



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 2009¹] 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 2013b²]. 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 2014a³], 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 (LC390GA-MW0001, LC390GA-MW0002, LC390GA-MW0004, and LC390GA-MW0005; screened 5 to 15 feet below land surface [ft BLS]) and four intermediate monitoring wells (LC390GA-MW0006 through LC390GA-MW0009; screened from 22 to 27 ft BLS). (For further discussion, monitoring wells will be referred to without the LC390GA-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 2014b⁴].

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 2014⁵] and the KSC Sampling and Analysis Plan (SAP) [NASA 2011⁶]. 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 $[\mu g/L]$).

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 μ g/L. VC concentrations detected above the GCTL in May 2015 ranged from 8.9 to 26 μ g/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 μ g/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 μ g/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 μ g/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 DetailsTable 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

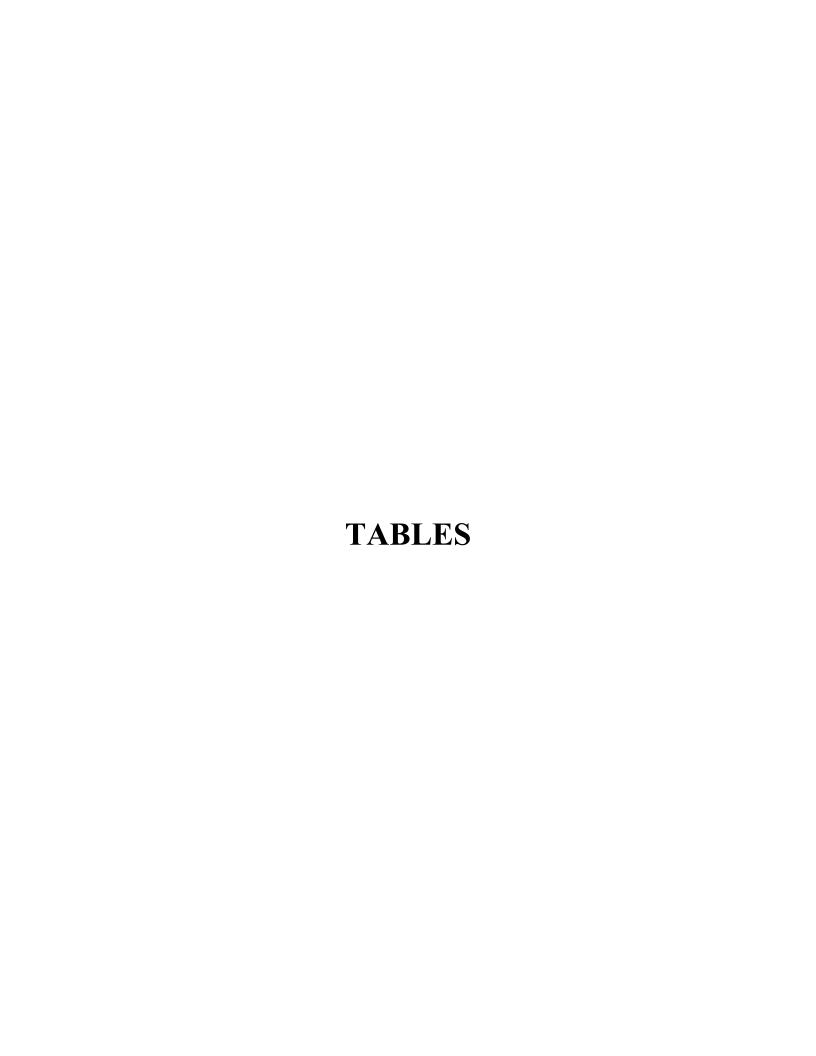


Table 1. LC39OGA Well Construction Details

	Well			TOC	Screened	l Interval	Screened Interval		
Well ID	Diameter (inches)	Northing (feet) Easting (feet)		Elevation (ft NAVD)	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	

- 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

	~ 1	mo a	11/19/2014			/2015
Well ID	Screened Interval (ft BLS)	TOC Elevation (ft NAVD)	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

- 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

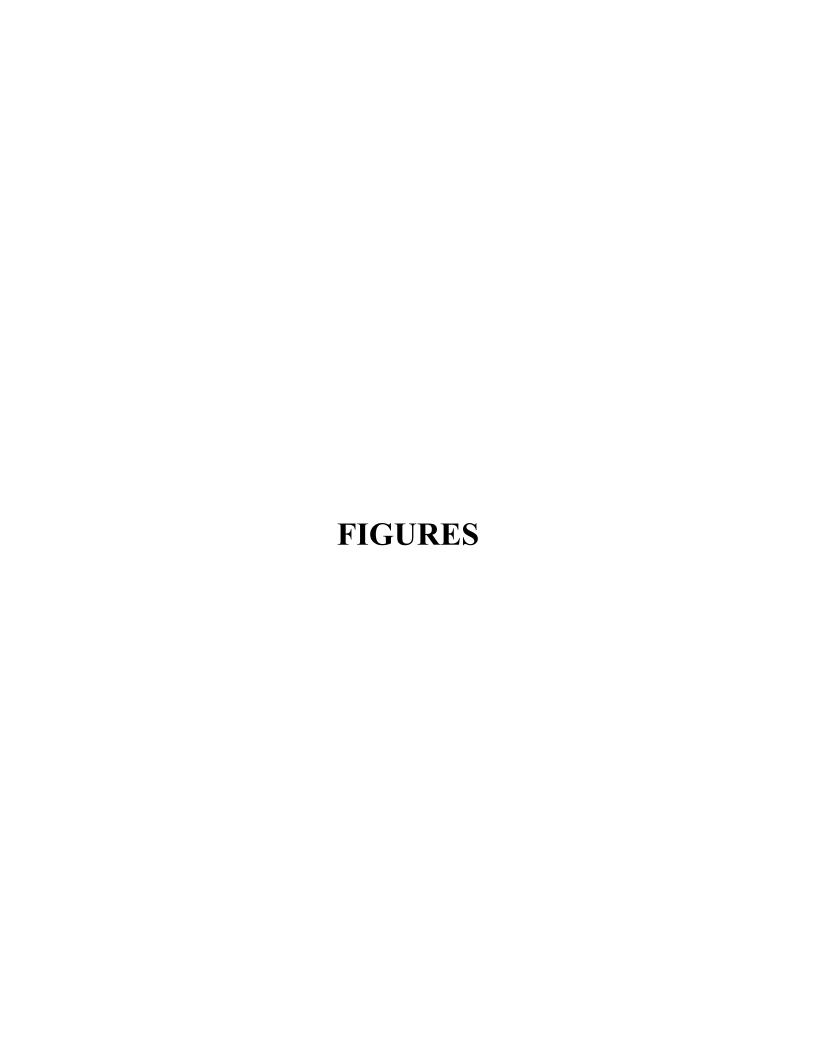
Well ID	Screened Interval (ft BLS)	Temperature (°C)	pH (S.U.)	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)
MW0001	5 to 15	24.32	7.50	2.98	8.12	1.55	-337.3	1.24	1.94
MW0002	5 to 15	25.33	7.28	1.94	6.58	0.98	-324.4	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

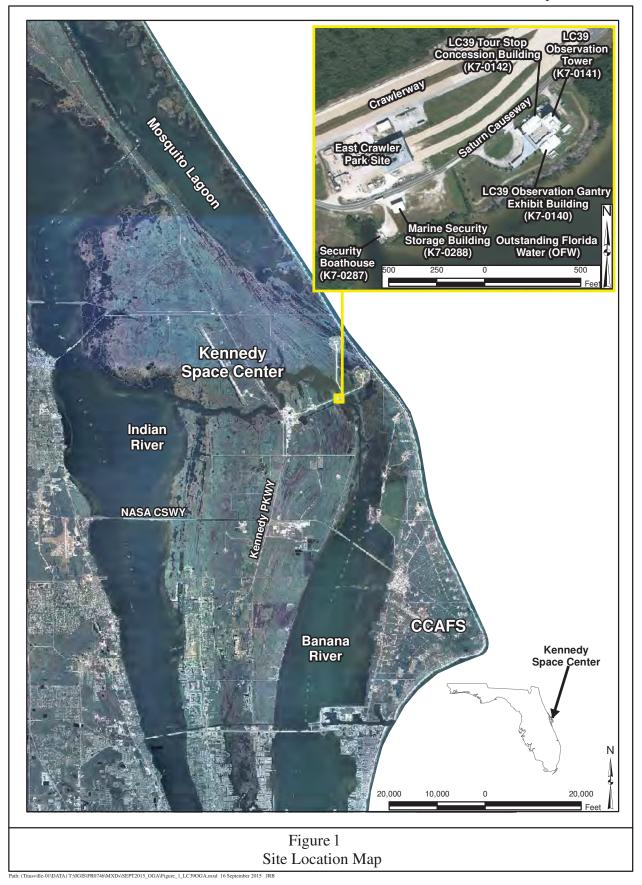
- 1. ft BLS = feet below land surface.
- 2. °C = degrees Celsius.
- 3. S.U. = Standard Units.
- 4. mS/cm = milliSiemens per centimeter.
- 5. NTU = Nephelometric Turbidity Units.
- 6. mV = millivolts.
- 7. mg/L = milligrams/liter.
- 8. g/L = grams per liter.
- 9. All monitoring well IDs have the "LC39OGA-"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

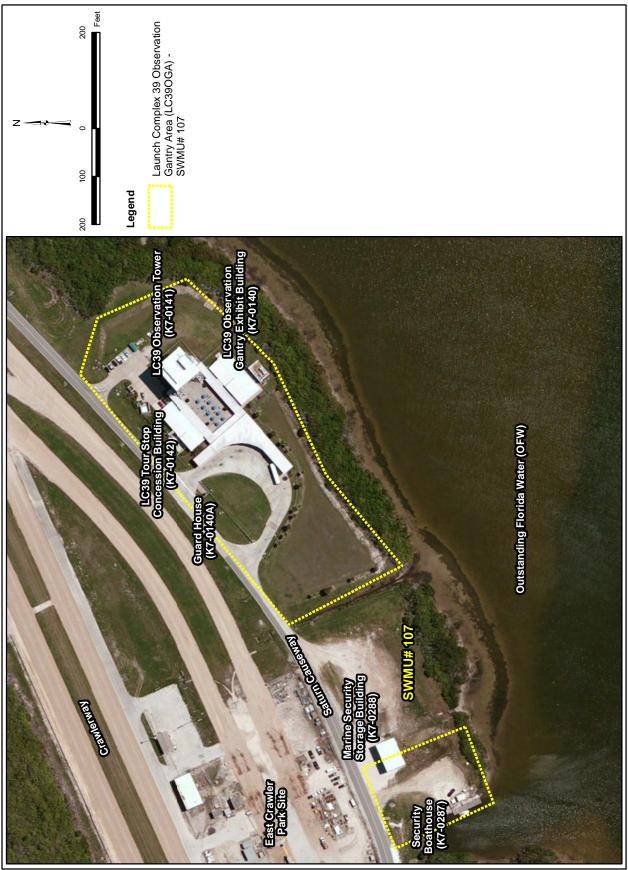
Table 4. LC39OGA Summary of Groundwater Analytical Data

	Well ID:		MW0001			MW0002		MW	0004	MW	0005	MW	0006	MW	0007	MW	8000	MW	0009
Screen	ed Interval (ft BLS):		5 to 15			5 to 15		5 to	15	5 to	15	22 to	o 27	22 t	o 27	22 t	o 27	22 to	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	<u> </u>																	
	GCTL																		
VOCs (µg/L)																			
2-Butanone	4,200	NA	2.6 U	2.6 U	NA	21 I	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	1.1						
Vinyl Chloride	1	8.0	4.1	0.5 U	37.5	19	26	10	8.9	4.3	0.5 U	0.61 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						
Methane		NA	NA	380	NA	NA	510	NA	400	NA	1000	NA	48	NA	110	NA	210	NA	220

- 1. ft BLS = feet Below Land Surface.
- 2. GCTL = Groundwater Cleanup Target Levels (Chapter 62-777, FAC).
- 3. μ g/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.

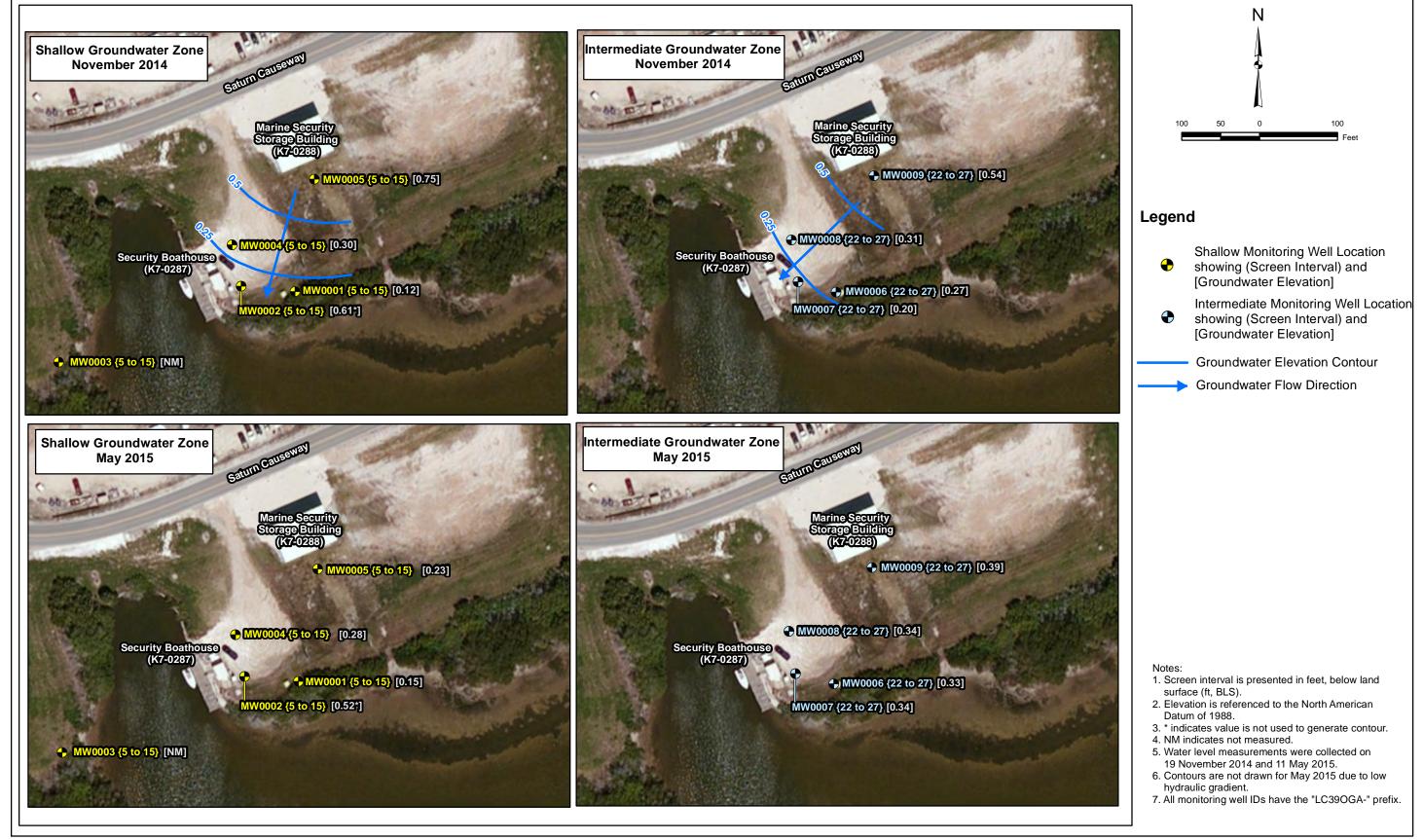


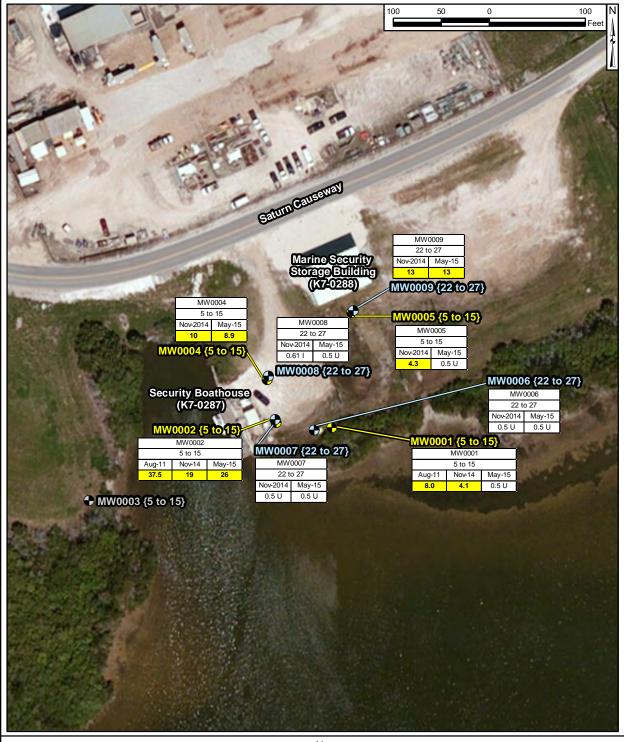




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Figure 2 Site Layout





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

- 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.
- 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.

ATTACHMENT A APPLICABLE KSCRT MEETING MINUTES

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

Attendees:

John Armstrong/FDEP

Rosaly Santos-Ebaugh/NASA Mike Deliz/NASA

Dinh Vo/NASA Bob Kline/NASA Sue Tzareff/IHA

Anne Chrest/NASA

Michele Cielukowski/IHA Michelle Moore/IHA Todd Weldon/IHA

Tom Peel/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

Melissa Hensley/Geosyntec

Rebecca Daprato/Geosyntec

1305-M05

Susan Sitkoff/ Arcadis

Launch Complex 39 Observation Gantry Area (PRL 172)

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 μ g/L. Stormwater management system at this facility was later rerouted. 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 upgradient, 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 Launch Complex 39 Observation Gantry Area (PRL 172)

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 LC39 Observation Gantry (PRL 172)

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

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

LC39 Observation Gantry Area (PRL 0172)

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 Launch Complex 39 Observation Gantry (SWMU 107)

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

____ in. _ in.

Wel	l I.D. (LOCID): <u>LC390GA-MW0004</u>		Site: LC390GA
	ling Company: Environmental Drilling	Services	Installation Method: Direct-push technology
	lers: Chris Phelps & Keith Olson		Casing Installation Date (INSDATE): 9-22-2014
	logist/Engineer: Ben Coppenger		Well Type (WTCCODE): Groundwater Monitoring
Sign	nature: Research		Well Completion Method (WCMCODE): Flush
5161	interest of the second of the		Geologic Completion Zone (GZCODE): Surficial
			Section 2016 (S2002)
DEPTH 8		ind Surface	
	Land Surface		Well Completion
0 0	Land Guillage	1.8'	
1			Guard Posts (Y / N) Date: 9-22-2014 Surface Pad Size: 2 ft x 2 ft
- 1			
5"		1.60'	Protective Casing or Cover
			Diameter/Type: 8" Steel manhole
	Mea	suring Pt.	Depth BGS: 8 " Weep Hole (Y / $\underline{\mathbf{N}}$)
8"	Elev	•	Grout
O	(MPI	ELEV)	Composition/Proportions:
1	- 11 11	Riser Pip Length	Type I/II neat cement grout & water (50/50)
	_ (1)		Placement Method: Hand pour
3'	INTERVAL LE	NGTH 4.5'	
,	-		Seal Date: 9-22-2014
	S-44 [Type: Fine sand 30/65
•	Seal Length 2	7	Source: Standard Sand and Silica Company
5'	Seal End Depth		Set-up/Hydration Time: NA
	SBDEPTH)		Placement Method: Surface pour
	Screen	T I	Vol. Fluid Added: NA
5	Begin Depth		Filter Pack
	(SBDEPTH)	1	Type: Pre-pack 20/30 sand
			Source: Atlantic Drilling Supply
	Screen Length	1	Amount Used: 10'
		Filter Pack	Placement Method: Pre-pack
	10'	Length	Well Riser Pipe
	(SCRLENGTH)	10'	Casing Material (CMACODE): Schedule 40 PVC
		1	Casing Inside Diameters (CASDIAM):1
15'		(FPL)	Screen
13			Material: Schedule 40 PVC
	Sump 4	"	Inside Diameter (SCRDIAM):
15.3'			Screen Slot Size: (SOUA):0.010
-	(TOTDEPTH)	1	Percent Open Area (PCTOPEN): NA
1.7.01			Sump or Bottom Cap ($\underline{\mathbf{Y}} / N$)
15.3	1.7 1.74.50	<u></u>	Type/Length: 4" Schedule 40 PVC
	Borehole Diameter		Backfill Plug (Y / N)
	- Annual Control of the Control of t		Material: NA
	3.25"		Placement Method: NA
	1		Set-up/Hydration Time: NA
Con	nments		Total Water Volume During Construction
Con	uments		Introduced (Gal): 0 Recovered
-		-	(Gal): 9
_			Reviewed 171
			Reviewed 1/1/2 10 Ac alalist

in.

in. ____ in.

Well I.D. (LOCID): LC39OGA-MW0005	Site: LC390GA
Drilling Company: Environmental Drilling Services	Installation Method: Direct-push technology
Drillers: Chris Phelps & Keith Olson	Casing Installation Date (INSDATE): 9-22-2014
Geologist/Engineer: Ben Coppenger	Well Type (WTCCODE): Groundwater Monitoring
Signature:	Well Completion Method (WCMCODE): Flush
	Geologic Completion Zone (GZCODE): Surficial
DEPTH BLS 0.0 Land Surface Elevation 2.3' Measuring Pt. Elevation (MPELEV) Rise Lend Rise L	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:
3' INTERVAL LENGTH 4	5 Tracement Medica. <u>France Surface Pour</u>
5' Seal End Depth (SBDEPTH) Seal Length 2' Seal End Depth (SBDEPTH) O O (SBDEPTH)	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
Screen	Source: Atlantic Drilling Supply
Filter Pack	Amount Used: 10" Placement Method: Pre-pack
10' Length	Well Riser Pipe
(SCRLENGTH) 10'	Casing Material (CMACODE): Schedule 40 PVC
(FPL)	Casing Inside Diameters (CASDIAM):i in.
15'	Screen
	Material: Schedule 40 PVC
15.3' Total Depth Sump Length 4"	Inside Diameter (SCRDIAM): in.
(TOTDEPTH)	Screen Slot Size: (SOUA): 0.010 in
	Percent Open Area (PCTOPEN): NA
15.3'	Sump or Bottom Cap (Y/N)
Borehole Diameter	Type/Length: 4" Schedule 40 PVC
3.25"	Backfill Plug (Y / N)
3.23	Material: NA
	Placement Method: NA
	Set-up/Hydration Time: NA
Comments	Total Water Volume During Construction
	Introduced (Gal): Recovered
	(Gal): 5
	By: Gust Date: 9/30/14

Well I.D. (LOCID): <u>LC390C</u>		Site: LC390GA
Drilling Company: Environm		Installation Method: Direct-push technology
Drillers: Chris Phelps & Keit		Casing Installation Date (INSDATE): 9-23-2014
Geologist/Engineer: Ben Cop	penger	Well Type (WTCCODE): Groundwater Monitoring
Signature:		Well Completion Method (WCMCODE): Flush
		Geologic Completion Zone (GZCODE): Surficial
	Ground Surface	
DEPTH BLS	Elevation	
0 0 Land Surfa	1.3'	Well Completion
		Guard Posts (Y / N) Date: 9-23-2014
		Surface Pad Size: 2 ft x 2 ft
	1.12'	Protective Casing or Cover
7"	1.12	Diameter/Type: 8" Steel manhole
	Measuring Pt	Depth BGS: 8" Weep Hole (Y / N)
8"	Elevation	Grout
8	(MPELEV)	r Pipe Composition/Proportions:
	Leng	
	INTERVAL LENGTH 21.	
20'	1	Seal Date: 9-23-2014
		Type: Fine sand 30/65
	Seal 2'	Source: Standard Sand and Silica Company
22' Seal End Depth		Set-up/Hydration Time: NA
(SBDEPTH)		Placement Method: Tremie tube
Screen		Vol. Fluid Added: 0
22 Begin Depth		Filter Pack
(SBDEPTH)		Type: Pre-pack 20/30 sand
	1	Source: Atlantic Drilling Supply
	Screen	Amount Used: 5'
	Length Filter Pack	Placement Method: Pre-pack
	5° Length	Well Riser Pipe
	(CORLENGTIN) 5'	Casing Material (CMACODE): Schedule 40 PVC
	(SCRLENGTH)	Casing Inside Diameters (CASDIAM):in.
27'	(FPL)	Screen
		Material: 4" Schedule 40 PVC
	Sump 4"	Inside Diameter (SCRDIAM): in.
Total Depth	Length	Screen Slot Size: (SOUA): 0.010 in.
27.3' (TOTDEPTH) —	0	Percent Open Area (PCTOPEN): NA
		Sump or Bottom Cap (\underline{Y}/N)
27.3' Borehol		Type/Length:
Diamete	er	Backfill Plug (Y / N)
3.25"		Material: NA
		Placement Method: NA
		Set-up/Hydration Time: NA
Comments		Total Water Volume During Construction
_		Introduced (Gal): 0 Recovered
		(Gal): <u>3</u>
		- Reviewed By: Graph James 9/30/14
		By: (500) Date: 9/30/14

Well I.D. (LOCID): LC39OGA-MW0007	Site: LC390GA
Drilling Company: Environmental Drilling Services	Installation Method: Direct-push technology
Drillers: Chris Phelps & Keith Olson	Casing Installation Date (INSDATE): 9-23-2014
Geologist/Engineer: Ben Coppenger	Well Type (WTCCODE): Groundwater Monitoring
Signature:	Well Completion Method (WCMCODE): Flush
	Geologic Completion Zone (GZCODE): Surficial
Convert Confess	
DEPTH BLS Ground Surface Elevation	
0.0 Land Surface 1.6'	Well Completion
1.0	Guard Posts (Y / N) Date: 9-23-2014
	Surface Pad Size: 2 ft x 2 ft
	Protective Casing or Cover
7"	Diameter/Type: 8" Steel manhole
Manufacture DA	Depth BGS: 8" Weep Hole (Y/N)
Measuring Pt. Elevation	Grout
8" Elevation (MPELEV)	Composition/Proportions:
Riser F Length	ipe (FO/FO)
	D1 (14.1 1 T) 1 (1
20' INTERVAL LENGTH 21.5	Tracement tracinos. Tracement trace
	Seal Date: 9-23-2014
Seal 2:	Type: Fine sand 30/65
Seal Length 2'	Source: Standard Sand and Silica Company
22' Seal End Depth	Set-up/Hydration Time: NA
(SBDEPTH)	Placement Method: Tremie tube
Screen 0	Vol. Fluid Added: 0
22' Begin Depth (SBDEPTH)	Filter Pack
	Type: Pre-pack 20/30 sand
	Source: Atlantic Drilling Supply
Screen Length	Amount Used: 5'
Filter Pack	Placement Method: Pre-pack
5' Length	
(SCRLENGTH) 5'	Well Riser Pipe Casing Material (CMACODE): Schedule 40 PVC
	Casing Inside Diameters (CASDIAM):in.
27° (FPL)	
	Screen
27.3' Total Depth Sump Length 4"	Material: Schedule 40 PVC Inside Diameter (SCRDIAM): 1 in.
27.3' Total Depth CTOTDEPTH)	
(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	
27.3'	Percent Open Area (PCTOPEN): NA
Borehole	Sump or Bottom Cap (\underline{Y} / N)
Diameter	Type/Length: 1" diameter/4" length sch 40 PVC solid
3.25"	Backfill Plug (Y / \underline{N})
	Material: NA
	Placement Method: NA
	Set-up/Hydration Time: NA
Comments	Total Water Volume During Construction
	Introduced (Gal): Recovered
	(Gal): <u>5</u>
	Reviewed 1) of and a algorithm
	By: (1) Date: 9/30/19

Well I.D. (LOCID): <u>LC390GA-MW0008</u>	Sile: LC390GA
Drilling Company: Environmental Drilling Services	Installation Method: Direct-push technology
Drillers: Chris Phelps & Keith Olson	Casing Installation Date (INSDATE): 9-22-2014
Geologist/Engineer: Ben Coppenger	Well Type (WTCCODE): Groundwater Monitoring
Signature: 2	Well Completion Method (WCMCODE): Flush
	Geologic Completion Zone (GZCODE): Surficial
Ground Surface	
DEPTH BLS Elevation	
0.0 Land Surface 2.3'	Well Completion
2.3	Guard Posts (Y / N) Date: 9-23-2014
	Surface Pad Size: 2 ft x 2 ft
	Protective Casing or Cover
7"	Diameter/Type: 8" steel manhole
Measuring Pt.	Depth BGS: 8" Weep Hole (Y/N)
El	Grout
8" (MPELEV)	Composition/Proportions:
Riser	Pipe (FO/FO)
INTERVAL LENGTH 21.	DI (14 1 T 1 4 1
20'	
	Seal Date: <u>9-23-2014</u>
Seal Length 2'	Type: Fine sand 30/65
22" Seal End Depth	Source: Standard Sand and Silica Company
(SBDEPTH)	Set-up/Hydration Time: NA
Screen	Placement Method: Tremie tube
Screen Begin Depth	Vol. Fluid Added: 0
(SBDEPTH)	Filter Pack
	Type: Pre-pack 20/30 sand
Screen	Source: Atlantic Drilling Supply
Length	Amount Used: 5'
5' Filter Pack Length	Placement Method: Pre-pack
	Well Riser Pipe
(SCRLENGTH)	Casing Material (CMACODE): Schedule 40 PVC
(FPL)	Casing Inside Diameters (CASDIAM): in.
27'	Screen
Sump 4"	Material: Schedule 40 PVC
27.3' Total Depth Length	Inside Diameter (SCRDIAM): in.
(TOTDEPTH)	Screen Slot Size: (SOUA): 0.010 in.
	Percent Open Area (PCTOPEN): NA
27.3'	Sump or Bottom Cap ($\underline{\mathbf{Y}}/N$)
Borehole Diameter	Type/Length: 4" Schedule 40 PVC
	Backfill Plug (Y/N)
3.25"	Material: NA
	Placement Method: NA
	Set-up/Hydration Time: NA
Comments	Total Water Volume During Construction
	Introduced (Gal): 0 Recovered
	(Gal): 10
	Reviewed
	By: (Ayat Nown) Date: 9/30/14
	· · · · · · · · · · · · · · · · · · ·

Well I.D. (LOCID): LC39OGA-MW0009	Site: LC390GA
Drilling Company: Environmental Drilling Services	Installation Method: Direct-push technology
Drillers: Chris Phelps & Keith Olson	Casing Installation Date (INSDATE): 9-23-2014
Geologist/Engineer: Ben Coppenger	Well Type (WTCCODE): Groundwater Monitoring
Signature:	Well Completion Method (WCMCODE): Flush
orginates.	Geologic Completion Zone (GZCODE): Surficial
Ground Surface	
DEPTH BLS Elevation	
0 0 Land Surface 2.3'	Well Completion
	Guard Posts (Y / <u>N</u>) Date: <u>9-23-2014</u>
	Surface Pad Size: 2 ft x 2 ft
7" 2.24	Protective Casing or Cover
/ 2.24	Diameter/Type: 8" Steel manhole
Measuring Pt.	Depth BGS: <u>8"</u> Weep Hole (Y / <u>N</u>)
g,, Elevation	Grout
(MPELEV)	Composition/Proportions:
Length	Type I/II neat cement grout & water (50/50)
20' INTERVAL LENGTH 21.5	Placement Method: <u>Tremie tube</u>
20	Seal Date: 9-23-2014
Seal 3	Type: Fine sand 30/65
Length Z	Source: Standard Sand and Silica Company
22' Seal End Depth	Set-up/Hydration Time: NA
(SBDEPTH)	Placement Method: Tremie tube
Screen 0	Vol. Fluid Added: 0
22' Begin Depth (SBDEPTH)	Filter Pack
	Type: Pre-pack 20/30 sand
	Source: Atlantic Drilling Supply
Screen Length	Amount Used: 5'
Filter Pack	Placement Method: Pre-pack
5' Length	Well Riser Pipe
(SCRLENGTH) 5'	Casing Material (CMACODE): Schedule 40 PVC
(FPL)	Casing Inside Diameters (CASDIAM):in.
27'	Screen
	Material: Schedule 40 PVC
27.3' Total Depth Sump Length 4"	Inside Diameter (SCRDIAM): 1 in.
(TOTDEPTH)	Screen Slot Size: (SOUA): 0.010 in.
	Percent Open Area (PCTOPEN): NA
27.3'	Sump or Bottom Cap (\mathbf{Y}/\mathbf{N})
Borehole	Type/Length: 4" Schedule 40 PVC
Diameter	Backfill Plug (Y/N)
3.25"	Material: NA
	Placement Method: NA
	Set-up/Hydration Time: NA
Comments	Total Water Volume During Construction
Comments	Introduced (Gal):0 Recovered
	(Gal): 5
	Reviewed 1
	By: Type Dun Date: 9/30/14
-	by. Complete Date. 17

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
MONITORING WELLS

9/25/2014

KLS#2014063

MONITORING WELLS	1 OF 2
(FEET)	

(1 LL1	,					
#	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	LC390GA MW0004
11	1548952.71	777972.15	1.62	1.8	MW	LC390GA MW0008
12	1548907.70	777979.17	1.32	1.6	MW	LC390GA MW0007
15	1548896.66	778020.02	1.12	1.3	MW	LC390GA MW0006
16	1548898.93	778038.12	0.92	N/A	MW	LC390GA MW0001 (EX)
17	1549019.07	778058.81	2.17	2.3	MW	LC390GA MW0005
18	1549021.46	778060.67	2.24	2.3	MW	LC390GA MW0009
(MET	RIC)					
#	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	LC390GA MW0004
11	472121.736	237126.386	0.494	0.53	MW	LC390GA MW0008
12	472108.016	237128.527	0.402	0.48	MW	LC390GA MW0007
15	472104.651	237140.979	0.341	0.40	MW	LC390GA MW0006
16	472105.343	237146.495	0.280	N/A	MW	LC390GA MW0001 (EX)
17	472141.963	237152.803	0.661	0.70	MW	LC390GA MW0005
18	472142.689	237153.369	0.683	0.70	MW	LC390GA 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

Site: LC390GA Project No.: FR0746C Phase: 09 Date: 5-11-15 Sampled By: Ben Copping
Station (Well ID): Purge Method: Pump
Pump (Make & Model): Geopump Purge Rate: O. gpm Water Quality Meter (Make & Model) VSI 556 MP5 Water Level Meter: Soby ST
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: 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" = 1.46

Time	Cumulative Purge Volume (gal)	Temp (⁰C)	pН	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	75.31	2,229	Grey	
1356	1.0	23.91	7.52		31.6	1.56	-329,2	1.87	1.944	gray	
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		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	Cleas	
										h == 1	
									6		
			1								
									-		

- 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 6.0026 gal/ft × Tubin		t) + (Flow Throug	h Cell Volume	O.25 gal) = $O.30$ g	gallons [3 × Equip. Vol €	90 gal
[Tubing Inner Diameter Capacity Factors: $1/8'' = 0.0006$; $1/4'' =$	0.0026					
Sample ID: LC3906t-Miscool-010.0-201505)	Time Collected:	1404	Comments:	voc 8260 B	4 DISSOLVE	1 gases

Station (Well ID) Pump (Make & M Time @ Start of F	10 GA : MWOOD Model): Geographics	Project N Pu Pu 1408 Time	Purge @ End of Pu	Pump M Bailer Rate: O gpn rging: 1424 ft BLS So	☐ Pump Typ Mater Quality Total Purging	e: Subm Meter (Mak Гіте:) 6	e & Model) <u>75) 5</u> min. Depth o	SSOther)	Peristaltic Water Lev	Centrifuga el Meter:So O	Bladder S/M S L ft BTOC
Time	Cumulative Purge Volume (gal)	Temp (°C)	рН	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	Grey	
1418	1.0	24.80	7.74	3.090	13.9	1.61	-331.0	1.94	2006	CRAS	
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		3.087	11.7	1.61	-336.8	1.46	2,005	Cleas	
1424	1.6	24,72	7.71	3.085	11.4	1.6)	-335,6	1.40	2.005	QKS	
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stabiliz 2. When pu	ation parameter i rging a well with ter measurement	measurements no s h partially submer s no sooner than 2	sooner than 2 ged well scre minutes apa	n the well screen, pur minutes apart; must peen, purge minimum rt, must purge minimu ion parameters listed	ourge minimum of of one well volur of three equip	t three equip ne prior to coment volume	ment volumes prior to ollecting first stabilize	ation paramete mple.	r measurements.	Take addition	al stabilization

- 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 \pm 0.2 mg/L or 10%, whichever is greater; and turbidity \pm 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 20	ft) + (Flow Through Cell Volume	$\underline{25}$ gal) = $\underline{0.30}$ gallons	$[3 \times \text{Equip. Vol} = 0.90 \text{ gal}]$
[Tubing Inner Diameter Capacity Factors: $1/8'' = 0.0006$; $1/4'' = 0.0026$]			
Sample ID: 4 C 390 GA - MWOOO (-010,0-20150609) Time Collected	ed: 1424 Comments:	Dissolved Gases	

Site: <u>LC39064</u> Project No.; FR0746C Phase: O9 Date: 5-11-15 Sampled By: Ben Copposer	
Station (Well ID): 40002 Purge Method: Pump Bailer Dump Type: Submersible (Teflon SS Other) Peristaltic Centrifugal Blade	lder
Pump (Make & Model): Geograp Purge Rate: 0.1 gpm Water Quality Meter (Make & Model) 751556 mp5 Water Level Meter: Solm 57	_
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
The second of th	1.00

Time	Cumulative Purge Volume (gal)	Temp (°C)	pН	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	Trey	
1528	1.0	25.31	7.4)	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	1.236	E/eas	
1548	3.0	25-38	7.28	1.936	8.00	0.98		0.67	1.259	clear	J
1550	3.2	25.37	7.28	1.936	7.98	0.98		0.65	1.259	ckar	1
1552	3.4	25.33	7.28	1.937	6.58	0.98		0.65	1.258	ckar	(
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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 0.002 Ggal/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: 20.30 Gallons [3 × Equip. Vol = 0.90 gal] 20.30 Comments: 20.30 Gallons [3 × Equip. Vol = 0.90 gal]

Monitoring Well Sampling	r									
Site: <u>LC390GA</u>	Project N	o.: I-Ro	746C Phase	99	Date: 6	110/15	Sampled By	Ben C	oppens	3
Station (Well ID): MWCOCZ	Pu	rge Method:	Pump Bailer	(i) Pump Typ	oe: Subm	ersible (Teflon	SS Other)	M Peristaltic	Centrifuga	l Bladder
Pump (Make & Model):	pump	Purge	Rate: 0.) gpn	n Water Quality	Meter (Make	e & Model) 151 55	6 MPS	Water Lev	el Meter: 5	olm 54
Time @ Start of Purging: 097	32 Time	@ End of Pu	rging: 0996	Total Purging	Time: 19	min. Depth o	of Pump or Inta	ake Tubing: 10)	ft BTOC
Depth to Water: 1.42 ft F	BTOC Total We	ll Depth:)	ft BLS So	creen Interval	S-13 1 - Depth to Water	ft BLS Well dia	meter:	in Well Vol	ume: 0,5 2"=0.163; 4"=	6 gal 0.653; 6" = 1.469
Cumulative Purge	Town (°C)		Conductivity	Turbidity	Salinity	ORP	DO	TDS	G.1	G .

Time	Cumulative Purge Volume (gal)	Temp (°C)	pН	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
3932	Start	25.35	7.36	2.181	209	1.11	-267.5	35.23		Grey	
0942	1.0	25.02	7.4)	2.098	16.5	1.07	-304.9	1.51	1.364	C)ecs	
0944	1.2	25.02	7.4)	2.098	15-8	1.07	-305,8	1.47	1.364	Cleas	
0946	1.4	25.03	7.41	2.098	15.4	1.07	-306,3	1.39	1.364	cleco	
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- 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: 203906A- 100002-010.0-2015060 Time Collected:	0946 Comments: DISSOlved Gases

e: 163906A Project No.: 7-80746 Phase: 09 Date: 5-12-15 Sampled By: Ben Coppenger
tion (Well ID):
mp (Make & Model): Geo pump Purge Rate: D. / gpm Water Quality Meter (Make & Model) 1556 mps Water Level Meter: Solmst
ne @ Start of Purging: 1025 Time @ End of Purging: 1042 Total Purging Time: 17 min. Depth of Pump or Intake Tubing: 10 ft BTOC
pth 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)	рН	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		1.337	11.6	0.67	-259.8	0,92	0.868	Ckar	
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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: $\pm 5.0\%$ 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 \pm 0.2 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.0626 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: 20.906A - MU0004 - 010.0 - 20150512 Time Collected: 10.942 Comments: 10.9068 Comme

Site: LC390GA Project No.: FRO746C Phase: 09 Date: 6-10-15 Sampled By: Ben Coppenger	
Station (Well ID): MW0004 Purge Method: Pump W Bailer D Pump Type: Submersible (Teflon SS Other) Peristaltic Centrifugal Bladde	er
Pump (Make & Model): Geopump Purge Rate: 6.1 gpm Water Quality Meter (Make & Model) 151 556 MPS Water Level Meter: Soln, &	7
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: 5 ft BLS Screen Interval: 5-)5 ft BLS Well diameter: 1 in Well Volume: 5-)4 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" = 1.46	591

Time	Cumulative Purge Volume (gal)	Temp (°C)	pН	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	- Z90.0	7.10	1.052	Grey	
1034	1.0	24.77	7.62	1.467	66.1	0,74	-315,4	1,56	0,955	13 25 ex	
1044	2.0	24.76	7.46	1.459	16.0	0.73	-321.4	0.86	0.947	Cleas	
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	cleas	

- 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 [Tubing Inner Diameter Capacity Factors: 1/8" = 0.0006; 1/4" = 0	Length 20 .0026]	ft) + (Flow Throug	h Cell Volume	0.25 gal) = 0.3	gallons [3 ×	Equip. Vol = $\frac{0.90}{gal}$ gal]
Sample ID: <u>LC390GA-MW0004-010.0-20150610</u>	Time Collected:	1048	Comments:	DISSOLVED	Gases	

Site: LC 39 06A Project No.: FLO746C Phase: 09 Date: 5-11-15 Sampled By: Ben Cappaigns
Station (Well ID): 25 Purge Method: Pump M Bailer Pump Type: Submersible (_ Teflon _ SS _ Other) Peristaltic _ Centrifugal _ Bladder
Pump (Make & Model): Geopump Purge Rate: 6.1 gpm Water Quality Meter (Make & Model) 451 556 mg Water Level Meter: Solinsz
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: 5 ft BLS Screen Interval: 5-15 ft BLS Well diameter: 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)	рН	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	2625.58	7.16	2.442	2.54	1.25	-284.5	1,20	1.587	Ckar	
1144	80-2 2	25.53	7.16	2.439	2.11	1.25	-283.9	1.13	1.58-6	Clear	
1146	Pe 0-2/4	23.5)	7.)5	2.433	2.06	1.25	-281.7	1.08	1.581	clear	
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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 0.002 (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: 20.006 A 20.0005 Time Collected: 1/46 Comments: 20.006 Comments: 20.006

Site: <u>LC39</u> Station (Well ID) Pump (Make & M): MW-000 Model): Ger	Project N	urge Method:	Pump Description Phase Pump Description Phase Rate: Description Phase Pump Description Phase Pump Description Phase Phase	☐ Pump Typ	e:Subm	e & Model) $\frac{1}{2}$	SS _ Other) 556 MF	Peristaltic Water Lev	Centrifuge	Bladder
Time	Cumulative Purge Volume (gal)	Temp (°C)	pН	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	Clas	
1300	1.4	25,12	7.45	2.907	3.98	1.51	-327.0	1.47	1.890	clear	
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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.

mg/2 or 1070, whenever is grown, and through 2 and 1 and 1	
Equipment Volume = (Tubing Capacity 0.0026 gal/ft × Tubing Length 20 ft) + (Flow Through Cell Volume	$\frac{0.25}{\text{gal}} = \frac{0.30}{\text{gallons}} = \frac{3 \times \text{Equip. Vol}}{\text{gal}} = \frac{0.30}{\text{gal}} = \frac{3 \times \text{Equip. Vol}}{\text{gal}} = $
Tubing Inner Diameter Capacity Factors: $1/8'' = 0.0000$; $1/4'' = 0.0020$	
Sample ID <u>1</u> C 390 GA - M W005 - 010.0 - 20150609 Time Collected: 1300 Comments:	Dissolved Gases
Sample 1020 > 1. Thine contected.	

Site: LC3906A Project No.: FK0746C Phase: 09 Date: 5-11-15 Sampled By: Ben Coppings
Station (Well ID):
Pump (Make & Model): Geopung Purge Rate: 0, 1 gpm Water Quality Meter (Make & Model) 15/556 Water Level Meter: Solm 5t
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: On 79 ft BTOC Total Well Depth: 27 ft BLS Screen Interval; 27-27 ft BLS Well diameter: in Well Volume: 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)	рН	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	
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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.

Pump (Make & M Time @ Start of F	906A : MW0006 Hodel): Ger Purging: 14	Project P	urge Method Purge	Phase Pump Bailer Rate: O D gpn urging: 1454 ft BLS Sc Well Volum	☐ Pump Typ m Water Quality Total Purging	oe: Subm Meter (Mak Time:	nersible (Teflon re & Model)	SS _ Other)	Peristaltic Water Level Water Tubing:	Centrifug vel Meter:	al Bladder
Time	Cumulative Purge Volume (gal)	Temp (°C)	рН	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
1438	Start	125.69	17.69	30,71	1274	19.05	-270.7	5.60	19.99	(leas	

Time	Cumulative Purge Volume (gal)	Temp (°C)	pН	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
1438	Start	25.69	7.69	3007	2.24	19.05	-330.7	5.60	19.99	C'leas	
1450). 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	-35)./	1.50	20,19	Checr	
1454	1.6	25.44	7.49	31.07	1.12	19.30	-352.2	1.43	20,20	Chec6	

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Equipment Volume = (Tubing Capacity On gal/ft × Tubing Length 35 ft) + (Flow Through Cell Volume O. 5 gal) = 0.39 gallons [3 × Equip. Vol = 2.00]) <u>2</u> gal]
[Tubing Inner Diameter Capacity Factors: $1/8'' = 0.0006$; $1/4'' = 0.0026$]	
Sample ID: <u>LC 3906A-MW0006-024, 5-20150609</u> Time Collected: 1454 Comments: <u>Dissolved Gases</u>	

Site:	Project No.: FR0746C	Phase: 09	Date: 5-12-15	Sampled By: Ben	Coppensi
Station (Well ID): MW0007	Purge Method: Pump	Bailer Pump Type:	Submersible (Teflon	SS Other) Perist	altic Centrifugal Bladder
Pump (Make & Model): Geopu					
Time @ Start of Purging: 0942					
Depth to Water: 0.97 ft BTOC	Total Well Depth: 27 ft BI	LS Screen Interval: 22 ell Volume = (Total Well Depth - D	2-27 ft BLS Well Depth to Water) × Well Capacity [We	diameter:in We lell Capacity Factors: 3/4" = 0.02; 1"=	ell Volume: gal = 0.041; 2" = 0.163; 4" = 0.653; 6" = 1.469

Time	Cumulative Purge Volume (gal)	Temp (°C)	рН	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	15 16N	-287.7	4.90	17.30	Checa	
0954	1.2	24.94	7.20	28,54	2,77	17.58	-324,7	0.92	18.55	cleas	
0956	1.4	24.94	7.Z0	28,54	2.68	17.58	-327.0	0.89	18.22	Clear	
0958	1.6	24.95	7.21	28.53	2.62	17.58	-326.5	0.88	18.55	Clear	
					7						
				72	7						
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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 \pm 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: 1.02 Gallons [3 × Equip. Vol = 1.02 gal] 1.02 Gallons [3 × Equip. Vol = 1.02 gallons [3 × Equip. Vol

Monitoring Well Sampling

Site: LC390GA Project No.: FRO746C Phase: 09 Date: 6-10-15 Sampled By: Ben Coppensar
Station (Well ID): Purge Method: Pump
Pump (Make & Model): Geopunp Purge Rate: O: 1 gpm Water Quality Meter (Make & Model) 451556 MPS Water Level Meter: 50/055
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: in Well Volume: 1.0.5 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)	рН	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	
D96 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	377,0	1.18	18.67	Clear	
21012	1.6	24.92	7.40	28,76	1-61	17.72	- 327.7	1.18	18.67	alear	
71014	7-5										
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- 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.
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- 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) + [Tubing Inner Diameter Capacity Factors: $1/8'' = 0.0006$; $1/4'' = 0.0026$]	(Flow Through Cell Volume	$(25_{\text{gal}}) = 0.34_{\text{gal}}$	gallons $[3 \times \text{Equip. Vol} = 202 \text{gal}]$
Sample ID: 4C 390GA-MW0007-024,5-20150610 Time Collected: 10	Comments:	Dissolved Ga	ases

Site: LC390GA Project No.: FR0746C Phase: 09 Date: 5-12-15 Sampled By: Ben Coppenser
Station (Well ID): Purge Method: Pump
Pump (Make & Model): Geopung Purge Rate: O. I gpm Water Quality Meter (Make & Model) 451 556 MP5 Water Level Meter: Solmst
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)	рН	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	Ckas	
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	CROW	
1126	1.6	25.09	7.31	11,23	1.83	6.37	-298,4	0,97	7.297	ckar	
				4>6					100		
				-							

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- 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 ?.002 gal/ft × Tubing Length 35 [Tubing Inner Diameter Capacity Factors: 1/8" = 0.0006; 1/4" = 0.0026]	ft) + (Flow Through	h Cell Volume	0.25 gal) = 0.34	gallons [3 × Equip	Vol = 1 gal
Sample ID: 23906A-MU0008-024.5-201505) Z Time Collected:	1126	Comments: _	VOC 8260 \$ 4	discoved 5	auses

Site: <u>LC3906A</u> Project No.: FR074	6C Phase: 09 Da	ate: 6-10-15 San	mpled By: Ben Co	ppenger
Station (Well ID): MUOOO 8 Purge Method: Pum	p Bailer 🗆 Pump Type:	_ Submersible (Teflon SS	Other) Peristaltic	_ Centrifugal Bladder
Pump (Make & Model): Geo pump Purge Rate:				
Time @ Start of Purging: 1050 Time @ End of Purging:	1706 Total Purging Time:	<u>16</u> min. Depth of Pu	mp or Intake Tubing:	7. 5 ft BTOC
Depth to Water: 1.68 ft BTOC Total Well Depth: 27	ft BLS Screen Interval; 27-	ft BLS Well diamete	er:) in Well Volum	ne: 1.04 gal
	wen volume – (Total wen Depth – Dep	in to water) ~ wen capacity [wen capacit	y ractors: 3/4 - 0.02; 1" = 0.041; 2"	- 0.105; 4 - 0.053; 6° = 1.409]

Time	Cumulative Purge Volume (gal)	Temp (°C)	рН	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)	ORP (mV)	DO (mg/L)	TDS (g/L)	Color	Comments
25.42	Start	25.42	7.49	8.800	14.7	5.02	-296.6	5.8Z	6.13)	C)eas	
410 ORC	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.)	0.98	7.511	(RCG	
1106	1.6	25.20	7.49	11.55	3.71	6.57	-330.4	0.92	7.503	clear	

Notes:

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- 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: $DO \pm 0.2$ 134 mg/L or 10%, whichever is greater; and turbidity ± 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0,002 6 gal/ft × Tubing Length 35 [Tubing Inner Diameter Capacity Factors: 1/8" = 0.0006; 1/4" = 0.0026]	_ ft) + (Flow Throug	gh Cell Volume	0,25 gal)	gallons	$[3 \times \text{Equip. Vol} = \frac{1}{2}]$	<u>0Z</u> gal]
Sample ID: <u>LC390GA-NW0008-024,5-20150610</u> Time Collected:	1106	Comments:	Dissolved	Gases		-

Site: 2C3906A Project No.: FRO746C Phase: 09 Date: 5.11-15 Sampled By: Den Coppensed
Station (Well ID): MW0009 Purge Method: Pump D Bailer D Pump Type: Submersible (Teflon SS Other) Peristaltic Centrifugal Bladder
Pump (Make & Model): Geopump Purge Rate: O-) gpm Water Quality Meter (Make & Model) 15/556 MP5 Water Level Meter: Solh SC
Time @ Start of Purging: 1208 Time @ End of Purging: 1274 Total Purging Time: 16 min. Depth of Pump or Intake Tubing: 24.5 ft BTOC
Depth to Water: 1,65 ft BTOC Total Well Depth: 27 ft BLS Screen Interval: 22-27 ft BLS Well diameter: in Well Volume: 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)	pН	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		
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	7.58	4.363	6.43	2.32	-254,4	1.25	2.837	Clear	
1224	1.6	25.43	7.57	4.372		2.32	-259.9	1.08	2.844	clear	
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- 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.
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- 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 Tubing Inner Diameter Capacity Factors: 1/8" = 0.0006; 1/4" = 0.0026]	5 ft) + (Flow Thro	ugh Cell Volume 👲	,25 gal) =0.34	gallons [3 × Equip.	$Vol = \frac{\int 0^{2} gal}{gal}$
	cted: 1224	Comments: V	106 826084	Dissolved	gases

Station (Well ID) Pump (Make & M Time @ Start of)	59 OGA): MWGOO' Model): Gec	Project N Pump Time	urge Method: Purge	Pump Bailer Pump Bailer Rate: ppr urging: 1238 27 ft BLS So Well Volum	☐ Pump Typ m Water Quality Total Purging 7	oe: Subm Meter (Mak Time:\ 8	e & Model) $\frac{y \le 1}{2}$ min. Depth o	SS _ Other) 5 5 6 f Pump or Inta	Peristaltic Water Level ke Tubing:	Centrifuga el Meter: 1	Bladder So brog
Time	Cumulative Purge Volume (gal)	Temp (°C)	рН	Conductivity (mS/cm)	Turbidity (NTU)	Salinity (%)		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	Gey	
1229	1.BC	Q., 0.)	- 4/	11. (0)	111		0.2 **	7.04	7 40 7	() 24	
1239	1.2	24.92	7.56	4.594	14.7	2.45	-243.0 -252.9	1.60	2.987	Clear	
1236	Syc 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		Cleas	
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- 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 \pm 0.2 mg/L or 10%, whichever is greater; and turbidity \pm 5 NTUs or 10%, whichever is greater.

Equipment Volume = (Tubing Capacity 0.007 & gal/ft × Tubing Length 3 5	\sum_{ft} ft) + (Flow Through Cell Volume \underline{C}	$0.25_{\rm gal} = 0.34$	_ gallons $[3 \times \text{Equip. Vol} = \frac{100 \text{ Z}}{2} \text{ gal}]$
[Tubing Inner Diameter Capacity Factors: $1/8'' = 0.0006$; $1/4'' = 0.0026$]	_	_	_
Sample ID: 263906A - MW009-024. 5-20150609 Time Collecte	ed: 1238 Comments:	1)issolved	Gases

Geosyntec^o

consultants

Water Quality Instrument Calibration Form
Project #: FR0746C Turbidimeter - Model/Serial#: 1406 7000 Project/Site: VAB A/IA
ity Meter - Model/Serial#: YSI -15/ Water Quality Meter - Model/Serial#:

rater quality meter 111	ouci, oci idiii.	-132 1	20			the same	a. D. allinet	Ci Wiodely Serialii.	Nach	awy		
Dissolved Oxygen	Date	Time	Temp	Saturation	Reading	Reading	Pass or	Turbidity	Date	Standard	Reading	Pass or
(FDEP SOP FT 1500)	Date	Time	(°C)	(mg/L)*	(mg/L)	(%)	Fail	0.1-10 NTU	Date	(NTU)	(NTU)	Fail
						Criteria:+/-	-			Acceptan	ce Criteria	1
CAL ICV CCV	॥थान	801	25.41	B. 203	7.19-8.21	98.7-100.5	~	CALICYCCV	nluly	100	10.0	P F
CAL ICV CCO	11/21/14	1485	25.00	8.263	8.29	100.0	⊕ F	CAL ICV CC	14	10.0	9.7	(P) F
CAL ICV CCV							PF	CAL ICV CCV				PF
CAL ICV CCV							PF	CAL ICV CCV				PF
Specific Conductance (FDEP SOP FT 1200)	Date	Time	Standard Lot #	Standard Exp. Date	Standard (mS/cm)	Reading (mS/cm)	Pass or Fail	Turbidity 11-40 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail
Specific Conductance Pro	be Cleaned	? (Yes) No)		Accept	ance Criteri	a: +/- 5%			Accepta	nce Criteri	a: +/- 8%
CAL ICV CCV	11126/14	FHT BOZ	7168	5/14/14	1.413	1.115-1414	● F	CALICVCCV	11/20/14	70.0	19.9	(P) F
CAL ICYCCV	Heller	1436	4.1	ч	ч	1445	♠ F	CAL ICV (CO)	V	20.0	20.1	Ø F
CAL ICV CCV							PF	CAL ICV CCV				PF
CAL ICV CCV				-			PF	CAL ICV CCV		1		PF
pH (FDEP SOP FT 1100)	Date	Time	Standard Lot #	Standard Exp. Date	Standard (SU)	Reading (SU)	Pass or Fail	Turbidity 41-100 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail
						e Criteria: +					ce Criteria:	
CAL ICV CCV	11/20/14	804	2405440	4/16	7.00	7.11-201	PP F	CAL ICV CCV				PF
CAL ICVCCV	· · ·		2405 B	5/10	4.00	4.09-4.0	(P) F	CAL ICV CCV				PF
CAL ICV CCV	h	811	2404751	18/15	18.00	10.05-1401		CAL ICV CCV				PF
CAL ICV CCV	11/2/14	1436		^		7.03	Ø F	CAL ICV CCV				PF
CAL ICV CCV		1437		DAIN	117	4.09	(D) F	CAL ICV CCV				PF
CAL ICV CCV	V	1438		0		10.05-	(P) F	CAL ICV CCV				PF
ORP (FDEP SOP N/A)	Date	Time	Standard Lot #	Standard Exp. Date	Standard (mV @ Temp °C)	Reading (mV)	Pass or Fail	Turbidity >100 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or
Dissolved Oxygen Memb	rane Change	ed? Yes	No		Geosyntec Accept		a: +/- 5%			1	nce Criteri	a: +/- 5%
CAL ICV CCV	Intelled	R13	3AK643	11/10	240625	241-2-210.	(P) F	CAL ICV CCV				PF
CAL ICVCCV	ulzilil	1440	M	٦	4	240.5	PF	CAL ICV CCV				PF
CAL ICV CCV		- 1		4 1			PF	CAL ICV CCV				PF
CAL ICV CCV							PF	CAL ICV CCV	1			PF

Allow adequate time for the dissolved oxygen sensor to equilibrate during air calibration CAL = Initial 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) ICV = Initial Calibration Verification

CCV = Continuing Calibration Verification 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 * See Table FS 2200-2 on the back of this form If parameter fails to calibrate within SOP acceptance criteria then append sample results with a "J" qualifier

Geosyntec^o

consultants

Water Quality Meter - Model/Serial#:

LC390GA Project/Site:

water Quanty Meter - W	oucij Scriuii.		51 >>6	MPS	067111717	-	arbiannet	er - Mouel/Serial#.		21006	02	377/
Dissolved Oxygen (FDEP SOP FT 1500)	Date	Time	Temp (°C)	Saturation (mg/L)*	Reading (mg/L)	Reading (%)	Pass or Fail	Turbidity 0.1-10 NTU	Date	Standard (NTU)	Reading (NTU)	Pass c Fail
		1058			Acceptance	Criteria:+/-	0.3 mg/L			Acceptan	ce Criteria	: +/- 10
CAPICY CCV	5-11-15	1008	25.91	8.128	7.91/8.128	95/100	P) F	CALOCVCCV	5-11-15	10	7.77/10	P) F
CAL ICV CCV		10				/	PF	CAL ICV CCV				P F
CAL ICV CCV							PF	CAL ICV CCV				PF
CAL ICV CCV							PF	CAL ICV CCV				PF
Specific Conductance (FDEP SOP FT 1200)	Date	Time	Standard Lot #	Standard Exp. Date	Standard (mS/cm)	Reading (mS/cm)	Pass or Fail	Turbidity 11-40 NTU	Date	Standard (NTU)	Reading (NTU)	Pass o
Specific Conductance Pro	be Cleaned?	Yes N	0			ance Criteri	a: +/- 5%			Accepta	nce Criteri	a: +/- 8
(CA) (CV) CCV	5-11-15	1118	11461	1-16	1,413	1.46111.412	(P) F	CALVCV CCV	5-11-15	20	19.5/20	ΡF
CAL ICV CCV						1	PF	CAL ICV CCV				ΡF
CAL ICV CCV							PF	CAL ICV CCV				P F
CAL ICV CCV							PF	CAL ICV CCV				P F
pH (FDEP SOP FT 1100)	Date	Time	Standard Lot #	Standard Exp. Date	Standard (SU)	Reading (SU)	Pass or Fail	Turbidity 41-100 NTU	Date	Standard (NTU)	Reading (NTU)	Pass o
						e Criteria: +		11			e Criteria:	
CALACVICCV	5-11-15	1106	2410694	9-16	1990 7	7.08/71		(CALMCV)CCV	5-11-15	100	99.4/100	
CAL ICV CCV	1	1108	2412615		4	3.86/4.0		CAL ICV CCV				P F
CAL ICV CCV	1/	1116	2409(24	3-16	10	9.88/100		CAL ICV CCV				P F
CAL ICV CCV	V					/	PF	CAL ICV CCV				P F
CAL ICV CCV							PF	CAL ICV CCV				P F
CAL ICV CCV							PF	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	Turbidity >100 NTU	Date	Standard (NTU)	Reading (NTU)	Pass o
Dissolved Oxygen Memb	rane Change	d? Yes	No		Geosyntec Accept	ance Criteri	a: +/- 5%			Accepta	nce Criteri	a: +/- 5
(CAL)(CV) CCV	5-11-15	1122	8039	9-19	240	238/240	R F	CALICVICCV	5-11-15	800	803/8a	(P)F
CAL ICV CCV							PF	CAL ICV CCV			,	PF
CAL ICV CCV						1	PF	CAL ICV CCV				P F
CAL ICV CCV							PF	CAL ICV CCV				PF

Notes:

CAL = Initial Calibration

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

ICV = Initial Calibration Verification

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

CCV = Continuing Calibration Verification

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

^{*} See Table FS 2200-2 on the back of this form If parameter fails to calibrate within SOP acceptance criteria then append sample results with a "J" qualifier

Geosyntec^o

Water Quality Instrument Calibration Form

Consultants
Project/Site: LC39 OGA
Project:
Water Quality Instrum
Project:
Water Quality Meter - Model/Serial#: YSI 556 MPS 06m1171 AG

Project #: FR 0746C Field

A 6 Turbidimeter - Model/Serial#:

Field Personnel:

annel: Ben Coppenses

Dissolved Oxygen	Date	Time	Temp	Saturation	Reading	Reading	Pass or	Turbidity
(FDEP SOP FT 1500)	Date	Title	(°C)	(mg/L)*	(mg/L)	(%)	Fail	0.1-10 NTU
					Acceptance			
(CALYCVYCCV)	V	0902	28.61	7.745			€ F	CALICYCCV
(CAL)CV(CEV)	5-12-15	1410	24.19	8:387	8.262/8.38	98/100	(F)	CALICVECY
CAL ICV CCV				- 4 1			P F	CAL ICV CCV
CAL ICV CCV							PF	CAL ICV CCV
Specific Conductance	2.1.	Ti	Standard	Standard	Standard	Reading	Pass or	Turbidity
(FDEP SOP FT 1200)	Date	Time	Lot #	Exp. Date	(mS/cm)	(mS/cm)	Fail	11-40 NTU
Specific Conductance Pro	be Cleaned?	Yes N			Accepta	ance Criteria	a: +/- 5%	
(CA) LEV(CCV)	5-12-15		11461	1-14	1,413	1.459/14		CAL CVXEV
CADICV(CCV)	5-12-15	1354	11461	1-16	1.413	1,445	(P) F	CALICVECV
CAL ICV CCV							PF	CAL ICV CCV
CAL ICV CCV							PF	CAL ICV CCV
рН			Standard	Standard	Standard	Reading	Pass or	Turbidity
(FDEP SOP FT 1100)	Date	Time	Lot#	Exp. Date	(SU)	(SU)	Fail	41-100 NTU
V					Acceptanc	e Criteria: +	/- 0.2 SU	
CALICYCCV	5-12-15	0905	2412615	11-16	4	3.98/4.0	P F	CALLCVCC
(CAL)ICV(CCV)	1	0903	2410694	9-16	7	7.12/70	(P) F	CADICV CO
(CA) LCV CCV		0908	2409 CZY	3-16	10	9.99/10	₽ F	CAL ICV CCV
CALICVCCV		1348	2412615	11-16	4	3.85	(P) F	CAL ICV CCV
CAL)CV CCV	1	1342	2410694		7	6.95	(P) F	CAL ICV CC\
(VO) VOICADO	V	1352	2409024	3-16	10	9.92	(P) F	CAL ICV CC\
ORP			Standard	Standard	Standard	Reading	Pass or	Turbidity
(FDEP SOP N/A)	Date	Time	Lot #	Exp. Date	(mV @ Temp °C)	(mV)	Fail	>100 NTU
Dissolved Oxygen Memb	rano Change	d? Yes	NA		Geosyntec Accept	l ance Criteri	a: +/- 5%	
(CANICVICOV)	5-12-15		8039	9-19	240	237.6/24		CALICYCCO
(CAL)ICV(CCV)	5-12-15		8039	9-19	240	238.1	(P) F	SCALICV (C)
CAL ICV CCV	3 15	. 100	10031	- '	10		PF	CAL ICV CC
CALICV CCV							P F	CAL ICV CCV
Notas:				_				

1	Turbidity	Data	Standard	Reading	Pass or					
	0.1-10 NTU	Date	(NTU)	(NTU)	Fail					
			Acceptance Criteria: +/- 10%							
ľ	CALICYCCY	5-12-15	10	9.98/n	(P) F					
	CAL CV (CCV)	5-12-15	10	9.83	(B) F					
	CAL ICV CCV				PF					
	CAL ICV CCV				PF					
	Turbidity 11-40 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail					
ı			Accepta	nce Criteria	a: +/- 8%					
ı	CAL CVXEV)	2-12-15	26	19.93/zi	⊕ F					
l	CALYCV (CV)	5-12-15	20	20.9	(P) F					
l	CAL ICV CCV	4-			PF					
l	CAL ICV CCV				PF					
1	Turbidity	Date	Standard	Reading	Pass or					
ı	41-100 NTU	Date	(NTU)	(NTU)	Fail					
ı			Acceptan	ce Criteria:						
ı	CALLCYCCY	5-12-15	100	100/100	(P) F					
ı	(V2) VOICIAS	5-12-15	100	101	PF					
l	CAL ICV CCV				PF					
l	CAL ICV CCV				PF					
l	CAL ICV CCV				PF					
l	CAL ICV CCV				PF					
	Turbidity >100 NTU	Date	Standard (NTU)	Reading (NTU)	Pass or Fail					
۱			Accepta	nce Criteri	a: +/- 5%					
1	CALICYCCY	5-12-15	800	80 3 /800	₽ F					
1	CALICV (CV)	5-12-15	800	782	(√) F					
1	CAL ICV CCV				P F					
1	CAL ICV CCV		_		PF					

Notes:

CAL = Initial Calibration

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

ICV = Initial Calibration Verification

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

CCV = Continuing Calibration Verification

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

^{*} See Table FS 2200-2 on the back of this form 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: LC	390	OGA		Project #: FR		Field Personne	Ben	Coppe	nges		
Water Quality Meter	- Model/Se	rial #: 1/51	556 M	PS 06,	11171A	6	Turbidimeter -	Model/Seria	# HACH	2100 (2 023
Dissolved Oxygen	DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L) ¹	Reading (mg/L)	Reading (%)	Pass or Fail	0.1 - 10 NTU Std NTU	Date	Reading Pass o (NTU) Fail
CAL ICV CCV CAL ICV CCV CAL ICV CCV	6	9-15 6-10-15 6-10-15	1107 0805 1300	21.53	8.829 9,056 8,915	8,621/8.88 8,621/8.88 8,91/9.65 8.816/89	97.3/10 97.9//00 99.9//00	OPF	CAL (CV CCV CAL (CV CCV) CAL ICV CCV CAL ICV CCV	Acce 6-9-15 6-10-15 6-10-15	otance Criteria: +/- 10% 0.7/10.0 P F 10.0/10.0 P F 10.0/10.0 P F P F
Specific Conductance	DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail	11 - 40 NTU Std <u>20</u> NTU	Date	Reading Pass o (NTU) Fail
CAL (CV CCV CAL ICV CCV CAL ICV CCV CAL ICV CCV CAL ICV CCV	6	6-10-15 6-10-15	1050 0813 1312	1.413	11461	1-16 1-16 1-16	Acceptance Crit 1. 439 /), 41 4-452 1.40 1. 410/ J. 41	3 50 F	CAL ICV CCV	69-15 6-10-15 6-10-15	eptance Criteria: +/- 8% 19, 7/20 P F 19,9/20 P F 20.62/20 P F P F
оН	DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail	41 - 100 NTU Std OC NTU	Date	Reading Pass of (NTU) Fail
CALLICY CCV	_	6-9-15 6-9-15 6-10-15 6-10-15 6-10-15	1044 1042 7048 0810/13 0808/13	5 Sun	241265 2410694 2409624 ne 45abo	11-16 1 9-16 3-16	ceptance Criterie 9.07 / 4.0 6.92 / 7.6 9.88 / 6.0 9.0 / 9.0 6.99 / 9 9.98 / 70	F F F F F	CAD ICV CCV CAL ICV CCV CAL ICV CCV CAL ICV CCV CAL ICV CCV CAL ICV CCV	Accep 6-9-15 6-10-15 6-10-15	180/180 P F 101/180 P F P F P F
ORP	SOP N/A	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail	>100 NTU Std 500NTU	Date	Reading Pass o
CAL ICV CCV CAL ICV CCV CAL ICV CCV	6	6-10-15 6-10-15	1052	240	47C) 47C)	Geosyntec 7-17 7-17 7-17	254.7/24 242/240 240/2	OP F	CAL ICV CCV CAL ICV CCV CAL ICV CCV CAL ICV CCV	69-15 6-10-15 6-275	eptance Criteria: +/- 5% 82 (1) 80 (1) F 8 (5) 8 (1) F 8 (1) 8 (1) F 9 F P F
Specific Conductano			No	Disolved Oxyge	en membrane Ch	anged? Yes	Vo)				
. See Table FS 2200-2 CAL - Initial Calibration CV - Initial Calibration Ve CCV - Continuing Calibra	erification ation Verificatio	n	9		Comments:						
allow adequate time for the Calibrate specific conduct Calibrate pH using at least	tance using at	least two standar	ds that bracket the	range of expected sa							Geosyntec ^D

Geosyntec consultants

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

ATTACHMENT E ANALYTICAL LABORATORY REPORTS



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 Swefford

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

Mark Swafford, Project Manager I (850)474-1001

mark.swafford@testamericainc.com

.....LINKS

Review your project results through

Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

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

Qualifiers

GC/MS VOA

Q	ualitier	Qualifier Description
U		Indicates that the compound was analyzed for but not detected.
-1		The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

Glossary

RPD

TEF

TEQ

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)

Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Case Narrative

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

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 1.8° 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.

3

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Б

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8

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11

12

TG

2

TestAmerica Job ID: 400-98693-1

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

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	Ī	25	10	ug/L	1	_	8260B	Total/NA
Carbon disulfide	0.68	1	1.0	0.50	ug/L	1		8260B	Total/NA
Vinyl chloride	0.93	1	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	1	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	Ī	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	1	1.0	0.50	ug/L	1		8260B	Total/NA
Į	Vinyl chloride	0.63	1	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 Qu	ualifier	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 Fa	D	Method	Prep Type
Acetone	12	I	25	10	ug/L		ī —	8260B	Total/NA
Carbon disulfide	0.59	1	1.0	0.50	ug/L			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	1	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.58		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	1	25	10	ug/L	1		8260B	Total/NA
Carbon disulfide	0.60	1	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.

TestAmerica Job ID: 400-98693-1

Lab Sample ID: 400-98693-9

Lab Sample ID: 400-98693-10

Lab Sample ID: 400-98693-11

Lab Sample ID: 400-98693-12

Lab Sample ID: 400-98693-13

Lab Sample ID: 400-98693-14

Lab Sample ID: 400-98693-15

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

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

Analyte	Result Qua	alifier 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

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

Client Sample ID: MLPV-IW0012D-047.5-20141118

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

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

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

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	1	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

<u> </u>											
Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type		
Acetone	17	Ī	25	10	ug/L	1	_	8260B	Total/NA		
Carbon disulfide	0.73	1	1.0	0.50	ug/L	1		8260B	Total/NA		
cis-1,2-Dichloroethene	0.57	1	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

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

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TestAmerica Job ID: 400-98693-1

Lab Sample ID: 400-98693-16

Lab Sample ID: 400-98693-17

Lab Sample ID: 400-98693-20

Lab Sample ID: 400-98693-21

Lab Sample ID: 400-98693-22

Lab Sample ID: 400-98693-23

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

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	1	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

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	1	1.0	0.50	ug/L	1		8260B	Total/NA	

Client Sample ID: WCPS-IW0016-020.0-20141118

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	1	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

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	21	Ī	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

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

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	1	1.0	0.50	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.79	1	1.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: LC39OGA-MW0007-025.0-20141118

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

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Lab Sample ID: 400-98693-24

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D I	Method	Prep Type
Acetone	15	I	25	10	ug/L	1	- 8	3260B	Total/NA
Carbon disulfide	0.57	1	1.0	0.50	ug/L	1	8	3260B	Total/NA
cis-1,2-Dichloroethene	2.2		1.0	0.50	ug/L	1	8	3260B	Total/NA
Vinyl chloride	0.61	1	1.0	0.50	ug/L	1	8	3260B	Total/NA

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Client Sample ID: LC39OGA-MW0009-025.0-20141118

Client Sample ID: LC39OGA-MW0008-025.0-20141118

Lab Sample ID: 400-98693-25	-98693	400	ID:	ple	Sami	Lab	
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Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone		I	25	10	ug/L		_	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	ua/L	1		8260B	Total/NA

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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

Lab Sample ID: 400-98693-1

Matrix: Water

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

Date Received: 11/20/14 09:27

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		ug/L			11/25/14 09:38	1
1,3-Dichloropropane	0.50	U	1.0	0.50	_			11/25/14 09:38	1
1,4-Dichlorobenzene	0.64	U	1.0		ug/L			11/25/14 09:38	1
2,2-Dichloropropane	0.50		1.0		ug/L			11/25/14 09:38	1
2-Chlorotoluene	0.57	U	1.0		ug/L			11/25/14 09:38	1
2-Hexanone	3.1		25		ug/L			11/25/14 09:38	1
4-Chlorotoluene	0.56	U	1.0	0.56	_			11/25/14 09:38	1
Acetone	13	1	25		ug/L			11/25/14 09:38	1
Benzene	0.38		1.0	0.38				11/25/14 09:38	1
Bromobenzene	0.54	U	1.0	0.54	_			11/25/14 09:38	1
Bromochloromethane	0.52	U	1.0		ug/L			11/25/14 09:38	1
Bromodichloromethane	0.50	U	1.0		ug/L			11/25/14 09:38	1
Bromoform	0.71	U	5.0	0.71	-			11/25/14 09:38	1
Bromomethane	0.98	U	1.0		ug/L			11/25/14 09:38	1
Carbon disulfide	0.68	· · · · · · · · · · · · · · · · · · ·	1.0		ug/L			11/25/14 09:38	1
Carbon tetrachloride	0.50		1.0	0.50	_			11/25/14 09:38	1
Chlorobenzene	0.50	U	1.0		ug/L			11/25/14 09:38	1
Chloroethane	0.76	U	1.0		ug/L			11/25/14 09:38	1
Chloroform	0.60	U	1.0		ug/L			11/25/14 09:38	1
Chloromethane	0.83	U	1.0		ug/L			11/25/14 09:38	1
cis-1,2-Dichloroethene	0.50		1.0		ug/L			11/25/14 09:38	1
cis-1,3-Dichloropropene	0.50		5.0		ug/L			11/25/14 09:38	1
Dibromochloromethane	0.50		1.0		ug/L			11/25/14 09:38	1
Dibromomethane	0.59		5.0		ug/L			11/25/14 09:38	1
Dichlorodifluoromethane	0.85		1.0		ug/L			11/25/14 09:38	1
Ethylbenzene	0.50		1.0		ug/L			11/25/14 09:38	1
Ethylene Dibromide	0.50		1.0		ug/L			11/25/14 09:38	
Hexachlorobutadiene	0.90		5.0		ug/L			11/25/14 09:38	1
Iodomethane	0.68		1.0		ug/L			11/25/14 09:38	1
Isopropyl ether	0.70		1.0		ug/L ug/L			11/25/14 09:38	· · · · · · · · · · · · · · · · · · ·
Isopropylbenzene	0.53		1.0		ug/L ug/L			11/25/14 09:38	1
Methyl Ethyl Ketone	2.6		25		ug/L			11/25/14 09:38	1
methyl isobutyl ketone	1.8		25		ug/L ug/L			11/25/14 09:38	· · · · · · · · · · · · · · · · · · ·

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

Lab Sample ID: 400-98693-1

Matrix: Water

Client Sample	ID: PRES-IW00071	-034.5-20141117
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Date Collected: 11/17/14 14:52 Date Received: 11/20/14 09:27

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

Client Sample ID: PRES-IW0008I-040.0-20141117

TestAmerica Job ID: 400-98693-1

Lab Sample ID: 400-98693-2

Matrix: Water

Date Collected: 11/17/14 15:05 Date Received: 11/20/14 09:27

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 10:05	
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 10:05	
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 10:05	
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 10:05	
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 10:05	
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 10:05	
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 10:05	
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 10:05	
1,2-Dichloropropane	0.50	U	1.0	0.50	-			11/25/14 10:05	
1,3,5-Trimethylbenzene	0.56	U	1.0		ug/L			11/25/14 10:05	
1,3-Dichlorobenzene	0.54	U	1.0	0.54	-			11/25/14 10:05	
1,3-Dichloropropane	0.50	U	1.0	0.50	•			11/25/14 10:05	
1,4-Dichlorobenzene	0.64	U	1.0		ug/L			11/25/14 10:05	
2,2-Dichloropropane	0.50	U	1.0		ug/L			11/25/14 10:05	
2-Chlorotoluene	0.57		1.0		ug/L			11/25/14 10:05	
2-Hexanone	3.1		25		ug/L			11/25/14 10:05	
4-Chlorotoluene	0.56		1.0		ug/L			11/25/14 10:05	
Acetone	13		25		ug/L			11/25/14 10:05	
Benzene	0.38		1.0		ug/L			11/25/14 10:05	
Bromobenzene	0.54		1.0	0.54	-			11/25/14 10:05	
Bromochloromethane	0.52		1.0	0.52	-			11/25/14 10:05	
Bromodichloromethane	0.50		1.0	0.50				11/25/14 10:05	
Bromoform	0.71		5.0	0.71	-			11/25/14 10:05	
Bromomethane	0.98		1.0	0.98	-			11/25/14 10:05	
Carbon disulfide	0.60		1.0	0.50				11/25/14 10:05	
Carbon tetrachloride	0.50		1.0	0.50	-			11/25/14 10:05	
Chlorobenzene	0.50		1.0		ug/L			11/25/14 10:05	
Chloroethane	0.76		1.0	0.30	.			11/25/14 10:05	
Chloroform	0.76		1.0						
					ug/L			11/25/14 10:05	
Chloromethane	0.83		1.0		ug/L			11/25/14 10:05	
cis-1,2-Dichloroethene	1.5		1.0		ug/L			11/25/14 10:05	
cis-1,3-Dichloropropene	0.50		5.0		ug/L			11/25/14 10:05	
Dibromochloromethane	0.50		1.0		ug/L			11/25/14 10:05	
Dibromomethane	0.59		5.0		ug/L 			11/25/14 10:05	
Dichlorodifluoromethane	0.85		1.0		ug/L			11/25/14 10:05	
Ethylbenzene	0.50		1.0		ug/L			11/25/14 10:05	
Ethylene Dibromide	0.50		1.0		ug/L			11/25/14 10:05	
Hexachlorobutadiene	0.90		5.0		ug/L			11/25/14 10:05	
lodomethane	0.68		1.0		ug/L			11/25/14 10:05	
Isopropyl ether	0.70		1.0		ug/L			11/25/14 10:05	
Isopropylbenzene	0.53		1.0		ug/L			11/25/14 10:05	
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 10:05	

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

Lab Sample ID: 400-98693-2

Matrix: Water

Client Sample ID: PRES-IW0008I-040.0-20141117

Date Collected: 11/17/14 15:05 Date Received: 11/20/14 09:27

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

Lab Sample ID: 400-98693-3

. Matrix: Water

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

Date Received: 11/20/14 09:27

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

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

Lab Sample ID: 400-98693-3

. Matrix: Water

11/25/14 11:55

Client Sample ID: C5ES-MW0010I-022.5-20141118

Date Collected: 11/18/14 09:48 Date Received: 11/20/14 09:27

Toluene-d8 (Surr)

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	1	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

80 - 120

97

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

Lab Sample ID: 400-98693-4

Matrix: Water

Client Sample ID: C5ES-MW0012S-012.5-20141118

Date Collected: 11/18/14 11:00 Date Received: 11/20/14 09:27

Method: 8260B - Volatile Organi ^{Analyte}		Qualifier	PQL	MDI	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	0.52		1.0		ug/L	— <u>-</u> -	Порагоа	11/25/14 12:22	
1,1,1-Trichloroethane	0.50		1.0		ug/L			11/25/14 12:22	
1,1,2,2-Tetrachloroethane	0.50		1.0		ug/L			11/25/14 12:22	
1,1,2-Trichloroethane	0.50		5.0		ug/L			11/25/14 12:22	
I,1-Dichloroethane	0.50		1.0		ug/L			11/25/14 12:22	
1,1-Dichloroethene	0.50		1.0		ug/L			11/25/14 12:22	
1,1-Dichloropropene	0.50		1.0		ug/L ug/L			11/25/14 12:22	
1,2,3-Trichlorobenzene	0.70		1.0	0.70				11/25/14 12:22	
	0.70		5.0		ug/L			11/25/14 12:22	
1,2,3-Trichloropropane	0.84							11/25/14 12:22	
1,2,4-Trichlorobenzene			1.0	0.82	_				
1,2,4-Trimethylbenzene	0.82		1.0		ug/L			11/25/14 12:22	
1,2-Dibromo-3-Chloropropane	1.5		5.0		ug/L			11/25/14 12:22	
,2-Dichlorobenzene	0.50		1.0		ug/L			11/25/14 12:22	
I,2-Dichloroethane	0.50		1.0		ug/L			11/25/14 12:22	
I,2-Dichloropropane	0.50		1.0		ug/L			11/25/14 12:22	
1,3,5-Trimethylbenzene	0.56	U	1.0		ug/L			11/25/14 12:22	
,3-Dichlorobenzene	1.8		1.0		ug/L			11/25/14 12:22	
,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	
,4-Dichlorobenzene	5.0		1.0	0.64	ug/L			11/25/14 12:22	
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 12:22	
-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 12:22	
-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 12:22	
Acetone	13	1	25	10	ug/L			11/25/14 12:22	
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 12:22	
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 12:22	
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 12:22	
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 12:22	
Bromoform	0.71	U	5.0		ug/L			11/25/14 12:22	
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 12:22	
Carbon disulfide	0.58		1.0		ug/L			11/25/14 12:22	
Carbon tetrachloride	0.50		1.0		ug/L			11/25/14 12:22	
Chlorobenzene	3.9		1.0		ug/L			11/25/14 12:22	
Chloroethane	0.76		1.0		ug/L			11/25/14 12:22	
Chloroform	0.60		1.0		ug/L			11/25/14 12:22	
Chloromethane	0.83		1.0		ug/L			11/25/14 12:22	
sis-1,2-Dichloroethene	0.50		1.0		ug/L			11/25/14 12:22	
is-1,3-Dichloropropene	0.50		5.0		ug/L			11/25/14 12:22	
Dibromochloromethane	0.50		1.0		ug/L ug/L			11/25/14 12:22	
Dibromomethane	0.59				ug/L ug/L				
	0.85		5.0		_			11/25/14 12:22	
Dichlorodifluoromethane			1.0		ug/L			11/25/14 12:22	
thylbenzene	0.50		1.0		ug/L			11/25/14 12:22	
thylene Dibromide	0.50		1.0		ug/L			11/25/14 12:22	
lexachlorobutadiene	0.90		5.0		ug/L			11/25/14 12:22	
odomethane	0.68		1.0		ug/L			11/25/14 12:22	
sopropyl ether	0.70		1.0		ug/L			11/25/14 12:22	
sopropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 12:22	
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			11/25/14 12:22	
nethyl isobutyl ketone	1.8	U	25	1.8	ug/L			11/25/14 12:22	

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

Lab Sample ID: 400-98693-4

ab Sample ID. 400-90095-4

Matrix: Water

Client Sample ID: C5ES-MW0012S-012.5-20141118

Date Collected: 11/18/14 11:00 Date Received: 11/20/14 09:27

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

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

Lab Sample ID: 400-98693-5

Matrix: Water

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

Date Received: 11/20/14 09:27

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

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

Client Sample ID: C5ES-MW0012I-022.5-20141118

TestAmerica Job ID: 400-98693-1

Lab Sample ID: 400-98693-5

Matrix: Water

Date Collected: 11/18/14 11:07 Date Received: 11/20/14 09:27

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

Lab Sample ID: 400-98693-6

Matrix: Water

Client Sample ID: C5ES-MW0017S-009.5-20141118

Date Collected: 11/18/14 11:27 Date Received: 11/20/14 09:27

nalyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			11/25/14 13:17	
1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	
1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	
1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			11/25/14 13:17	
,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	
,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	
,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			11/25/14 13:17	
2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			11/25/14 13:17	
2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			11/25/14 13:17	
2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 13:17	
,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 13:17	
,2-Dibromo-3-Chloropropane	1.5	U	5.0		ug/L			11/25/14 13:17	
	0.50	U	1.0		ug/L			11/25/14 13:17	
,2-Dichloroethane	0.50	U	1.0	0.50	_			11/25/14 13:17	
,2-Dichloropropane	0.50		1.0		ug/L			11/25/14 13:17	
3,5-Trimethylbenzene	0.56		1.0	0.56				11/25/14 13:17	
,3-Dichlorobenzene	1.7		1.0	0.54				11/25/14 13:17	
,3-Dichloropropane	0.50	U	1.0	0.50				11/25/14 13:17	
,4-Dichlorobenzene	4.8		1.0	0.64				11/25/14 13:17	
,2-Dichloropropane	0.50	U	1.0		ug/L			11/25/14 13:17	
-Chlorotoluene	0.57		1.0		ug/L			11/25/14 13:17	
Hexanone	3.1		25		ug/L ug/L			11/25/14 13:17	
-Chlorotoluene	0.56		1.0		ug/L ug/L			11/25/14 13:17	
	13		25		ug/L ug/L			11/25/14 13:17	
cetone enzene	0.38		1.0	0.38				11/25/14 13:17	
romobenzene	0.54		1.0					11/25/14 13:17	
romochloromethane	0.54			0.54				11/25/14 13:17	
			1.0		ug/L				
romodichloromethane	0.50		1.0		ug/L			11/25/14 13:17	
romoform	0.71		5.0	0.71	ug/L			11/25/14 13:17	
romomethane	0.98		1.0		ug/L			11/25/14 13:17	
arbon disulfide	0.58		1.0		ug/L			11/25/14 13:17	
arbon tetrachloride	0.50		1.0		ug/L			11/25/14 13:17	
hlorobenzene	0.50		1.0		ug/L			11/25/14 13:17	
hloroethane	0.76		1.0		ug/L			11/25/14 13:17	
hloroform	0.60		1.0	0.60				11/25/14 13:17	
hloromethane	0.83		1.0	0.83				11/25/14 13:17	
s-1,2-Dichloroethene	0.50		1.0	0.50				11/25/14 13:17	
s-1,3-Dichloropropene	0.50		5.0		ug/L			11/25/14 13:17	
ibromochloromethane	0.50		1.0		ug/L			11/25/14 13:17	
ibromomethane	0.59	U	5.0		ug/L			11/25/14 13:17	
ichlorodifluoromethane	0.85	U	1.0		ug/L			11/25/14 13:17	
thylbenzene	0.50		1.0		ug/L			11/25/14 13:17	
thylene Dibromide	0.50	U	1.0		ug/L			11/25/14 13:17	
exachlorobutadiene	0.90	U	5.0	0.90	ug/L			11/25/14 13:17	
odomethane	0.68	U	1.0	0.68	ug/L			11/25/14 13:17	
opropyl ether	0.70	U	1.0	0.70	ug/L			11/25/14 13:17	
opropylbenzene	0.53	U	1.0	0.53	ug/L			11/25/14 13:17	
		U	25		ug/L			11/25/14 13:17	

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

Lab Sample ID: 400-98693-6

Matrix: Water

Client Sample ID: C5ES-MW0017S-009.5-20141118

Date Collected: 11/18/14 11:27 Date Received: 11/20/14 09:27

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

Lab Sample ID: 400-98693-7

Matrice Mate

Matrix: Water

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

Date Received: 11/20/14 09:27

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

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

Lab Sample ID: 400-98693-7

15 Campic 15. 400-30030-7

Matrix: Water

Client Sample ID: C5ES-MW0018S	5-009.5-20141118
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Date Collected: 11/18/14 10:14 Date Received: 11/20/14 09:27

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

Lab Sample ID: 400-98693-8

Matrix: Water

Client Sample ID: C5ES-MW0019I-018.0-20141118

Date Collected: 11/18/14 10:07 Date Received: 11/20/14 09:27

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	
1,2,4-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		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	_			11/25/14 14:12	1
1,2-Dichloropropane	0.50	U	1.0		ug/L			11/25/14 14:12	1
1,3,5-Trimethylbenzene	0.56	U	1.0		ug/L			11/25/14 14:12	,
1,3-Dichlorobenzene	0.54	U	1.0	0.54	-			11/25/14 14:12	
1,3-Dichloropropane	0.50		1.0	0.50				11/25/14 14:12	
1,4-Dichlorobenzene	0.64		1.0		ug/L			11/25/14 14:12	,
2,2-Dichloropropane	0.50		1.0		ug/L			11/25/14 14:12	
2-Chlorotoluene	0.57		1.0		ug/L			11/25/14 14:12	
2-Hexanone	3.1		25		ug/L			11/25/14 14:12	
4-Chlorotoluene	0.56		1.0	0.56	_			11/25/14 14:12	1
Acetone	22		25		ug/L			11/25/14 14:12	1
Benzene	0.38		1.0	0.38				11/25/14 14:12	1
Bromobenzene	0.54		1.0	0.54	_			11/25/14 14:12	1
Bromochloromethane	0.52		1.0		ug/L			11/25/14 14:12	1
Bromodichloromethane	0.50		1.0		ug/L			11/25/14 14:12	1
Bromoform	0.71		5.0	0.71	-			11/25/14 14:12	1
Bromomethane	0.98		1.0		ug/L			11/25/14 14:12	
Carbon disulfide	0.58		1.0		ug/L			11/25/14 14:12	1
Carbon tetrachloride	0.50		1.0	0.50	_			11/25/14 14:12	
Chlorobenzene	0.50		1.0		ug/L			11/25/14 14:12	
Chloroethane	0.76		1.0		ug/L			11/25/14 14:12	
Chloroform	0.60		1.0		ug/L			11/25/14 14:12	
Chloromethane	0.83		1.0		ug/L			11/25/14 14:12	
cis-1,2-Dichloroethene	0.50		1.0		ug/L			11/25/14 14:12	1
cis-1,3-Dichloropropene	0.50		5.0		ug/L			11/25/14 14:12	
Dibromochloromethane	0.50		1.0		ug/L			11/25/14 14:12	1
Dibromomethane	0.59		5.0		ug/L			11/25/14 14:12	
Dichlorodifluoromethane	0.85		1.0		ug/L			11/25/14 14:12	
Ethylbenzene	0.50		1.0		ug/L			11/25/14 14:12	
Ethylene Dibromide	0.50		1.0		ug/L			11/25/14 14:12	,
Hexachlorobutadiene	0.90		5.0		ug/L ug/L			11/25/14 14:12	
lodomethane	0.68		1.0		ug/L ug/L			11/25/14 14:12	,
Isopropyl ether	0.70		1.0		ug/L ug/L			11/25/14 14:12	1
Isopropylbenzene	0.70		1.0		ug/L ug/L			11/25/14 14:12	1
	2.6		25		_				
Methyl Ethyl Ketone methyl isobutyl ketone	1.8		25		ug/L ug/L			11/25/14 14:12 11/25/14 14:12	1 1

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

Lab Sample ID: 400-98693-8

Matrix: Water

Client Sample ID: C5ES-MW0019I-018.0-20141118

Date Collected: 11/18/14 10:07 Date Received: 11/20/14 09:27

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

Client Sample ID: MLPV-IW0012I-037.5-20141118

TestAmerica Job ID: 400-98693-1

Lab Sample ID: 400-98693-9

Matrix: Water

Date Collected: 11/18/14 15:49 Date Received: 11/20/14 09:27

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

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

Lab Sample ID: 400-98693-9

Matrix: Water

Client Sample ID: MLPV-IW0012I-037.5-20141118

Date Collected: 11/18/14 15:49 Date Received: 11/20/14 09:27

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

Lab Sample ID: 400-98693-10

Matrix: Water

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

Date Received: 11/20/14 09:27

Method: 8260B - Volatile Organio Analyte		Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	0.52		1.0	0.52			riepaieu	11/25/14 15:06	
1,1,1-Trichloroethane	0.50		1.0	0.50				11/25/14 15:06	
1,1,2,2-Tetrachloroethane	0.50		1.0	0.50				11/25/14 15:06	
1,1,2-Trichloroethane	0.50		5.0	0.50				11/25/14 15:06	
1,1-Dichloroethane	0.50		1.0	0.50				11/25/14 15:06	
1,1-Dichloroethene	0.50		1.0	0.50				11/25/14 15:06	
1,1-Dichloropropene	0.50		1.0	0.50				11/25/14 15:06	
	0.70		1.0	0.70				11/25/14 15:06	
1,2,3-Trichlorobenzene	0.70		5.0	0.70				11/25/14 15:06	
1,2,3-Trichloropropane	0.82								
1,2,4-Trichlorobenzene			1.0	0.82	_			11/25/14 15:06	
1,2,4-Trimethylbenzene	0.82		1.0	0.82				11/25/14 15:06	
1,2-Dibromo-3-Chloropropane	1.5		5.0		ug/L			11/25/14 15:06	
1,2-Dichlorobenzene	0.50		1.0	0.50				11/25/14 15:06	
1,2-Dichloroethane	0.50		1.0		ug/L			11/25/14 15:06	
1,2-Dichloropropane	0.50		1.0		ug/L			11/25/14 15:06	
1,3,5-Trimethylbenzene	0.56		1.0		ug/L			11/25/14 15:06	
1,3-Dichlorobenzene	0.54		1.0	0.54				11/25/14 15:06	
1,3-Dichloropropane	0.50		1.0		ug/L			11/25/14 15:06	
1,4-Dichlorobenzene	0.64		1.0		ug/L			11/25/14 15:06	
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 15:06	
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 15:06	
4-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 15:06	
Acetone	13	1	25	10	ug/L			11/25/14 15:06	
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 15:06	
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 15:06	
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 15:06	
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 15:06	
Bromomethane	0.98	U	1.0	0.98	ug/L			11/25/14 15:06	
Carbon disulfide	0.53	I	1.0	0.50	ug/L			11/25/14 15:06	
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	
Chlorobenzene	0.50	U	1.0	0.50	ug/L			11/25/14 15:06	
Chloroethane	0.76	U	1.0	0.76	ug/L			11/25/14 15:06	
Chloroform	0.60	U	1.0	0.60	ug/L			11/25/14 15:06	
Chloromethane	0.83	U	1.0	0.83	ug/L			11/25/14 15:06	
cis-1,2-Dichloroethene	0.50		1.0		ug/L			11/25/14 15:06	
cis-1,3-Dichloropropene	0.50		5.0		ug/L			11/25/14 15:06	
Dibromochloromethane	0.50		1.0		ug/L			11/25/14 15:06	
Dibromomethane	0.59		5.0		ug/L			11/25/14 15:06	
Dichlorodifluoromethane	0.85		1.0		ug/L			11/25/14 15:06	
Ethylbenzene	0.50		1.0		ug/L			11/25/14 15:06	
Ethylene Dibromide	0.50		1.0		ug/L			11/25/14 15:06	
Hexachlorobutadiene	0.90		5.0		ug/L ug/L			11/25/14 15:06	
odomethane	0.68		1.0		ug/L ug/L			11/25/14 15:06	
sopropyl ether	0.70							11/25/14 15:06	
			1.0		ug/L				
sopropylbenzene	0.53		1.0		ug/L			11/25/14 15:06	
Methyl Ethyl Ketone methyl isobutyl ketone	2.6	U U	25 25		ug/L ug/L			11/25/14 15:06 11/25/14 15:06	

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

Dibromofluoromethane

Toluene-d8 (Surr)

Client Sample ID: MLPV-IW0012D-047.5-20141118

TestAmerica Job ID: 400-98693-1

Lab Sample ID: 400-98693-10

Matrix: Water

11/25/14 15:06

11/25/14 15:06

Date Collected: 11/18/14 16:00 Date Received: 11/20/14 09:27

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

81 - 121

80 - 120

111

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

Client Sample ID: MLPV-IW0029D-044.5-20141118

TestAmerica Job ID: 400-98693-1

Lab Sample ID: 400-98693-11

Matrix: Water

Date Collected: 11/18/14 15:22
Date Received: 11/20/14 09:27

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

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 Lab Sample ID: 400-98693-11

Date Collected: 11/18/14 15:22 Matrix: Water Date Received: 11/20/14 09:27

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

Lab Sample ID: 400-98693-12

Matrix: Water

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

Date Received: 11/20/14 09:27

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
I,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		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		1.0		ug/L			11/25/14 16:01	1
1,2-Dichloropropane	0.50		1.0		ug/L			11/25/14 16:01	1
1,3,5-Trimethylbenzene	0.56		1.0		ug/L			11/25/14 16:01	1
1,3-Dichlorobenzene	0.54		1.0		ug/L			11/25/14 16:01	1
1,3-Dichloropropane	0.50		1.0		ug/L			11/25/14 16:01	1
1,4-Dichlorobenzene	0.64		1.0		ug/L			11/25/14 16:01	1
2.2-Dichloropropane	0.50		1.0		ug/L			11/25/14 16:01	1
2-Chlorotoluene	0.57		1.0		ug/L			11/25/14 16:01	1
2-Hexanone	3.1		25		ug/L			11/25/14 16:01	1
4-Chlorotoluene	0.56		1.0		ug/L			11/25/14 16:01	1
Acetone	19		25		ug/L			11/25/14 16:01	1
Benzene	0.38		1.0		ug/L			11/25/14 16:01	1
Bromobenzene	0.54		1.0		ug/L			11/25/14 16:01	1
Bromochloromethane	0.52		1.0		ug/L			11/25/14 16:01	1
Bromodichloromethane	0.50		1.0		ug/L			11/25/14 16:01	1
Bromoform	0.71		5.0	0.71	ug/L			11/25/14 16:01	
Bromomethane	0.98		1.0		ug/L			11/25/14 16:01	1
Carbon disulfide	0.55		1.0		ug/L ug/L			11/25/14 16:01	1
Carbon distinde Carbon tetrachloride	0.50		1.0		ug/L ug/L			11/25/14 16:01	1
Chlorobenzene	0.50		1.0		ug/L ug/L			11/25/14 16:01	1
Chloroethane	0.76		1.0		ug/L ug/L			11/25/14 16:01	
Chloroform	0.60		1.0		ug/L ug/L			11/25/14 16:01	1
					-				
Chloromethane	0.83		1.0		ug/L			11/25/14 16:01	1
cis-1,2-Dichloroethene	7.9		1.0		ug/L			11/25/14 16:01	
cis-1,3-Dichloropropene	0.50		5.0		ug/L			11/25/14 16:01	1
Dibromochloromethane	0.50		1.0		ug/L			11/25/14 16:01	1
Dibromomethane	0.59		5.0		ug/L			11/25/14 16:01	1
Dichlorodifluoromethane	0.85		1.0		ug/L			11/25/14 16:01	1
Ethylbenzene	0.50		1.0		ug/L			11/25/14 16:01	
Ethylene Dibromide	0.50		1.0		ug/L			11/25/14 16:01	ĺ
Hexachlorobutadiene	0.90		5.0		ug/L			11/25/14 16:01	1
odomethane	0.68		1.0		ug/L			11/25/14 16:01	
sopropyl ether	0.70		1.0		ug/L			11/25/14 16:01	1
Isopropylbenzene	0.53		1.0		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

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

Lab Sample ID: 400-98693-12

Client Sample ID: WCPS-IW0001SR-007.5-20141118

Date Collected: 11/18/14 14:33 Date Received: 11/20/14 09:27

4-Bromofluorobenzene

Dibromofluoromethane

Toluene-d8 (Surr)

Matrix: Water

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

78 - 118

81 - 121

80 - 120

95

110

94

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

Lab Sample ID: 400-98693-13

. Matrix: Water

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

Date Received: 11/20/14 09:27

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

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

Toluene-d8 (Surr)

TestAmerica Job ID: 400-98693-1

Lab Sample ID: 400-98693-13

11/25/14 16:29

Matrix: Water

Date Collected: 11/18/14 15:36 Date Received: 11/20/14 09:27

Client Sample ID: MLPV-IW0052-045.0-20141118

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

80 - 120

95

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

Lab Sample ID: 400-98693-14

Matrix: Water

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

Date Received: 11/20/14 09:27

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

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

Client Sample ID: MLPV-IW0055-045.0-20141118

TestAmerica Job ID: 400-98693-1

Lab Sample ID: 400-98693-14

11/25/14 16:56

Matrix: Water

Date Collected: 11/18/14 15:05 Date Received: 11/20/14 09:27

Toluene-d8 (Surr)

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

80 - 120

94

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

Lab Sample ID: 400-98693-15

Matrix: Water

Client Sample ID: PRES-IW0009-045.0-20141118

Date Collected: 11/18/14 11:37 Date Received: 11/20/14 09:27

Analyte	nic Compounds 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		ug/L			11/25/14 17:24	1
1,1-Dichloropropene	0.50	U	1.0		ug/L			11/25/14 17:24	1
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	•			11/25/14 17:24	1
1,2,3-Trichloropropane	0.84	U	5.0		ug/L			11/25/14 17:24	1
1,2,4-Trichlorobenzene	0.82		1.0		ug/L			11/25/14 17:24	1
1,2,4-Trimethylbenzene	0.82		1.0	0.82	_			11/25/14 17:24	1
1,2-Dibromo-3-Chloropropane	1.5		5.0		ug/L			11/25/14 17:24	1
1,2-Dichlorobenzene	0.50		1.0		ug/L			11/25/14 17:24	1
1,2-Dichloroethane	0.50		1.0	0.50	_			11/25/14 17:24	1
1,2-Dichloropropane	0.50		1.0		ug/L			11/25/14 17:24	1
1,3,5-Trimethylbenzene	0.56		1.0		ug/L ug/L			11/25/14 17:24	· · · · · · · · · · · · · · · · · · ·
1,3-Dichlorobenzene	0.54		1.0	0.54	-			11/25/14 17:24	1
	0.50		1.0	0.50				11/25/14 17:24	1
1,3-Dichloropropane	0.64							11/25/14 17:24	
1,4-Dichlorobenzene	0.64		1.0	0.64	-				
2,2-Dichloropropane			1.0		ug/L			11/25/14 17:24	1
2-Chlorotoluene	0.57		1.0		ug/L			11/25/14 17:24	1
2-Hexanone	3.1		25		ug/L			11/25/14 17:24	1
4-Chlorotoluene	0.56		1.0	0.56				11/25/14 17:24	1
Acetone	20		25		ug/L			11/25/14 17:24	
Benzene	0.38		1.0	0.38	_			11/25/14 17:24	1
Bromobenzene	0.54		1.0	0.54				11/25/14 17:24	1
Bromochloromethane	0.52		1.0		ug/L			11/25/14 17:24	1
Bromodichloromethane	0.50		1.0		ug/L			11/25/14 17:24	1
Bromoform	0.71		5.0	0.71				11/25/14 17:24	1
Bromomethane	0.98	U	1.0		ug/L			11/25/14 17:24	1
Carbon disulfide	0.57		1.0		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		ug/L			11/25/14 17:24	1
lodomethane	0.68	U	1.0	0.68	ug/L			11/25/14 17:24	1
Isopropyl ether	0.70	U	1.0		ug/L			11/25/14 17:24	1
Isopropylbenzene	0.53		1.0		ug/L			11/25/14 17:24	1
Methyl Ethyl Ketone	2.6		25		ug/L			11/25/14 17:24	1
methyl isobutyl ketone	1.8		25		ug/L			11/25/14 17:24	1

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

Date Received: 11/20/14 09:27

Toluene-d8 (Surr)

TestAmerica Job ID: 400-98693-1

11/25/14 17:24

Client Sample ID: PRES-IW0009-045.0-20141118

Lab Sample ID: 400-98693-15 Date Collected: 11/18/14 11:37

Matrix: Water

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

80 - 120

93

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

Date Collected: 11/18/14 09:13

Date Received: 11/20/14 09:27

Dibromomethane

Ethylene Dibromide

Hexachlorobutadiene

Ethylbenzene

Iodomethane

Isopropyl ether

Isopropylbenzene

Methyl Ethyl Ketone

methyl isobutyl ketone

Dichlorodifluoromethane

Client Sample ID: PRES-IW0010-045.0-20141118

TestAmerica Job ID: 400-98693-1

Lab Sample ID: 400-98693-16

Matrix: Water

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	1	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

TestAmerica Pensacola

11/25/14 17:51

11/25/14 17:51

11/25/14 17:51

11/25/14 17:51

11/25/14 17:51

11/25/14 17:51

11/25/14 17:51

11/25/14 17:51

11/25/14 17:51

11/25/14 17:51

5.0

1.0

1.0

1.0

5.0

1.0

1.0

1.0

25

25

0.59 ug/L

0.85 ug/L

0.50 ug/L

0.50 ug/L

0.90 ug/L

0.68 ug/L

0.70 ug/L

0.53 ug/L

2.6 ug/L

1.8 ug/L

0.59 U

0.85 U

0.50 U

0.50 U

0.90 U

0.68 U

0.70 U

0.53 U

2.6 U

1.8 U

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

Lab Sample ID: 400-98693-16

Matrix: Water

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

Date Received: 11/20/14 09:27

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

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14

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

Lab Sample ID: 400-98693-17

Client Sample ID: WCPS-IW0016-020.0-20141118

Date Collected: 11/18/14 14:20 Matrix: Water

Date Received: 11/20/14 09:27

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

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

Lab Sample ID: 400-98693-17

11/25/14 18:18

Matrix: Water

Client Sample ID: WCPS-IW0016-020.0-20141118

Date Collected: 11/18/14 14:20 Date Received: 11/20/14 09:27

Toluene-d8 (Surr)

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

80 - 120

93

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

Lab Sample ID: 400-98693-20

Matrix: Water

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

Date Received: 11/20/14 09:27

Method: 8260B - Volatile Orga	•	•	5 01		1114	_	D '	A !	D:: =
Analyte		Qualifier	PQL	MDL		D	Prepared	Analyzed	Dil Fa
,1,1,2-Tetrachloroethane	0.52		1.0		ug/L			11/25/14 18:45	
1,1,1-Trichloroethane	0.50		1.0		ug/L			11/25/14 18:45	
,1,2,2-Tetrachloroethane	0.50		1.0	0.50				11/25/14 18:45	
,1,2-Trichloroethane	0.50		5.0	0.50	-			11/25/14 18:45	
,1-Dichloroethane	0.50		1.0	0.50	-			11/25/14 18:45	
,1-Dichloroethene	0.50		1.0	0.50				11/25/14 18:45	
,1-Dichloropropene	0.50		1.0		ug/L			11/25/14 18:45	
,2,3-Trichlorobenzene	0.70		1.0		ug/L			11/25/14 18:45	
,2,3-Trichloropropane	0.84		5.0		ug/L			11/25/14 18:45	
,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			11/25/14 18:45	
,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/25/14 18:45	
,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/25/14 18:45	
,2-Dichlorobenzene	0.50	U	1.0		ug/L			11/25/14 18:45	
,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	
,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	
,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/25/14 18:45	
,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 18:45	
,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	
,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/25/14 18:45	
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/25/14 18:45	
2-Hexanone	3.1	U	25	3.1	ug/L			11/25/14 18:45	
l-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/25/14 18:45	
Acetone	21	1	25	10	ug/L			11/25/14 18:45	
Benzene	0.38	U	1.0	0.38	ug/L			11/25/14 18:45	
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/25/14 18:45	
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/25/14 18:45	
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/25/14 18:45	
Bromoform	0.71	U	5.0	0.71	ug/L			11/25/14 18:45	
Bromomethane	0.98	U	1.0		ug/L			11/25/14 18:45	
Carbon disulfide	0.62		1.0	0.50	ug/L			11/25/14 18:45	
Carbon tetrachloride	0.50		1.0		ug/L			11/25/14 18:45	
Chlorobenzene	0.50		1.0		ug/L			11/25/14 18:45	
Chloroethane	0.76		1.0		ug/L			11/25/14 18:45	
Chloroform	0.60		1.0		ug/L			11/25/14 18:45	
Chloromethane	0.83		1.0		ug/L			11/25/14 18:45	
cis-1,2-Dichloroethene	3.9		1.0		ug/L			11/25/14 18:45	
sis-1,3-Dichloropropene	0.50	U	5.0		ug/L			11/25/14 18:45	
Dibromochloromethane	0.50		1.0		ug/L			11/25/14 18:45	
Dibromomethane	0.59		5.0		ug/L ug/L			11/25/14 18:45	
Dichlorodifluoromethane	0.85		1.0		ug/L			11/25/14 18:45	
Ethylbenzene	0.50		1.0		ug/L ug/L			11/25/14 18:45	
Ethylene Dibromide	0.50				ug/L ug/L				
·	0.50		1.0		-			11/25/14 18:45	
Hexachlorobutadiene			5.0		ug/L			11/25/14 18:45	
odomethane	0.68		1.0		ug/L			11/25/14 18:45	
sopropyl ether	0.70		1.0		ug/L			11/25/14 18:45	
sopropylbenzene	0.53	U	1.0		ug/L ug/L			11/25/14 18:45 11/25/14 18:45	
Methyl Ethyl Ketone			25						

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

Lab Sample ID: 400-98693-20

Matrice Matrice

Matrix: Water

Client Sample ID:	LC39OGA-MW0004-01	0.0-20141118
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Date Collected: 11/18/14 12:33 Date Received: 11/20/14 09:27

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

Lab Sample ID: 400-98693-21

Matrix: Water

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

Date Received: 11/20/14 09:27

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

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

Lab Sample ID: 400-98693-21

Matrix: Water

11/25/14 19:12

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

Date Received: 11/20/14 09:27

Toluene-d8 (Surr)

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

80 - 120

93

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

Lab Sample ID: 400-98693-22

ab Sample ID. 400-30033-22

Matrix: Water

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

Date Received: 11/20/14 09:27

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

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

Lab Sample ID: 400-98693-22

Client Sample ID: LC39OGA-MW0006-025.0-20141118

Date Collected: 11/18/14 12:10
Date Received: 11/20/14 09:27

Matrix: Water

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

Lab Sample ID: 400-98693-23

Matrix: Water

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

Date Received: 11/20/14 09:27

Method: 8260B - Volatile Org	•	•	P.01		1114	_	D '	A ·	D:: -
Analyte		Qualifier	PQL	MDL		D _	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	0.52		1.0		ug/L			11/28/14 15:02	
1,1,1-Trichloroethane	0.50		1.0		ug/L			11/28/14 15:02	
1,1,2,2-Tetrachloroethane	0.50		1.0	0.50				11/28/14 15:02	
1,1,2-Trichloroethane	0.50		5.0	0.50	_			11/28/14 15:02	
1,1-Dichloroethane	0.50		1.0	0.50	-			11/28/14 15:02	
1,1-Dichloroethene	0.50		1.0	0.50	.			11/28/14 15:02	
1,1-Dichloropropene	0.50		1.0	0.50				11/28/14 15:02	
1,2,3-Trichlorobenzene	0.70		1.0	0.70				11/28/14 15:02	
1,2,3-Trichloropropane	0.84		5.0		ug/L			11/28/14 15:02	
1,2,4-Trichlorobenzene	0.82		1.0		ug/L			11/28/14 15:02	
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			11/28/14 15:02	
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			11/28/14 15:02	
1,2-Dichlorobenzene	0.50	U	1.0		ug/L			11/28/14 15:02	
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	
1,2-Dichloropropane	0.50	U	1.0		ug/L			11/28/14 15:02	
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			11/28/14 15:02	
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			11/28/14 15:02	
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			11/28/14 15:02	
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/28/14 15:02	
2-Hexanone	3.1	U	25	3.1	ug/L			11/28/14 15:02	
l-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/28/14 15:02	
Acetone	15	1	25	10	ug/L			11/28/14 15:02	
Benzene	0.38	U	1.0	0.38	ug/L			11/28/14 15:02	
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/28/14 15:02	
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/28/14 15:02	
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	
Bromoform	0.71	U	5.0	0.71	ug/L			11/28/14 15:02	
Bromomethane	0.98	U	1.0	0.98	ug/L			11/28/14 15:02	
Carbon disulfide	1.1		1.0	0.50	ug/L			11/28/14 15:02	
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/28/14 15:02	
Chlorobenzene	0.50	U	1.0		ug/L			11/28/14 15:02	
Chloroethane	0.76	U	1.0		ug/L			11/28/14 15:02	
Chloroform	0.60	U	1.0		ug/L			11/28/14 15:02	
Chloromethane	0.83		1.0		ug/L			11/28/14 15:02	
cis-1,2-Dichloroethene	1.3		1.0		ug/L			11/28/14 15:02	
cis-1,3-Dichloropropene	0.50	U	5.0		ug/L			11/28/14 15:02	
Dibromochloromethane	0.50		1.0		ug/L			11/28/14 15:02	
Dibromomethane	0.59		5.0		ug/L			11/28/14 15:02	
Dichlorodifluoromethane	0.85		1.0		ug/L ug/L			11/28/14 15:02	
Ethylbenzene	0.50		1.0		ug/L ug/L			11/28/14 15:02	
Ethylene Dibromide	0.50		1.0		ug/L ug/L			11/28/14 15:02	
Hexachlorobutadiene	0.90		5.0		ug/L ug/L			11/28/14 15:02	
	0.90				_				
odomethane			1.0		ug/L			11/28/14 15:02	
sopropyl ether	0.70		1.0		ug/L			11/28/14 15:02	
sopropylbenzene	0.53		1.0		ug/L			11/28/14 15:02	
Methyl Ethyl Ketone methyl isobutyl ketone	2.6		25 25		ug/L ug/L			11/28/14 15:02 11/28/14 15:02	

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

Lab Sample ID: 400-98693-23

Matrix: Water

Client Sample ID: LC39OGA-MW0007-025.0-20141118

Date Collected: 11/18/14 11:56 Date Received: 11/20/14 09:27

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

Lab Sample ID: 400-98693-24

Matrix: Water

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

Date Received: 11/20/14 09:27

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

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

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

Lab Sample ID: 400-98693-25

Matrice Mate

Matrix: Water

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

Date Received: 11/20/14 09:27

Analyte	c Compounds (Qualifier	PQL	MDI	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	0.52		1.0		ug/L	— <u>-</u> -	Порагоа	11/28/14 15:54	
,1,1-Trichloroethane	0.50		1.0		ug/L			11/28/14 15:54	
,1,2,2-Tetrachloroethane	0.50		1.0		ug/L			11/28/14 15:54	
,1,2-Trichloroethane	0.50		5.0		ug/L			11/28/14 15:54	
,1-Dichloroethane	0.50		1.0		ug/L			11/28/14 15:54	
,1-Dichloroethene	0.50		1.0		ug/L			11/28/14 15:54	
,1-Dichloropropene	0.50		1.0		ug/L ug/L			11/28/14 15:54	
, 1-Dictiloroproperie	0.70		1.0	0.70				11/28/14 15:54	
	0.70		5.0		ug/L				
,2,3-Trichloropropane	0.82							11/28/14 15:54	
,2,4-Trichlorobenzene			1.0	0.82	_			11/28/14 15:54	
,2,4-Trimethylbenzene	0.82		1.0	0.82				11/28/14 15:54	
,2-Dibromo-3-Chloropropane	1.5		5.0		ug/L			11/28/14 15:54	
,2-Dichlorobenzene	0.50		1.0		ug/L			11/28/14 15:54	
,2-Dichloroethane	0.50		1.0		ug/L			11/28/14 15:54	
,2-Dichloropropane	0.50		1.0		ug/L			11/28/14 15:54	
,3,5-Trimethylbenzene	0.56		1.0		ug/L			11/28/14 15:54	
,3-Dichlorobenzene	0.54		1.0		ug/L			11/28/14 15:54	
,3-Dichloropropane	0.50		1.0		ug/L			11/28/14 15:54	
,4-Dichlorobenzene	0.64	U	1.0		ug/L			11/28/14 15:54	
2,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	
2-Chlorotoluene	0.57	U	1.0	0.57	ug/L			11/28/14 15:54	
2-Hexanone	3.1	U	25	3.1	ug/L			11/28/14 15:54	
I-Chlorotoluene	0.56	U	1.0	0.56	ug/L			11/28/14 15:54	
Acetone	20	1	25	10	ug/L			11/28/14 15:54	
Benzene	0.38	U	1.0	0.38	ug/L			11/28/14 15:54	
Bromobenzene	0.54	U	1.0	0.54	ug/L			11/28/14 15:54	
Bromochloromethane	0.52	U	1.0	0.52	ug/L			11/28/14 15:54	
Bromodichloromethane	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	
Bromoform	0.71	U	5.0	0.71	ug/L			11/28/14 15:54	
Bromomethane	0.98	U	1.0	0.98	ug/L			11/28/14 15:54	
Carbon disulfide	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/28/14 15:54	
Chlorobenzene	0.50	U	1.0		ug/L			11/28/14 15:54	
Chloroethane	0.76	U	1.0	0.76	ug/L			11/28/14 15:54	
Chloroform	0.60	U	1.0	0.60	ug/L			11/28/14 15:54	
Chloromethane	0.83	U	1.0	0.83	ug/L			11/28/14 15:54	
:is-1,2-Dichloroethene	6.0		1.0		ug/L			11/28/14 15:54	
sis-1,3-Dichloropropene	0.50	U	5.0		ug/L			11/28/14 15:54	
Dibromochloromethane	0.50		1.0		ug/L			11/28/14 15:54	
Dibromomethane	0.59		5.0		ug/L			11/28/14 15:54	
Dichlorodifluoromethane	0.85		1.0		ug/L			11/28/14 15:54	
thylbenzene	0.50		1.0		ug/L			11/28/14 15:54	
thylene Dibromide	0.50		1.0		ug/L ug/L			11/28/14 15:54	
Hexachlorobutadiene	0.90		5.0		ug/L ug/L			11/28/14 15:54	
odomethane	0.90		1.0		-				
					ug/L			11/28/14 15:54	
sopropyl ether	0.70		1.0		ug/L			11/28/14 15:54	
sopropylbenzene	0.53		1.0		ug/L			11/28/14 15:54	
Methyl Ethyl Ketone	2.6	U U	25	2.6	ug/L			11/28/14 15:54 11/28/14 15:54	

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

Lab Sample ID: 400-98693-25

Matrix: Water

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

Date Received: 11/20/14 09:27

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

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

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

Lab Sample ID: MB 400-23

Matrix: Water

Analysis Batch: 237878

237878/4	Client Sample ID: Method Blank
	Prep Type: Total/NA

		МВ							
Analyte		Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	•			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		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		ug/L			11/25/14 09:10	1
1,3,5-Trimethylbenzene	0.56	U	1.0		ug/L			11/25/14 09:10	1
1,3-Dichlorobenzene	0.54	U	1.0		ug/L			11/25/14 09:10	1
1,3-Dichloropropane	0.50	U	1.0		ug/L			11/25/14 09:10	1
1,4-Dichlorobenzene	0.64		1.0		ug/L			11/25/14 09:10	1
2,2-Dichloropropane	0.50		1.0		ug/L			11/25/14 09:10	1
2-Chlorotoluene	0.57		1.0		ug/L			11/25/14 09:10	1
2-Hexanone	3.1		25	3.1				11/25/14 09:10	
4-Chlorotoluene	0.56		1.0		ug/L			11/25/14 09:10	1
Acetone	10		25		ug/L			11/25/14 09:10	1
Benzene	0.38		1.0		ug/L			11/25/14 09:10	
Bromobenzene	0.54		1.0		ug/L			11/25/14 09:10	1
Bromochloromethane	0.52		1.0		ug/L			11/25/14 09:10	1
Bromodichloromethane	0.50				.			11/25/14 09:10	
Bromoform	0.50		1.0 5.0		ug/L			11/25/14 09:10	1
					ug/L				
Bromomethane Carbon diguifide	0.98		1.0		ug/L			11/25/14 09:10	
Carbon disulfide			1.0		ug/L			11/25/14 09:10	1
Carbon tetrachloride	0.50		1.0		ug/L			11/25/14 09:10	1
Chlorobenzene	0.50		1.0		ug/L			11/25/14 09:10	1
Chloroethane	0.76		1.0		ug/L			11/25/14 09:10	1
Chloroform	0.60		1.0		ug/L			11/25/14 09:10	1
Chloromethane	0.83		1.0		ug/L			11/25/14 09:10	1
cis-1,2-Dichloroethene	0.50		1.0		ug/L			11/25/14 09:10	1
cis-1,3-Dichloropropene	0.50		5.0		ug/L			11/25/14 09:10	1
Dibromochloromethane	0.50		1.0		ug/L			11/25/14 09:10	1
Dibromomethane	0.59		5.0		ug/L			11/25/14 09:10	1
Dichlorodifluoromethane	0.85		1.0		ug/L			11/25/14 09:10	1
Ethylbenzene	0.50		1.0		ug/L			11/25/14 09:10	1
Ethylene Dibromide	0.50		1.0		ug/L			11/25/14 09:10	1
Hexachlorobutadiene	0.90		5.0	0.90	ug/L			11/25/14 09:10	1
lodomethane	0.68	U	1.0		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

TestAmerica Job ID: 400-98693-1

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

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
MB MB	

	IVID	IVID							
Analyte	Result	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

	MB	MB					
Surrogate	%Recovery	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

Analysis Batch: 23/8/8							
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%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

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

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

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

Lab Sample ID: LCS 400-237878/1002

Matrix: Water

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

Analysis Batch: 237878	Spike	LCS	LCS				%Rec.
Analyte	Added		Qualifier	Unit	D	%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				84	41 - 140
Carbon tetrachloride	50.0	61.6		ug/L ug/L		123	41 - 140 46 - 141
Carbon terracinonae Chlorobenzene	50.0	46.5		ug/L ug/L		93	80 - 120
Chloroethane							
	50.0 50.0	48.0		ug/L		96	37 ₋ 150
Chloroform		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
lodomethane	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

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

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

Lab Sample ID: LCS 400-237878/1002

Matrix: Water

Analyte

Vinyl acetate

Vinyl chloride

Analysis Batch: 237878

Trichlorofluoromethane

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

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

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

Client Sample ID: C5ES-MW0010I-022.5-20141118

Prep Type: Total/NA

Lab Sample ID: 400-98693-3 MS

Matrix: Water

Analysis Batch: 237878										
	-	Sample	Spike	MS	MS				%Rec.	
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	
1,1,1,2-Tetrachloroethane	0.52		50.0	53.1		ug/L		106	42 - 135	
1,1,1-Trichloroethane	0.50		50.0	56.7		ug/L		113	60 - 131	
1,1,2,2-Tetrachloroethane	0.50		50.0	40.9		ug/L		82	52 - 148	
1,1,2-Trichloroethane	0.50		50.0	41.7		ug/L		83	68 - 127	
1,1-Dichloroethane	0.50		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	Ü	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	Ü	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	Ü	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	1	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		50.0	44.5		ug/L		89	10 - 150	
Chloroethane	0.76		50.0	49.5		ug/L		99	38 - 150	

TestAmerica Pensacola

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TestAmerica Job ID: 400-98693-1

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

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

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	1	50.0	45.0		ug/L		89	46 - 136	

MS MS

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

Lab Sample ID: 400-98693-3 MSD

Matrix: Water

Analysis Batch: 237878

Client Sample ID: C5ES-MW0010I-022.5-20141118	3
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Prep Type: Total/NA

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

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

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

	Sample	Sample	Spike	MSD	MSD		%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier Unit	D %Rec	Limits	RPD	Limi
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		50.0	43.7	ug/L	87	65 - 132	3	18
1,3,5-Trimethylbenzene	0.56		50.0	45.3	ug/L	91	10 - 150	1	53
1,3-Dichlorobenzene	0.54		50.0	46.1	ug/L	92	25 _ 136	2	44
1,3-Dichloropropane	0.50		50.0	44.6	ug/L	89	67 - 127	8	20
1,4-Dichlorobenzene	0.64		50.0	44.8	ug/L	90	10 - 150	2	45
2,2-Dichloropropane	0.50		50.0	54.5	ug/L	109	46 - 132	3	20
2-Chlorotoluene	0.57		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		50.0	44.5	ug/L	89	17 - 145	3	51
Acetone	12		200	178	ug/L	83	10 - 150	19	22
Benzene	0.38		50.0	44.0	ug/L	88	10 - 150	2	19
Bromobenzene	0.54		50.0	47.3	ug/L	95	38 - 135	5	35
Bromochloromethane	0.52		50.0	48.9	ug/L	98	75 ₋ 120	4	17
Bromodichloromethane	0.50		50.0	56.7	ug/L	113	61 - 133	3	19
Bromoform	0.71		50.0	50.7	ug/L	101	54 - 125	9	19
Bromomethane	0.71		50.0	84.1		168	10 - 150	0	24
Carbon disulfide	0.61		50.0	41.1	ug/L	81	10 - 150	2	23
Carbon tetrachloride	0.50		50.0	61.6	ug/L	123	40 - 138	0	21
Chlorobenzene	0.50		50.0	45.4	ug/L	91	10 - 150	2	30
Chloroethane	0.76		50.0	52.3		105	38 - 150	6	23
Chloroform	0.60		50.0	51.5	ug/L ug/L	103	10 - 150	1	18
Chloromethane	0.83		50.0	41.6	ug/L	83	26 - 150	1	23
cis-1,2-Dichloroethene	0.50		50.0	46.5	.	93	10 - 150	3	20
cis-1,3-Dichloropropene	0.50		50.0	47.3	ug/L	95 95	52 ₋ 130	2	20
					ug/L				
Dibromochloromethane	0.50		50.0	50.7	ug/L	101	50 - 130	6	21
Dibromomethane	0.59		50.0	49.4	ug/L	99	69 ₋ 123	4 2	18
Dichlorodifluoromethane	0.85		50.0	40.6	ug/L	81	10 ₋ 150		23
Ethylbenzene	0.50		50.0	44.9	ug/L	90	10 _ 150	1	40
Ethylene Dibromide	0.50		50.0	48.5	ug/L	97	70 - 125	11	21
Hexachlorobutadiene	0.90		50.0	46.3	ug/L	93	10 - 150	3	92
lodomethane	0.68		50.0	55.1	ug/L	110	37 _ 145	4	36
Isopropyl ether	0.70		50.0	43.0	ug/L	86	10 - 150	4	24
Isopropylbenzene	0.53		50.0	46.3	ug/L	93	10 - 150	1	46
Methyl Ethyl Ketone	2.6		200	166	ug/L	83	10 _ 150	12	21
methyl isobutyl ketone	1.8		200	180	ug/L	90	20 - 150	12	20
Methyl tert-butyl ether	0.74		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

TestAmerica Job ID: 400-98693-1

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

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

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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	1	50.0	45.4		ug/L		90	46 - 136	1	20

MSD MSD

Surrogate	%Recovery Qu	ualifier	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

	MB	MB							
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 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	Ι	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

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

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

Lab Sample ID: MB 400-238185/6

Matrix: Water

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

,		
14 14:09	1	
14 14:09	1	

	MB	MB							
Analyte		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		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		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		ug/L			11/28/14 14:09	1
Ethylene Dibromide	0.50	U	1.0		ug/L			11/28/14 14:09	1
Hexachlorobutadiene	0.90	U	5.0		ug/L			11/28/14 14:09	1
lodomethane	0.68	U	1.0		ug/L			11/28/14 14:09	1
Isopropyl ether	0.70	U	1.0		ug/L			11/28/14 14:09	1
Isopropylbenzene	0.53	U	1.0		ug/L			11/28/14 14:09	1
Methyl Ethyl Ketone	2.6	U	25		ug/L			11/28/14 14:09	1
methyl isobutyl ketone	1.8	U	25		ug/L			11/28/14 14:09	1
Methyl tert-butyl ether	0.74		1.0		ug/L			11/28/14 14:09	1
Methylene Chloride	3.0	U	5.0		ug/L			11/28/14 14:09	1
m-Xylene & p-Xylene	1.6		5.0		ug/L			11/28/14 14:09	1
Naphthalene	1.0		1.0		ug/L			11/28/14 14:09	1
n-Butylbenzene	0.76		1.0		ug/L			11/28/14 14:09	1
N-Propylbenzene	0.69		1.0		ug/L			11/28/14 14:09	1
o-Xylene	0.60		5.0		ug/L			11/28/14 14:09	1
p-Cymene	0.71		1.0		ug/L			11/28/14 14:09	1
sec-Butylbenzene	0.70		1.0		ug/L			11/28/14 14:09	1
Styrene	1.0		1.0		ug/L			11/28/14 14:09	1
tert-Butylbenzene	0.63		1.0		ug/L			11/28/14 14:09	1
Tetrachloroethene	0.58		1.0		ug/L			11/28/14 14:09	
Toluene	0.70		1.0		ug/L			11/28/14 14:09	1
trans-1,2-Dichloroethene	0.50		1.0		ug/L			11/28/14 14:09	1
trans-1,3-Dichloropropene	0.50		5.0		ug/L			11/28/14 14:09	· · · · · · · · · · · · · · · · · · ·
Trichloroethene	0.50		1.0		ug/L			11/28/14 14:09	1
Trichlorofluoromethane	0.52		1.0		ug/L			11/28/14 14:09	1
Vinyl acetate	2.0		25		ug/L			11/28/14 14:09	
Vinyl chloride	0.50		1.0		ug/L			11/28/14 14:09	1

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

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

Lab Sample ID: MB 400-238185/6

Lab Sample ID: LCS 400-238185/1002

Matrix: Water

Analysis Batch: 238185

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB I	MB				
Surrogate	%Recovery	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

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Matrix: Water Analysis Batch: 238185 LCS LCS Snike

Analysis Batch: 236165	Spike	LCS LCS			%Rec.	
Analyte	Added	Result Qualifier	Unit	D %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	

TestAmerica Job ID: 400-98693-1

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

Lab Sample ID: LCS 400-238185/1002

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

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

Matrix: Water Analysis Batch: 238185

•	Spike	LCS L	cs			%Rec.
Analyte	Added	Result C	Qualifier Un	it	D %Rec	Limits
Dibromomethane	50.0	47.3	ug/	L	95	78 - 120
Dichlorodifluoromethane	50.0	45.0	ug/	Ĺ	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
lodomethane	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 J	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

LCS LCS

Surrogate	%Recovery Qualifi	er 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

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	Ü	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		ua/l		65	30 - 137	

Client Sample ID: Matrix Spike

Prep Type: Total/NA

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

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

Lab Sample ID: 400-98946-A-1 MS

Matrix: Water

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

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	Ü	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		200	141		ug/L		70	24 - 150	
4-Chlorotoluene	0.56		50.0	38.6		ug/L		77	17 - 145	
Acetone	10		200	96.7		ug/L		48	10 - 150	
Benzene	0.38		50.0	38.2		ug/L		76	10 - 150	
Bromobenzene	0.54		50.0	41.2		ug/L		82	38 - 135	
Bromochloromethane	0.52		50.0	44.2		ug/L		88	75 - 120	
Bromodichloromethane	0.50		50.0	48.4		ug/L		97	61 - 133	
Bromoform	0.71		50.0	47.5		ug/L		95	54 - 125	
Bromomethane	0.71		50.0	44.5		ug/L		89	10 - 150	
Carbon disulfide	0.50		50.0	38.8		ug/L		78	10 - 150	
Carbon tetrachloride	0.50		50.0	48.4		ug/L		97	40 - 138	
Chlorobenzene	0.50		50.0	39.5		ug/L		79	10 - 150	
Chloroethane	0.76		50.0	49.9				100	38 - 150	
Chloroform	0.60		50.0	45.8		ug/L		92	10 - 150	
Chloromethane						ug/L		92 88		
	0.83		50.0	43.8		ug/L			26 - 150	
cis-1,2-Dichloroethene	0.50		50.0	42.1		ug/L		84	10 - 150	
cis-1,3-Dichloropropene	0.50		50.0	43.1		ug/L		86	52 - 130	
Dibromochloromethane	0.50		50.0	48.4		ug/L		97	50 - 130	
Dibromomethane	0.59		50.0	43.0		ug/L		86	69 - 123	
Dichlorodifluoromethane	0.85		50.0	44.8		ug/L		90	10 - 150	
Ethylbenzene	0.50		50.0	37.6		ug/L		75	10 - 150	
Ethylene Dibromide	0.50		50.0	44.3		ug/L		89	70 - 125	
Hexachlorobutadiene	0.90		50.0	31.6		ug/L		63	10 - 150	
odomethane	0.68		50.0	39.1		ug/L		78	37 - 145	
sopropyl ether	0.70		50.0	41.3		ug/L 		83	10 - 150	
sopropylbenzene	0.53		50.0	34.1		ug/L		68	10 - 150	
Methyl Ethyl Ketone	2.6		200	125		ug/L		62	10 - 150	
nethyl 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		50.0	41.4		ug/L		83	10 - 150	
n-Xylene & p-Xylene	1.6		50.0	38.3		ug/L		77	10 - 150	
Naphthalene	1.0		50.0	34.7		ug/L		69	10 - 150	
n-Butylbenzene	0.76		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	

TestAmerica Job ID: 400-98693-1

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

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

Lab Sample ID: 400-98946-A-1 MS

Lab Sample ID: 400-98946-A-1 MSD

Matrix: Water

Vinyl chloride

Matrix: Water

1,2-Dichloropropane

1,3-Dichlorobenzene

1,3-Dichloropropane

1,3,5-Trimethylbenzene

Analysis Batch: 238185

Analysis Batch: 238185

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

Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier %Rec Limits Analyte Unit 0.71 U J3 50.0 29.6 59 10 - 150 p-Cymene ug/L sec-Butylbenzene 0.70 U 50.0 34.7 ug/L 69 10 - 150 50.0 78 Styrene 1.0 U 39.0 ug/L 24 _ 147 tert-Butylbenzene 0.63 U 50.0 35.4 ug/L 71 10 - 150 37.3 Tetrachloroethene 0.58 U 50.0 75 10 - 150 ug/L Toluene 0.70 U 50.0 38.0 76 10 - 150 ug/L trans-1,2-Dichloroethene 50.0 39.3 ug/L 79 66 - 126 0.50 U 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

50.0

ug/L

50.0

0.50 U MS MS

0.50

0.56 U

0.54 U

0.50 U

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

Client Sample ID: Matrix Spike Duplicate

46 - 136

100

Prep Type: Total/NA

65 - 132

10 - 150

25 - 136

67 _ 127

80

86

102

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

0.64 U 50.0 45.3 91 10 - 150 1,4-Dichlorobenzene ug/L 23 45 2,2-Dichloropropane 0.50 U 50.0 47.4 ug/L 95 46 - 132 7 20 2-Chlorotoluene 50.0 84 10 - 150 6 47 0.57 U 41.8 ug/L 2-Hexanone 3.1 U 200 160 80 24 - 150 13 24 ug/L 50.0 47.1 94 17 - 145 4-Chlorotoluene 0.56 U ug/L 20 51 Acetone 10 200 108 ug/L 54 10 - 150 22 Benzene 0.38 U 50.0 42.8 ug/L 86 10 - 150 19

42.7

39.9

43.0

51.2

ug/L

ug/L

ug/L

ug/L

50.0

50.0

50.0

50.0

TestAmerica Pensacola

10

17

17

19

18

53

44

20

TestAmerica Job ID: 400-98693-1

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

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

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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
lodomethane	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

	MSD	MSD	ISD		
Surrogate	%Recovery	Qualifier	Limits		
4-Bromofluorobenzene	101		78 - 118		
D'' (1			04 404		

81 - 121 Dibromofluoromethane 111 102 80 - 120 Toluene-d8 (Surr)

QC Association Summary

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

GC/MS VOA

Analysis Batch: 237878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
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	
100-98693-4	C5ES-MW0012S-012.5-20141118	Total/NA	Water	8260B	
100-98693-5	C5ES-MW0012I-022.5-20141118	Total/NA	Water	8260B	
00-98693-6	C5ES-MW0017S-009.5-20141118	Total/NA	Water	8260B	
100-98693-7	C5ES-MW0018S-009.5-20141118	Total/NA	Water	8260B	
100-98693-8	C5ES-MW0019I-018.0-20141118	Total/NA	Water	8260B	
00-98693-9	MLPV-IW0012I-037.5-20141118	Total/NA	Water	8260B	
00-98693-10	MLPV-IW0012D-047.5-20141118	Total/NA	Water	8260B	
00-98693-11	MLPV-IW0029D-044.5-20141118	Total/NA	Water	8260B	
00-98693-12	WCPS-IW0001SR-007.5-20141118	Total/NA	Water	8260B	
00-98693-13	MLPV-IW0052-045.0-20141118	Total/NA	Water	8260B	
100-98693-14	MLPV-IW0055-045.0-20141118	Total/NA	Water	8260B	
00-98693-15	PRES-IW0009-045.0-20141118	Total/NA	Water	8260B	
100-98693-16	PRES-IW0010-045.0-20141118	Total/NA	Water	8260B	
100-98693-17	WCPS-IW0016-020.0-20141118	Total/NA	Water	8260B	
100-98693-20	LC39OGA-MW0004-010.0-20141118	Total/NA	Water	8260B	
100-98693-21	LC39OGA-MW0005-010.0-20141118	Total/NA	Water	8260B	
100-98693-22	LC39OGA-MW0006-025.0-20141118	Total/NA	Water	8260B	
.CS 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	

TestAmerica Job ID: 400-98693-1

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TestAmerica Job ID: 400-98693-1

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

Lab Sample ID: 400-98693-1

Matrix: Water

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

Client Sample ID: PRES-IW0008I-040.0-20141117

Date Received: 11/20/14 09:27

Date Collected: 11/17/14 15:05

Date Received: 11/20/14 09:27

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

Lab Sample ID: 400-98693-2

Matrix: Water

Matrix: Water

Matrix: Water

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

Date Collected: 11/18/14 09:48

Date Received: 11/20/14 09:27

Batch Batch Dilution Batch Prepared Prep Type Method Factor Number or Analyzed Analyst Type Run Total/NA Analysis 8260B 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

Batch Batch Dilution Batch Prepared Method Prep Type Туре Factor Number or Analyzed Run Analyst Lab Total/NA Analysis 8260B 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

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

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

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

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

Lab Sample ID: 400-98693-7

Lab Sample ID: 400-98693-9

Lab Sample ID: 400-98693-10

Lab Sample ID: 400-98693-11

Lab Sample ID: 400-98693-12

Matrix: Water

Matrix: Water

Matrix: Water

Matrix: Water

Matrix: Water

Matrix: Water

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

Date Received: 11/20/14 09:27

Batch Batch Dilution Batch Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst Total/NA Analysis 8260B 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

Date Received: 11/20/14 09:27

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

Client Sample ID: MLPV-IW0012I-037.5-20141118

Date Collected: 11/18/14 15:49

Date Received: 11/20/14 09:27

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

Client Sample ID: MLPV-IW0012D-047.5-20141118

Date Collected: 11/18/14 16:00

Date Received: 11/20/14 09:27

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

Client Sample ID: MLPV-IW0029D-044.5-20141118

Date Collected: 11/18/14 15:22

Date Received: 11/20/14 09:27

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

Client Sample ID: WCPS-IW0001SR-007.5-20141118

Date Collected: 11/18/14 14:33

Date Received: 11/20/14 09:27

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

TestAmerica Job ID: 400-98693-1

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

Batch

Lab Sample ID: 400-98693-13

Matrix: Water

Client Sample ID: MLPV-IW0052-045.0-20141118

Batch

Date Collected: 11/18/14 15:36 Date Received: 11/20/14 09:27

Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst

Total/NA Analysis 8260B 237878 11/25/14 16:29 EAS TAL PEN

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

Batch

Dilution

Date Collected: 11/18/14 15:05 Date Received: 11/20/14 09:27

Matrix: Water

Batch Batch Dilution Batch Prepared Method Factor Number Prep Type Type Run or Analyzed

Analyst Lab EAS TAL PEN Total/NA Analysis 8260B 237878 11/25/14 16:56

Client Sample ID: PRES-IW0009-045.0-20141118

Lab Sample ID: 400-98693-15 Date Collected: 11/18/14 11:37 **Matrix: Water**

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

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

Date Received: 11/20/14 09:27

Batch Batch Dilution Batch Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst Lab Total/NA Analysis 8260B 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

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

Client Sample ID: LC39OGA-MW0004-010.0-20141118

Date Collected: 11/18/14 12:33 **Matrix: Water**

Date Received: 11/20/14 09:27

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

TestAmerica Pensacola

Lab Sample ID: 400-98693-20

TestAmerica Job ID: 400-98693-1

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

Client Sample ID: LC39OGA-MW0005-010.0-20141118

Lab Sample ID: 400-98693-21

Matrix: Water

Date Collected: 11/18/14 12:54 Date Received: 11/20/14 09:27

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

Lab Sample ID: 400-98693-22

Client Sample ID: LC39OGA-MW0006-025.0-20141118 Date Collected: 11/18/14 12:10 Matrix: Water

Date Received: 11/20/14 09:27

Batch Batch Dilution Batch Prepared Method Number Prep Type Type Run Factor or Analyzed Analyst Lab Total/NA Analysis 8260B 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

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

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

Batch Batch Dilution Batch Prepared **Prep Type** Number Type Method Run Factor or Analyzed Analyst Lab Total/NA Analysis 8260B 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

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

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

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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

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127			100 May (36)	ECEIVED BY: (SIGNATURE)	I/I	Carlotte Monday of Garage													NUMBER OF CONTAINERS SUBMITTED	-	,00-38693 COC .	7						REQUESTED ANALYSIS		BOTTLE ORDER NO.		ola Phon
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A YES A NO	CORATORYCAY: 24 DAYE TIME CUSTODY INTACT? CUSTODY SEAL NO.	LING GOADING CONTY 11:15 LABORATORY USE ONLY	ŚŚ	DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY:		- 045,0 V X	WCS-IW000158-007.5 X	V-IW0039D-044,5 X	~I~00020- 047.5 X	MLPN-IWOOLX-037,5 X	* MUCO 19I - 018.0 X	1, mwoo185-009.5 X	MW 0017S- 009,5	MW0012I-022.5	1100 MW 00125-012.5	11/18/14 AUG CAFS-MUDOONIT- 022-5-201411 18 X	1 1505 Prol I WOOOBI - BYD. O - 2014 1177 X	11/1-114 1452 Pres-IN0007I-034,5-2014817 X	SAMPLE IDENTIFICATION SAMPLE IDENTIFICATION	SAMPLE DISPOSAL: a RETURN TO CLIENT a DISPOSAL BY LAB BY L	HE:	: RUSH WEEDS LAB PREAPPROVAL NO BUSINESS DAYS	Startestus designation of the startest of the	emore CIENTE-MAII OR FAX	CONTRACT / P.O. NO. PRESERVATIVE MATRIX	Trea FROTHE Jill Johnson	IT PROJECT MANAGER	ADDRESS Parsacola FI	THE LEADER IN ENVISORMENTAL TENTING	CHAIN OF CUSTODY RECORD QUOTE NO.	3355 McLemore Drive Pensacola, FL 32514	

5 SERIAL NUMBER: 74739

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Phone: 850-474-1001 Fax: 850-478-2671 Website: www.testamericainc.com	ORDER - LOG-IN NO.	ပ		PAGE OF 2	POSSIBLE HAZARD	IDENTIFICATION	A NON-HAZARD	A FLAMMABLE	A RADIOACTIVE	A POISON B		△ OIHER:	NO, OF COOLERS PER SHIPMENT:	SPECIAL INSTRUCTIONS/	CONDITIONS OF RECEIPT													DATE // TIME	DATE TIME	1444 07550		Th-2	TAL-8251 (1207
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ANALYSIS REQUEST				Pusacola, Fl	CLIENT PROJECT MANAGER	Jill Johns	NO.		Z FAX		AL 10 BUSINESS DAYS	THER:	A VIJEVIE			5.0-20141118 X	> O.5	045,0	\	× X	,0,1	iO.0	χ 0'0	ν, ×		× 20	5,0 V ×	TIME RELINQUISHED BY: (SIGNATURE)	TIME RECEIVED BY: (S		11-14-11-11SIS	AE CUSTODY INTACT? A YES A NO	
		NMENTAL TESTING	000	ADDRESS	CT NO.	FROTHE	CONTRACT / P.O. NO.		CLIENT E-MAIL OR FAX	40 10	TAT REQUESTED: RUSH NEEDS LAB PREAPPROVAL ANORMAL 10 BUSINESS DAYS	0.1 DAY 0.2 DAYS 0.3 DAYS 0.5 DAYS 0.20 DAYS (Package) 0.0THER:	SAMPLE DISPOSAL; IL RELURN LO CLIENT IL DISPOSAL BY LAB IL SEE CONTRACT IL OTHER:	E I CANAC	SAMPLE IDENTIFICATION	MLOV-IW0055-0450-20141118	Pres-Iwood- 045,0	'	WCPS-IW00110- 620.0	C5ES-MUDOUIS-OILS	WGR-IWB0135-007.5	1039064-M20004,-010.0	MW0005-010.0	0520-9000mm	MM0007-035.0	mw 2008 - 025,0	W MW DOOG-025.0	DATE	DATE	2	Jan John Delle	DATE	
TestAmerica		THE LEADER IN ENVIRONMENTAL TESTING	H	asynt	-	VABAGE		1), 5,2emore	CLIENT PHONE	of 24-166(606)	TAT REQUESTED: RUSH NEED:	01DAY 02DAYS 03DAYS C	SAMPLE DISPOSAL; D RETURN D SEE CONTRACT D OTHER:	SAMPLE	DAȚE TIME	11/18/14 1505 1		213	1 0251) Eh9!		1 1233 4	1254	1210	150	1230	1305	RELINQUISHED BY: (SIGNATURE)	RECEIVED BY: (SIGNATURE)	EMPTY CONTAINERS	Kelinaushel 54°		

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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.</td <td>N/A</td> <td></td>	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	



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

Mak Swefford

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

Mark Swafford, Project Manager I (850)474-1001

mark.swafford@testamericainc.com

.....LINKS

Review your project results through

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Have a Question?



Visit us at: www.testamericainc.com The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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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.
1	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

RPD

TEF

TEQ

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)

Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Case Narrative

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

TestAmerica Job ID: 400-99422-1

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.

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TestAmerica Job ID: 400-99422-1

Lab Sample ID: 400-99422-1

Lab Sample ID: 400-99422-2

Lab Sample ID: 400-99422-3

Lab Sample ID: 400-99422-4

Client Sample ID: LC39OGA-MW0001-010.0-20141205

Client: Geosyntec Consultants, Inc.

Project/Site: LC39 OGA MW Sampling

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	1	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

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	1	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

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	1	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

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: Geosyntec Consultants, Inc. Project/Site: LC39 OGA MW Sampling TestAmerica Job ID: 400-99422-1

Lab Sample ID: 400-99422-1

Matrix: Water

Client Sample ID: LC39OGA-MW0001-010.0-20141205

Date Collected: 12/05/14 16:15 Date Received: 12/09/14 09:38

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			12/17/14 17:56	-
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			12/17/14 17:56	· · · · · · · · · · ·
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			12/17/14 17:56	
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			12/17/14 17:56	
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			12/17/14 17:56	· · · · · · · · ·
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			12/17/14 17:56	
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			12/17/14 17:56	
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			12/17/14 17:56	
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			12/17/14 17:56	
1,3-Dichlorobenzene	0.54	U	1.0	0.54	-			12/17/14 17:56	
1,3-Dichloropropane	0.50	U	1.0	0.50				12/17/14 17:56	
1,4-Dichlorobenzene	0.64	U	1.0		ug/L			12/17/14 17:56	
2,2-Dichloropropane	0.50		1.0	0.50	-			12/17/14 17:56	
2-Chlorotoluene	0.57	U	1.0		ug/L			12/17/14 17:56	
2-Hexanone	3.1		25		ug/L			12/17/14 17:56	
4-Chlorotoluene	0.56	U	1.0	0.56	_			12/17/14 17:56	
Acetone	21	1	25		ug/L			12/17/14 17:56	
Benzene	0.38		1.0	0.38				12/17/14 17:56	
Bromobenzene	0.54	U	1.0	0.54	_			12/17/14 17:56	
Bromochloromethane	0.52	U	1.0		ug/L			12/17/14 17:56	
Bromodichloromethane	0.50	U	1.0		ug/L			12/17/14 17:56	
Bromoform	0.71	U	5.0	0.71	-			12/17/14 17:56	
Bromomethane	0.98	U	1.0		ug/L			12/17/14 17:56	
Carbon disulfide	0.50	U	1.0		ug/L			12/17/14 17:56	
Carbon tetrachloride	0.50	U	1.0	0.50	_			12/17/14 17:56	
Chlorobenzene	0.50		1.0		ug/L			12/17/14 17:56	
Chloroethane	0.76		1.0		ug/L			12/17/14 17:56	
Chloroform	0.60		1.0		ug/L			12/17/14 17:56	
Chloromethane	0.83	U	1.0		ug/L			12/17/14 17:56	
cis-1,2-Dichloroethene	0.64		1.0		ug/L			12/17/14 17:56	
cis-1,3-Dichloropropene	0.50		5.0		ug/L			12/17/14 17:56	
Dibromochloromethane	0.50		1.0		ug/L			12/17/14 17:56	
Dibromomethane	0.59		5.0		ug/L			12/17/14 17:56	
Dichlorodifluoromethane	0.85		1.0		ug/L			12/17/14 17:56	
Ethylbenzene	0.50		1.0		ug/L			12/17/14 17:56	
Ethylene Dibromide		U J3	1.0		ug/L			12/17/14 17:56	
Hexachlorobutadiene	0.90		5.0		ug/L ug/L			12/17/14 17:56	
Iodomethane	0.68		1.0		ug/L			12/17/14 17:56	
sopropyl ether	0.70		1.0		ug/L ug/L			12/17/14 17:56	
Isopropylbenzene		U J3	1.0		ug/L ug/L			12/17/14 17:56	
	2.6				_				
Methyl Ethyl Ketone methyl isobutyl ketone	1.8		25 25		ug/L ug/L			12/17/14 17:56 12/17/14 17:56	

Client: Geosyntec Consultants, Inc. Project/Site: LC39 OGA MW Sampling TestAmerica Job ID: 400-99422-1

Lab Sample ID: 400-99422-1

Matrix: Water

Client Sample ID: I	LC39OGA-MW0001-010.0-20141205
---------------------	-------------------------------

Date Collected: 12/05/14 16:15 Date Received: 12/09/14 09:38

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

Lab Sample ID: 400-99422-2

Matrix: Water

Client Sample ID: LC39OGA-MW0002-010.0-20141205

Date Collected: 12/05/14 16:35 Date Received: 12/09/14 09:38

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			12/17/14 18:23	
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			12/17/14 18:23	
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			12/17/14 18:23	
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			12/17/14 18:23	
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			12/17/14 18:23	
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			12/17/14 18:23	
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			12/17/14 18:23	
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			12/17/14 18:23	
1,2-Dichloroethane	0.50	U	1.0		ug/L			12/17/14 18:23	
1,2-Dichloropropane	0.50	U	1.0		ug/L			12/17/14 18:23	
1,3,5-Trimethylbenzene	0.56	U	1.0		ug/L			12/17/14 18:23	
1,3-Dichlorobenzene	0.54	U	1.0		ug/L			12/17/14 18:23	
1,3-Dichloropropane	0.50	U	1.0		ug/L			12/17/14 18:23	
1,4-Dichlorobenzene	0.64	U	1.0		ug/L			12/17/14 18:23	
2,2-Dichloropropane	0.50	U	1.0		ug/L			12/17/14 18:23	
2-Chlorotoluene	0.57	U	1.0		ug/L			12/17/14 18:23	
2-Hexanone	3.1		25		ug/L			12/17/14 18:23	
4-Chlorotoluene	0.56		1.0	0.56				12/17/14 18:23	
Acetone	48		25		ug/L			12/17/14 18:23	
Benzene	0.38		1.0		ug/L			12/17/14 18:23	
Bromobenzene	0.54		1.0	0.54	_			12/17/14 18:23	
Bromochloromethane	0.52		1.0	0.52	_			12/17/14 18:23	
Bromodichloromethane	0.50		1.0	0.50				12/17/14 18:23	
Bromoform	0.71		5.0	0.71				12/17/14 18:23	
Bromomethane	0.98		1.0	0.98				12/17/14 18:23	
Carbon disulfide	0.50		1.0	0.50				12/17/14 18:23	
Carbon tetrachloride	0.50		1.0		ug/L			12/17/14 18:23	
Chlorobenzene	0.50		1.0	0.50	-			12/17/14 18:23	
Chloroethane	0.76		1.0	0.76	.			12/17/14 18:23	
Chloroform	0.60		1.0		ug/L			12/17/14 18:23	
Chloromethane	0.83		1.0		ug/L			12/17/14 18:23	
cis-1,2-Dichloroethene	2.1		1.0		ug/L			12/17/14 18:23	
cis-1,3-Dichloropropene	0.50	П	5.0		ug/L			12/17/14 18:23	
Dibromochloromethane	0.50		1.0		ug/L			12/17/14 18:23	
Dibromomethane	0.59		5.0		ug/L ug/L			12/17/14 18:23	
Dichlorodifluoromethane	0.85		1.0		ug/L ug/L			12/17/14 18:23	
	0.50				ug/L ug/L				
Ethylbenzene			1.0					12/17/14 18:23	
Ethylene Dibromide	0.50	U J3	1.0		ug/L			12/17/14 18:23	
Hexachlorobutadiene odomethane			5.0		ug/L			12/17/14 18:23	
	0.68		1.0		ug/L			12/17/14 18:23	
sopropyl ether	0.70		1.0		ug/L			12/17/14 18:23	
Isopropylbenzene		U J3	1.0		ug/L			12/17/14 18:23	
Methyl Ethyl Ketone methyl isobutyl ketone	1.8		25 25		ug/L ug/L			12/17/14 18:23 12/17/14 18:23	

Client: Geosyntec Consultants, Inc. Project/Site: LC39 OGA MW Sampling TestAmerica Job ID: 400-99422-1

Lab Sample ID: 400-99422-2

Matrix: Water

Client Sam	າple ID: L	C39OGA-MW	/0002-010.0-20)141205
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Date Collected: 12/05/14 16:35 Date Received: 12/09/14 09:38

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

Client Sample ID: LC39OGA-IDW195316-20141205

TestAmerica Job ID: 400-99422-1

Lab Sample ID: 400-99422-3

Matrix: Water

Date Collected: 12/05/14 16:40 Date Received: 12/09/14 09:38

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			12/17/14 18:50	
,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	
,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	
,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			12/17/14 18:50	
,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	
,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 18:50	
,1-Dichloropropene	0.50		1.0	0.50	ug/L			12/17/14 18:50	
,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			12/17/14 18:50	
,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			12/17/14 18:50	
,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			12/17/14 18:50	
,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			12/17/14 18:50	
,2-Dibromo-3-Chloropropane	1.5	U	5.0		ug/L			12/17/14 18:50	
,2-Dichlorobenzene	0.50	U	1.0		ug/L			12/17/14 18:50	
,2-Dichloroethane	0.50		1.0		ug/L			12/17/14 18:50	
,2-Dichloropropane	0.50		1.0		ug/L			12/17/14 18:50	
,3,5-Trimethylbenzene	0.56		1.0		ug/L			12/17/14 18:50	
,3-Dichlorobenzene	0.54		1.0		ug/L			12/17/14 18:50	
,3-Dichloropropane	0.50		1.0		ug/L			12/17/14 18:50	
,4-Dichlorobenzene	0.64		1.0	0.64	.			12/17/14 18:50	
2,2-Dichloropropane	0.50		1.0	0.50	ug/L			12/17/14 18:50	
-Chlorotoluene	0.57		1.0		ug/L			12/17/14 18:50	
-Hexanone	3.1		25		ug/L ug/L			12/17/14 18:50	
-Chlorotoluene	0.56		1.0		ug/L ug/L			12/17/14 18:50	
acetone	10		25		ug/L ug/L			12/17/14 18:50	
Benzene	0.38		1.0		ug/L ug/L			12/17/14 18:50	
Bromobenzene	0.54		1.0		-			12/17/14 18:50	
Bromochloromethane	0.54				ug/L			12/17/14 18:50	
			1.0		ug/L				
Bromodichloromethane	0.50		1.0		ug/L			12/17/14 18:50	
Bromoform	0.71		5.0		ug/L			12/17/14 18:50	
Bromomethane	0.98		1.0		ug/L			12/17/14 18:50	
Carbon disulfide	1.1		1.0		ug/L			12/17/14 18:50	
Carbon tetrachloride	0.50		1.0		ug/L			12/17/14 18:50	
Chlorobenzene	0.50		1.0	0.50				12/17/14 18:50	
Chloroethane	0.76		1.0		ug/L			12/17/14 18:50	
Chloroform	0.80		1.0		ug/L			12/17/14 18:50	
Chloromethane	0.83	U 	1.0	0.83				12/17/14 18:50	
cis-1,2-Dichloroethene	1.1		1.0	0.50				12/17/14 18:50	
is-1,3-Dichloropropene	0.50		5.0	0.50	-			12/17/14 18:50	
Dibromochloromethane	0.50		1.0		ug/L			12/17/14 18:50	
Dibromomethane	0.59		5.0	0.59	ug/L			12/17/14 18:50	
Dichlorodifluoromethane	0.85		1.0		ug/L			12/17/14 18:50	
Ethylbenzene	0.50		1.0	0.50				12/17/14 18:50	
thylene Dibromide		U J3	1.0	0.50				12/17/14 18:50	
lexachlorobutadiene	0.90		5.0		ug/L			12/17/14 18:50	
odomethane	0.68	U	1.0	0.68				12/17/14 18:50	
sopropyl ether	0.70	U	1.0	0.70	ug/L			12/17/14 18:50	
sopropylbenzene	0.53	U J3	1.0	0.53	ug/L			12/17/14 18:50	
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			12/17/14 18:50	

Client: Geosyntec Consultants, Inc. Project/Site: LC39 OGA MW Sampling TestAmerica Job ID: 400-99422-1

Lab Sample ID: 400-99422-3

Matrix: Water

Client Sample ID:	LC39OGA-IDW195316-20141205
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Date Collected: 12/05/14 16:40 Date Received: 12/09/14 09:38

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

TestAmerica Job ID: 400-99422-1

Lab Sample ID: 400-99422-4

Matrix: Water

Client Sample ID: LC39OGA-IDW195318-20141205

Date Collected: 12/05/14 16:50 Date Received: 12/09/14 09:38

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			12/17/14 19:17	
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			12/17/14 19:17	
I,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	
1,1-Dichloropropene	0.50	U	1.0		ug/L			12/17/14 19:17	
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			12/17/14 19:17	
1,2,3-Trichloropropane	0.84	U	5.0		ug/L			12/17/14 19:17	
I,2,4-Trichlorobenzene	0.82	U	1.0	0.82				12/17/14 19:17	
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	_			12/17/14 19:17	
1,2-Dibromo-3-Chloropropane	1.5		5.0		ug/L			12/17/14 19:17	
1,2-Dichlorobenzene	0.50		1.0	0.50				12/17/14 19:17	
1,2-Dichloroethane	0.50		1.0	0.50	-			12/17/14 19:17	
1,2-Dichloropropane	0.50		1.0		ug/L			12/17/14 19:17	
1,3,5-Trimethylbenzene	0.56		1.0		ug/L			12/17/14 19:17	
1,3-Dichlorobenzene	0.54		1.0		ug/L			12/17/14 19:17	
1,3-Dichloropropane	0.50		1.0		ug/L			12/17/14 19:17	
1,4-Dichlorobenzene	0.64		1.0		ug/L ug/L			12/17/14 19:17	
2,2-Dichloropropane	0.50		1.0		ug/L ug/L			12/17/14 19:17	
• •	0.57				_			12/17/14 19:17	
2-Chlorotoluene	3.1		1.0		ug/L				
2-Hexanone			25		ug/L			12/17/14 19:17	
I-Chlorotoluene	0.56		1.0	0.56				12/17/14 19:17	
Acetone	10		25		ug/L			12/17/14 19:17	
Benzene	0.38		1.0		ug/L			12/17/14 19:17	
Bromobenzene	0.54		1.0		ug/L			12/17/14 19:17	
Bromochloromethane	0.52		1.0	0.52				12/17/14 19:17	
Bromodichloromethane	0.50		1.0	0.50				12/17/14 19:17	
Bromoform	0.71		5.0	0.71				12/17/14 19:17	
Bromomethane	0.98		1.0		ug/L			12/17/14 19:17	
Carbon disulfide	0.50		1.0		ug/L			12/17/14 19:17	
Carbon tetrachloride	0.50		1.0	0.50	-			12/17/14 19:17	
Chlorobenzene	0.50		1.0	0.50				12/17/14 19:17	
Chloroethane	0.76	U	1.0	0.76	ug/L			12/17/14 19:17	
Chloroform	0.60	U	1.0	0.60	ug/L			12/17/14 19:17	
Chloromethane	0.83	U	1.0		ug/L			12/17/14 19:17	
cis-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	
cis-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			12/17/14 19:17	
Dibromochloromethane	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	
Dibromomethane	0.59	U	5.0	0.59	ug/L			12/17/14 19:17	
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			12/17/14 19:17	
Ethylbenzene	0.50	U	1.0	0.50	ug/L			12/17/14 19:17	
Ethylene Dibromide	0.50	U J3	1.0	0.50	ug/L			12/17/14 19:17	
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			12/17/14 19:17	
odomethane	0.68	U	1.0	0.68	ug/L			12/17/14 19:17	
sopropyl ether	0.70	U	1.0	0.70	ug/L			12/17/14 19:17	
sopropylbenzene	0.53	U J3	1.0		ug/L			12/17/14 19:17	
Methyl Ethyl Ketone	2.6	U	25		ug/L			12/17/14 19:17	
methyl isobutyl ketone	1.8		25		ug/L			12/17/14 19:17	

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

TestAmerica Job ID: 400-99422-1

Lab Sample ID: 400-99422-4

Client Sample ID: LC39OGA-IDW195318-20141205

Date Collected: 12/05/14 16:50

Matrix: Water

Date Received: 12/09/14 09:38

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

QC Sample Results

Client: Geosyntec Consultants, Inc. Project/Site: LC39 OGA MW Sampling TestAmerica Job ID: 400-99422-1

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

Lab Sample ID: MB 400-240304/4

Matrix: Water

Client Sample ID: Method Blank

:10	1	
:10	1	

Analysis Batch: 240304	МВ	МВ							
Analyte		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		ug/L			12/17/14 11:10	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0		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		ug/L			12/17/14 11:10	1
1,2-Dichloropropane	0.50	U	1.0		ug/L			12/17/14 11:10	1
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	.			12/17/14 11:10	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54				12/17/14 11:10	1
1,3-Dichloropropane	0.50	U	1.0	0.50				12/17/14 11:10	1
1,4-Dichlorobenzene	0.64		1.0		ug/L			12/17/14 11:10	1
2,2-Dichloropropane	0.50	U	1.0	0.50	-			12/17/14 11:10	1
2-Chlorotoluene	0.57		1.0	0.57				12/17/14 11:10	1
2-Hexanone	3.1		25		ug/L			12/17/14 11:10	1
4-Chlorotoluene	0.56		1.0	0.56	-			12/17/14 11:10	1
Acetone	10		25		ug/L			12/17/14 11:10	1
Benzene	0.38		1.0		ug/L			12/17/14 11:10	1
Bromobenzene	0.54		1.0		ug/L			12/17/14 11:10	. 1
Bromochloromethane	0.52		1.0	0.52	-			12/17/14 11:10	. 1
Bromodichloromethane	0.50		1.0	0.50				12/17/14 11:10	
Bromoform	0.71		5.0	0.71				12/17/14 11:10	1
Bromomethane	0.98		1.0	0.98				12/17/14 11:10	1
Carbon disulfide	0.50		1.0		ug/L			12/17/14 11:10	· · · · · · · · · · · · · · · · · · ·
Carbon tetrachloride	0.50		1.0	0.50	-			12/17/14 11:10	1
Chlorobenzene	0.50		1.0	0.50				12/17/14 11:10	1
Chloroethane	0.76		1.0		ug/L			12/17/14 11:10	· · · · · · · · · · · · · · · · · · ·
Chloroform	0.60		1.0		ug/L			12/17/14 11:10	
Chloromethane	0.83		1.0		ug/L			12/17/14 11:10	. 1
cis-1,2-Dichloroethene	0.50		1.0		ug/L			12/17/14 11:10	
cis-1,3-Dichloropropene	0.50		5.0		ug/L ug/L			12/17/14 11:10	1
Dibromochloromethane	0.50		1.0	0.50	-			12/17/14 11:10	1
Dibromomethane	0.59				ug/L				 1
Dichlorodifluoromethane	0.85		5.0		ug/L ug/L			12/17/14 11:10	1
			1.0		-			12/17/14 11:10	
Ethylono Dibromido	0.50		1.0		ug/L			12/17/14 11:10	1
Ethylene Dibromide	0.50		1.0		ug/L			12/17/14 11:10	1
Hexachlorobutadiene	0.90		5.0		ug/L			12/17/14 11:10	1
lodomethane	0.68		1.0		ug/L			12/17/14 11:10	1
Isopropyl ether	0.70		1.0		ug/L			12/17/14 11:10	1
Isopropylbenzene	0.53		1.0		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

Client: Geosyntec Consultants, Inc. Project/Site: LC39 OGA MW Sampling TestAmerica Job ID: 400-99422-1

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

	MB	МВ							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			12/17/14 11:10	
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			12/17/14 11:10	
Methylene Chloride	3.0	U	5.0	3.0	ug/L			12/17/14 11:10	
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			12/17/14 11:10	
Naphthalene	1.0	U	1.0	1.0	ug/L			12/17/14 11:10	
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			12/17/14 11:10	
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			12/17/14 11:10	
o-Xylene	0.60	U	5.0	0.60	ug/L			12/17/14 11:10	
p-Cymene	0.71	U	1.0	0.71	ug/L			12/17/14 11:10	
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			12/17/14 11:10	
Styrene	1.0	U	1.0	1.0	ug/L			12/17/14 11:10	
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			12/17/14 11:10	
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			12/17/14 11:10	
Toluene	0.70	U	1.0	0.70	ug/L			12/17/14 11:10	
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/L			12/17/14 11:10	
Trichloroethene	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			12/17/14 11:10	
Vinyl acetate	2.0	U	25	2.0	ug/L			12/17/14 11:10	
Vinyl chloride	0.50	U	1.0	0.50	ug/L			12/17/14 11:10	

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 4-Bromofluorobenzene 96 78 - 118 12/17/14 11:10 Dibromofluoromethane 99 81 - 121 12/17/14 11:10 Toluene-d8 (Surr) 99 80 - 120 12/17/14 11:10

Lab Sample ID: LCS 400-240304/1002

Matrix: Water

Analysis Batch: 240304

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

,	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%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

QC Sample Results

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

TestAmerica Job ID: 400-99422-1

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

Lab Sample ID: LCS 400-240304/1002

Matrix: Water

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

Analysis Batch: 240304	Spike	LCS	LCS				%Rec.
Analyte	Added		Qualifier	Unit	D	%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 ug/L		113	78 ₋ 122
'	50.0						
cis-1,3-Dichloropropene	50.0	60.5		ug/L		121	70 - 122
Dibromochloromethane		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
lodomethane	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

QC Sample Results

Client: Geosyntec Consultants, Inc. Project/Site: LC39 OGA MW Sampling TestAmerica Job ID: 400-99422-1

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

Client Sample ID: Matrix Spike

Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%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
,				- 3			

	LCS	LCS	
Surrogate	%Recovery	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

Chlorobenzene

Chloroethane

Analysis Batch: 240304

Analyse Result Qualifier Added Result Qualifier Unit b %Rec Limits 1.1,1.2-Tetachloroethane 0.50 U 50.0 49.4 ug/L 99 60-131 1.1,2.2-Tetachloroethane 0.50 U 50.0 49.4 ug/L 99 62-148 1.1-Dichloroethane 0.50 U 50.0 44.9 ug/L 99 62-148 1.1-Dichloroethane 0.50 U 50.0 44.9 ug/L 96 68-127 1.1-Dichloroethane 0.50 U 50.0 44.9 ug/L 96 69-126 1.1-Dichloropropane 0.50 0 46.8 ug/L 96 59-126 1.2-Dichloropropane 0.84 0 50.0 46.8 ug/L 93 30-137 1.2-Dichloropropane 0.82 U 50.0 46.6 ug/L 93 50-133 1.2-Dichlorobenzene 0.50 0 46.5 ug/L 93 </th <th>•</th> <th>Sample</th> <th>Sample</th> <th>Spike</th> <th>MS</th> <th>MS</th> <th></th> <th></th> <th></th> <th>%Rec.</th> <th></th>	•	Sample	Sample	Spike	MS	MS				%Rec.	
1,1,1-Trichloroethane 0.50 U 50.0 49.4 ug/L 99 60 - 131 1,1,2,2-Tertachloroethane 0.50 U 50.0 49.4 ug/L 99 62 - 148 1,1-Dichloroethane 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-Dichloroethane 0.50 U 50.0 37.6 ug/L 75 10 - 150 1,2-Dichloroethane 0.50 U 50.0 47.9 ug/L 96 59 - 126 1,2-3-Trichloropenzene 0.50 U 50.0 46.3 ug/L 39 30 - 137 1,2-4-Trineltoryberzene 0.82 U 50.0 46.6 ug/L 101 67 - 130 1,2-Dichloroberzene 0.50 U 50.0 48.6 ug/L 97 10 - 150 1,2-Dichloroberzene 0.50 U 50.0 48.5 ug/L <th>Analyte</th> <th>Result</th> <th>Qualifier</th> <th>Added</th> <th>Result</th> <th>Qualifier</th> <th>Unit</th> <th>D</th> <th>%Rec</th> <th>Limits</th> <th></th>	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1,2,2-Tetrachloroethane 0.50 U 50.0 49.4 ug/L 99 52.148 1,1,2-Tichloroethane 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-Dichloroethane 0.50 U 50.0 37.6 ug/L 96 59.126 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 1,2.4-Trichlorobenzene 0.82 U 50.0 46.6 ug/L 93 20.139 1,2.4-Trimethylbenzene 0.82 U 50.0 46.6 ug/L 93 20.139 1,2.4-Trichlorobenzene 0.82 U 50.0 46.6 ug/L 93 10.150 1,2.4-Trichlorobenzene 0.82 U 50.0 46.5 ug/L	1,1,1,2-Tetrachloroethane	0.52	U	50.0	50.1		ug/L		100	42 - 135	
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-Dichloroethane 0.50 U 50.0 37.6 ug/L 75 10.150 1,1-Dichloroethane 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 1,2,4-Trichlorobenzene 0.82 U 50.0 46.6 ug/L 93 20.139 1,2,4-Trinchlorobenzene 0.82 U 50.0 48.6 ug/L 97 10.150 1,2-Dichlorobropane 1.5 U 50.0 46.6 ug/L 91 10.150 1,2-Dichlorobropane 0.50 U 50.0 45.7 ug/L 91 10.150 1,3-Dichlorobropane 0.50 U 50.0 45.7 ug/L 93	1,1,1-Trichloroethane	0.50	U	50.0	49.4		ug/L		99	60 - 131	
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-Dichloroepropene 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-Trichlorobenzene 0.82 U 50.0 46.6 ug/L 93 20.139 1,2,4-Trinchlorobenzene 0.82 U 50.0 48.6 ug/L 97 10.150 1,2,4-Trinchlyrobenzene 0.82 U 50.0 48.6 ug/L 97 10.150 1,2,2-Trichloropropane 1.5 U 50.0 46.5 ug/L 91 10.150 1,2-Dichloropropane 0.50 U 50.0 45.7 ug/L 91 10.150 1,3-Dichloropropane 0.50 U 50.0 45.7 ug/L 9	1,1,2,2-Tetrachloroethane	0.50	U	50.0	49.4		ug/L		99	52 - 148	
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-Trichlorobenzene 0.82 U 50.0 46.6 ug/L 93 20.139 1,2,4-Trichlorobenzene 0.82 U 50.0 48.6 ug/L 97 10.150 1,2,4-Trichlorobenzene 0.82 U 50.0 48.6 ug/L 97 10.150 1,2-Dichloropropane 1.5 U 50.0 48.6 ug/L 30 10.150 1,2-Dichlorobenzene 0.50 U 50.0 46.5 ug/L 91 10.150 1,2-Dichlorobenzene 0.50 U 50.0 45.7 ug/L 91 65.132 1,2-Dichlorobenzene 0.50 U 50.0 46.8 ug/L 94 10.150 1,3-Dichloropropane 0.50 U 50.0 47.	1,1,2-Trichloroethane	0.50	U	50.0	48.2		ug/L		96	68 - 127	
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-Trinchlorobenzene 0.82 U 50.0 48.6 ug/L 93 20 - 139 1,2,4-Trinchloropharene 0.82 U 50.0 48.6 ug/L 97 10 - 150 1,2-Dibromo-3-Chloropropane 1.5 U 50.0 46.5 ug/L 93 10 - 150 1,2-Dichlorochenzene 0.50 U 50.0 46.5 ug/L 93 10 - 150 1,2-Dichloropropane 0.50 U 50.0 45.7 ug/L 91 65 - 132 1,3-Dichloropropane 0.50 U 50.0 46.8 ug/L 94 10 - 150 1,3-Dichlorobrenzene 0.50 U 50.0 47.7 ug/L 95 67 - 127 1,4-Dichlorobrenzene 0.50 U	1,1-Dichloroethane	0.50	U	50.0	44.9		ug/L		90	10 - 150	
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 48.6 ug/L 97 10.150 1,2-Dichromo-3-Chloropropane 1.5 U 50.0 48.6 ug/L 93 10.150 1,2-Dichlorobenzene 0.50 U 50.0 46.5 ug/L 93 10.150 1,2-Dichlorobenzene 0.50 U 50.0 45.7 ug/L 91 10.150 1,2-Dichlorobenzene 0.50 U 50.0 45.7 ug/L 91 10.150 1,3-Dichloropropane 0.56 U 50.0 46.8 ug/L 94 10.150 1,3-Dichloropropane 0.50 U 50.0 47.7 ug/L 95 67.127 1,4-Dichlorobrezene 0.51 U 50.0 47.2 ug/L <t< td=""><td>1,1-Dichloroethene</td><td>0.50</td><td>U</td><td>50.0</td><td>37.6</td><td></td><td>ug/L</td><td></td><td>75</td><td>10 - 150</td><td></td></t<>	1,1-Dichloroethene	0.50	U	50.0	37.6		ug/L		75	10 - 150	
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-Trichlorobenzene 0.82 U 50.0 48.6 ug/L 97 10 - 150 1,2-Dichloropropane 1.5 U 50.0 46.5 ug/L 93 10 - 150 1,2-Dichlorobenzene 0.50 U 50.0 46.5 ug/L 93 10 - 150 1,2-Dichlorobenzene 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 10 - 150 1,2-Dichloropropane 0.50 U 50.0 46.8 ug/L 94 10 - 150 1,3-Dichlorobrezene 0.56 U 50.0 46.7 ug/L 93 25 - 136 1,3-Dichloropropane 0.50 U 50.0 46.7 ug/L 95 67 - 127 1,4-Dichlorobrezene 0.64 U 50.0	1,1-Dichloropropene	0.50	U	50.0	47.9		ug/L		96	59 - 126	
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-Dichlorobenzene 1.5 U 50.0 50.1 ug/L 100 50 - 133 1,2-Dichlorobenzene 0.50 U 50.0 46.5 ug/L 91 10 - 150 1,2-Dichlorobenzene 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-Dichlorobenzene 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-Dichlorobenzene 0.54 U 50.0 46.7 ug/L 93 25 - 136 1,3-Dichlorobenzene 0.56 U 50.0 47.7 ug/L 95 46 - 132 2,-Dichloropropane 0.50 U 50.0 <td>1,2,3-Trichlorobenzene</td> <td>0.70</td> <td>U</td> <td>50.0</td> <td>46.3</td> <td></td> <td>ug/L</td> <td></td> <td>93</td> <td>30 - 137</td> <td></td>	1,2,3-Trichlorobenzene	0.70	U	50.0	46.3		ug/L		93	30 - 137	
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 93 10 - 150 1,2-Dichlorobenzene 0.50 U 50.0 46.5 ug/L 93 10 - 150 1,2-Dichlorobenzene 0.50 U 50.0 45.7 ug/L 91 10 - 150 1,3-Dichloropropane 0.56 U 50.0 45.7 ug/L 91 10 - 150 1,3-Dichlorobenzene 0.56 U 50.0 46.8 ug/L 94 10 - 150 1,3-Dichlorobenzene 0.56 U 50.0 46.7 ug/L 93 25 - 136 1,3-Dichlorobenzene 0.50 U 50.0 47.7 ug/L 95 67 - 127 1,4-Dichlorobenzene 0.50 U 50.0 47.4 ug/L 95 46 - 132 2,2-Dichlorotoluene 0.51 U 50.0 47.4 ug/L 92 10 - 150 4-Chlorotoluene 0.55 U 50.0 <td>1,2,3-Trichloropropane</td> <td>0.84</td> <td>U</td> <td>50.0</td> <td>50.3</td> <td></td> <td>ug/L</td> <td></td> <td>101</td> <td>67 - 130</td> <td></td>	1,2,3-Trichloropropane	0.84	U	50.0	50.3		ug/L		101	67 - 130	
1,2-Dibromo-3-Chloropropane 1.5 U 50.0 50.1 ug/L 93 10150 1,2-Dichlorobenzene 0.50 U 50.0 46.5 ug/L 93 10150 1,2-Dichloroethane 0.50 U 50.0 45.7 ug/L 91 10150 1,2-Dichloropropane 0.50 U 50.0 45.7 ug/L 91 65132 1,3-Frimethylbenzene 0.56 U 50.0 46.8 ug/L 94 10150 1,3-Dichlorobenzene 0.54 U 50.0 46.7 ug/L 93 25136 1,3-Dichloropropane 0.50 U 50.0 46.7 ug/L 93 25136 1,3-Dichloropropane 0.50 U 50.0 47.7 ug/L 95 67127 1,4-Dichlorobenzene 0.64 U 50.0 46.1 ug/L 92 10150 2,2-Dichloropropane 0.50 U 50.0 47.4 ug/L 92 10150 2-Hexanone 3.1 U 200 184 <td>1,2,4-Trichlorobenzene</td> <td>0.82</td> <td>U</td> <td>50.0</td> <td>46.6</td> <td></td> <td>ug/L</td> <td></td> <td>93</td> <td>20 - 139</td> <td></td>	1,2,4-Trichlorobenzene	0.82	U	50.0	46.6		ug/L		93	20 - 139	
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 4-Chlorotoluene 0.56 U 50.0 46.1 ug/L 92 17 - 145 Acetone 11 I 200 128	1,2,4-Trimethylbenzene	0.82	U	50.0	48.6		ug/L		97	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,-Dichloropropane 0.50 U 50.0 47.4 ug/L 95 46 - 132 2,-Dichloropropane 0.57 U 50.0 46.2 ug/L 92 10 - 150 2,-Hexanone 3.1 U 200 184 ug/L 92 17 - 145 4-Chlorotoluene 0.56 U 50.0 46.1 <td>1,2-Dibromo-3-Chloropropane</td> <td>1.5</td> <td>U</td> <td>50.0</td> <td>50.1</td> <td></td> <td>ug/L</td> <td></td> <td>100</td> <td>50 - 133</td> <td></td>	1,2-Dibromo-3-Chloropropane	1.5	U	50.0	50.1		ug/L		100	50 - 133	
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,-Dichlorobluene 0.57 U 50.0 47.4 ug/L 92 10 - 150 2,-Hexanone 3.1 U 200 184 ug/L 92 24 - 150 2-Hexanone 0.56 U 50.0 46.1 ug/L 92 17 - 145 4-Chlorotoluene 0.56 U 50.0 46.1 ug/L 92 17 - 145 Acetone 11 1 200 128 ug/L	1,2-Dichlorobenzene	0.50	U	50.0	46.5		ug/L		93	10 - 150	
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 ug/L 92 17 - 145 Acetone 11 I 200 128 ug/L ug/L 92 10 - 150 Bromobenzene 0.38 U 50.0 45.8 ug/L ug/L 94 38 - 135 Bromochloromethane 0.52 U 50.0 44.9 ug/L 94 75 - 120 Bromoform 0.71 U 50.0 42.1 ug/L ug/L 94 54 - 125 Bromomethane 0.98 U 50.0 44.9 ug/	1,2-Dichloroethane	0.50	U	50.0	45.7		ug/L		91	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 4-Chlorotoluene 0.56 U 50.0 46.1 ug/L 92 17 - 145 4-Chlorotoluene 0.56 U 50.0 46.1 ug/L 92 17 - 145 4-Chlorotoluene 0.58 U 50.0 45.8 ug/L 92 10 - 150 Benzene 0.38 U 50.0 46.9 ug/L <	1,2-Dichloropropane	0.50	U	50.0	45.7		ug/L		91	65 _ 132	
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 Bromoform 0.71 U 50.0 49.3 ug/L 99 6	1,3,5-Trimethylbenzene	0.56	U	50.0	46.8		ug/L		94	10 - 150	
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 Bromoform 0.71 U 50.0 49.3 ug/L 99 61 - 133 Bromomethane 0.98 U 50.0 44.9 ug/L 90 10 - 150	1,3-Dichlorobenzene	0.54	U	50.0	46.7		ug/L		93	25 - 136	
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 45.8 ug/L 94 38 - 135 Bromochloromethane 0.52 U 50.0 47.1 ug/L 94 75 - 120 Bromoform 0.71 U 50.0 49.3 ug/L 99 61 - 133 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 <td>1,3-Dichloropropane</td> <td>0.50</td> <td>U</td> <td>50.0</td> <td>47.7</td> <td></td> <td>ug/L</td> <td></td> <td>95</td> <td>67 ₋ 127</td> <td></td>	1,3-Dichloropropane	0.50	U	50.0	47.7		ug/L		95	67 ₋ 127	
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 45.8 ug/L 94 38 - 135 Bromochloromethane 0.52 U 50.0 47.1 ug/L 94 75 - 120 Bromoform 0.50 U 50.0 49.3 ug/L 99 61 - 133 Bromomethane 0.98 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	1,4-Dichlorobenzene	0.64	U	50.0	46.1		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 94 54 - 125 Bromomethane 0.50 U 50.0 44.9 ug/L 90 10 - 150 Carbon disulfide 0.50 U 50.0 46.5 ug/L 93 10 - 150	2,2-Dichloropropane	0.50	U	50.0	47.4		ug/L		95	46 - 132	
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	2-Chlorotoluene	0.57	U	50.0	46.2		ug/L		92	10 - 150	
Acetone 11 I 200 128 ug/L 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	2-Hexanone	3.1	U	200	184		ug/L		92	24 - 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	4-Chlorotoluene	0.56	U	50.0	46.1		ug/L		92	17 ₋ 145	
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	Acetone	11	1	200	128		ug/L		58	10 - 150	
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	Benzene	0.38	U	50.0	45.8		ug/L		92	10 - 150	
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	Bromobenzene	0.54	U	50.0	46.9		ug/L		94	38 ₋ 135	
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	Bromochloromethane	0.52	U	50.0	47.1		ug/L		94	75 - 120	
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	Bromodichloromethane	0.50	U	50.0	49.3		ug/L		99	61 - 133	
Carbon disulfide 0.50 U 50.0 46.5 ug/L 93 10 - 150	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 tetrachloride 0.50 U 50.0 50.4 ug/L 101 40 - 138	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	

99

82

10 - 150

38 - 150

49.5

41.1

ug/L

ug/L

50.0

50.0

0.50 U

0.76 U

TestAmerica Job ID: 400-99422-1

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

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

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	Ú	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	
lodomethane	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	1	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	
•						. 5				

MS MS

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

Lab Sample ID: 400-99390-A-2 MSD

Matrix: Water

Analysis Batch: 240304

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

TestAmerica Job ID: 400-99422-1

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

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

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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		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		50.0	44.9		ug/L		90	17 ₋ 145	3	51
Acetone	11		200	121		ug/L		55	10 - 150	6	22
Benzene	0.38		50.0	45.1		ug/L		90	10 - 150	2	19
Bromobenzene	0.54		50.0	46.6		ug/L		93	38 - 135	1	35
Bromochloromethane	0.52		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		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		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
lodomethane	0.68		50.0	53.5		ug/L		107	37 - 145	3	36
Isopropyl ether	0.70		50.0	45.6		ug/L		91	10 - 150	2	24
Isopropylbenzene		U J3	50.0	48.5		ug/L		97	10 - 150	5	46
Methyl Ethyl Ketone	2.6		200	155		ug/L		78	10 - 150	7	21
methyl isobutyl ketone	1.8		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	ш	50.0	45.0		ug/L		90	10 - 150	1	18

QC Sample Results

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

TestAmerica Job ID: 400-99422-1

-5

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

Lab Sample ID: 400-99390-A-2 MSD

Matrix: Water

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

Analysis Batch: 240304											
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

MSD MSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene	101	78 - 118
Dibromofluoromethane	101	81 - 121
Toluene-d8 (Surr)	100	80 - 120

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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	

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Lab Chronicle

Client: Geosyntec Consultants, Inc. Project/Site: LC39 OGA MW Sampling TestAmerica Job ID: 400-99422-1

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Client Sample ID: LC39OGA-MW0001-010.0-20141205

Lab Sample ID: 400-99422-1

Matrix: Water

Date Collected: 12/05/14 16:15 Date Received: 12/09/14 09:38

Batch Dilution Batch Batch Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst Lab Total/NA Analysis 8260B 240304 12/17/14 17:56 EAS TAL PEN

Client Sample ID: LC39OGA-MW0002-010.0-20141205

Lab Sample ID: 400-99422-2

Matrix: Water

Date Collected: 12/05/14 16:35 Date Received: 12/09/14 09:38

Batch Batch Dilution Batch Prepared Method Туре Run Factor Number or Analyzed Prep Type Analyst Lab 8260B 240304 12/17/14 18:23 EAS TAL PEN Total/NA Analysis

Lab Sample ID: 400-99422-3

Matrix: Water

Matrix: Water

Date Collected: 12/05/14 16:40 Date Received: 12/09/14 09:38

Batch Batch Dilution Batch Prepared Prep Type Method Factor Number or Analyzed Type Run

Analyst Lab

Total/NA Analysis 8260B 240304 12/17/14 18:50 EAS TAL PEN

Client Sample ID: LC39OGA-IDW195318-20141205

Client Sample ID: LC39OGA-IDW195316-20141205

Lab Sample ID: 400-99422-4

Date Collected: 12/05/14 16:50 Date Received: 12/09/14 09:38

Batch Batch Dilution Batch Prepared Method Prep Type Туре Run Factor Number or Analyzed Analyst Lab Total/NA Analysis 8260B 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

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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

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Lexenderica Mobile

phone 251.706.3202 fax 251.666.6696

Mobile, AL 36693

900 Lakeside Drive

Chain of Custody Record

<i>lestAmerica</i>	THE LEADER IN ENVIRONMENTAL TESTING
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TestAmerica Laboratories, Inc.

Sample Specific Notes: SOC 400-99422 COC Months Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) σŧ COC No: Job No. Archive For Disposal By Lab Date: 12/5/2014 Carrier: Site Contact: Ben Coppenger Return To Client Lab Contact: VOC 8260 (HCL preservative) × elitered Sample # of Cont. Matrix ≽ ≽ ≽ ≽ Analysis Turnaround Time Turna (C) or Work Days (TAT if different from Below (TAT if different from Calendar (C) or Work Days (W) GX€318 SA AS GWS GW33 Project Manager: Crystal Towns Sample Type Опклоwп Tel/Fax: 850-477-6547 Sample Time 1615 1635 1640 1650 Poison B Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Sample Date 12/5/2014 12/5/2014 12/5/2014 12/5/2014 [C3906.A-MW0001-010.0-20141205 LC390GA - MW0002 -010.0 -2014 1205 Skin Irritant 1039064 - DW195316 - 2014 1205 CC34064 - DW195318 -2014 1205 Special Instructions/QC Requirements & Comments: Sample Identification Phone Project Name: LC39 OGA MW Sampling Client Contact FĀ reservation osses.

Sossible Hazard Identification

Rlammable Site: LC39 OGA, KSC, FL Pensacola, FL, 32502 P O # FR0746B/18*0 850) 477-6547 316 S Baylen St Geosyntec

5.4°(TR6

Date Time: 12/5/14 @ 1055

Company: Jando

Date/Time:

Company:

Received by:

Date/Time: 12- 72, 14 1900

Company:

telinguished by:

12 | 08 | 14-0920 Date/Time;

Company:

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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.</td <td>N/A</td> <td></td>	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	



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 Swefford

Authorized for release by: 5/29/2015 2:05:13 PM

Mark Swafford, Project Manager I (850)474-1001

mark.swafford@testamericainc.com

.....LINKS

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Have a Question?



Visit us at: www.testamericainc.com The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

STAINERCA JOD ID. 400-103034-

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Definitions/Glossary

Client: Geosyntec Consultants, Inc.

TestAmerica Job ID: 400-105654-1

Project/Site: LC39 OGA

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
1	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

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

RLReporting 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)

Case Narrative

Client: Geosyntec Consultants, Inc.

Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

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 0.3° 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.

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TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-2

Lab Sample ID: 400-105654-3

Lab Sample ID: 400-105654-4

Lab Sample ID: 400-105654-5

Lab Sample ID: 400-105654-6

Lab Sample ID: 400-105654-7

Lab Sample ID: 400-105654-8

Lab Sample ID: 400-105654-9

Client: Geosyntec Consultants, Inc.

Project/Site: LC39 OGA

Client Sample ID: LC39OGA-MW0001-010.0-20150511 Lab Sample ID: 400-1056

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.69	Ī	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

Analyte	Result Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	3.3	1.0	0.50	ug/L		_	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

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

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

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

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

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

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

No Detections.

This Detection Summary does not include radiochemical test results.

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

Lab Sample ID: 400-105654-1

Matrix: Water

Client Sample ID: LC39OGA-MW0001-010.0-20150511

Date Collected: 05/11/15 14:04 Date Received: 05/14/15 09:15

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			05/23/15 19:39	
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			05/23/15 19:39	
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			05/23/15 19:39	
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			05/23/15 19:39	
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			05/23/15 19:39	
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			05/23/15 19:39	
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			05/23/15 19:39	
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 19:39	
1,2-Dichloroethane	0.50	U	1.0		ug/L			05/23/15 19:39	
1,2-Dichloropropane	0.50	U	1.0	0.50	-			05/23/15 19:39	
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			05/23/15 19:39	
1,3-Dichlorobenzene	0.54	U	1.0		ug/L			05/23/15 19:39	
1,3-Dichloropropane	0.50	U	1.0		ug/L			05/23/15 19:39	
1,4-Dichlorobenzene	0.64	U	1.0		ug/L			05/23/15 19:39	
2,2-Dichloropropane	0.50	U	1.0	0.50	-			05/23/15 19:39	
2-Chlorotoluene	0.57	U	1.0		ug/L			05/23/15 19:39	
2-Hexanone	3.1	U	25		ug/L			05/23/15 19:39	
I-Chlorotoluene	0.56	U	1.0		ug/L			05/23/15 19:39	
Acetone	10	U	25		ug/L			05/23/15 19:39	
Benzene	0.38	U	1.0		ug/L			05/23/15 19:39	
Bromobenzene	0.54	U	1.0	0.54	-			05/23/15 19:39	
Bromochloromethane	0.52	U	1.0		ug/L			05/23/15 19:39	
Bromodichloromethane	0.50		1.0		ug/L			05/23/15 19:39	
Bromoform	0.71		5.0		ug/L			05/23/15 19:39	
Bromomethane	0.98		1.0		ug/L			05/23/15 19:39	
Carbon disulfide	0.50		1.0		ug/L			05/23/15 19:39	
Carbon tetrachloride	0.50		1.0	0.50	-			05/23/15 19:39	
Chlorobenzene	0.50	U	1.0	0.50				05/23/15 19:39	
Chloroethane	0.76		1.0		ug/L			05/23/15 19:39	
Chloroform	0.60		1.0	0.60	-			05/23/15 19:39	
Chloromethane	0.83		1.0		ug/L			05/23/15 19:39	
cis-1,2-Dichloroethene	0.69		1.0		ug/L			05/23/15 19:39	
sis-1,3-Dichloropropene	0.50		5.0		ug/L			05/23/15 19:39	
Dibromochloromethane	0.50		1.0		ug/L			05/23/15 19:39	
Dibromomethane	0.59		5.0		ug/L			05/23/15 19:39	
Dichlorodifluoromethane	0.85		1.0		ug/L			05/23/15 19:39	
Ethylbenzene	0.50		1.0		ug/L			05/23/15 19:39	
Ethylene Dibromide	0.50		1.0		ug/L			05/23/15 19:39	
Hexachlorobutadiene	0.90		5.0		ug/L			05/23/15 19:39	
odomethane	0.90		1.0		ug/L ug/L			05/23/15 19:39	
sopropyl ether	0.70		1.0		ug/L ug/L			05/23/15 19:39	
sopropylbenzene	0.70		1.0		ug/L ug/L			05/23/15 19:39	
					_				
Methyl Ethyl Ketone methyl isobutyl ketone	2.6 1.8		25 25		ug/L ug/L			05/23/15 19:39 05/23/15 19:39	

Client: Geosyntec Consultants, Inc.

Date Collected: 05/11/15 14:04

Date Received: 05/14/15 09:15

Project/Site: LC39 OGA

Toluene-d8 (Surr)

TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-1

Client Sample ID: LC39OGA-MW0001-010.0-20150511

Matrix: Water

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

80 - 120

95

TestAmerica Pensacola

05/23/15 19:39

Client: Geosyntec Consultants, Inc.

Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-2

Matrix: Water

Client Sample ID: LC39OGA-MW0002-010.0-20150511
Data Oalla da I OF/44/4F 4F FO

Date Collected: 05/11/15 15:52 Date Received: 05/14/15 09:15

Method: 8260B - Volatile Org Analyte		Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			05/23/15 20:04	
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	
1,1,2-Trichloroethane	0.50	Ü	5.0	0.50	ug/L			05/23/15 20:04	
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 20:04	
1,1-Dichloropropene	0.50		1.0	0.50				05/23/15 20:04	
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	-			05/23/15 20:04	
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			05/23/15 20:04	
I,2,4-Trichlorobenzene	0.82		1.0	0.82	-			05/23/15 20:04	
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	-			05/23/15 20:04	
1,2-Dibromo-3-Chloropropane	1.5	U	5.0		ug/L			05/23/15 20:04	
1,2-Dichlorobenzene	0.50		1.0	0.50	-			05/23/15 20:04	
I,2-Dichloroethane	0.50		1.0	0.50	-			05/23/15 20:04	
1,2-Dichloropropane	0.50		1.0	0.50	-			05/23/15 20:04	
1,3,5-Trimethylbenzene	0.56		1.0	0.56	-			05/23/15 20:04	
I,3-Dichlorobenzene	0.54		1.0	0.54	-			05/23/15 20:04	
1,3-Dichloropropane	0.50		1.0	0.50	-			05/23/15 20:04	
1,4-Dichlorobenzene	0.64		1.0	0.64	-			05/23/15 20:04	
2,2-Dichloropropane	0.50		1.0	0.50	-			05/23/15 20:04	
2-Chlorotoluene	0.57		1.0	0.57	-			05/23/15 20:04	
2-Hexanone	3.1		25		ug/L			05/23/15 20:04	
-Chlorotoluene	0.56		1.0	0.56	_			05/23/15 20:04	
Acetone	10		25		ug/L			05/23/15 20:04	
Benzene	0.38		1.0	0.38	-			05/23/15 20:04	
Bromobenzene	0.54		1.0	0.54	-			05/23/15 20:04	
Bromochloromethane	0.54		1.0	0.54	-			05/23/15 20:04	
	0.52				-				
Bromodichloromethane Bromoform	0.50		1.0	0.50	-			05/23/15 20:04	
Bromomethane	0.71		5.0 1.0	0.71	_			05/23/15 20:04 05/23/15 20:04	
Carbon disulfide	0.50			0.98					
			1.0	0.50	-			05/23/15 20:04	
Carbon tetrachloride	0.50		1.0	0.50				05/23/15 20:04	
Chlorobenzene	0.50		1.0	0.50	-			05/23/15 20:04	
Chloroethane	0.76		1.0	0.76				05/23/15 20:04	
Chloroform	0.60		1.0	0.60	•			05/23/15 20:04	
Chloromethane	0.83	. U	1.0		ug/L			05/23/15 20:04	
cis-1,2-Dichloroethene	3.3		1.0		ug/L			05/23/15 20:04	
cis-1,3-Dichloropropene	0.50		5.0		ug/L			05/23/15 20:04	
Dibromochloromethane	0.50		1.0		ug/L			05/23/15 20:04	
Dibromomethane	0.59		5.0		ug/L			05/23/15 20:04	
Dichlorodifluoromethane	0.85		1.0		ug/L			05/23/15 20:04	
Ethylbenzene	0.50		1.0		ug/L			05/23/15 20:04	
thylene Dibromide	0.50		1.0		ug/L			05/23/15 20:04	
Hexachlorobutadiene	0.90		5.0	0.90	ug/L			05/23/15 20:04	
odomethane	0.68	U	1.0		ug/L			05/23/15 20:04	
sopropyl ether	0.70	U	1.0	0.70	ug/L			05/23/15 20:04	
sopropylbenzene	0.53	U	1.0	0.53	ug/L			05/23/15 20:04	
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			05/23/15 20:04	
methyl isobutyl ketone	1.8		25	1.8	ug/L			05/23/15 20:04	

Client: Geosyntec Consultants, Inc.

Date Collected: 05/11/15 15:52

Date Received: 05/14/15 09:15

Client Sample ID: LC39OGA-MW0002-010.0-20150511

104

95

Project/Site: LC39 OGA

Dibromofluoromethane

Toluene-d8 (Surr)

TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-2

Matrix: Water

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

81 - 121

80 - 120

TestAmerica Pensacola

05/23/15 20:04

05/23/15 20:04

Client: Geosyntec Consultants, Inc.

Client Sample ID: LC39OGA-MW0004-010.0-20150512

Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-3

Matrix: Water

Date Collected: 05/12/15 10:42 Date Received: 05/14/15 09:15

Analyte		Qualifier	PQL	MDL		D	Prepared	Analyzed	Dil Fa
,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			05/23/15 20:30	
,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	
,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	
,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			05/23/15 20:30	
,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	
,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	
,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			05/23/15 20:30	
,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			05/23/15 20:30	
,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			05/23/15 20:30	
,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			05/23/15 20:30	
,2,4-Trimethylbenzene	0.82	U	1.0	0.82				05/23/15 20:30	
,2-Dibromo-3-Chloropropane	1.5	U	5.0		ug/L			05/23/15 20:30	
,2-Dichlorobenzene	0.50	U	1.0	0.50				05/23/15 20:30	
,2-Dichloroethane	0.50		1.0	0.50				05/23/15 20:30	
,2-Dichloropropane	0.50		1.0	0.50	-			05/23/15 20:30	
,3,5-Trimethylbenzene	0.56	Ü	1.0	0.56	-			05/23/15 20:30	
,3-Dichlorobenzene	0.54		1.0	0.54	-			05/23/15 20:30	
,3-Dichloropropane	0.50		1.0	0.50	-			05/23/15 20:30	
,4-Dichlorobenzene	0.64		1.0	0.64	Ū			05/23/15 20:30	
, 2-Dichloropropane	0.50		1.0	0.50	-			05/23/15 20:30	
-Chlorotoluene	0.57		1.0	0.57	-			05/23/15 20:30	
-Hexanone	3.1		25		ug/L			05/23/15 20:30	
-Chlorotoluene	0.56		1.0	0.56	-			05/23/15 20:30	
acetone	10		25		ug/L			05/23/15 20:30	
Benzene	0.38		1.0	0.38	.			05/23/15 20:30	
Bromobenzene	0.54		1.0	0.54	•			05/23/15 20:30	
Bromochloromethane	0.52		1.0	0.52	-			05/23/15 20:30	
Bromodichloromethane	0.50		1.0	0.50	-			05/23/15 20:30	
Bromoform	0.30		5.0	0.30	-			05/23/15 20:30	
Bromomethane	0.71		1.0	0.71	J			05/23/15 20:30	
Carbon disulfide	0.50			0.50	-			05/23/15 20:30	
			1.0		-				
Carbon tetrachloride	0.50		1.0	0.50	_			05/23/15 20:30	
Chlorobenzene	0.50		1.0	0.50	ū			05/23/15 20:30	
Chloroethane	0.76		1.0		ug/L			05/23/15 20:30	
Chloroform	0.60		1.0		ug/L			05/23/15 20:30	
Chloromethane	0.83		1.0	0.83				05/23/15 20:30	
is-1,2-Dichloroethene	4.6		1.0		ug/L			05/23/15 20:30	
is-1,3-Dichloropropene	0.50		5.0		ug/L			05/23/15 20:30	
Dibromochloromethane	0.50		1.0		ug/L			05/23/15 20:30	
Dibromomethane	0.59		5.0		ug/L			05/23/15 20:30	
Dichlorodifluoromethane	0.85		1.0	0.85	-			05/23/15 20:30	
thylbenzene	0.50		1.0		ug/L			05/23/15 20:30	
thylene Dibromide	0.50		1.0	0.50				05/23/15 20:30	
lexachlorobutadiene	0.90		5.0		ug/L			05/23/15 20:30	
odomethane	0.68		1.0		ug/L			05/23/15 20:30	
sopropyl ether	0.70		1.0		ug/L			05/23/15 20:30	
sopropylbenzene	0.53	U	1.0	0.53	-			05/23/15 20:30	
Nethyl Ethyl Ketone	2.6	U	25	2.6	ug/L			05/23/15 20:30	

Client: Geosyntec Consultants, Inc.

Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-3

Matrix: Water

Matrix: Water

Date Collected: 05/12/15 10:42 Date Received: 05/14/15 09:15

Client Sample ID: LC39OGA-MW0004-010.0-20150512

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.

Date Collected: 05/11/15 11:46

Date Received: 05/14/15 09:15

Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-4

Matrix: Water

í					
	Mothod: 9260D	Volotilo	Organia	Compoundo	(CC/MC)
	Method: 8260B -	voiatile	Organic	Compounds	(GC/IVIS)

Client Sample ID: LC39OGA-MW0005-010.0-20150511

Method: 8260B - Volatile Org Analyte	Result	Qualifier	PQL		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		ug/L			05/23/15 20:56	1
1,2-Dichlorobenzene	0.50	U	1.0		ug/L			05/23/15 20:56	1
1,2-Dichloroethane	0.50		1.0		ug/L			05/23/15 20:56	1
1,2-Dichloropropane	0.50	U	1.0		ug/L			05/23/15 20:56	1
1,3,5-Trimethylbenzene	0.56	Ü	1.0		ug/L			05/23/15 20:56	1
1,3-Dichlorobenzene	0.54		1.0		ug/L			05/23/15 20:56	1
1,3-Dichloropropane	0.50		1.0		ug/L			05/23/15 20:56	1
1,4-Dichlorobenzene	0.64		1.0		ug/L			05/23/15 20:56	· · · · · · · · 1
2,2-Dichloropropane	0.50		1.0		ug/L			05/23/15 20:56	1
2-Chlorotoluene	0.57		1.0		ug/L			05/23/15 20:56	1
2-Hexanone	3.1		25		ug/L			05/23/15 20:56	· · · · · · · · · · · · · · · · · · ·
4-Chlorotoluene	0.56		1.0		ug/L			05/23/15 20:56	1
Acetone	10		25		ug/L			05/23/15 20:56	1
Benzene	0.38		1.0		ug/L			05/23/15 20:56	· · · · · · · · · · · · · · · · · · ·
Bromobenzene	0.54		1.0		ug/L			05/23/15 20:56	1
Bromochloromethane	0.52		1.0		ug/L			05/23/15 20:56	1
Bromodichloromethane	0.50		1.0		ug/L			05/23/15 20:56	
Bromoform	0.50		5.0		ug/L ug/L			05/23/15 20:56	1
Bromomethane	0.71		1.0		ug/L ug/L			05/23/15 20:56	1
Carbon disulfide	0.50		1.0					05/23/15 20:56	
Carbon tetrachloride	0.50		1.0		ug/L ug/L			05/23/15 20:56	1
Chlorosthana	0.50		1.0		ug/L			05/23/15 20:56 05/23/15 20:56	1
Chloroform	0.76		1.0		ug/L				1
Chloroform	0.60		1.0		ug/L			05/23/15 20:56	1
Chloromethane	0.83		1.0		ug/L			05/23/15 20:56	1
cis-1,2-Dichloroethene	0.50		1.0		ug/L			05/23/15 20:56	1
cis-1,3-Dichloropropene	0.50		5.0		ug/L			05/23/15 20:56	1
Dibromochloromethane	0.50		1.0		ug/L			05/23/15 20:56	1
Dibromomethane	0.59		5.0		ug/L			05/23/15 20:56	1
Dichlorodifluoromethane	0.85		1.0		ug/L			05/23/15 20:56	1
Ethylbenzene	0.50		1.0		ug/L			05/23/15 20:56	
Ethylene Dibromide	0.50		1.0		ug/L			05/23/15 20:56	1
Hexachlorobutadiene	0.90		5.0		ug/L			05/23/15 20:56	1
Iodomethane	0.68		1.0		ug/L			05/23/15 20:56	1
Isopropyl ether	0.70		1.0		ug/L			05/23/15 20:56	1
Isopropylbenzene	0.53		1.0		ug/L			05/23/15 20:56	1
Methyl Ethyl Ketone	2.6		25		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.

Date Collected: 05/11/15 11:46

Date Received: 05/14/15 09:15

Project/Site: LC39 OGA

trans-1,3-Dichloropropene

Trichlorofluoromethane

Trichloroethene

Vinyl acetate

Vinyl chloride

TestAmerica Job ID: 400-105654-1

05/23/15 20:56

05/23/15 20:56

05/23/15 20:56

05/23/15 20:56

05/23/15 20:56

Lab Sample ID: 400-105654-4

Client Sample ID: LC39OGA-MW0005-010.0-20150511

Matrix: Water

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	
Methylene Chloride	3.0	U	5.0	3.0	ug/L			05/23/15 20:56	•
m-Xylene & p-Xylene	1.6	U	5.0	1.6	ug/L			05/23/15 20:56	•
Naphthalene	1.0	U	1.0	1.0	ug/L			05/23/15 20:56	•
n-Butylbenzene	0.76	U	1.0	0.76	ug/L			05/23/15 20:56	
N-Propylbenzene	0.69	U	1.0	0.69	ug/L			05/23/15 20:56	•
o-Xylene	0.60	U	5.0	0.60	ug/L			05/23/15 20:56	•
p-Cymene	0.71	U	1.0	0.71	ug/L			05/23/15 20:56	
sec-Butylbenzene	0.70	U	1.0	0.70	ug/L			05/23/15 20:56	
Styrene	1.0	U	1.0	1.0	ug/L			05/23/15 20:56	-
tert-Butylbenzene	0.63	U	1.0	0.63	ug/L			05/23/15 20:56	-
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			05/23/15 20:56	
Toluene	0.70	U	1.0	0.70	ug/L			05/23/15 20:56	
trans-1,2-Dichloroethene	2.2		1.0	0.50	ug/L			05/23/15 20:56	•

0.50 U

0.50 U

0.52 U

2.0 U

0.50 U

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

5.0

1.0

1.0

25

1.0

0.50 ug/L

0.50 ug/L

0.52 ug/L

2.0 ug/L

0.50 ug/L

Client: Geosyntec Consultants, Inc.

Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-5

Matrix: Water

Date Collected: 05/11/15 14:36

Client Sample ID: LC39OGA-MW0006-024.5-20150511

Date Received: 05/14/15 09:15

Analyte	ganic Compo Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.52		1.0					05/23/15 21:22	
1,1,1-Trichloroethane	0.50		1.0		ug/L			05/23/15 21:22	
1,1,2,2-Tetrachloroethane	0.50		1.0		ug/L			05/23/15 21:22	
1,1,2-Trichloroethane	0.50		5.0		ug/L			05/23/15 21:22	
1,1-Dichloroethane	0.50		1.0		ug/L			05/23/15 21:22	
1,1-Dichloroethene	0.50		1.0		ug/L			05/23/15 21:22	
1,1-Dichloropropene	0.50		1.0		ug/L			05/23/15 21:22	
1,2,3-Trichlorobenzene	0.70		1.0		ug/L			05/23/15 21:22	
1,2,3-Trichloropropane	0.84		5.0	0.84	_			05/23/15 21:22	
1,2,4-Trichlorobenzene	0.82		1.0		ug/L			05/23/15 21:22	
1,2,4-Trimethylbenzene	0.82		1.0		ug/L			05/23/15 21:22	
1,2-Dibromo-3-Chloropropane	1.5		5.0		ug/L			05/23/15 21:22	
1,2-Dichlorobenzene	0.50		1.0		ug/L			05/23/15 21:22	,
1,2-Dichloroethane	0.50		1.0		ug/L			05/23/15 21:22	
1,2-Dichloropropane	0.50		1.0		ug/L ug/L			05/23/15 21:22	
1,3,5-Trimethylbenzene	0.56		1.0		ug/L ug/L			05/23/15 21:22	· · · · · .
1,3-Dichlorobenzene	0.54		1.0	0.54	-			05/23/15 21:22	
1,3-Dichloropropane	0.54		1.0		-			05/23/15 21:22	
	0.50				ug/L ug/L			05/23/15 21:22	
1,4-Dichlorobenzene	0.50		1.0		-				
2,2-Dichloropropane			1.0		ug/L			05/23/15 21:22	
2-Chlorotoluene	0.57		1.0		ug/L			05/23/15 21:22	
2-Hexanone	3.1		25		ug/L			05/23/15 21:22	•
4-Chlorotoluene	0.56		1.0		ug/L			05/23/15 21:22	•
Acetone	10		25		ug/L			05/23/15 21:22	
Benzene	0.38		1.0		ug/L			05/23/15 21:22	
Bromobenzene	0.54		1.0		ug/L			05/23/15 21:22	
Bromochloromethane	0.52		1.0		ug/L			05/23/15 21:22	
Bromodichloromethane	0.50		1.0		ug/L			05/23/15 21:22	•
Bromoform	0.71		5.0		ug/L			05/23/15 21:22	•
Bromomethane	0.98		1.0		ug/L			05/23/15 21:22	
Carbon disulfide	0.50		1.0		ug/L			05/23/15 21:22	•
Carbon tetrachloride	0.50		1.0		ug/L			05/23/15 21:22	•
Chlorobenzene	0.50		1.0	0.50	-			05/23/15 21:22	
Chloroethane	0.76		1.0		ug/L			05/23/15 21:22	•
Chloroform	0.60		1.0		ug/L			05/23/15 21:22	•
Chloromethane	0.83		1.0		ug/L			05/23/15 21:22	
cis-1,2-Dichloroethene	0.61		1.0	0.50	ug/L			05/23/15 21:22	•
cis-1,3-Dichloropropene	0.50	U	5.0		ug/L			05/23/15 21:22	•
Dibromochloromethane	0.50	U	1.0		ug/L			05/23/15 21:22	•
Dibromomethane	0.59	U	5.0	0.59	ug/L			05/23/15 21:22	•
Dichlorodifluoromethane	0.85		1.0		ug/L			05/23/15 21:22	•
Ethylbenzene	0.50	U	1.0		ug/L			05/23/15 21:22	•
Ethylene Dibromide	0.50	U	1.0	0.50	ug/L			05/23/15 21:22	
Hexachlorobutadiene	0.90	U	5.0	0.90	ug/L			05/23/15 21:22	
lodomethane	0.68	U	1.0	0.68	ug/L			05/23/15 21:22	
Isopropyl ether	0.70	U	1.0	0.70	ug/L			05/23/15 21:22	
Isopropylbenzene	0.53	U	1.0	0.53	ug/L			05/23/15 21:22	•
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			05/23/15 21:22	•
methyl isobutyl ketone	1.8		25		ug/L			05/23/15 21:22	

Client: Geosyntec Consultants, Inc.

Date Collected: 05/11/15 14:36

Date Received: 05/14/15 09:15

Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-5

Matrix: Water

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

Client Sample ID: LC39OGA-MW0006-024.5-20150511

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		ug/L			05/23/15 21:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

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

Lab Sample ID: 400-105654-6

Matrix: Water

Client Sample ID: LC39OGA-MW0007-024.5-20150512

Date Collected: 05/12/15 09:58 Date Received: 05/14/15 09:15

Analyte		Qualifier	PQL		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
I,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	Ü	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	-			05/23/15 21:47	1
1,2,4-Trimethylbenzene	0.82	U	1.0		ug/L			05/23/15 21:47	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0		ug/L			05/23/15 21:47	1
1,2-Dichlorobenzene	0.50	Ü	1.0	0.50				05/23/15 21:47	1
1,2-Dichloroethane	0.50		1.0		ug/L			05/23/15 21:47	1
1,2-Dichloropropane	0.50		1.0	0.50	-			05/23/15 21:47	1
1,3,5-Trimethylbenzene	0.56		1.0	0.56	-			05/23/15 21:47	1
1,3-Dichlorobenzene	0.54		1.0		ug/L			05/23/15 21:47	1
1,3-Dichloropropane	0.50		1.0		ug/L			05/23/15 21:47	1
1,4-Dichlorobenzene	0.64		1.0		ug/L			05/23/15 21:47	
2,2-Dichloropropane	0.50		1.0		ug/L			05/23/15 21:47	1
2-Chlorotoluene	0.57		1.0		ug/L			05/23/15 21:47	1
2-Hexanone	3.1		25		ug/L			05/23/15 21:47	
4-Chlorotoluene	0.56		1.0		ug/L			05/23/15 21:47	1
Acetone	10		25		ug/L			05/23/15 21:47	1
Benzene	0.38		1.0	0.38				05/23/15 21:47	
Bromobenzene	0.54		1.0	0.54	-			05/23/15 21:47	1
Bromochloromethane	0.52		1.0		ug/L ug/L			05/23/15 21:47	1
Bromodichloromethane	0.52		1.0		ug/L			05/23/15 21:47	
Bromoform	0.50		5.0		_			05/23/15 21:47	1
Bromomethane					•				1
	0.98		1.0	0.98	-			05/23/15 21:47	
Carbon disulfide	0.50		1.0		ug/L			05/23/15 21:47	1
Carbon tetrachloride	0.50		1.0		ug/L			05/23/15 21:47	1
Chlorobenzene	0.50		1.0	0.50	-			05/23/15 21:47	1
Chloroethane	0.76		1.0		ug/L			05/23/15 21:47	1
Chloroform	0.60		1.0		ug/L			05/23/15 21:47	1
Chloromethane	0.83		1.0		ug/L			05/23/15 21:47	1
cis-1,2-Dichloroethene	1.0		1.0		ug/L			05/23/15 21:47	1
cis-1,3-Dichloropropene	0.50		5.0		ug/L			05/23/15 21:47	1
Dibromochloromethane	0.50		1.0		ug/L			05/23/15 21:47	1
Dibromomethane	0.59		5.0		ug/L			05/23/15 21:47	1
Dichlorodifluoromethane	0.85		1.0		ug/L			05/23/15 21:47	1
Ethylbenzene	0.50		1.0		ug/L			05/23/15 21:47	1
Ethylene Dibromide	0.50		1.0	0.50				05/23/15 21:47	1
Hexachlorobutadiene	0.90		5.0	0.90	ug/L			05/23/15 21:47	1
lodomethane	0.68	U	1.0		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		25	1.8	ug/L			05/23/15 21:47	1

Client: Geosyntec Consultants, Inc.

Date Collected: 05/12/15 09:58

Date Received: 05/14/15 09:15

Client Sample ID: LC39OGA-MW0007-024.5-20150512

Project/Site: LC39 OGA

Toluene-d8 (Surr)

TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-6

Matrix: Water

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

80 - 120

94

05/23/15 21:47

Client: Geosyntec Consultants, Inc.

Date Collected: 05/12/15 11:26

Date Received: 05/14/15 09:15

Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-7

Matrix: Water

Client Sample ID: LC39OGA-MW0008-024.5-20150512

Method: 8260B - Volatile Org Analyte	Result	Qualifier	PQL	MDL		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-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			05/23/15 22:13	
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	•
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	•
1,1-Dichloropropene	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	ug/L			05/23/15 22:13	
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			05/23/15 22:13	•
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			05/23/15 22:13	•
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			05/23/15 22:13	•
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			05/23/15 22:13	•
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	,
1,2-Dichloroethane	0.50	U	1.0	0.50				05/23/15 22:13	
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			05/23/15 22:13	
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 22:13	
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 22:13	
1,4-Dichlorobenzene	0.64	Ü	1.0	0.64				05/23/15 22:13	• • • • • • • • •
2,2-Dichloropropane	0.50	U	1.0	0.50				05/23/15 22:13	
2-Chlorotoluene	0.57	U	1.0	0.57	-			05/23/15 22:13	
2-Hexanone	3.1	U	25		ug/L			05/23/15 22:13	· · · · · · .
4-Chlorotoluene	0.56	U	1.0	0.56				05/23/15 22:13	
Acetone	10	U	25		ug/L			05/23/15 22:13	
Benzene	0.38	U	1.0	0.38	-			05/23/15 22:13	,
Bromobenzene	0.54		1.0	0.54				05/23/15 22:13	
Bromochloromethane	0.52	U	1.0	0.52	-			05/23/15 22:13	
Bromodichloromethane	0.50	U	1.0	0.50	-			05/23/15 22:13	,
Bromoform	0.71		5.0		ug/L			05/23/15 22:13	
Bromomethane	0.98		1.0	0.98	-			05/23/15 22:13	
Carbon disulfide	0.50		1.0	0.50	-			05/23/15 22:13	
Carbon tetrachloride	0.50		1.0	0.50	-			05/23/15 22:13	
Chlorobenzene	0.50		1.0	0.50	-			05/23/15 22:13	
Chloroethane	0.76		1.0		ug/L			05/23/15 22:13	
Chloroform	0.60		1.0	0.60				05/23/15 22:13	
Chloromethane	0.83	U	1.0	0.83	-			05/23/15 22:13	
cis-1,2-Dichloroethene	3.0		1.0	0.50				05/23/15 22:13	,
cis-1,3-Dichloropropene	0.50	U	5.0		ug/L			05/23/15 22:13	
Dibromochloromethane	0.50		1.0		ug/L			05/23/15 22:13	
Dibromomethane	0.59		5.0		ug/L			05/23/15 22:13	,
Dichlorodifluoromethane	0.85		1.0		ug/L			05/23/15 22:13	
Ethylbenzene	0.50		1.0	0.50	-			05/23/15 22:13	
Ethylene Dibromide	0.50		1.0		ug/L			05/23/15 22:13	,
Hexachlorobutadiene	0.90		5.0	0.90				05/23/15 22:13	
Iodomethane	0.68		1.0	0.68	-			05/23/15 22:13	
Isopropyl ether	0.70		1.0	0.70				05/23/15 22:13	,
Isopropylbenzene	0.70		1.0	0.70				05/23/15 22:13	
Methyl Ethyl Ketone	2.6		25		ug/L			05/23/15 22:13	
methyl isobutyl ketone	1.8		25		ug/L			05/23/15 22:13	,

TestAmerica Pensacola

Client: Geosyntec Consultants, Inc.

Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-7

Client Sample ID: LC39OGA-MW0008-024.5-20150512

Date Collected: 05/12/15 11:26 **Matrix: Water** Date Received: 05/14/15 09:15

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

Lab Sample ID: 400-105654-8

Matrix: Water

Client Sample ID:	LC39OGA-MW0009-024.5-20150511
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Date Collected: 05/11/15 12:24 Date Received: 05/14/15 09:15

Method: 8260B - Volatile Orç						_			
Analyte		Qualifier	PQL	MDL		D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	0.52		1.0	0.52	-			05/23/15 22:39	
1,1,1-Trichloroethane	0.50		1.0	0.50	-			05/23/15 22:39	
1,1,2,2-Tetrachloroethane	0.50		1.0	0.50	-			05/23/15 22:39	
1,1,2-Trichloroethane	0.50		5.0	0.50	-			05/23/15 22:39	
1,1-Dichloroethane	0.50		1.0	0.50	-			05/23/15 22:39	
1,1-Dichloroethene	0.50		1.0	0.50	-			05/23/15 22:39	
1,1-Dichloropropene	0.50		1.0	0.50	-			05/23/15 22:39	
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	-			05/23/15 22:39	
1,2,3-Trichloropropane	0.84		5.0	0.84	-			05/23/15 22:39	
1,2,4-Trichlorobenzene	0.82	U	1.0	0.82	ug/L			05/23/15 22:39	
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	ug/L			05/23/15 22:39	
1,2-Dibromo-3-Chloropropane	1.5	U	5.0	1.5	ug/L			05/23/15 22:39	
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	
1,3,5-Trimethylbenzene	0.56	U	1.0	0.56	ug/L			05/23/15 22:39	
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			05/23/15 22:39	
1,3-Dichloropropane	0.50	U	1.0	0.50	ug/L			05/23/15 22:39	
1,4-Dichlorobenzene	0.64		1.0	0.64	-			05/23/15 22:39	
2,2-Dichloropropane	0.50		1.0	0.50	-			05/23/15 22:39	
2-Chlorotoluene	0.57	U	1.0	0.57	-			05/23/15 22:39	
2-Hexanone	3.1		25		ug/L			05/23/15 22:39	
-Chlorotoluene	0.56		1.0	0.56	_			05/23/15 22:39	
Acetone	10		25		ug/L			05/23/15 22:39	
Benzene	0.38		1.0	0.38	-			05/23/15 22:39	
Bromobenzene	0.54		1.0	0.54	-			05/23/15 22:39	
Bromochloromethane	0.52		1.0	0.52	-			05/23/15 22:39	
Bromodichloromethane	0.50		1.0	0.50	-			05/23/15 22:39	
Bromoform	0.71		5.0	0.71	-			05/23/15 22:39	
Bromomethane	0.98		1.0	0.98	-			05/23/15 22:39	
Carbon disulfide	0.50		1.0	0.50	-			05/23/15 22:39	
Carbon tetrachloride	0.50		1.0	0.50	-			05/23/15 22:39	
Chlorobenzene	0.50		1.0	0.50	-			05/23/15 22:39	
Chloroethane	0.76		1.0	0.76	-			05/23/15 22:39	
Chloroform	0.60		1.0	0.60	-			05/23/15 22:39	
Chloromethane	0.83		1.0	0.83	•			05/23/15 22:39	
cis-1,2-Dichloroethene	5.0		1.0	0.50				05/23/15 22:39	
cis-1,3-Dichloropropene Dibromochloromethane	0.50		5.0	0.50	-			05/23/15 22:39	
	0.50		1.0	0.50				05/23/15 22:39	
Dibromomethane	0.59		5.0	0.59				05/23/15 22:39	
Dichlorodifluoromethane	0.85		1.0	0.85	-			05/23/15 22:39	
Ethylbenzene	0.50		1.0	0.50	-			05/23/15 22:39	
Ethylene Dibromide	0.50		1.0	0.50				05/23/15 22:39	
lexachlorobutadiene	0.90		5.0	0.90	_			05/23/15 22:39	
odomethane	0.68		1.0	0.68				05/23/15 22:39	
sopropyl ether	0.70		1.0	0.70				05/23/15 22:39	
sopropylbenzene	0.53		1.0	0.53	_			05/23/15 22:39	
Methyl Ethyl Ketone	2.6		25		ug/L			05/23/15 22:39	
methyl isobutyl ketone	1.8	U	25	1.8	ug/L			05/23/15 22:39	

TestAmerica Pensacola

Client: Geosyntec Consultants, Inc.

Date Collected: 05/11/15 12:24

Date Received: 05/14/15 09:15

Client Sample ID: LC39OGA-MW0009-024.5-20150511

Project/Site: LC39 OGA

4-Bromofluorobenzene

Dibromofluoromethane

Toluene-d8 (Surr)

TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-8

05/23/15 22:39

05/23/15 22:39

05/23/15 22:39

Matrix: Water

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

78 - 118

81 - 121

80 - 120

101

106

94

Client: Geosyntec Consultants, Inc.

Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-9

Matrix: Water

Client Sample ID: TRIP BLANK

Date Collected: 05/14/15 09:15 Date Received: 05/14/15 09:15

Method: 8260B - Volatile Org Analyte		Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			05/23/15 23:05	
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	
1,1,2-Trichloroethane	0.50	Ü	5.0	0.50	ug/L			05/23/15 23:05	
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			05/23/15 23:05	
1,1-Dichloropropene	0.50		1.0	0.50				05/23/15 23:05	
1,2,3-Trichlorobenzene	0.70	U	1.0	0.70	-			05/23/15 23:05	
1,2,3-Trichloropropane	0.84	U	5.0	0.84	ug/L			05/23/15 23:05	
I,2,4-Trichlorobenzene	0.82		1.0	0.82	-			05/23/15 23:05	
1,2,4-Trimethylbenzene	0.82	U	1.0	0.82	-			05/23/15 23:05	
I,2-Dibromo-3-Chloropropane	1.5	U	5.0		ug/L			05/23/15 23:05	
1,2-Dichlorobenzene	0.50		1.0	0.50	-			05/23/15 23:05	
I,2-Dichloroethane	0.50		1.0	0.50	-			05/23/15 23:05	
I,2-Dichloropropane	0.50		1.0	0.50	-			05/23/15 23:05	
1,3,5-Trimethylbenzene	0.56		1.0	0.56	-			05/23/15 23:05	
I,3-Dichlorobenzene	0.54		1.0	0.54	-			05/23/15 23:05	
I,3-Dichloropropane	0.50		1.0	0.50	-			05/23/15 23:05	
1,4-Dichlorobenzene	0.64		1.0	0.64	-			05/23/15 23:05	
2,2-Dichloropropane	0.50		1.0	0.50	-			05/23/15 23:05	
2-Chlorotoluene	0.57		1.0	0.57	-			05/23/15 23:05	
-Hexanone	3.1		25		ug/L			05/23/15 23:05	
-Chlorotoluene	0.56		1.0	0.56	-			05/23/15 23:05	
Acetone	10		25		ug/L			05/23/15 23:05	
Benzene	0.38		1.0	0.38	-			05/23/15 23:05	
Bromobenzene	0.54		1.0	0.54	-			05/23/15 23:05	
Bromochloromethane	0.54		1.0	0.54	-			05/23/15 23:05	
	0.52								
Bromodichloromethane Bromoform			1.0	0.50	-			05/23/15 23:05	
Bromomethane	0.71 0.98		5.0 1.0	0.71	_			05/23/15 23:05 05/23/15 23:05	
Carbon disulfide				0.98					
	0.50		1.0	0.50	-			05/23/15 23:05	
Carbon tetrachloride	0.50		1.0	0.50				05/23/15 23:05	
Chlorobenzene	0.50		1.0	0.50	Ū			05/23/15 23:05	
Chloroethane	0.76		1.0	0.76				05/23/15 23:05	
Chloroform	0.60		1.0	0.60	•			05/23/15 23:05	
Chloromethane	0.83		1.0		ug/L			05/23/15 23:05	
cis-1,2-Dichloroethene	0.50		1.0		ug/L			05/23/15 23:05	
cis-1,3-Dichloropropene	0.50		5.0		ug/L			05/23/15 23:05	
Dibromochloromethane	0.50		1.0		ug/L			05/23/15 23:05	
Dibromomethane	0.59		5.0		ug/L			05/23/15 23:05	
Dichlorodifluoromethane	0.85		1.0		ug/L			05/23/15 23:05	
Ethylbenzene	0.50		1.0		ug/L			05/23/15 23:05	
thylene Dibromide	0.50		1.0		ug/L			05/23/15 23:05	
lexachlorobutadiene	0.90	U	5.0	0.90	ug/L			05/23/15 23:05	
odomethane	0.68	U	1.0		ug/L			05/23/15 23:05	
sopropyl ether	0.70	U	1.0	0.70	ug/L			05/23/15 23:05	
sopropylbenzene	0.53	U	1.0	0.53	ug/L			05/23/15 23:05	
Methyl Ethyl Ketone	2.6	U	25	2.6	ug/L			05/23/15 23:05	
methyl isobutyl ketone	1.8		25	1.8	ug/L			05/23/15 23:05	

TestAmerica Pensacola

Client: Geosyntec Consultants, Inc.

Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-9

Matrix: Water

Client Sample ID: TRIP BLANK Date Collected: 05/14/15 09:15

Date Received: 05/14/15 09:15

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

TestAmerica Job ID: 400-105654-1

Client: Geosyntec Consultants, Inc.

Project/Site: LC39 OGA

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

Lab Sample ID: MB 400-258301/5

Matrix: Water

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

-	MB	MB							
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 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	Ü	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		ug/L			05/23/15 13:18	1
1,2,3-Trichloropropane	0.84	U	5.0		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		ug/L			05/23/15 13:18	1
1,2-Dibromo-3-Chloropropane	1.5	U	5.0		ug/L			05/23/15 13:18	1
1,2-Dichlorobenzene	0.50		1.0		ug/L			05/23/15 13:18	1
1,2-Dichloroethane	0.50		1.0		ug/L			05/23/15 13:18	1
1,2-Dichloropropane	0.50		1.0		ug/L			05/23/15 13:18	1
1,3,5-Trimethylbenzene	0.56		1.0		ug/L			05/23/15 13:18	1
1,3-Dichlorobenzene	0.54		1.0		ug/L			05/23/15 13:18	1
1,3-Dichloropropane	0.50		1.0		ug/L			05/23/15 13:18	1
1,4-Dichlorobenzene	0.64		1.0		ug/L			05/23/15 13:18	· · · · · · · · · · · · · · · · · · ·
2,2-Dichloropropane	0.50		1.0		ug/L			05/23/15 13:18	. 1
2-Chlorotoluene	0.57		1.0		ug/L			05/23/15 13:18	1
2-Hexanone	3.1		25		ug/L			05/23/15 13:18	
4-Chlorotoluene	0.56		1.0		ug/L			05/23/15 13:18	1
Acetone	10		25		ug/L			05/23/15 13:18	1
Benzene	0.38		1.0		ug/L			05/23/15 13:18	
Bromobenzene	0.54		1.0		ug/L ug/L			05/23/15 13:18	1
Bromochloromethane	0.54		1.0		ug/L ug/L			05/23/15 13:18	1
Bromodichloromethane	0.52		1.0		ug/L ug/L			05/23/15 13:18	· · · · · · · · 1
Bromoform	0.50		5.0		ug/L ug/L			05/23/15 13:18	
					-				1
Bromomethane	0.98 0.50		1.0		ug/L			05/23/15 13:18	1
Carbon disulfide			1.0		ug/L			05/23/15 13:18	1
Carbon tetrachloride	0.50		1.0		ug/L			05/23/15 13:18	1
Chlorobenzene	0.50		1.0		ug/L			05/23/15 13:18	1
Chloroethane	0.76		1.0		ug/L			05/23/15 13:18	1
Chloroform	0.60		1.0		ug/L			05/23/15 13:18	1
Chloromethane	0.83		1.0		ug/L			05/23/15 13:18	1
cis-1,2-Dichloroethene	0.50		1.0		ug/L			05/23/15 13:18	1
cis-1,3-Dichloropropene	0.50		5.0		ug/L			05/23/15 13:18	1
Dibromochloromethane	0.50		1.0		ug/L			05/23/15 13:18	1
Dibromomethane	0.59		5.0		ug/L			05/23/15 13:18	1
Dichlorodifluoromethane	0.85		1.0		ug/L			05/23/15 13:18	1
Ethylbenzene	0.50		1.0		ug/L			05/23/15 13:18	1
Ethylene Dibromide	0.50		1.0		ug/L			05/23/15 13:18	1
Hexachlorobutadiene	0.90		5.0		ug/L			05/23/15 13:18	1
lodomethane	0.68		1.0		ug/L			05/23/15 13:18	1
Isopropyl ether	0.70		1.0		ug/L			05/23/15 13:18	1
Isopropylbenzene	0.53	U	1.0		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

TestAmerica Pensacola

TestAmerica Job ID: 400-105654-1

Client: Geosyntec Consultants, Inc.

Project/Site: LC39 OGA

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

	MB	MB							
Analyte	Result	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

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared
4-Bromofluorobenzene	98		78 - 118	_	
Dibromofluoromethane	101		81 - 121		
Toluene-d8 (Surr)	96		80 - 120		

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

Analyzed 05/23/15 13:18 05/23/15 13:18

05/23/15 13:18

Analysis Batch: 258301

Matrix: Water

Lab Sample ID: LCS 400-258301/1003

Alialysis Datcii. 20000 i								
_	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%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	

TestAmerica Pensacola

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QC Sample Results

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

TestAmerica Job ID: 400-105654-1

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

Lab Sample ID: LCS 400-258301/1003

Matrix: Water

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

Analysis Batch: 258301	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%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 - 124	
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 ug/L		89	76 ₋ 138	
N-Propylbenzene	50.0	46.4		ug/L		93	75 - 128	
o-Xylene	50.0	47.0		ug/L ug/L		93	70 ₋ 120	
p-Cymene	50.0	46.5		ug/L ug/L		93	70 - 130 78 - 120	
^ 1 _ 1 _ 2 _ 2 _ 2 _ 2 _ 2 _ 2 _ 2 _	50.0					92	78 - 128	
sec-Butylbenzene	50.0	46.1		ug/L				
Styrene tot Butulbanzana		48.0 46.4		ug/L		96	79 ₋ 124	
tert-Butylbenzene	50.0	46.4		ug/L		93	80 - 120	
Teluppe	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	

TestAmerica Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.

TestAmerica Job ID: 400-105654-1

Project/Site: LC39 OGA

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

	Spike	LCS	LCS				%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%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		

LCS LCS Surrogate %Recovery 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	1

Analysis Batch: 258301	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	Ü	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	Ü	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	Ü	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	Ü	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

TestAmerica Pensacola

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TestAmerica Job ID: 400-105654-1

Client: Geosyntec Consultants, Inc.

Project/Site: LC39 OGA

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

87

82

85

85

90

92

88

93

106

96

24 - 147

10 - 150

10 - 150

10 - 150

66 - 126

45 - 128

10 - 150

29 - 144

10 - 150

46 - 136

Client Sample ID: Matrix Spike Duplicate

Analysis Batch: 258301										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte		Qualifier	Added		Qualifier	Unit	D	%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	
lodomethane	0.68	U	50.0	46.7		ug/L		93	37 - 145	
Isopropyl ether	0.70	Ü	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	

50.0

50.0

50.0

50.0

50.0

50.0

50.0

50.0

100

50.0

43.4

41.1

42.5

42.6

45.1

46.2

43.8

46.7

106

47.9

ug/L

MS MS

1.0 U

0.63 U

0.58 U

0.70 U

0.50 U

0.50 U

0.50 U

0.52 U

2.0 U

0.50 U

Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene 103 78 - 118 Dibromofluoromethane 102 81 - 121 Toluene-d8 (Surr) 80 - 120 99

Lab Sample ID: 400-105533-A-1 MSD

Matrix: Water

Styrene

Toluene

tert-Butylbenzene

Tetrachloroethene

Trichloroethene

Vinyl acetate

Vinyl chloride

trans-1,2-Dichloroethene

trans-1,3-Dichloropropene

Trichlorofluoromethane

Analysis Batch: 258301

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

TestAmerica Pensacola

Prep Type: Total/NA

Page 29 of 38

QC Sample Results

Client: Geosyntec Consultants, Inc.

TestAmerica Job ID: 400-105654-1

Project/Site: LC39 OGA

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

Lab Sample ID: 400-105533-A-1 MSD

Matrix: Water

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

Analysis Batch: 258301	Samnle	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,2-Trichloroethane	0.50		50.0	47.9	- Guainici	ug/L		96	68 ₋ 127	6	19
1.1-Dichloroethane	0.50		50.0	47.5		ug/L		95	10 - 150	4	18
1,1-Dichloroethene	0.50		50.0	48.4		ug/L		97	10 - 150	4	19
1,1-Dichloropropene	0.50		50.0	46.1		ug/L		92	59 - 126	4	22
1,2,3-Trichlorobenzene	0.70		50.0	43.2		ug/L		86	30 - 137	5	44
1,2,3-Trichloropropane	0.84		50.0	47.7		ug/L		95	67 - 130	3	22
1,2,4-Trichlorobenzene	0.82		50.0	40.2		ug/L		80	20 - 139	2	44
1,2,4-Trimethylbenzene	0.82		50.0	41.9		ug/L		84	10 - 150	4	54
1,2-Dibromo-3-Chloropropane	1.5		50.0	48.0		ug/L		96	50 - 133	6	30
1,2-Dichlorobenzene	0.50		50.0	41.3		ug/L		83	10 - 150	1	38
1,2-Dichloroethane	0.50		50.0	46.5		ug/L		93	10 - 150	3	19
1,2-Dichloropropane	0.50		50.0	47.4		ug/L		95	65 - 132	3	18
1,3,5-Trimethylbenzene	0.56		50.0	42.4		ug/L		85	10 - 150	3	53
1,3-Dichlorobenzene	0.54		50.0	40.8		ug/L ug/L		82	25 - 136	2	44
1,3-Dichloropropane	0.50		50.0	47.0		ug/L ug/L		94	67 ₋ 127	2	20
1,4-Dichlorobenzene	0.50		50.0	39.0				78	10 - 150	<u>2</u>	45
·	0.50		50.0	49.3		ug/L		99	46 - 132	6	20
2,2-Dichloropropane2-Chlorotoluene	0.50		50.0	49.3		ug/L			40 - 132 10 - 150	1	47
						ug/L		82			
2-Hexanone	3.1		200	205		ug/L		103	24 - 150	2	24
4-Chlorotoluene	0.56		50.0	40.6		ug/L		81	17 ₋ 145	2	51
Acetone	10		200	189		ug/L		94	10 - 150	3	22
Benzene	0.38		50.0	45.4		ug/L		91	10 - 150	4	19
Bromobenzene	0.54		50.0	45.0		ug/L		90	38 - 135	3	35
Bromochloromethane	0.52		50.0	48.5		ug/L		97	75 - 120	7	17
Bromodichloromethane	0.50		50.0	48.1		ug/L		96	61 - 133	2	19
Bromoform	0.71		50.0	47.1		ug/L		94	54 - 125	0	19
Bromomethane	0.98		50.0	51.7		ug/L		103	10 - 150	7	24
Carbon disulfide	0.50		50.0	47.6		ug/L		95	10 - 150	6	23
Carbon tetrachloride	0.50		50.0	47.4		ug/L		95	40 - 138	4	21
Chlorobenzene	0.50		50.0	44.4		ug/L		89	10 - 150	4	30
Chloroethane	0.76		50.0	51.4		ug/L		103	38 - 150	3	23
Chloroform	0.60		50.0	46.7		ug/L		93	10 - 150	2	18
Chloromethane	0.83		50.0	47.5		ug/L		95	26 - 150	4	23
cis-1,2-Dichloroethene	0.50		50.0	47.6		ug/L		95	10 - 150	5	20
cis-1,3-Dichloropropene	0.50		50.0	49.1		ug/L		98	52 - 130	4	20
Dibromochloromethane	0.50		50.0	47.5		ug/L		95	50 - 130	1	21
Dibromomethane	0.59		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	Ü	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

TestAmerica Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.

TestAmerica Job ID: 400-105654-1

Project/Site: LC39 OGA

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

Lab Sample ID: 400-105533-A-1 MSD

Matrix: Water

Analysis Batch: 258301

Prep Type: Total/NA

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

MSD MSD

Surrogate	%Recovery Qualifie	er Limits
4-Bromofluorobenzene	100	78 - 118
Dibromofluoromethane	101	81 - 121
Toluene-d8 (Surr)	97	80 - 120

Client Sample ID: Matrix Spike Duplicate

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	

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Matrix: Water

Matrix: Water

Matrix: Water

Matrix: Water

Project/Site: LC39 OGA

Client Sample ID: LC39OGA-MW0001-010.0-20150511 Lab Sample ID: 400-105654-1

Date Collected: 05/11/15 14:04 Date Received: 05/14/15 09:15

Matrix: Water

Batch

Dilution Batch Prepared Batch Method Factor Number or Analyzed **Prep Type** Type Run Analyst Lab TAL PEN Total/NA Analysis 8260B 258301 05/23/15 19:39 WPD

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

Batch Batch Dilution Batch **Prepared Prep Type** Type Method Run Factor Number or Analyzed Analyst Lab TAL PEN Total/NA 8260B 258301 05/23/15 20:04 WPD Analysis

Client Sample ID: LC39OGA-MW0004-010.0-20150512 Lab Sample ID: 400-105654-3

Date Collected: 05/12/15 10:42

Date Received: 05/14/15 09:15

Batch Batch Dilution Batch Prepared Method or Analyzed **Prep Type** Type Run **Factor** Number Analyst Lab Analysis 8260B 258301 05/23/15 20:30 WPD TAL PEN Total/NA

Lab Sample ID: 400-105654-4 Client Sample ID: LC39OGA-MW0005-010.0-20150511

Date Collected: 05/11/15 11:46

Date Received: 05/14/15 09:15

Batch Batch Dilution Batch Prepared Method Number or Analyzed **Prep Type** Type Run **Factor** Analyst Lab 8260B 258301 05/23/15 20:56 WPD TAL PEN Total/NA Analysis

Client Sample ID: LC39OGA-MW0006-024.5-20150511 Lab Sample ID: 400-105654-5

Date Collected: 05/11/15 14:36

Date Received: 05/14/15 09:15

Dilution Batch Prepared Batch Batch Method Factor Number or Analyzed Prep Type Type Run **Analyst** Lab Total/NA Analysis 8260B 258301 05/23/15 21:22 WPD TAI PFN

Client Sample ID: LC39OGA-MW0007-024.5-20150512 Lab Sample ID: 400-105654-6

Date Collected: 05/12/15 09:58

Date Received: 05/14/15 09:15

Batch Dilution Batch Batch Prepared Method **Prep Type** Run Number or Analyzed Type Factor Analyst Lab Total/NA Analysis 8260B 258301 05/23/15 21:47 WPD TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Geosyntec Consultants, Inc.

Project/Site: LC39 OGA

TestAmerica Job ID: 400-105654-1

Lab Sample ID: 400-105654-7

Client Sample ID: LC39OGA-MW0008-024.5-20150512 Date Collected: 05/12/15 11:26 **Matrix: Water**

Date Received: 05/14/15 09:15

Batch Batch Dilution Batch Prepared **Prep Type** Type Method Run **Factor** Number or Analyzed Analyst TAL PEN Total/NA Analysis 8260B 258301 05/23/15 22:13 WPD

Lab Sample ID: 400-105654-8 Client Sample ID: LC39OGA-MW0009-024.5-20150511

Date Collected: 05/11/15 12:24

Date Received: 05/14/15 09:15

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	258301	05/23/15 22:39	WPD	TAL PEN

Lab Sample ID: 400-105654-9 Client Sample ID: TRIP BLANK

Date Collected: 05/14/15 09:15

Date Received: 05/14/15 09:15

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	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

Matrix: Water

Matrix: Water

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

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1/2

Method Summary

Client: Geosyntec Consultants, Inc.

TestAmerica Job ID: 400-105654-1

Project/Site: LC39 OGA

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

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۶: 78786	-1001 571 stamericainc.com ORDER - LOG-IN NO.	PAGE OF	POSSIBLE HAZARD IDENTIFICATION	A NON-HAZARD	A FLAMMABLE A RADIOACTIVE	A POISON B		NO. OF COOLERS PER SHIPMENT:	SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT											DATE		DATE TIME			,α IVI
SERIAL NUMBER: 78786	Phone: 850-474-1001 Fax: 850-478-2671 Website: www.testamericainc.com JER NO.				4 4	4 <															,				
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400-105659	TestAmerica Pensacola 3355 McLemore Drive Pensacola, FL 32514 QUOTE NO.		PROJECT LOC. (STATE)	MATRIX	201	liment, et	W, W8 008, II 008, III	eous (C	Drinking Aqeuous Solid, Sa Air Air	E	w	^		M	V	3/ MM	v L)		TIME	3/15	DATE TIME		REMARKS:	-
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		~Q	FROFTNO.	CONTRACT / P.O. NO.	CLIENT E-MAIL OR FAX	14 CTOWNS	5 DAYS _ 20 DAYS (Package)	TO CLIENT ADISPOSAL BY	SAMPLE IDENTIFICATION	2C390GA-MUXBO1-010,0-20150511	2C3906A-MW0002-010.0-2015051	2C3906A-MURROUH-010.0-201505	L 3406A-MUROS-010,0-2015051	2639064-MUROBE-024,5-20150511	12-5-106-4-MUBBOH-0245-2015-65-12	1/26 06 4 m mo 0001 5 CON (2012)	25) 001 July 101 021 5	\con \(\frac{1}{2} \)		DATE		DATE		DATE. 5/14/15	
	TestAmerica The leader in environmental testing	symples	PROJECT NAME 2C390GA	SAMPLED BY	CLIENT PHONE	850-477-6547 (CTOWNSA) GEOSINAC. CONTAINE REQUESTED: RUSH NEEDS LAB PREAPPROVAL AND RAINAL TO BUSINESS DAYS	o 1 DAY o 2 DAYS o 3 DAYS o 5 DAYS o 20 DAYS (Package) o OTHER:	<u>Sample disposal</u> : = return to client _adisposal by lab == see contract == other:	SAMPLE DATE TIME	1,071	1552	1042	200	1456	0458	5/12-15 1/26 4	2 /22/			RELINQUISHED BY: (SIGNATURE)	EMPTY CONTAINERS	RECEIVED BY: (SIGNATURE) EMIPTY CONTAINERS		RECEIVED FOR LABORATORY BY: RIMMELL RECEIVED FOR LABORATORY BY:	

Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-105654-1

SDG Number:

Login Number: 105654 List Source: TestAmerica Pensacola

List Number: 1

Creator: Hooper, Carolyn D

oreator. Hooper, carolyn B		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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	



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 Swefford

Authorized for release by: 6/16/2015 6:42:53 PM

Mark Swafford, Project Manager I (850)474-1001

mark.swafford@testamericainc.com

.....LINKS

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Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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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

TEF

TEQ

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Listed under the "D" column to designate that the result is reported on a dry weight basis R Percent Recovery FL Contains Free Liquid NF Contains no Free Liquid ER Duplicate error ratio (normalized absolute difference) il Fac Dilution Factor L, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample LC Decision level concentration DA Minimum detectable activity DL Estimated Detection Limit DC Minimum detectable concentration DL Method Detection Limit	
FL Contains Free Liquid NF Contains no Free Liquid ER Duplicate error ratio (normalized absolute difference) il Fac Dilution Factor L, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample LC Decision level concentration DA Minimum detectable activity DL Estimated Detection Limit DC Minimum detectable concentration	
NF Contains no Free Liquid ER Duplicate error ratio (normalized absolute difference) il Fac Dilution Factor L, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample LC Decision level concentration DA Minimum detectable activity DL Estimated Detection Limit DC Minimum detectable concentration	
ER Duplicate error ratio (normalized absolute difference) il Fac Dilution Factor L, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample Decision level concentration DA Minimum detectable activity DL Estimated Detection Limit DC Minimum detectable concentration	
il Fac Dilution Factor L, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample LC Decision level concentration DA Minimum detectable activity DL Estimated Detection Limit DC Minimum detectable concentration	
L, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample Decision level concentration Minimum detectable activity DL Estimated Detection Limit DC Minimum detectable concentration	
Decision level concentration DA Minimum detectable activity DL Estimated Detection Limit DC Minimum detectable concentration	
DA Minimum detectable activity DL Estimated Detection Limit DC Minimum detectable concentration	
DL Estimated Detection Limit DC Minimum detectable concentration	
DC Minimum detectable concentration	
DL Method Detection Limit	
L Minimum Level (Dioxin)	
C Not Calculated	
D Not detected at the reporting limit (or MDL or EDL if shown)	
QL Practical Quantitation Limit	
C Quality Control	
ER Relative error ratio	
L Reporting Limit or Requested Limit (Radiochemistry)	
PD Relative Percent Difference, a measure of the relative difference between two points	

Case Narrative

Client: Geosyntec Consultants, Inc.

Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

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 1.2° 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.

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TestAmerica Job ID: 400-106940-1

Client: Geosyntec Consultants, Inc.

Project/Site: LC39OGA

Client Sample ID: I	LC39OGA-MW000	01-010.0-2	0150609			Lab Sa	mple ID: 40	00-106940-
- Analyte	Result	Qualifier	PQL	MDL		Dil Fac	D Method	Prep Type
Methane	380		10	1.8	ug/L	10	RSK-175	Total/NA
lient Sample ID: I	LC39OGA-MW000	02-010.0-2	0150610			Lab Sa	mple ID: 40	00-106940-2
- Analyte	Result	Qualifier	PQL		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: I	LC39OGA-MW000	04-010.0-2	0150610			Lab Sa	mple ID: 40	00-106940-
- Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D Method	Prep Type
Methane	400		1.0	0.18	ug/L		RSK-175	Total/NA
Ethane	2.3		1.0	0.75	ug/L	1	RSK-175	Total/NA
Client Sample ID: I	LC39OGA-MW000	05-010.0-2	0150609			Lab Sa	mple ID: 40	00-106940-
- 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: I	LC39OGA-MW000	06-024.5-2	0150609			Lab Sa	mple ID: 40	00-106940-
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: I	LC39OGA-MW000	07-024.5-2	0150610			Lab Sa	mple ID: 40	00-106940-
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: I	LC39OGA-MW000	08-024.5-2	0150610			Lab Sa	mple ID: 40	00-106940-
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: I	LC39OGA-MW000	09-024.5-2	0150609			Lab Sa	mple ID: 40	00-106940-
Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D Method	Prep Type

This Detection Summary does not include radiochemical test results.

220

Methane

Total/NA

RSK-175

1.0

0.18 ug/L

Sample Summary

TestAmerica Job ID: 400-106940-1

Client: Geosyntec Consultants,	inc
Project/Site: LC39OGA	

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:
400-106940-2	LC39OGA-MW0002-010.0-20150610	Water	06/10/15 09:46 06/11/15 09:
400-106940-3	LC39OGA-MW0004-010.0-20150610	Water	06/10/15 10:48 06/11/15 09:
400-106940-4	LC39OGA-MW0005-010.0-20150609	Water	06/09/15 13:00 06/11/15 09:
400-106940-5	LC39OGA-MW0006-024.5-20150609	Water	06/09/15 14:54 06/11/15 09:
400-106940-6	LC39OGA-MW0007-024.5-20150610	Water	06/10/15 10:12 06/11/15 09:
400-106940-7	LC39OGA-MW0008-024.5-20150610	Water	06/10/15 11:06 06/11/15 09:
400-106940-8	LC39OGA-MW0009-024.5-20150609	Water	06/09/15 12:38 06/11/15 09:

Client: Geosyntec Consultants, Inc.

Client Sample ID: LC39OGA-MW0001-010.0-20150609

Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Lab Sample ID: 400-106940-1

Matrix: Water

Date Collected: 06/09/15 14:24 Date Received: 06/11/15 09:28

Method: RSK-175 - Disse	olved 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

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Client: Geosyntec Consultants, Inc.

Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Lab Sample ID: 400-106940-2

Client Sample ID: LC39OGA-MW0002-010.0-20150610

Matrix: Water

Date Collected: 06/10/15 09:46 Date Received: 06/11/15 09:28

Method: RSK-175 - Di	ssolved Gases (GC)						
Analyte	Result Qualifier	PQL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Methane	<u> </u>	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 ua/L			06/12/15 12:06	1

Client: Geosyntec Consultants, Inc.

Client Sample ID: LC39OGA-MW0004-010.0-20150610

Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Lab Sample ID: 400-106940-3

Date Collected: 06/10/15 10:48 Matrix: Water

Date Received: 06/11/15 09:28

Method: RSK-175 - Dissolved	d 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

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Client: Geosyntec Consultants, Inc.

Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Lab Sample ID: 400-106940-4

Client Sample ID: LC39OGA-MW0005-010.0-20150609 Date Collected: 06/09/15 13:00

Matrix: Water

Date Received: 06/11/15 09:28

Method: RSK-175 - Diss								
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.

Client Sample ID: LC39OGA-MW0006-024.5-20150609

Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Lab Sample ID: 400-106940-5

Matrix: Water

Date Collected: 06/09/15 14:54 Date Received: 06/11/15 09:28

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: Geosyntec Consultants, Inc.

Client Sample ID: LC39OGA-MW0007-024.5-20150610

Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Lab Sample ID: 400-106940-6

Matrix: Water

Date Collected: 06/10/15 10:12 Date Received: 06/11/15 09:28

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

Lab Sample ID: 400-106940-7

Matrix: Water

Date Collected: 06/10/15 11:06
Date Received: 06/11/15 09:28

Client Sample ID: LC39OGA-MW0008-024.5-20150610

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

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Client: Geosyntec Consultants, Inc.

Client Sample ID: LC39OGA-MW0009-024.5-20150609

Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Lab Sample ID: 400-106940-8

Lab Sample 15. 400-10

Matrix: Water

Date Collected: 06/09/15 12:38 Date Received: 06/11/15 09:28

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

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QC Sample Results

Client: Geosyntec Consultants, Inc.

Lab Sample ID: MB 400-260870/2

Lab Sample ID: LCSD 400-260870/4

Method: RSK-175 - Dissolved Gases (GC)

Project/Site: LC39OGA

Analysis Batch: 260870

Matrix: Water

TestAmerica Job ID: 400-106940-1

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

	IVID	IVID							
Analyte	Result	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 **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA Analysis Batch: 260870** Spike LCS LCS %Rec.

Analyte	Added	Result	Qualifier	Unit	D	%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	

Matrix: Water Prep Type: Total/NA Analysis Batch: 260870 Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier Unit Limits RPD Limit Analyte D %Rec Methane 169 166 ug/L 98 85 - 115 20 Ethane 321 309 ug/L 96 85 - 115 10 20 Ethylene 299 285 ug/L 85 - 115 95 15 20

Lab Sample ID: 400-106940-2 DU Client Sample ID: LC39OGA-MW0002-010.0-20150610 **Matrix: Water** Prep Type: Total/NA **Analysis Batch: 260870**

	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	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	

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Matrix: Water

Matrix: Water

Matrix: Water

Matrix: Water

Project/Site: LC39OGA

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

Dilution Batch Prepared Batch Batch Method Factor Number or Analyzed **Prep Type** Type Run Analyst Lab TAL PEN Total/NA Analysis **RSK-175** 10 260870 06/12/15 11:54 IDR

Client Sample ID: LC39OGA-MW0002-010.0-20150610 Lab Sample ID: 400-106940-2 **Matrix: Water**

Date Collected: 06/10/15 09:46

Date Received: 06/11/15 09:28

Batch Batch Dilution Batch **Prepared Prep Type** Type Method Run Factor Number or Analyzed Analyst Lab TAL PEN Total/NA **RSK-175** 260870 06/12/15 12:06 IDR Analysis

Client Sample ID: LC39OGA-MW0004-010.0-20150610 Lab Sample ID: 400-106940-3

Date Collected: 06/10/15 10:48

Date Received: 06/11/15 09:28

Batch Batch Dilution Batch Prepared Method or Analyzed **Prep Type** Type Run **Factor** Number Analyst Lab Analysis **RSK-175** 260870 06/12/15 12:17 IDR TAL PEN Total/NA

Lab Sample ID: 400-106940-4 Client Sample ID: LC39OGA-MW0005-010.0-20150609

Date Collected: 06/09/15 13:00

Date Received: 06/11/15 09:28

Batch Batch Dilution Batch Prepared Method Number or Analyzed **Prep Type** Type Run Factor Analyst Lab Total/NA Analysis **RSK-175** 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

Date Received: 06/11/15 09:28

Dilution Batch Batch Batch Prepared Method Run Factor Number or Analyzed **Prep Type** Type Analyst Lab TAL PEN Total/NA Analysis **RSK-175** 260870 06/12/15 12:37 **IDR**

Client Sample ID: LC39OGA-MW0007-024.5-20150610 Lab Sample ID: 400-106940-6

Date Collected: 06/10/15 10:12

Date Received: 06/11/15 09:28

Batch Batch Dilution Batch **Prepared Prep Type** Type Method Run Factor Number or Analyzed Analyst Lab Total/NA **RSK-175** 260870 06/12/15 12:46 IDR TAL PEN Analysis

Lab Chronicle

Client: Geosyntec Consultants, Inc.

Client Sample ID: LC39OGA-MW0008-024.5-20150610

Project/Site: LC39OGA

TestAmerica Job ID: 400-106940-1

Lab Sample ID: 400-106940-7

Date Collected: 06/10/15 11:06 Matrix: Water

Date Received: 06/11/15 09:28

Batch Batch Dilution Batch Prepared **Prep Type** Type Method Run **Factor** Number or Analyzed Analyst TAL PEN Total/NA Analysis **RSK-175** 260870 06/12/15 12:56 IDR

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

Batch Dilution Batch **Batch** Prepared Method **Prep Type** Type Run **Factor** Number or Analyzed Analyst Lab TAL PEN **RSK-175** 260870 06/12/15 13:18 IDR Total/NA Analysis

Laboratory References:

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

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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

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Method Summary

Client: Geosyntec Consultants, Inc.

TestAmerica Job ID: 400-106940-1

Project/Site: LC39OGA

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

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₹ 79500	-1001 571 stamericainc.com order-Log-IN No.	PAGE OF	POSSIBLE HAZARD IDENTIFICATION	△ NON-HAZARD	A FLAMMABLE A RADIOACTIVE	A POISON B A UNKNOWN	△ OTHER:	NO. OF COOLERS PER SHIPMENT:	SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT										ļ	DATE TIME	DATE TIME			TAL-8251 (1207
SERIAL NUMBER:	Phone: 850-474-1001 Fax: 850-478-2671 Website: www.testamericainc.com	REQUESTED ANALYSIS	A 1		11	2 4	<	2 0,	NUMBER OF CONTAINERS SUBMITTED S											!			INS	
940	No.	REQUESTE			57512	9 /20	1105	\$1/1	NUMBER OF CONTA	3	3	3	· W	22	2	25	5			RELINQUISHED BY: (SIGNATURE)	RECEIVED BY: (SIGNATURE)		7	
400-10694	TestAmerica Pensac 3355 McLemore Drive Pensacola, FL 32514 QUOTE NO.	FL 32507	PROJECT LOC. (STATE)	MATRIX	(.0.)	VW diment	W ,W8 be2 ,t	Water GW, 9 misolle	NAZSZO Other: Drinking Aqeuous Solid, Se Air NonAquo				V							DATE 71ME / 1900	DATE TIME	7	REMARKS	
	400-106940 COC	201 Parsacila,	0.	PRESERVATIVE		d or H3F ebixoride	A sino bis. IsA si byH n Ione	vdrochl Vitric A Sodiun Bodina Brita Bog - 1	NAH204 CH30H HS204 - HN03 - I HCC - H	1:					£	Ň				D BY: (SIGNATURE)	(SIGNATURE)		COT? CUSTODY SEAL NO.	
	400-106940 CC ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD	ADDRESS 5. Baylen 52. #201	CLIENT PROJECT MANAGER		X	(100m SE) G-605 ym rec. Com PROVAL DEODRINAS TO BUSINESS DAYS			ATION AO Press	10.0-20150609	0.0-20150610	0.0-20150610	10.0-20150609	14.5-20150609	024.5-2015 Obju	14.5-20150610	14.5-20)50004			RELINOUISHE	RECEÍVED BY:		CUSTODY INTO	
		ADDRESS S. 316 S.	160/09	CONTRACT / P.O. NO.		EAPF	D 20 DAYS (Package) D C	IENT 🗅 DISPOSAL BY LAB	SAMPLE IDENTIFICATION	1424 LC3906A-MWOOOJ-010.0-20150609	01905102-0.010-20001112-005527	163906A-MUOW4-010,0-20150610	1c39064-m,10005-010.0-20150609	2C31064-4W00016-024,5-20150609	1039064-1100007-024.5-20150610	163906A-MW0008-024,5-20150610	103906A-M130004-024,5-20,50004			DATE TIME	DATE TIME		DATE TIME	- 1
	TestAmerica THE LEADER IN ENVIRONMENTAL TESTING	Jeosyntec	PROJECT NAME PROJECT NO.	BY	CLIENT PHONE	S 50~7チナー65 4ナ (Jam Se)G IAT REQUESTED: RUSH NEEDS LAB PREAPPROVAL XORWAL	01 DAY 02 DAYS 03 DAYS 05 DAYS 020 DAYS (Package) 0 OTHER:	S <u>ample disposal</u> : a return to client a disposal by LAB a see contract a other:	SAMPLE	L	9 4 50	1 8h0(1300	1954	1012	1106	1238			RELINQUISHED BY: (SIGNATÜRE) EMPTY CONTAINERS	RECEIVED BY: (SIGNATURE) EMPTY CONTAINERS		RECEIVED FOR LABORATORY BY:	
	<u> </u>		PROJECT // // // // // // // // // // // // //	SAMPLED BY	SLIENT P	S SO TAT REQU	o 1 DAY c	SAMPLE L	DATE	6-9-15	51-01-9	6-10-15	51-6-9	5-6-15	6-10-15	51-01-9	6-9-15			RELINQUI EMPT	RECEIVEL EMPT		RECEIVE	*

Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-106940-1

Login Number: 106940 List Source: TestAmerica Pensacola

List Number: 1

Creator: Crawford, Lauren E

oroator: oramora, Edución E		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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	