FINAL ABBREVIATED 2014 LONG-TERM MONITORING REPORT FOR AIR FORCE PLANT 59 JOHNSON CITY, NEW YORK

Contract Number FA8903-10-D-8596 Task Order: 0087

> Project Number: ACHQ2014701 CDRL A001C



Prepared for

Air Force Civil Engineer Center

Prepared by

HydroGeoLogic, Inc.

March 2015





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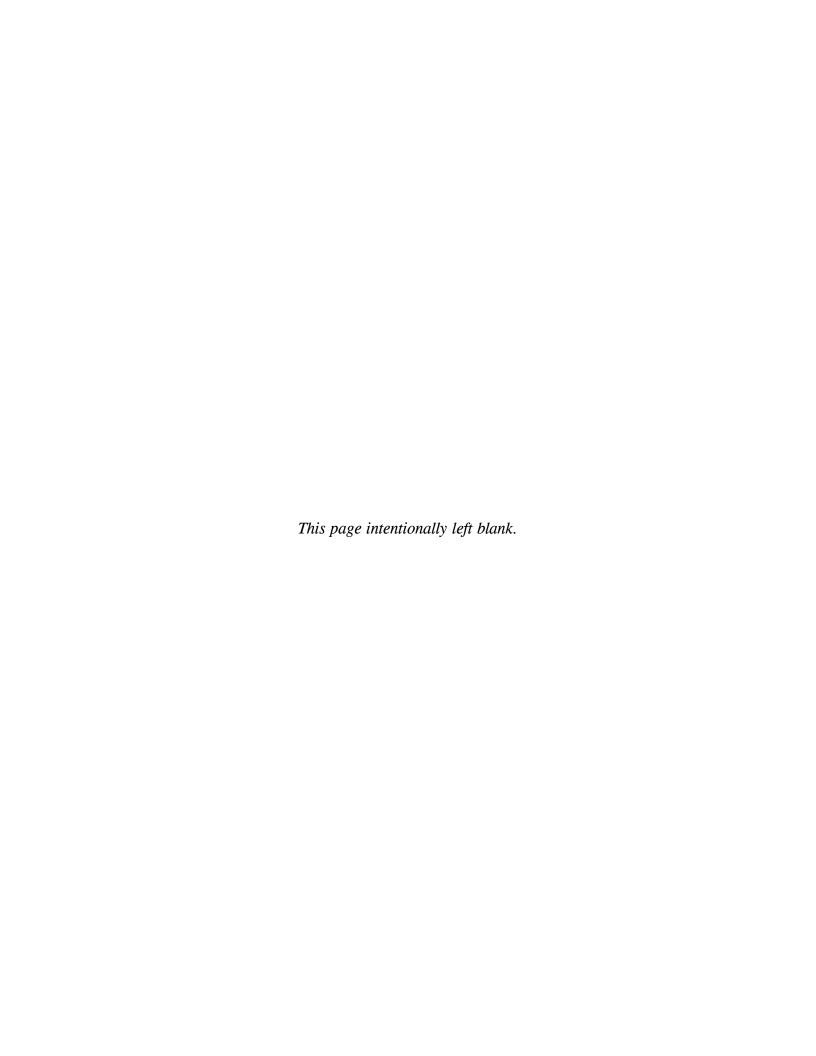


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LIST OF ACRONYMS AND ABBREVIATIONS

AFCEC Air Force Civil Engineer Center

AFP 59 Air Force Plant 59

cis-1,2-DCE *cis*-1,2-dichloroethene

COPC chemicals of potential concern

1,1-DCA 1,1-dichloroethane 1,1-DCE 1,1-dichloroethene

FSP Field Sampling Plan

GEL Laboratories

HGL HydroGeoLogic, Inc.

LTM long-term monitoring

 μ g/L micrograms per liter

MCL maximum contaminant level

ng/L nanograms per liter

NYSDEC New York State Department of Environmental Conservation

PCE tetrachloroethene

TAL Test America Laboratory
1,1,1-TCA 1,1,1-trichloroethane
TCA trichloroethane

TCE trichloroethene

trans-1,2-DCE trans-1,2-dichloroethene

USEPA U.S. Environmental Protection Agency

VC vinyl chloride

VOC volatile organic compounds

AF7080 İİ HGL 3/27/2015

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1.0 INTRODUCTION

In 2014, HydroGeoLogic, Inc. (HGL) completed the long-term monitoring (LTM) activities at Air Force Plant 59 (AFP 59) in Johnson City, New York (Figure 1). The Air Force Civil Engineer Center (AFCEC) contracted HGL to complete the LTM activities.

The objectives of this abbreviated monitoring report are to summarize:

- The purpose, collection procedures, and results of the LTM activities; and
- The conclusions and recommendations based on the results of the LTM activities.

2.0 LONG-TERM MONITORING ACTIVITIES

2.1 PURPOSE OF THE LONG-TERM MONITORING ACTIVITIES

Based on the conclusions presented in the *Final Remedial Investigation Report* (Earth Tech, 1996) and recommendations made by the New York State Department of Environmental Conservation (NYSDEC), it was determined that volatile organic compounds (VOC) represent the only chemicals of potential concern (COPC) in the groundwater at AFP 59. The LTM objectives for this project were to sample and evaluate VOC levels in groundwater that are above current maximum contaminant level (MCL) standards.

Groundwater samples were collected using the procedures found in the AFP 59 *Final Field Sampling Plan (FSP) Addendum* (HGL, 2014a). Samples were collected from monitoring wells and analyzed at Test America Laboratory (TAL) for VOCs (U.S. Environmental Protection Agency [USEPA] Method 8260B) and 1,4-dioxane (USEPA Method 8270C). Samples collected from a Johnson City municipal well were analyzed at both TAL for VOCs (USEPA Method 8260B) and GEL Laboratories (GEL) for 1,4-dioxane (USEPA Drinking Water Method 522). LTM activities included sampling the following monitoring wells: SW1, DW1, SW3, DW3, SW4, SW7, BM-121, URS-2D, URS-2S, URS-3D, and URS-5S. The LTM additionally included sampling municipal well JC2 (before treatment). Monitoring wells SW1 and DW1 represent upgradient (background) wells, and monitoring wells SW3 and DW3 represent downgradient wells. Five monitoring wells (BM-121, URS-2D, URS-2S, URS-3D, and URS-5S) and one municipal well (JC2) are located off site, to the west and south of the site.

2.2 PROCEDURES USED FOR THE LONG-TERM MONITORING ACTIVITIES

Sampling activities followed protocols presented in the *Final Work Plan Base Long-Term Monitoring at AFP 59* (HGL, 2014b) and the *Final Field Sampling Plan Addendum* (HGL, 2014a). HGL collected groundwater samples from six on-site AFP 59 monitoring wells (SW1, DW1, SW3, DW3, SW4, and SW7); five off-site monitoring wells (BM-121, URS-2D, URS-2S, URS-3D, and URS-5S); and one municipal well (JC2) in November 2014. All of the monitoring well groundwater samples were analyzed for VOCS by USEPA Method SW8260B and 1,4-dioxane using USEPA Method SW8270C. The water sample collected from the municipal well (JC2) was analyzed for VOCS by USEPA Method SW8260B and 1,4-dioxane using USEPA Drinking Water Method 522.

All of the monitoring wells were sampled using micropurge methodology. This is a low flow-rate well purging and sampling method that induces laminar (non-turbulent) flow in the immediate vicinity of the sampling pump intake, thus drawing groundwater directly from the sampled aquifer horizontally through the monitoring well screen and into the sampling device. Purging of the monitoring wells was performed to evacuate stagnant water in the monitoring wells, thereby obtaining a sample that is representative of the aquifer. The temperature, pH, specific conductivity, and turbidity were measured and recorded on the monitoring well sampling forms during purging. The municipal well sample was collected from a sampling valve after a 5 minute purge and groundwater parameters were recorded immediately after sample collection. The field forms and calibration forms are appended as Attachment 1.

2.3 ANALYTICAL RESULTS FROM THE LONG-TERM MONITORING ACTIVITIES

The following subsections discuss the analytical results obtained from groundwater samples collected from both on-site and off-site monitoring wells. The VOCs detected in groundwater samples are illustrated on Figure 2. The analytical results for all groundwater samples collected during the November 2014 sampling event are summarized in Table 1. The laboratory report is appended as Attachment 2.

2.3.1 Shallow Zone of the Aquifer

VOCs were detected in the groundwater samples collected from on-site monitoring wells SW3, SW4, and SW7, and off-site monitoring wells URS-2S and URS-5S (refer to Figure 2). Chlorinated hydrocarbons were detected in the samples collected from the shallow zone of the aquifer in November 2014. VOCs and 1,4-dioxane were not detected in the groundwater samples collected from on-site monitoring well SW1 or off-site monitoring well, BM-121.

The following results represent the maximum concentrations of contaminants detected in the groundwater samples collected from on-site monitoring wells during the November 2014 event. SW3: trichloroethene (TCE) at 0.51 F micrograms per liter (μ g/L); cis-1,2-dichloroethene (cis-1,2-DCE) at 0.31 F μ g/L; and 1,1,1- trichloroethane (1,1,1-TCA) at 0.26 F μ g/L. SW4: 1,1,1-TCA at 0.75 F μ g/L; 1,1-dichloroethane (1,1-DCA) at 0.46 F μ g/L; cis-1,2-DCE at 1.7 μ g/L; tetrachloroethene (PCE) at 0.30 F μ g/L; and TCE at 3.4 μ g/L. SW7:

1,1,1-TCA at 1.9 μ g/L; 1,1-DCA at 4.6 μ g/L; 1,1-dichloroethene (1,1-DCE) at 0.67 F μ g/L; PCE at 0.62 F μ g/L; *cis*-1,2-DCE at 33 μ g/L; *trans*-1,2-dichloroethene (*trans*-1,2-DCE) at 0.20 F μ g/L; vinyl chloride (VC) at 0.78 F μ g/L; and TCE at 7.8 μ g/L. URS-2S: 1,1-DCA at 2.1 μ g/L; 1,1-DCE at 0.32 F μ g/L; 1,1,1-TCA at 4.1 μ g/L; TCE at 3.7 μ g/L; and *cis*-1,2-DCE at 1.2 μ g/L. URS-5S: 1,1,1-TCA at 0.68 F μ g/L; and TCE at 0.65 F μ g/L.

Exceedances occurred above the New York State Groundwater Quality Standard of 5 μ g/L for *cis*-1,2-DCE and TCE at well SW7. These results are highlighted on Figure 2.

During the November 2014 sampling event, 1,4-dioxane was sampled in the four on-site and two off-site shallow monitoring wells. 1,4-dioxane was detected in monitoring wells SW4, SW7, and URS-2S at concentrations of 2,500 M nanograms per liter (ng/L), 4,400 M ng/L, and 20,000 M ng/L, respectively. 1,4-dioxane was not detected in monitoring wells SW1, SW3, and BM-121.

2.3.2 Deep Zone of the Aquifer

VOCs were detected in the groundwater samples collected from the on-site monitoring wells, DW1 and DW3, and off-site monitoring wells, URS-2D and URS-3D (refer to Figure 2). Chlorinated hydrocarbons were the only VOCs detected in the samples collected from the deep zone of the aquifer. The VOC detected in monitoring well DW1 was 1,1,1-TCA at 0.19 F μg/L. The VOCs detected in monitoring well DW3 include *cis*-1,2-DCE at 49 μg/L and 1,1-DCA at 0.32 F μg/L. The following maximum concentrations were detected in the groundwater sample collected from the off-site monitoring well URS-2D: 1,1-DCA at 0.27 F μg/L; and *cis*-1,2-DCE at 67 μg/L. Additionally, the following maximum concentrations were detected in the groundwater sample collected from the off-site monitoring well URS-3D: 1,1,1-TCA at 1.3 μg/L; TCE at 1.9 μg/L; and *cis*-1,2-DCE at 0.95 F μg/L. *Cis*-1,2-DCE exceeded the New York State Groundwater Quality Standard of 5 μg/L in on site well DW3 and off site well URS-2D. Also, 1,4-dioxane was sampled in both the on-site and off-site deep monitoring wells. 1,4-dioxane was only detected in monitoring wells DW3 at 11,000 M ng/L; URS-2D at 28,000 M ng/L; and URS-3D at 4,700 M ng/L.

2.3.3 Municipal Well

VOCs were detected in the untreated water sample collected from a sample port at municipal well JC2. Detected VOCs constituents at JC2 included: 1,1,1-TCA at 0.24 F μ g/L; TCE at 0.33 F μ g/L; and cis-1,2-DCE at 0.23 F μ g/L. 1,4-dioxane was detected at 0.739 F μ g/L in water sampled from JC2.

2.4 TREND ANALYSIS

Table 2 presents concentrations of the most commonly detected chlorinated hydrocarbons in groundwater at AFP 59 over time. Only monitoring wells that were sampled as part of the groundwater monitoring program are included in the table.

In the groundwater samples collected from the shallow monitoring wells during the November 2014 sampling event, concentrations of the chlorinated hydrocarbons in monitoring well SW3 remained relatively constant (TCE), decreased slightly (cis-1,2-DCE), or increased from a non-detection to a detection (1,1,1-TCA) when compared to the previous sampling event in October 2013. The concentrations of cis-1,2-DCE and 1,1,1-TCA increased from the October 2013 sampling event; however, the concentrations detected in November 2014 were below the New York State Groundwater Effluent Limitations Class GA of 5 μ g/L for each VOC compound.

The concentrations of the chlorinated hydrocarbons in monitoring well SW4 remained relatively constant, with only moderate variation in TCE concentrations when compared to the October 2013 sampling event. TCE concentrations decreased from 6.6 μ g/L in October 2013 to 3.4 μ g/L in November 2014. Additional decreases in concentrations during the November 2014 sampling event include: *cis*-1,2-DCE (2.6 μ g/L to 1.7 μ g/L); TCE (6.6 μ g/L to 3.4 μ g/L); and trichloroethane (TCA) (1.8 μ g/L to 0.75 F μ g/L). As compared to the October 2013 sampling event, the concentration of 1,1-DCE increased slightly during the November sampling event (0.26 F μ g/L to 0.46 F μ g/L).

Concentrations of chlorinated compounds at SW7 generally showed an increase during the November 2014 sampling event relative to the October 2013 sampling event. The concentrations of *trans*-1,2-DCE (ND to 0.20 F μ g/L); 1,1-DCA (ND to 4.6 μ g/L); *cis*-1,2-DCE (7 μ g/L to 33 μ g/L); TCE (2.5 μ g/L to 7.8 μ g/L); VC (ND to 0.78 F μ g/L); and TCA (ND to 1.9 μ g/L) each increased based on the November 2014 sampling event. Concentrations of 1,1-DCE remained relatively constant based on a comparison of the November 2014 (0.67 F μ g/L) and October 2013 (0.93 F μ g/L) analytical data sets.

The groundwater sample collected during the November 2014 sampling event from deep monitoring well DW3, revealed chlorinated hydrocarbons to be below detection limits (TCA, TCE, and *trans*-1,2-DCE) or showed very minor increases (1,1-DCA) or decreases (1,1-DCE, VC, and *cis*-1,2-DCE). The groundwater sample collected in November 2014 at deep monitoring well DW1 indicated a detection of TCA (0.19 F μ g/L), the first detection of a VOCs compound at this location since November 2010. VOCs were not detected in the groundwater sample collected from shallow monitoring well SW1. These results are consistent with previous sampling events.

Detectable concentrations of *cis*-1,2-DCE (67 μ g/L) and 1,1-DCA (0.27 F μ g/L) were found in the groundwater sample collected from off site deep monitoring well URS-2D in November 2014. The *cis*-1,2-DCE result for the November 2014 sampling event (67 μ g/L) indicated an increase relative to the October 2013 sampling event (62 μ g/L). The 1,1-DCA analytical result in November 2014 (0.27 F μ g/L) was similar to the analytical result from October 2013 (0.21 F μ g/L). A concentration decrease occurred for *trans*-1,2-DCE from a minor detection in October 2013 (0.17 F μ g/L) to a non-detection in November 2014.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Concentrations of cis-1,2-DCE continued to exceed the New York State Groundwater Quality Standard of 5 μ g/L in shallow monitoring well SW7. Additionally, the concentration of TCE at well SW7 exceeded the New York State Groundwater Quality Standard of 5 μ g/L during the November 2014 sampling event. Groundwater concentrations detected in off-site shallow monitoring wells URS-2S and URS-5S did not exceed the New York State Groundwater Quality Standard of 5 μ g/L for chlorinated compounds.

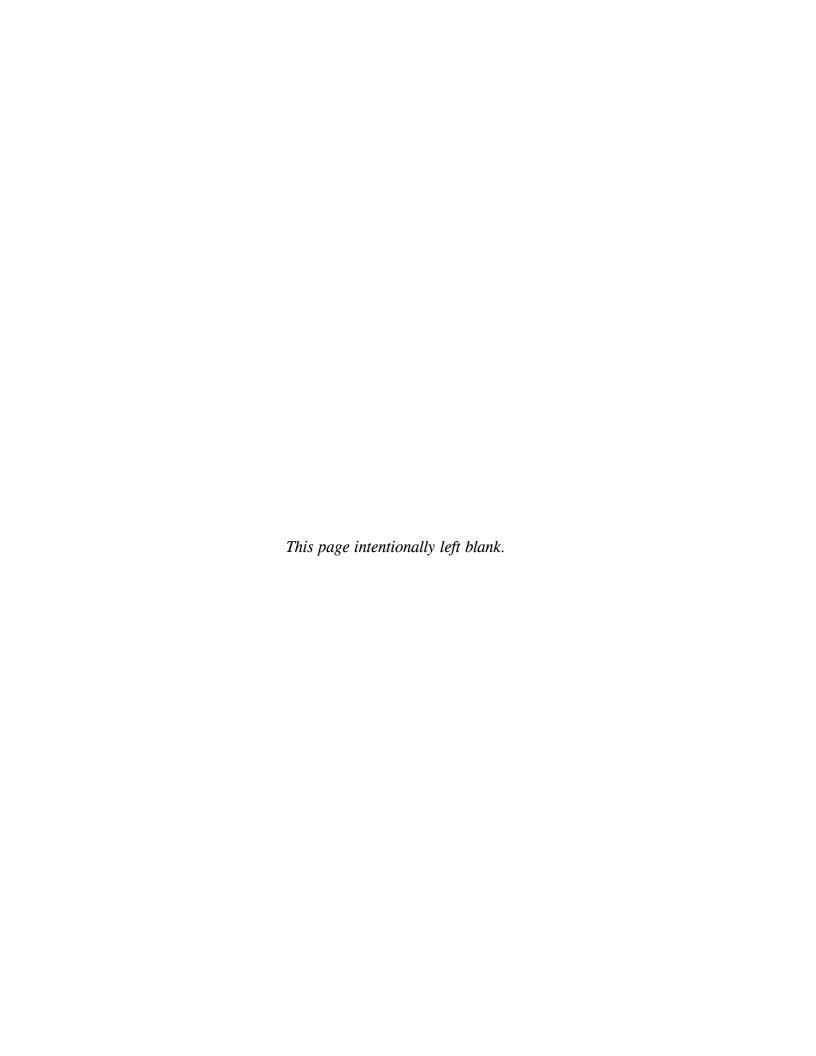
Concentrations of cis-1,2-DCE exceeded the New York State Groundwater Quality Standard of 5 μ g/L in the deeper portion of the aquifer. Monitoring well DW3, located on the AFP 59 boundary downgradient of the suspected source, and monitoring well URS-2D, located at a downgradient, off-site location, exceeded the New York State Groundwater Quality Standard for cis-1,2-DCE during the November 2014 groundwater sampling event.

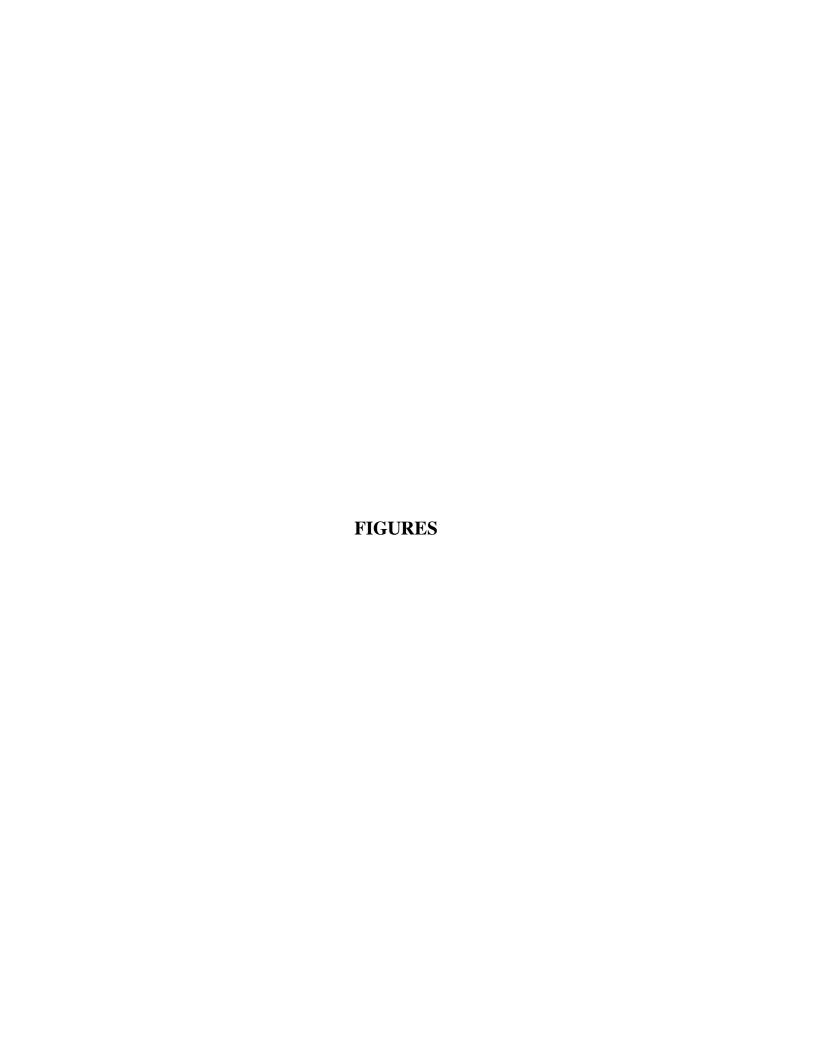
Analytical results from water samples collected from municipal well JC2 revealed all contaminants to be below New York State Groundwater Quality Standards.

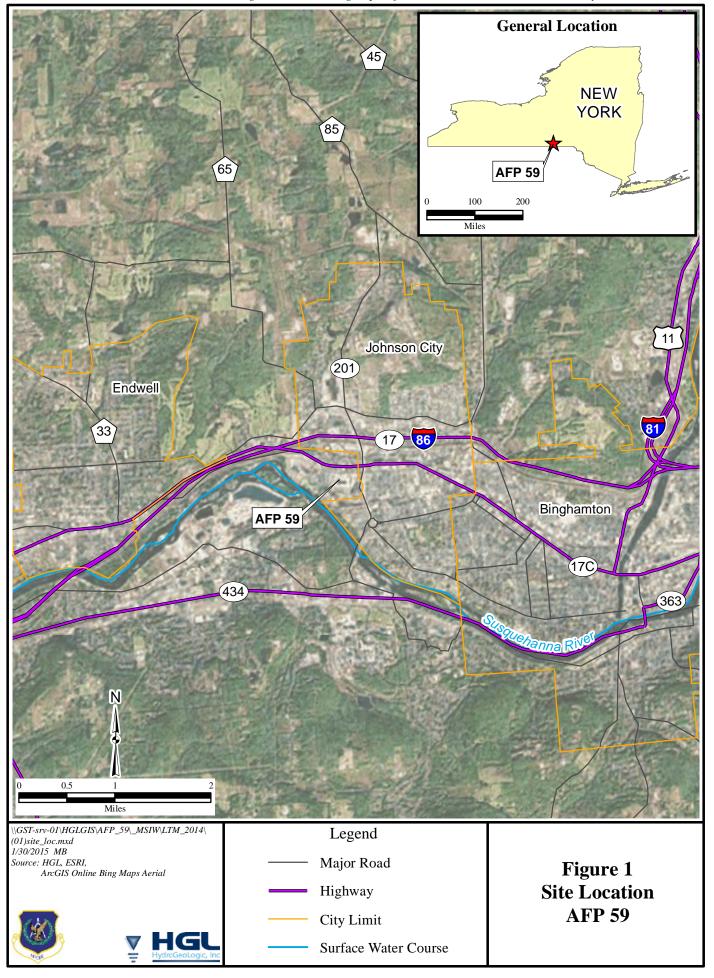
Based on the results of the LTM activities, groundwater exceeding the New York State Groundwater Quality Standards is migrating off AFP 59 property in the deep monitoring wells. Additional groundwater monitoring is recommended to monitor the migration of contaminants off site.

4.0 REFERENCES

- Earth Tech, 1996. Installation Restoration Program Final Remedial Investigation Report, Air Force Plant 59.
- HydroGeoLogic, Inc. (HGL), 2014a. Final Field Sampling Plan Addendum, Basewide Long-Term Monitoring at Air Force Plant 59, Johnson City, New York. December.
- HGL, 2014b. Final Work Plan, Basewide Long-Term Monitoring at Air Force Plant 59, Johnson City, New York. December.









HGL—Abbreviated 2014 Long-Term Monitoring Report for Air Force Plant 59—Johnson City, NY

Figure 2 Groundwater Sampling Results October 2013 and November 2014 On-site and Off-site Monitoring Wells

Legend

- AFP 59 Monitoring Well
- Off-site Monitoring Well

URS-9S Monitoring Well Identification

Surface Water Course

Air Force Plant 59

35.3 M = Shaded values indicate a New York State (NYS) groundwater effluent Class GA exceedance.

J=The analyte was posively detected but the quantitation is an estimation

F= The analyte was positively identified but the associated numerical value is below the reporting limit.

M=Matrix Effect. The analyte concentration was estimated due to matrix effect and therefore estimated.

ND=Analyte not detected above laboratory method detection limits. NS=Monitoring well "Not Sampled" during event.

VOC=volatile organic compound

μg/L=microgram per liter

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Source: HGL, ESRI, AECOM,
ArcGIS Online Imagery



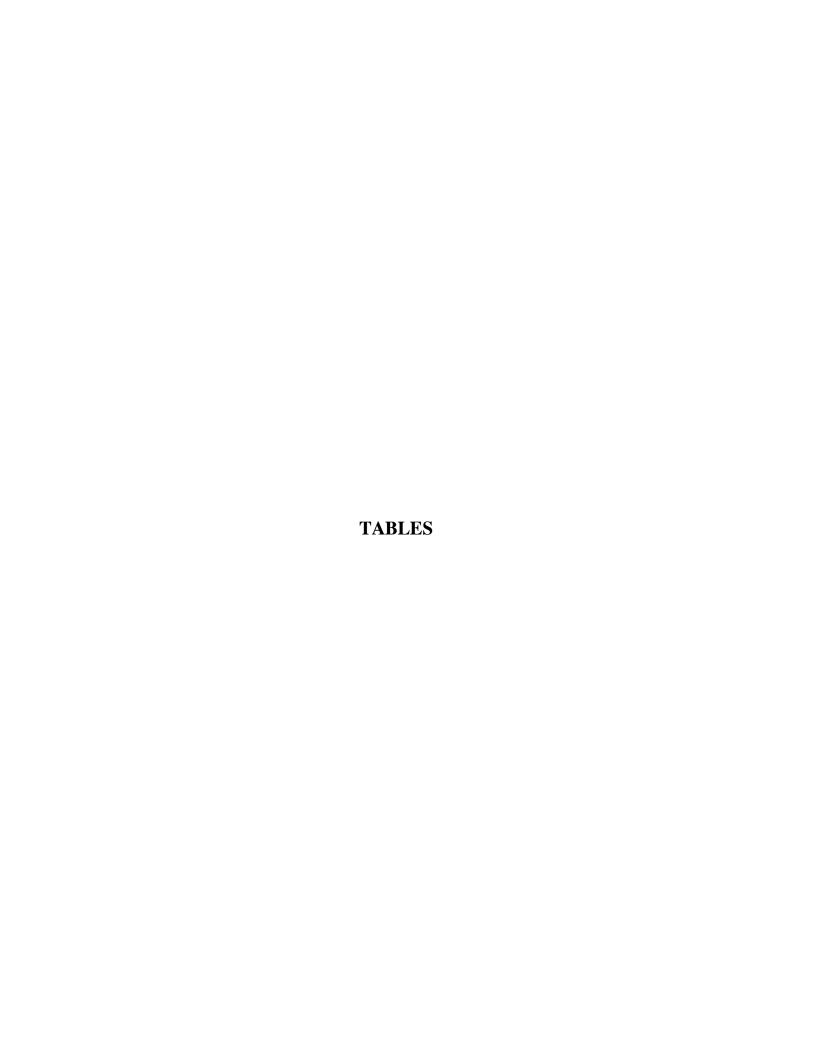


Table 1 **Summary of Detected VOCs** November 2014

		NYS		59DW1WG1	59DW3WG1	59JC2WG1	59SW1WG1	59SW3WG1	59BM121WG1	59SW7WG1	59URS2DWG1	59URS2SWG1
Method	Analyte	GW Effluent	Units	11/19/2014	11/19/2014	11/20/2014	11/19/2014	11/18/2014	11/17/2014	11/19/2014	11/18/2014	11/18/2014
		Limitations Class GA		280-62916-6	280-62916-8	280-62916-17	280-62916-7	280-62916-9	280-62916-2	280-62916-10	280-62916-3	280-62916-4
VOLATILES by	Methylene chloride	5	μ g/L	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Method 8260B	1,1-Dichloroethane	5	$\mu g/L$	0.16 U	0.32 F	0.16 U	0.16 U	0.16 U	0.16 U	4.6	0.27 F	2.1
	Chloroform	7	μ g/L	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
	Tetrachloroethene	5	μ g/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.62 F	0.20 U	0.20 U
	1,1,1-Trichloroethane	5	$\mu g/L$	0.19 F	0.16 U	0.24 F	0.16 U	0.26 F	0.16 U	1.9	0.16 U	4.1
	1,1-Dichloropropene	5	$\mu \mathrm{g/L}$	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
	1,1,2,2-Tetrachloroethane	5	$\mu g/L$	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
	Toluene	5	μ g/L	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
	Vinyl chloride	2	μ g/L	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.78 F	0.10 U	0.10 U
	1,1-Dichloroethene	5	μg/L	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.67 F	0.14 U	0.32 F
	trans-1,2-Dichloroethene	5	μg/L	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.20 F	0.15 U	0.15 U
	Trichloroethene	5	μg/L	0.16 U	0.16 U	0.33 F	0.16 U	0.51 F	0.16 U	7.8	0.16 U	3.7
	o-Xylene	5	μg/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
	cis-1,2-Dichloroethene	5	μg/L	0.15 U	49	0.23 F	0.15 U	0.31 F	0.15 U	33	67	1.2
	Acetone	NS	μg/L	1.9 U	1.9 U	2.9 F	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
	Bromochloromethane	5	μg/L	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
	n-Butylbenzene	5	μg/L	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
	sec-Butylbenzene	5	μg/L	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
	p-Isopropyltoluene	5	μg/L	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
	Naphthalene	10	μg/L	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
	n-Propylbenzene	5	μg/L	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
	1,3,5-Trimethylbenzene	5	μg/L	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
	1,2,4-Trimethylbenzene	5	μg/L	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
SEMI-VOLATILES by Method 8270C	1,4-Dioxane	NS	ng/l	0.084 U	11 M	0.739 F	0.083 U	0.083 U	0.082 U	4.4 M	28 M	20 M
FIELD PARAMETERS	Temperature, Initial		° Celsius	10.3	11.04	-	11.5	13.2	10.01	11.81	10.93	11.06
	Temperature, Final	7	° Celsius	10.5	11.37	10.98	11.57	13.54	10.42	11.83	11.24	11.26
	рН		Std units	7.2	7.61	6.84	7.41	7.02	7.69	7.56	6.9	6.56
	Specific Conductance	NS	mS/cm	1.806	1.478	1.030	1.752	1.392	0.668	1.375	1.417	1.190
	ORP	7	mV	182.2	-18.9	190.8	144.7	105.1	-157.3	75.6	-39.2	25.1
	Dissolved Oxygen	7	mg/L	2.8	0.52	3.46	0.61	1.69	0.45	0.73	0.55	0.50
	Turbidity	1	NTU	3.4	7.7	0.7	4.0	0.7	17.1	7.1	23.6	39.5

Notes:

NA - Not Applicable

F - The analyte was positively identified but the associated numerical value is below the reporting limit (RL).

NS - No Standard

- Non-Detect

- NYS GW Effluent; Class GA exceedances

6.5 Bolded numbers are detections

< 2.5

Table 1 Summary of Detected VOCs November 2014

		NYS		59URS3DWG1	59URS5SWG1	59EB112014	TB111714	59DUP01WG1	59DUP02WG1	59AB112014	59SW4WG1
Method	Analyte	GW Effluent	Units	11/17/2014	11/18/2014	11/20/2014	11/17/2014	11/20/2014	11/19/2014	11/20/2014	11/20/2014
IVIOUNOU.	·	Limitations Class GA	Cines	280-62916-1	280-62916-5	280-62196-15EB	280-62196-16TB	280-62916-12FD	280-62916-13FD	280-62196-14FB	280-62916-11
VOLATILES by	Methylene chloride	5	$\mu g/L$	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	-	0.32 U	0.32 U
Method 8260B	1,1-Dichloroethane	5	$\mu g/L$	0.16 U	0.16 U	0.16 U	0.16 U	0.50 F	-	0.16 U	0.46 F
	Chloroform	7	$\mu g/L$	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	-	0.16 U	0.16 U
	Tetrachloroethene	5	$\mu g/L$	0.20 U	0.20 U	0.20 U	0.20 U	0.32 F	-	0.20 U	0.30 F
	1,1,1-Trichloroethane	5	$\mu g/L$	1.3	0.68 F	0.16 U	0.16 U	0.81 F	-	0.16 U	0.75 F
	1,1-Dichloropropene	5	μ g/L	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	i	0.15 U	0.15 U
	1,1,2,2-Tetrachloroethane	5	$\mu g/L$	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	i	0.20 U	0.20 U
	Toluene	5	$\mu g/L$	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	-	0.17 U	0.17 U
	Vinyl chloride	2	μ g/L	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	-	0.10 U	0.10 U
	1,1-Dichloroethene	5	μg/L	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	-	0.14 U	0.14 U
	trans-1,2-Dichloroethene	5	μg/L	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	-	0.15 U	0.15 U
	Trichloroethene	5	μg/L	1.9	0.65 F	0.16 U	0.16 U	3.6	-	0.16 U	3.4
	o-Xylene	5	μg/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	-	0.19 U	0.19 U
	cis-1,2-Dichloroethene	5	μg/L	0.95 F	0.15 U	0.15 U	0.15 U	1.9	-	0.15 U	1.7
	Acetone	NS	μg/L	1.9 U	1.9 U	4.9 F	1.9 U	110	-	5.1 J	97
	Bromochloromethane	5	μg/L	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	-	0.10 U	0.10 U
	n-Butylbenzene	5	μg/L	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	-	0.32 U	0.32 U
	sec-Butylbenzene	5	μg/L	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	-	0.17 U	0.17 U
	p-Isopropyltoluene	5	μg/L	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	-	0.17 U	0.17 U
	Naphthalene	10	μg/L	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	-	0.22 U	0.22 U
	n-Propylbenzene	5	μg/L	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	-	0.16 U	0.16 U
	1,3,5-Trimethylbenzene	5	μg/L	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	-	0.14 U	0.14 U
	1,2,4-Trimethylbenzene	5	μg/L	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	-	0.14 U	0.14 U
SEMI-VOLATILES by Method 8270C	1,4-Dioxane	NS	ng/l	4.7 M	0.083 U	0.083 U		2.2 M	9.8 M		2.5 M
FIELD PARAMETERS	Temperature, Initial		° Celsius	10.12	9.29						11.54
	Temperature, Final	1	° Celsius	10.14	9.94						11.89
	pН	1	Std units	6.78	7.09						7.36
	Specific Conductance	NS	mS/cm	1.430	1.408						1.519
	ORP	1	mV	69.0	90.7						151.3
	Dissolved Oxygen	1	mg/L	2.40	1.98						3.36
	Turbidity	1	NTU	OVERRANGE	26.4						3.4

Notes:

NA - Not Applicable

F - The analyte was positively identified but the associated numerical

NS - No Standard

<2.5 **6.5**

- Non-Detect

- NYS GW Effluent; Class GA exceedances

Bolded numbers are detections

Table 2
Trend Analysis of VOCs in Groundwater

	Data	Concentrations of Analyte in Groundwater μg/L									
Well ID	Date Sampled	TCA	TCE	VC	1,1-DCE	trans - 1,2 DCE	1,1-DCA	<i>cis</i> - 1,2 DCE			
SW1	Sep-86	_	_	_	_	_	_	_			
<u> </u>	Jan-92	0.5	_	_	_	_	_	_			
<u> </u>	Dec-94	_	_	_	_	_	_	_			
<u> </u>	Nov-99	_	_	_	_	_	_	_			
<u> </u>	May-00	_	_	_	_	_	_	_			
<u> </u>	Nov-00	_	_	_	_	_	_	_			
	May-01	_	_	_	_	_	_	_			
	Nov-01	0.11 J	_	_	_	_	_	_			
	May-02	_	1	1	_	_	_	-			
	Nov-02	_	1	ı	_	_	_				
	May-03	_	_	1	_	_	_				
	Nov-03	_	-	-	_	_	_	_			
Ī	Jun-04	_	_	_	_	_	_	_			
Ī	Nov-04	_	_	_	_	_	_	_			
[Oct-05	_	_	_	_	_	_	_			
Ī	Jun-08	_	_	_	_	_	_	_			
 	Nov-08	NS	NS	NS	NS	NS	NS	NS			
Ī	Nov-09	_	_	_	_	_	_	_			
 	Nov-10	0.11	_	-	_	_	_	_			
Ī	CY2011	NA	NA	NA	NA	NA	NA	NA			
1	Aug-12	_	_	_	_	_	_	_			
[Oct-13	_	_	_	_	_	_	_			
1	Nov-14	_	_	_	_	_	_	_			
DW1	Jan-92	0.6	_	_	_	_	_	_			
	Dec-94	_	_	_	_	_	_	1.8			
	Nov-99	_	_	_	_	_	_	_			
	May-00	_	_	-	_	_	_	_			
	Nov-00	_	_	_	_	_	_	_			
	May-01	_	_	_	_	_	_	_			
	Nov-01	_	_		_	_	_	_			
	May-02	_	_	_	_	_	_	_			
	Nov-02	_	_	_	_	_	_	-			
	May-03	_	-	_	_	_	_	_			
	Nov-03	_	_	_	_	_	_	_			
	Jun-04	_	_	_	_	_	_	_			
	Nov-04	_	_	_	_	_	_	_			
	Oct-05			_	_	_	_	_			
	Jun-08	· · · · · · · · · · · · · · · · · · ·		_	_	_	_	_			
	Nov-08	NS			NS	NS	NS	NS			
	Nov-09	-	_	_	_	_	-	_			
	Nov-10	0.18	_	_	_	_	_	_			

Table 2
Trend Analysis of VOCs in Groundwater (continued)

	Date	Concentrations of Analyte in Groundwater μg/L									
Well ID	Sampled	TCA	TCE	VC	1,1-DCE	trans - 1,2 DCE	1,1-DCA	<i>cis</i> - 1,2 DCE			
DW1	CY2011	NA	NA	NA	NA	NA	NA	NA			
(cont.)	Aug-12	_	-	_	_	_	_	_			
	Oct-13	_	-	_	_	_	_				
	Nov-14	0.19 F	-	_	-	_	-	_			
SW3	Sep-86	_	6	_	_	_	_	_			
	Jan-92	12	9	_	_	_	5				
	Dec-94	0.5	1.8	_	_	_	_	_			
	Dec-95	0.86	2.8	_	_	_	_	0.44			
	Jul-97	_	1	_	_	_	_	_			
	Nov-98	0.22	0.81	_	_	_	_	0.1			
	Apr-99	0.51	0.71	_	_	_	_	0.17			
	Nov-99	0.29	0.9	_	_	_	_	0.39			
	May-00	0.69	1	_	_	_	0.55	1.29			
	Nov-00	0.43	0.9	_	_	_	_	0.22			
	May-01	0.46	0.8	_	_	_	0.32	1.29			
	Nov-01	0.32 J	0.5 J	_	_	_	_	_			
	May-02	0.42 J	0.8 J	_	_	_	0.46 J				
	May-03	0.584 J	0.893 J	_	_	_	0.302 J	1.37 J			
	Nov-03	0.398 J	0.856 J	_	_	_	_	0.511 J			
	Jun-04	0.9 J	0.94 J	_	_	_	0.95 J	3.7			
	Nov-04	0.52 J	1	0.26 J	_	_	0.38 J	1.5			
	Oct-05	0.47 J	0.86 J	_	_	_	_	0.55 J			
	Jun-08	0.661 J	1.31	_	_	_	0.403 J	1.45			
	Nov-08	0.345 J	0.759 J	_	_	_	_	_			
<u> </u>	Nov-09	0.367 J	0.62 J	_	_	_	_	0.539 J			
<u> </u>	Nov-10	0.41	0.59	_	_	_	_	0.17			
<u> </u>	CY2011	NA	NA	NA	NA	NA	NA	NA			
<u> </u>	Aug-12	_	0.51	_	_	_	_	0.28 F			
	Oct-13	_	0.70 F	_	_	_	_	1			
	Nov-14	0.26 F	0.51 F	_	_	_	_	0.31 F			
DW3	Jan-92	0.3	_	_	_	_	0.3	_			
	Dec-94	_	_	0.28	_	_	0.26	36			
	Dec-95	_	-	_	_	_	_	5.2			
	Apr-97	_	_	_	-	_	_	41			
	Jul-97	_	_	_	-	_	_	49			
	Nov-98	_	_	_	-	_	0.34	66			
	Apr-99	_	_	0.28	0.11	_	0.35	67			
	Nov-99	_	_	_	_	_	_	_			
	May-00	_	_	_	_	0.25	0.16	24.98			
	Nov-00	_	_	_	_	_	_	16.85			
	May-01	_	_	_	_	_	_	13.29			
	Nov-01	_	_	_	_	_	_	13.58			
	May-02	_	_	_	_	_	0.1 J	21.08			

Table 2
Trend Analysis of VOCs in Groundwater (continued)

	Data	Concentrations of Analyte in Groundwater μg/L									
Well ID	Date Sampled	TCA	TCE	VC	1,1-DCE	trans - 1,2 DCE	1,1-DCA	<i>cis</i> - 1,2 DCE			
DW3	May-03	_	_	_	_	_	_	_			
(cont.)	Nov-03	_	-	_	_	_	_	1.18 J			
	Jun-04	_	_	_	_	_	_	1.3			
	Nov-04		ı	_	ı	ı	_	2.1			
	Oct-05		ı	_	ı	ı	_	3			
	Jun-08		ı	_	ı	ı	_	73.1			
	Nov-08	_	ı	_	ı	ı	0.41 J	67.3			
	Nov-09	_	1	_	-	-	0.369 J	64.3			
	Nov-10		ı	_	ı	ı	_	8.4			
	CY2011	NA	NA	NA	NA	NA	NA	NA			
	Aug-12		ı	_	ı	ı	0.32 F	56			
	Oct-13	_	-	0.18 F	0.32 F	-	_	57			
	Nov-14	_	-	_	_	_	0.32 F	49			
SW4	Jan-92	2	97	_	0.3	_	0.6	_			
	Dec-94	20	370	_	2.1		8.5	19			
	Dec-95	34	1200	_	4.9	2.1	6.9	34			
	Apr-97	_	1	_	-	-	7.1	71			
	Jul-97	23	290	_	-	-	_	15			
	Nov-98	8	46	0.42	0.82	-	9	10			
	Apr-99	1.9	9.53	_	_	_	0.87	1.85			
	Nov-99	2.13	9.5	_	0.18	_	7.7	7.15			
	May-00	2.88	8	0.11	0.21	0.49	1.67	4.3			
	Nov-00	1.14	15.2	1.49	0.29	_	15.25	11.18			
	May-01	3.35	34	_	0.36	0.38	1.3	3.19			
	Nov-01	0.88	5.7	0.43 J	0.12 J	_	7.18	5.27			
	May-02	2.54	21.63	_	0.34 J	-	0.79 J	2.07			
	May-03	3.05 J	9.09 J	_	-	-	1.44 J	3.36 J			
	Nov-03	2.03	4.63	_	-	-	0.93	1.93			
	Jun-04	2.8	41	_	0.57 J	0.11	1.3	3.3			
 	Nov-04	3.1	56	_	0.88 J	0.19 J	1.4	4.1			
 	Oct-05	2.2	43	_	1		1.7	6.3			
 	Jun-08	2.98	17.8	_	0.751 J	0.364 J	1.51	4.35			
 	Nov-08	0.513 J	12.7	_	_	_	0.825 J	3.38			
 	Nov-09	1.38	11.1	_			0.536 J	1.85			
 	Nov-10	1.6	48	_	0.64		1.1	3.2			
 	CY2011	NA	NA	NA	NA	NA	NA	NA			
 	Aug-12	0.66	11	_	_	_	0.64 F	2.3			
	Oct-13	1.8	6.6	_	0.26 F	_	_	2.6			
	Nov-14	0.75 F	3.4	_	0.46 F	_	_	1.7			

Table 2
Trend Analysis of VOCs in Groundwater (continued)

	Date	Concentrations of Analyte in Groundwater μg/L									
Well ID	Sampled Sampled	TCA	TCE	VC	1,1-DCE	trans - 1,2 DCE	1,1-DCA	<i>cis</i> - 1,2 DCE			
SW7	Dec-94	4.6	56	6.2	1	0.3	33	150			
	Dec-95	2.2	43	6.8	0.8		20	130			
	Jul-97	_	17.8	_	_	_	_	2			
	Nov-98	2.5	12.7	3.4	0.65	0.28	12	82			
	Apr-99	1.23	15	_	-	ı	1.46	5.25			
	Nov-99	1.01	7.9	_	0.19	ı	3.38	18.8			
	May-00	0.67	4	_	_	0.12	0.71	2.43			
	Nov-00	0.91	11	0.52	0.15	-	3.48	16.06			
	May-01	1.18	3.95	_	-	-	0.47	1.46			
	Nov-01	0.8 J	5.7	0.85 J	0.19 J	0.13 J	3.02	25.89			
	May-02	0.87 J	1.5	_	_	_	0.47 J	2.79			
	May-03	1.5 J	3.8	_	_	_	0.409 J	1.43 J			
	Nov-03	0.674 J	1.9	_	_	_	0.509	2.76			
	Jun-04	1	1	_	_	_	0.3 J	1.1			
	Nov-04	1.5	2.1	0.47 J	0.25 J	_	1.5 J	10 J			
	Oct-05	0.73 J	3.1	-	_	_	ı	1.4	12		
	Jun-08	2.5	2.94	_	-	ı	1.59	6.34			
	Nov-08	1.88	8.15	1.21 M	-	0.302 J	5.04	35.3 M			
	Nov-09	1.24	2.42	_	-	-	0.905 J	5.21			
	Nov-10	1	2.4	1	0.21	0.096	0.58	4.3			
	CY2011	NA	NA	NA	NA	NA	NA	NA			
	Aug-12	2	9.9	1.2	0.65	0.21 F	6.5	44			
	Oct-13	_	2.5	_	0.93 F	_	_	7			
	Nov-14	1.9	7.8	0.78 F	0.67 F	0.20 F	4.6	33			
URS-2D	Jun-08	_	-	0.354 J	-	_	0.339 J	71.9			
	Nov-09	_	-	0.364 J	_		0.244 J	72.7			
	Nov-10	_	-	0.22 J	_	0.11 J	0.23 J	69			
	CY2011	NA	NA	NA	NA	NA	NA	NA			
	Jul-12	_	-	0.22 J	_	_	0.27 J	71			
	Oct-13	_	-	_	_	0.17 F	0.21 F	62			
	Nov-14	_	_	_	_	_	0.27 F	67			

Notes:

ND: Analyte not detected above laboratory method detection limits

NS: Monitoring well "Not Sampled" during event

NA: Analytical data "Not Available" due to extensive flood event at site and surrounding area in CY2011.

Groundwater sampling not conducted in CY2011.

J: The analyte was positively detected, but the quantitaion is an estimation

F: The analyte was positively identified but the associated numerical value is below the reporting limit (RL).

 $\textbf{M} : \textbf{Matrix Effect}. \ \textbf{The analyte concentration was estimated due to matrix effect and therefore estimated}$

Bolded numbers are exceedances

ATTACHMENT 1 FIELD FORMS

TestAmerica Albany

25 Kraft Road Albany, NY 12205

Chain of Custody Record



Client Information	Sampler: NKE	DAd	KSQJ	Lab P	M:				Carrier Trackin	g No(s);		COC No: 180-20699-5165.1
Client Contact MS PCER DALYK	Phops 3 8-2	65-2	204	E-Mai	t,							Page: Page 1 of 2
Company: HydroGeoLogic Inc	1 010						Ana	alysis Req	uested			Job #:
Address: Northway 10 Executive Park 313 Ushers Rd.	Due Date Requeste	ed:			2						侧	Preservation Codes:
City: Ballston Lake	TAT Requested (da	ıys):									18	A'- HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2
State, Zip: NY, 12019	STANDAR	TAT	per Q	400/			82706					D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3
Phone: 518-877-039\$	PO#.)	(82			8		F - MeOH R - Na2S2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate
Email: mjackson@hgl.com	WO #.			Ť.	or No	~		-	154		100	I - Ice U - Acetone
Project Name: Air Force Plant 59	Project#: AF 70	2 7-		74	e (Yes or No	8260	2				containers	K - EDTA W - ph 4-5 L - EDA Z - other (specify)
Site: AFP 59 JOHN SOLL CITY, NY	SSOW#:	<u> </u>			Field Filtered Sample (Yes or Perform MS/MSD (Yes or No)	8	Drakane				of con	
			Sample	Matrix	MS/M	2		189			Total Number	
± ¹ . 1		Sample	Type (C=comp,	(W=water, S=solid, O=waste/oll,	IId FIII	Voc	7		W		2	
Sample Identification	Sample Date	Time		BT=Tissue, A=Air)							2	Special Instructions/Note:
59 URS 3D WG1	11-17-14	1445	G	W	N	X	X		k v			
59 BM121WG1	1	1650			1	X	X					4
59 URS 2D WGI	11-18-14	1050				X	X				i.	
59 UR\$28 WGI		1249				X	X					
59 URS 58 WG1		1550		1.1		X	X					
59 URS 58 WGI - MS					19	_	X					18
59 URS 58 WGI - MSD	1	1			114	X	X					
59 DW1 WG1	11-19-14	0941				X	X		4			
595WI WGI		1116				X	X					
59 DW3 WG1	1	1413				X	X		1			<u> </u>
59 SW3WG1	11-18-14	1830	V	1	W	X	X					
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Po	ison B Unkr		Radiologica	,	Sá		e Disposal (A f e Return To Client	ee may be a	issessed if Disposal By	samples a		ined longer than 1 month) chive For Months
Deliverable Requested: I, II, III, IV, Other (specify)	ISUII D UNKI	OWII I	vadiologica		Sp		Instructions/QC			Lab	7.10	mornio
Empty Kit Relinquished by:		Date:			Time	:		2//	to setting.	of Shipment		W30022
Relinguished by: Nickheel D. Jackson All Dill Relinguished by:	Date/Time: Date/Time:	1700	>	Company Company	_	1	eived by:			Date/Tim	20-1	4 17:00 Company
					1	1				Date/Tim		Company
Relinquished by:	Date/Time:			Company	0		eived by:			Date: Till		Company
Custody Seals Intact. Custody Seal No.: Δ Yes Δ No	apt vis					Coo	iler Temperature(s) ^c	°C and Other R	emarks:			

TestAmerica Albany

25 Kraft Road Albany, NY 12205

Chain of Custody Record



Client Information	MIKE TACKSON Labi	PM:	Carrier Tracking No(s):	COC No: 180-20699-5165.2
Client Contact MS PETER DACK	Phone: 518 - 265 - 22 \$4 E-ME	il:		Page: Page 2 of 3.2
Company: HydroGeoLogic Inc		Analysis Re	quested	Job#.
Address: Northway 10 Executive Park 313 Ushers Rd.	Due Date Requested:			Preservation Codes:
City: Ballston Lake	TAT Requested (days):	[2]		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2
State, Zip: NY, 12019	STANDARD THE PUR GAPP/ CONTRACT	33%C)		C - Zn Acetate
519 - 877 - Ø39Ø	PO#.			F - MeOH R - Na2S2SO3 G - Amchlor S - H2SO4
Email: mjackson@hgl.com	WO#:	S S		H - Ascorbic Acid
Project Name: Air Force Plant 59	Project#: AF 7087		containers	K - EDTA W - ph 4-5 L - EDA Z - other (specify)
AFP59 JOHNSON CITT, NY	SSOW#	Sample (Kes or R26		
HELS I CONSTRUCTION	Sample Matrix		Total Number of	-
	Sample Matrix Type (W-water, S-solid,	VOCS		
Sample Identification	Sample C=comp, G=grab) Sample Date Time G=grab ST=Tissue, A=Alr	Pirela Period	100	Special Instructions/Note:
500m 21161	Preservation Code			
598W 7W61	11-19-14 1607 G W	W X X		
598W4 W61	11-20-14 1124	XX		
59 DOPP [WG1	11-20-14 0938			
59 Durg 2 WG1	 	122 X		
	11-19-14 0903	X		1,4-Droxame only for Ol
59 AB112014 59 EB112014 TB11714	1246	XX		
TB111714	11-17-14 0966			
593C2WG1	11-20-14 8905 1	Ü x		
8 8	A11-70-14			
	911-2017			
Possible Hazard Identification		Sample Disposal (A fee may be	assessed if samples are retain	
Non-Hazard Flammable Skin Irritant Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Policy Po	oison B Unknown Radiological	Return To Client Special Instructions/QC Requirement		hive For Months
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment	
MICHAGE D. Jackson MIDD. V	Date/Time: 1-20-14 1700 HG(1/1////	Date/Time: 11-20-14	17.00 COMPANY
Relinquished by:	Date/Time: Company :	Received by:	Date/Time:	Company
Relinquished by:	Date/Time: Company	Received by:	Date/Time:	Company
Relinquished by: Custody Seals Intact: Custody Seal No.: A Yes A No.	Date/Time: Company	Received by: Cooler Temperature(s) *C and Other F		Company

				10														
COC Number (1): PO Number: GEL Wol	GEL Chain of Custody and Analytical Request GEL Quote #: COC Number (1): CO Number: GEL Work Order Number: COC Number: GEL Work Order Number: COC Number: GEL Work Order Number: GEL Work Order Number: GEL Work Order Number:																	
Client Name: HGL		Phone #:	5/8-	877	-63/0			San	nple A	nalys	is Req	ueste	d ⁽⁵⁾ (1	Fill in	the n	umber	of con	tainers for each test)
Project/Site Name: AFP59		Fax #: 5	18-9	53-1	7007	Shou		ners	SB									< Preservative Type (6)
Address: JOHASUN CITY, N	EW YO	RK			204,0		ple be dered	contai	. 14			1						
Collected by: Send Results To: Send Resu																		
Sample ID * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code	Field Filtered (3)	Sample Matrix (4)	Radioactive	TSCA Regulated	Total number of containers	New THOS								ę.	required for sample specific QC
59 JCZW61	11-20-14	Ø905	N	N	DW			2	X									Pres = Solver bould
				. 1														
4										-								
														+	+			
*												+	+	+	+		+	
1												+	+	+	74	+	+	
			-								-	-	+	+	+	_	-	
*																_		
																1		
								1							27 -			, (a)
TAT Requested Normal: X Rush: Specify:	(Subject to Surchar	Fay Re	enlte	Yes	,	(N		Ci	role De	elivera	ble: C	of A	/ 00	Summ	er	Leve	IPP?	Level 2 / Level 3 / Level 4
Remarks: Are there any known hazards applicable to					ards	***		C			bic. C	or A	7 QC	Summ	ary /	Sa		ollection Time Zone Pacific Other
Chain of Custoo												Samp	le Shi	pping	and	Delive	ry De	tails
Relinquished By (Signed) Date Time	Received by (sig	gned) I	Date	Time			GEI	PM:		VAL	ERY	-	De	2315	>			
Method of Shipment: FED EX Date Shipped: 11-20-14																		
2	2						Airb	iII #:	3	oh	5	05	769	G	19	9		
3 Airbill #:																		
Chain of Custody Number = Client Determined QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB	= Fauinment Black	MS = Matrix S	nike Samn	le MSD =	Matrix Spil	ke Dunl	icate S	ample G	= Grah	C = Cc	mposite				7			For Lab Receiving Use Only
3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water	as field filtered or - N	for sample wa W=Water, SO	s not field =Soil, SD=	filtered. Sediment, S	SL=Sludge	, SS =Sc	olid Wa	ste, O=C				Urine, 1	F=Fecal,	N=Nasa	ıl			Custody Seal Intact? YES NO Cooler Temp:
Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1). Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank WHITE = LABORATORY YELLOW = FILE PINK = CLIENT																		

	Express 00 Am bin				
i	From Please print and press hard. Date 11-20-14 Sender's FedEx Account Number	4	Express Package Service •To most NOTE: Service order has changed, Please select care		Packages up to 1: For packages over £3 lbs., see FodEx Express Freight U
	Sender's MICHAEL JACKSON Phone (518) 8-77-0390	□	Mand Business Day FedEx First Overnight Earliest next business morning delivery to select locations. Friday shipmants will be delivered on Monday unless SAUTIBAY Pelitrey is selected.	2 or 3 Business FedEx 2Day A. Second business mo Saturday Delivery NO	M.
	Company HGL (P	FedEx Priority Overnight Next business morning: Friday shipments will be delivered on Monday unless SATURGAY Delivery is selected.	FedEx 2Day Second business after will be delivered on the Delivery is selected.	embon.* Thursday shipments Monday unless SATURDAY
	Address 313 USHERS ROAD Dept.Floor/Suita/Floor		FedEx Standard Overnight Next business efternoon.* Saturdey Delivery NOT evailable.	FedEx Express Third business day.* Saturday Delivery NO	
	City BAUSTON LAKE State NY ZIP 12019	5	Packaging * Declared value limit \$500.		
2	Your Internal Billing Reference AF 7087, 01		FedEx Envelope* FedEx Pak*	FedEx Box	Tube
3	Recipient's ATTN: VALERIE DAVIS Phone (843, 556-817)	6	Special Handling and Delivery Sig SATURDAY Delivery NOT available for FedEx Standard Overnight, FedEx 2Day A.M.	•	
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	Address 2040 SAVAGE ROAD We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept/Roor/Suita/Room HOLD Weekday Fedebly Location address Reculties NOT available for Fedebly Roofs Overnight. HOLD SAUTRAGE HOLD Weekday Fedebly Roof South Room Fedebly Roofs Overnight. HOLD Sautraday	5	One box must be checked. One box must be checked. Yes As per attached Shippar's Dec		
	Address Address Use this line for the HOLD location address or for continuation of your shipping address.	Dang or pl	Shipper's Declaration, Act required. Shipper's Declaration, Act required. Jerous goods (including dry ica) cannot be shipped in FedEx packaged in a FedEx Express Drop Box.		Cargo Aircraft Only
	City CHARLESTON State SC ZIP 29407	7	Payment Bill to: Sender Enter FedEx Acct. N	o, or Credit Card No. below.	
		FedE Cred		Third Party 🔲 Cro	edit Card Cash/ Eq. Date
		Tota	al Packages Total Weight Total Dec	clared Value†	
	Easy new Peel-and-Stick airbill. No pouch needed. Apply airbill directly to your package. See directions on back.	agre	ishility is limited to US\$100 unless you declare a higher value. Se to the service conditions on the back of this Airbill and in the curr imit our liability.		irbili you g terms
		Rev.	Date 1/12 • Part #167002 • ©2012 FedEx • PRINTED IN U.S.A. SF	RF	



LOCATION: AF	FP59	PROJECT NAME:	AFP59 2014 GWS						
SITE: AF	P59	PROJECT NO:	AF7087						
		SAMPLE INFORMATION							
SAMPLE ID 591	BM121WG1	DATE: /1-17	14 TIME: 1650						
MATRIX TYPE: WO	G	ENTER SAMPLE N	IUMBERS FOR QC SAMPLES/						
SAMPLING METHOL	D: BP		BLANKS ASSOCIATED WITH THIS SAMPLE:						
LOT CONTROL #:		MATRIX SPIKE (N	AS):						
	ent Blank # - Trip Blank # - Cooler	#) MATRIX SPIKE DI	UP (SD):						
	Y #:		_						
CHAIN-OF-COSTOD	Ι π		(AB):						
SAMPLE BEG. DEPTH (F	FT): —		-						
SAMPLE END DEPTH (F	·	EQUIPMENT BLA	~ Q 11 1 7 1 4						
GRAB COMPOS		TRIP BLANK (TB)	TB111714						
GRAB (A) COMPOS	ile ()								
CONTAINER	PRESERVATIVE/	ANALYTICAL	ANALYSIS						
SIZE/TYPE #	PREPARATION	METHOD	NO.						
40 mL VOA 3	Cool to 4C HCl ph<2	SW8260B	VOCs						
1L Amber 2	Cool to 4C	8270C	1,4 Dioxane						
	NO	TABLE OBSERVATIONS							
PID READINGS	5	SAMPLE CHARACTERISTICS	MISCELLANEOUS						
1 st	COLOR:								
2nd	ODOR:								
	OTHER:								
pHT	emperature(C) D	issolved Oxygen(mg/L)	Specific Conductivity(umhos/cm)						
Iron(mg/L	Oxidation/Reduction Poten	tial(mv) Turbidity	(NIU)						
		GENERAL INFORMATION	2						
WEATHER: SUN/CLEA	AROVERCAST RAI	WIND DIRECTION	AMBIENT TEMPERATURE 39°						
SHIPMENT VIA: FEDEX	X HAND DELIVER X	COURIER (TAL) 7 OTE	HER						
SHIPPED TO: Test Americ	ca Laboratory Denver, CO	MS							
COMMENTS:									
SAMPLER: MI	KE JACKSOL	OBSERVER:							
, MATRI	X TYPE CODES	S	AMPLING METHOD CODES						
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB						
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER						
LH=HAZARDOUS LIQUID	O WASTE GS=SOIL GAS	PP=PERISTALIC PUMP							
SH=HAZRDOUS SOLID W	WASTE WS=SURFACE WA	TER CS=COMPOSITE SAMI							
SE=SEDIMENT	SW=SWAB/WIPE	C=CONTINUOUS FLIG							
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP						



LOCATION: AFP5	39	PROJECT NAME: A	FP59 2014 GWS			
SITE: AFP5	9	PROJECT NO: A	F7087			
	S	AMPLE INFORMATION				
SAMPLE ID 59SW	/1WG1	DATE: /1-19.	14 TIME: 1116			
MATRIX TYPE: WG		ENTER SAMPLE N	JMBERS FOR QC SAMPLES/			
SAMPLING METHOD:	BP		BLANKS ASSOCIATED WITH THIS SAMPLE:			
LOT CONTROL #:		MATRIX SPIKE (M	MATRIX SPIKE (MS):			
(Ambient Blank # - Equipment	Blank # - Trip Blank # - Cooler #	MATRIX SPIKE DU	P (SD):			
CHAIN-OF-CUSTODY #	#:	FIELD DUP (FD);				
		AMBIENT BLANK	(AB):			
SAMPLE BEG. DEPTH (FT)		EQUIPMENT BLAN	IK (EB):			
SAMPLE END DEPTH (FT):			TB111714			
GRAB COMPOSIT	E()	TRI BELLIK (18).				
CONTAINER	PRESERVATIVE/	ANALYTICAL	ANALYSIS			
SIZE/TYPE #	PREPARATION	METHOD				
1L Amber 2	Cool to 4C	8270C	1,4 Dioxane			
40 mL VOA 3	Cool to 4C HCl ph<2	SW8260B	VOCs			
	NIC	TABLE OBSERVATIONS				
			MISCELLANEOUS			
PID READINGS		AMPLE CHARACTERISTICS	WISCELLANEOUS			
1st 0.0	COLOR:					
2nd	ODOR: OTHER:					
pH 7.41 Tem Iron — (mg/L)	perature 11.57-(C) Di	ssolved Oxygen	Specific Conductivity 1.752 (umbos/om) 4.0 (NTU)			
	G	ENERAL INFORMATION				
WEATHER: SUN/CLEAR	OVERCAST/RAIN	WIND DIRECTION	AMBIENT TEMPERATURE _/8°			
SHIPMENT VIA: FEDEX _	HAND DELIVERX	COURIER (TAL) 1	ER			
SHIPPED TO: Test America I	Laboratory Denver, CO					
COMMENTS:	1					
SAMPLER: MIKE	; JACKSEL	OBSERVER:				
MATRIX T	YPE CODES	SA	MPLING METHOD CODES			
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB			
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER			
LH=HAZARDOUS LIQUID W	ASTE GS=SOIL GAS	PP=PERISTALIC PUMP	H=HOLLOW STEM AUGER			
SH=HAZRDOUS SOLID WAS		TER CS=COMPOSITE SAMP				
SE=SEDIMENT	SW=SWAB/WIPE	C=CONTINUOUS FLIGH				
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP			



LOCATION:	ATION: AFP59 PROJECT NAME: AFP59 2014 GWS								
SITE:	AFP59		PROJECT NO: AF7087						
	SAMPLE INFORMATION								
SAMPLE ID	59DW1W	G1		DATE: 11-19	7-14	TIME:_	0941		
MATRIX TYPE:	WG			ENTER SAMPLE N	IUMBERS	FOR OC S	AMPLES/		
SAMPLING METI	HOD: BF			BLANKS ASSOCIATED WITH THIS SAMPLE:					
LOT CONTROL #				MATRIX SPIKE (M	1S):				
		# - Trip Blank # - Cooler #		MATRIX SPIKE D	UP (SD):	-	=		
CHAIN-OF-CUST	ODV #·			FIELD DUP (FD): _	-				
CHAIN-OF-COST	OD1 #			AMBIENT BLANK					
SAMPLE BEG. DEP	ΓΗ (FT):	-		EQUIPMENT BLA					
SAMPLE END DEPT				TRIP BLANK (TB)			<u></u>		
GRAB COM				TRIP BLANK (TB)					
Sidilb (A COM									
CONTAINER	_	RESERVATIVE/	. A	ANALYTICAL		ANA	ALYSIS		
SIZE/TYPE #		PREPARATION		METHOD		1.4.1	Dioxane		
1L Amber 2		Cool to 4C		8270C 1,4 Dioxane SW8260B VOCs					
40 mL VOA 3	Co	ol to 4C HCl ph<2		3 W 6200B			008		
		NO	TABLE OF	BSERVATIONS					
PID READIN	IGS	SA	MPLE CHAR	RACTERISTICS		MI	SCELLANEOUS		
1st 0.0		COLOR:							
2nd		ODOR:							
		OTHER:					1 00-11		
pH 7.20 Iron(1	Temperat ng/L) Oxi	ure 10.50 (C) Die dation/Reduction Potent	ssolved Oxygial _183.	en (mg/L) (mv) Turbidity	Specific C	onductivity _ (NTU)	1.896 (umbos/em)		
		G	ENERAL II	NFORMATION			- 0		
WEATHER: SUN/C	CLEAR X	OVERCAST/RAIN		WIND DIRECTION	AM	BIENT TEMP	ERATURE 17		
SHIPMENT VIA: FE	EDEX	HAND DELIVER	COURIE	ER (TAL) OTH	HER				
SHIPPED TO: Test A				ns					
COMMENTS:									
SAMPLER: MI	KE	OMEKSUN		OBSERVER:	-				
MA	TRIX TYPE	CODES		S	AMPLING N	METHOD CO	DDES		
DC=DRILL CUTTING		SL=SLUDGE		B=BAILER		G=GF			
WG=GROUND WATE		SO=SOIL		BP=BLADDER PUMP		HA=I	IAND AUGER		
LH=HAZARDOUS LIC		GS=SOIL GAS		PP=PERISTALIC PUMP		H=H(DLLOW STEM AUGER		
SH=HAZRDOUS SOL	-	WS=SURFACE WAT	ER	CS=COMPOSITE SAMI	PLE	HP=H	IYDRO PUNCH		
SE=SEDIMENT		SW=SWAB/WIPE		C=CONTINUOUS FLIG	HT AUGER		PLIT SPOON		
				DT=DRIVEN TUBE		SP=S	UBMERSIBLE PUMP		



LOCATION: AF.	P59	P	ROJECT NAME:	AFP59 2014 (GWS			
SITE: AF	P59	P	ROJECT NO:	AF7087				
-	SAMPLE INFORMATION							
SAMPLE ID 591	DW3WG1		DATE: 11 - 19	-14	TIME: 1413			
MATRIX TYPE: WO	j		ENTER SAMPLE N	NUMBERS F	OR QC SAMPLES/			
SAMPLING METHOD	: BP		BLANKS ASSOCIA					
LOT CONTROL#:			MATRIX SPIKE (N	MS):				
(Ambient Blank # - Equipme	nt Blank # - Trip Blank # - Cooler #	<i>‡</i>)	MATRIX SPIKE D	UP (SD):	•			
	· / #:		FIELD DUP (FD):	59 DU	P02 W61			
CIMIN OF COSTOD			AMBIENT BLANK					
SAMPLE BEG. DEPTH (F	T): —		EQUIPMENT BLA	_				
SAMPLE END DEPTH (F	T): -		TRIP BLANK (TB)	TB	111714			
GRAB COMPOS	ITE()		THE BEATTER (12)	,	•			
CONTAINER	PRESERVATIVE/	A	NALYTICAL		ANALYSIS			
SIZE/TYPE #	PREPARATION		METHOD					
40 mL VOA 3	Cool to 4C HCl ph<2		SW8260B		VOCs			
1L Amber 2	Cool to 4C		8270C		1,4 Dioxane			
	NO	TABLE OB	SERVATIONS					
PID READINGS	S	AMPLE CHAR	ACTERISTICS		MISCELLANEOUS			
1st 0,0	COLOR:			1.				
2nd	ODOR:							
	OTHER:				1 428			
pH 7.6 To mg/L	emperature 11.37 (C) Di Oxidation/Reduction Poten	ssolved Oxyge tial -18.9	n O.S (mg/L) (mv) Turbidity	Specific Con	ductivity 1. 478 (umhos/cm) (NTU) 45/cm			
	G	ENERAL IN	FORMATION					
WEATHER: SUN/CLEA	OVERCAST/RAI	١ ،	WIND DIRECTION	AMBII	ENT TEMPERATURE 27			
	HAND DELIVER							
SHIPPED TO: Test Americ			ns					
COMMENTS:								
SAMPLER: MIK	E Docksal		OBSERVER:	—				
MATRIX	TYPE CODES		SAMPLING METHOD CODES					
DC=DRILL CUTTINGS	SL=SLUDGE		B=BAILER	2	G=GRAB			
WG=GROUND WATER	SO=SOIL		BP=BLADDER PUMP		HA=HAND AUGER			
LH=HAZARDOUS LIQUID	WASTE GS=SOIL GAS		PP=PERISTALIC PUMI	P	H=HOLLOW STEM AUGER			
SH=HAZRDOUS SOLID W	ASTE WS=SURFACE WA	TER	CS=COMPOSITE SAM	PLE	HP=HYDRO PUNCH			
SE=SEDIMENT	SW=SWAB/WIPE		C=CONTINUOUS FLIC	GHT AUGER	SS=SPLIT SPOON			
			DT=DRIVEN TUBE		SP=SUBMERSIBLE PUMP			



LOCATION:	AFP59		P	ROJECT NAME: A	FP59 2014	GWS	
SITE:	ITE: AFP59			PROJECT NO: A	F7087		
5112.		SAI		FORMATION			
SAMPLE ID	59SW3WG1			DATE: 11-18-	-14	TIME: /830	
MATRIX TYPE:	WG				LD ADED G	EOD OCICANIDI ECI	
SAMPLING METH	HOD: RP			ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE: MATRIX SPIKE (MS):			
LOT CONTROL#						_	
(Ambient Blank # - Equ	ipment Blank # -	Trip Blank # - Cooler #)		MATRIX SPIKE DU			
CHAIN-OF-CUST	ODY #:			FIELD DUP (FD):			
				AMBIENT BLANK	(AB):		
SAMPLE BEG. DEPT	TH (FT):	•		EQUIPMENT BLAN			
SAMPLE END DEPT	H (FT):			TRIP BLANK (TB):	TE	3111714	
GRAB 🖔 COMI	POSITE ()						
CONTAINER	PRES	SERVATIVE/		NALYTICAL		ANALYSIS	
SIZE/TYPE #	_	PARATION		METHOD			
1L Amber 2	C	cool to 4C		8270C		1,4 Dioxane	
40 mL VOA 3	Cool to	o 4C HCl ph<2		SW8260B		VOCs	
		NOT	ABLE OB	SERVATIONS			
PID READIN	ICS			ACTERISTICS		MISCELLANEOUS	
		DLOR:	T LL OTIVIT				
1st O.O		OR:				*	
BAAG.	01	HER:	72				
pH 7.02	Temperature mg/L) Oxidat	13.57 (C) Disso	lved Oxyge	en	Specific Co	onductivity 1.312 (umhos/cm) (NTU) 45/cm	
		GEN	NERAL IN	NFORMATION			
WEATHER: SUNC	LEAR X	OVERCAST/RAIN		WIND DIRECTION	AME	BIENT TEMPERATURE 21	
SHIPMENT VIA: FE	DEX	HAND DELIVER 🗶	COURIE	R (TAL)OTH	IER	_	
SHIPPED TO: Test Ar	merica Laboratory	Denver, CO		ms		£	
COMMENTS:							
SAMPLER: MI	E J	ackson		OBSERVER:	-		
MAT	TRIX TYPE CO	DES		SA	AMPLING M	IETHOD CODES	
DC=DRILL CUTTINGS		SL=SLUDGE		B=BAILER		G=GRAB	
WG=GROUND WATE		SO=SOIL		BP=BLADDER PUMP		HA=HAND AUGER	
LH=HAZARDOUS LIC		GS=SOIL GAS		PP=PERISTALIC PUMP		H=HOLLOW STEM AUGER	
SH=HAZRDOUS SOLI	ID WASTE	WS=SURFACE WATER	\	CS=COMPOSITE SAMP	LE	HP=HYDRO PUNCH	
SE=SEDIMENT		SW=SWAB/WIPE		C=CONTINUOUS FLIGH	HT AUGER	SS=SPLIT SPOON	
				DT=DRIVEN TUBE		SP=SUBMERSIBLE PUMP	



LOCATION:	AFP59		PROJECT NAME: A	AFP59 2014 GWS			
SITE:	AFP59		PROJECT NO:	AF7087			
		SAI	MPLE INFORMATION				
SAMPLE ID	59SW4W0	51	DATE:	20-14 TIME: 124			
MATRIX TYPE:	WG		ENTER SAMPLE N	ENTER SAMPLE NUMBERS FOR QC SAMPLES/			
SAMPLING MET	HOD: BP			BLANKS ASSOCIATED WITH THIS SAMPLE:			
LOT CONTROL #	#:		MATRIX SPIKE (M	1S):			
(Ambient Blank # - Eq	uipment Blank	# - Trip Blank # - Cooler #)	MATRIX SPIKE DU	UP (SD):			
CHAIN-OF-CUST			FIELD DUP (FD):	59 DUPOI WGI			
CHAIN-OF-COS	π		AMPIENT BLANK	(AB): 59AB112014			
SAMPLE BEG. DEP	TH (FT):	_	ANDENI DEAN	NK (EB): 59 EB 11 2014			
SAMPLE END DEP		-	EQUIPMENT BLAI	TB111714			
GRAB (* COM			TRIP BLANK (TB):	1011111			
OKAD (COM	ir Obrite ()						
CONTAINER		RESERVATIVE/	ANALYTICAL	ANALYSIS			
		REPARATION	METHOD	VoC-			
		ol to 4C HCl ph<2	SW8260B	VOCs 1,4 Dioxane			
1L Amber	2	Cool to 4C	8270C	1,4 Dioxane			
		NOT	ABLE OBSERVATIONS				
PID READI	NGS	SAM	PLE CHARACTERISTICS	MISCELLANEOUS			
1st 3.0		COLOR:					
2nd		ODOR:					
		OTHER:	2.51				
pH 7.36 Iron	Temperate (mg/L) Oxid	ure /// Disso dation/Reduction Potential	lved Oxygen 3.36 (mg/L) 151.3 (mv) Turbidity	Specific Conductivity 1. 519 (umbos/ 3. 7 (NTU)			
			NERAL INFORMATION				
WEATHER: SUN/	CLEAR	OVERCAST/RAIN_	WIND DIRECTION	AMBIENT TEMPERATURE 32°			
SHIPMENT VIA: F	EDEX	HAND DELIVER X	COURIER (TAL) OTH	HER			
SHIPPED TO: Test A	merica Labora	ory Denver, CO	MJ				
COMMENTS:							
SAMPLER:	MIKE	Jackson	OBSERVER:				
MA	TRIX TYPE (CODES	SA	AMPLING METHOD CODES			
DC=DRILL CUTTING		SL=SLUDGE	B=BAILER	G=GRAB			
WG≒GROUND WAT	ER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER			
LH=HAZARDOUS LI	QUID WASTE	GS=SOIL GAS	PP=PERISTALIC PUMP				
SH=HAZRDOUS SOI	LID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMP	PLE HP=HYDRO PUNCH			
SE=SEDIMENT		SW=SWAB/WIPE	C=CONTINUOUS FLIG				
			DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP			



LOCATION: AEDSO)	DDOIECT NAME: A	FP59 2014 GWS			
LOCATION: AFP59			PROJECT NAME: AFP59 2014 GWS			
SITE: AFP59)	PROJECT NO: A	PROJECT NO: AF7087			
	SA	MPLE INFORMATION				
SAMPLE ID 59SW7	7WG1	DATE: 11-	19-14 TIME: 1607			
MATRIX TYPE: WG		ENTER SAMPLE N	UMBERS FOR QC SAMPLES/			
SAMPLING METHOD:	BP		TED WITH THIS SAMPLE:			
LOT CONTROL #:		MATRIX SPIKE (M	S):			
(Ambient Blank # - Equipment B	Blank # - Trip Blank # - Cooler #)	MATRIX SPIKE DU	P (SD):			
CHAIN-OF-CUSTODY #:		FIELD DUP (FD): _	-			
CHAIN-OF-COBTOD 1 III.			(AB):			
SAMPLE BEG. DEPTH (FT):	-	EQUIPMENT BLAN	_			
SAMPLE END DEPTH (FT):			T3/11714			
GRAB COMPOSITE	3()	TRIP BLANK (TB):				
CONTAINER	PRESERVATIVE/	ANALYTICAL METHOD	ANALYSIS			
SIZE/TYPE #	PREPARATION	VOCs				
40 mL VOA 3	Cool to 4C HCl ph<2	SW8260B 8270C	1,4 Dioxane			
1L Amber 2	Cool to 4C	82/UC	1,7 Dioxane			
	NOT	ABLE OBSERVATIONS				
PID READINGS	SAM	MPLE CHARACTERISTICS	MISCELLANEOUS			
1st 0.0	COLOR:					
2nd	ODOR:					
	OTHER:		100			
pH 7.56 Temp Iron (mg/L)	perature 11.85 (C) Diss Oxidation/Reduction Potentia	olved Oxygen	Specific Conductivity 1.375 (umbec/on)			
	GE	NERAL INFORMATION	0			
WEATHER: SUN/CLEAR	OVERCAST/RAIN_	WIND DIRECTION	AMBIENT TEMPERATURE 27			
SHIPMENT VIA: FEDEX	HAND DELIVER X	COURTER (TAL) OTH	ER			
SHIPPED TO: Test America La	boratory Denver, CO	MI				
COMMENTS:	<i>2</i>					
SAMPLER: MIKE	Jacksel	OBSERVER:	-			
MATRIX TY	PE CODES	SA	MPLING METHOD CODES			
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB			
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER			
LH=HAZARDOUS LIQUID WA		PP=PERISTALIC PUMP	H=HOLLOW STEM AUGER			
SH=HAZRDOUS SOLID WAST		R CS=COMPOSITE SAMP	LE HP=HYDRO PUNCH			
SE=SEDIMENT	SW=SWAB/WIPE	C=CONTINUOUS FLIGH	IT AUGER SS=SPLIT SPOON			
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP			



LOCATION: A	FP59	PROJECT NAME: AF	P59 2014 GWS		
SITE:	E: AFP59 PROJECT NO: AF7087				
		SAMPLE INFORMATION			
SAMPLE ID 5	9URS2SGW1	DATE: 11-18	-14 TIME: 1249		
MATRIX TYPE: \	VG	ENTER SAMPLE NU	MBERS FOR QC SAMPLES/		
SAMPLING METHO	DD: BP		ED WITH THIS SAMPLE:		
LOT CONTROL #:		MATRIX SPIKE (MS)			
) =	ment Blank # - Trip Blank # - Cooler	#) MATRIX SPIKE DUP	(SD):		
	OY #:				
		AMBIENT BLANK (A	AB):		
SAMPLE BEG. DEPTH	(FT)	EQUIPMENT BLANK	C(EB):		
SAMPLE END DEPTH	(FT):	TRIPRIANK (TR)	TB111714		
GRAB (X COMPO	OSITE()	TRIT BEATIK (1B).			
CONTAINER	PRESERVATIVE/	ANALYTICAL	ANALYSIS		
SIZE/TYPE #	PREPARATION	METHOD			
1L Amber 2	Cool to 4C	8270C	1,4 Dioxane		
40 mL VOA 3	Cool to 4C HCl ph<2	SW8260B	VOCs		
	N	OTABLE OBSERVATIONS			
PID READING		SAMPLE CHARACTERISTICS	MISCELLANEOUS		
lst 0.0	COLOR:				
2nd	ODOR:				
	OTHER:				
pH 6.56 Iron (mg	/L) Oxidation/Reduction Pote	Dissolved Oxygen O. 50 (mg/L) Sential 25. (mv) Turbidity	Specific Conductivity 1, 199 (amhos/em) 39,5 (NTU) M5 (CA)		
) ear X overcast/ra	GENERAL INFORMATION IN WIND DIRECTION			
SHIPMENT VIA: FED	EX HAND DELIVER	COURIER (TAL) OTHE	R		
SHIPPED TO: Test Ame	rica Laboratory Denver, CO	ms			
COMMENTS:					
SAMPLER: MI	UE DAOKSON	OBSERVER:			
MATI	RIX TYPE CODES	SAN	MPLING METHOD CODES		
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB		
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER		
LH=HAZARDOUS LIQU		PP=PERISTALIC PUMP	H=HOLLOW STEM AUGER		
SH=HAZRDOUS SOLID		ATER CS=COMPOSITE SAMPL	E HP=HYDRO PUNCH		
SE=SEDIMENT	SW=SWAB/WIPE	C=CONTINUOUS FLIGHT	TAUGER SS=SPLIT SPOON		
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP		



LOCATION:	AFP59			PROJECT NAME:	AFP59 2014	4 GWS	
SITE:	AFP59			PROJECT NO:	AF7087		
UIII.		S	AMPLE I	NFORMATION			
SAMPLE ID 59URS2DWG1					8-14	TIME: /6 50	
MATRIX TYPE:	WG			ENTER SAMPLE	NUMBERS	FOR QC SAMPLES/	
SAMPLING MET	ГНОД: ВР)		BLANKS ASSOCIATED WITH THIS SAMPLE:			
LOT CONTROL	#:			MATRIX SPIKE	(MS):		
		# - Trip Blank # - Cooler #	,	MATRIX SPIKE	DUP (SD):		
				FIELD DUP (FD)			
CHAIN-OF-CUS	TODY #:		=		-		
OAMBLE DEC. DE	DTI / / / -	_		AMBIENT BLAN		N N	
SAMPLE BEG. DEF				EQUIPMENT BI	LANK (EB):	111/2/10	
SAMPLE END DEF				TRIP BLANK (T	B):	דודוונס	
GRAB 🛪 CON	APOSITE ())					
CONTAINER	P	RESERVATIVE/		ANALYTICAL		ANALYSIS	
SIZE/TYPE	# 1	PREPARATION		METHOD			
1L Amber	2	Cool to 4C		8270C		1,4 Dioxane	
40 mL VOA	3 Co	ol to 4C HCl ph<2		SW8260B		VOCs	
		NO	TABLE C	DBSERVATIONS		1	
PID READ	INGS	SA	AMPLE CHA	ARACTERISTICS		MISCELLANEOUS	
lst 0.0		COLOR:					
2nd		ODOR:					
		OTHER:				11.3	
pH 6.90 Iron	Temperat (mg/L) Oxi	ure //. 24 (C) Disdation/Reduction Potent	ssolved Oxy ial _= 39	ygen 0.55 (mg/L) 2 (mv) Turbidity	Specific Co 23.6	onductivity 1.917 (umhos/cm) (NTU) // (NTU)	
		G	ENERAL	INFORMATION		40.0	
WEATHER: SUN	CLEAR X	OVERCAST/RAIN		WIND DIRECTION	AMI	BIENT TEMPERATURE	
SHIPMENT VIA: 1	FEDEX	HAND DELIVER X	COUR	RIER (TAL)	THER	-	
SHIPPED TO: Test				50.7			
COMMENTS:							
SAMPLER:	ike :	JACKS07		OBSERVER:	-	4	
M	ATRIX TYPE	CODES			SAMPLING N	METHOD CODES	
DC=DRILL CUTTIN		SL=SLUDGE		B=BAILER		G=GRAB	
WG=GROUND WAT	ΓER	SO=SOIL		BP=BLADDER PUM	P	HA=HAND AUGER	
LH=HAZARDOUS L	JQUID WASTI	GS=SOIL GAS		PP=PERISTALIC PUR	MP	H=HOLLOW STEM AUGER	
SH=HAZRDOUS SO	_	WS=SURFACE WAT	ER	CS=COMPOSITE SA	MPLE	HP=HYDRO PUNCH	
SE=SEDIMENT		SW=SWAB/WIPE		C=CONTINUOUS FL	IGHT AUGER	SS=SPLIT SPOON	
				DT=DRIVEN TUBE		SP=SUBMERSIBLE PUMP	



LOCATION:	AFP59		PROJECT NAME: AF	P59 2014 GWS			
SITE:	AFP59 PROJECT NO: AF7087						
		SAMPL	E INFORMATION				
SAMPLE ID	59URS3DWG1		DATE: 11-17-	14 TIME	1445		
MATRIX TYPE:	WG		ENTER SAMPLE NU	MBERS FOR QO	C SAMPLES/		
SAMPLING METI	HOD: BP			BLANKS ASSOCIATED WITH THIS SAMPLE:			
LOT CONTROL#	:		MATRIX SPIKE (MS				
(Ambient Blank # - Equ	ipment Blank # - Tr	p Blank # - Cooler #)	MATRIX SPIKE DUF	(SD):			
CHAIN-OF-CUST	ODY #:		FIELD DUP (FD):				
			AMBIENT BLANK (A	AB):	_		
SAMPLE BEG. DEP	TH (FT):		EQUIPMENT BLANI	K (EB):			
SAMPLE END DEPT	TH (FT):		TRIP BLANK (TB):		14		
GRAB 🗙 COM	POSITE()		TRII BERINK (18).		,		
CONTAINER		RVATIVE/	ANALYTICAL	1	ANALYSIS		
SIZE/TYPE #	PREPA	RATION	METHOD				
1L Amber 2	Coo	to 4C	8270C		1,4 Dioxane		
40 mL VOA 3	Cool to 4	C HCl ph<2	SW8260B		VOCs		
		NOTARL	E OBSERVATIONS				
	100		CHARACTERISTICS		MISCELLANEOUS		
PID READIN	COLO						
1st 0.0	ODO	- 0					
2110	ОТН	R:					
pH 6.78	Temperature mg/L) Oxidation	/Reduction Potential	Oxygen 2.40 (mg/L) 9.0 (mv) Turbidity 0	Specific Conductivi	ty 1,430 (umhos/ent)		
		GENER	AL INFORMATION		39°		
WEATHER: SUN/C	CLEAR	OVERCAST/RAIN X	WIND DIRECTIONOTHE	AMBIENT TE	MPERATURE		
SHIPMENT VIA: FE	EDEX HA	ND DELIVER 🗶 CO	OURIER (TAL)OTHE	ER			
SHIPPED TO: Test A	merica Laboratory 1	Denver, CO	743				
COMMENTS:							
SAMPLER: M	IKE JA	eksal	OBSERVER:	_			
MA	TRIX TYPE CODE	S	SA	MPLING METHOD	CODES		
DC=DRILL CUTTING		L=SLUDGE	B=BAILER	G:	=GRAB		
WG=GROUND WATE		O=SOIL	BP=BLADDER PUMP	H	A=HAND AUGER		
LH=HAZARDOUS LI		SS=SOIL GAS	PP=PERISTALIC PUMP	H	=HOLLOW STEM AUGER		
SH=HAZRDOUS SOL		VS=SURFACE WATER	CS=COMPOSITE SAMPI	E H	P=HYDRO PUNCH		
SE=SEDIMENT		W=SWAB/WIPE	C=CONTINUOUS FLIGH	T AUGER SS	S=SPLIT SPOON		
			DT=DRIVEN TUBE	SI	P=SUBMERSIBLE PUMP		



FIELD SAMPLING REPORT

LOCATION; AFP59	N: AFP59 PROJECT NAME: AFP59 2014 GWS							
SITE: AFP59		PROJECT NO: AF	7087					
	SAMI	PLE INFORMATION						
SAMPLE ID 59URS5SWG1 DATE: 11-18-14 TIME: 1550								
MATRIX TYPE: WG ENTER SAMPLE NUMBERS FOR QC SAMPLES/								
SAMPLING METHOD: BP		BLANKS ASSOCIAT	ED WITH THIS SA	AMPLE:				
LOT CONTROL #:		MATRIX SPIKE (MS)	59 URS 6	164 -M2				
(Ambient Blank # - Equipment Blank	# - Trip Blank # - Cooler #)	MATRIX SPIKE DUP	(SD): 59 URS	wg1-msd				
CHAIN-OF-CUSTODY #:		FIELD DUP (FD):	-					
		AMBIENT BLANK (A	AB):					
SAMPLE BEG. DEPTH (FT):		EQUIPMENT BLANK	(EB):					
SAMPLE END DEPTH (FT):		TRIPRI ANK (TR)	TB111714					
GRAB COMPOSITE ()		TRII BEANK (1B).						
CONTAINER PI	RESERVATIVE/	ANALYTICAL	AN	ALYSIS				
	REPARATION	METHOD						
	ol to 4C HCl ph<2	SW8260B	VOC	Cs 8260B				
1L Amber 2	Cool to 4C	8270C	8270C 1,4 Dioxane					
	NOTAB	BLE OBSERVATIONS						
PID READINGS	SAMPL	E CHARACTERISTICS	М	ISCELLANEOUS				
1st 0.0	COLOR:							
5.14	ODOR:							
	OTHER:	1 04		/ U.O				
pH 7.09 Temperat Iron (mg/L) Oxid	ure(C) Dissolve dation/Reduction Potential	ed Oxygen 1.98 (mg/L) S 90.3 (mv) Turbidity	pecific Conductivity (NTU)	ns/ch				
	GENE	RAL INFORMATION						
WEATHER: SUN/CLEAR	OVERCAST RAIN_	WIND DIRECTION	AMBIENT TEMF	PERATURE 25°				
SHIPMENT VIA: FEDEX		COURIER (TAL)OTHE						
SHIPPED TO: Test America Labora	tory Denver, CO	M5						
				σ				
COMMENTS:	JACKSON							
SAMPLER: MIKE	UMOK SOW	OBSERVER:						
MATRIX TYPE	CODES	SAM	ODES					
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GI					
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HAND AUGER					
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	PP=PERISTALIC PUMP		OLLOW STEM AUGER				
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPL	_	HYDRO PUNCH				
SE=SEDIMENT	SW=SWAB/WIPE	C=CONTINUOUS FLIGHT		SPLIT SPOON				
I		DT=DRIVEN TUBE	SP=S	SUBMERSIBLE PUMP				



FIELD SAMPLING REPORT

LOCATION: A	FP59	P	PROJECT NAME: AFP59 2014 GWS				
SITE: A	FP59	P	PROJECT NO:	AF7087			
	S	AMPLE IN	FORMATION				
SAMPLE ID 59	DJC2WG1		DATE: 11-	20-14	TIME:	\$ 99	22_
MATRIX TYPE: W	/G		ENTER SAMPL	E NUMBERS	FOR OC S.	AMPLES	5/
SAMPLING METHO	DD: G		BLANKS ASSO	CIATED WIT	H THIS SA	MPLE:	
LOT CONTROL#:			MATRIX SPIK	E (MS):			
(Ambient Blank # - Equipn	nent Blank # - Trip Blank # - Cooler #	4)	MATRIX SPIK	E DUP (SD):			
CHAIN OF CUSTOR	OY #:		FIELD DUP (FI	D):			
CHAIN-OF-COSTOL	/ ι π.			ANK (AB):	_		
SAMPLE BEG. DEPTH	(FT)· 🛥				-		
SAMPLE END DEPTH	_			BLANK (EB): (TB): TB N 13			
1	•		TRIP BLANK ((TB):	7 7 7		
GRAB 🤼 COMPO	SILE()		9				
CONTAINER	PRESERVATIVE/	A	NALYTICAL		ANA	LYSIS	
SIZE/TYPE #	PREPARATION		METHOD		3.7	00-	Ter Ma
40 mL VOA 3	Cool to 4C HCl ph<2						ICS/ AVE
1L Amber 2	Cool to 4C		8270€ EPA M	JH90 5 27	1,41	Dioxane	CEC
	NC	TABLE OB	SERVATIONS				
PID READINGS	S	AMPLE CHAR	ACTERISTICS		MI	SCELLAN	IEOUS
1st N/A	COLOR;						
2nd	ODOR:						
	OTHER:					1 2	
pH 6.89 Iron(mg/	Temperature /0.98 (C) Di L) Oxidation/Reduction Potent	ssolved Oxygerial	en 3.46 (mg/l (mv) Turbidit	L) Specific C y の ・テ	onductivity _ (NTU)	1,036	m3/cm
	G	ENERAL IN	NFORMATION				
WEATHER: SUN/CLE	AROVERCAST/RAIN	X	WIND DIRECTION _	AM	BIENT TEMP	ERATURE	32.0
SHIPMENT VIA: FEDE	EX HAND DELIVER	COURIE	R (TAL)x	OTHER			
SHIPPED TO: Test Amer	ica Laboratory Denver, CO , G	el LABO	Mony			-1	
COMMENTS:	her from somple	2 PORT	- C/GARDIN) HOSET	y pe vari	~)	
SAMPLER: MIKE	lica Laboratory Denver, CO, G		OBSERVER:	-			
	IX TYPE CODES			SAMPLING N			
DC=DRILL CUTTINGS	SL=SLUDGE		B=BAILER		G=GR	.AB	
WG=GROUND WATER	SO=SOIL		BP=BLADDER PUN	MP	HA=H	IAND AUC	GER
LH=HAZARDOUS LIQUI	ID WASTE GS=SOIL GAS		PP=PERISTALIC PU	UMP			'EM AUGER
SH=HAZRDOUS SOLID	WASTE WS=SURFACE WA	ΓER	CS=COMPOSITE S.			YDRO PU	
SE=SEDIMENT	SW=SWAB/WIPE		C=CONTINUOUS F			PLIT SPOC	
1			DT=DRIVEN TUBE	3	SP=SU	TRWEK2II	BLE PUMP



STATIC GROUNDWATER ELEVATION LOG

Project Name:	AFP59 2014	Groundwater	Sampling	Event
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Project No.: AF7087

Water Level Indicator ID#:

Vire とんり、 Water Level Indicator

PID Meter ID#:

MiniRAE 2000

Well Identification	Date	Time	Static Depth to Water (from TOC)	Depth to Product (from TOC)	PID Reading	Comments
DW-1	11-17-14	1032	17.74	ži	0.0	4-inch
SW-1		1034	17.73		00	2 -170
SW-4	1	1335	13.36	ļ.	3.0	
SW-7	0	1040	19.16		0.0	2-12-1
ŝW-3	F 16	1113	18.56	9	0.0	2-1767
DW-3		11/15	15.8		0.0	Eferment to when
URS-20 25	-	U927	31.25		0.0	CHATSUM Key WOODS 25
URS-28, 2D		0924	31.19		0.0	CHATSLER Key WORTH OF 25
URS-3D	340	0850	30,33		0.0	
URS-5S	- }	b949	22,74		0.0	
BM-121	V	1001	2627		0.0	
The Market						
	. Lie					N. C.
	TSQ.	-	C 0			
4	C 3					
	7.			5 5 5 K		

Well No.: BM-121	Location: AFP59					
Sampler(s): MIKE DYCKSIN	Project Name: AFP59 2014 GWS					
Well Depth: 56,25	Project #: AF7087 Date: //-// Time: /550					
DTW (ft): 26.25 DTP Top (ft): 50.8	Courier:FedExUPS (X) Hand _X TAL Pickup					
MP.Ht. Above/Below Ground Surface: 6.2)	Sampling Method: BP					
Condition of Bottom of Well:	Type of Pump: Bladder Pump					
Screen Interval FTOC(ft): (- 56.04)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): OHO(1957) LICHT RAY)					
Well Diameter (in): 6						
Placement of Pump Inlet (ft): 5/						

H-01 Field Parameters +/-10 +/-10

Time	Depth to	Flow	Total	pН	Temp.	Cond.	ORP	DO	Turb.	Type, Size, and Amount
	Water (ft)	Rate (L/m)	Volume (L)		(C)	(umhos/cm)	(mv)	(mg/L)	(NTU)	of Sediment Discharged
I) IX	26.39	6.0	10	7.80	1201	0.666	-7531	10.11	21.3	
1-7-7	26139	0,2	2.0	7.77	10,19		-14/8	0.93	1777	e the
1628	26.34	0,3,	3.0	7.72	1027	0.667	-144.2	1,061	17,6	
1633	0	0.2	4,0	7.72	1028	0.657	-1457	051	17-18	
1675	25.39	0.2	5,0	7,71	10.31	0,668	-154.8	0.51	17.1	
1947	26.39		6.0	7.70	10.3	0.668	7/55-6	0.45	17-2	
1548	26.39	812	7.0	7,69	10:42	0.669	-157.	3 0.45	17,1	7
1657	SAN	00.		, and						
		9		a		- ' '	- 6			
							18			
			10							11
										*
				U					- 65	
	4									

Observations

Color: Clear Other (describe):	26.15 Postpar DAV
Odor: None Low Medium High Very Strong H2S Fuel-like	
Notes: # 11077 (QEO sample to purp 175-incl) YOI 556 (#OBMINISTA
QED 3020 COMPNESSON (\$102249), Mf-10 C	out aller 0000 (#012984)
WIT 100 -FT (# OD2547), MAY FULLSM	J BASTELY (93)
,	
(100010	
Signed/Sampler(s):	1.80

lo18 lb23

01100112 1111						
Well No.: DW-1	Location: AFP59					
Sampler(s): MIKE ON-2KSU)	Project Name: AFP59 2014 GWS					
Well Depth: 62,60	Project #: AF7087 Date: Date: Date: Time: Oby 5					
DTW (ft): 17, 75 DTP Top (ft):	Courier:FedExUPS Hand _X _TAL Pic kup					
MP Ht. Above/Below Ground Surface: 2.62	Sampling Method: BP					
Condition of Bottom of Well: Finn	Type of Pump: Bladder Pump					
Screen Interval FTOC(ft): (52 - 62)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):					
Well Diameter (in): & 4	17°, moterate WIND, SUNNY/clear					
Placement of Pump Inlet (ft): 54						
(+/-0.	Field Parameters +/-10 +/-10					

			4	+1-0.1	Field	Parameter	rs +/-10		7/-10	
Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pН	Temp. (C)	Cond. (umhos/cm) m5/cm	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
0909	17.76	0,28,	0.50	6.99	10.30	1.557	203.9	4.03	7.1	
09 M	17.76	0.28	1,90	6.99	10.33	1,7-36	203,7	3.29	5,4	
0919	17.76	0.28	3,30	7.07	10.46	1.781	1972	.2,99	4,2	4,2
6924	17.76	0,28	4.70	7.12	10.48			2.42	4.2	
6929	17.76	Q.28	6.10	7,16	10.49	1:801	189.4		7.1	
\$934	17.76	0.28	7.50	7.18	10,50	1.803	1860	2,8%	3,7	.)9
1/939	12.76	Ø.28	8.90	7.20	10,50	1.806	182.2	2.8%	3,8	
6941	col	4CUT	Say	otes		,				
			(X							

Color: Clear Other (describe):
Odor: None Low Medium High Very Strong H2S Fuel-like
Notes: # 10883 (QED SAMPLE Pro 1.75-non pump)
4SI 556MPS (OGMIO25 AH), HACH 2100P (# 007293
QED MP10 CONTROLLER (#D12594), WLI 100' (DO2547)
FUELSTANT MARINE BASTERY, QED 3020 COMPRESSOR (# 000 249)
PROTECTIVE CASY = 2,85 FT AGS
Signed/Sampler(s):

Well No.:	SW-1			T	Location:	AFP59				
Sampler(s): MI	KE	Miks	ريو	Project Nar	ne: AFP59	2014 GWS	3		
Well Dep			,55		Project #: A	AF7087			Date: 11	-14-14 Time: 1020
OTW (ft)	17.7		op (ft):		Courier:	FedEx	_UPS (Hand	XTAL	Pickup
иР Ht.(A	bove/Belo	w Ground	Surface:	2.42	Sampling M	Method: Bl	P			
Condition	of Botton	of Well:			Type of Pu	ımp: Bla	dder Pum	р		
Screen In	terval FTC	C(ft): (1	5.74 - 25.7	74)						ient temperature):
Well Diar	neter (in):	82			m3 78°	mod	erare	01) SUN	ny/Jean
Placemen	t of Pump	Inlet (ft):	23.5		18"	370)				,
				1/-0.1	Field	†/-Bo/b Parameter	+/-10 rs		+1-10	
Time	Depth to Water	Flow Rate	Total Volume	pН	Temp. (C)	Cond.	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
Lavill	(ft)	(L/m)	(L)	7 54	11/10	1.738	150.7	1.32	11.5	
1044	17.74	\$ 25	0.5	7.54	4 5 4 7 7		148.4	Ø.9¢	8.5	
1049		1 2	1.75	7.50		>	121.4			
1054	17.74	0,25	3.40	7.47	111	1,752	157.3	1 7 7		
1951	17.71	0.25	5.50	7.41	11.54	1.752		\$,63	5.4	
1164	17.74	0,25	675	7.38	135		1 0	\$.62	4.9	
1149	17.71	0,25	8,00	0.2		1	144.7		4.0	
1116	Colle		SANSKE		, , , , ,	7777	7 . 7 . 7	77-7		
1110	COTT	JU1 1	372795	175						
-										

			-		Obs	servations		07	- 12	72 700 pest-peno
Color: C	lear Othe	r (describe	:):					y/w	- 172	42 10
				Very Str	ong H2S	Fuel-like				
	_						mo)		
Y5I	556	MPS (06M1	025/	41+)	HACH 2	1000	(#08	729	3)
RED	Metr	COA	noller	(#C	12594) WC	I 100	1 (00	2547	-)
EV-	el sim	IT /	MANIN	e BA	TEMY.	250	307	0 CO1	npne.	SSON (#02249) = 2.51 FT AGS (BLACK NOP)
	3 -2 -	-1	000	11	/ -	,	Pro	rective	CASZ	= 2.81 FT AGS
igned/Sa	ampler(s):	11	U XX	- 1	_					Councie

Well No.: DW-3	Location: AFP59					
Sampler(s): MIKE MIKE MIKEON	Project Name: AFP59 2014 GWS					
Well Depth: 85,40 Tax	Project #: AF7087 Date: /1-19-14 Time: 1315					
DTW (ft): 15.73 DTP Top (ft):	Courier:FedExUPS X Mand XTAL Pickup					
MP Ht. Above/Below Ground Surface:-0, 41	Sampling Method: BP					
Condition of Bottom of Well: SOFT	Type of Pump: Bladder Pump					
Screen Interval FTOC(ft): (67.58 - 87.58)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):					
Well Diameter (in): % 4	27°, Sway/clear, moderate win 0					
Placement of Pump Inlet (ft): 79						

			-7/1	t/-00l	+/-0.5 Field	Parameter	s+/-10		+/-10	
Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	рН	Temp. (C)	Cond. (umhos/om) ms/cm	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
341	15.73	0.25	0.50	7.76	11.04	1.459	18.1	2,\$6	24,5	
1346	15,73	0,25	1.75	7.68	11.34	1,471	4.2	0,94	18.4	
1351	15.73	D125	3.00	7.66	11.39	1,475	-5,3	\$182	17.4	
1356	15.73	4.25	4.25	7.62	11.50	1.475	-8./	0.71	14.3	, A.
1401	15.73	0.25	6.00	7.61	11,48	1.475	-13.6	4.65	12.4	
1406	15,73	0.25	7.25	7.61	11.43	1, +75	-16,2	\$.59	12.0	
1411	15.73	\$ 125	9.00	7.61	11.37	1,478	-18.9	4.52	7.7	;
1413	(0)	lect	SAND	le)						
	-									
				-						

Color: Clear Other (describe):	1JUPT.	く (金)
Odor: None Low Medium High Very Strong H2S Fuel-like	06	090
Notes: # 10583 (QEO SAMPLE P101,75-1701 P	(gm)	W.
45I 556 MPS (06M1025 AH), HACH 2100P	(# 007293)	
	((00 2547)	
	compressor (#	02249)
(Gray mus of prose end (1") don't Die renting colle	(LUR)	
Signed/Sampler(s):		

Well No.: SW-3 Location: AFP59 Sampler(s): Project Name: AFP59 2014 GWS Well Depth: Project #: AF7087 DTW (ft): By DTP Top (ft): 24, 3 Courier: FedEx UPS Hand TAL Pickup MP Ht. Above/Below Ground Surface: Head Sampling Method: BP Condition of Bottom of Well: Film Off Type of Pump: Bladder Pump Screen Interval FTOC(ft): (17.68 - 28.68) Well Diameter (in): 8 2	me: 17/5									
Well Depth: DTW (ft): DTP Top (ft): 24.3 Courier: FedEx UPS Hand TAL Pickup MP Ht. Above/Below Ground Surface: Type of Pump: Screen Interval FTOC(ft): (17.68 - 28.68) Project #: AF7087 Date: 11-18-14 Tipe of Pump Sampling Method: BP Type of Pump: Bladder Pump Weather (sun/clear, overcast/rain, wind direction, ambient temperate	me: 17/5									
DTW (ft): 3.44 DTP Top (ft): 24.3 Courier: FedEx UPS Hand TAL Pickup MP Ht. Above/Below Ground Surface: 1.12 Sampling Method: BP Condition of Bottom of Well: F12M Type of Pump: Bladder Pump Screen Interval FTOC(ft): (17.68 - 28.68) Weather (sun/clear, overcast/rain, wind direction, ambient temperat	me: /7/5									
MP Ht. Above/Below Ground Surface: Sampling Method: BP Condition of Bottom of Well: FINA Type of Pump: Bladder Pump Screen Interval FTOC(ft): (17.68 - 28.68) Weather (sun/clear, overcast/rain, wind direction, ambient temperate										
Condition of Bottom of Well: FIM ONT Type of Pump: Bladder Pump Screen Interval FTOC(ft): (17.68 - 28.68) Weather (sun/clear, overcast/rain, wind direction, ambient temperate										
Screen Interval FTOC(ft): (17.68 - 28.68) Weather (sun/clear, overcast/rain, wind direction, ambient temperate	70									
Wettier (Suit Fred State)										
Well Diameter (in): Se 2	ure):									
Well Diameter (in): 8 2 21°) clem, calm										
Placement of Pump Inlet (ft): 24.5										
1+/-0.1 Field Parameters 1+/-10										
	and Amount t Discharged									
1748 18,50 0,3 0.5 7.11 13,20 1.371 111.4 2,38 3.8										
1753 18,50 0,7 2.0 7120 13,44 1.384 107.3 1,96 2,0										
1758 8,50003 3,5 7,27 13,47 1,390 90,6 1,84 1,2										
1883 18.50 0.3 5.0 7.31 13.46 1.390 95.4 1.78 1.1										
1848 1850 0.3 6,5 7.33 13.48 1,39 99.3 1.74 0.9										
1813 18,50 0,3 8,0 722 13.49 1.39 1023 1.71 0.8										
18/8/18,50 0.3 9.5 7.08 13,53 1.39 103.7 1.70 0.7	- 5									
1820 collect smoles										
1823 18,50 0.3 11.0 7,05 3.54 1.392 104.4 1.69 0,7										
1828 1850 0.7 12.5 7.02 13.54 1.092 105.1 1.69 0.7										
1830 sample										
Observations										
Color: (Clear) Other (describe):										
Odor: None Low Medium High Very Strong H2S Fuel-like										
Notes: 11077 (QED sample Pro 1,75-inch).										
45I 556 MPS (OGMIO25 AH), HARLY 21008 (# 007293)										
250 MP10 COMPOSTER (#0/2594), WII 100' (002547)										
	2248									
PROTET CARWY = 1.17										

Signed/Sampler(s):

GROUNDWA	TER FIELD SAMPLING DATA SHEET						
Well No.: SW-4	Location: AFP59						
Sampler(s): MIKE TREKSON	Project Name: AFP59 2014 GWS						
Well Depth: 28.09 TOC	Project #: AF7087 Date: 11-20-14 Time: 6955						
DTW (ft): 13,33 DTP Top (ft):	Courier:FedExUPSXHandX_TAL Pickup						
MP Ht. Above/Below Ground Surface: -0,18	Sampling Method: BP						
Condition of Bottom of Well: FIAM	Type of Pump: Bladder Pump						
Gereen Interval FTOC(ft): (- 27.52)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):						
Vell Diameter (in): 8	PARTLY cloudy, moderne wind, 320						
lacement of Pump Inlet (ft): 23.11	`						
1+/- 0	Field Parameters +/-10 +/-10						
Time Depth to Flow Total pH Water Rate Volume (ft) (L/m) (L)	Temp. Cond. ORP DO Turb. Type, Size, and Amount of Sediment Discharged						
1952 13,37 0,28 1,0 7,5	3 11.54 1.479 162.3 3.12 16.3						
1057 13.37 18.28 2.4 7.4							
1102 13,370,28 3,8 7.4	5 11.75 1.486 158.2 3.25 9.5						
1167 13,37 0.28 5,2 7,	to 11.82 1.564 1566 3.28 8.7						
112 13,37 Piz8 6.6 7.	38 11,86 1,516 1544 3,33 6.2						
1117 13.37 0.28 8.0 7.							
1122 13:37 0.28 9.4 7.2	36 11.89 1,519 1513 3.36 3.4						
1124 COKELT SAMPRES							
	Observations POST-Purp Install Dow=13. Dupol SampleTine = \$938 Strong H28 (Fuel-like) (NO Sheen) (NO CNAPL)						
Color: Clear Other (describe):	Dupol SampleTine = \$938						
Odor: None Low Medium High Very	Strong H2S Fuel-like (NO Shown) (NO CNAPL)						
Notes: #11077 (QED SAM	de 901,75-1701 pmp),						

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Notes: # (1077 (QED Sample Pro1775-100) Pump),

YSI 556 MPS (O6M 1025 AH). HACH 2100p (# 007293)

QED MP O CONTROLLER (# 012594), WII 100' (002547)

EVELSTANT MARINE BATTERY QED 3020 compresson (# 00249)

AMBIENT BLAK COLLEGIS & 1105 (#ABIL2014) - SPABIL2014

Signed/Sampler(s):

GROUNDWA	ATER FIELD SAMPLING DATA SHEET
Vell No.: SW-7	Location: AFP59
ampler(s): MIKE DARK-SUN	Project Name: AFP59 2014 GWS
Vell Depth: 2893	Project #: AF7087 Date: //~/9-/4 Time: /5/0
DTW (ft): 19 05 DTP Top (ft): 24, 3	Courier: FedEx UPS Hand TAL Pickup
1P Ht. Above/Below Ground Surface: 2,62	Sampling Method: BP
Condition of Bottom of Well:	Type of Pump: Bladder Pump
creen Interval FTOC(ft): (- 28.85)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Vell Diameter (in): 😽 🔪	PANTLY Cloudy, modernt wind, 270
lacement of Pump Inlet (ft): 24,5	
1+	0.1 H-0.5 H-39 H-10 Field Parameters +/-10
Time Depth to Flow Total pF Water Rate Volume (ft) (L/m) (L)	Temp. Cond. ORP DO Turb. Type, Size, and Amount (my) (mg/L) (NTU) of Sediment Discharged
535 19.03 0.20 0.5 7.3	4 11.81 1.379 75.2 1.21 18.6
1540 19.43 0,20 8.5157	71 11.69 1.375 74,4 0.90 15,3
1545 19,03 0,20 2,5 7.	66 11.8 1.375 74.6 0.87 15.7
1550 19.63 0.24 3.5 7.1	
1555 19.03 0.20 4.5 7.	
1600 19/03 P.20 S.5 7	
1605 19.03 4.20 6.5 7.	56 11.83 1.375 75.6 0.73 7.1
1607 COVECT SAMPLES	,
1	
	Observations
Color: Clear Other (describe):	
Odor: None Low Medium High Very	
Notes: #11077 (QED SAM	ole Pro 1.75-Ind pump)
YSI 556 MPS (06M/02	5 AH) Hack Dloop (#0072 13)
QED MP/O CONTROller	(# 0125 94) WII 100' Coo 2547)
GUELSTAIT MANINE BAS	Eny, Q60 3020 compressor (# 00249)

Signed/Sampler(s):

Chrysten Bott ON Flust mount

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: URS-2D	Location: AFP59						
Sampler(s): MIKE SUZESON	Project Name: AFP59 2014 GWS						
Well Depth: 90.45 TOC	Project #: AF7087 Date: 1/-/8-14 Time: 0900						
DTW (ft): 3/,/8 DTP Top (ft): 82.8	Courier:FedExUPS X Hand X TAL Pickup						
MP Ht. Above Below Ground Surface: _ O, 4	Sampling Method: BP						
Condition of Bottom of Well: 5077	Type of Pump: Bladder Pump						
Screen Interval FTOC(ft): (65 - 90)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):						
Well Diameter (in):	Surry, 18°, 15 mph wind						
Placement of Pump Inlet (ft): 83	· / J						

Field Parameters

	Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	рН	Temp. (C)	Cond. (umhos/cm) m5/cm	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1018	7118	31.10	Ø.200	0,0	6.70	10,93	1.399	4.3	2.23	39,2	
1023	7/23	31.10	10.20	1.0	6,82	11.15	1:415	-23,0	1,12	36.7	
10281	1128	3/1/10	9.20	2.0	6.85	11,16	1.419	-30.7	0.82	21.7	
	1033	31.10	0,24	2.0	6,87	11.24	1:417	-32.6	0.72	23.2	
	1938	31.10	4.24	4.0	6.86	11.24	1.415	-36.3	0.63	23.7	
	1043	21.10	0,20	5.0	6.89	11,27	1.417	-37.6	0,56	23.4	1.0
	1048	3/10	0,20	6,0	6,90	11,24	1,417	-39,2	0.55	23.6	
	1050		Her	5	AMPH	25.					
				182							
		7.									2
11						1)					
											0
				F							

Color: (Clear) Other (describe):
Odor: None Low Medium High Very Strong H2S Fuel-like
Notes: #10883 (QED Sample Pro 1.75 Inch punt)
45I 556 MBS (06M/025 AH) HACH 2100 P(#007293),
Q60 m810 completer (#012/594), WI 100 (502547),
BIENSTAT MARINE BATTERY, QEO 3020 COMPRESSON (#002249)
Signed/Sampler(s):

GROUNDWII	TERT TREED STRUKE BIT VG STRUKE STREET
Well No.: URS-2S	Location: AFP59
Sampler(s): MIKE DACKSON	Project Name: AFP59 2014 GWS
Well Depth: 587	Project #: AF7087 Date: //-/8-//Time: //50
DTW (ft): 3 23 DTP Top (ft): 53.25	Courier:FedExUPS X Hand X TAL Pickup
MP Ht. Above/Below Ground Surface: -0.35	Sampling Method: BP
Condition of Bottom of Well: SOFT	Týpe of Pump: Bladder Pump
Screen Interval FTOC(ft): (35.45 - 60.45)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in):	SUNNY) 200, 15 MPH GUSTS
Placement of Pump Inlet (ft): 53,45	
1+/-0	+/-0.5 +/- 370 +/-10 +/-10

				+/-0.1	Field	Paramete	rs +1-10	ti i	+/-10-1	
Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	рН	Temp, (C)	Cond. (umhos/cm) MS/cm	ORP (mv)	DO (mg/L)	Turb, (NTU)	Type, Size, and Amount of Sediment Discharged
1217	31,52	0,2	1,2	6.78	11.06	1.179	16.0	1.01	40.0	
1222	31.52	0.2	2.0	6,75	11,26	1,182	16.4	0.73	54.4	
1227	31.52	0,2	3.0	6,65	11.29	1.181	18.8	0,64	151,8	
1232	31.52	0,2	4.0	6:60	11,28	1,182	20.4	0.57	-49.8	
1237	31.52	0,2	5.0	6,58	11.32	1.185	22.3		45.2	
1242	31.52	0,2	6.0	6.55	11.33		24.5		40.0	
1247	31.52	-0.2	7.0	6.56	11.26	1,190	25.1	0.50	39,5	
1249	Coll	ect	5A	mies	ι					
	55									
1	(do		-4				1			1
V.			ST SEAR IN SEARCH							i*
?					~ 15	Δ.				
У.										

Color: Clear Other (describe):	
Odor: None Low Medium High Very Strong H2S Fuel-like	
Notes: #11077 (QED SANDLE PRO 1,75-122 PUMP)	
45I 556 MPS (06M/025 AH) HACH 2100P (# 007293),	
(DED MO-10 CONSMOTHER (#012594), WII 100 (#002547),	1
EVERSTANT MARINE BATTERY, QED 2020 COMPRESSON (# 02249	
10000	10
Signed/Sampler(s):	20

Well No.: URS-3D	Location: AFP59						
Sampler(s): MIKE CHILLEN	Project Name: AFP59 2014 GWS						
Well Depth; 90.45	Project #: AF7087 Date: 1/-17-14 Time: 1320						
DTW (ft): 35, 50 DTP Top (ft): 82,4	Courier:FedExUPS						
MP 'Ht. Above/Below Ground Surface: 1,81	Sampling Method: BP						
Condition of Bottom of Well:	Type of Pump: Bladder Pump						
Screen Interval FTOC(ft): (65.33 - 95.33)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):						
Well Diameter (in):	RAW (STEAD), 39°						
Placement of Pump Inlet (ft): 83							

			4	4-01	Field	Parameter	·s+/-10		+1-10	
Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH	Temp. (C)	Cond. (umbos/cm)	ORP	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1448	35.52	0,2	0.5	6,33	10.12.	1.123	137,6	3,60	OVER	"Avine O'mye FR
453	35.5	12.2	1.5	6.54	10,21	1.425	1330	2.63	CARDO	Mayo.
055	30.5	.0.2	2.3	6.63	10,23	1425	141.7	2,62.	over	MANGE
403	35.51	0.2.	3.5	6.66	1010	1,430	118.3	3.76	OURA	mo (entry Fl
408	35.52	0,2	4.5	6.67	10,01	1430	102,6	2.70		PANYE.
113	35.52.	0.2	5.5	6 HU	10.00	1.430	94.5	2.61	over	ME
418	35.52	0,2.	6.5	6.72	10.13	1.424	896	2.5	OVE	774948
423	34,53	0,2	7-17	6.43	10,14	1.429	87.4		040	MANGE
428	35,53	ϕa_{ω}	8,5	6升为	10:17	1,428	33,4	2.47	Ove	"Thyge"
433	35,53	0,2	9.5	6-77	10.20	1	26.6	2.45	Ove	12
14.34	35.00	0,2	10.5	6.77	10.20		74,2	2.42		1.3
1473	35.53	0.2	11.5	1.74	10,14	1,430	64.0	5 44	ONE	May 17
145	00	Here	6,6	repte	1					

Color: Clear Other (describe):	Orangio H"	
Odor: None Low Medium Hi	gh Very Strong H2S Fuel-like	KTRUP DOW-35,50
Notes: Punot 10833	(QED sample Pro 1.75-inc	4) - HACK 2100P (607.43)
QUIDMPHO (HOL	594), PST 556 OBMI	UZT AH.
WLI 100ft (#2547) 157501 Primer 1.95'AC	55. ALCE 1.81 AGES
A	. 10	
Signed/Sampler(s):	(1) (1)	

Project Name: AFP59 2014 GWS Project Name: AFP59 2014 GWS Project Name: AFP59 2014 GWS Project Name: AFP59 2014 GWS Project Name: AFP59 2014 GWS Project Name: AFP59 2014 GWS Project Name: AFP59 2014 GWS Project Name: AFP59 2014 GWS Project Name: AFP59 2014 GWS Project Name: AFP69 2014 GWS	Well No.: URS-5S	Location: AFP59						
TW (ft): 22, 71 DTP Top (ft): 58, 8 Courier: FedEx UPS (X) Hand STAL Pickup PH. Above/Bellow Ground Surface: -1, 25 Sampling Method: BP Type of Pump: Bladder Pump Weather (sun/clear, overcast/rain, wind direction, ambient temperature): 25 Windy MAT (Y County weather (sun/clear, overcast/rain, wind direction, ambient temperature): 25 Windy MAT (Y County weather (sun/clear, overcast/rain, wind direction, ambient temperature): 25 Windy MAT (Y County Time Depth to Flow Volume (ft) Cin Water Rate Volume (ft) Cin Water Rate Volume (ft) Cin Water Rate Volume (ft) Cin Water Rate Volume (ft) Cin SDS 22.70 O.2 1.5 7.10 9.28 1.45D 95.1 4.60 0.00 SDS 22.70 O.2 2.5 7.10 9.38 1.424 38, 9.2.70 93.7 SAB 22.70 O.2 2.5 7.10 9.38 1.413 88, 4 2.41 79.4 SAB 22.70 O.2 2.5 7.10 9.38 1.404 89.7 2.13 54.6 SDS 22.70 O.2 5.5 7.10 9.38 1.409 89.7 2.13 54.6 SDS 22.70 O.2 5.5 7.10 9.38 1.409 89.6 2.06 38, 9 SDS 22.70 O.2 7.5 7.08 9.91 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.09 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.09 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.09 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.09 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.09 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.09 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.29 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.29 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.29 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.29 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.29 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.29 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 9.94 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 9.9		200titon.						
TW (ft): 22, 71 DTP Top (ft): 58, 8 Courier: FedEx UPS (X) Hand STAL Pickup PH. Above/Bellow Ground Surface: -1, 25 Sampling Method: BP Type of Pump: Bladder Pump Weather (sun/clear, overcast/rain, wind direction, ambient temperature): 25 Windy MAT (Y County weather (sun/clear, overcast/rain, wind direction, ambient temperature): 25 Windy MAT (Y County weather (sun/clear, overcast/rain, wind direction, ambient temperature): 25 Windy MAT (Y County Time Depth to Flow Volume (ft) Cin Water Rate Volume (ft) Cin Water Rate Volume (ft) Cin Water Rate Volume (ft) Cin Water Rate Volume (ft) Cin SDS 22.70 O.2 1.5 7.10 9.28 1.45D 95.1 4.60 0.00 SDS 22.70 O.2 2.5 7.10 9.38 1.424 38, 9.2.70 93.7 SAB 22.70 O.2 2.5 7.10 9.38 1.413 88, 4 2.41 79.4 SAB 22.70 O.2 2.5 7.10 9.38 1.404 89.7 2.13 54.6 SDS 22.70 O.2 5.5 7.10 9.38 1.409 89.7 2.13 54.6 SDS 22.70 O.2 5.5 7.10 9.38 1.409 89.6 2.06 38, 9 SDS 22.70 O.2 7.5 7.08 9.91 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.09 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.09 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.09 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.09 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.09 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.09 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.29 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.29 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.29 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.29 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.29 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 8, 8 7.29 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 9.94 9.94 1.408 90.7 1.98 2.78 SDS 22.70 O.2 9.9	Well Depth:	Ne.						
P. Ht. Above(B) low Ground Surface: -1,25 Sampling Method: BP Type of Pump: Bladder Pump Weather (sun'clear, overcast/rain, wind direction, ambient temperature): 25) Windy Matty Condy Type of Pump: Bladder Pump Weather (sun'clear, overcast/rain, wind direction, ambient temperature): 25) Windy Matty Condy Time Depth to Flow Volume (L/m) Water Rate Volume (L/m) (L/m) Time Depth to Flow Volume (L/m) (L/m) Time Depth to Flow Volume (L/m) (L/m) (L/m) (L/m) (L/m) Time Depth to Flow Volume (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (L/m) (
ordition of Bottom of Well: Type of Pump: Bladder Pump								
Time Depth to Flow Water Rate (III) (IV) (IV								
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Time Depth to Flow Total Water (II) Total Water (II) (L/m) (L) PH (C) (mmhos/cm) (mv) (mg/L) (NTU) of Sediment Discharged (III) (L/m) (L) PH (C) (mmhos/cm) (mv) (mg/L) (NTU) of Sediment Discharged (III) (L/m) (L) PH (III) (L)	1+/-	Field Down otoks						
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Hotes: # 10883 (QE) 3 AMPLE PRO 1.73 - 17th PUMP) YSI 556 MPS (06M/D25AH), HACH 2/00P (#007293) QEO MP10 CONTROLLER (#012544), WLI 100 (002547)		Observations						
Hotes: # 10883 (QE) 3 AMPLE PRO 1.73 - 17th PUMP) YSI 556 MPS (06M/D25AH), HACH 2/00P (#007293) QEO MP10 CONTROLLER (#012544), WLI 100 (002547)	Color: Clear Other (describe):	(MS/MGD) POT DUM MW = 22.						
Totes: # 10883 (QED SAMPLE PRO1.73_Inch pump) YSI 556 MPS (D6M1025AH), HACH 2100P (#007293) QED MP10 CONTROLLER (#012544), WLI 100 (002547)								
YSI 556 MPS (06M1025AH), HACH 2100P (#007293) QEO MP10 CONTROLLER (#012594), WLI 100 (002547)		0 1 27 1 20						
QEO MPIO CONTROLLER (# 012544) WLI 100 (002547)	13 = 651 172 (/ 111	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
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Signed/Sampler(s):



Well Name.: JC2	Project Name: AFP 59 LOCID:
Sampler(s): MIKE JACKED	Project No.: AF 7,887
Well Depth: N/A	Date: 11-28-14 Time: 0855
DTW (ft TOC): N/A	Screen Interval: N/A
Well Diameter (in): N/b	Placement of Pump (ft TOC):
Type of Pump:	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	pH	Temp. (C)	Cond. (unnos/cm)	ORP	D.O. (mg/L)	Turb. (N.T.U.)	Description
0900	Perse		To	5 m1	100765.	OPEN GAR	Der H	050 T	pe cola	ection wen
	Brok	かいらら								
0905	collec	ADUSTS	whes	150	2 W61	(VOCS 8	2600-	5) 708	meric	4
		loxare	by me	7,400		O GEL LA	BOLAN	W)		,
0906	ROA	01265	_	6.84	10.98	0 GEC CA	190.8	13.46	0.7	
11										
								-		
								-		

Notes:	702	LOCATED	in	Brick	e bldg	SOUTH	04	WASEN	Depor
BREAK	Room	(make	A	RIGHT	when	bearing	Break	Roon	trut
Roon (Brick B	ullon do	sest	TO RIVE	4)	0			
				N 1	,				
Signed/Sample	r(s):	mell	D,						

ATTACHMENT 2 LABORATORY REPORT

Client: HydroGeoLogic Inc Job Number: 280-62916-1

Client Sample ID:

59URS3DWG1

Lab Sample ID:

280-62916-1

Client Matrix:

Water

Date Sampled: 11/17/2014 1445 Date Received: 11/21/2014 1040

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: Prep Method:

8260B 5030B

1.0

Analysis Batch: Prep Batch:

280-255342

Instrument ID:

VMS_G

Lab File ID: Initial Weight/Volume: G0095,D 20 mL

N/A

Final Weight/Volume:

20 mL

Analysis Date: Prep Date:

Dilution:

12/01/2014 2043

12/01/2014 2043

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	1.3		0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	Man	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.16	U	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	HOLL	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	JA U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U `	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	ya U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	Man	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	Ha U	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U .	0.19	1.0
Bromomethane	0.21	H& CC	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	0.95	JU F	0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	yo U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59URS3DWG1

Lab Sample ID:

280-62916-1

Client Matrix:

Water

Date Sampled: 11/17/2014 1445

Date Received: 11/21/2014 1040

8260B	Volatile	Organic	Compounds	(GC/MS)
02000	A Clarine	Organic	Compounds	(GCUMO)

Analysis Method:

8260B

Analysis Batch:

280-255342

Instrument ID:

VMS_G

Prep Method:

5030B

Prep Batch:

N/A

Lab File ID:

G0095.D

Dilution:

1.0

Initial Weight/Volume:

20 mL

Analysis Date:

12/01/2014 2043

Final Weight/Volume:

20 mL

Prep D	ate:
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12/01/2014 2043

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	1.9		0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)	96		70 - 120	
4-Bromofluorobenzene (Surr)	101		75 - 120	
Dibromofluoromethane (Surr)	101		85 - 115	
Toluene-d8 (Surr)	113		85 - 120	

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59BM121WG1

Lab Sample ID:

280-62916-2

Client Matrix:

Water

Date Sampled: 11/17/2014 1650

Date Received: 11/21/2014 1040

8260B Volatile Organic Compounds (GC/MS)

Analysis Method

8260B

Analysis Batch:

280-255342

Instrument ID:

VMS_G

Prep Method:

5030B

Prep Batch:

N/A

Lab File ID: Initial Weight/Volume: G0097.D

Dilution:

1.0

12/01/2014 2126

20 mL

Analysis Date: Prep Date:

12/01/2014 2126

Final Weight/Volume:

20 mL

Analyte
1,1,1,2-Tet
1,1,1-Trich1
1,1,2,2-Tet
1,1,2-Trich1
1,1-Dichlor
1,1-Dichlor
1,1-Dichlor
1,2,3-Trichl
1,2,3-Trichl
1,2,4-Trichl
1,2,4-Trime
1,2-Dibrom
1,2-Dichlore
1.2-Dichlor

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	Man	0.20	1.0
1,1,2-Trichloroethane	0.32	U `	0.32	1.0
1,1-Dichloroethane	0.16	U	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	Man	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	Ma n	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	UQ V	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	nan	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	ua U	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	Mall	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	va W	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59BM121WG1

Lab Sample ID:

280-62916-2

Client Matrix:

Water

Date Sampled: 11/17/2014 1650

Date Received: 11/21/2014 1040

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

8260B

Analysis Batch:

280-255342

U

Instrument ID:

VMS_G

Prep Method:

5030B

Prep Batch:

N/A

Lab File ID:

G0097.D

Dilution:

1.0

Initial Weight/Volume:

20 mL

Analysis Date:

12/01/2014 2126

Final Weight/Volume:

0.17

20 mL

1.0

Prep Date:

Dibromochloromethane

12/01/2014 2126

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
* III J. 011101120				

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	118		70 - 120
4-Bromofluorobenzene (Surr)	104		75 - 120
Dibromofluoromethane (Surr)	115		85 - 115
Toluene-d8 (Surr)	110		85 - 120

0.17

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59URS2DWG1

Lab Sample ID:

280-62916-3

Client Matrix:

Water

Date Sampled: 11/18/2014 1050

Date Received: 11/21/2014 1040

8260B Volatile Organic Compounds (GC/MS)

Result (ug/L)

Analysis Method:

8260B

Analysis Batch:

280-255342

Qualifier

Instrument ID:

VMS_G

Prep Method:

5030B

Prep Batch:

Lab File ID: Initial Weight/Volume: G0099.D

Dilution:

Analyte

1.0

N/A

20 mL

Analysis Date:

12/01/2014 2208

Final Weight/Volume:

DL

0.19

0.25

20 mL

LOQ

Prep Date:	
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12/01/2014 2208

7 and yes	rtesuit (ug/L)	Qualifier	DL	LOQ	
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0	
1,1,1-Trichloroethane	0.16	U	0.16	1.0	
1,1,2,2-Tetrachloroethane	0.20	MOM	0.20	1.0	
1,1,2-Trichloroethane	0.32	Ù ,	0.32	1.0	
1,1-Dichloroethane	0.27	SF	0.16	1.0	
1,1-Dichloroethene	0.14	U	0.14	1.0	
1,1-Dichloropropene	0.15	U	0.15	1.0	
1,2,3-Trichlorobenzene	0.18	HOU	0.18	1.0	
1,2,3-Trichloropropane	0.77	U	0.77	3.0	
1,2,4-Trichlorobenzene	0.32	nan	0.32	1.0	
1,2,4-Trimethylbenzene	0.14	IJ	0.14	1.0	
1,2-Dibromo-3-Chloropropane	0.81	yo U	0.81	5.0	
1,2-Dichlorobenzene	0.13	U	0.13	1.0	
1,2-Dichloroethane	0.13	U	0.13	1.0	
1,2-Dichloropropane	0.13	U	0.13	1.0	
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0	
1,3-Dichlorobenzene	0.16	U	0.16	1.0	
1,3-Dichloropropane	0.15	U	0.15	1.0	
1,4-Dichlorobenzene	0.16	U	0.16	1.0	
1-Chlorohexane	0.17	U	0.17	1.0	
2,2-Dichloropropane	0.20	U	0.20	1.0	
2-Butanone (MEK)	1.8	4 U	1.8	6.0	
2-Chlorotoluene	0.17	U	0.17	1.0	
4-Chlorotoluene	0.17	U	0.17	1.0	
4-Isopropyltoluene	0.17	U	0.17	1.0	
4-Methyl-2-pentanone (MIBK)	1.0	SO U	1.0	5.0	
Acetone	1.9	U	1.9	10	
Benzene	0.16	U	0.16	1.0	
Bromobenzene	0.17	U	0.17	1.0	
Bromoform	0.19	U	0.19	1.0	
Bromomethane	0.21	ma M	0.21	2.0	
Carbon tetrachloride	0.19	u `	0.19	2.0	
Chlorobenzene	0.17	U	0.17	1.0	
Chlorobromomethane	0.10	U	0.10	1.0	
Chloroform	0.16	U	0.16	1.0	
Chloromethane	0.30	U	0.30	2.0	
cis-1,2-Dichloroethene	75	JF.	0.15	1.0	
cis-1,3-Dichloropropene	0.16	υ,	0.16	1.0	
Dibromomethane	0.17	U	0.17	1.0	
Dichlorobromomethane	0.17	U	0.17	1.0	
Dichlorodifluoromethane	0.31	U	0.31	2.0	
Ethylbenzene	0.16	U	0.16	1.0	
Ethylene Dibromide	0.18	U	0.18	1.0	
Hexachlorobutadiene	0.36	U	0.36	1.0	
for a second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second sec	5 15				

Methyl tert-butyl ether TestAmerica Denver

Isopropylbenzene

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0.19

0.25

12/13/2014

1.0

5.0

AF 1/16/15

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59URS2DWG1

Lab Sample ID:

280-62916-3

Client Matrix:

Water

Date Sampled: 11/18/2014 1050

Date Received: 11/21/2014 1040

8260B \	/olatile	Organic	Compounds	(GC/MS)

Analysis Method:

8260B

Analysis Batch:

280-255342

Instrument ID:

VMS_G

Prep Method:

5030B

Prep Batch:

N/A

Lab File ID: Initial Weight/Volume: G0099.D

Dilution:

1.0

20 mL

Analysis Date:

12/01/2014 2208

Final Weight/Volume:

20 mL

Prep Date:

12/01/2014 2208

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits	
1.2-Dichloroethane-d4 (Surr)	113		70 - 120	
4-Bromofluorobenzene (Surr)	98		75 - 120	
Dibromofluoromethane (Surr)	109		85 - 115	
Toluene-d8 (Surr)	107		85 - 120	

Job Number: 280-62916-1

Client: HydroGeoLogic Inc

Client Sample ID:

59URS2DWG1

Lab Sample ID:

280-62916-3

Client Matrix:

Water

Date Sampled: 11/18/2014 1050

Date Received: 11/21/2014 1040

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:

8260B

Analysis Batch:

280-255342

Instrument ID:

VMS_G

Prep Method:

5030B

Prep Batch:

N/A

Lab File ID: Initial Weight/Volume: G0100.D

Dilution:

4.0

Run Type:

20 mL

Dilution.	4.0			3		
Analysis Date:	12/01/2014 2229	Run Type: DL	Final \	Neight/Volume:	20 mL	
Prep Date:	12/01/2014 2229					
Analyte		Result (ug/L)	Qualifier	DL	LOQ	
1,1,1,2-Tetrachlor	oethane	0.68	uy	0.68	4.0	
1,1,1-Trichloroeth		0.64	U L	0.64	4.0	
1,1,2,2-Tetrachlor	oethane	0.80	UQ	0.80	4.0	
1,1,2-Trichloroeth		1.3	U	1.3	4.0	
1,1-Dichloroethan	е	0.64	U	0.64	4.0	
1,1-Dichloroethen	e	0.56	U	0.56	4.0	
1,1-Dichloroprope	ene	0.60	U	0.60	4.0	
1,2,3-Trichlorober	nzene	0.72	UQ	0.72	4.0	
1,2,3-Trichloropro	pane	3.1	U	3.1	12	
1,2,4-Trichlorober	nzene	1.3	UQ	1.3	4.0	
1,2,4-Trimethylbe	nzene	0.56	U	0.56	4.0	
1,2-Dibromo-3-Ch		3.2	UQ	3.2	20	
1,2-Dichlorobenze	ene	0.52	U	0.52	4.0	
1,2-Dichloroethan	e	0.52	U	0.52	4.0	
1,2-Dichloropropa		0.52	U	0.52	4.0	
1,3,5-Trimethylbe	nzene	0.56	U	0.56	4.0	
1,3-Dichlorobenze	ene	0.64	U	0.64	4.0	
1,3-Dichloropropa	ine	0.60	U	0.60	4.0	
1,4-Dichlorobenze		0.64	U	0.64	4.0	
1-Chlorohexane		0.68	U	0.68	4.0	
2,2-Dichloropropa	ine	0.80	U	0.80	4.0	
2-Butanone (MEK	()	7.3	UQ	7.3	24	
2-Chlorotoluene	•	0.68	U	0.68	4.0	
4-Chlorotoluene		0.68	U	0.68	4.0	
4-Isopropyltoluen	е	0.68	U	0.68	4.0	
4-Methyl-2-pentar		4.2	UQ	4.2	20	
Acetone		7.6	U	7.6	40	
Benzene		0.64	U	0.64	4.0	
Bromobenzene		0.68	U	0.68	4.0	
Bromoform		0.76	U	0.76	4.0	
Bromomethane		0.84	UQ	0.84	8.0	
Carbon tetrachlor	ide	0.76	U	0.76	8.0	
Chlorobenzene		0.68	U	0.68	4.0	
Chlorobromometh	nane	0.40	U	0.40	4.0	
Chloroform		0.64	U	0.64	4.0	
Chloromethane		1.2	u Wy	1.2	8.0	
cis-1,2-Dichloroet	hene	67	D	0.60	4.0	
cis-1,3-Dichloropr		0.64	UWY	0.64	4.0	
Dibromomethane		0.68	U	0.68	4.0	
Dichlorobromome		0.68	U	0.68	4.0	
Dichlorodifluorom		1.2	U	1.2	8.0	
Dichiorodilidoromethane		11 /	0.64	4.0		

0.64

0.72

1.4

0.76

1.0

U

U

U

UQ

0.64

0.72

1.4

0.76

1.0

Methyl tert-butyl ether

Ethylbenzene

Ethylene Dibromide

Isopropylbenzene

Hexachlorobutadiene

4.0

4.0

4.0

4.0

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59URS2DWG1

Lab Sample ID:

280-62916-3

Client Matrix:

Water

Date Sampled: 11/18/2014 1050

Date Received: 11/21/2014 1040

		8260B Volatile Orga	nic Compound	ds (GC/M	S)	
Analysis Method:	8260B	Analysis Batch:	280-255342		Instrument ID:	VMS_G
Prep Method:	5030B	Prep Batch:	N/A		Lab File ID:	G0100.D
Dilution:	4.0				Initial Weight/Volume:	20 mL
Analysis Date:	12/01/2014 2229	Run Type:	DL		Final Weight/Volume:	20 mL
Prep Date:	12/01/2014 2229				-	
Analyte		Result (u	g/L)	Qualifie	r DL	LOQ
Methylene Chloride		1.3		Uwy	1.3	20
n-Xylene & p-Xyler	ne	1.4		U T	1.4	8.0
Naphthalene		0.88		U	0.88	4.0
n-Butylbenzene		1.3		U	1.3	4.0
N-Propylbenzene		0.64		U	0.64	4.0
-Xylene		0.76		U	0.76	4.0
ec-Butylbenzene		0.68		U	0.68	4.0
Styrene		0.68		U	0.68	4.0
ert-Butylbenzene		0.64		U	0.64	4.0
Tetrachloroethene		0.80		U	0.80	4.0
Toluene		0.68		U	0.68	4.0
rans-1,2-Dichloroet	thene	0.60		U	0.60	4.0
rans-1,3-Dichloropr	ropene	0.76		U	0.76	4.0
richloroethene		0.64		U	0.64	4.0
richlorofluorometh	ane	1.2		U)	1.2	8.0
inyl chloride		0.40		U (,	0.40	6.0
Dibromochlorometh	ane	0.68		U W	0.68	4.0
Surrogate		%Rec		Qualifie	r Acceptar	nce Limits
,2-Dichloroethane-	d4 (Surr)	113			70 - 120	
-Bromofluorobenze	ene (Surr)	101			75 - 120	
Dibromofluorometha	ane (Surr)	110			85 - 115	
foluene-d8 (Surr)		109			85 - 120	

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59URS2SWG1

Lab Sample ID:

280-62916-4

Client Matrix:

Water

Date Sampled: 11/18/2014 1249

Date Received: 11/21/2014 1040

8260B Volatile Organic Compounds (GC/MS)

Result (ug/L)

0.17

Analysis Method:

1,1,1,2-Tetrachloroethane

8260B

Analysis Batch:

280-255342

Instrument ID:

VMS_G

Prep Method:

5030B

Prep Batch:

N/A

Lab File ID: Initial Weight/Volume:

Qualifier

U

G0101.D

Dilution:

Analyte

1.0

12/01/2014 2251

20 mL

Analysis Date:

12/01/2014 2251

Final Weight/Volume:

DL

0.17

20 mL

LOQ

1.0

Pr	ер	Date:

1, 1, 1,2-1 ettacitior detriarie	0.17	•	• • • • • • • • • • • • • • • • • • • •		
1,1,1-Trichloroethane	4.1		0.16	1.0	
1,1,2,2-Tetrachloroethane	0.20	HOL	0.20	1.0	
1,1,2-Trichloroethane	0.32	U	0.32	1.0	
1,1-Dichloroethane	2.1	_	0.16	1.0	
1,1-Dichloroethene	0.32	X F	0.14	1.0	
1,1-Dichloropropene	0.15	U	0.15	1.0	
1,2,3-Trichlorobenzene	0.18	Mar	0.18	1.0	
1,2,3-Trichloropropane	0.77	U	0.77	3.0	
1,2,4-Trichlorobenzene	0.32	nen	0.32	1.0	
1,2,4-Trimethylbenzene	0.14	U .	0.14	1.0	
1,2-Dibromo-3-Chloropropane	0.81	M M	0.81	5.0	
1,2-Dichlorobenzene	0.13	U	0.13	1.0	
1,2-Dichloroethane	0.13	U	0.13	1.0	
1,2-Dichloropropane	0.13	U	0.13	1.0	
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0	
1,3-Dichlorobenzene	0.16	U	0.16	1.0	
1,3-Dichloropropane	0.15	U	0.15	1.0	
1,4-Dichlorobenzene	0.16	U	0.16	1.0	
1-Chlorohexane	0.17	U	0.17	1.0	
2,2-Dichloropropane	0.20	U	0.20	1.0	
2-Butanone (MEK)	1.8	ma n	1.8	6.0	
2-Chlorotoluene	0.17	U	0.17	1.0	
4-Chlorotoluene	0.17	U	0.17	1.0	
4-Isopropyltoluene	0.17	U	0.17	1.0	
4-Methyl-2-pentanone (MIBK)	1.0	ya U	1.0	5.0	
Acetone	1.9	U	1.9	10	
Benzene	0.16	U	0.16	1.0	
Bromobenzene	0.17	U	0.17	1.0	
Bromoform	0.19	U	0.19	1.0	
Bromomethane	0.21	ya u	0.21	2.0	
Carbon tetrachloride	0.19	Ü	0.19	2.0	
Chlorobenzene	0.17	U	0.17	1.0	
Chlorobromomethane	0.10	U	0.10	1.0	
Chloroform	0.16	U	0.16	1.0	
Chloromethane	0.30	U	0.30	2.0	
cis-1,2-Dichloroethene	1.2		0.15	1.0	
cis-1,3-Dichloropropene	0.16	U	0.16	1.0	
Dibromomethane	0.17	U	0.17	1.0	
Dichlorobromomethane	0.17	U	0.17	1.0	
Dichlorodifluoromethane	0.31	U	0.31	2.0	
with the commentation in					

Page 34 of 1689

0.16

0.18

0.36

0.19

0.25

U

U

U

JU DUL

12/13/2014

AF 1/14/15

1.0

1.0

1.0

1.0

5.0

0.16

0.18

0.36

0.19

0.25

Ethylbenzene

Ethylene Dibromide

Isopropylbenzene

Hexachlorobutadiene

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59URS2SWG1

Lab Sample ID:

280-62916-4

Client Matrix:

Water

Date Sampled: 11/18/2014 1249

Date Received: 11/21/2014 1040

Analysis Method:

8260B

5030B

Analysis Batch:

280-255342

Instrument ID:

VMS_G

Prep Method:

Prep Batch:

N/A

Lab File ID: Initial Weight/Volume: G0101.D

Dilution:

1.0

12/01/2014 2251

20 mL

Analysis Date: Prep Date:

12/01/2014 2251

Final Weight/Volume:

20 mL

riep Date.	
Analyte	

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	, U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	3.7		0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)	119		70 - 120	
4-Bromofluorobenzene (Surr)	104		75 - 120	
Dibromofluoromethane (Surr)	114		85 - 115	
Toluene-d8 (Surr)	111		85 - 120	

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59URS5SWG1

Lab Sample ID:

280-62916-5

Client Matrix:

Water

Date Sampled: 11/18/2014 1550

Date Received: 11/21/2014 1040

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:

8260B

Analysis Batch:

280-255342

Instrument ID:

VMS_G

Prep Method:

5030B

Prep Batch:

Lab File ID:

G0102.D

Dilution:

1.0

N/A

Initial Weight/Volume:

20 mL

Analysis Date:

12/01/2014 2312

Final Weight/Volume:

20 mL

Prep	Date:

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.68	SF	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	uau	0.20	1.0
1,1,2-Trichloroethane	0.32	u `	0.32	1.0
1,1-Dichloroethane	0.16	U	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	Han	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	Heu	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	Her	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	Ū	0.15	1.0
1,4-Dichlorobenzene	0.16	Ü	0.16	1.0
1-Chlorohexane	0.17	Ü	0.17	1.0
2,2-Dichloropropane	0.20	Ü	0.20	1.0
2-Butanone (MEK)	1.8	Hay	1.8	6.0
2-Chlorotoluene	0.17	Ū ~ `	0.17	1.0
4-Chlorotoluene	0.17	Ü	0.17	1.0
4-Isopropyltoluene	0.17	Ü	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	He H	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	Ü	0.16	1.0
Bromobenzene	0.17	Ü	0.17	1.0
Bromoform	0.19	Ü	0.19	1.0
Bromomethane	0.19	<u>ua</u> u	0.13	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
	0.17	Ü	0.19	1.0
Chlorobenzene	0.10	Ü	0.10	1.0
Chlorofromomethane	0.16	Ü	0.16	1.0
Chloroform	0.30	U	0.30	2.0
Chloromethane	0.30	Ü	0.15	1.0
cis-1,2-Dichloroethene	0.16	U	0.16	1.0
cis-1,3-Dichloropropene	0.16	U	0.10	1.0
Dibromomethane		U		1.0
Dichlorobromomethane	0.17 0.31	U	0.17 0.31	2.0
Dichlorodifluoromethane				
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	AQ M	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59URS5SWG1

Lab Sample ID:

280-62916-5

Client Matrix:

Water

Date Sampled: 11/18/2014 1550

Date Received: 11/21/2014 1040

8260B Volatile	Organic Comp	ounds (GC/MS)
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Analysis Method:

8260B

Analysis Batch:

280-255342

Instrument ID:

VMS_G

Prep Method:

5030B

Prep Batch:

N/A

Lab File 1D: Initial Weight/Volume: G0102.D

Dilution:

1.0

12/01/2014 2312

20 mL

Analysis Date: Prep Date:

12/01/2014 2312

Final Weight/Volume:

20 mL

Analyte	
Methylene	Cf

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.65	JP	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	115	****	70 - 120
4-Bromofluorobenzene (Surr)	97		75 - 120
Dibromofluoromethane (Surr)	108		85 - 115
Toluene-d8 (Surr)	104		85 - 120

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59DW1WG1

Lab Sample ID:

280-62916-6

Client Matrix:

Water

Date Sampled: 11/19/2014 0941

Date Received: 11/21/2014 1040

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:

8260B

Analysis Batch:

280-255385

Instrument ID:

VMS_H

Prep Method:

5030B

Lab File ID:

H7151.D

Dilution:

1.0

Prep Batch:

N/A

Initial Weight/Volume:

Analysis Date:

20 mL

12/02/2014 1753

Prep Date:	
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inal	Weight/Volume:	20
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mL

Prep Date: 12/02/2014 1753					
Analyte	Result (ug/L)	Qualifier	DL	LOQ	
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0	
1,1,1-Trichloroethane	0.19	2F	0.16	1.0	
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0	
1,1,2-Trichloroethane	0.32	U	0.32	1.0	
1,1-Dichloroethane	0.16	U	0.16	1.0	
1,1-Dichloroethene	0.14	U	0.14	1.0	
1,1-Dichloropropene	0.15	U	0.15	1.0	
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0	
1,2,3-Trichloropropane	0.77	U	0.77	3.0	
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0	
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0	
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0	
1,2-Dichlorobenzene	0.13	U	0.13	1.0	
1,2-Dichloroethane	0.13	U	0.13	1.0	
1,2-Dichloropropane	0.13	U	0.13	1.0	
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0	
1,3-Dichlorobenzene	0.16	U	0.16	1.0	
1,3-Dichloropropane	0.15	U	0.15	1.0	
1,4-Dichlorobenzene	0.16	U	0.16	1.0	
1-Chlorohexane	0.17	U	0.17	1.0	
2,2-Dichloropropane	0.20	Ū	0.20	1.0	
2-Butanone (MEK)	1.8	Ū	1.8	6.0	
2-Chlorotoluene	0.17	Ü	0.17	1.0	
4-Chlorotoluene	0.17	Ü	0.17	1.0	
4-Isopropyltoluene	0.17	Ü	0.17	1.0	
4-Methyl-2-pentanone (MIBK)	1.0	Ū	1.0	5.0	
Acetone	1.9	Ü	1.9	10	
Benzene	0.16	Ü	0.16	1.0	
Bromobenzene	0.17	Ū	0.17	1.0	
Bromoform	0.19	Ū	0.19	1.0	
Bromomethane	0.21	Ü	0.21	2.0	
Carbon tetrachloride	0.19	Ū	0.19	2.0	
Chlorobenzene	0.17	Ü	0.17	1.0	
Chlorobromomethane	0.10	Ü	0.10	1.0	
Chloroform	0.16	Ū	0.16	1.0	
Chloromethane	0.30	Ü	0.30	2.0	
cis-1,2-Dichloroethene	0.15	Ü	0.15	1.0	
cis-1,3-Dichloropropene	0.16	Ü	0.16	1.0	
Dibromomethane	0.17	Ü	0.17	1.0	
Dichlorobromomethane	0.17	Ü	0.17	1.0	
Dichlorodifluoromethane	0.31	Ü	0.31	2.0	
Ethylbenzene	0.16	Ü	0.16	1.0	
Ethylene Dibromide	0.18	Ü	0.18	1.0	
Hexachlorobutadiene	0.36	Ü	0.36	1.0	
Isopropylbenzene	0.19	U	0.19	1.0	
Methyl tert-butyl ether	0.19	Ü	0.19	5.0	
Metry terrouty error	0.20	0	0.20	0.0	

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12/13/2014

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59DW1WG1

Lab Sample ID:

280-62916-6

Client Matrix:

Water

Date Sampled: 11/19/2014 0941

Date Received: 11/21/2014 1040

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:

8260B

Analysis Batch:

280-255385

Instrument ID:

VMS_H

Prep Method:

5030B

Lab File ID:

H7151.D

Dilution:

1.0

Prep Batch:

N/A

Initial Weight/Volume:

20 mL

Analysis Date:

12/02/2014 1753

Prep Date:

12/02/2014 1753

Final Weight/Volume:

20 mL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96		70 - 120
4-Bromofluorobenzene (Surr)	100		75 - 120
Dibromofluoromethane (Surr)	102		85 - 115
Toluene-d8 (Surr)	103		85 - 120

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59SW1WG1

Lab Sample ID:

280-62916-7

Client Matrix:

Water

Date Sampled: 11/19/2014 1116

Date Received: 11/21/2014 1040

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:

8260B

Analysis Batch:

280-255385

Instrument ID:

VMS H

Prep Method:

5030B

Prep Batch:

N/A

Lab File ID:

H7152.D

Dilution:

1.0

Initial Weight/Volume:

20 mL

Analysis Date:

12/02/2014 1815

Final Weight/Volume:

20 mL

Prep Date:

12/02/2014 1815

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1.1.1-Trichloroethane	0.16	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1.1-Dichloroethane	0.16	U	0.16	1.0
1.1-Dichloroethene	0.14	U	0.14	1.0

1,1-Dichloroethane	0.16	U	0.10	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
• •			0.44	4.0

0.14 U 0.14 1.0 1,3,5-Trimethylbenzene U 0.16 1.0 1,3-Dichlorobenzene 0.16 1.0 U 0.15 0.15 1,3-Dichloropropane 1.0 0.16 U 0.16 1,4-Dichlorobenzene 0.17 U 0.17 1.0 1-Chlorohexane 0.20 1.0 0.20 U 2,2-Dichloropropane U 1.8 6.0 1.8

2-Butanone (MEK) U 0.17 1.0 0.17 2-Chlorotoluene 0.17 Ų 0.17 1.0 4-Chlorotoluene 0.17 U 0.17 1.0 4-Isopropyltoluene 4-Methyl-2-pentanone (MIBK) 1.0 U 1.0 5.0 1.9 U 1.9 10 Acetone 1.0 0.16 U 0.16 Benzene 1.0 0.17 U 0.17 Bromobenzene

0.19 U 0.19 1.0 Bromoform 2.0 U 0.21 Bromomethane 0.21 2.0 U 0.19 Carbon tetrachloride 0.19 U 0.17 1.0 Chlorobenzene 0.17 U 0.10 1.0 Chlorobromomethane 0.10 U 0.16 1.0 Chloroform 0.16 U 0.30 Chloromethane 0.30 U 0.15 0.15 cis-1,2-Dichloroethene

2.0 1.0 U 0.16 1.0 0.16 cis-1,3-Dichloropropene 0.17 1.0 0.17 U Dibromomethane U 0.17 1.0 0.17 Dichlorobromomethane U 0.31 2.0 0.31 Dichlorodifluoromethane U 0.16 1.0 0.16 Ethylbenzene 0.18 U 0.18 1.0 Ethylene Dibromide 1.0

Hexachlorobutadiene 0.36 U 0.36 0.19 U 0.19 Isopropylbenzene 0.25 U 0.25 Methyl tert-butyl ether

AF 1/14/15

1.0

5.0

12/13/2014

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59SW1WG1

Lab Sample ID:

280-62916-7

Client Matrix:

Water

Date Sampled: 11/19/2014 1116 Date Received: 11/21/2014 1040

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:

8260B

Analysis Batch:

280-255385

Instrument ID:

VMS_H

Prep Method:

5030B

Prep Batch:

N/A

Lab File ID: Initial Weight/Volume: H7152.D

Dilution:

1.0

12/02/2014 1815

20 mL

Analysis Date: Prep Date:

Final Weight/Volume:

20 mL

'	icp	Date.	
Δ	halv	dο	

12/02/2014 1815

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
-		_		
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	90		70 - 120
4-Bromofluorobenzene (Surr)	93		75 - 120
Dibromofluoromethane (Surr)	93		85 = 115
Toluene-d8 (Surr)	93		85 - 120

Job Number: 280-62916-1

Client Sample ID:

Client: HydroGeoLogic Inc

59DW3WG1

Lab Sample ID:

280-62916-8

Client Matrix:

Water

Date Sampled: 11/19/2014 1413

Date Received: 11/21/2014 1040

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:

8260B

Analysis Batch:

280-255537

Instrument ID:

VMS_Z

Prep Method:

5030B

Prep Batch:

N/A

Lab File ID:

Z3720.D

Dilution:

1.0

Initial Weight/Volume:

20 mL

Analysis Date:

12/03/2014 0925

Prep Date:

12/03/2014 0925

Final Weight/Volume:

20 mL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.32	NF	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	49		0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	Ū	0.31	2.0
Ethylbenzene	0.16	Ü	0.16	1.0
Ethylene Dibromide	0.18	Ū	0.18	1.0
Hexachlorobutadiene	0.36	Ü	0.36	1.0
Isopropylbenzene	0.19	Ü	0.19	1.0
100pt opyrocite one	0.25	Ü	0.25	5.0

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59DW3WG1

Lab Sample ID:

280-62916-8

Client Matrix:

Water

Date Sampled: 11/19/2014 1413

Date Received: 11/21/2014 1040

8260B Volatile Organic Compounds (GC/M	8260B	Volatile	Organic	Compounds	(GC/MS
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Analysis Method:

8260B

Analysis Batch:

280-255537

Instrument ID:

VMS_Z

Prep Method:

5030B

Prep Batch:

N/A

Lab File ID:

Z3720.D

Dilution:

1.0

Initial Weight/Volume:

20 mL

Analysis Date:

12/03/2014 0925

Prep Date:

Surrogate

Toluene-d8 (Surr)

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

12/03/2014 0925

Final Weight/Volume:

20 mL

Acceptance Limits

70 - 120

75 - 120

85 - 115

85 - 120

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

%Rec

87

102

90

97

Qualifier

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59SW3WG1

Lab Sample ID:

280-62916-9

Client Matrix:

Water

Date Sampled: 11/18/2014 1830

Date Received: 11/21/2014 1040

8260B	Volatile	Organic	Compounds	(GC/MS)
02000	4 Otatile	Olyanic	Compounds	CONTION

Analysis Method:

8260B

Analysis Batch:

280-255342

Instrument ID:

VMS_G

Prep Method:

5030B

Prep Batch:

N/A

Lab File ID:

G0105.D

Dilution:

1.0

Initial Weight/Volume:

20 mL

Analysis Date:

12/02/2014 0016

Pren Date:

12/02/2014 0016

rınaı	vveignt/	voiume:

20 mL

Prep Date: 12/02/2014 0016				
Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.26	SF	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	Man	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.16	U	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	LAN	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	HOU	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	HOLK	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	yeru	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	Ma M	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U ,	0.19	1.0
Bromomethane	0.21	Ha L	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	0.31	JF	0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	υ ',	0.36	1.0
Isopropylbenzene	0.19	Non	0.19	1.0
Billiodhaid Acad haideal cabban	0.05	1.1	0.05	5.0

0.25

5.0

Methyl tert-butyl ether

0.25

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59SW3WG1

Lab Sample ID:

280-62916-9

Client Matrix:

Water

Date Sampled: 11/18/2014 1830

Date Received: 11/21/2014 1040

8260B Volatile	Organic	Compounds	(GC/MS)
0200D Volatile	Organic	Compounds	(COMING)

Analysis Method:

8260B

Analysis Batch:

280-255342

Instrument ID:

VMS_G

Prep Method:

5030B

Prep Batch:

Lab File ID:

G0105.D

Dilution:

1.0

N/A

U

U

U

Initial Weight/Volume:

20 mL

Analysis Date:

12/02/2014 0016

Final Weight/Volume:

0.29

0.10

0.17

20 mL

2.0

1.5

1.0

Prep Date:

Trichlorofluoromethane

Dibromochloromethane

Vinyl chloride

12/02/2014 0016

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.51	JP	0.16	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		70 - 120
4-Bromofluorobenzene (Surr)	97		75 = 120
Dibromofluoromethane (Surr)	105		85 ≤ 115
Toluene-d8 (Surr)	104		85 - 120

0.29

0.10

0.17

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59SW7WG1

Lab Sample ID:

280-62916-10

Client Matrix:

Water

Date Sampled: 11/19/2014 1607

Date Received: 11/21/2014 1040

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:

8260B

Analysis Batch:

280-255385

Instrument ID:

VMS_H

Prep Method:

5030B

Prep Batch:

Lab File ID:

H7155.D

Dilution:

1.0

N/A

Initial Weight/Volume:

20 mL

Analysis Date:

12/02/2014 1922

Final Weight/Volume:

Prep Date:

20 mL

•		_

12/02/2014 1	922
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Analyte	Result (ug/L)	Qualifier	DL	LOQ	
1,1,1,2-Tetrachloroethane	0.17	Ú	0.17	1.0	
1,1,1-Trichloroethane	1.9		0.16	1.0	
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0	
1,1,2-Trichloroethane	0.32	U	0.32	1.0	
1,1-Dichloroethane	4.6	_	0.16	1.0	
1,1-Dichloroethene	0.67	14 F	0.14	1.0	
1,1-Dichloropropene	0.15	U	0.15	1.0	
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0	
1,2,3-Trichloropropane	0.77	U	0.77	3.0	
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0	
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0	
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0	
1,2-Dichlorobenzene	0.13	U	0.13	1.0	
1,2-Dichloroethane	0.13	U	0.13	1.0	
1,2-Dichloropropane	0.13	U	0.13	1.0	
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0	
1,3-Dichlorobenzene	0.16	U	0.16	1.0	
1,3-Dichloropropane	0.15	U	0.15	1.0	
1,4-Dichlorobenzene	0.16	U	0.16	1.0	
1-Chlorohexane	0.17	U	0.17	1.0	
2,2-Dichloropropane	0.20	U	0.20	1.0	
2-Butanone (MEK)	1.8	U	1.8	6.0	
2-Chlorotoluene	0.17	U	0.17	1.0	
4-Chlorotoluene	0.17	U	0.17	1.0	
4-Isopropyltoluene	0.17	U	0.17	1.0	
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	5.0	
Acetone	1.9	U	1.9	10	
Benzene	0.16	U	0.16	1.0	
Bromobenzene	0.17	U	0.17	1.0	
Bromoform	0.19	U	0.19	1.0	
Bromomethane	0.21	U	0.21	2.0	
Carbon tetrachloride	0.19	U	0.19	2.0	
Chlorobenzene	0.17	U	0.17	1.0	
Chlorobromomethane	0.10	U	0.10	1.0	
Chloroform	0.16	U	0.16	1.0	
Chloromethane	0.30	U	0.30	2.0	
cis-1,2-Dichloroethene	33		0.15	1.0	
cis-1,3-Dichloropropene	0.16	U	0.16	1.0	
Dibromomethane	0.17	U	0.17	1.0	
Dichlorobromomethane	0.17	U	0.17	1.0	
Dichlorodifluoromethane	0.31	U	0.31	2.0	
Ethylbenzene	0.16	U	0.16	1.0	
Ethylene Dibromide	0.18	U	0.18	1.0	
Hexachlorobutadiene	0.36	U	0.36	1.0	
Isopropylbenzene	0.19	U	0.19	1.0	
Methyl tert-butyl ether	0.25	U	0.25	5.0	

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59SW7WG1

Lab Sample ID:

280-62916-10

Client Matrix:

Water

Date Sampled: 11/19/2014 1607

Date Received: 11/21/2014 1040

8260B Volatile	Organic Com	pounds (GC/MS)
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Analysis Method:

8260B

Analysis Batch:

280-255385

Instrument ID:

VMS_H

Prep Method:

5030B

Prep Batch:

Lab File ID:

H7155.D

Dilution:

1.0

N/A

Initial Weight/Volume:

20 mL

Analysis Date:

12/02/2014 1922

Prep Date:

12/02/2014 1922

Final Weight/Volume:

20 mL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.62	JF.	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.20	J F	0.15	1.0
trans-1,3-Dichloropropene	0.19	U .	0.19	1.0
Trichloroethene	7.8		0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.78	#F	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89		70 - 120
4-Bromofluorobenzene (Surr)	90		75 - 120
Dibromofluoromethane (Surr)	95		85 = 115
Toluene-d8 (Surr)	98		85 - 120

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59SW4WG1

Lab Sample ID:

280-62916-11

Client Matrix:

Water

Date Sampled: 11/20/2014 1124

Date Received: 11/21/2014 1040

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:

8260B

Analysis Batch:

280-255538

Instrument ID:

VMS_MS1

Prep Method:

5030B

Prep Batch:

N/A

Lab File ID:

MS2484,D

Dilution:

Analyte

1.0

Initial Weight/Volume:

20 mL

Analysis Date:

12/03/2014 1529

Final Weight/Volume:

DL

0.17

20 mL

LOQ

1.0

1.0

1.0

1.0

1.0

1.0

6.0

1.0

1.0

1.0

5.0

10

1.0

1.0

1.0

2.0

2.0

1.0

Prep Date:

1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane

1,1,2,2-Tetrachloroethane

Chlorobromomethane

cis-1,2-Dichloroethene cis-1,3-Dichloropropene

Dichlorobromomethane

Dichlorodifluoromethane

Hexachlorobutadiene

Methyl tert-butyl ether

Isopropylbenzene

Chloroform

Chloromethane

Dibromomethane

Ethylbenzene Ethylene Dibromide 12/03/2014 1529

Result (ug/L)	Qualifier	
0.17	U	

1,1,2,2 Totadinorodilario
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,1-Dichloropropene
1,2,3-Trichlorobenzene
1,2,3-Trichloropropane
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,2-Dibromo-3-Chloropropane
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,3,5-Trimethylbenzene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,4-Dichlorobenzene
1-Chlorohexane
2,2-Dichloropropane
2-Butanone (MEK)
2-Chlorotoluene
4-Chlorotoluene
4-Isopropyltoluene
4-Methyl-2-pentanone (MIBK)
Acetone
Benzene
Bromobenzene
Bromoform
Bromomethane
Carbon tetrachloride
Chlorobenzene

0.75 0.16 1.0 0.20 0.20 1.0 0.32 0.32 1.0 0.46 0.16 1.0 U 0.14 0.14 1.0 0.15 U 0.15 1.0 U 0.18 0.18 1.0 U 0.77 0.77 3.0 0.32 U 0.32 1.0 0.14 U 0.14 1.0 U 0.81 0.81 5.0 U 0.13 0.13 1.0 0.13 U 0.13 1.0 U 0.13 0.13 1.0 0.14 1.0

0.14 U 0.16 U 0.15 U 0.16 U 0.17 U 0.20 U U 1.8 0.17 U 0.17 U 0.17 U 1.0 U 97 0.16

0.17

0.19

0.21

0.19

0.17

0.10

0.16

0.30

1.7

0.16

0.17

0.17

0.31

0.16

0.18

0.36

0.19

0.25

B U U U U U U U U U U U U U

U

U

U

U

U

0.17 1.0 1.9 0.16 0.17 0.19 0.21 0.19 0.17 0.10 0.16 0.30 0.15 0.16 0.17

0.16

0.15

0.16

0.17

0.20

1.8

0.17

0.17

1.0 1.0 2.0 1.0 1.0 1.0 0.17 1.0 0.31 2.0 0.16 1.0 0.18 1.0 0.36 1.0 0.19 1.0 0.25 5.0

Page 48 of 1689 **TestAmerica Denver**

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59SW4WG1

Lab Sample ID:

280-62916-11

Client Matrix:

Water

Date Sampled: 11/20/2014 1124

Date Received: 11/21/2014 1040

Analysis Method:

8260B

Analysis Batch:

280-255538

Instrument ID:

VMS_MS1

Prep Method:

5030B

Prep Batch:

N/A

Lab File ID:

Initial Weight/Volume;

MS2484,D

Dilution:

1.0

20 mL

Analysis Date:

12/03/2014 1529

Final Weight/Volume:

20 mL

Prep Date:

12/03/2014 1529

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.30	- 1 -1	0.20	1.0
Toluene	0.17	ΰ	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	3.4		0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 120
4-Bromofluorobenzene (Surr)	92		75 - 120
Dibromofluoromethane (Surr)	95		85 - 115
Toluene-d8 (Surr)	96		85 - 120

A4 1/14/15

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59DUP01WG1

Lab Sample ID:

280-62916-12FD

Client Matrix:

Water

Date Sampled: 11/20/2014 0938

Date Received: 11/21/2014 1040

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:

8260B

Analysis Batch:

280-255538

Instrument ID:

VMS_MS1

Prep Method:

5030B

Prep Batch:

N/A

Lab File ID: Initial Weight/Volume: MS2486.D

Dilution:

1.0

20 mL

Analysis Date:

12/03/2014 1613

Final Weight/Volume:

rinai weigiti/volun

20 mL

Ргер	Date:

12/00/2014 1010	12/03/	2014	161	3
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Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.81	of the	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.50	44	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	Ū	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	Ü	0.81	5.0
1,2-Dichlorobenzene	0.13	Ü	0.13	1.0
1,2-Dichloroethane	0.13	Ü	0.13	1.0
1,2-Dichloropropane	0.13	Ü	0.13	1.0
1,3,5-Trimethylbenzene	0.14	Ü	0.14	1.0
1,3-Dichlorobenzene	0.14	U	0.16	1.0
1,3-Dichloropropane	0.15	Ü	0.15	1.0
	0.16	U	0.16	1.0
1,4-Dichlorobenzene				· -
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	5.0
Acetone	110	В	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	1.9		0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	υ	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	Ü	0.36	1.0
Isopropylbenzene	0.19	Ü	0.19	1.0
Methyl tert-butyl ether	0.25	Ü	0.25	5.0
monty, total budy out of	0.20	~	0.20	0.0

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59DUP01WG1

Lab Sample ID:

280-62916-12FD

Client Matrix:

Water

Date Sampled: 11/20/2014 0938

Date Received: 11/21/2014 1040

Analysis Method:

8260B

Analysis Batch:

280-255538

Instrument ID:

VMS_MS1

Prep Method:

5030B

Prep Batch:

N/A

Lab File ID: Initial Weight/Volume: MS2486.D

Dilution: Analysis Date: 1.0

12/03/2014 1613

20 mL

Prep Date:

12/03/2014 1613

Final V	Veight/Volume
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20 mL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.32	H	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	3.6		0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	113		70 - 120
4-Bromofluorobenzene (Surr)	108		75 - 120
Dibromofluoromethane (Surr)	111		85 - 115
Toluene-d8 (Surr)	112		85 - 120

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59URS3DWG1

Lab Sample ID:

280-62916-1

Client Matrix:

Water

Date Sampled: 11/17/2014 1445 Date Received: 11/21/2014 1040

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:

8270C/DoD

Analysis Batch:

280-255944

Instrument ID:

SMS_G4

Prep Method: Dilution:

3520C

Prep Batch:

Lab File ID:

G4_7415.D

1.0

280-254398

Initial Weight/Volume:

1037.9 mL

Final Weight/Volume: Injection Volume:

2 mL 1 uL

Analysis Date: Prep Date:

12/05/2014 1408 11/23/2014 1450

Qualifier

DL 0.083 LOQ 0.96

1,4-Dioxane

Analyte

Result (ug/L) 4.7

MM

Acceptance Limits

Surrogate 2-Fluorobiphenyl %Rec 94

Qualifier

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59BM121WG1

Lab Sample ID:

280-62916-2

Client Matrix:

Water

Date Sampled: 11/17/2014 1650 Date Received: 11/21/2014 1040

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:

8270C/DoD 3520C

Analysis Batch:

280-255944

Instrument ID:

SMS_G4

Prep Method: Dilution:

Prep Date:

Analysis Date:

1.0

Prep Batch:

280-254398

Lab File ID:

G4_7416.D

12/05/2014 1451

Initial Weight/Volume: Final Weight/Volume:

1050.8 mL

Injection Volume:

2 mL 1 uL

11/23/2014 1450

Result (ug/L)

Qualifier

DL

LOQ

Analyte 1,4-Dioxane

0.082

1 um

0.082

0.95

Surrogate 2-Fluorobiphenyl %Rec

Qualifier

Acceptance Limits

86

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Date Sampled: 11/18/2014 1050

Date Received: 11/21/2014 1040

Client Sample ID:

59URS2DWG1

Lab Sample ID:

280-62916-3

Client Matrix:

Water

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method: Prep Method:

8270C/DoD

3520C

1.0

Analysis Date: Prep Date:

Dilution:

12/05/2014 1512

11/23/2014 1450

Analysis Batch: Prep Batch:

280-255944

280-254398

Instrument ID:

Lab File ID:

SMS_G4 G4_7417.D 1039 mL

Initial Weight/Volume: Final Weight/Volume:

2 mL

Injection Volume:

1 uL

Analyte 1,4-Dioxane

Result (ug/L) 28

Qualifier M

DL 0.083 LOQ 0.96

Surrogate 2-Fluorobiphenyl %Rec 85

Qualifier

Acceptance Limits

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59URS2SWG1

Lab Sample ID:

280-62916-4

Client Matrix:

Water

Date Sampled: 11/18/2014 1249

Date Received: 11/21/2014 1040

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:

8270C/DoD

Analysis Batch:

280-255944

Instrument ID:

SMS_G4

Prep Method: Dilution:

3520C

Prep Batch:

Lab File ID:

G4_7418.D

280-254398

Analysis Date:

Analyte

1.0

Initial Weight/Volume:

1039.3 mL

Final Weight/Volume: Injection Volume:

2 mL 1 uL

Prep Date:

12/05/2014 1534 11/23/2014 1450

Result (ug/L)

Qualifier

DL 0.083 LOQ 0.96

1,4-Dioxane

Surrogate

20

MM

2-Fluorobiphenyl

%Rec 71

Qualifier

Acceptance Limits

54 - 120

pr 1/14/15

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59URS5SWG1

Lab Sample ID:

280-62916-5

Client Matrix:

Water

Date Sampled: 11/18/2014 1550

Date Received: 11/21/2014 1040

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:

8270C/DoD

Analysis Batch:

280-255944

Instrument ID:

SMS_G4

Prep Method: Dilution:

3520C 1.0

Prep Batch:

280-254744

Lab File ID:

G4_7410.D

Initial Weight/Volume: Final Weight/Volume:

1031.8 mL

Injection Volume:

2 mL 1 uL

Analysis Date: Prep Date:

12/05/2014 1218 11/25/2014 1630

Qualifier

DL

LOQ

Analyte 1,4-Dioxane Result (ug/L) 0.083

ues um

0.083

0.97

Surrogate

%Rec

Qualifier

Acceptance Limits

2-Fluorobiphenyl

86

54 - 120

DF 1/14/15

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59DW1WG1

Lab Sample ID:

280-62916-6

Client Matrix:

Water

Date Sampled: 11/19/2014 0941

Date Received: 11/21/2014 1040

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:

8270C/DoD

Analysis Batch:

280-255944

Instrument ID:

SMS_G4

Prep Method: Dilution:

3520C

Lab File ID:

G4_7419.D

Analysis Date:

1.0

Prep Batch:

280-254398

Initial Weight/Volume:

1029.8 mL

Final Weight/Volume: Injection Volume:

2 mL 1 uL

Prep Date:

12/05/2014 1555 11/23/2014 1450

0.084

Qualifier

DL

LQQ

Analyte 1,4-Dioxane Result (ug/L)

y um

0.084

0.97

Surrogate

%Rec

Qualifier

Acceptance Limits

2-Fluorobiphenyl

69

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59SW1WG1

Lab Sample ID:

280-62916-7

Client Matrix:

Water

Date Sampled: 11/19/2014 1116

Date Received: 11/21/2014 1040

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:

8270C/DoD

Analysis Batch:

280-255944

Instrument ID:

SMS_G4

Prep Method: Dilution:

3520C 1.0

Prep Batch:

280-254398

Lab File ID:

G4_7420.D

Initial Weight/Volume:

1042.2 mL

Analysis Date:

12/05/2014 1616

Final Weight/Volume:

Prep Date:

Injection Volume:

2 mL 1 uL /

Analyte

11/23/2014 1450

Result (ug/L)

Qualifier

DL 0.083 LOQ 0.96

1,4-Dioxane

Surrogate

0.083

& um Qualifier

Acceptance Limits

2-Fluorobiphenyl

%Rec 83

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59DW3WG1

Lab Sample ID:

280-62916-8

Client Matrix:

Water

Date Sampled: 11/19/2014 1413

Date Received: 11/21/2014 1040

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:

8270C/DoD

Analysis Batch:

280-255944

Instrument ID:

SMS_G4

Prep Method: Dilution:

3520C

Prep Batch:

280-254398

Lab File ID:

G4_7421.D

Analysis Date:

1.0

Initial Weight/Volume:

1024.9 mL

Final Weight/Volume:

2 mL

Prep Date:

12/05/2014 1638 11/23/2014 1450

Injection Volume:

1 uL

Analyte 1,4-Dioxane Result (ug/L) 11

Qualifier M

DL 0.084 LOQ 0.98

Surrogate

%Rec

Qualifier

Acceptance Limits

2-Fluorobiphenyl

82

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59SW3WG1

Lab Sample ID:

280-62916-9

Client Matrix:

Water

Date Sampled: 11/18/2014 1830

Date Received: 11/21/2014 1040

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:

8270C/DoD

Analysis Batch:

280-256284

Instrument ID:

SMS_G4

Prep Method:

3520C

Lab File ID:

G4_7437.D

Dilution:

Analyte

1.0

Prep Batch:

280-254398

Initial Weight/Volume:

1033.9 mL

Final Weight/Volume:

2 mL

Analysis Date:

12/08/2014 1655

Injection Volume:

1 uL

Prep Date:

11/23/2014 1450

Result (ug/L)

Qualifier 1 um

DL 0.083 LOQ 0.97

1,4-Dioxane Surrogate

0.083

Qualifier

Acceptance Limits

2-Fluorobiphenyl

%Rec 74

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59SW7WG1

Lab Sample ID:

280-62916-10

Client Matrix:

Water

Date Sampled: 11/19/2014 1607

Date Received: 11/21/2014 1040

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:

8270C/DoD

Analysis Batch:

280-255944

Instrument ID:

SMS_G4

Prep Method: Dilution:

3520C

Prep Batch:

280-254398

Lab File ID:

G4_7423.D

Analysis Date:

1.0

Initial Weight/Volume:

1030.7 mL

12/05/2014 1721

Final Weight/Volume:

2 mL

Prep Date:

11/23/2014 1450

Injection Volume:

1 uL

Analyte

Result (ug/L)

Qualifier

DL 0.083 LOQ 0.97

1,4-Dioxane

4.4

Mm

Acceptance Limits

Surrogate 2-Fluorobiphenyl

%Rec 69

Qualifier

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59SW4WG1

Lab Sample ID:

280-62916-11

Client Matrix:

Water

Date Sampled: 11/20/2014 1124

Date Received: 11/21/2014 1040

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:

8270C/DoD

Analysis Batch:

280-255944

Instrument ID:

SMS_G4

Prep Method:

3520C

Prep Batch:

Lab File ID:

Dilution: Analysis Date: 1.0

280-254398

Initial Weight/Volume:

G4_7424.D 1031.7 mL

12/05/2014 1742

Final Weight/Volume:

2 mL

Prep Date:

11/23/2014 1450

Injection Volume:

1 uL

Analyte 1,4-Dioxane Result (ug/L) 2.5

Qualifier m

DL 0.083 LOQ 0.97

Surrogate

%Rec

Qualifier

Acceptance Limits

2-Fluorobiphenyl

90

54 - 120

PT 1/16/15

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59DUP01WG1

Lab Sample ID:

280-62916-12FD

Client Matrix:

Water

Date Sampled: 11/20/2014 0938

Date Received: 11/21/2014 1040

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:

8270C/DoD

Analysis Batch:

280-255944

Instrument ID:

SMS_G4

Prep Method:

3520C

Prep Batch:

Lab File ID:

Dilution:

1.0

280-254398

Initial Weight/Volume:

G4_7425.D 1038.6 mL

12/05/2014 1803

Final Weight/Volume:

2 mL

Analysis Date: Prep Date:

11/23/2014 1450

Injection Volume:

1 uL

Analyte 1,4-Dioxane Result (ug/L)

Qualifier MM

DL 0.083 LOQ 0.96

Surrogate

%Rec

Qualifier

Acceptance Limits

2-Fluorobiphenyl

80

2.2

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59DUP02WG1

Lab Sample ID:

280-62916-13FD

Client Matrix:

Water

Date Sampled: 11/19/2014 0903

Date Received: 11/21/2014 1040

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:

8270C/DoD

Analysis Batch:

280-255944

Instrument ID:

SMS_G4

Prep Method: Dilution:

3520C 1.0

Prep Batch:

280-254398

Lab File ID: Initial Weight/Volume: G4_7426.D

Final Weight/Volume:

1042.2 mL 2 mL

Analysis Date:

12/05/2014 1824

Injection Volume:

1 uL

Prep Date:

11/23/2014 1450

Result (ug/L) 9.8

Qualifier M M

DL 0.083 LOQ 0.96

1,4-Dioxane Surrogate

Analyte

%Rec

Qualifier

Acceptance Limits

2-Fluorobiphenyl

83

Client: HydroGeoLogic Inc

Job Number: 280-62916-1

Client Sample ID:

59EB112014

Lab Sample ID:

280-62916-15EB

Client Matrix:

Water

Date Sampled: 11/20/2014 1240

Date Received: 11/21/2014 1040

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:

8270C/DoD

Analysis Batch:

280-255944

Instrument ID:

SMS_G4

Prep Method: Dilution:

3520C

Lab File ID:

G4_7427.D

Analysis Date:

1.0

Prep Batch:

280-254398

Initial Weight/Volume:

1040.1 mL

Final Weight/Volume: Injection Volume:

2 mL 1 uL

Prep Date:

12/05/2014 1846 11/23/2014 1450

Qualifier

DL

LOQ

1,4-Dioxane

Analyte

Result (ug/L) 0.083

U

0.083

0.96

Surrogate 2-Fluorobiphenyl %Rec

Qualifier

Acceptance Limits

81

GEL Lubor	atories LLC				Report	Date: December	r 3, 2014
		Certifica	-Volatile te of Analysis e Summary			Page 1	of 1
SDG Number: Lab Sample ID:	361848 361848001	Date Collected Date Received Client:		Mat Proj		WATER	
Client ID: Batch ID: Run Date: Prep Date: Data File:	59JC2WG1 1440153 12/02/2014 17:00 12/02/2014 10:30 s120114.B\s610208.D	Method: Inst: Analyst: Aliquot:	EPA 522 MSD6.I LOF 100 mL RTX-624	SOF Dilu Inj.	P Ref: ition: Vol: al Volume:	HGLG00114 GL-OA-E-073 1 1 uL 2 mL	
CAS No.	Parmname	Qualifier R	esult Units	MDL	LOD	LOQ	
123-91-1	1,4-Dioxane	#F 0.7	739 ug/L	0.320	0.320	1.00	

ATTACHMENT 3 DATA VALIDATION REPORT

1,4-Dioxane

SW-846 Method 8270C-SIM USEPA Level II Review

Site: Air Force Plant 59	SDG #: 280-62916
Laboratory: GEL Laboratories	Date: 01/15/2015
HydroGeoLogic, Inc. Reviewer: Andrea Fletcher Peer Reviewer: Joseph Vilain (01/16/15)	Project: AF7087.05.01

Client Sample ID	Laboratory Sample ID	Analysis/Prep Batch	Matrix
59URS3DWG1	280-62916-1	280-255944/280-254398	Groundwater
59BM121WG1	280-62916-2	280-255944/280-254398	Groundwater
59URS2DWG1	280-62916-3	280-255944/280-254398	Groundwater
59URS2SWG1	280-62916-4	280-255944/280-254398	Groundwater
59URS5SWG1	280-62916-5	280-255944/280-254744	Groundwater
59DW1WG1	280-62916-6	280-255944/280-254398	Groundwater
59SW1WG1	280-62916-7	280-255944/280-254398	Groundwater
59DW3WG1	280-62916-8	280-255944/280-254398	Groundwater
59SW3WG1	280-62916-9	280-255944/280-254398	Groundwater
59SW7WG1	280-62916-10	280-255944/280-254398	Groundwater
59SW4WG1	280-62916-11	280-255944/280-254398	Groundwater
59DUP01WG1	280-62916-12FD	280-255944/280-254398	Groundwater
59DUP02WG1	280-62916-13FD	280-255944/280-254398	Groundwater
59EB112014	280-62916-15EB	280-255944/280-254398	Water QC

<u>Narrative and Completeness Review</u> – The case narrative and data package were checked for completeness. No discrepancies were noted.

Qualification: None required.

<u>Sample Delivery and Condition</u> – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

<u>Holding Times</u> – All samples were extracted within the 7-day holding time required by the QAPP and analyzed within 40 days of extraction.

Qualification: None required.

Surrogates – All surrogate recoveries were within the control limits specified by the laboratory.

Qualification: None required.

<u>Laboratory Control Sample</u> – The laboratory reported different recovery and RPD limits for 1,4-dioxane than were established in the QAPP; those limits listed in the QAPP were used to evaluate the data. The LCS for batch 280-254398 met the %R control limit established in the QAPP. The LCS %R exceeded the upper control limit for 1,4-dioxane established in the QAPP. 1,4-Dioxane was not detected in the associated sample and no qualification is required.

Qualification: None required.

<u>MS/MSD</u> – The laboratory reported different recovery and RPD limits for 1,4-dioxane than were established in the QAPP; those limits listed in the QAPP were used to evaluate the data.

Matrix spike/matrix spike duplicate analyses were performed for 1,4-dioxane on sample 59JC2WG1 from this SDG. The RPD results were within the QAPP control limits. The %R for the MS and MSD exceeded the upper control limit. All results should be qualified M.

Qualification: All results were qualified M.

<u>Laboratory Duplicate</u> – Laboratory duplicate analyses were not requested or performed on a sample from this SDG.

Qualification: None required.

<u>Method Blank</u> – Two method blanks were associated with the samples in this SDG. The method blanks analyzed on 12/05/14 for batches 280-254398 and 280-254744 were free from contamination.

Qualification: None required.

<u>Equipment Blank</u> – One equipment blank, identified as 59EB112014, was associated with all samples in this SDG and was free from contamination.

Qualification: None required.

<u>Field Duplicate</u> – Sample 59DUP01WG1 was a field duplicate of sample 59SW4WG1 with a calculated RPD of 12.8%. Sample 59DUP02WG1 was a field duplicate of sample 59DW3WG1 with a calculated RPD of 11.5%. All RPDs were within the control limits established in the QAPP for duplicate pairs.

Qualification: None required.

Compound Quantitation – Analyte non-detections were reported as "ND"; these results should be considered the equivalent of "MDL U." Analyte detections below the RL were reported as J-qualified results. These J qualifiers should be changed to F qualifiers per the QAPP instructions, unless superseded by a more severe qualifier. The laboratory has applied M flags to results in samples 59SW7WG1 and 59SW4WG1, indicating manual integration. These M flags should be replaced by M qualifiers indicating matrix interference.

Qualification: The M flags applied by the laboratory were changed to M qualifiers indicating matrix interference.

Qualification Summary Table (results in μ g/L):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
59URS3DWG1	1,4-Dioxane	4.7	M	4.7	M
59BM121WG1	1,4-Dioxane	0.082	U	0.082	UM
59URS2DWG1	1,4-Dioxane	28		28	M
59URS2SWG1	1,4-Dioxane	20	M	20	M
59URS5SWG1	1,4-Dioxane	0.083	U	0.083	UM
59DW1WG1	1,4-Dioxane	0.084	U	0.084	UM
59SW1WG1	1,4-Dioxane	0.083	U	0.083	UM
59DW3WG1	1,4-Dioxane	11		11	M
59SW3WG1	1,4-Dioxane	0.083	UQJ	0083	UM
59SW7WG1	1,4-Dioxane	4.4	M	4.4	M
59SW4WG1	1,4-Dioxane	2.5	M	2.5	M
59DUP01WG1	1,4-Dioxane	2.2	M	2.2	M
59DUP02WG1	1,4-Dioxane	9.8	M	9.8	M

Volatile Organic Compounds

SW-846 Method 8260B USEPA Level II Review

Site: Air Force Plant 59	SDG #: 280-62916-1
Laboratory: TestAmerica Laboratories	Date: 01/13/2015
HydroGeoLogic, Inc. Reviewer: Andrea Fletcher Peer Reviewer: Joseph Vilain (01/16/14)	Project: AF7087.05.01

Client Sample ID	Laboratory Sample ID	Analysis Batch	Matrix
59URS3DWG1	280-62916-1	280-255342	Groundwater
59BM121WG1	280-62916-2	280-255342	Groundwater
59URS2DWG1	280-62916-3	280-255342	Groundwater
59URS2SWG1	280-62916-4	280-255342	Groundwater
59URS5SWG1	280-62916-5	280-255342	Groundwater
59DW1WG1	280-62916-6	280-255385	Groundwater
59SW1WG1	280-62916-7	280-255385	Groundwater
59DW3WG1	280-62916-8	280-255537	Groundwater
59SW3WG1	280-62916-9	280-255342	Groundwater
59SW7WG1	280-62916-10	280-255385	Groundwater
59SW4WG1	280-62916-11	280-255538	Groundwater
59DUP01WG1	280-62916-12FD	280-255538	Water QC
59AB112014	280-62916-14FB	280-255538	Water QC
59EB112014	280-62916-15EB	280-255538	Water QC
TB111714	280-62916-16TB	280-255342	Water QC
59JC2WG1	280-62916-17	280-255538	Groundwater

<u>Narrative and Completeness Review</u> – The case narrative and data package were checked for completeness. No discrepancies were noted. The laboratory flagged several analytes based on %D values in the continuing calibration that were outside of control limits. Calibration data is not reviewed as part of the Level II validation process and the non standard flags should be removed.

Qualification: Laboratory applied Q flags have been removed.

<u>Sample Delivery and Condition</u> – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

<u>Holding Times</u> – The samples were analyzed within the 14-day holding time required by the QAPP for preserved aqueous samples

Qualification: None required.

<u>Surrogates</u> – The laboratory reported different control limits for all VOC surrogates than were established in the QAPP; those limits listed in the QAPP were used to evaluate the data.

All surrogate recoveries were within the control limits specified in the QAPP.

Qualification: None required.

<u>Laboratory Control Sample</u> – The laboratory reported different recovery and RPD limits for all target analytes than were established in the QAPP; those limits listed in the QAPP were used to evaluate the data.

Two LCS/LCSD pairs and two LCSs were associated with the samples in this SDG. The LCS/LCSD pairs for batches 280-255537 and 280-255538 met the %R and RPD control limits established in the QAPP.

The LCSs for batches 280-255342 and 280-255385 met the %R control limits established in the QAPP.

Qualification: None required.

<u>MS/MSD</u> – The laboratory reported different recovery and RPD limits for all target analytes than were established in the QAPP; those limits listed in the QAPP were used to evaluate the data.

Matrix spike/matrix spike duplicate analyses were performed for all target VOCs on sample 59DW1WG1 from this SDG. The %R and RPD results were within the QAPP control limits with the exception of the RPDs for dichlordifluoromethane, trichlorofluoromethane and vinyl chloride. All results are non-detections and no qualification is required.

Qualification: None required.

<u>Laboratory Duplicate</u> – Laboratory duplicate analyses were not requested or performed on a sample from this SDG.

Qualification: None required.

Method Blank – Four method blanks were associated with the samples in this SDG. The method blank analyzed on 12/01/14, for batch 280-255342 was contaminated with methylene chloride, methylene chloride was not detected in associated sample and no qualification was required. The method blanks analyzed on 12/02/14 for batch 280-255385 and on 12/03/14 for batches 280-255537 and 2880-255538, respectively, were free from contamination.

Qualification: None required.

<u>Field Blanks</u> – One equipment blank, identified as 59EB112014, was associated with all samples in this SDG and was free from contamination with the exception of acetone (4.9 μ g/L). Acetone detections above the RL and less than 10x the contamination amount should be qualified B. One ambient blank, identified as 59AB112014, was associated with all samples in this SDG and was free from contamination with the exception of acetone (5.1 μ g/L). Acetone detections above the RL and less

than 10x the contamination amount should be qualified B. All acetone detections were either below the RL or > 10x the contamination amount and no qualification was required.

Qualification: None required.

<u>Trip Blank</u> – One trip blank, identified as TB112014, was associated with all samples in this SDG and was free from contamination.

Qualification: None required.

<u>Field Duplicate</u> – Sample 59DUP01WG1 is a field duplicate of sample 59SW4WG1. All calculated RPDs were within the control limits established in the QAPP for the duplicate pair.

Qualification: None required.

Compound Quantitation – Analyte non-detections were reported as "ND"; these results should be considered the equivalent of "MDL U." Analyte detections below the RL were reported as J-qualified results. These J qualifiers should be changed to F qualifiers per the QAPP instructions, unless superseded by a more severe qualifier. Due to a target analyte concentration, sample 59UR52DWG1was reanalyzed at 4x dilution. The diluted results should be considered the definitive result and the non-diluted results should have an X appended to the laboratory-applied qualifier.

Qualification: All diluted results for sample 59URS2DWG1 except for cis-1,2-dichloroethene, has an X appended to it, cis-1,2-dichloroethene in original analysis has an X appended to it. The diluted cis-1,2-dichloroethene result should be considered the definitive result. All laboratory detections below the RL are qualified F.

Comple	Analyta	Lab	Lab	Validated	Validated
Sample	Analyte	Value	Qualifier	Value	Qualifier
	1,1,2,2-Tetrachloroethane	0.20	UQ	0.20	U
	1,2,3-Trichlorobenzene	0.18	UQ	0.18	U
	1,2,4-Trichlorobenzene	0.32	UQ	0.32	U
	1,2-Dibromor-3-chloropropane	0.81	UQ	0.81	U
59URS3DWG1	2-Butanone	1.8	UQ	1.8	U
	4-Methyl-2-pentanone	1.0	UQ	1.0	U
	Bromomethane	0.21	UQ	0.21	U
	Isopropylbenzene	0.19	UQ	0.19	U
	Varies	Varies	J	Varies	F
	1,1,2,2-Tetrachloroethane	0.20	UQ	0.20	U
	1,2,3-Trichlorobenzene	0.18	UQ	0.18	U
	1,2,4-Trichlorobenzene	0.32	UQ	0.32	U
59BM121WG1	1,2-Dibromor-3-chloropropane	0.81	UQ	0.81	U
	2-Butanone	1.8	UQ	1.8	U
	4-Methyl-2-pentanone	1.0	UQ	1.0	U
	Bromomethane	0.21	UQ	0.21	U
	Isopropylbenzene	0.19	UQ	0.19	U

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
	Varies	Varies	J	Varies	F
	1,1,2,2-Tetrachloroethane	0.20	UQ	0.20	U
	1,2,3-Trichlorobenzene	0.18	UQ	0.18	U
	1,2,4-Trichlorobenzene	0.32	UQ	0.32	U
	1,2-Dibromor-3-chloropropane	0.81	UQ	0.81	U
59URS2DWG1	2-Butanone	1.8	UQ	1.8	U
(Original run)	4-Methyl-2-pentanone	1.0	UQ	1.0	U
	Bromomethane	0.21	UQ	0.21	U
	cis-1,2-Dichloroethene	75	J	75	JX
	All other J qualified analytes	Varies	J	Varies	F
	Isopropylbenzene	0.19	UQ	0.19	U
59URS2DWG1	cis-1,2-dichloroethene	67		Report th	is Value
(Dilution 4x)	All other results	Varies	U	Varies	UX
	1,1,2,2-Tetrachloroethane	0.20	UQ	0.20	U
	1,2,3-Trichlorobenzene	0.18	UQ	0.18	U
	1,2,4-Trichlorobenzene	0.32	UQ	0.32	U
	1,2-Dibromor-3-chloropropane	0.81	UQ	0.81	U
59URS2SWG1	2-Butanone	1.8	UQ	1.8	U
	4-Methyl-2-pentanone	1.0	UQ	1.0	U
	Bromomethane	0.21	UQ	0.21	U
	Isopropylbenzene	0.19	UQ	0.19	U
	Varies	Varies	J	Varies	F
	1,1,2,2-Tetrachloroethane	0.20	UQ	0.20	U
	1,2,3-Trichlorobenzene	0.18	UQ	0.18	U
	1,2,4-Trichlorobenzene	0.32	UQ	0.32	U
	1,2-Dibromor-3-chloropropane	0.81	UQ	0.81	U
59URS5SWG1	2-Butanone	1.8	UQ	1.8	U
	4-Methyl-2-pentanone	1.0	UQ	1.0	U
	Bromomethane	0.21	UQ	0.21	U
	Isopropylbenzene	0.19	UQ	0.19	U
	Varies	Varies	J	Varies	F
59DW1WG1	Varies	Varies	J	Varies	F
59SW1WG1	1,1,1-Trichloroethane	0.19	J	0.26	F
59DW3WG1	1,1-Dichloroethane	0.32	J	0.32	F
	1,1,2,2-Tetrachloroethane	0.20	UQ	0.20	U
59SW3WG1	1,2,3-Trichlorobenzene	0.18	UQ	0.18	U
	1,2,4-Trichlorobenzene	0.32	UQ	0.32	U

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
	1,2-Dibromor-3-chloropropane	0.81	UQ	0.81	U
	2-Butanone	1.8	UQ	1.8	U
	4-Methyl-2-pentanone	1.0	UQ	1.0	U
	Bromomethane	0.21	UQ	0.21	U
	Isopropylbenzene	0.19	UQ	0.19	U
	Varies	Varies	J	Varies	F
59SW7WG1	Varies	Varies	J	Varies	F
59SW4WG1	Varies	Varies	J	Varies	F
59DUP01WG1	Varies	Varies	J	Varies	F
59JC2WG1	Varies	Varies	J	Varies	F

1,4-Dioxane

SW-846 Method 8270C-SIM USEPA Level II Review

Site: Air Force Plant 59	SDG #: 361848
Laboratory: GEL Laboratories	Date: 01/15/2015
HydroGeoLogic, Inc. Reviewer: Andrea Fletcher	Project: AF7087.05.01
Peer Reviewer: Joseph Vilain (01/16/15)	Floject. AF 7087.05.01

Client Sample ID	Laboratory Sample ID	Analysis/Prep Batch	Matrix
59JC2WG1	361848001	1440153/1440152	Groundwater

<u>Narrative and Completeness Review</u> – The case narrative and data package were checked for completeness. No discrepancies were noted.

Qualification: None required.

<u>Sample Delivery and Condition</u> – The sample arrived at the laboratory in acceptable condition and temperature and was properly preserved. Proper custody was documented.

Qualification: None required.

<u>Holding Times</u> – The sample was extracted within the 7-day holding time required by the QAPP and analyzed within 40 days of extraction.

Qualification: None required.

Surrogates – All surrogate recoveries were within the control limits specified by the laboratory.

Qualification: None required.

<u>Laboratory Control Sample</u> – The laboratory reported different recovery and RPD limits for 1,4-dioxane than were established in the QAPP; those limits listed in the QAPP were used to evaluate the data. One LCS was associated with the sample in this SDG and met the %R control limit established in the QAPP.

Qualification: None required.

 $\overline{\text{MS/MSD}}$ – The laboratory reported different recovery and RPD limits for 1,4-dioxane than were established in the QAPP; those limits listed in the QAPP were used to evaluate the data.

Matrix spike/matrix spike duplicate analyses were performed for 1,4-dioxane on sample 59JC2WG1 from this SDG. The %R and RPD results were within the QAPP control limits.

Qualification: None required.

<u>Laboratory Duplicate</u> – Laboratory duplicate analyses were not requested or performed on a sample from this SDG.

Qualification: None required.

<u>Method Blank</u> – One method blank was associated with the sample in this SDG. The method blank analyzed on 12/02/14 was free from contamination.

Qualification: None required.

Equipment Blank – An equipment blank was not submitted with this sample.

Qualification: None required.

Field Duplicate – A field duplicate was not submitted with this sample.

Qualification: None required.

<u>Compound Quantitation</u> – Analyte non-detections were reported as "ND"; these results should be considered the equivalent of "MDL U." Analyte detections below the RL were reported as J-qualified results. These J qualifiers should be changed to F qualifiers per the QAPP instructions, unless superseded by a more severe qualifier.

Qualification: The J flag applied by the laboratory was changed to F.

Qualification Summary Table (results in $\mu g/L$):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
59JC2WG1	1,4-Dioxane	0.739	J	0.739	F