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: 400-98946-A-1 MSD
Matrix: Water
Analysis Batch: 238185

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.52	U	50.0	45.1		ug/L		90	42 - 135	4	23
1,1,1-Trichloroethane	0.50	U	50.0	50.6		ug/L		101	60 - 131	10	20
1,1,2,2-Tetrachloroethane	0.50	U	50.0	41.7		ug/L		83	52 - 148	10	20
1,1,2-Trichloroethane	0.50	U	50.0	46.4		ug/L		93	68 - 127	1	19
1,1-Dichloroethane	0.50	U	50.0	45.0		ug/L		90	10 - 150	9	18
1,1-Dichloroethene	0.50	U	50.0	44.5		ug/L		89	10 - 150	6	19
1,1-Dichloropropene	0.50	U	50.0	47.5		ug/L		95	59 - 126	11	22
1,2,3-Trichlorobenzene	0.70	U	50.0	40.2		ug/L		80	30 - 137	21	44
1,2,3-Trichloropropane	0.84	U	50.0	46.4		ug/L		93	67 - 130	18	22
1,2,4-Trichlorobenzene	0.82	U	50.0	42.9		ug/L		86	20 - 139	26	44
1,2,4-Trimethylbenzene	0.82	U	50.0	40.8		ug/L		82	10 - 150	21	54
1,2-Dibromo-3-Chloropropane	1.5	U	50.0	44.6	J3	ug/L		89	50 - 133	32	30
1,2-Dichlorobenzene	0.50	U	50.0	40.5		ug/L		81	10 - 150	20	38
1,2-Dichloroethane	0.50	U	50.0	56.1		ug/L		112	10 - 150	10	19
1,2-Dichloropropane	0.50	U	50.0	42.7		ug/L		85	65 - 132	10	18
1,3,5-Trimethylbenzene	0.56	U	50.0	39.9		ug/L		80	10 - 150	17	53
1,3-Dichlorobenzene	0.54	U	50.0	43.0		ug/L		86	25 - 136	17	44
1,3-Dichloropropane	0.50	U	50.0	51.2		ug/L		102	67 - 127	19	20
1,4-Dichlorobenzene	0.64	U	50.0	45.3		ug/L		91	10 - 150	23	45
2,2-Dichloropropane	0.50	U	50.0	47.4		ug/L		95	46 - 132	7	20
2-Chlorotoluene	0.57	U	50.0	41.8		ug/L		84	10 - 150	6	47
2-Hexanone	3.1	U	200	160		ug/L		80	24 - 150	13	24
4-Chlorotoluene	0.56	U	50.0	47.1		ug/L		94	17 - 145	20	51
Acetone	10	U	200	108		ug/L		54	10 - 150	11	22
Benzene	0.38	U	50.0	42.8		ug/L		86	10 - 150	11	19

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-98946-A-1 MSD
Matrix: Water
Analysis Batch: 238185

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	0.54	U	50.0	49.8		ug/L		100	38 - 135	19	35
Bromochloromethane	0.52	U	50.0	49.0		ug/L		98	75 - 120	10	17
Bromodichloromethane	0.50	U	50.0	51.8		ug/L		104	61 - 133	7	19
Bromoform	0.71	U	50.0	50.9		ug/L		102	54 - 125	7	19
Bromomethane	0.98	U	50.0	39.8		ug/L		80	10 - 150	11	24
Carbon disulfide	0.50	U	50.0	40.6		ug/L		81	10 - 150	5	23
Carbon tetrachloride	0.50	U	50.0	53.6		ug/L		107	40 - 138	10	21
Chlorobenzene	0.50	U	50.0	44.7		ug/L		89	10 - 150	12	30
Chloroethane	0.76	U	50.0	50.6		ug/L		101	38 - 150	1	23
Chloroform	0.60	U	50.0	49.5		ug/L		99	10 - 150	8	18
Chloromethane	0.83	U	50.0	39.7		ug/L		79	26 - 150	10	23
cis-1,2-Dichloroethene	0.50	U	50.0	45.9		ug/L		92	10 - 150	8	20
cis-1,3-Dichloropropene	0.50	U	50.0	48.0		ug/L		96	52 - 130	11	20
Dibromochloromethane	0.50	U	50.0	51.9		ug/L		104	50 - 130	7	21
Dibromomethane	0.59	U	50.0	50.4		ug/L		101	69 - 123	16	18
Dichlorodifluoromethane	0.85	U	50.0	46.8		ug/L		94	10 - 150	4	23
Ethylbenzene	0.50	U	50.0	44.4		ug/L		89	10 - 150	17	40
Ethylene Dibromide	0.50	U	50.0	49.8		ug/L		100	70 - 125	12	21
Hexachlorobutadiene	0.90	U	50.0	40.4		ug/L		81	10 - 150	25	92
Iodomethane	0.68	U	50.0	36.9		ug/L		74	37 - 145	6	36
Isopropyl ether	0.70	U	50.0	46.6		ug/L		93	10 - 150	12	24
Isopropylbenzene	0.53	U	50.0	39.4		ug/L		79	10 - 150	14	46
Methyl Ethyl Ketone	2.6	U	200	143		ug/L		71	10 - 150	14	21
methyl isobutyl ketone	1.8	U	200	194		ug/L		97	20 - 150	17	20
Methyl tert-butyl ether	1.5		50.0	49.7		ug/L		97	10 - 150	14	18
Methylene Chloride	3.0	U	50.0	47.4		ug/L		95	10 - 150	13	18
m-Xylene & p-Xylene	1.6	U	50.0	44.6		ug/L		89	10 - 150	15	43
Naphthalene	1.0	U	50.0	40.7		ug/L		81	10 - 150	16	53
n-Butylbenzene	0.76	U	50.0	40.1		ug/L		80	10 - 150	29	76
N-Propylbenzene	0.69	U	50.0	42.8		ug/L		86	10 - 150	21	57
o-Xylene	0.60	U	50.0	41.8		ug/L		84	10 - 150	15	39
p-Cymene	0.71	U J3	50.0	37.9		ug/L		76	10 - 150	24	62
sec-Butylbenzene	0.70	U	50.0	42.9		ug/L		86	10 - 150	21	64
Styrene	1.0	U	50.0	45.5		ug/L		91	24 - 147	15	40
tert-Butylbenzene	0.63	U	50.0	43.7		ug/L		87	10 - 150	21	54
Tetrachloroethene	0.58	U	50.0	43.4		ug/L		87	10 - 150	15	35
Toluene	0.70	U	50.0	43.0		ug/L		86	10 - 150	12	26
trans-1,2-Dichloroethene	0.50	U	50.0	43.1		ug/L		86	66 - 126	9	19
trans-1,3-Dichloropropene	0.50	U	50.0	53.9		ug/L		108	45 - 128	15	20
Trichloroethene	0.50	U	50.0	47.3		ug/L		95	10 - 150	12	22
Trichlorofluoromethane	0.52	U	50.0	60.2		ug/L		120	29 - 144	6	20
Vinyl acetate	2.0	U	100	63.5		ug/L		63	10 - 150	12	44
Vinyl chloride	0.50	U	50.0	51.9		ug/L		104	46 - 136	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*78 - 118*
Dibromofluoromethane	*111*		*81 - 121*
Toluene-d8 (Surr)	*102*		*80 - 120*

GC/MS VOA

Analysis Batch: 237878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-98693-1	PRES-IW0007I-034.5-20141117	Total/NA	Water	8260B	
400-98693-2	PRES-IW0008I-040.0-20141117	Total/NA	Water	8260B	
400-98693-3	C5ES-MW0010I-022.5-20141118	Total/NA	Water	8260B	
400-98693-3 MS	C5ES-MW0010I-022.5-20141118	Total/NA	Water	8260B	
400-98693-3 MSD	C5ES-MW0010I-022.5-20141118	Total/NA	Water	8260B	
400-98693-4	C5ES-MW0012S-012.5-20141118	Total/NA	Water	8260B	
400-98693-5	C5ES-MW0012I-022.5-20141118	Total/NA	Water	8260B	
400-98693-6	C5ES-MW0017S-009.5-20141118	Total/NA	Water	8260B	
400-98693-7	C5ES-MW0018S-009.5-20141118	Total/NA	Water	8260B	
400-98693-8	C5ES-MW0019I-018.0-20141118	Total/NA	Water	8260B	
400-98693-9	MLPV-IW0012I-037.5-20141118	Total/NA	Water	8260B	
400-98693-10	MLPV-IW0012D-047.5-20141118	Total/NA	Water	8260B	
400-98693-11	MLPV-IW0029D-044.5-20141118	Total/NA	Water	8260B	
400-98693-12	WCPS-IW0001SR-007.5-20141118	Total/NA	Water	8260B	
400-98693-13	MLPV-IW0052-045.0-20141118	Total/NA	Water	8260B	
400-98693-14	MLPV-IW0055-045.0-20141118	Total/NA	Water	8260B	
400-98693-15	PRES-IW0009-045.0-20141118	Total/NA	Water	8260B	
400-98693-16	PRES-IW0010-045.0-20141118	Total/NA	Water	8260B	
400-98693-17	WCPS-IW0016-020.0-20141118	Total/NA	Water	8260B	
400-98693-20	LC39OGA-MW0004-010.0-20141118	Total/NA	Water	8260B	
400-98693-21	LC39OGA-MW0005-010.0-20141118	Total/NA	Water	8260B	
400-98693-22	LC39OGA-MW0006-025.0-20141118	Total/NA	Water	8260B	
LCS 400-237878/1002	Lab Control Sample	Total/NA	Water	8260B	
MB 400-237878/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 238185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-98693-23	LC39OGA-MW0007-025.0-20141118	Total/NA	Water	8260B	
400-98693-24	LC39OGA-MW0008-025.0-20141118	Total/NA	Water	8260B	
400-98693-25	LC39OGA-MW0009-025.0-20141118	Total/NA	Water	8260B	
400-98946-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
400-98946-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 400-238185/1002	Lab Control Sample	Total/NA	Water	8260B	
MB 400-238185/6	Method Blank	Total/NA	Water	8260B	

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: PRES-IW0007I-034.5-20141117 — **Lab Sample ID: 400-98693-1**
Date Collected: 11/17/14 14:52 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 09:38	EAS	TAL PEN

Client Sample ID: PRES-IW0008I-040.0-20141117 — **Lab Sample ID: 400-98693-2**
Date Collected: 11/17/14 15:05 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 10:05	EAS	TAL PEN

Client Sample ID: C5ES-MW0010I-022.5-20141118 — **Lab Sample ID: 400-98693-3**
Date Collected: 11/18/14 09:48 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 11:55	EAS	TAL PEN

Client Sample ID: C5ES-MW0012S-012.5-20141118 — **Lab Sample ID: 400-98693-4**
Date Collected: 11/18/14 11:00 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 12:22	EAS	TAL PEN

Client Sample ID: C5ES-MW0012I-022.5-20141118 — **Lab Sample ID: 400-98693-5**
Date Collected: 11/18/14 11:07 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 12:49	EAS	TAL PEN

Client Sample ID: C5ES-MW0017S-009.5-20141118 — **Lab Sample ID: 400-98693-6**
Date Collected: 11/18/14 11:27 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 13:17	EAS	TAL PEN

Client Sample ID: C5ES-MW0018S-009.5-20141118 — **Lab Sample ID: 400-98693-7**
Date Collected: 11/18/14 10:14 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 13:44	EAS	TAL PEN

Client Sample ID: C5ES-MW0019I-018.0-20141118 — **Lab Sample ID: 400-98693-8**
Date Collected: 11/18/14 10:07 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 14:12	EAS	TAL PEN

Client Sample ID: MLPV-IW0012I-037.5-20141118 — **Lab Sample ID: 400-98693-9**
Date Collected: 11/18/14 15:49 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 14:39	EAS	TAL PEN

Client Sample ID: MLPV-IW0012D-047.5-20141118 — **Lab Sample ID: 400-98693-10**
Date Collected: 11/18/14 16:00 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 15:06	EAS	TAL PEN

Client Sample ID: MLPV-IW0029D-044.5-20141118 — **Lab Sample ID: 400-98693-11**
Date Collected: 11/18/14 15:22 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 15:34	EAS	TAL PEN

Client Sample ID: WCPS-IW0001SR-007.5-20141118 — **Lab Sample ID: 400-98693-12**
Date Collected: 11/18/14 14:33 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 16:01	EAS	TAL PEN

Client Sample ID: MLPV-IW0052-045.0-20141118 — **Lab Sample ID: 400-98693-13**
Date Collected: 11/18/14 15:36 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 16:29	EAS	TAL PEN

Client Sample ID: MLPV-IW0055-045.0-20141118 — **Lab Sample ID: 400-98693-14**
Date Collected: 11/18/14 15:05 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 16:56	EAS	TAL PEN

Client Sample ID: PRES-IW0009-045.0-20141118 — **Lab Sample ID: 400-98693-15**
Date Collected: 11/18/14 11:37 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 17:24	EAS	TAL PEN

Client Sample ID: PRES-IW0010-045.0-20141118 — **Lab Sample ID: 400-98693-16**
Date Collected: 11/18/14 09:13 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 17:51	EAS	TAL PEN

Client Sample ID: WCPS-IW0016-020.0-20141118 — **Lab Sample ID: 400-98693-17**
Date Collected: 11/18/14 14:20 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 18:18	EAS	TAL PEN

Client Sample ID: LC39OGA-MW0004-010.0-20141118 — **Lab Sample ID: 400-98693-20**
Date Collected: 11/18/14 12:33 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 18:45	EAS	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Client Sample ID: LC39OGA-MW0005-010.0-20141118 — Lab Sample ID: 400-98693-21

Date Collected: 11/18/14 12:54 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 19:12	EAS	TAL PEN

Client Sample ID: LC39OGA-MW0006-025.0-20141118 — Lab Sample ID: 400-98693-22

Date Collected: 11/18/14 12:10 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	237878	11/25/14 19:40	EAS	TAL PEN

Client Sample ID: LC39OGA-MW0007-025.0-20141118 — Lab Sample ID: 400-98693-23

Date Collected: 11/18/14 11:56 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238185	11/28/14 15:02	EAS	TAL PEN

Client Sample ID: LC39OGA-MW0008-025.0-20141118 — Lab Sample ID: 400-98693-24

Date Collected: 11/18/14 12:30 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238185	11/28/14 15:28	EAS	TAL PEN

Client Sample ID: LC39OGA-MW0009-025.0-20141118 — Lab Sample ID: 400-98693-25

Date Collected: 11/18/14 13:05 — **Matrix: Water**
Date Received: 11/20/14 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238185	11/28/14 15:54	EAS	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Certification Summary

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Laboratory: TestAmerica Pensacola

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E81010	06-30-15

Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: VAB Area, LC39 OGA, FS6

TestAmerica Job ID: 400-98693-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

SERIAL NUMBER: 74738

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001
Fax: 850-478-2671
Website: www.testamericainc.com

QUOTE NO.:
BOTTLE ORDER NO.:
ORDER - LOG-IN NO.: C

CLIENT: Geosyntec
ADDRESS: Pensacola, Fl
PAGE: 1 OF 2

PROJECT NAME: VAB Area
PROJECT NO.: FR0746
CLIENT PROJECT MANAGER: Jill Johnson
PROJECT LOC. (STATE):

SAMPLED BY: D. Sizemore
CONTRACT / P.O. NO.:
CLIENT PHONE: (904) 591-4076
CLIENT E-MAIL OR FAX:

TAT REQUESTED: RUSH NEEDS LAB PREAPPROVAL ☐ NORMAL X 10 BUSINESS DAYS
☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☐ 5 DAYS ☐ 20 DAYS (Package) ☐ OTHER:

SAMPLE DISPOSAL: ☐ RETURN TO CLIENT ☐ DISPOSAL BY LAB
☐ SEE CONTRACT ☐ OTHER:

REQUESTED ANALYSIS: 8260B-VOC

POSSIBLE HAZARD IDENTIFICATION
Δ NON-HAZARD
Δ FLAMMABLE
Δ RADIOACTIVE
Δ POISON B
Δ UNKNOWN
Δ OTHER:

NO. OF COOLERS PER SHIPMENT:

SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT

LAB USE ONLY - SAMPLE NUMBER

100-98693 COC

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	PRESERVATIVE: No Preservative	HCL - Hydrochloric Acid	HNO3 - Nitric Acid	H2SO4 - Sulfuric Acid or H3PO4	NAOH - Sodium Hydroxide	CH3OH - Methanol	NAHSO4 - Sodium Bisulfate	NA2S2O3 - Sodium Thiosulfate	Other:	MATRIX: Drinking Water	Aqueous GW, SW, WW	Solid, Semisolid, Sediment	Air	NonAqueous (Oil, Solvent, etc.)	NUMBER OF CONTAINERS SUBMITTED
11/17/14	1452	Pres-IW0007I-034.5-20141117 (11 pm)	X										GW				X
↓	1505	Pres-IW0006I-040.0-20141117	X														X
11/18/14	948	CSES-MW0010I-022.5-20141118	X														X
	1100	MW0012S-012.5	X														X
	1107	MW0012I-022.5	X														X
	1127	MW0017S-009.5	X														X
	1014	MW0018S-009.5	X														X
	1007	MW0019I-018.0	X														X
	1549	MLPV-IW0012I-037.5	X														X
	1600	-IW0012D-047.5	X														X
	1522	-IW0029D-044.5	X														X
	1433	WCPS-IW0001SR-007.5	X														X
	1536	MLPV-IW0052-045.0	X														X

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
EMPTY CONTAINERS							11/19/14	1150
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
EMPTY CONTAINERS						Jennifer Bolt	11-19-14	0750

Relinquished by Jennifer Bolt 11-19-14 11:15 LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	CUSTODY INTACT?	CUSTODY SEAL NO.	REMARKS:
	11/20/14	927	Δ YES Δ NO		1.8°C D2-2

TAL-8251 (1207)

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98693

SERIAL NUMBER: 74739

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001
Fax: 850-478-2671
Website: www.testamericainc.com

QUOTE NO.

BOTTLE ORDER NO.

ORDER - LOG-IN NO. C

CLIENT: GeoSyntec | ADDRESS: Pensacola, FL | PAGE 2 OF 2

PROJECT NAME: VAB Area | PROJECT NO.: FR0746 | CLIENT PROJECT MANAGER: Jill Johnson | PROJECT LOC. (STATE)

SAMPLED BY: D. Sizemore | CONTRACT / P.O. NO.

CLIENT PHONE: (904) 591-4076 | CLIENT E-MAIL OR FAX

TAT REQUESTED: RUSH NEEDS LAB PREAPPROVAL ~~NORMAL~~ 10 BUSINESS DAYS
□ 1 DAY □ 2 DAYS □ 3 DAYS □ 5 DAYS □ 20 DAYS (Package) □ OTHER:

SAMPLE DISPOSAL: □ RETURN TO CLIENT □ DISPOSAL BY LAB
□ SEE CONTRACT □ OTHER:

REQUESTED ANALYSIS: 8260B-VOC

POSSIBLE HAZARD IDENTIFICATION
Δ NON-HAZARD
Δ FLAMMABLE
Δ RADIOACTIVE
Δ POISON B
Δ UNKNOWN
Δ OTHER:

NO. OF COOLERS PER SHIPMENT:

SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT

LAB USE ONLY - SAMPLE NUMBER

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	No Preservative	HCL - Hydrochloric Acid	HNO3 - Nitric Acid	H2SO4 - Sulfuric Acid or H3PO4	NAOH - Sodium Hydroxide	CH3OH - Methanol	NAHSO4 - Sodium Bisulfate	NA2S2O3 - Sodium Thiosulfate	Other:	Drinking Water	Aqueous GW, SW, WW	Solid, Semisolid, Sediment	Air	NonAqueous (Oil, Solvent, etc.)	NUMBER OF CONTAINERS SUBMITTED
11/18/14	1505	MLOV-IW0055-045.0-20141118	X										GW				X
	1137	Pres-IW0009-045.0	X														X
	913	Pres-IW0010-045.0	X														X
	1420	WCPS-IW0016-020.0	X														X
	1643	CSES-MW0011S-012.5	X														X
	1404	WCPS-IW0013S-007.5	X														X
	1233	LC3906A-MW0004-010.0	X														X
	1254	MW0005-010.0	X														X
	1210	MW0006-025.0	X														X
	1156	MW0007-025.0	X														X
	1230	MW0008-025.0	X														X
	1305	MW0009-025.0	X														X

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
EMPTY CONTAINERS							11/19/14	950
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**
EMPTY CONTAINERS							11/19/14	07:50

Relinquished by: [signature] 11-19-14 11:15 LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	CUSTODY INTACT?	CUSTODY SEAL NO.	REMARKS:
[signature]	11-20-14	907	Δ YES Δ NO		1-8°C TR-2

TAL-8251 (1207)

Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-98693-1

Login Number: 98693

List Source: TestAmerica Pensacola

List Number: 1

Creator: Crawford, Lauren E

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-99422-1
Client Project/Site: LC39 OGA MW Sampling

For:
Geosyntec Consultants, Inc.
316 South Baylen Street
Suite 201
Pensacola, Florida 32502

Attn: Mrs. Jill Johnson

Mark Swafford

Authorized for release by:
12/19/2014 8:27:41 AM

Mark Swafford, Project Manager I
(850)474-1001
mark.swafford@testamericainc.com

Table of Contents

Definitions/Glossary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA MW Sampling

TestAmerica Job ID: 400-99422-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 400-99422-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-99422-1

Comments
No additional comments.

Receipt
The samples were received on 12/9/2014 9:38 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

GC/MS VOA
Method 8260B: The laboratory control sample (LCS) for batch 400-240304 recovered outside control limits for three analytes. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA MW Sampling

TestAmerica Job ID: 400-99422-1

Client Sample ID: LC39OGA-MW0001-010.0-20141205 — Lab Sample ID: 400-99422-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	21	I	25	10	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.64	I	1.0	0.50	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	22		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	4.1		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-MW0002-010.0-20141205 — Lab Sample ID: 400-99422-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	48		25	10	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	2.1		1.0	0.50	ug/L	1		8260B	Total/NA
Methyl Ethyl Ketone	21	I	25	2.6	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	4.3		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	19		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-IDW195316-20141205 — Lab Sample ID: 400-99422-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	1.1		1.0	0.50	ug/L	1		8260B	Total/NA
Chloroform	0.80	I	1.0	0.60	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.1		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	0.85	I	1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-IDW195318-20141205 — Lab Sample ID: 400-99422-4

No Detections.

This Detection Summary does not include radiochemical test results.

Sample Summary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA MW Sampling

TestAmerica Job ID: 400-99422-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-99422-1	LC39OGA-MW0001-010.0-20141205	Water	12/05/14 16:15	12/09/14 09:38
400-99422-2	LC39OGA-MW0002-010.0-20141205	Water	12/05/14 16:35	12/09/14 09:38
400-99422-3	LC39OGA-IDW195316-20141205	Water	12/05/14 16:40	12/09/14 09:38
400-99422-4	LC39OGA-IDW195318-20141205	Water	12/05/14 16:50	12/09/14 09:38

Client Sample ID: LC39OGA-MW0001-010.0-20141205
Lab Sample ID: 400-99422-1
Date Collected: 12/05/14 16:15
Matrix: Water
Date Received: 12/09/14 09:38

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			12/17/14 17:56	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			12/17/14 17:56	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			12/17/14 17:56	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			12/17/14 17:56	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			12/17/14 17:56	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			12/17/14 17:56	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			12/17/14 17:56	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			12/17/14 17:56	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			12/17/14 17:56	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			12/17/14 17:56	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			12/17/14 17:56	1
2-Hexanone	3.1	U	25	3.1	ug/L			12/17/14 17:56	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			12/17/14 17:56	1
Acetone	**21**	**I**	25	10	ug/L			12/17/14 17:56	1
Benzene	0.38	U	1.0	0.38	ug/L			12/17/14 17:56	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			12/17/14 17:56	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			12/17/14 17:56	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
Bromoform	0.71	U	5.0	0.71	ug/L			12/17/14 17:56	1
Bromomethane	0.98	U	1.0	0.98	ug/L			12/17/14 17:56	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
Chloroethane	0.76	U	1.0	0.76	ug/L			12/17/14 17:56	1
Chloroform	0.60	U	1.0	0.60	ug/L			12/17/14 17:56	1
Chloromethane	0.83	U	1.0	0.83	ug/L			12/17/14 17:56	1
cis-1,2-Dichloroethene	**0.64**	**I**	1.0	0.50	ug/L			12/17/14 17:56	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			12/17/14 17:56	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			12/17/14 17:56	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			12/17/14 17:56	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
Ethylene Dibromide	0.50	U J3	1.0	0.50	ug/L			12/17/14 17:56	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			12/17/14 17:56	1
Iodomethane	0.68	U	1.0	0.68	ug/L			12/17/14 17:56	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			12/17/14 17:56	1
Isopropylbenzene	0.53	U J3	1.0	0.53	ug/L			12/17/14 17:56	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			12/17/14 17:56	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			12/17/14 17:56	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA MW Sampling

TestAmerica Job ID: 400-99422-1

Client Sample ID: LC39OGA-MW0001-010.0-20141205
Date Collected: 12/05/14 16:15
Date Received: 12/09/14 09:38

Lab Sample ID: 400-99422-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			12/17/14 17:56	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			12/17/14 17:56	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			12/17/14 17:56	1
Naphthalene	1.0	U	1.0	1.0	ug/L			12/17/14 17:56	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			12/17/14 17:56	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			12/17/14 17:56	1
o-Xylene	0.60	U	5.0	0.60	ug/L			12/17/14 17:56	1
p-Cymene	0.71	U J3	1.0	0.71	ug/L			12/17/14 17:56	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			12/17/14 17:56	1
Styrene	1.0	U	1.0	1.0	ug/L			12/17/14 17:56	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			12/17/14 17:56	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			12/17/14 17:56	1
Toluene	0.70	U	1.0	0.70	ug/L			12/17/14 17:56	1
trans-1,2-Dichloroethene	**22**		1.0	0.50	ug/L			12/17/14 17:56	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			12/17/14 17:56	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			12/17/14 17:56	1
Vinyl acetate	2.0	U	25	2.0	ug/L			12/17/14 17:56	1
Vinyl chloride	**4.1**		1.0	0.50	ug/L			12/17/14 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*78 - 118*		*12/17/14 17:56*	*1*
Dibromofluoromethane	*102*		*81 - 121*		*12/17/14 17:56*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*12/17/14 17:56*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA MW Sampling

TestAmerica Job ID: 400-99422-1

Client Sample ID: LC39OGA-MW0002-010.0-20141205
Date Collected: 12/05/14 16:35
Date Received: 12/09/14 09:38

Lab Sample ID: 400-99422-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			12/17/14 18:23	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			12/17/14 18:23	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			12/17/14 18:23	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			12/17/14 18:23	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			12/17/14 18:23	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			12/17/14 18:23	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			12/17/14 18:23	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			12/17/14 18:23	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			12/17/14 18:23	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			12/17/14 18:23	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			12/17/14 18:23	1
2-Hexanone	3.1	U	25	3.1	ug/L			12/17/14 18:23	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			12/17/14 18:23	1
Acetone	**48**		25	10	ug/L			12/17/14 18:23	1
Benzene	0.38	U	1.0	0.38	ug/L			12/17/14 18:23	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			12/17/14 18:23	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			12/17/14 18:23	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
Bromoform	0.71	U	5.0	0.71	ug/L			12/17/14 18:23	1
Bromomethane	0.98	U	1.0	0.98	ug/L			12/17/14 18:23	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
Chloroethane	0.76	U	1.0	0.76	ug/L			12/17/14 18:23	1
Chloroform	0.60	U	1.0	0.60	ug/L			12/17/14 18:23	1
Chloromethane	0.83	U	1.0	0.83	ug/L			12/17/14 18:23	1
cis-1,2-Dichloroethene	**2.1**		1.0	0.50	ug/L			12/17/14 18:23	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			12/17/14 18:23	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			12/17/14 18:23	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			12/17/14 18:23	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
Ethylene Dibromide	0.50	U J3	1.0	0.50	ug/L			12/17/14 18:23	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			12/17/14 18:23	1
Iodomethane	0.68	U	1.0	0.68	ug/L			12/17/14 18:23	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			12/17/14 18:23	1
Isopropylbenzene	0.53	U J3	1.0	0.53	ug/L			12/17/14 18:23	1
Methyl Ethyl Ketone	**21**	**I**	25	2.6	ug/L			12/17/14 18:23	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			12/17/14 18:23	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA MW Sampling

TestAmerica Job ID: 400-99422-1

Client Sample ID: LC39OGA-MW0002-010.0-20141205
Date Collected: 12/05/14 16:35
Date Received: 12/09/14 09:38

Lab Sample ID: 400-99422-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			12/17/14 18:23	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			12/17/14 18:23	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			12/17/14 18:23	1
Naphthalene	1.0	U	1.0	1.0	ug/L			12/17/14 18:23	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			12/17/14 18:23	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			12/17/14 18:23	1
o-Xylene	0.60	U	5.0	0.60	ug/L			12/17/14 18:23	1
p-Cymene	0.71	U J3	1.0	0.71	ug/L			12/17/14 18:23	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			12/17/14 18:23	1
Styrene	1.0	U	1.0	1.0	ug/L			12/17/14 18:23	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			12/17/14 18:23	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			12/17/14 18:23	1
Toluene	0.70	U	1.0	0.70	ug/L			12/17/14 18:23	1
trans-1,2-Dichloroethene	**4.3**		1.0	0.50	ug/L			12/17/14 18:23	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			12/17/14 18:23	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			12/17/14 18:23	1
Vinyl acetate	2.0	U	25	2.0	ug/L			12/17/14 18:23	1
Vinyl chloride	**19**		1.0	0.50	ug/L			12/17/14 18:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*78 - 118*		*12/17/14 18:23*	*1*
Dibromofluoromethane	*101*		*81 - 121*		*12/17/14 18:23*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*12/17/14 18:23*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA MW Sampling

TestAmerica Job ID: 400-99422-1

Client Sample ID: LC39OGA-IDW195316-20141205
Date Collected: 12/05/14 16:40
Date Received: 12/09/14 09:38

Lab Sample ID: 400-99422-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			12/17/14 18:50	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			12/17/14 18:50	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			12/17/14 18:50	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			12/17/14 18:50	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			12/17/14 18:50	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			12/17/14 18:50	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			12/17/14 18:50	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			12/17/14 18:50	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			12/17/14 18:50	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			12/17/14 18:50	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			12/17/14 18:50	1
2-Hexanone	3.1	U	25	3.1	ug/L			12/17/14 18:50	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			12/17/14 18:50	1
Acetone	10	U	25	10	ug/L			12/17/14 18:50	1
Benzene	0.38	U	1.0	0.38	ug/L			12/17/14 18:50	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			12/17/14 18:50	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			12/17/14 18:50	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
Bromoform	0.71	U	5.0	0.71	ug/L			12/17/14 18:50	1
Bromomethane	0.98	U	1.0	0.98	ug/L			12/17/14 18:50	1
Carbon disulfide	**1.1**		1.0	0.50	ug/L			12/17/14 18:50	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
Chloroethane	0.76	U	1.0	0.76	ug/L			12/17/14 18:50	1
Chloroform	**0.80**	**I**	1.0	0.60	ug/L			12/17/14 18:50	1
Chloromethane	0.83	U	1.0	0.83	ug/L			12/17/14 18:50	1
cis-1,2-Dichloroethene	**1.1**		1.0	0.50	ug/L			12/17/14 18:50	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			12/17/14 18:50	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			12/17/14 18:50	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			12/17/14 18:50	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
Ethylene Dibromide	0.50	U J3	1.0	0.50	ug/L			12/17/14 18:50	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			12/17/14 18:50	1
Iodomethane	0.68	U	1.0	0.68	ug/L			12/17/14 18:50	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			12/17/14 18:50	1
Isopropylbenzene	0.53	U J3	1.0	0.53	ug/L			12/17/14 18:50	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			12/17/14 18:50	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			12/17/14 18:50	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA MW Sampling

TestAmerica Job ID: 400-99422-1

Client Sample ID: LC39OGA-IDW195316-20141205
Date Collected: 12/05/14 16:40
Date Received: 12/09/14 09:38

Lab Sample ID: 400-99422-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			12/17/14 18:50	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			12/17/14 18:50	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			12/17/14 18:50	1
Naphthalene	1.0	U	1.0	1.0	ug/L			12/17/14 18:50	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			12/17/14 18:50	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			12/17/14 18:50	1
o-Xylene	0.60	U	5.0	0.60	ug/L			12/17/14 18:50	1
p-Cymene	0.71	U J3	1.0	0.71	ug/L			12/17/14 18:50	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			12/17/14 18:50	1
Styrene	1.0	U	1.0	1.0	ug/L			12/17/14 18:50	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			12/17/14 18:50	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			12/17/14 18:50	1
Toluene	0.70	U	1.0	0.70	ug/L			12/17/14 18:50	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			12/17/14 18:50	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			12/17/14 18:50	1
Vinyl acetate	2.0	U	25	2.0	ug/L			12/17/14 18:50	1
Vinyl chloride	**0.85**	**I**	1.0	0.50	ug/L			12/17/14 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*78 - 118*		*12/17/14 18:50*	*1*
Dibromofluoromethane	*102*		*81 - 121*		*12/17/14 18:50*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*12/17/14 18:50*	*1*

Client Sample ID: LC39OGA-IDW195318-20141205
Date Collected: 12/05/14 16:50
Date Received: 12/09/14 09:38

Lab Sample ID: 400-99422-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			12/17/14 19:17	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			12/17/14 19:17	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			12/17/14 19:17	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			12/17/14 19:17	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			12/17/14 19:17	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			12/17/14 19:17	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			12/17/14 19:17	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			12/17/14 19:17	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			12/17/14 19:17	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			12/17/14 19:17	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			12/17/14 19:17	1
2-Hexanone	3.1	U	25	3.1	ug/L			12/17/14 19:17	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			12/17/14 19:17	1
Acetone	10	U	25	10	ug/L			12/17/14 19:17	1
Benzene	0.38	U	1.0	0.38	ug/L			12/17/14 19:17	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			12/17/14 19:17	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			12/17/14 19:17	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
Bromoform	0.71	U	5.0	0.71	ug/L			12/17/14 19:17	1
Bromomethane	0.98	U	1.0	0.98	ug/L			12/17/14 19:17	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
Chloroethane	0.76	U	1.0	0.76	ug/L			12/17/14 19:17	1
Chloroform	0.60	U	1.0	0.60	ug/L			12/17/14 19:17	1
Chloromethane	0.83	U	1.0	0.83	ug/L			12/17/14 19:17	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			12/17/14 19:17	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			12/17/14 19:17	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			12/17/14 19:17	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
Ethylene Dibromide	0.50	U J3	1.0	0.50	ug/L			12/17/14 19:17	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			12/17/14 19:17	1
Iodomethane	0.68	U	1.0	0.68	ug/L			12/17/14 19:17	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			12/17/14 19:17	1
Isopropylbenzene	0.53	U J3	1.0	0.53	ug/L			12/17/14 19:17	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			12/17/14 19:17	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			12/17/14 19:17	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA MW Sampling

TestAmerica Job ID: 400-99422-1

Client Sample ID: LC39OGA-IDW195318-20141205
Date Collected: 12/05/14 16:50
Date Received: 12/09/14 09:38

Lab Sample ID: 400-99422-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			12/17/14 19:17	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			12/17/14 19:17	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			12/17/14 19:17	1
Naphthalene	1.0	U	1.0	1.0	ug/L			12/17/14 19:17	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			12/17/14 19:17	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			12/17/14 19:17	1
o-Xylene	0.60	U	5.0	0.60	ug/L			12/17/14 19:17	1
p-Cymene	0.71	U J3	1.0	0.71	ug/L			12/17/14 19:17	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			12/17/14 19:17	1
Styrene	1.0	U	1.0	1.0	ug/L			12/17/14 19:17	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			12/17/14 19:17	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			12/17/14 19:17	1
Toluene	0.70	U	1.0	0.70	ug/L			12/17/14 19:17	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			12/17/14 19:17	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			12/17/14 19:17	1
Vinyl acetate	2.0	U	25	2.0	ug/L			12/17/14 19:17	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*78 - 118*		*12/17/14 19:17*	*1*
Dibromofluoromethane	*103*		*81 - 121*		*12/17/14 19:17*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*12/17/14 19:17*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-240304/4
Matrix: Water
Analysis Batch: 240304

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			12/17/14 11:10	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			12/17/14 11:10	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			12/17/14 11:10	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			12/17/14 11:10	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			12/17/14 11:10	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			12/17/14 11:10	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			12/17/14 11:10	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			12/17/14 11:10	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			12/17/14 11:10	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			12/17/14 11:10	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			12/17/14 11:10	1
2-Hexanone	3.1	U	25	3.1	ug/L			12/17/14 11:10	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			12/17/14 11:10	1
Acetone	10	U	25	10	ug/L			12/17/14 11:10	1
Benzene	0.38	U	1.0	0.38	ug/L			12/17/14 11:10	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			12/17/14 11:10	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			12/17/14 11:10	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
Bromoform	0.71	U	5.0	0.71	ug/L			12/17/14 11:10	1
Bromomethane	0.98	U	1.0	0.98	ug/L			12/17/14 11:10	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
Chloroethane	0.76	U	1.0	0.76	ug/L			12/17/14 11:10	1
Chloroform	0.60	U	1.0	0.60	ug/L			12/17/14 11:10	1
Chloromethane	0.83	U	1.0	0.83	ug/L			12/17/14 11:10	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			12/17/14 11:10	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			12/17/14 11:10	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			12/17/14 11:10	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			12/17/14 11:10	1
Iodomethane	0.68	U	1.0	0.68	ug/L			12/17/14 11:10	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			12/17/14 11:10	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			12/17/14 11:10	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			12/17/14 11:10	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-240304/4
Matrix: Water
Analysis Batch: 240304

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			12/17/14 11:10	1
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			12/17/14 11:10	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			12/17/14 11:10	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			12/17/14 11:10	1
Naphthalene	1.0	U	1.0	1.0	ug/L			12/17/14 11:10	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			12/17/14 11:10	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			12/17/14 11:10	1
o-Xylene	0.60	U	5.0	0.60	ug/L			12/17/14 11:10	1
p-Cymene	0.71	U	1.0	0.71	ug/L			12/17/14 11:10	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			12/17/14 11:10	1
Styrene	1.0	U	1.0	1.0	ug/L			12/17/14 11:10	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			12/17/14 11:10	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			12/17/14 11:10	1
Toluene	0.70	U	1.0	0.70	ug/L			12/17/14 11:10	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			12/17/14 11:10	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			12/17/14 11:10	1
Vinyl acetate	2.0	U	25	2.0	ug/L			12/17/14 11:10	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*78 - 118*		*12/17/14 11:10*	*1*
Dibromofluoromethane	*99*		*81 - 121*		*12/17/14 11:10*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/17/14 11:10*	*1*

Lab Sample ID: LCS 400-240304/1002
Matrix: Water
Analysis Batch: 240304

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	62.8		ug/L		126	66 - 126
1,1,1-Trichloroethane	50.0	60.6		ug/L		121	66 - 130
1,1,2,2-Tetrachloroethane	50.0	61.4		ug/L		123	68 - 132
1,1,2-Trichloroethane	50.0	59.6		ug/L		119	80 - 120
1,1-Dichloroethane	50.0	56.4		ug/L		113	75 - 126
1,1-Dichloroethene	50.0	47.2		ug/L		94	50 - 134
1,1-Dichloropropene	50.0	58.9		ug/L		118	74 - 121
1,2,3-Trichlorobenzene	50.0	58.4		ug/L		117	62 - 130
1,2,3-Trichloropropane	50.0	61.2		ug/L		122	72 - 125
1,2,4-Trichlorobenzene	50.0	59.7		ug/L		119	69 - 128
1,2,4-Trimethylbenzene	50.0	59.9		ug/L		120	77 - 127
1,2-Dibromo-3-Chloropropane	50.0	60.1		ug/L		120	52 - 124
1,2-Dichlorobenzene	50.0	59.1		ug/L		118	80 - 121
1,2-Dichloroethane	50.0	57.5		ug/L		115	69 - 128
1,2-Dichloropropane	50.0	57.9		ug/L		116	77 - 126
1,3,5-Trimethylbenzene	50.0	60.0		ug/L		120	80 - 120
1,3-Dichlorobenzene	50.0	59.7		ug/L		119	77 - 124

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-240304/1002
Matrix: Water
Analysis Batch: 240304

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	50.0	59.3		ug/L		119	77 - 120
1,4-Dichlorobenzene	50.0	58.3		ug/L		117	79 - 120
2,2-Dichloropropane	50.0	58.5		ug/L		117	52 - 135
2-Chlorotoluene	50.0	59.1		ug/L		118	75 - 126
2-Hexanone	200	270		ug/L		135	60 - 150
4-Chlorotoluene	50.0	58.7		ug/L		117	80 - 125
Acetone	200	287		ug/L		143	24 - 150
Benzene	50.0	56.7		ug/L		113	79 - 120
Bromobenzene	50.0	59.4		ug/L		119	80 - 121
Bromochloromethane	50.0	60.1		ug/L		120	80 - 120
Bromodichloromethane	50.0	62.5		ug/L		125	75 - 127
Bromoform	50.0	53.0		ug/L		106	65 - 121
Bromomethane	50.0	58.0		ug/L		116	10 - 150
Carbon disulfide	50.0	56.2		ug/L		112	41 - 140
Carbon tetrachloride	50.0	62.2		ug/L		124	46 - 141
Chlorobenzene	50.0	58.4		ug/L		117	80 - 120
Chloroethane	50.0	51.7		ug/L		103	37 - 150
Chloroform	50.0	59.0		ug/L		118	73 - 122
Chloromethane	50.0	55.6		ug/L		111	49 - 141
cis-1,2-Dichloroethene	50.0	56.7		ug/L		113	78 - 122
cis-1,3-Dichloropropene	50.0	60.5		ug/L		121	70 - 122
Dibromochloromethane	50.0	56.8		ug/L		114	63 - 125
Dibromomethane	50.0	59.3		ug/L		119	78 - 120
Dichlorodifluoromethane	50.0	48.3		ug/L		97	27 - 144
Ethylbenzene	50.0	59.0		ug/L		118	80 - 120
Ethylene Dibromide	50.0	62.6	J3	ug/L		125	80 - 120
Hexachlorobutadiene	50.0	59.3		ug/L		119	35 - 150
Iodomethane	50.0	67.6		ug/L		135	58 - 141
Isopropyl ether	50.0	57.4		ug/L		115	69 - 143
Isopropylbenzene	50.0	61.3	J3	ug/L		123	76 - 120
Methyl Ethyl Ketone	200	262		ug/L		131	62 - 137
methyl isobutyl ketone	200	246		ug/L		123	63 - 150
Methyl tert-butyl ether	50.0	55.2		ug/L		110	70 - 124
Methylene Chloride	50.0	57.5		ug/L		115	70 - 130
m-Xylene & p-Xylene	50.0	59.2		ug/L		118	70 - 130
Naphthalene	50.0	61.2		ug/L		122	45 - 131
n-Butylbenzene	50.0	60.1		ug/L		120	76 - 138
N-Propylbenzene	50.0	60.0		ug/L		120	75 - 128
o-Xylene	50.0	58.7		ug/L		117	70 - 130
p-Cymene	50.0	61.9	J3	ug/L		124	78 - 120
sec-Butylbenzene	50.0	60.2		ug/L		120	78 - 128
Styrene	50.0	62.2		ug/L		124	79 - 124
tert-Butylbenzene	50.0	59.5		ug/L		119	80 - 120
Tetrachloroethene	50.0	59.3		ug/L		119	76 - 124
Toluene	50.0	56.9		ug/L		114	80 - 120
trans-1,2-Dichloroethene	50.0	56.4		ug/L		113	70 - 126
trans-1,3-Dichloropropene	50.0	54.0		ug/L		108	64 - 120
Trichloroethene	50.0	60.1		ug/L		120	77 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-240304/1002
Matrix: Water
Analysis Batch: 240304

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichlorofluoromethane	50.0	51.6		ug/L		103	26 - 150
Vinyl acetate	100	117		ug/L		117	54 - 140
Vinyl chloride	50.0	54.8		ug/L		110	60 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*78 - 118*
Dibromofluoromethane	*102*		*81 - 121*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: 400-99390-A-2 MS
Matrix: Water
Analysis Batch: 240304

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.52	U	50.0	50.1		ug/L		100	42 - 135
1,1,1-Trichloroethane	0.50	U	50.0	49.4		ug/L		99	60 - 131
1,1,2,2-Tetrachloroethane	0.50	U	50.0	49.4		ug/L		99	52 - 148
1,1,2-Trichloroethane	0.50	U	50.0	48.2		ug/L		96	68 - 127
1,1-Dichloroethane	0.50	U	50.0	44.9		ug/L		90	10 - 150
1,1-Dichloroethene	0.50	U	50.0	37.6		ug/L		75	10 - 150
1,1-Dichloropropene	0.50	U	50.0	47.9		ug/L		96	59 - 126
1,2,3-Trichlorobenzene	0.70	U	50.0	46.3		ug/L		93	30 - 137
1,2,3-Trichloropropane	0.84	U	50.0	50.3		ug/L		101	67 - 130
1,2,4-Trichlorobenzene	0.82	U	50.0	46.6		ug/L		93	20 - 139
1,2,4-Trimethylbenzene	0.82	U	50.0	48.6		ug/L		97	10 - 150
1,2-Dibromo-3-Chloropropane	1.5	U	50.0	50.1		ug/L		100	50 - 133
1,2-Dichlorobenzene	0.50	U	50.0	46.5		ug/L		93	10 - 150
1,2-Dichloroethane	0.50	U	50.0	45.7		ug/L		91	10 - 150
1,2-Dichloropropane	0.50	U	50.0	45.7		ug/L		91	65 - 132
1,3,5-Trimethylbenzene	0.56	U	50.0	46.8		ug/L		94	10 - 150
1,3-Dichlorobenzene	0.54	U	50.0	46.7		ug/L		93	25 - 136
1,3-Dichloropropane	0.50	U	50.0	47.7		ug/L		95	67 - 127
1,4-Dichlorobenzene	0.64	U	50.0	46.1		ug/L		92	10 - 150
2,2-Dichloropropane	0.50	U	50.0	47.4		ug/L		95	46 - 132
2-Chlorotoluene	0.57	U	50.0	46.2		ug/L		92	10 - 150
2-Hexanone	3.1	U	200	184		ug/L		92	24 - 150
4-Chlorotoluene	0.56	U	50.0	46.1		ug/L		92	17 - 145
Acetone	11	I	200	128		ug/L		58	10 - 150
Benzene	0.38	U	50.0	45.8		ug/L		92	10 - 150
Bromobenzene	0.54	U	50.0	46.9		ug/L		94	38 - 135
Bromochloromethane	0.52	U	50.0	47.1		ug/L		94	75 - 120
Bromodichloromethane	0.50	U	50.0	49.3		ug/L		99	61 - 133
Bromoform	0.71	U	50.0	42.1		ug/L		84	54 - 125
Bromomethane	0.98	U	50.0	44.9		ug/L		90	10 - 150
Carbon disulfide	0.50	U	50.0	46.5		ug/L		93	10 - 150
Carbon tetrachloride	0.50	U	50.0	50.4		ug/L		101	40 - 138
Chlorobenzene	0.50	U	50.0	49.5		ug/L		99	10 - 150
Chloroethane	0.76	U	50.0	41.1		ug/L		82	38 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-99390-A-2 MS
Matrix: Water
Analysis Batch: 240304

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	0.60	U	50.0	46.5		ug/L		93	10 - 150
Chloromethane	0.83	U	50.0	44.8		ug/L		90	26 - 150
cis-1,2-Dichloroethene	0.50	U	50.0	45.0		ug/L		90	10 - 150
cis-1,3-Dichloropropene	0.50	U	50.0	47.7		ug/L		95	52 - 130
Dibromochloromethane	0.50	U	50.0	45.7		ug/L		91	50 - 130
Dibromomethane	0.59	U	50.0	46.9		ug/L		94	69 - 123
Dichlorodifluoromethane	0.85	U	50.0	40.0		ug/L		80	10 - 150
Ethylbenzene	0.50	U	50.0	48.0		ug/L		96	10 - 150
Ethylene Dibromide	0.50	U J3	50.0	50.2		ug/L		100	70 - 125
Hexachlorobutadiene	0.90	U	50.0	47.5		ug/L		95	10 - 150
Iodomethane	0.68	U	50.0	54.9		ug/L		110	37 - 145
Isopropyl ether	0.70	U	50.0	44.9		ug/L		90	10 - 150
Isopropylbenzene	0.53	U J3	50.0	51.1		ug/L		102	10 - 150
Methyl Ethyl Ketone	2.6	U	200	166		ug/L		83	10 - 150
methyl isobutyl ketone	1.8	U	200	196		ug/L		98	20 - 150
Methyl tert-butyl ether	2.8		50.0	45.1		ug/L		85	10 - 150
Methylene Chloride	3.0	U	50.0	45.4		ug/L		91	10 - 150
m-Xylene & p-Xylene	2.2	I	50.0	56.2		ug/L		108	10 - 150
Naphthalene	1.0	U	50.0	51.5		ug/L		103	10 - 150
n-Butylbenzene	0.76	U	50.0	47.4		ug/L		95	10 - 150
N-Propylbenzene	0.69	U	50.0	48.8		ug/L		98	10 - 150
o-Xylene	0.60	U	50.0	47.3		ug/L		95	10 - 150
p-Cymene	0.71	U J3	50.0	48.7		ug/L		97	10 - 150
sec-Butylbenzene	0.70	U	50.0	48.1		ug/L		96	10 - 150
Styrene	1.0	U	50.0	49.8		ug/L		100	24 - 147
tert-Butylbenzene	0.63	U	50.0	48.0		ug/L		96	10 - 150
Tetrachloroethene	0.58	U	50.0	46.7		ug/L		93	10 - 150
Toluene	0.70	U	50.0	46.2		ug/L		92	10 - 150
trans-1,2-Dichloroethene	0.50	U	50.0	44.6		ug/L		89	66 - 126
trans-1,3-Dichloropropene	0.50	U	50.0	42.1		ug/L		84	45 - 128
Trichloroethene	0.50	U	50.0	48.2		ug/L		96	10 - 150
Trichlorofluoromethane	0.52	U	50.0	41.4		ug/L		83	29 - 144
Vinyl acetate	2.0	U	100	93.3		ug/L		93	10 - 150
Vinyl chloride	0.50	U	50.0	44.4		ug/L		89	46 - 136

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*78 - 118*
Dibromofluoromethane	*99*		*81 - 121*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: 400-99390-A-2 MSD
Matrix: Water
Analysis Batch: 240304

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.52	U	50.0	49.6		ug/L		99	42 - 135	1	23
1,1,1-Trichloroethane	0.50	U	50.0	47.7		ug/L		95	60 - 131	4	20
1,1,2,2-Tetrachloroethane	0.50	U	50.0	47.9		ug/L		96	52 - 148	3	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-99390-A-2 MSD
Matrix: Water
Analysis Batch: 240304

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloroethane	0.50	U	50.0	47.8		ug/L		96	68 - 127	1	19
1,1-Dichloroethane	0.50	U	50.0	45.1		ug/L		90	10 - 150	0	18
1,1-Dichloroethene	0.50	U	50.0	37.8		ug/L		76	10 - 150	0	19
1,1-Dichloropropene	0.50	U	50.0	45.9		ug/L		92	59 - 126	4	22
1,2,3-Trichlorobenzene	0.70	U	50.0	44.9		ug/L		90	30 - 137	3	44
1,2,3-Trichloropropane	0.84	U	50.0	48.2		ug/L		96	67 - 130	4	22
1,2,4-Trichlorobenzene	0.82	U	50.0	45.3		ug/L		91	20 - 139	3	44
1,2,4-Trimethylbenzene	0.82	U	50.0	47.3		ug/L		95	10 - 150	3	54
1,2-Dibromo-3-Chloropropane	1.5	U	50.0	47.4		ug/L		95	50 - 133	6	30
1,2-Dichlorobenzene	0.50	U	50.0	45.4		ug/L		91	10 - 150	2	38
1,2-Dichloroethane	0.50	U	50.0	45.1		ug/L		90	10 - 150	1	19
1,2-Dichloropropane	0.50	U	50.0	46.2		ug/L		92	65 - 132	1	18
1,3,5-Trimethylbenzene	0.56	U	50.0	46.0		ug/L		92	10 - 150	2	53
1,3-Dichlorobenzene	0.54	U	50.0	45.1		ug/L		90	25 - 136	3	44
1,3-Dichloropropane	0.50	U	50.0	47.5		ug/L		95	67 - 127	0	20
1,4-Dichlorobenzene	0.64	U	50.0	44.5		ug/L		89	10 - 150	3	45
2,2-Dichloropropane	0.50	U	50.0	46.5		ug/L		93	46 - 132	2	20
2-Chlorotoluene	0.57	U	50.0	45.2		ug/L		90	10 - 150	2	47
2-Hexanone	3.1	U	200	175		ug/L		88	24 - 150	5	24
4-Chlorotoluene	0.56	U	50.0	44.9		ug/L		90	17 - 145	3	51
Acetone	11	I	200	121		ug/L		55	10 - 150	6	22
Benzene	0.38	U	50.0	45.1		ug/L		90	10 - 150	2	19
Bromobenzene	0.54	U	50.0	46.6		ug/L		93	38 - 135	1	35
Bromochloromethane	0.52	U	50.0	46.3		ug/L		93	75 - 120	2	17
Bromodichloromethane	0.50	U	50.0	48.9		ug/L		98	61 - 133	1	19
Bromoform	0.71	U	50.0	41.2		ug/L		82	54 - 125	2	19
Bromomethane	0.98	U	50.0	47.4		ug/L		95	10 - 150	5	24
Carbon disulfide	0.50	U	50.0	44.0		ug/L		88	10 - 150	5	23
Carbon tetrachloride	0.50	U	50.0	48.6		ug/L		97	40 - 138	4	21
Chlorobenzene	0.50	U	50.0	47.9		ug/L		96	10 - 150	3	30
Chloroethane	0.76	U	50.0	40.8		ug/L		82	38 - 150	1	23
Chloroform	0.60	U	50.0	46.8		ug/L		94	10 - 150	1	18
Chloromethane	0.83	U	50.0	44.3		ug/L		89	26 - 150	1	23
cis-1,2-Dichloroethene	0.50	U	50.0	45.1		ug/L		90	10 - 150	0	20
cis-1,3-Dichloropropene	0.50	U	50.0	46.7		ug/L		93	52 - 130	2	20
Dibromochloromethane	0.50	U	50.0	45.2		ug/L		90	50 - 130	1	21
Dibromomethane	0.59	U	50.0	46.1		ug/L		92	69 - 123	2	18
Dichlorodifluoromethane	0.85	U	50.0	39.1		ug/L		78	10 - 150	2	23
Ethylbenzene	0.50	U	50.0	46.1		ug/L		92	10 - 150	4	40
Ethylene Dibromide	0.50	U J3	50.0	48.3		ug/L		97	70 - 125	4	21
Hexachlorobutadiene	0.90	U	50.0	42.7		ug/L		85	10 - 150	11	92
Iodomethane	0.68	U	50.0	53.5		ug/L		107	37 - 145	3	36
Isopropyl ether	0.70	U	50.0	45.6		ug/L		91	10 - 150	2	24
Isopropylbenzene	0.53	U J3	50.0	48.5		ug/L		97	10 - 150	5	46
Methyl Ethyl Ketone	2.6	U	200	155		ug/L		78	10 - 150	7	21
methyl isobutyl ketone	1.8	U	200	182		ug/L		91	20 - 150	8	20
Methyl tert-butyl ether	2.8		50.0	45.3		ug/L		85	10 - 150	0	18
Methylene Chloride	3.0	U	50.0	45.0		ug/L		90	10 - 150	1	18

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-99390-A-2 MSD
Matrix: Water
Analysis Batch: 240304

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	2.2	I	50.0	53.7		ug/L		103	10 - 150	5	43
Naphthalene	1.0	U	50.0	49.3		ug/L		99	10 - 150	4	53
n-Butylbenzene	0.76	U	50.0	44.9		ug/L		90	10 - 150	6	76
N-Propylbenzene	0.69	U	50.0	47.0		ug/L		94	10 - 150	4	57
o-Xylene	0.60	U	50.0	45.4		ug/L		91	10 - 150	4	39
p-Cymene	0.71	U J3	50.0	46.1		ug/L		92	10 - 150	6	62
sec-Butylbenzene	0.70	U	50.0	45.5		ug/L		91	10 - 150	6	64
Styrene	1.0	U	50.0	48.2		ug/L		96	24 - 147	3	40
tert-Butylbenzene	0.63	U	50.0	46.7		ug/L		93	10 - 150	3	54
Tetrachloroethene	0.58	U	50.0	44.7		ug/L		89	10 - 150	4	35
Toluene	0.70	U	50.0	44.8		ug/L		90	10 - 150	3	26
trans-1,2-Dichloroethene	0.50	U	50.0	45.1		ug/L		90	66 - 126	1	19
trans-1,3-Dichloropropene	0.50	U	50.0	41.9		ug/L		84	45 - 128	1	20
Trichloroethene	0.50	U	50.0	47.1		ug/L		94	10 - 150	2	22
Trichlorofluoromethane	0.52	U	50.0	40.8		ug/L		82	29 - 144	2	20
Vinyl acetate	2.0	U	100	90.5		ug/L		90	10 - 150	3	44
Vinyl chloride	0.50	U	50.0	43.9		ug/L		88	46 - 136	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*78 - 118*
Dibromofluoromethane	*101*		*81 - 121*
Toluene-d8 (Surr)	*100*		*80 - 120*

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA MW Sampling

TestAmerica Job ID: 400-99422-1

GC/MS VOA

Analysis Batch: 240304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-99390-A-2 MS	Matrix Spike	Total/NA	Water	8260B	
400-99390-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
400-99422-1	LC39OGA-MW0001-010.0-20141205	Total/NA	Water	8260B	
400-99422-2	LC39OGA-MW0002-010.0-20141205	Total/NA	Water	8260B	
400-99422-3	LC39OGA-IDW195316-20141205	Total/NA	Water	8260B	
400-99422-4	LC39OGA-IDW195318-20141205	Total/NA	Water	8260B	
LCS 400-240304/1002	Lab Control Sample	Total/NA	Water	8260B	
MB 400-240304/4	Method Blank	Total/NA	Water	8260B	

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA MW Sampling

TestAmerica Job ID: 400-99422-1

Client Sample ID: LC39OGA-MW0001-010.0-20141205

Lab Sample ID: 400-99422-1

Date Collected: 12/05/14 16:15

Matrix: Water

Date Received: 12/09/14 09:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	240304	12/17/14 17:56	EAS	TAL PEN

Client Sample ID: LC39OGA-MW0002-010.0-20141205

Lab Sample ID: 400-99422-2

Date Collected: 12/05/14 16:35

Matrix: Water

Date Received: 12/09/14 09:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	240304	12/17/14 18:23	EAS	TAL PEN

Client Sample ID: LC39OGA-IDW195316-20141205

Lab Sample ID: 400-99422-3

Date Collected: 12/05/14 16:40

Matrix: Water

Date Received: 12/09/14 09:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	240304	12/17/14 18:50	EAS	TAL PEN

Client Sample ID: LC39OGA-IDW195318-20141205

Lab Sample ID: 400-99422-4

Date Collected: 12/05/14 16:50

Matrix: Water

Date Received: 12/09/14 09:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	240304	12/17/14 19:17	EAS	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Certification Summary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA MW Sampling

TestAmerica Job ID: 400-99422-1

Laboratory: TestAmerica Pensacola

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E81010	06-30-15

Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA MW Sampling

TestAmerica Job ID: 400-99422-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Pensacola

TestAmerica ~~Mobile~~
900 Lakeside Drive

Mobile, AL 36693
phone 251.706.3202 fax 251.666.6696

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Crystal Towns	Site Contact: Ben Coppenger	Date: 12/5/2014	COC No:
Geosyntec	Tel/Fax: 850-477-6547	Lab Contact:	Carrier:	1 of 1 COCs
316 S Baylen St	**Analysis Turnaround Time**			Job No.
Pensacola, FL, 32502	Calendar (C) or Work Days (W) _____			
(850) 477-6547 Phone	TAT if different from Below _____			SDG No.
( ) - FAX	[X] 2 weeks			
Project Name:LC39 OGA MW Sampling	[ ] 1 week			400-99422 COC
Site: LC39 OGA, KSC, FL	[ ] 2 days			
P O # FR0746B/18*0	[ ] 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOC 8260 (HCL preservative)	Sample Specific Notes:
LC39OGA-MW0001-010.0-20141205	12/5/2014	1615	GW	W	3		x	
LC39OGA-MW0002-010.0-20141205	12/5/2014	1635	GW	W	3		x	
LC39OGA-IDW195316-20141205	12/5/2014	1640	GW	W	3		x	
LC39OGA-IDW195318-20141205	12/5/2014	1650	GW	W	3		x	

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Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other 2

Possible Hazard Identification
[ ] *Non-Hazard* [ ] *Flammable* [ ] *Skin Irritant* *Poison B* [ ] *Unknown* [ ]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] *Return To Client* [ ] *Disposal By Lab* [ ] *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Geosyntec	12-8-14 1960			
	Geosyntec	12/08/14-0080		TA Orlando	12/8/14 @ 1055
	TA Orlando	12/8/14 1230		TA	12-9-14 9:37

2.4°C IR6

Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-99422-1

Login Number: 99422

List Source: TestAmerica Pensacola

List Number: 1

Creator: Akers, Stephanie C

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4°C, IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-105654-1
Client Project/Site: LC39 OGA

For:
Geosyntec Consultants, Inc.
316 South Baylen Street
Suite 201
Pensacola, Florida 32502

Attn: Crystal Towns

Mark Swafford

Authorized for release by:
5/29/2015 2:05:13 PM

Mark Swafford, Project Manager I
(850)474-1001
mark.swafford@testamericainc.com

Table of Contents

Definitions/Glossary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 400-105654-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-105654-1

Comments
No additional comments.

Receipt
The samples were received on 5/14/2015 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.3º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method RSK-175: The following samples was analyzed outside of analytical holding time due to analyst error: LC39OGA-MW0001-010.0-20150511 (400-105654-1), LC39OGA-MW0002-010.0-20150511 (400-105654-2), LC39OGA-MW0004-010.0-20150512 (400-105654-3), LC39OGA-MW0005-010.0-20150511 (400-105654-4), LC39OGA-MW0006-024.5-20150511 (400-105654-5), LC39OGA-MW0007-024.5-20150512 (400-105654-6), LC39OGA-MW0008-024.5-20150512 (400-105654-7) and LC39OGA-MW0009-024.5-20150511 (400-105654-8). Due to the potential impact on the samples, the request for RSK 175 analysis was canceled by the client and no data is provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0001-010.0-20150511 — Lab Sample ID: 400-105654-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.69	I	1.0	0.50	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	21		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-MW0002-010.0-20150511 — Lab Sample ID: 400-105654-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	3.3		1.0	0.50	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	3.9		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	26		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-MW0004-010.0-20150512 — Lab Sample ID: 400-105654-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.6		1.0	0.50	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	1.7		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	8.9		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-MW0005-010.0-20150511 — Lab Sample ID: 400-105654-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
trans-1,2-Dichloroethene	2.2		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-MW0006-024.5-20150511 — Lab Sample ID: 400-105654-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.61	I	1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-MW0007-024.5-20150512 — Lab Sample ID: 400-105654-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.0		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-MW0008-024.5-20150512 — Lab Sample ID: 400-105654-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	3.0		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-MW0009-024.5-20150511 — Lab Sample ID: 400-105654-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	5.0		1.0	0.50	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	1.1		1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	13		1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 400-105654-9

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Sample Summary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-105654-1	LC39OGA-MW0001-010.0-20150511	Water	05/11/15 14:04	05/14/15 09:15
400-105654-2	LC39OGA-MW0002-010.0-20150511	Water	05/11/15 15:52	05/14/15 09:15
400-105654-3	LC39OGA-MW0004-010.0-20150512	Water	05/12/15 10:42	05/14/15 09:15
400-105654-4	LC39OGA-MW0005-010.0-20150511	Water	05/11/15 11:46	05/14/15 09:15
400-105654-5	LC39OGA-MW0006-024.5-20150511	Water	05/11/15 14:36	05/14/15 09:15
400-105654-6	LC39OGA-MW0007-024.5-20150512	Water	05/12/15 09:58	05/14/15 09:15
400-105654-7	LC39OGA-MW0008-024.5-20150512	Water	05/12/15 11:26	05/14/15 09:15
400-105654-8	LC39OGA-MW0009-024.5-20150511	Water	05/11/15 12:24	05/14/15 09:15
400-105654-9	TRIP BLANK	Water	05/14/15 09:15	05/14/15 09:15

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0001-010.0-20150511
Date Collected: 05/11/15 14:04
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			05/23/15 19:39	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			05/23/15 19:39	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			05/23/15 19:39	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			05/23/15 19:39	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			05/23/15 19:39	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			05/23/15 19:39	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			05/23/15 19:39	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			05/23/15 19:39	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 19:39	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			05/23/15 19:39	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			05/23/15 19:39	1
2-Hexanone	3.1	U	25	3.1	ug/L			05/23/15 19:39	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			05/23/15 19:39	1
Acetone	10	U	25	10	ug/L			05/23/15 19:39	1
Benzene	0.38	U	1.0	0.38	ug/L			05/23/15 19:39	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 19:39	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			05/23/15 19:39	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
Bromoform	0.71	U	5.0	0.71	ug/L			05/23/15 19:39	1
Bromomethane	0.98	U	1.0	0.98	ug/L			05/23/15 19:39	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
Chloroethane	0.76	U	1.0	0.76	ug/L			05/23/15 19:39	1
Chloroform	0.60	U	1.0	0.60	ug/L			05/23/15 19:39	1
Chloromethane	0.83	U	1.0	0.83	ug/L			05/23/15 19:39	1
cis-1,2-Dichloroethene	**0.69**	**I**	1.0	0.50	ug/L			05/23/15 19:39	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 19:39	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			05/23/15 19:39	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			05/23/15 19:39	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			05/23/15 19:39	1
Iodomethane	0.68	U	1.0	0.68	ug/L			05/23/15 19:39	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			05/23/15 19:39	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			05/23/15 19:39	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			05/23/15 19:39	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			05/23/15 19:39	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0001-010.0-20150511
Date Collected: 05/11/15 14:04
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			05/23/15 19:39	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			05/23/15 19:39	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			05/23/15 19:39	1
Naphthalene	1.0	U	1.0	1.0	ug/L			05/23/15 19:39	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			05/23/15 19:39	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			05/23/15 19:39	1
o-Xylene	0.60	U	5.0	0.60	ug/L			05/23/15 19:39	1
p-Cymene	0.71	U	1.0	0.71	ug/L			05/23/15 19:39	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			05/23/15 19:39	1
Styrene	1.0	U	1.0	1.0	ug/L			05/23/15 19:39	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			05/23/15 19:39	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			05/23/15 19:39	1
Toluene	0.70	U	1.0	0.70	ug/L			05/23/15 19:39	1
trans-1,2-Dichloroethene	**21**		1.0	0.50	ug/L			05/23/15 19:39	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 19:39	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			05/23/15 19:39	1
Vinyl acetate	2.0	U	25	2.0	ug/L			05/23/15 19:39	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*78 - 118*		*05/23/15 19:39*	*1*
Dibromofluoromethane	*104*		*81 - 121*		*05/23/15 19:39*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*05/23/15 19:39*	*1*

Client Sample ID: LC39OGA-MW0002-010.0-20150511

Date Collected: 05/11/15 15:52
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			05/23/15 20:04	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			05/23/15 20:04	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			05/23/15 20:04	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			05/23/15 20:04	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			05/23/15 20:04	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			05/23/15 20:04	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			05/23/15 20:04	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			05/23/15 20:04	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 20:04	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			05/23/15 20:04	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			05/23/15 20:04	1
2-Hexanone	3.1	U	25	3.1	ug/L			05/23/15 20:04	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			05/23/15 20:04	1
Acetone	10	U	25	10	ug/L			05/23/15 20:04	1
Benzene	0.38	U	1.0	0.38	ug/L			05/23/15 20:04	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 20:04	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			05/23/15 20:04	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
Bromoform	0.71	U	5.0	0.71	ug/L			05/23/15 20:04	1
Bromomethane	0.98	U	1.0	0.98	ug/L			05/23/15 20:04	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
Chloroethane	0.76	U	1.0	0.76	ug/L			05/23/15 20:04	1
Chloroform	0.60	U	1.0	0.60	ug/L			05/23/15 20:04	1
Chloromethane	0.83	U	1.0	0.83	ug/L			05/23/15 20:04	1
cis-1,2-Dichloroethene	**3.3**		1.0	0.50	ug/L			05/23/15 20:04	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 20:04	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			05/23/15 20:04	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			05/23/15 20:04	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			05/23/15 20:04	1
Iodomethane	0.68	U	1.0	0.68	ug/L			05/23/15 20:04	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			05/23/15 20:04	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			05/23/15 20:04	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			05/23/15 20:04	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			05/23/15 20:04	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0002-010.0-20150511
Date Collected: 05/11/15 15:52
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			05/23/15 20:04	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			05/23/15 20:04	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			05/23/15 20:04	1
Naphthalene	1.0	U	1.0	1.0	ug/L			05/23/15 20:04	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			05/23/15 20:04	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			05/23/15 20:04	1
o-Xylene	0.60	U	5.0	0.60	ug/L			05/23/15 20:04	1
p-Cymene	0.71	U	1.0	0.71	ug/L			05/23/15 20:04	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			05/23/15 20:04	1
Styrene	1.0	U	1.0	1.0	ug/L			05/23/15 20:04	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			05/23/15 20:04	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			05/23/15 20:04	1
Toluene	0.70	U	1.0	0.70	ug/L			05/23/15 20:04	1
trans-1,2-Dichloroethene	**3.9**		1.0	0.50	ug/L			05/23/15 20:04	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 20:04	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			05/23/15 20:04	1
Vinyl acetate	2.0	U	25	2.0	ug/L			05/23/15 20:04	1
Vinyl chloride	**26**		1.0	0.50	ug/L			05/23/15 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*78 - 118*		*05/23/15 20:04*	*1*
Dibromofluoromethane	*104*		*81 - 121*		*05/23/15 20:04*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*05/23/15 20:04*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0004-010.0-20150512
Date Collected: 05/12/15 10:42
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			05/23/15 20:30	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			05/23/15 20:30	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			05/23/15 20:30	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			05/23/15 20:30	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			05/23/15 20:30	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			05/23/15 20:30	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			05/23/15 20:30	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			05/23/15 20:30	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 20:30	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			05/23/15 20:30	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			05/23/15 20:30	1
2-Hexanone	3.1	U	25	3.1	ug/L			05/23/15 20:30	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			05/23/15 20:30	1
Acetone	10	U	25	10	ug/L			05/23/15 20:30	1
Benzene	0.38	U	1.0	0.38	ug/L			05/23/15 20:30	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 20:30	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			05/23/15 20:30	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
Bromoform	0.71	U	5.0	0.71	ug/L			05/23/15 20:30	1
Bromomethane	0.98	U	1.0	0.98	ug/L			05/23/15 20:30	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
Chloroethane	0.76	U	1.0	0.76	ug/L			05/23/15 20:30	1
Chloroform	0.60	U	1.0	0.60	ug/L			05/23/15 20:30	1
Chloromethane	0.83	U	1.0	0.83	ug/L			05/23/15 20:30	1
cis-1,2-Dichloroethene	**4.6**		1.0	0.50	ug/L			05/23/15 20:30	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 20:30	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			05/23/15 20:30	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			05/23/15 20:30	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			05/23/15 20:30	1
Iodomethane	0.68	U	1.0	0.68	ug/L			05/23/15 20:30	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			05/23/15 20:30	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			05/23/15 20:30	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			05/23/15 20:30	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			05/23/15 20:30	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0004-010.0-20150512
Date Collected: 05/12/15 10:42
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			05/23/15 20:30	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			05/23/15 20:30	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			05/23/15 20:30	1
Naphthalene	1.0	U	1.0	1.0	ug/L			05/23/15 20:30	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			05/23/15 20:30	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			05/23/15 20:30	1
o-Xylene	0.60	U	5.0	0.60	ug/L			05/23/15 20:30	1
p-Cymene	0.71	U	1.0	0.71	ug/L			05/23/15 20:30	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			05/23/15 20:30	1
Styrene	1.0	U	1.0	1.0	ug/L			05/23/15 20:30	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			05/23/15 20:30	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			05/23/15 20:30	1
Toluene	0.70	U	1.0	0.70	ug/L			05/23/15 20:30	1
trans-1,2-Dichloroethene	**1.7**		1.0	0.50	ug/L			05/23/15 20:30	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 20:30	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			05/23/15 20:30	1
Vinyl acetate	2.0	U	25	2.0	ug/L			05/23/15 20:30	1
Vinyl chloride	**8.9**		1.0	0.50	ug/L			05/23/15 20:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*78 - 118*		*05/23/15 20:30*	*1*
Dibromofluoromethane	*104*		*81 - 121*		*05/23/15 20:30*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*05/23/15 20:30*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0005-010.0-20150511
Date Collected: 05/11/15 11:46
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			05/23/15 20:56	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			05/23/15 20:56	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			05/23/15 20:56	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			05/23/15 20:56	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			05/23/15 20:56	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			05/23/15 20:56	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			05/23/15 20:56	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			05/23/15 20:56	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 20:56	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			05/23/15 20:56	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			05/23/15 20:56	1
2-Hexanone	3.1	U	25	3.1	ug/L			05/23/15 20:56	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			05/23/15 20:56	1
Acetone	10	U	25	10	ug/L			05/23/15 20:56	1
Benzene	0.38	U	1.0	0.38	ug/L			05/23/15 20:56	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 20:56	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			05/23/15 20:56	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
Bromoform	0.71	U	5.0	0.71	ug/L			05/23/15 20:56	1
Bromomethane	0.98	U	1.0	0.98	ug/L			05/23/15 20:56	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
Chloroethane	0.76	U	1.0	0.76	ug/L			05/23/15 20:56	1
Chloroform	0.60	U	1.0	0.60	ug/L			05/23/15 20:56	1
Chloromethane	0.83	U	1.0	0.83	ug/L			05/23/15 20:56	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 20:56	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			05/23/15 20:56	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			05/23/15 20:56	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			05/23/15 20:56	1
Iodomethane	0.68	U	1.0	0.68	ug/L			05/23/15 20:56	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			05/23/15 20:56	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			05/23/15 20:56	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			05/23/15 20:56	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			05/23/15 20:56	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0005-010.0-20150511
Date Collected: 05/11/15 11:46
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			05/23/15 20:56	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			05/23/15 20:56	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			05/23/15 20:56	1
Naphthalene	1.0	U	1.0	1.0	ug/L			05/23/15 20:56	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			05/23/15 20:56	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			05/23/15 20:56	1
o-Xylene	0.60	U	5.0	0.60	ug/L			05/23/15 20:56	1
p-Cymene	0.71	U	1.0	0.71	ug/L			05/23/15 20:56	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			05/23/15 20:56	1
Styrene	1.0	U	1.0	1.0	ug/L			05/23/15 20:56	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			05/23/15 20:56	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			05/23/15 20:56	1
Toluene	0.70	U	1.0	0.70	ug/L			05/23/15 20:56	1
trans-1,2-Dichloroethene	**2.2**		1.0	0.50	ug/L			05/23/15 20:56	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 20:56	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			05/23/15 20:56	1
Vinyl acetate	2.0	U	25	2.0	ug/L			05/23/15 20:56	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/23/15 20:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*78 - 118*		*05/23/15 20:56*	*1*
Dibromofluoromethane	*104*		*81 - 121*		*05/23/15 20:56*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*05/23/15 20:56*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0006-024.5-20150511
Date Collected: 05/11/15 14:36
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			05/23/15 21:22	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			05/23/15 21:22	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			05/23/15 21:22	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			05/23/15 21:22	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			05/23/15 21:22	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			05/23/15 21:22	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			05/23/15 21:22	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			05/23/15 21:22	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 21:22	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			05/23/15 21:22	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			05/23/15 21:22	1
2-Hexanone	3.1	U	25	3.1	ug/L			05/23/15 21:22	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			05/23/15 21:22	1
Acetone	10	U	25	10	ug/L			05/23/15 21:22	1
Benzene	0.38	U	1.0	0.38	ug/L			05/23/15 21:22	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 21:22	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			05/23/15 21:22	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
Bromoform	0.71	U	5.0	0.71	ug/L			05/23/15 21:22	1
Bromomethane	0.98	U	1.0	0.98	ug/L			05/23/15 21:22	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
Chloroethane	0.76	U	1.0	0.76	ug/L			05/23/15 21:22	1
Chloroform	0.60	U	1.0	0.60	ug/L			05/23/15 21:22	1
Chloromethane	0.83	U	1.0	0.83	ug/L			05/23/15 21:22	1
cis-1,2-Dichloroethene	**0.61**	**I**	1.0	0.50	ug/L			05/23/15 21:22	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 21:22	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			05/23/15 21:22	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			05/23/15 21:22	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			05/23/15 21:22	1
Iodomethane	0.68	U	1.0	0.68	ug/L			05/23/15 21:22	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			05/23/15 21:22	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			05/23/15 21:22	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			05/23/15 21:22	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			05/23/15 21:22	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0006-024.5-20150511
Date Collected: 05/11/15 14:36
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			05/23/15 21:22	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			05/23/15 21:22	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			05/23/15 21:22	1
Naphthalene	1.0	U	1.0	1.0	ug/L			05/23/15 21:22	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			05/23/15 21:22	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			05/23/15 21:22	1
o-Xylene	0.60	U	5.0	0.60	ug/L			05/23/15 21:22	1
p-Cymene	0.71	U	1.0	0.71	ug/L			05/23/15 21:22	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			05/23/15 21:22	1
Styrene	1.0	U	1.0	1.0	ug/L			05/23/15 21:22	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			05/23/15 21:22	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			05/23/15 21:22	1
Toluene	0.70	U	1.0	0.70	ug/L			05/23/15 21:22	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 21:22	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			05/23/15 21:22	1
Vinyl acetate	2.0	U	25	2.0	ug/L			05/23/15 21:22	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*78 - 118*		*05/23/15 21:22*	*1*
Dibromofluoromethane	*108*		*81 - 121*		*05/23/15 21:22*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*05/23/15 21:22*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0007-024.5-20150512
Date Collected: 05/12/15 09:58
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			05/23/15 21:47	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			05/23/15 21:47	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			05/23/15 21:47	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			05/23/15 21:47	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			05/23/15 21:47	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			05/23/15 21:47	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			05/23/15 21:47	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			05/23/15 21:47	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 21:47	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			05/23/15 21:47	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			05/23/15 21:47	1
2-Hexanone	3.1	U	25	3.1	ug/L			05/23/15 21:47	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			05/23/15 21:47	1
Acetone	10	U	25	10	ug/L			05/23/15 21:47	1
Benzene	0.38	U	1.0	0.38	ug/L			05/23/15 21:47	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 21:47	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			05/23/15 21:47	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
Bromoform	0.71	U	5.0	0.71	ug/L			05/23/15 21:47	1
Bromomethane	0.98	U	1.0	0.98	ug/L			05/23/15 21:47	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
Chloroethane	0.76	U	1.0	0.76	ug/L			05/23/15 21:47	1
Chloroform	0.60	U	1.0	0.60	ug/L			05/23/15 21:47	1
Chloromethane	0.83	U	1.0	0.83	ug/L			05/23/15 21:47	1
cis-1,2-Dichloroethene	**1.0**		1.0	0.50	ug/L			05/23/15 21:47	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 21:47	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			05/23/15 21:47	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			05/23/15 21:47	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			05/23/15 21:47	1
Iodomethane	0.68	U	1.0	0.68	ug/L			05/23/15 21:47	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			05/23/15 21:47	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			05/23/15 21:47	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			05/23/15 21:47	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			05/23/15 21:47	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0007-024.5-20150512
Date Collected: 05/12/15 09:58
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			05/23/15 21:47	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			05/23/15 21:47	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			05/23/15 21:47	1
Naphthalene	1.0	U	1.0	1.0	ug/L			05/23/15 21:47	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			05/23/15 21:47	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			05/23/15 21:47	1
o-Xylene	0.60	U	5.0	0.60	ug/L			05/23/15 21:47	1
p-Cymene	0.71	U	1.0	0.71	ug/L			05/23/15 21:47	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			05/23/15 21:47	1
Styrene	1.0	U	1.0	1.0	ug/L			05/23/15 21:47	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			05/23/15 21:47	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			05/23/15 21:47	1
Toluene	0.70	U	1.0	0.70	ug/L			05/23/15 21:47	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 21:47	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			05/23/15 21:47	1
Vinyl acetate	2.0	U	25	2.0	ug/L			05/23/15 21:47	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/23/15 21:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*78 - 118*		*05/23/15 21:47*	*1*
Dibromofluoromethane	*105*		*81 - 121*		*05/23/15 21:47*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*05/23/15 21:47*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0008-024.5-20150512
Date Collected: 05/12/15 11:26
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			05/23/15 22:13	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			05/23/15 22:13	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			05/23/15 22:13	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			05/23/15 22:13	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			05/23/15 22:13	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			05/23/15 22:13	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			05/23/15 22:13	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			05/23/15 22:13	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 22:13	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			05/23/15 22:13	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			05/23/15 22:13	1
2-Hexanone	3.1	U	25	3.1	ug/L			05/23/15 22:13	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			05/23/15 22:13	1
Acetone	10	U	25	10	ug/L			05/23/15 22:13	1
Benzene	0.38	U	1.0	0.38	ug/L			05/23/15 22:13	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 22:13	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			05/23/15 22:13	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
Bromoform	0.71	U	5.0	0.71	ug/L			05/23/15 22:13	1
Bromomethane	0.98	U	1.0	0.98	ug/L			05/23/15 22:13	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
Chloroethane	0.76	U	1.0	0.76	ug/L			05/23/15 22:13	1
Chloroform	0.60	U	1.0	0.60	ug/L			05/23/15 22:13	1
Chloromethane	0.83	U	1.0	0.83	ug/L			05/23/15 22:13	1
cis-1,2-Dichloroethene	**3.0**		1.0	0.50	ug/L			05/23/15 22:13	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 22:13	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			05/23/15 22:13	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			05/23/15 22:13	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			05/23/15 22:13	1
Iodomethane	0.68	U	1.0	0.68	ug/L			05/23/15 22:13	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			05/23/15 22:13	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			05/23/15 22:13	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			05/23/15 22:13	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			05/23/15 22:13	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0008-024.5-20150512
Date Collected: 05/12/15 11:26
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			05/23/15 22:13	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			05/23/15 22:13	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			05/23/15 22:13	1
Naphthalene	1.0	U	1.0	1.0	ug/L			05/23/15 22:13	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			05/23/15 22:13	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			05/23/15 22:13	1
o-Xylene	0.60	U	5.0	0.60	ug/L			05/23/15 22:13	1
p-Cymene	0.71	U	1.0	0.71	ug/L			05/23/15 22:13	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			05/23/15 22:13	1
Styrene	1.0	U	1.0	1.0	ug/L			05/23/15 22:13	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			05/23/15 22:13	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			05/23/15 22:13	1
Toluene	0.70	U	1.0	0.70	ug/L			05/23/15 22:13	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 22:13	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			05/23/15 22:13	1
Vinyl acetate	2.0	U	25	2.0	ug/L			05/23/15 22:13	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*78 - 118*		*05/23/15 22:13*	*1*
Dibromofluoromethane	*105*		*81 - 121*		*05/23/15 22:13*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*05/23/15 22:13*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0009-024.5-20150511
Date Collected: 05/11/15 12:24
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			05/23/15 22:39	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			05/23/15 22:39	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			05/23/15 22:39	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			05/23/15 22:39	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			05/23/15 22:39	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			05/23/15 22:39	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			05/23/15 22:39	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			05/23/15 22:39	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 22:39	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			05/23/15 22:39	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			05/23/15 22:39	1
2-Hexanone	3.1	U	25	3.1	ug/L			05/23/15 22:39	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			05/23/15 22:39	1
Acetone	10	U	25	10	ug/L			05/23/15 22:39	1
Benzene	0.38	U	1.0	0.38	ug/L			05/23/15 22:39	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 22:39	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			05/23/15 22:39	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
Bromoform	0.71	U	5.0	0.71	ug/L			05/23/15 22:39	1
Bromomethane	0.98	U	1.0	0.98	ug/L			05/23/15 22:39	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
Chloroethane	0.76	U	1.0	0.76	ug/L			05/23/15 22:39	1
Chloroform	0.60	U	1.0	0.60	ug/L			05/23/15 22:39	1
Chloromethane	0.83	U	1.0	0.83	ug/L			05/23/15 22:39	1
cis-1,2-Dichloroethene	**5.0**		1.0	0.50	ug/L			05/23/15 22:39	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 22:39	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			05/23/15 22:39	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			05/23/15 22:39	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			05/23/15 22:39	1
Iodomethane	0.68	U	1.0	0.68	ug/L			05/23/15 22:39	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			05/23/15 22:39	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			05/23/15 22:39	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			05/23/15 22:39	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			05/23/15 22:39	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0009-024.5-20150511
Date Collected: 05/11/15 12:24
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			05/23/15 22:39	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			05/23/15 22:39	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			05/23/15 22:39	1
Naphthalene	1.0	U	1.0	1.0	ug/L			05/23/15 22:39	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			05/23/15 22:39	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			05/23/15 22:39	1
o-Xylene	0.60	U	5.0	0.60	ug/L			05/23/15 22:39	1
p-Cymene	0.71	U	1.0	0.71	ug/L			05/23/15 22:39	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			05/23/15 22:39	1
Styrene	1.0	U	1.0	1.0	ug/L			05/23/15 22:39	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			05/23/15 22:39	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			05/23/15 22:39	1
Toluene	0.70	U	1.0	0.70	ug/L			05/23/15 22:39	1
trans-1,2-Dichloroethene	**1.1**		1.0	0.50	ug/L			05/23/15 22:39	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 22:39	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			05/23/15 22:39	1
Vinyl acetate	2.0	U	25	2.0	ug/L			05/23/15 22:39	1
Vinyl chloride	**13**		1.0	0.50	ug/L			05/23/15 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*78 - 118*		*05/23/15 22:39*	*1*
Dibromofluoromethane	*106*		*81 - 121*		*05/23/15 22:39*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*05/23/15 22:39*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: TRIP BLANK
Date Collected: 05/14/15 09:15
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			05/23/15 23:05	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			05/23/15 23:05	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			05/23/15 23:05	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			05/23/15 23:05	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			05/23/15 23:05	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			05/23/15 23:05	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			05/23/15 23:05	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			05/23/15 23:05	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 23:05	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			05/23/15 23:05	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			05/23/15 23:05	1
2-Hexanone	3.1	U	25	3.1	ug/L			05/23/15 23:05	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			05/23/15 23:05	1
Acetone	10	U	25	10	ug/L			05/23/15 23:05	1
Benzene	0.38	U	1.0	0.38	ug/L			05/23/15 23:05	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 23:05	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			05/23/15 23:05	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
Bromoform	0.71	U	5.0	0.71	ug/L			05/23/15 23:05	1
Bromomethane	0.98	U	1.0	0.98	ug/L			05/23/15 23:05	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
Chloroethane	0.76	U	1.0	0.76	ug/L			05/23/15 23:05	1
Chloroform	0.60	U	1.0	0.60	ug/L			05/23/15 23:05	1
Chloromethane	0.83	U	1.0	0.83	ug/L			05/23/15 23:05	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 23:05	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			05/23/15 23:05	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			05/23/15 23:05	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			05/23/15 23:05	1
Iodomethane	0.68	U	1.0	0.68	ug/L			05/23/15 23:05	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			05/23/15 23:05	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			05/23/15 23:05	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			05/23/15 23:05	1
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			05/23/15 23:05	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: TRIP BLANK
Date Collected: 05/14/15 09:15
Date Received: 05/14/15 09:15

Lab Sample ID: 400-105654-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			05/23/15 23:05	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			05/23/15 23:05	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			05/23/15 23:05	1
Naphthalene	1.0	U	1.0	1.0	ug/L			05/23/15 23:05	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			05/23/15 23:05	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			05/23/15 23:05	1
o-Xylene	0.60	U	5.0	0.60	ug/L			05/23/15 23:05	1
p-Cymene	0.71	U	1.0	0.71	ug/L			05/23/15 23:05	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			05/23/15 23:05	1
Styrene	1.0	U	1.0	1.0	ug/L			05/23/15 23:05	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			05/23/15 23:05	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			05/23/15 23:05	1
Toluene	0.70	U	1.0	0.70	ug/L			05/23/15 23:05	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 23:05	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			05/23/15 23:05	1
Vinyl acetate	2.0	U	25	2.0	ug/L			05/23/15 23:05	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*78 - 118*		*05/23/15 23:05*	*1*
Dibromofluoromethane	*104*		*81 - 121*		*05/23/15 23:05*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*05/23/15 23:05*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-258301/5
Matrix: Water
Analysis Batch: 258301

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			05/23/15 13:18	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			05/23/15 13:18	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			05/23/15 13:18	1
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			05/23/15 13:18	1
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			05/23/15 13:18	1
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			05/23/15 13:18	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			05/23/15 13:18	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			05/23/15 13:18	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 13:18	1
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			05/23/15 13:18	1
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			05/23/15 13:18	1
2-Hexanone	3.1	U	25	3.1	ug/L			05/23/15 13:18	1
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			05/23/15 13:18	1
Acetone	10	U	25	10	ug/L			05/23/15 13:18	1
Benzene	0.38	U	1.0	0.38	ug/L			05/23/15 13:18	1
Bromobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 13:18	1
Bromochloromethane	0.52	U	1.0	0.52	ug/L			05/23/15 13:18	1
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
Bromoform	0.71	U	5.0	0.71	ug/L			05/23/15 13:18	1
Bromomethane	0.98	U	1.0	0.98	ug/L			05/23/15 13:18	1
Carbon disulfide	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
Chloroethane	0.76	U	1.0	0.76	ug/L			05/23/15 13:18	1
Chloroform	0.60	U	1.0	0.60	ug/L			05/23/15 13:18	1
Chloromethane	0.83	U	1.0	0.83	ug/L			05/23/15 13:18	1
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 13:18	1
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			05/23/15 13:18	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			05/23/15 13:18	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			05/23/15 13:18	1
Iodomethane	0.68	U	1.0	0.68	ug/L			05/23/15 13:18	1
Isopropyl ether	0.70	U	1.0	0.70	ug/L			05/23/15 13:18	1
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			05/23/15 13:18	1
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			05/23/15 13:18	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-258301/5
Matrix: Water
Analysis Batch: 258301

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			05/23/15 13:18	1
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			05/23/15 13:18	1
Methylene Chloride	3.0	U	5.0	3.0	ug/L			05/23/15 13:18	1
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			05/23/15 13:18	1
Naphthalene	1.0	U	1.0	1.0	ug/L			05/23/15 13:18	1
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			05/23/15 13:18	1
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			05/23/15 13:18	1
o-Xylene	0.60	U	5.0	0.60	ug/L			05/23/15 13:18	1
p-Cymene	0.71	U	1.0	0.71	ug/L			05/23/15 13:18	1
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			05/23/15 13:18	1
Styrene	1.0	U	1.0	1.0	ug/L			05/23/15 13:18	1
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			05/23/15 13:18	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			05/23/15 13:18	1
Toluene	0.70	U	1.0	0.70	ug/L			05/23/15 13:18	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			05/23/15 13:18	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			05/23/15 13:18	1
Vinyl acetate	2.0	U	25	2.0	ug/L			05/23/15 13:18	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/23/15 13:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*78 - 118*		*05/23/15 13:18*	*1*
Dibromofluoromethane	*101*		*81 - 121*		*05/23/15 13:18*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*05/23/15 13:18*	*1*

Lab Sample ID: LCS 400-258301/1003
Matrix: Water
Analysis Batch: 258301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	47.6		ug/L		95	66 - 126
1,1,1-Trichloroethane	50.0	45.5		ug/L		91	66 - 130
1,1,2,2-Tetrachloroethane	50.0	48.1		ug/L		96	68 - 132
1,1,2-Trichloroethane	50.0	47.6		ug/L		95	80 - 120
1,1-Dichloroethane	50.0	46.4		ug/L		93	75 - 126
1,1-Dichloroethene	50.0	47.9		ug/L		96	50 - 134
1,1-Dichloropropene	50.0	45.7		ug/L		91	74 - 121
1,2,3-Trichlorobenzene	50.0	47.8		ug/L		96	62 - 130
1,2,3-Trichloropropane	50.0	47.5		ug/L		95	72 - 125
1,2,4-Trichlorobenzene	50.0	46.0		ug/L		92	69 - 128
1,2,4-Trimethylbenzene	50.0	46.3		ug/L		93	77 - 127
1,2-Dibromo-3-Chloropropane	50.0	47.5		ug/L		95	52 - 124
1,2-Dichlorobenzene	50.0	44.6		ug/L		89	80 - 121
1,2-Dichloroethane	50.0	45.7		ug/L		91	69 - 128
1,2-Dichloropropane	50.0	47.4		ug/L		95	77 - 126
1,3,5-Trimethylbenzene	50.0	46.4		ug/L		93	80 - 120
1,3-Dichlorobenzene	50.0	44.8		ug/L		90	77 - 124

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-258301/1003
Matrix: Water
Analysis Batch: 258301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	50.0	47.9		ug/L		96	77 - 120
1,4-Dichlorobenzene	50.0	44.1		ug/L		88	79 - 120
2,2-Dichloropropane	50.0	48.3		ug/L		97	52 - 135
2-Chlorotoluene	50.0	44.2		ug/L		88	75 - 126
2-Hexanone	200	205		ug/L		102	60 - 150
4-Chlorotoluene	50.0	45.3		ug/L		91	80 - 125
Acetone	200	183		ug/L		92	24 - 150
Benzene	50.0	45.5		ug/L		91	79 - 120
Bromobenzene	50.0	47.3		ug/L		95	80 - 121
Bromochloromethane	50.0	47.3		ug/L		95	80 - 120
Bromodichloromethane	50.0	47.5		ug/L		95	75 - 127
Bromoform	50.0	48.4		ug/L		97	65 - 121
Bromomethane	50.0	46.3		ug/L		93	10 - 150
Carbon disulfide	50.0	46.9		ug/L		94	41 - 140
Carbon tetrachloride	50.0	47.1		ug/L		94	46 - 141
Chlorobenzene	50.0	46.1		ug/L		92	80 - 120
Chloroethane	50.0	46.3		ug/L		93	37 - 150
Chloroform	50.0	45.9		ug/L		92	73 - 122
Chloromethane	50.0	43.8		ug/L		88	49 - 141
cis-1,2-Dichloroethene	50.0	46.6		ug/L		93	78 - 122
cis-1,3-Dichloropropene	50.0	49.9		ug/L		100	70 - 122
Dibromochloromethane	50.0	48.2		ug/L		96	63 - 125
Dibromomethane	50.0	47.7		ug/L		95	78 - 120
Dichlorodifluoromethane	50.0	45.6		ug/L		91	27 - 144
Ethylbenzene	50.0	46.1		ug/L		92	80 - 120
Ethylene Dibromide	50.0	48.3		ug/L		97	80 - 120
Hexachlorobutadiene	50.0	45.7		ug/L		91	35 - 150
Iodomethane	50.0	50.4		ug/L		101	58 - 141
Isopropyl ether	50.0	46.8		ug/L		94	69 - 143
Isopropylbenzene	50.0	47.5		ug/L		95	76 - 120
Methyl Ethyl Ketone	200	195		ug/L		98	62 - 137
methyl isobutyl ketone	200	203		ug/L		101	63 - 150
Methyl tert-butyl ether	50.0	49.7		ug/L		99	70 - 124
Methylene Chloride	50.0	44.9		ug/L		90	70 - 130
m-Xylene & p-Xylene	50.0	46.4		ug/L		93	70 - 130
Naphthalene	50.0	49.4		ug/L		99	45 - 131
n-Butylbenzene	50.0	44.4		ug/L		89	76 - 138
N-Propylbenzene	50.0	46.4		ug/L		93	75 - 128
o-Xylene	50.0	47.0		ug/L		94	70 - 130
p-Cymene	50.0	46.5		ug/L		93	78 - 120
sec-Butylbenzene	50.0	46.1		ug/L		92	78 - 128
Styrene	50.0	48.0		ug/L		96	79 - 124
tert-Butylbenzene	50.0	46.4		ug/L		93	80 - 120
Tetrachloroethene	50.0	46.1		ug/L		92	76 - 124
Toluene	50.0	45.3		ug/L		91	80 - 120
trans-1,2-Dichloroethene	50.0	46.0		ug/L		92	70 - 126
trans-1,3-Dichloropropene	50.0	49.4		ug/L		99	64 - 120
Trichloroethene	50.0	46.8		ug/L		94	77 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-258301/1003
Matrix: Water
Analysis Batch: 258301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichlorofluoromethane	50.0	44.8		ug/L		90	26 - 150
Vinyl acetate	100	97.6		ug/L		98	54 - 140
Vinyl chloride	50.0	45.6		ug/L		91	60 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*78 - 118*
Dibromofluoromethane	*101*		*81 - 121*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: 400-105533-A-1 MS
Matrix: Water
Analysis Batch: 258301

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.52	U	50.0	44.5		ug/L		89	42 - 135
1,1,1-Trichloroethane	0.50	U	50.0	44.6		ug/L		89	60 - 131
1,1,2,2-Tetrachloroethane	0.50	U	50.0	46.9		ug/L		94	52 - 148
1,1,2-Trichloroethane	0.50	U	50.0	45.1		ug/L		90	68 - 127
1,1-Dichloroethane	0.50	U	50.0	45.9		ug/L		92	10 - 150
1,1-Dichloroethene	0.50	U	50.0	46.6		ug/L		93	10 - 150
1,1-Dichloropropene	0.50	U	50.0	44.3		ug/L		89	59 - 126
1,2,3-Trichlorobenzene	0.70	U	50.0	41.2		ug/L		82	30 - 137
1,2,3-Trichloropropane	0.84	U	50.0	46.2		ug/L		92	67 - 130
1,2,4-Trichlorobenzene	0.82	U	50.0	39.2		ug/L		78	20 - 139
1,2,4-Trimethylbenzene	0.82	U	50.0	40.4		ug/L		81	10 - 150
1,2-Dibromo-3-Chloropropane	1.5	U	50.0	45.0		ug/L		90	50 - 133
1,2-Dichlorobenzene	0.50	U	50.0	41.0		ug/L		82	10 - 150
1,2-Dichloroethane	0.50	U	50.0	45.1		ug/L		90	10 - 150
1,2-Dichloropropane	0.50	U	50.0	45.9		ug/L		92	65 - 132
1,3,5-Trimethylbenzene	0.56	U	50.0	41.4		ug/L		83	10 - 150
1,3-Dichlorobenzene	0.54	U	50.0	39.8		ug/L		80	25 - 136
1,3-Dichloropropane	0.50	U	50.0	45.9		ug/L		92	67 - 127
1,4-Dichlorobenzene	0.64	U	50.0	38.6		ug/L		77	10 - 150
2,2-Dichloropropane	0.50	U	50.0	46.6		ug/L		93	46 - 132
2-Chlorotoluene	0.57	U	50.0	40.8		ug/L		82	10 - 150
2-Hexanone	3.1	U	200	201		ug/L		100	24 - 150
4-Chlorotoluene	0.56	U	50.0	39.8		ug/L		80	17 - 145
Acetone	10	U	200	184		ug/L		92	10 - 150
Benzene	0.38	U	50.0	43.7		ug/L		87	10 - 150
Bromobenzene	0.54	U	50.0	43.8		ug/L		88	38 - 135
Bromochloromethane	0.52	U	50.0	45.0		ug/L		90	75 - 120
Bromodichloromethane	0.50	U	50.0	47.0		ug/L		94	61 - 133
Bromoform	0.71	U	50.0	47.2		ug/L		94	54 - 125
Bromomethane	0.98	U	50.0	48.2		ug/L		96	10 - 150
Carbon disulfide	0.50	U	50.0	45.0		ug/L		90	10 - 150
Carbon tetrachloride	0.50	U	50.0	45.6		ug/L		91	40 - 138
Chlorobenzene	0.50	U	50.0	42.7		ug/L		85	10 - 150
Chloroethane	0.76	U	50.0	53.0		ug/L		106	38 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-105533-A-1 MS
Matrix: Water
Analysis Batch: 258301

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	0.60	U	50.0	45.8		ug/L		92	10 - 150
Chloromethane	0.83	U	50.0	45.4		ug/L		91	26 - 150
cis-1,2-Dichloroethene	0.50	U	50.0	45.5		ug/L		91	10 - 150
cis-1,3-Dichloropropene	0.50	U	50.0	47.3		ug/L		95	52 - 130
Dibromochloromethane	0.50	U	50.0	46.9		ug/L		94	50 - 130
Dibromomethane	0.59	U	50.0	47.1		ug/L		94	69 - 123
Dichlorodifluoromethane	0.85	U	50.0	47.1		ug/L		94	10 - 150
Ethylbenzene	0.50	U	50.0	42.3		ug/L		85	10 - 150
Ethylene Dibromide	0.50	U	50.0	45.7		ug/L		91	70 - 125
Hexachlorobutadiene	0.90	U	50.0	36.3		ug/L		73	10 - 150
Iodomethane	0.68	U	50.0	46.7		ug/L		93	37 - 145
Isopropyl ether	0.70	U	50.0	47.9		ug/L		96	10 - 150
Isopropylbenzene	0.53	U	50.0	42.4		ug/L		85	10 - 150
Methyl Ethyl Ketone	2.6	U	200	197		ug/L		99	10 - 150
methyl isobutyl ketone	1.8	U	200	203		ug/L		101	20 - 150
Methyl tert-butyl ether	0.74	U	50.0	47.4		ug/L		95	10 - 150
Methylene Chloride	3.0	U	50.0	43.9		ug/L		88	10 - 150
m-Xylene & p-Xylene	1.6	U	50.0	41.7		ug/L		83	10 - 150
Naphthalene	1.0	U	50.0	44.7		ug/L		89	10 - 150
n-Butylbenzene	0.76	U	50.0	38.3		ug/L		77	10 - 150
N-Propylbenzene	0.69	U	50.0	41.5		ug/L		83	10 - 150
o-Xylene	0.60	U	50.0	42.7		ug/L		85	10 - 150
p-Cymene	0.71	U	50.0	40.1		ug/L		80	10 - 150
sec-Butylbenzene	0.70	U	50.0	40.4		ug/L		81	10 - 150
Styrene	1.0	U	50.0	43.4		ug/L		87	24 - 147
tert-Butylbenzene	0.63	U	50.0	41.1		ug/L		82	10 - 150
Tetrachloroethene	0.58	U	50.0	42.5		ug/L		85	10 - 150
Toluene	0.70	U	50.0	42.6		ug/L		85	10 - 150
trans-1,2-Dichloroethene	0.50	U	50.0	45.1		ug/L		90	66 - 126
trans-1,3-Dichloropropene	0.50	U	50.0	46.2		ug/L		92	45 - 128
Trichloroethene	0.50	U	50.0	43.8		ug/L		88	10 - 150
Trichlorofluoromethane	0.52	U	50.0	46.7		ug/L		93	29 - 144
Vinyl acetate	2.0	U	100	106		ug/L		106	10 - 150
Vinyl chloride	0.50	U	50.0	47.9		ug/L		96	46 - 136

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*78 - 118*
Dibromofluoromethane	*102*		*81 - 121*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: 400-105533-A-1 MSD
Matrix: Water
Analysis Batch: 258301

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.52	U	50.0	46.5		ug/L		93	42 - 135	4	23
1,1,1-Trichloroethane	0.50	U	50.0	47.0		ug/L		94	60 - 131	5	20
1,1,2,2-Tetrachloroethane	0.50	U	50.0	46.8		ug/L		94	52 - 148	0	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-105533-A-1 MSD
Matrix: Water
Analysis Batch: 258301

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloroethane	0.50	U	50.0	47.9		ug/L		96	68 - 127	6	19
1,1-Dichloroethane	0.50	U	50.0	47.5		ug/L		95	10 - 150	4	18
1,1-Dichloroethene	0.50	U	50.0	48.4		ug/L		97	10 - 150	4	19
1,1-Dichloropropene	0.50	U	50.0	46.1		ug/L		92	59 - 126	4	22
1,2,3-Trichlorobenzene	0.70	U	50.0	43.2		ug/L		86	30 - 137	5	44
1,2,3-Trichloropropane	0.84	U	50.0	47.7		ug/L		95	67 - 130	3	22
1,2,4-Trichlorobenzene	0.82	U	50.0	40.2		ug/L		80	20 - 139	2	44
1,2,4-Trimethylbenzene	0.82	U	50.0	41.9		ug/L		84	10 - 150	4	54
1,2-Dibromo-3-Chloropropane	1.5	U	50.0	48.0		ug/L		96	50 - 133	6	30
1,2-Dichlorobenzene	0.50	U	50.0	41.3		ug/L		83	10 - 150	1	38
1,2-Dichloroethane	0.50	U	50.0	46.5		ug/L		93	10 - 150	3	19
1,2-Dichloropropane	0.50	U	50.0	47.4		ug/L		95	65 - 132	3	18
1,3,5-Trimethylbenzene	0.56	U	50.0	42.4		ug/L		85	10 - 150	3	53
1,3-Dichlorobenzene	0.54	U	50.0	40.8		ug/L		82	25 - 136	2	44
1,3-Dichloropropane	0.50	U	50.0	47.0		ug/L		94	67 - 127	2	20
1,4-Dichlorobenzene	0.64	U	50.0	39.0		ug/L		78	10 - 150	1	45
2,2-Dichloropropane	0.50	U	50.0	49.3		ug/L		99	46 - 132	6	20
2-Chlorotoluene	0.57	U	50.0	41.1		ug/L		82	10 - 150	1	47
2-Hexanone	3.1	U	200	205		ug/L		103	24 - 150	2	24
4-Chlorotoluene	0.56	U	50.0	40.6		ug/L		81	17 - 145	2	51
Acetone	10	U	200	189		ug/L		94	10 - 150	3	22
Benzene	0.38	U	50.0	45.4		ug/L		91	10 - 150	4	19
Bromobenzene	0.54	U	50.0	45.0		ug/L		90	38 - 135	3	35
Bromochloromethane	0.52	U	50.0	48.5		ug/L		97	75 - 120	7	17
Bromodichloromethane	0.50	U	50.0	48.1		ug/L		96	61 - 133	2	19
Bromoform	0.71	U	50.0	47.1		ug/L		94	54 - 125	0	19
Bromomethane	0.98	U	50.0	51.7		ug/L		103	10 - 150	7	24
Carbon disulfide	0.50	U	50.0	47.6		ug/L		95	10 - 150	6	23
Carbon tetrachloride	0.50	U	50.0	47.4		ug/L		95	40 - 138	4	21
Chlorobenzene	0.50	U	50.0	44.4		ug/L		89	10 - 150	4	30
Chloroethane	0.76	U	50.0	51.4		ug/L		103	38 - 150	3	23
Chloroform	0.60	U	50.0	46.7		ug/L		93	10 - 150	2	18
Chloromethane	0.83	U	50.0	47.5		ug/L		95	26 - 150	4	23
cis-1,2-Dichloroethene	0.50	U	50.0	47.6		ug/L		95	10 - 150	5	20
cis-1,3-Dichloropropene	0.50	U	50.0	49.1		ug/L		98	52 - 130	4	20
Dibromochloromethane	0.50	U	50.0	47.5		ug/L		95	50 - 130	1	21
Dibromomethane	0.59	U	50.0	48.5		ug/L		97	69 - 123	3	18
Dichlorodifluoromethane	0.85	U	50.0	48.2		ug/L		96	10 - 150	2	23
Ethylbenzene	0.50	U	50.0	43.5		ug/L		87	10 - 150	3	40
Ethylene Dibromide	0.50	U	50.0	48.1		ug/L		96	70 - 125	5	21
Hexachlorobutadiene	0.90	U	50.0	39.4		ug/L		79	10 - 150	8	92
Iodomethane	0.68	U	50.0	49.2		ug/L		98	37 - 145	5	36
Isopropyl ether	0.70	U	50.0	47.9		ug/L		96	10 - 150	0	24
Isopropylbenzene	0.53	U	50.0	44.3		ug/L		89	10 - 150	5	46
Methyl Ethyl Ketone	2.6	U	200	204		ug/L		102	10 - 150	3	21
methyl isobutyl ketone	1.8	U	200	208		ug/L		104	20 - 150	2	20
Methyl tert-butyl ether	0.74	U	50.0	50.3		ug/L		101	10 - 150	6	18
Methylene Chloride	3.0	U	50.0	45.8		ug/L		92	10 - 150	4	18

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-105533-A-1 MSD
Matrix: Water
Analysis Batch: 258301

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	1.6	U	50.0	43.8		ug/L		88	10 - 150	5	43
Naphthalene	1.0	U	50.0	47.4		ug/L		95	10 - 150	6	53
n-Butylbenzene	0.76	U	50.0	39.0		ug/L		78	10 - 150	2	76
N-Propylbenzene	0.69	U	50.0	42.5		ug/L		85	10 - 150	2	57
o-Xylene	0.60	U	50.0	44.6		ug/L		89	10 - 150	4	39
p-Cymene	0.71	U	50.0	42.1		ug/L		84	10 - 150	5	62
sec-Butylbenzene	0.70	U	50.0	42.5		ug/L		85	10 - 150	5	64
Styrene	1.0	U	50.0	44.6		ug/L		89	24 - 147	3	40
tert-Butylbenzene	0.63	U	50.0	42.9		ug/L		86	10 - 150	4	54
Tetrachloroethene	0.58	U	50.0	43.4		ug/L		87	10 - 150	2	35
Toluene	0.70	U	50.0	44.0		ug/L		88	10 - 150	3	26
trans-1,2-Dichloroethene	0.50	U	50.0	46.7		ug/L		93	66 - 126	3	19
trans-1,3-Dichloropropene	0.50	U	50.0	48.2		ug/L		96	45 - 128	4	20
Trichloroethene	0.50	U	50.0	46.6		ug/L		93	10 - 150	6	22
Trichlorofluoromethane	0.52	U	50.0	47.7		ug/L		95	29 - 144	2	20
Vinyl acetate	2.0	U	100	104		ug/L		104	10 - 150	1	44
Vinyl chloride	0.50	U	50.0	49.6		ug/L		99	46 - 136	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*78 - 118*
Dibromofluoromethane	*101*		*81 - 121*
Toluene-d8 (Surr)	*97*		*80 - 120*

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

GC/MS VOA

Analysis Batch: 258301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-105533-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
400-105533-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
400-105654-1	LC39OGA-MW0001-010.0-20150511	Total/NA	Water	8260B	
400-105654-2	LC39OGA-MW0002-010.0-20150511	Total/NA	Water	8260B	
400-105654-3	LC39OGA-MW0004-010.0-20150512	Total/NA	Water	8260B	
400-105654-4	LC39OGA-MW0005-010.0-20150511	Total/NA	Water	8260B	
400-105654-5	LC39OGA-MW0006-024.5-20150511	Total/NA	Water	8260B	
400-105654-6	LC39OGA-MW0007-024.5-20150512	Total/NA	Water	8260B	
400-105654-7	LC39OGA-MW0008-024.5-20150512	Total/NA	Water	8260B	
400-105654-8	LC39OGA-MW0009-024.5-20150511	Total/NA	Water	8260B	
400-105654-9	TRIP BLANK	Total/NA	Water	8260B	
LCS 400-258301/1003	Lab Control Sample	Total/NA	Water	8260B	
MB 400-258301/5	Method Blank	Total/NA	Water	8260B	

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0001-010.0-20150511 — Lab Sample ID: 400-105654-1

Date Collected: 05/11/15 14:04 — **Matrix: Water**
Date Received: 05/14/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	258301	05/23/15 19:39	WPD	TAL PEN

Client Sample ID: LC39OGA-MW0002-010.0-20150511 — Lab Sample ID: 400-105654-2

Date Collected: 05/11/15 15:52 — **Matrix: Water**
Date Received: 05/14/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	258301	05/23/15 20:04	WPD	TAL PEN

Client Sample ID: LC39OGA-MW0004-010.0-20150512 — Lab Sample ID: 400-105654-3

Date Collected: 05/12/15 10:42 — **Matrix: Water**
Date Received: 05/14/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	258301	05/23/15 20:30	WPD	TAL PEN

Client Sample ID: LC39OGA-MW0005-010.0-20150511 — Lab Sample ID: 400-105654-4

Date Collected: 05/11/15 11:46 — **Matrix: Water**
Date Received: 05/14/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	258301	05/23/15 20:56	WPD	TAL PEN

Client Sample ID: LC39OGA-MW0006-024.5-20150511 — Lab Sample ID: 400-105654-5

Date Collected: 05/11/15 14:36 — **Matrix: Water**
Date Received: 05/14/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	258301	05/23/15 21:22	WPD	TAL PEN

Client Sample ID: LC39OGA-MW0007-024.5-20150512 — Lab Sample ID: 400-105654-6

Date Collected: 05/12/15 09:58 — **Matrix: Water**
Date Received: 05/14/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	258301	05/23/15 21:47	WPD	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Client Sample ID: LC39OGA-MW0008-024.5-20150512

Lab Sample ID: 400-105654-7

Date Collected: 05/12/15 11:26
Matrix: Water
Date Received: 05/14/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	258301	05/23/15 22:13	WPD	TAL PEN

Client Sample ID: LC39OGA-MW0009-024.5-20150511

Lab Sample ID: 400-105654-8

Date Collected: 05/11/15 12:24
Matrix: Water
Date Received: 05/14/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	258301	05/23/15 22:39	WPD	TAL PEN

Client Sample ID: TRIP BLANK

Lab Sample ID: 400-105654-9

Date Collected: 05/14/15 09:15
Matrix: Water
Date Received: 05/14/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	258301	05/23/15 23:05	WPD	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Certification Summary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Laboratory: TestAmerica Pensacola

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E81010	06-30-15

Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

400-105654

SERIAL NUMBER: 78786

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001
Fax: 850-478-2671
Website: www.testamericainc.com

QUOTE NO.:

BOTTLE ORDER NO.:

ORDER - LOG-IN NO.: C

CLIENT: Geosyntec

ADDRESS: 316 S Baylen

PROJECT NAME: LC390GA

PROJECT NO.: FR0746C

CLIENT PROJECT MANAGER: Crystal Towns

PROJECT LOC. (STATE): FL

SAMPLED BY: Ben Coppenger

CONTRACT / P.O. NO.:

CLIENT PHONE: 850-477-6547

CLIENT E-MAIL OR FAX: CTowns@Geosyntec.com

TAT REQUESTED: RUSH NEEDS LAB PREAPPROVAL ☒ NORMAL 10 BUSINESS DAYS
☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☐ 5 DAYS ☐ 20 DAYS (Package) ☐ OTHER:

SAMPLE DISPOSAL: ☐ RETURN TO CLIENT ☒ DISPOSAL BY LAB
☐ SEE CONTRACT ☐ OTHER:

PAGE: OF:

POSSIBLE HAZARD IDENTIFICATION
Δ NON-HAZARD
Δ FLAMMABLE
Δ RADIOACTIVE
Δ POISON B
Δ UNKNOWN
Δ OTHER:

NO. OF COOLERS PER SHIPMENT:

LAB USE ONLY - SAMPLE NUMBER

REQUESTED ANALYSIS

PRESERVATIVE: No Preservative | HCL - Hydrochloric Acid | HNO3 - Nitric Acid | H2SO4 - Sulfuric Acid or H3PO4 | NAOH - Sodium Hydroxide | CH3OH - Methanol | NAHSO4 - Sodium Bisulfate | NA2S2O3 - Sodium Thiosulfate | Other:

MATRIX: Drinking Water | Aqueous GW, SW, WW | Solid, Semisolid, Sediment | Air | NonAqueous (Oil, Solvent, etc.)

8260B - VOC
RSK_175-MEE (Dissolved Gas)

100-105654 COC

NUMBER OF CONTAINERS SUBMITTED

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	No Preservative	HCL	HNO3	H2SO4	NAOH	CH3OH	NAHSO4	NA2S2O3	Other:	Drinking Water	Aqueous GW, SW, WW	Solid, Semisolid, Sediment	Air	NonAqueous	8260B - VOC	RSK_175-MEE (Dissolved Gas)	SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT
5-11-15	1404	LC390GA-MW00001-010.0-20150511		X									GW				3	3	
5-11-15	1552	LC390GA-MW00002-010.0-20150511		X									GW				3	3	
5-12-15	1042	LC390GA-MW00004-010.0-20150512		X									GW				3	3	
5-11-15	1146	LC390GA-MW00005-010.0-20150511		X									GW				3	3	
5-11-15	1436	LC390GA-MW00006-024.5-20150511		X									GW				3	3	
5-12-15	0958	LC390GA-MW00007-024.5-20150512		X									GW				3	3	
5-12-15	1126	LC390GA-MW00008-024.5-20150512		X									GW				3	3	
5-11-15	1224	LC390GA-MW00009-024.5-20150511		X									GW				3	3	
—	—	Trip Blank		X									—				3		

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
EMPTY CONTAINERS				5/13/15	1200			
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
EMPTY CONTAINERS								

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	CUSTODY INTACT?	CUSTODY SEAL NO.	REMARKS:
	5/14/15	9:15	☒ YES Δ NO	472833	0.3°C IR-5

TAL-8251 (1207)

Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-105654-1
SDG Number:

Login Number: 105654
List Number: 1
Creator: Hooper, Carolyn D

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.3°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	1of6 vials was received broken for sample LC39OGA-MW0006-024.5-20150511
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-106940-1
Client Project/Site: LC39OGA

For:
Geosyntec Consultants, Inc.
316 South Baylen Street
Suite 201
Pensacola, Florida 32502

Attn: Crystal Towns

Mark Swafford

Authorized for release by:
6/16/2015 6:42:53 PM

Mark Swafford, Project Manager I
(850)474-1001
mark.swafford@testamericainc.com

Table of Contents

Definitions/Glossary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 400-106940-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-106940-1

Comments
No additional comments.

Receipt
The samples were received on 6/11/2015 9:28 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.2º C.

GC Semi VOA
Method RSK-175: The following sample was diluted due to excess efferevescence LC39OGA-MW0001-010.0-20150609 (400-106940-1). Elevated reporting limits (RL) are provided.

Method RSK-175: The sample duplicate (DUP) precision for analytical batch 400-260870 was outside control limits.The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method RSK-175: The following sample was diluted to bring the concentration of target analytes within the calibration range: LC39OGA-MW0005-010.0-20150609 (400-106940-4). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Client Sample ID: LC39OGA-MW0001-010.0-20150609 — Lab Sample ID: 400-106940-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	380		10	1.8	ug/L	10		RSK-175	Total/NA

Client Sample ID: LC39OGA-MW0002-010.0-20150610 — Lab Sample ID: 400-106940-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	510		1.0	0.18	ug/L	1		RSK-175	Total/NA
Ethane	1.1		1.0	0.75	ug/L	1		RSK-175	Total/NA

Client Sample ID: LC39OGA-MW0004-010.0-20150610 — Lab Sample ID: 400-106940-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	400		1.0	0.18	ug/L	1		RSK-175	Total/NA
Ethane	2.3		1.0	0.75	ug/L	1		RSK-175	Total/NA

Client Sample ID: LC39OGA-MW0005-010.0-20150609 — Lab Sample ID: 400-106940-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	1000		5.0	0.90	ug/L	5		RSK-175	Total/NA
Ethane	1.3		1.0	0.75	ug/L	1		RSK-175	Total/NA

Client Sample ID: LC39OGA-MW0006-024.5-20150609 — Lab Sample ID: 400-106940-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	48		1.0	0.18	ug/L	1		RSK-175	Total/NA

Client Sample ID: LC39OGA-MW0007-024.5-20150610 — Lab Sample ID: 400-106940-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	110		1.0	0.18	ug/L	1		RSK-175	Total/NA

Client Sample ID: LC39OGA-MW0008-024.5-20150610 — Lab Sample ID: 400-106940-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	210		1.0	0.18	ug/L	1		RSK-175	Total/NA

Client Sample ID: LC39OGA-MW0009-024.5-20150609 — Lab Sample ID: 400-106940-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	220		1.0	0.18	ug/L	1		RSK-175	Total/NA

This Detection Summary does not include radiochemical test results.

Sample Summary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-106940-1	LC39OGA-MW0001-010.0-20150609	Water	06/09/15 14:24	06/11/15 09:28
400-106940-2	LC39OGA-MW0002-010.0-20150610	Water	06/10/15 09:46	06/11/15 09:28
400-106940-3	LC39OGA-MW0004-010.0-20150610	Water	06/10/15 10:48	06/11/15 09:28
400-106940-4	LC39OGA-MW0005-010.0-20150609	Water	06/09/15 13:00	06/11/15 09:28
400-106940-5	LC39OGA-MW0006-024.5-20150609	Water	06/09/15 14:54	06/11/15 09:28
400-106940-6	LC39OGA-MW0007-024.5-20150610	Water	06/10/15 10:12	06/11/15 09:28
400-106940-7	LC39OGA-MW0008-024.5-20150610	Water	06/10/15 11:06	06/11/15 09:28
400-106940-8	LC39OGA-MW0009-024.5-20150609	Water	06/09/15 12:38	06/11/15 09:28

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Client Sample ID: LC39OGA-MW0001-010.0-20150609
Date Collected: 06/09/15 14:24
Date Received: 06/11/15 09:28

Lab Sample ID: 400-106940-1
Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**380**		10	1.8	ug/L			06/12/15 11:54	10
Ethane	7.5	U	10	7.5	ug/L			06/12/15 11:54	10
Ethylene	5.5	U	10	5.5	ug/L			06/12/15 11:54	10

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Client Sample ID: LC39OGA-MW0002-010.0-20150610
Date Collected: 06/10/15 09:46
Date Received: 06/11/15 09:28

Lab Sample ID: 400-106940-2
Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**510**		1.0	0.18	ug/L			06/12/15 12:06	1
Ethane	**1.1**		1.0	0.75	ug/L			06/12/15 12:06	1
Ethylene	0.55	U	1.0	0.55	ug/L			06/12/15 12:06	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Client Sample ID: LC39OGA-MW0004-010.0-20150610
Date Collected: 06/10/15 10:48
Date Received: 06/11/15 09:28

Lab Sample ID: 400-106940-3
Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**400**		1.0	0.18	ug/L			06/12/15 12:17	1
Ethane	**2.3**		1.0	0.75	ug/L			06/12/15 12:17	1
Ethylene	0.55	U	1.0	0.55	ug/L			06/12/15 12:17	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Client Sample ID: LC39OGA-MW0005-010.0-20150609
Date Collected: 06/09/15 13:00
Date Received: 06/11/15 09:28

Lab Sample ID: 400-106940-4
Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**1000**		5.0	0.90	ug/L			06/12/15 16:18	5
Ethane	**1.3**		1.0	0.75	ug/L			06/12/15 12:27	1
Ethylene	0.55	U	1.0	0.55	ug/L			06/12/15 12:27	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Client Sample ID: LC39OGA-MW0006-024.5-20150609
Date Collected: 06/09/15 14:54
Date Received: 06/11/15 09:28

Lab Sample ID: 400-106940-5
Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**48**		1.0	0.18	ug/L			06/12/15 12:37	1
Ethane	0.75	U	1.0	0.75	ug/L			06/12/15 12:37	1
Ethylene	0.55	U	1.0	0.55	ug/L			06/12/15 12:37	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Client Sample ID: LC39OGA-MW0007-024.5-20150610
Date Collected: 06/10/15 10:12
Date Received: 06/11/15 09:28

Lab Sample ID: 400-106940-6
Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**110**		1.0	0.18	ug/L			06/12/15 12:46	1
Ethane	0.75	U	1.0	0.75	ug/L			06/12/15 12:46	1
Ethylene	0.55	U	1.0	0.55	ug/L			06/12/15 12:46	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Client Sample ID: LC39OGA-MW0008-024.5-20150610
Date Collected: 06/10/15 11:06
Date Received: 06/11/15 09:28

Lab Sample ID: 400-106940-7
Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**210**		1.0	0.18	ug/L			06/12/15 12:56	1
Ethane	0.75	U	1.0	0.75	ug/L			06/12/15 12:56	1
Ethylene	0.55	U	1.0	0.55	ug/L			06/12/15 12:56	1

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Client Sample ID: LC39OGA-MW0009-024.5-20150609
Date Collected: 06/09/15 12:38
Date Received: 06/11/15 09:28

Lab Sample ID: 400-106940-8
Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**220**		1.0	0.18	ug/L			06/12/15 13:18	1
Ethane	0.75	U	1.0	0.75	ug/L			06/12/15 13:18	1
Ethylene	0.55	U	1.0	0.55	ug/L			06/12/15 13:18	1

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 400-260870/2
Matrix: Water
Analysis Batch: 260870

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	0.18	U	1.0	0.18	ug/L			06/12/15 11:23	1
Ethane	0.75	U	1.0	0.75	ug/L			06/12/15 11:23	1
Ethylene	0.55	U	1.0	0.55	ug/L			06/12/15 11:23	1

Lab Sample ID: LCS 400-260870/3
Matrix: Water
Analysis Batch: 260870

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methane			169	186		ug/L		110	85 - 115		
Ethane			321	341		ug/L		106	85 - 115		
Ethylene			299	331		ug/L		110	85 - 115		

Lab Sample ID: LCSD 400-260870/4
Matrix: Water
Analysis Batch: 260870

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane			169	166		ug/L		98	85 - 115	11	20
Ethane			321	309		ug/L		96	85 - 115	10	20
Ethylene			299	285		ug/L		95	85 - 115	15	20

Lab Sample ID: 400-106940-2 DU
Matrix: Water
Analysis Batch: 260870

Client Sample ID: LC39OGA-MW0002-010.0-20150610
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Methane	510			818	J3	ug/L				46	20
Ethane	1.1			1.76	J3	ug/L				48	20
Ethylene	0.55	U		0.55	U	ug/L				NC	20

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

GC VOA

Analysis Batch: 260870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-106940-1	LC39OGA-MW0001-010.0-20150609	Total/NA	Water	RSK-175	
400-106940-2	LC39OGA-MW0002-010.0-20150610	Total/NA	Water	RSK-175	
400-106940-2 DU	LC39OGA-MW0002-010.0-20150610	Total/NA	Water	RSK-175	
400-106940-3	LC39OGA-MW0004-010.0-20150610	Total/NA	Water	RSK-175	
400-106940-4	LC39OGA-MW0005-010.0-20150609	Total/NA	Water	RSK-175	
400-106940-4	LC39OGA-MW0005-010.0-20150609	Total/NA	Water	RSK-175	
400-106940-5	LC39OGA-MW0006-024.5-20150609	Total/NA	Water	RSK-175	
400-106940-6	LC39OGA-MW0007-024.5-20150610	Total/NA	Water	RSK-175	
400-106940-7	LC39OGA-MW0008-024.5-20150610	Total/NA	Water	RSK-175	
400-106940-8	LC39OGA-MW0009-024.5-20150609	Total/NA	Water	RSK-175	
LCS 400-260870/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 400-260870/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
MB 400-260870/2	Method Blank	Total/NA	Water	RSK-175	

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Client Sample ID: LC39OGA-MW0001-010.0-20150609 — Lab Sample ID: 400-106940-1

Date Collected: 06/09/15 14:24 — **Matrix: Water**
Date Received: 06/11/15 09:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		10	260870	06/12/15 11:54	IDR	TAL PEN

Client Sample ID: LC39OGA-MW0002-010.0-20150610 — Lab Sample ID: 400-106940-2

Date Collected: 06/10/15 09:46 — **Matrix: Water**
Date Received: 06/11/15 09:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	260870	06/12/15 12:06	IDR	TAL PEN

Client Sample ID: LC39OGA-MW0004-010.0-20150610 — Lab Sample ID: 400-106940-3

Date Collected: 06/10/15 10:48 — **Matrix: Water**
Date Received: 06/11/15 09:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	260870	06/12/15 12:17	IDR	TAL PEN

Client Sample ID: LC39OGA-MW0005-010.0-20150609 — Lab Sample ID: 400-106940-4

Date Collected: 06/09/15 13:00 — **Matrix: Water**
Date Received: 06/11/15 09:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	260870	06/12/15 12:27	IDR	TAL PEN
Total/NA	Analysis	RSK-175		5	260870	06/12/15 16:18	IDR	TAL PEN

Client Sample ID: LC39OGA-MW0006-024.5-20150609 — Lab Sample ID: 400-106940-5

Date Collected: 06/09/15 14:54 — **Matrix: Water**
Date Received: 06/11/15 09:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	260870	06/12/15 12:37	IDR	TAL PEN

Client Sample ID: LC39OGA-MW0007-024.5-20150610 — Lab Sample ID: 400-106940-6

Date Collected: 06/10/15 10:12 — **Matrix: Water**
Date Received: 06/11/15 09:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	260870	06/12/15 12:46	IDR	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Client Sample ID: LC39OGA-MW0008-024.5-20150610

Lab Sample ID: 400-106940-7

Date Collected: 06/10/15 11:06

Matrix: Water

Date Received: 06/11/15 09:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	260870	06/12/15 12:56	IDR	TAL PEN

Client Sample ID: LC39OGA-MW0009-024.5-20150609

Lab Sample ID: 400-106940-8

Date Collected: 06/09/15 12:38

Matrix: Water

Date Received: 06/11/15 09:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	260870	06/12/15 13:18	IDR	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Certification Summary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Laboratory: TestAmerica Pensacola

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E81010	06-30-15

Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Method	Method Description	Protocol	Laboratory
RSK-175	Dissolved Gases (GC)	RSK	TAL PEN

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

400-106940

SERIAL NUMBER: 79500

400-106940 COC

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001
Fax: 850-478-2671
Website: www.testamericainc.com

QUOTE NO.	BOTTLE ORDER NO.	ORDER - LOG-IN NO.
		C

CLIENT	ADDRESS	PAGE	OF
Geosyntec	316 S. Baylen St. #201 Pensacola, FL 32502	1	1

PROJECT NAME	PROJECT NO.	CLIENT PROJECT MANAGER	PROJECT LOC. (STATE)
LC390GA	FR0746C/09	Crystal Towns	FL

SAMPLED BY	CONTRACT / P.O. NO.
Ben Coppenger	

CLIENT PHONE	CLIENT E-MAIL OR FAX
850-477-6547	CTowns@Geosyntec.com

TAT REQUESTED: RUSH NEEDS LAB PREAPPROVAL ☒ NORMAL 10 BUSINESS DAYS
☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☐ 5 DAYS ☐ 20 DAYS (Package) ☐ OTHER:

SAMPLE DISPOSAL: ☐ RETURN TO CLIENT ☐ DISPOSAL BY LAB
☐ SEE CONTRACT ☐ OTHER:

REQUESTED ANALYSIS

POSSIBLE HAZARD IDENTIFICATION
△ NON-HAZARD
△ FLAMMABLE
△ RADIOACTIVE
△ POISON B
△ UNKNOWN
△ OTHER:

NO. OF COOLERS PER SHIPMENT:

LAB USE ONLY - SAMPLE NUMBER

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	PRESERVATIVE: No Preservative	HCL - Hydrochloric Acid	HNO3 - Nitric Acid	H2SO4 - Sulfuric Acid or H3PO4	NAOH - Sodium Hydroxide	CH3OH - Methanol	NAHSO4 - Sodium Bisulfate	NA2S2O3 - Sodium Thiosulfate	Other:	MATRIX: Drinking Water	Aqueous GW, SW, WW	Solid, Semisolid, Sediment	Air	NonAqueous (Oil, Solvent, etc.)	NUMBER OF CONTAINERS SUBMITTED: Dissolved Gases										SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT
6-9-15	1424	LC390GA-MW0001-010.0-20150609		✓													3										
6-10-15	0946	LC390GA-MW0002-010.0-20150610		✓													3										
6-10-15	1048	LC390GA-MW0004-010.0-20150610		✓													3										
6-9-15	1300	LC390GA-MW0005-010.0-20150609		✓													3										
6-9-15	1454	LC390GA-MW0006-024.5-20150609		✓													3										
6-10-15	1012	LC390GA-MW0007-024.5-20150610		✓													3										
6-10-15	1106	LC390GA-MW0008-024.5-20150610		✓													3										
6-9-15	1238	LC390GA-MW0009-024.5-20150609		✓													3										

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
EMPTY CONTAINERS				6-10-15	1400			
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
EMPTY CONTAINERS								

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	CUSTODY INTACT?	CUSTODY SEAL NO.	REMARKS:
	6/11/15	0928	△ YES △ NO		1.2°C IR-5

TAL-8251 (1207)

Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-106940-1

Login Number: 106940
List Number: 1
Creator: Crawford, Lauren E

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	