



TETRA TECH

June 30, 2015

Dr. Tomas Oberding
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

**Re: December 2012 to 2014 Groundwater Sampling Report
Occidental Permian, Ltd.
E.C. Hill Federal B-D Tank Battery and E.C. Hill Federal #7 Tank
Battery,
Sections 34 and 35, Township 23 South, Range 37 East, Lea County,
New Mexico, OCD Case Numbers 1R491 and 1R492, respectively.**

Dr. Oberding:

This report details the results of the quarterly sampling events, which occurred during the fourth quarter of 2012 and four quarters of 2013 and 2014, for the OXY USA, Inc. (OXY) E. C. Hill Federal B-D and E.C. Hill Federal #7 Tank Battery (Site). The two sites are located adjacent to one another approximately 9 miles north/northeast of Jal, Lea County, New Mexico. Due to the close proximity to one another and lack of plume distinction, the two sites are included in one annual report. The site locations are shown on Figure 1 and 2.

FACILITY BACKGROUND

The facilities are historic tank batteries, which have had numerous spills from previous operators. Prior to OXY, the facilities were operated by Plains Exploration (PXP), Pogo Producing Company (Pogo), and Latigo Petroleum, Inc. (Latigo). In March 2008, OXY acquired operating responsibility for this site from PXP.

Tetra Tech

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E.C. Hill Federal B-D Tank Battery

In 2006, as part of a due diligence investigation, a soils investigation was performed at the site. The soil investigation consisted of the placement of ten (10) auger holes (AH) and three (3) boreholes (BH) to assess the subsurface soils in and around the tank battery. The auger hole soil samples were found to be impacted with hydrocarbons to depths of 1 to 6 feet below ground surface (bgs), with several auger holes not defined. In order to complete delineation, three soil borings (BH-1 through BH-3) were drilled in these areas. Based on the results of the investigation, Total Petroleum Hydrocarbons (TPH) was defined at depths of 25 feet bgs, 15 feet bgs, and 60 feet bgs in boreholes BH-1 through BH-3, respectively. Borehole BH-3, which had hydrocarbons extending to 60 feet bgs, was converted to a monitor well (MW-1) to assess the groundwater quality at the site.

In September 2006 and May 2007, the well was purged and sampled per New Mexico Oil Conservation Division (NMOCD) guidelines for analysis of chlorides and Benzene, Toluene, Ethylbenzene and Xylenes (BTEX). BTEX was not detected at or above reporting limits for either sampling event. Chloride concentrations exceeded the New Mexico Water Quality Control Commission (NMWQCC) standards for both sampling events, with concentrations of 1,150 milligrams per liter (mg/L) and 729 mg/L, respectively.

E.C. Hill Federal #7 Tank Battery

In 2006, as part of a due diligence investigation, a soils investigation was performed at the site. The soil investigation consisted of placement of seven (7) auger holes (AH) and one (1) borehole (BH) to assess the subsurface soils in an impacted area south of the tank battery. Borehole BH-1, which had hydrocarbons extending to 40 feet bgs, was converted to a monitor well (MW-7) to assess the groundwater quality at the site.

In September 2006 and May 2007, the well was purged and sampled per NMOCD guidelines for analysis of chlorides and BTEX. For the September 2006 sampling event, the chloride and BTEX concentrations did not exceed the NMWQCC standards. During the May 2007 sampling event, the BTEX concentration was below the NMWQCC standards, however, chlorides exceeded the NMWQCC standard with a concentration of 1,220 mg/L.

In order to complete delineation of the groundwater at the two sites, an additional five monitor wells (MW-2 through MW-6) were installed at the sites between December 4 and December 11, 2007. The newly installed monitor wells were sampled in October 2008. However, analysis indicated the groundwater was not delineated to the south to southeast of the site.

Monitor Well Installation and Delineation

In order to complete delineation of the groundwater at the two sites, an additional two monitor wells (MW-8 and MW-9) were installed at the sites between October 30 and 31, 2012. The location of the monitor wells are presented on Figure 3. The newly installed monitor wells were sampled on November 16, 2012. Analysis indicated that with the installation of the two new wells the site has been delineated to the south to southeast. Chloride concentrations for the two new wells were 252 mg/L and 123 mg/L for MW-8 and MW-9, respectively.

GAUGING AND MONITOR WELL SAMPLING

Tetra Tech, Inc. was onsite to gauge, purge, and sample all monitor wells for the fourth quarter in 2012, and quarterly during 2013 and 2014. During each quarterly groundwater sampling event, all of the monitor wells were gauged with an electronic water level meter. The gauging data is summarized in Table 1. No Phase Separated Hydrocarbons (PSH) were measured in any of the monitor wells during the sampling events. The hydraulic gradient was consistently to the southeast in each of the sampling events. The groundwater gradient maps for the 2014 sampling events are included as Figures 4 through 7.

During the groundwater sampling events, each of the wells was properly purged to remove three casing volumes of water using disposable rope or twine and new polyethylene bailers for each well. The sample bottles were filled directly from the bailers. The sample bottles were placed on ice and shipped under proper chain-of-custody control to ALS Laboratories of Houston, Texas for analysis of BTEX by EPA Method SW8260 and chlorides by EPA method 300.0. Analytical results indicate that BTEX was not detected at or above detection limits for all monitor wells during the sampling events. During the reporting period, the chloride concentration results ranged from 85.1 mg/L in monitor well MW-6 (12/14/12) to 1,650 mg/L in monitor well MW-7 (12/16/14). The groundwater analytical data is presented in Table 2. In all of the sampling events, the chloride concentrations in four monitor wells MW-2, MW-6, MW-8 and MW-9 were below the NMWQCC standard of 250 mg/L. In 5 of the 9 groundwater sampling events, the chloride concentrations for monitor well MW-1 exceeded the NMWQCC standard, and the analytical results ranged from 118 to 659 mg/L. In four monitor wells, MW-3, MW-4, MW-5 and MW-7, the chloride concentrations exceeded the NMWQCC standard during all of the sampling events, and the analytical results were: (MW-3) 250 - 362 mg/L; (MW-4) 403 – 573 mg/L; (MW-5) 289 – 665 mg/L and (MW-7) 717 – 1,650 mg/L. The chloride

concentration maps for 2014 are included as Figures 8 through 11. Copies of the laboratory analytical reports are enclosed in Appendix A.

HISTORICAL AERIAL PHOTO REVIEW

Historical aerial photos were ordered and reviewed for the Site. The photos available were from 1968, 1977, 1986, 1997, 2009 and 2011. In the 1968 photo, a rectangular pit is visible in between the B-D and #7 tank batteries. The photos from 1977 and 1986 are of poor quality and not much is visible at the Site. In the photos from 1997, 2009 and 2011, the pit is no longer present, but the former pit location is visible by the lack of vegetation in between the B-D and #7 tank batteries. The historical aerial photos are included in Appendix B.

CONCLUSIONS

1. Analytical results for BTEX concentrations were below detection limits for all of the monitor wells during all the groundwater sampling events.
2. No PSH was measured in any of the monitor wells during the groundwater sampling events.
3. The analytical results demonstrate that during all of the sampling events, the chloride concentrations in four monitor wells MW-2, MW-6, MW-8 and MW-9 were below the NMWQCC standard of 250 mg/L. In 5 of the 9 groundwater sampling events, the chloride concentrations for monitor well MW-1 exceeded the NMWQCC standard, and the analytical results ranged from 118 to 659 mg/L. In four monitor wells, MW-3, MW-4, MW-5 and MW-7, the chloride concentrations exceeded the NMWQCC standard during all of the sampling events, and the analytical results were: (MW-3) 250 - 362 mg/L; (MW-4) 403 – 573 mg/L; (MW-5) 289 – 665 mg/L and (MW-7) 717 – 1,650 mg/L.
4. A review of historical aerial photos demonstrate that a pit was present in the in the area in between the B-D and #7 tank batteries in 1968.



RECOMMENDATIONS

1. Continue quarterly groundwater monitoring and reporting at the Site.
2. To assess the potential source area, a minimum of (4) soil borings will be installed to approximately 70-feet bgs to assess the chloride and TPH impacts to the soil in the area of the former pit. The location of the proposed soil borings are presented on Figure 11.
3. Perform a mass removal of chloride impacted groundwater from MW-7, and evaluate the results.

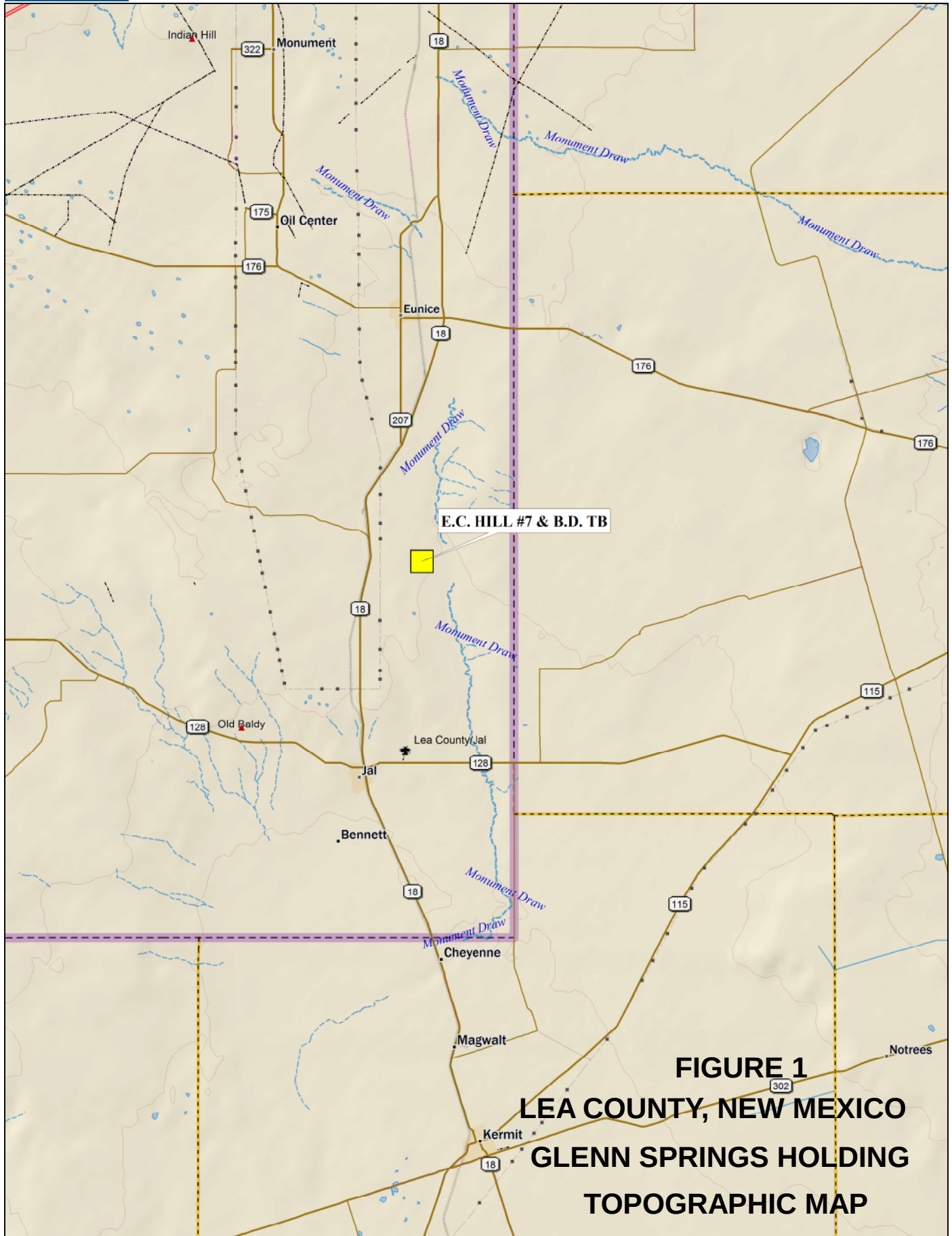
If you have any question or comments concerning the assessment or the activities performed at the Site, please call me at (432) 682-4559.

Respectfully submitted,
Tetra Tech, Inc.

Todd Wells
Project Manager

cc: Dusty Wilson – Glenn Springs Holdings

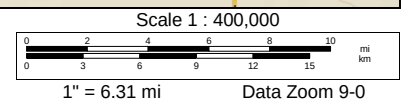
FIGURES

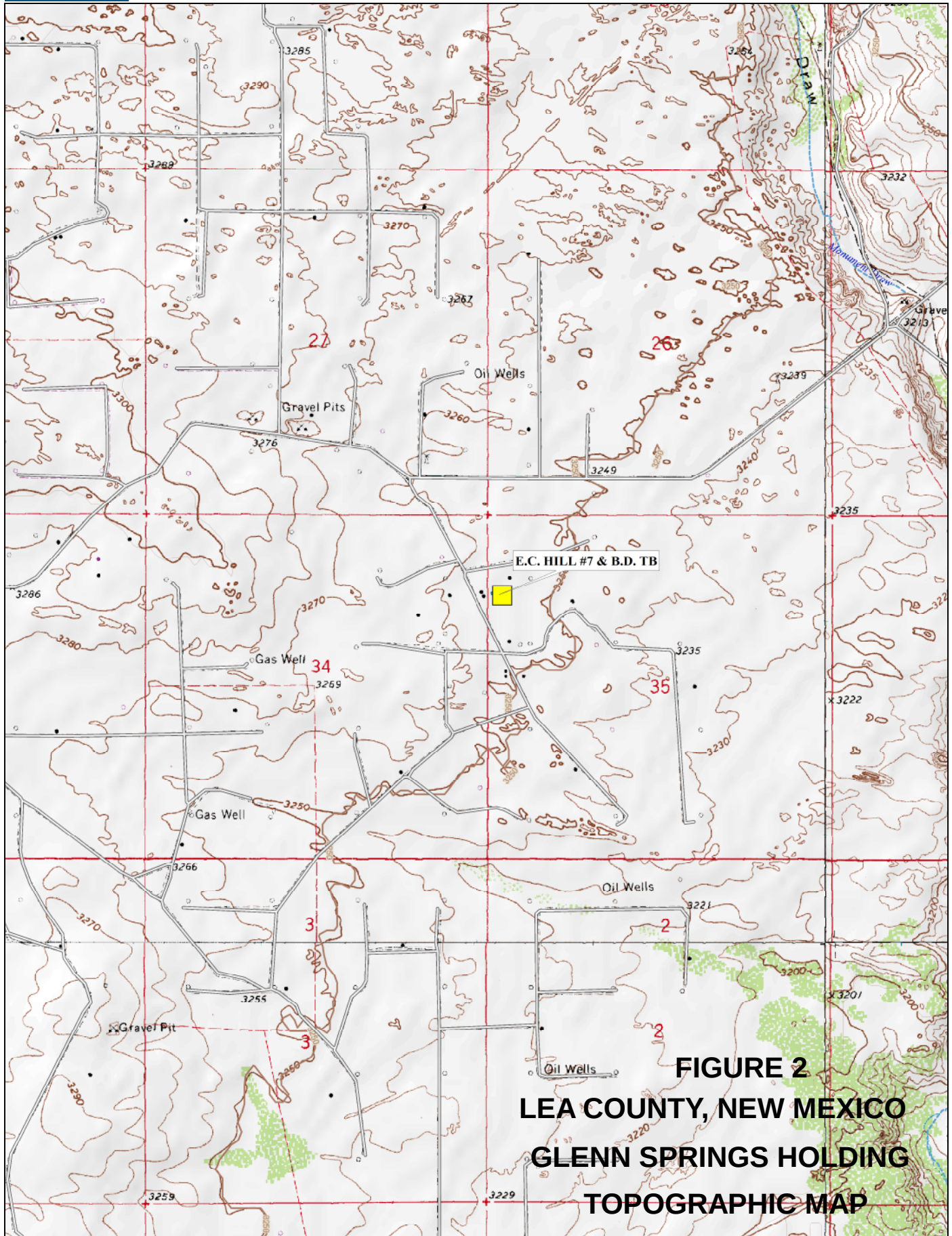


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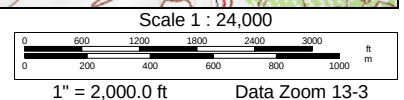


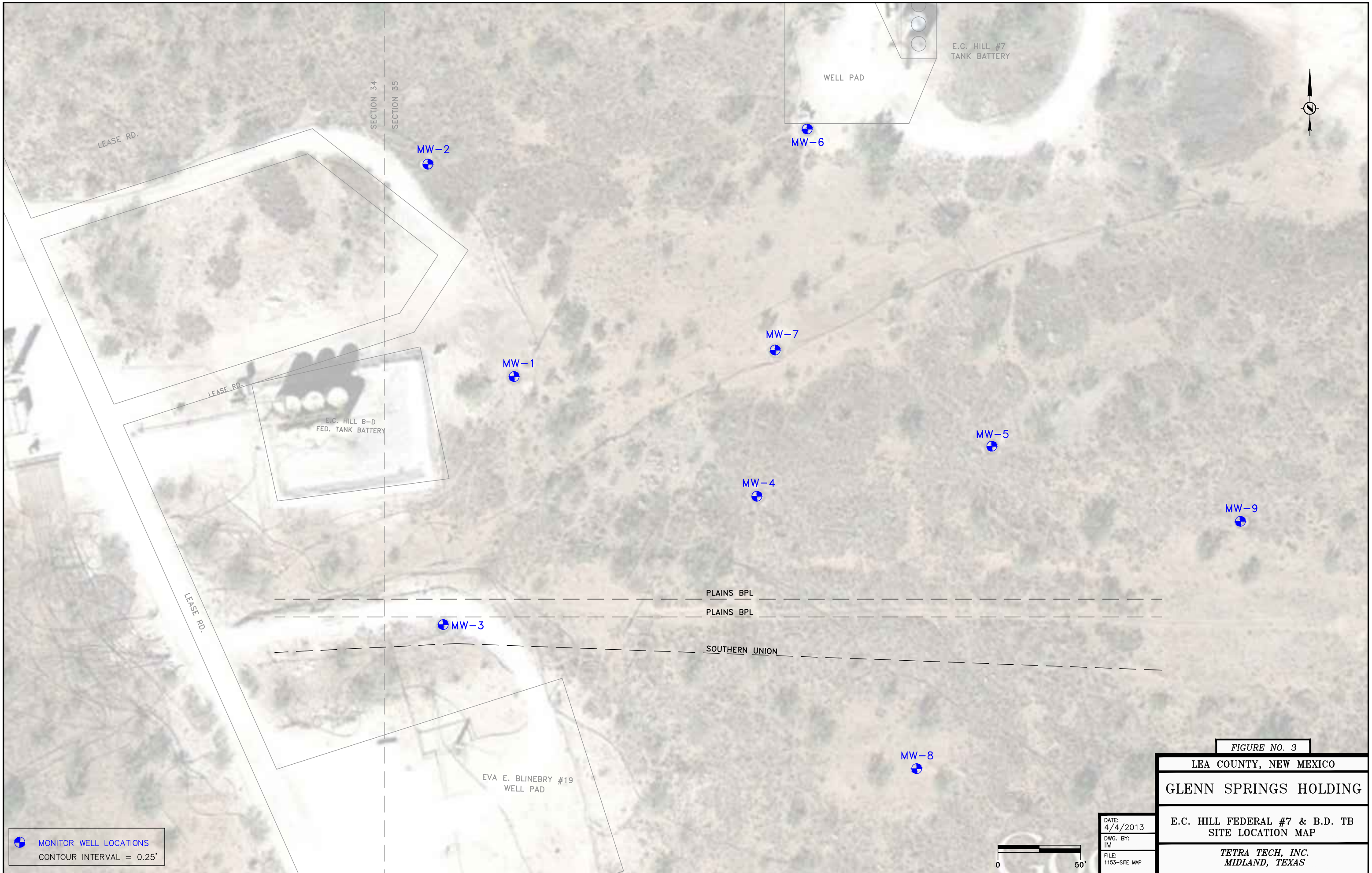


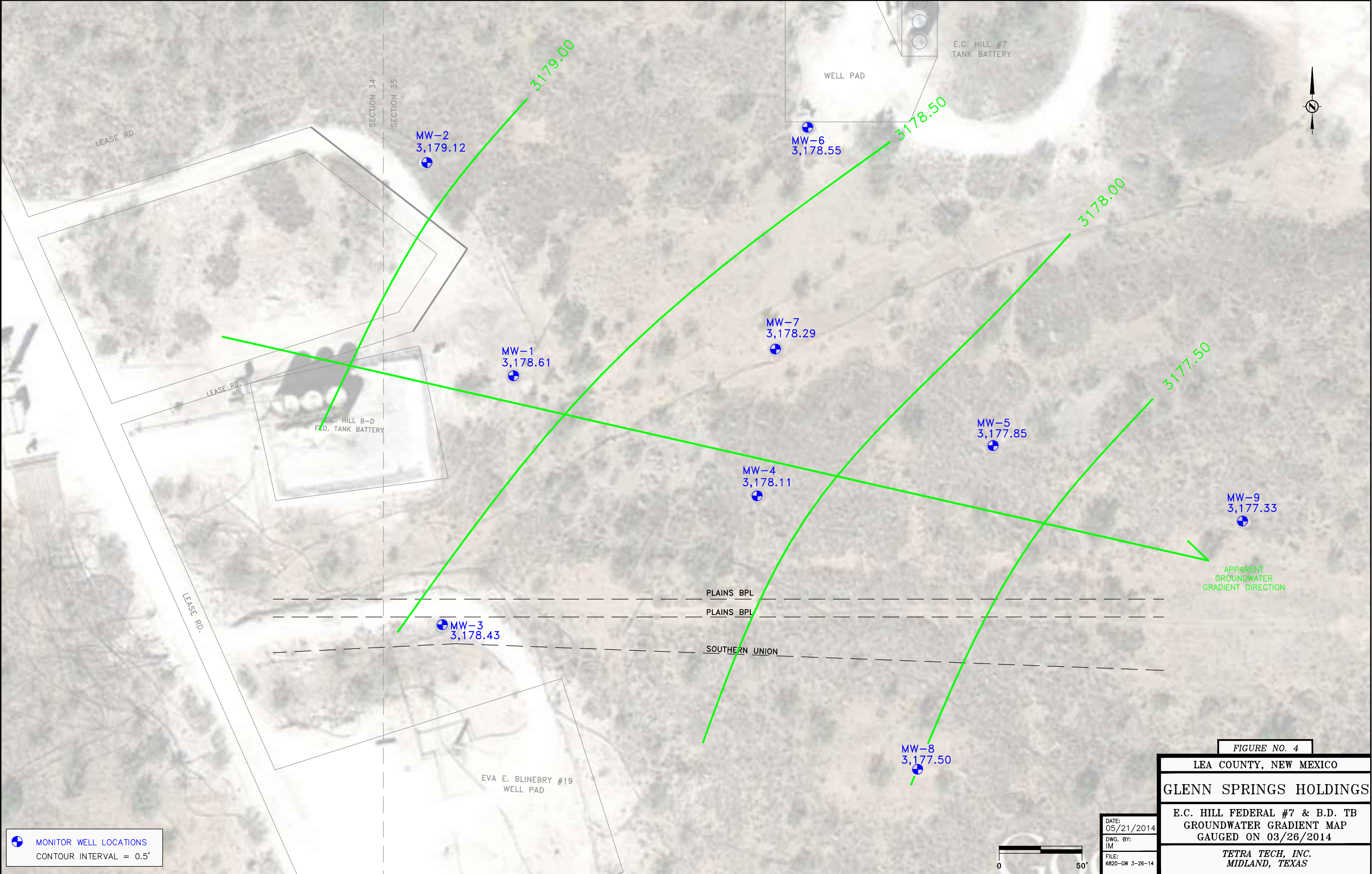
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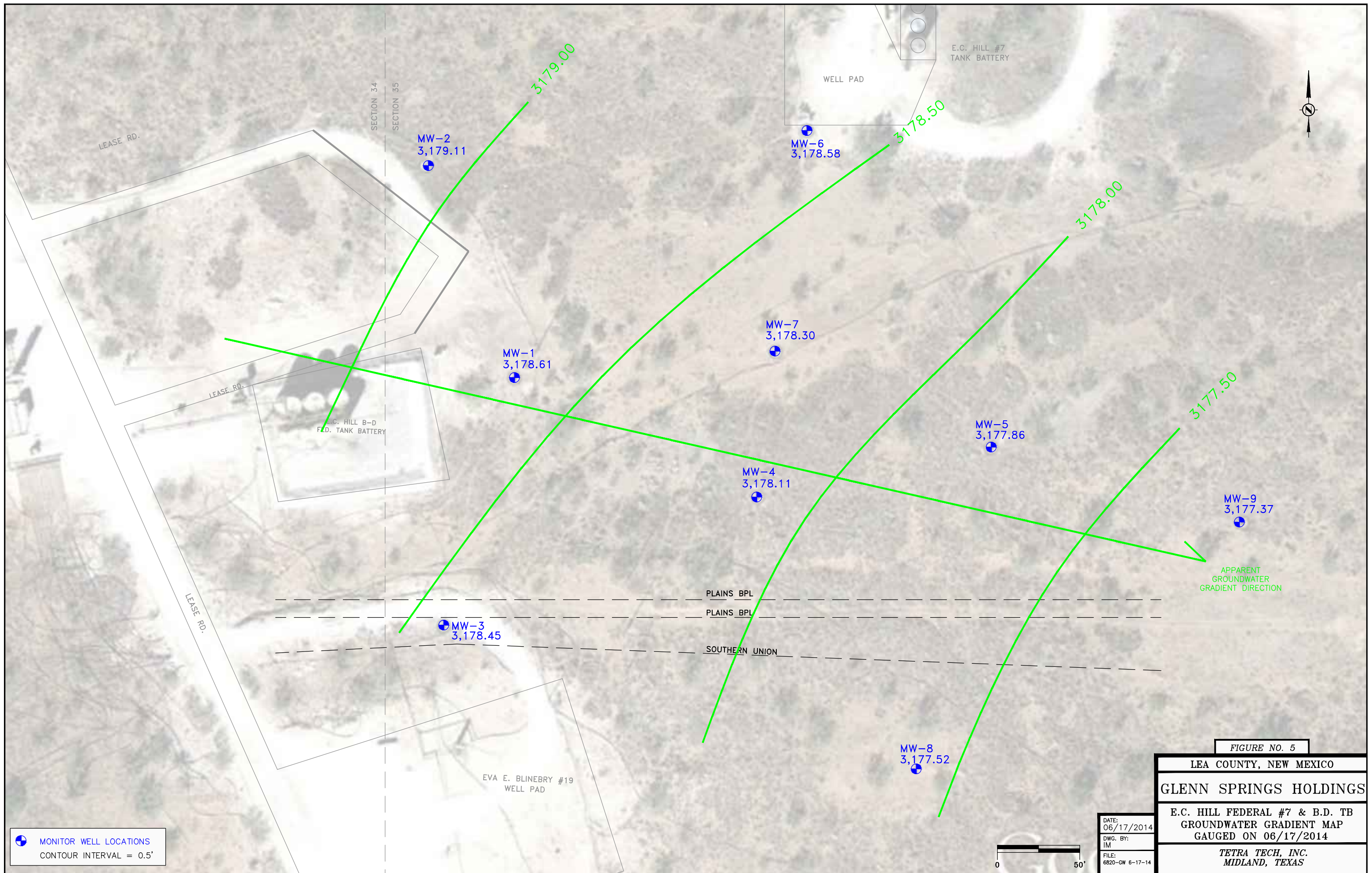
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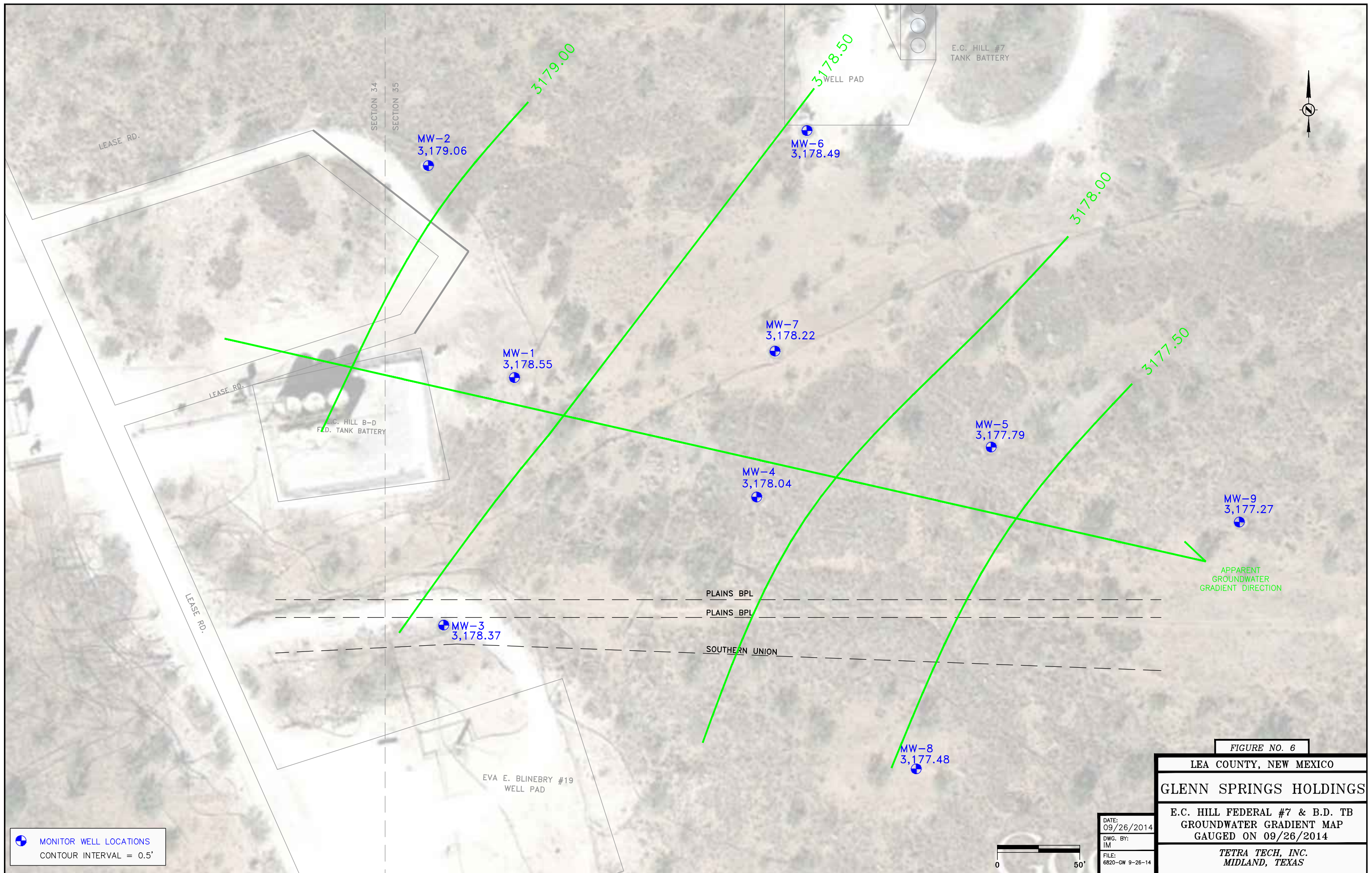
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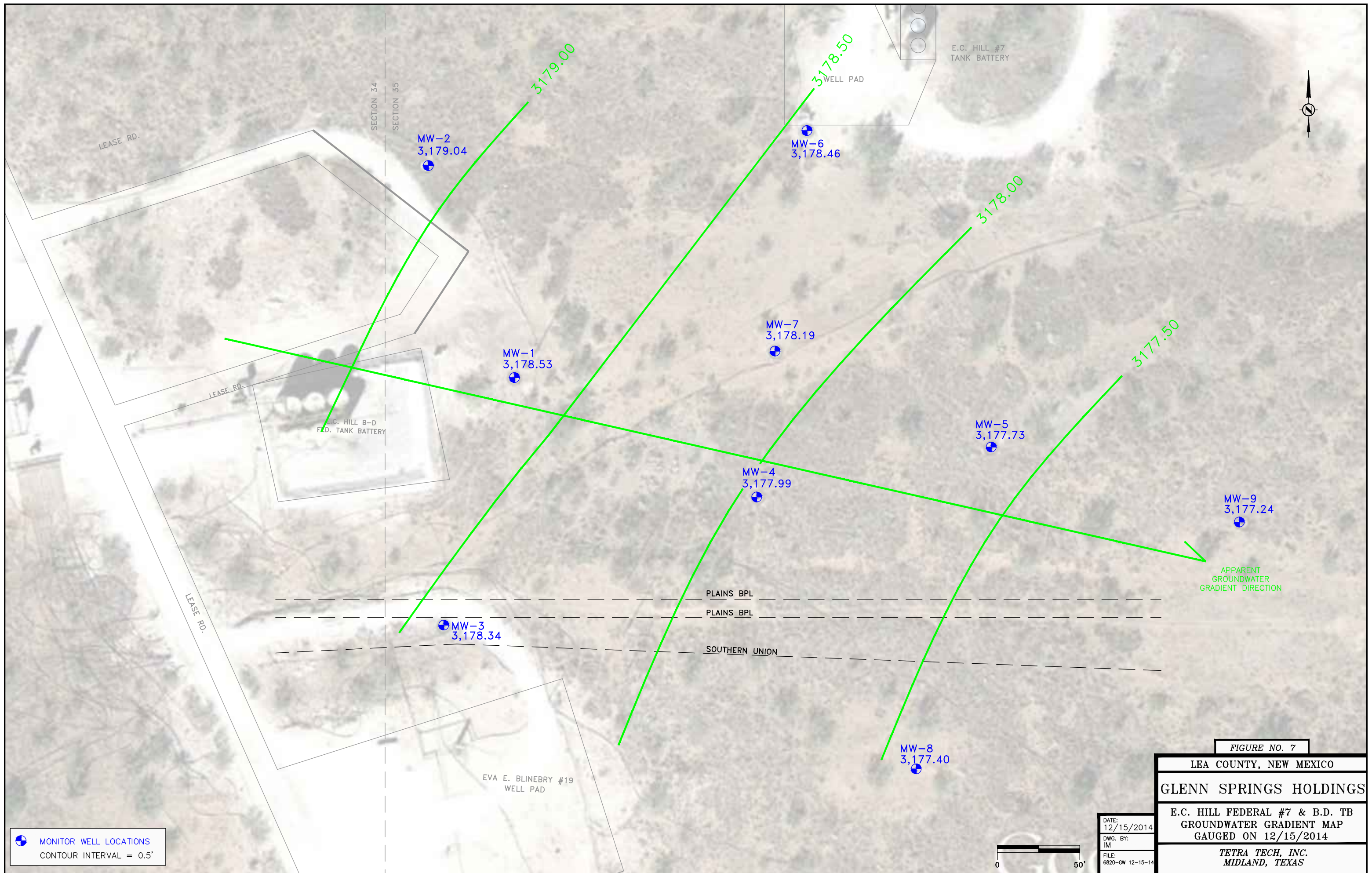


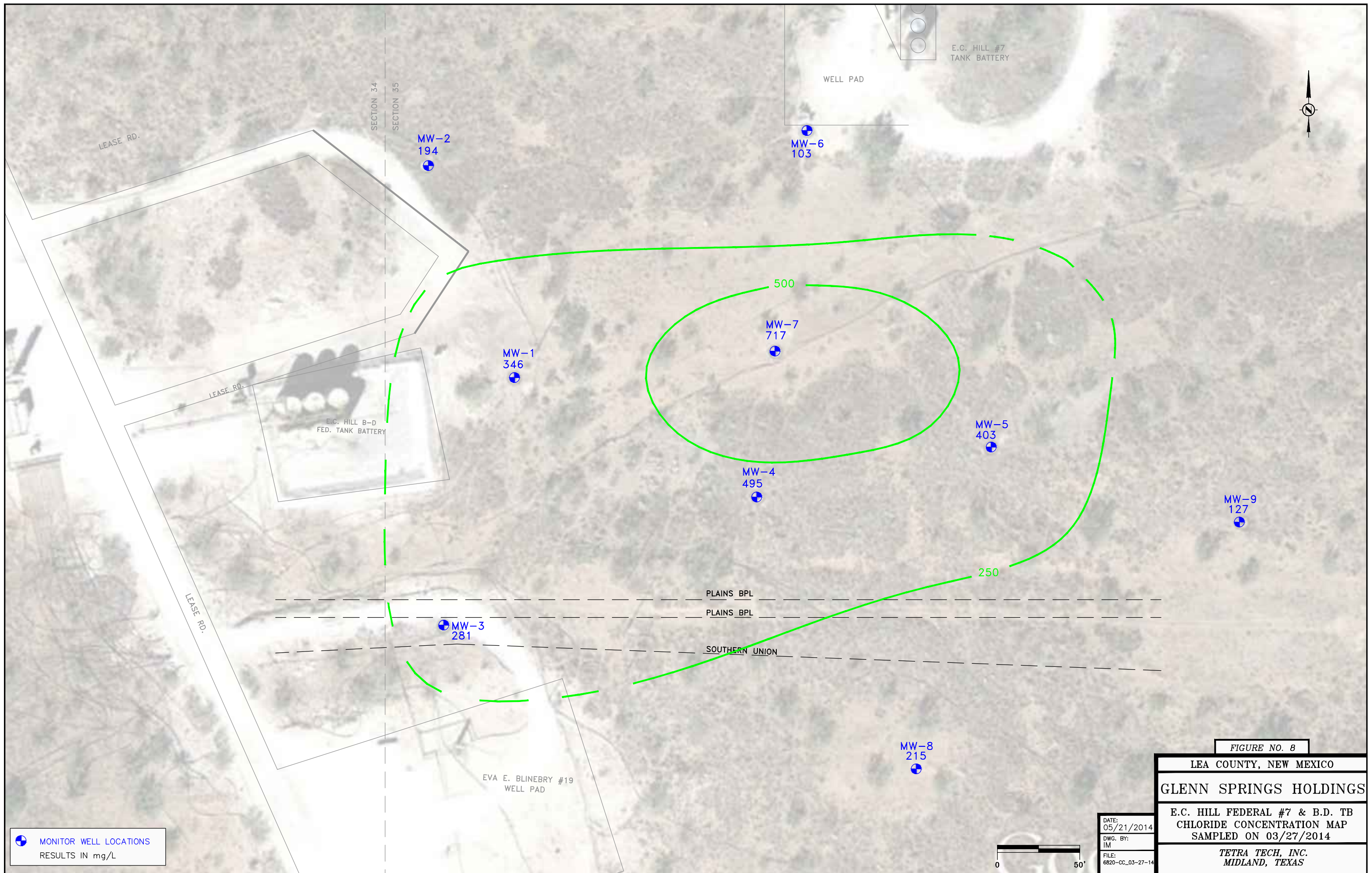


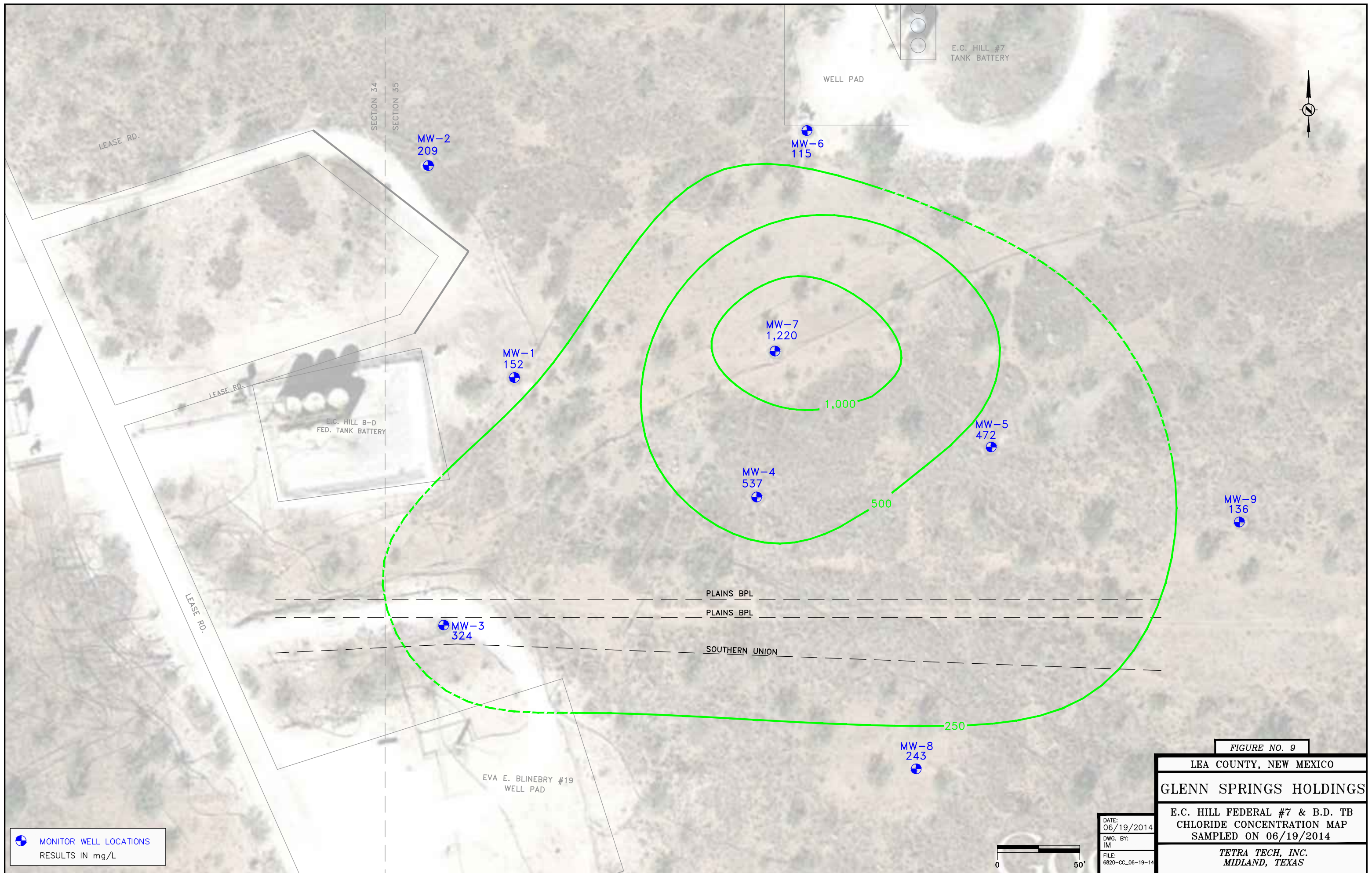


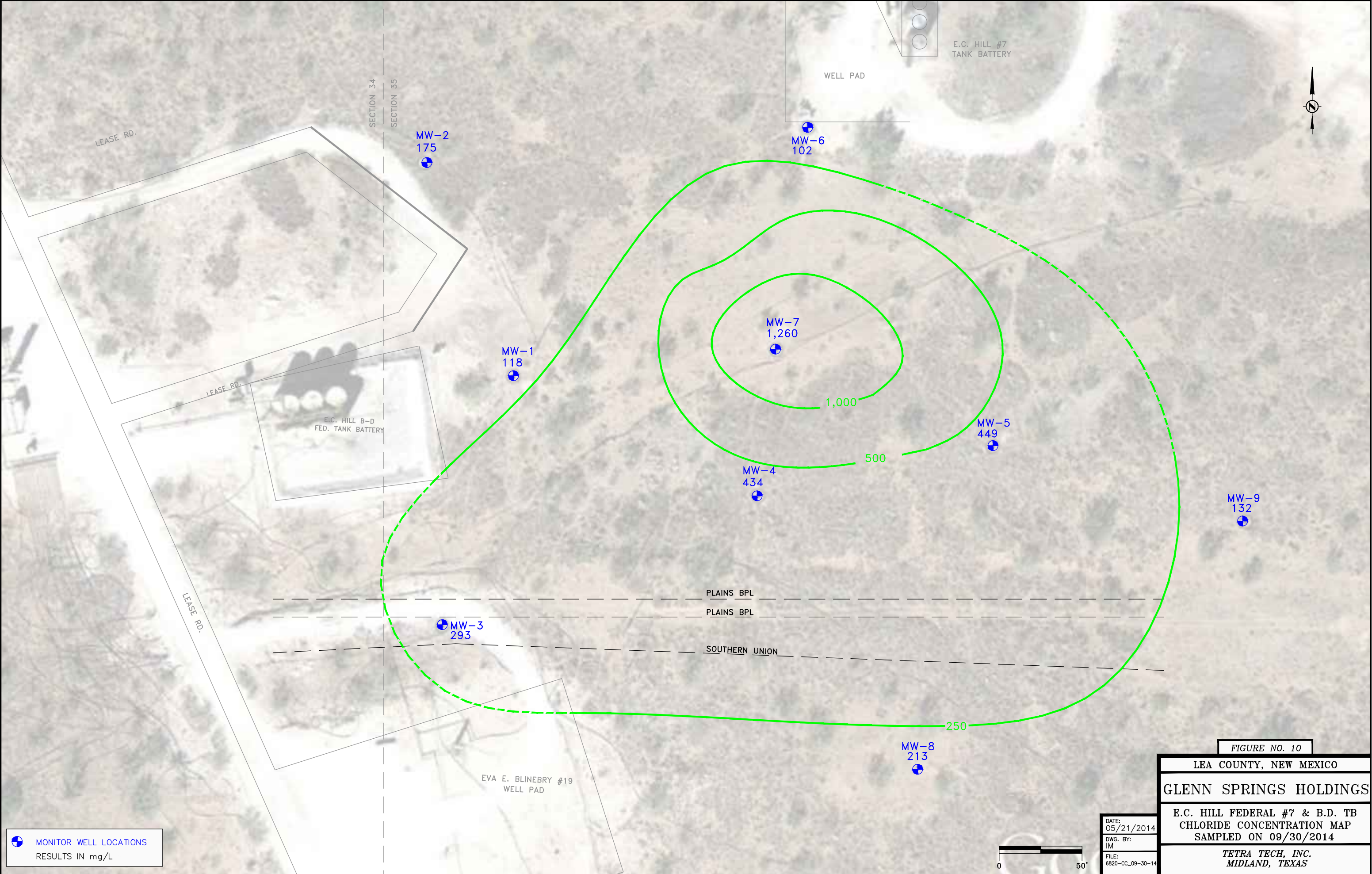


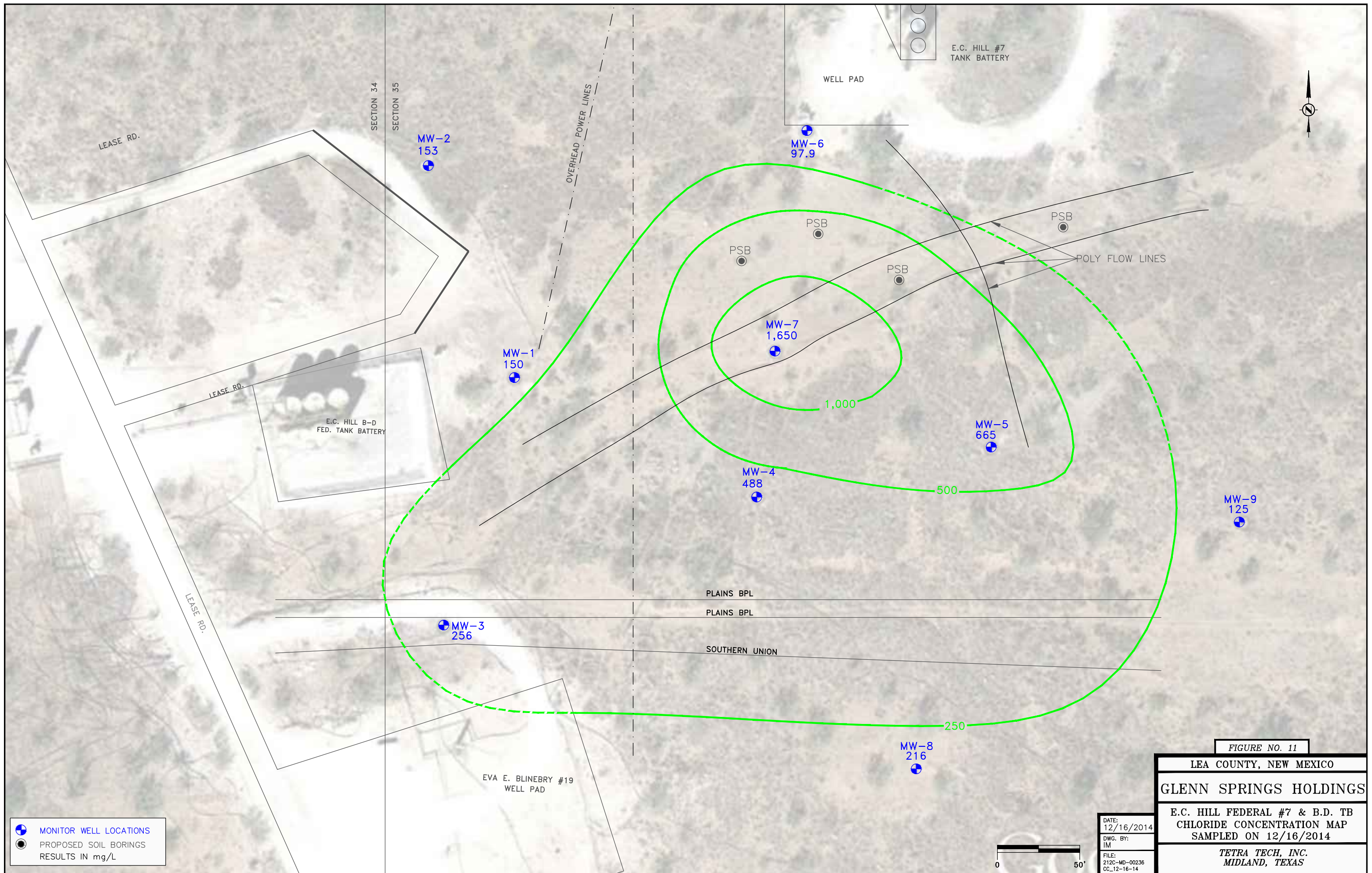












TABLES

Table 1
OXY USA, Inc.
E.C. Hill B-D & Federal #7 TB
Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Measurement	Top of Casing Elevation, feet AMSL	Total Well Depth (in ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Groundwater Elevation (ft)
MW-1	10/22/08	3257.81	93.00	--	78.82	--	3178.99
	12/11/08			--	78.39	--	3179.42
	03/11/09			--	78.83	--	3178.98
	06/10/09			--	78.78	--	3179.03
	09/15/09			--	78.82	--	3178.99
	12/07/09			--	78.80	--	3179.01
	03/10/10			--	78.83	--	3178.98
	06/07/10			--	78.78	--	3179.03
	09/13/10			--	79.75	--	3178.06
	12/13/10			--	78.97	--	3178.84
	03/10/11			--	78.97	--	3178.84
	06/13/11			--	79.03	--	3178.78
	09/19/11			--	79.06	--	3178.75
	12/17/11			--	79.13	---	3178.68
	04/05/12			--	79.06	--	3178.75
	06/19/12			--	79.09	--	3178.72
	09/25/12			--	79.09	--	3178.72
	11/26/12			--	79.12	--	3178.69
	12/14/12			--	79.12	--	3178.69
	03/28/13		92.87	--	79.10	--	3178.71
	06/06/13			--	79.20	--	3178.61
	09/19/13			--	79.20	--	3178.61
	12/26/13		92.87	--	79.22	--	3178.59
	03/26/14		90.80	--	79.20	--	3178.61
	06/17/14		90.80	--	79.20	--	3178.61
	09/26/14		90.55	--	79.26	--	3178.55
	12/15/14		90.55	--	79.28	--	3178.53
MW-2	10/23/08	3258.87	91.30	--	79.39	--	3179.48
	12/12/08			--	79.33	--	3179.54
	03/11/09			--	79.36	--	3179.51
	06/10/09			--	79.33	--	3179.54
	09/15/09			--	79.39	--	3179.48
	12/07/09			--	79.35	--	3179.52
	03/10/10			--	79.41	--	3179.46
	06/07/10			--	79.41	--	3179.46
	09/13/10			--	80.30	--	3178.57
	12/13/10			--	79.54	--	3179.33

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MW-2	03/10/11			--	79.57	--	3179.30
	06/13/11			--	79.60	--	3179.27
	09/19/11			--	79.60	--	3179.27
	12/17/11			--	79.70	--	3179.17
	04/05/12			--	79.59	--	3179.28
	06/19/12			--	79.66	--	3179.21
	09/25/12			--	79.65	--	3179.22
	11/26/12			--	79.70	--	3179.17
	12/14/12		91.30	--	79.69	--	3179.18
	03/28/13		86.74	--	79.71	--	3179.16
	06/06/13			--	79.75	--	3179.12
	09/19/13			--	79.28	--	3179.59
	12/26/13		86.74	--	79.81	--	3179.06
	03/26/14		84.69	--	79.75	--	3179.12
	06/17/14		84.69	--	79.76	--	3179.11
	09/26/14		84.49	--	79.81	--	3179.06
	12/15/14		84.49	--	79.83	--	3179.04
MW-3	10/23/08	3259.24	92.75	--	79.42	--	3179.82
	12/12/08			--	80.38	--	3178.86
	03/11/09			--	80.40	--	3178.84
	06/10/09			--	80.36	--	3178.88
	09/15/09			--	80.42	--	3178.82
	12/07/09			--	80.40	--	3178.84
	03/10/10			--	80.43	--	3178.81
	06/07/10			--	80.44	--	3178.80
	09/13/10			--	81.34	--	3177.90
	12/13/10			--	80.58	--	3178.66
	03/10/11			--	80.58	--	3178.66
	06/13/11			--	80.62	--	3178.62
	09/19/11			--	80.65	--	3178.59
	12/17/11			--	80.75	--	3178.49
	04/05/12			--	80.63	--	3178.61
	06/19/12			--	80.66	--	3178.58
	09/25/12			--	80.70	--	3178.54
	11/26/12			--	80.75	--	3178.49
	12/14/12			--	80.81	--	3178.43
	03/28/13		86.62	--	80.72	--	3178.52
	06/06/13			--	80.77	--	3178.47
	09/19/13			--	80.79	--	3178.45
	12/26/13		86.62	--	80.85	--	3178.39
	03/26/14		83.87		80.81		3178.43
	06/17/14		83.87	--	80.79	--	3178.45

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MW-3	09/26/14		83.98	--	80.87	--	3178.37
	12/15/14		83.98	--	80.90	--	3178.34
MW-4	10/23/08	3258.53	91.00	--	80.03	--	3178.50
	12/12/08			--	80.00	--	3178.53
	03/11/09			--	80.02	--	3178.51
	06/10/09			--	79.99	--	3178.54
	09/15/09			--	80.04	--	3178.49
	12/07/09			--	80.04	--	3178.49
	03/10/10			--	80.06	--	3178.47
	06/07/10			--	80.03	--	3178.50
	09/13/10			--	80.95	--	3177.58
	12/13/10			--	80.19	--	3178.34
	03/10/11			--	80.20	--	3178.33
	06/13/11			--	80.23	--	3178.30
	09/19/11			--	80.25	--	3178.28
	12/17/11			--	80.35	--	3178.18
	04/05/12			--	80.24	--	3178.29
	06/19/12			--	80.40	--	3178.13
	09/25/12			--	80.34	--	3178.19
	11/26/12			--	80.49	--	3178.04
	12/14/12		88.27	--	80.34	--	3178.19
	03/28/13		89.81	--	80.34	--	3178.19
	06/06/13			--	80.40	--	3178.13
	09/19/13		89.25	--	80.42	--	3178.11
	12/26/13		89.81	--	80.46	--	3178.07
	03/26/14		87.92	--	80.42	--	3178.11
	06/17/14		87.92	--	80.42	--	3178.11
	09/26/14		87.93	--	80.49	--	3178.04
	12/15/14		87.93		80.54		3177.99
MW-5	10/23/08	3255.69	92.50	--	77.45	--	3178.24
	12/12/08			--	77.41	--	3178.28
	03/11/09			--	77.43	--	3178.26
	06/10/09			--	77.40	--	3178.29
	09/15/09			--	77.46	--	3178.23
	12/07/09			--	77.45	--	3178.24
	03/10/10			--	77.45	--	3178.24
	06/07/10			--	77.43	--	3178.26
	09/13/10			--	78.35	--	3177.34
	12/13/10			--	77.59	--	3178.10
	03/10/11			--	77.60	--	3178.09
	06/13/11			--	77.64	--	3178.05

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MW-5	09/19/11			--	77.65	--	3178.04
	12/17/11			--	77.78	--	3177.91
	04/05/12			--	77.67	--	3178.02
	06/19/12			--	77.71	--	3177.98
	09/25/12			--	77.73	--	3177.96
	11/26/12			--	77.79	--	3177.90
	12/14/12			--	77.74	--	3177.95
	03/28/13		90.54	--	77.76	--	3177.93
	06/06/13			--	77.83	--	3177.86
	09/19/13			--	77.82	--	3177.87
	12/26/13		90.54	--	77.87	--	3177.82
	03/26/14		87.65	--	77.84	--	3177.85
	06/17/14		87.65	--	77.83	--	3177.86
	09/26/14		87.58	--	77.90	--	3177.79
	12/15/14		87.58	--	77.96	--	3177.73
MW-6	10/23/08	3257.98	93.00	--	79.03	--	3178.95
	12/12/08			--	78.97	--	3179.01
	03/11/09			--	79.03	--	3178.95
	06/10/09			--	79.00	--	3178.98
	09/15/09			--	79.04	--	3178.94
	12/07/09			--	79.03	--	3178.95
	03/10/10			--	79.06	--	3178.92
	06/07/10			--	79.05	--	3178.93
	09/13/10			--	79.97	--	3178.01
	12/13/10			--	79.19	--	3178.79
	03/10/11			--	79.21	--	3178.77
	06/13/11			--	79.24	--	3178.74
	09/19/11			--	79.18	--	3178.80
	12/17/11			--	79.34	--	3178.64
	04/05/12			--	79.24	--	3178.74
	06/19/12			--	79.31	--	3178.67
	09/25/12			--	79.35	--	3178.63
	11/26/12			--	79.37	--	3178.61
	12/14/12			--	79.35	--	3178.63
	03/28/13		88.27	--	79.36	--	3178.62
	06/06/13			--	79.41	--	3178.57
	09/19/13			--	79.38	--	3178.60
	12/26/13		88.27	--	79.46	--	3178.52

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MW-6	03/26/14		83.71	--	79.43	--	3178.55
	06/17/14		83.71	--	79.40	--	3178.58
	09/26/14		83.45	--	79.49	--	3178.49
	12/15/14		83.45	--	79.52	--	3178.46
MW-7	10/23/08	3256.95	93.00	--	78.28	--	3178.67
	12/12/08			--	78.24	--	3178.71
	03/11/09			--	78.27	--	3178.68
	06/10/09			--	78.23	--	3178.72
	09/15/09			--	78.29	--	3178.66
	12/07/09			--	78.27	--	3178.68
	03/10/10			--	78.29	--	3178.66
	06/07/10			--	78.29	--	3178.66
	09/13/10			--	79.20	--	3177.75
	12/13/10			--	78.42	--	3178.53
	03/10/11			--	78.42	--	3178.53
	06/13/11			--	78.45	--	3178.50
	09/19/11			--	78.49	--	3178.46
	12/17/11			--	78.60	--	3178.35
	04/05/12			--	78.48	--	3178.47
	06/19/12			--	78.52	--	3178.43
	09/25/12			--	78.59	--	3178.36
	11/26/12			--	78.62	--	3178.33
	12/14/12			--	78.54	--	3178.41
	03/28/13		94.06	--	78.56	--	3178.39
	06/06/13			--	78.67	--	3178.28
	09/19/13			--	78.65	--	3178.30
	12/26/13		94.06	--	78.69	--	3178.26
	03/26/14		91.90	--	78.66	--	3178.29
	06/17/14		91.90	--	78.65	--	3178.30
	09/26/14		91.90	--	78.73	--	3178.22
	12/15/14		91.71	--	78.76	--	3178.19
MW-8	11/16/12	3257.16		--	79.62	--	3177.54
	11/26/12			--	79.59	--	3177.57
	12/14/12		94.82	--	79.56	--	3177.60
	03/28/13		94.93	--	79.59	--	3177.57
	06/06/13			--	79.65	--	3177.51
	09/19/13			--	79.60	--	3177.56
	12/26/13		94.93	--	79.68	--	3177.48

Table 1
OXY USA, Inc.
E.C. Hill B-D & Federal #7 TB
Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Measurement	Top of Casing Elevation, feet AMSL	Total Well Depth (in ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Groundwater Elevation (ft)
MW-8	03/26/14		88.33	--	79.66	--	3177.50
	06/17/14		88.33	--	79.64	--	3177.52
	09/26/14		88.33	--	79.68	--	3177.48
	12/15/14		86.94	--	79.76	--	3177.40
MW-9	11/16/12	3255.33		--	77.98	--	3177.35
	11/26/12			--	77.94	--	3177.39
	12/14/12			--	77.92	--	3177.41
	03/28/13			--	77.91	--	3177.42
	06/06/13		94.75	--	78.00	--	3177.33
	09/19/13			--	78.00	--	3177.33
	12/26/13			--	78.05	--	3177.28
	03/26/14			--	78.00	--	3177.33
	06/17/14		93.22	--	77.96	--	3177.37
	09/26/14			--	78.06	--	3177.27
	12/15/14			--	78.09	--	3177.24
				--		--	

(-) No data (TOC) Top of casing

Table 2
OXY USA, Inc.
E.C. Hill B-D & Federal #7 TB
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	TPH 8015M			Chloride (mg/l)
							GRO (mg/l)	DRO (mg/l)	Total (mg/l)	
MW-1	09/22/06	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	-	1,150
	05/16/07	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	-	729
	10/22/08	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	-	1060
	12/10/08	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	373
	03/11/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	922
	06/10/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	610
MW-1 DUP	06/10/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	525
	09/15/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	456
MW-1 DUP	09/15/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	449
	12/07/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	120
	03/10/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	91.4
	06/07/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	98.3
	09/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	174
	12/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	302
	03/10/11	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	118
	06/13/11	<0.00014	<0.0002	<0.0003	<0.00023	<0.0003	-	-	-	390
	09/19/11	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	-	-	-	120
	12/13/11	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	-	-	-	100
	04/06/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	202
	06/19/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	167
	09/25/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	300
	12/14/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	525
	03/28/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	659
	06/06/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	348
	09/19/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	341
	12/27/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	193
	03/27/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	346
	06/19/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	152
	09/30/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	118
	12/16/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	150

Table 2
OXY USA, Inc.
E.C. Hill B-D & Federal #7 TB
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	TPH 8015M			Chloride (mg/l)
							GRO (mg/l)	DRO (mg/l)	Total (mg/l)	
MW-2	10/22/08	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	-	132
	12/10/08	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	349
	03/11/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	140
	06/10/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	134
	09/15/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	92.1
	12/07/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	142
	03/10/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	137
	06/07/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	140
	09/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	145
	12/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	142
	03/10/11	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	143
	06/13/11	<0.00014	<0.0002	<0.0003	<0.00023	<0.0003	-	-	-	160
	09/19/11	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	-	-	-	160
	12/13/11	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	-	-	-	250
	04/06/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	168
	06/19/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	172
	09/25/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	178
	12/14/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	162
	03/28/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	183
	06/06/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	185
	09/19/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	211
	12/27/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	184
	03/27/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	194
	06/19/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	209
	09/30/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	175
	12/16/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	153

Table 2
OXY USA, Inc.
E.C. Hill B-D & Federal #7 TB
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	TPH 8015M			Chloride (mg/l)
							GRO (mg/l)	DRO (mg/l)	Total (mg/l)	
MW-3	10/22/08	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	-	237
	12/10/08	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	207
	03/11/09	<0.001	0.00052	<0.001	<0.003	<0.003	-	-	-	229
	06/10/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	243
	09/15/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	243
	12/07/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	265
	03/10/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	282
	06/07/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	334
	09/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	359
	12/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	375
	03/10/11	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	364
	06/13/11	<0.00014	<0.0002	<0.0003	<0.00023	<0.0003	-	-	-	370
	09/19/11	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	-	-	-	350
	12/13/11	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	-	-	-	370
	04/06/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	381
	06/19/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	371
	09/25/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	384
	12/14/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	332
	03/28/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	362
	06/06/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	326
	09/19/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	325
	12/27/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	250
	03/27/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	281
	06/19/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	324
	09/30/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	293
	12/16/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	256

Table 2
OXY USA, Inc.
E.C. Hill B-D & Federal #7 TB
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	TPH 8015M			Chloride (mg/l)
							GRO (mg/l)	DRO (mg/l)	Total (mg/l)	
MW-4	10/22/08	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	-	556
	12/10/08	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	642
	03/11/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	573
	06/10/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	645
	09/15/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	689
	12/07/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	778
	03/10/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	543
	06/07/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	637
	09/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	578
	12/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	368
	03/10/11	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	289
	06/13/11	<0.00014	<0.0002	<0.0003	<0.00023	<0.0003	-	-	-	320
	09/19/11	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	-	-	-	570
	12/13/11	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	-	-	-	510
	04/06/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	519
	06/19/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	555
	09/25/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	328
	12/14/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	424
	03/28/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	558
	06/06/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	573
	09/19/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	571
	12/27/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	403
	03/27/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	495
	06/19/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	537
	09/30/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	434
	12/16/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	488

Table 2
OXY USA, Inc.
E.C. Hill B-D & Federal #7 TB
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	TPH 8015M			Chloride (mg/l)
							GRO (mg/l)	DRO (mg/l)	Total (mg/l)	
MW-5	10/22/08	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	-	1,040
	12/10/08	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	1,020
	03/11/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	879
	06/10/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	860
	09/15/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	925
	12/07/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	832
	03/10/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	711
	06/07/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	807
	09/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	819
	12/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	785
	03/10/11	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	504
	06/13/11	<0.00014	<0.0002	<0.0003	<0.00023	<0.0003	-	-	-	400
	09/19/11	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	-	-	-	520
	12/13/11	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	-	-	-	730
	04/06/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	707
	06/19/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	842
	09/25/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	654
	12/14/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	334
	03/28/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	320
	06/06/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	289
	09/19/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	329
	12/27/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	396
	03/27/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	403
	06/19/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	472
	09/30/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	449
	12/16/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	665

Table 2
OXY USA, Inc.
E.C. Hill B-D & Federal #7 TB
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	TPH 8015M			Chloride (mg/l)
							GRO (mg/l)	DRO (mg/l)	Total (mg/l)	
MW-6	10/22/08	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	-	87.8
	12/10/08	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	90.2
	03/11/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	92.7
	06/10/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	87.4
	09/15/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	89.6
	12/07/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	91.7
	03/10/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	83.7
	06/07/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	89.2
	09/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	87.6
	12/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	87.3
	03/10/11	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	85.7
	06/13/11	<0.00014	<0.0002	<0.0003	<0.00023	<0.0003	-	-	-	94.0
	09/19/11	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	-	-	-	90
	12/13/11	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	-	-	-	88
	04/06/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	92.2
	06/19/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	90.5
	09/25/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	95.1
	12/14/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	85.1
	03/28/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	95.2
	06/06/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	99.1
	09/19/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	110
	12/27/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	91.4
	03/27/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	103
	06/19/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	115
	09/30/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	102
	12/16/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	97.9

Table 2
OXY USA, Inc.
E.C. Hill B-D & Federal #7 TB
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	TPH 8015M			Chloride (mg/l)
							GRO (mg/l)	DRO (mg/l)	Total (mg/l)	
MW-7	09/22/06	<0.001	<0.001	<0.001	0.0019	0.0019	-	-	-	<2.00
	05/16/07	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	-	1,220
	10/22/08	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	-	1,060
	12/10/08	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	1,050
MW-7	03/11/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	1,360
	06/10/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	1,030
	09/15/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	762
	12/07/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	532
MW-7 DUP	12/07/09	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	523
	03/10/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	721
MW-7 DUP	03/10/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	958
	06/07/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	1,200
MW-7 DUP	06/07/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	1,170
	09/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	1,310
MW-7 DUP	09/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	1,310
	12/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	1,220
MW-7 DUP	12/13/10	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	1,220
	03/10/11	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	1,630
MW-7 DUP	03/10/11	<0.001	<0.001	<0.001	<0.003	<0.003	-	-	-	1,650
	06/13/11	<0.00014	<0.0002	<0.0003	<0.00023	<0.0003	-	-	-	1,600
MW-7 DUP	06/13/11	<0.00014	<0.0002	<0.0003	<0.00023	<0.0003	-	-	-	1,600
MW-7	09/19/11	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	-	-	-	1,900
	12/13/11	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	-	-	-	1,200
MW-7	02/21/12	-	-	-	-	-	-	-	-	1,010
	04/06/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	806
	06/19/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	1,220
	09/25/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	904
	12/14/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	1,160
	03/28/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	1,030
	06/06/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	786
	09/19/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	1,320
	12/27/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	909
	03/27/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	717
MW-7 DUP	06/19/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	1,220
	06/19/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	1,100
	09/30/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	1,260
	12/16/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	1,650

Table 2
OXY USA, Inc.
E.C. Hill B-D & Federal #7 TB
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	TPH 8015M			Chloride (mg/l)
							GRO (mg/l)	DRO (mg/l)	Total (mg/l)	
MW-8	11/16/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	252
	12/14/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	245
	03/28/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	246
	06/06/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	155
	09/19/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	214
	12/27/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	209
	03/27/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	215
	06/19/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	243
	09/30/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	213
	12/16/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	216
MW-9	11/16/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	123
	12/14/12	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	113
	03/28/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	127
	06/06/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	123
	09/19/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	120
	12/27/13	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	115
	03/27/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	127
	06/19/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	136
	09/30/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	132
	12/16/14	<0.005	<0.005	<0.005	<0.015	<0.015	-	-	-	125

(-) Not Analyzed
 NM - Not measured

APPENDIX A



10450 Stancliff Rd. Suite 210
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www.alsglobal.com

April 09, 2014

Alison Wilson
Glenn Springs Holdings
C/O CRA
2055 Niagara Falls Blvd. Suite 3
Niagara Falls, NY 14304

Work Order: **HS14031219**

Laboratory Results for: **GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)**

Dear Alison,

ALS Environmental received 10 sample(s) on Mar 29, 2014 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "Dane J. Wacasey".

Generated By: Nicole.Brown

Dane J. Wacasey

Client: Glenn Springs Holdings
Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)
Work Order: HS14031219

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14031219-01	MW-1	Water		27-Mar-2014 12:20	29-Mar-2014 10:15	☐
HS14031219-02	MW-2	Water		27-Mar-2014 12:15	29-Mar-2014 10:15	☐
HS14031219-03	MW-3	Water		27-Mar-2014 12:05	29-Mar-2014 10:15	☐
HS14031219-04	MW-4	Water		27-Mar-2014 12:30	29-Mar-2014 10:15	☐
HS14031219-05	MW-5	Water		27-Mar-2014 11:55	29-Mar-2014 10:15	☐
HS14031219-06	MW-6	Water		27-Mar-2014 12:25	29-Mar-2014 10:15	☐
HS14031219-07	MW-7	Water		27-Mar-2014 12:40	29-Mar-2014 10:15	☐
HS14031219-08	MW-8	Water		27-Mar-2014 11:50	29-Mar-2014 10:15	☐
HS14031219-09	MW-9	Water		27-Mar-2014 11:40	29-Mar-2014 10:15	☐
HS14031219-10	Trip Blank	Water		27-Mar-2014 00:00	29-Mar-2014 10:15	☐

Client: Glenn Springs Holdings
Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM
Work Order: HS14031219

CASE NARRATIVE

Analyst Names and Initials: Presenta Cabascango (PC) Jeff Phan (JKP) .

Batch R163789: BTEX Method 8260, Sample HS14031187-01AMS, The MS/MSD is for an unrelated sample.

Batch R163949: BTEX Method 8260, Sample HS14031220-01AMS, The MS/MSD is for an unrelated sample.

Batch R231408, Chloride Method 300, Sample HS14031151-02AMS, The MS/MSD is for an unrelated sample.

Client:	Glenn Springs Holdings	ANALYTICAL REPORT	
Project:	GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)	WorkOrder:	HS14031219
Sample ID:	MW-1	Lab ID:	HS14031219-01
Collection Date:	27-Mar-2014 12:20	Matrix:	Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	01-Apr-2014 12:35
Ethylbenzene	U		0.50	5.0	ug/L	1	01-Apr-2014 12:35
Toluene	U		0.50	5.0	ug/L	1	01-Apr-2014 12:35
Xylenes, Total	U		1.5	15	ug/L	1	01-Apr-2014 12:35
Surr: 1,2-Dichloroethane-d4	96.2			70-125	%REC	1	01-Apr-2014 12:35
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	01-Apr-2014 12:35
Surr: Dibromofluoromethane	98.8			71-125	%REC	1	01-Apr-2014 12:35
Surr: Toluene-d8	94.0			75-125	%REC	1	01-Apr-2014 12:35
ANIONS - EPA 300.0 (1993)			Method:E300			Analyst: JKP	
Chloride	346		2.00	5.00	mg/L	10	07-Apr-2014 17:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	Glenn Springs Holdings	ANALYTICAL REPORT	
Project:	GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)	WorkOrder:	HS14031219
Sample ID:	MW-2	Lab ID:	HS14031219-02
Collection Date:	27-Mar-2014 12:15	Matrix:	Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	31-Mar-2014 17:52
Ethylbenzene	U		0.50	5.0	ug/L	1	31-Mar-2014 17:52
Toluene	U		0.50	5.0	ug/L	1	31-Mar-2014 17:52
Xylenes, Total	U		1.5	15	ug/L	1	31-Mar-2014 17:52
Surr: 1,2-Dichloroethane-d4	98.7			70-125	%REC	1	31-Mar-2014 17:52
Surr: 4-Bromofluorobenzene	96.4			72-125	%REC	1	31-Mar-2014 17:52
Surr: Dibromofluoromethane	102			71-125	%REC	1	31-Mar-2014 17:52
Surr: Toluene-d8	97.5			75-125	%REC	1	31-Mar-2014 17:52
ANIONS - EPA 300.0 (1993)			Method:E300			Analyst: JKP	
Chloride	194		2.00	5.00	mg/L	10	07-Apr-2014 17:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	Glenn Springs Holdings	ANALYTICAL REPORT	
Project:	GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)	WorkOrder:	HS14031219
Sample ID:	MW-3	Lab ID:	HS14031219-03
Collection Date:	27-Mar-2014 12:05	Matrix:	Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	01-Apr-2014 13:01
Ethylbenzene	U		0.50	5.0	ug/L	1	01-Apr-2014 13:01
Toluene	U		0.50	5.0	ug/L	1	01-Apr-2014 13:01
Xylenes, Total	U		1.5	15	ug/L	1	01-Apr-2014 13:01
Surr: 1,2-Dichloroethane-d4	95.7			70-125	%REC	1	01-Apr-2014 13:01
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	01-Apr-2014 13:01
Surr: Dibromofluoromethane	99.2			71-125	%REC	1	01-Apr-2014 13:01
Surr: Toluene-d8	94.5			75-125	%REC	1	01-Apr-2014 13:01
ANIONS - EPA 300.0 (1993)			Method:E300			Analyst: JKP	
Chloride	281		2.00	5.00	mg/L	10	07-Apr-2014 17:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	Glenn Springs Holdings	ANALYTICAL REPORT	
Project:	GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)	WorkOrder:	HS14031219
Sample ID:	MW-4	Lab ID:	HS14031219-04
Collection Date:	27-Mar-2014 12:30	Matrix:	Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	01-Apr-2014 13:23
Ethylbenzene	U		0.50	5.0	ug/L	1	01-Apr-2014 13:23
Toluene	U		0.50	5.0	ug/L	1	01-Apr-2014 13:23
Xylenes, Total	U		1.5	15	ug/L	1	01-Apr-2014 13:23
Surr: 1,2-Dichloroethane-d4	95.8			70-125	%REC	1	01-Apr-2014 13:23
Surr: 4-Bromofluorobenzene	99.7			72-125	%REC	1	01-Apr-2014 13:23
Surr: Dibromofluoromethane	100			71-125	%REC	1	01-Apr-2014 13:23
Surr: Toluene-d8	93.9			75-125	%REC	1	01-Apr-2014 13:23
ANIONS - EPA 300.0 (1993)			Method:E300			Analyst: JKP	
Chloride	495		2.00	5.00	mg/L	10	07-Apr-2014 17:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	Glenn Springs Holdings	ANALYTICAL REPORT	
Project:	GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)	WorkOrder:	HS14031219
Sample ID:	MW-5	Lab ID:	HS14031219-05
Collection Date:	27-Mar-2014 11:55	Matrix:	Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	01-Apr-2014 14:41
Ethylbenzene	U		0.50	5.0	ug/L	1	01-Apr-2014 14:41
Toluene	U		0.50	5.0	ug/L	1	01-Apr-2014 14:41
Xylenes, Total	U		1.5	15	ug/L	1	01-Apr-2014 14:41
Surr: 1,2-Dichloroethane-d4	88.2			70-125	%REC	1	01-Apr-2014 14:41
Surr: 4-Bromofluorobenzene	112			72-125	%REC	1	01-Apr-2014 14:41
Surr: Dibromofluoromethane	94.0			71-125	%REC	1	01-Apr-2014 14:41
Surr: Toluene-d8	94.3			75-125	%REC	1	01-Apr-2014 14:41
ANIONS - EPA 300.0 (1993)			Method:E300			Analyst: JKP	
Chloride	403		2.00	5.00	mg/L	10	07-Apr-2014 18:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	Glenn Springs Holdings	ANALYTICAL REPORT	
Project:	GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)	WorkOrder:	HS14031219
Sample ID:	MW-6	Lab ID:	HS14031219-06
Collection Date:	27-Mar-2014 12:25	Matrix:	Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	01-Apr-2014 17:41
Ethylbenzene	U		0.50	5.0	ug/L	1	01-Apr-2014 17:41
Toluene	U		0.50	5.0	ug/L	1	01-Apr-2014 17:41
Xylenes, Total	U		1.5	15	ug/L	1	01-Apr-2014 17:41
Surr: 1,2-Dichloroethane-d4	95.5			70-125	%REC	1	01-Apr-2014 17:41
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	01-Apr-2014 17:41
Surr: Dibromofluoromethane	100			71-125	%REC	1	01-Apr-2014 17:41
Surr: Toluene-d8	102			75-125	%REC	1	01-Apr-2014 17:41
ANIONS - EPA 300.0 (1993)			Method:E300			Analyst: JKP	
Chloride	103		2.00	5.00	mg/L	10	07-Apr-2014 18:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	Glenn Springs Holdings	ANALYTICAL REPORT	
Project:	GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)	WorkOrder:	HS14031219
Sample ID:	MW-7	Lab ID:	HS14031219-07
Collection Date:	27-Mar-2014 12:40	Matrix:	Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	02-Apr-2014 13:50
Ethylbenzene	U		0.50	5.0	ug/L	1	02-Apr-2014 13:50
Toluene	U		0.50	5.0	ug/L	1	02-Apr-2014 13:50
Xylenes, Total	U		1.5	15	ug/L	1	02-Apr-2014 13:50
Surr: 1,2-Dichloroethane-d4	96.9			70-125	%REC	1	02-Apr-2014 13:50
Surr: 4-Bromofluorobenzene	98.6			72-125	%REC	1	02-Apr-2014 13:50
Surr: Dibromofluoromethane	97.3			71-125	%REC	1	02-Apr-2014 13:50
Surr: Toluene-d8	93.6			75-125	%REC	1	02-Apr-2014 13:50
ANIONS - EPA 300.0 (1993)			Method:E300			Analyst: JKP	
Chloride	717		2.00	5.00	mg/L	10	07-Apr-2014 18:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	Glenn Springs Holdings	ANALYTICAL REPORT	
Project:	GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)	WorkOrder:	HS14031219
Sample ID:	MW-8	Lab ID:	HS14031219-08
Collection Date:	27-Mar-2014 11:50	Matrix:	Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	02-Apr-2014 14:15
Ethylbenzene	U		0.50	5.0	ug/L	1	02-Apr-2014 14:15
Toluene	U		0.50	5.0	ug/L	1	02-Apr-2014 14:15
Xylenes, Total	U		1.5	15	ug/L	1	02-Apr-2014 14:15
Surr: 1,2-Dichloroethane-d4	96.1			70-125	%REC	1	02-Apr-2014 14:15
Surr: 4-Bromofluorobenzene	99.8			72-125	%REC	1	02-Apr-2014 14:15
Surr: Dibromofluoromethane	99.7			71-125	%REC	1	02-Apr-2014 14:15
Surr: Toluene-d8	93.2			75-125	%REC	1	02-Apr-2014 14:15
ANIONS - EPA 300.0 (1993)			Method:E300			Analyst: JKP	
Chloride	215		2.00	5.00	mg/L	10	07-Apr-2014 18:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	Glenn Springs Holdings	ANALYTICAL REPORT	
Project:	GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)	WorkOrder:	HS14031219
Sample ID:	MW-9	Lab ID:	HS14031219-09
Collection Date:	27-Mar-2014 11:40	Matrix:	Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	02-Apr-2014 13:28
Ethylbenzene	U		0.50	5.0	ug/L	1	02-Apr-2014 13:28
Toluene	U		0.50	5.0	ug/L	1	02-Apr-2014 13:28
Xylenes, Total	U		1.5	15	ug/L	1	02-Apr-2014 13:28
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	1	02-Apr-2014 13:28
Surr: 4-Bromofluorobenzene	99.5			72-125	%REC	1	02-Apr-2014 13:28
Surr: Dibromofluoromethane	102			71-125	%REC	1	02-Apr-2014 13:28
Surr: Toluene-d8	99.6			75-125	%REC	1	02-Apr-2014 13:28
ANIONS - EPA 300.0 (1993)			Method:E300			Analyst: JKP	
Chloride	127		2.00	5.00	mg/L	10	07-Apr-2014 19:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	Glenn Springs Holdings	ANALYTICAL REPORT	
Project:	GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)	WorkOrder:	HS14031219
Sample ID:	Trip Blank	Lab ID:	HS14031219-10
Collection Date:	27-Mar-2014 00:00	Matrix:	Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	03-Apr-2014 00:02
Ethylbenzene	U		0.50	5.0	ug/L	1	03-Apr-2014 00:02
Toluene	U		0.50	5.0	ug/L	1	03-Apr-2014 00:02
Xylenes, Total	U		1.5	15	ug/L	1	03-Apr-2014 00:02
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>93.7</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>03-Apr-2014 00:02</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>100</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>03-Apr-2014 00:02</i>
<i>Surr: Dibromofluoromethane</i>	<i>98.8</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>03-Apr-2014 00:02</i>
<i>Surr: Toluene-d8</i>	<i>92.7</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>03-Apr-2014 00:02</i>

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM
WorkOrder: (ENV749A008)
 HS14031219

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R163789	Test Name : VOLATILES - SW8260C		Matrix: Water			
HS14031219-02A	MW-2	27 Mar 2014 12:15			31 Mar 2014 17:52	1
Batch ID R163863	Test Name : VOLATILES - SW8260C		Matrix: Water			
HS14031219-06A	MW-6	27 Mar 2014 12:25			01 Apr 2014 17:41	1
Batch ID R163868	Test Name : VOLATILES - SW8260C		Matrix: Water			
HS14031219-01A	MW-1	27 Mar 2014 12:20			01 Apr 2014 12:35	1
HS14031219-03A	MW-3	27 Mar 2014 12:05			01 Apr 2014 13:01	1
HS14031219-04A	MW-4	27 Mar 2014 12:30			01 Apr 2014 13:23	1
HS14031219-05A	MW-5	27 Mar 2014 11:55			01 Apr 2014 14:41	1
Batch ID R163927	Test Name : VOLATILES - SW8260C		Matrix: Water			
HS14031219-07A	MW-7	27 Mar 2014 12:40			02 Apr 2014 13:50	1
HS14031219-08A	MW-8	27 Mar 2014 11:50			02 Apr 2014 14:15	1
Batch ID R163949	Test Name : VOLATILES - SW8260C		Matrix: Water			
HS14031219-10A	Trip Blank	27 Mar 2014 00:00			03 Apr 2014 00:02	1
Batch ID R163957	Test Name : VOLATILES - SW8260C		Matrix: Water			
HS14031219-09A	MW-9	27 Mar 2014 11:40			02 Apr 2014 13:28	1
Batch ID R231408	Test Name : ANIONS - EPA 300.0 (1993)		Matrix: Water			
HS14031219-01B	MW-1	27 Mar 2014 12:20			07 Apr 2014 17:05	10
HS14031219-02B	MW-2	27 Mar 2014 12:15			07 Apr 2014 17:20	10
HS14031219-03B	MW-3	27 Mar 2014 12:05			07 Apr 2014 17:34	10
HS14031219-04B	MW-4	27 Mar 2014 12:30			07 Apr 2014 17:49	10
HS14031219-05B	MW-5	27 Mar 2014 11:55			07 Apr 2014 18:04	10
HS14031219-06B	MW-6	27 Mar 2014 12:25			07 Apr 2014 18:18	10
HS14031219-07B	MW-7	27 Mar 2014 12:40			07 Apr 2014 18:33	10
HS14031219-08B	MW-8	27 Mar 2014 11:50			07 Apr 2014 18:47	10
HS14031219-09B	MW-9	27 Mar 2014 11:40			07 Apr 2014 19:02	10

Client: Glenn Springs Holdings
 WorkOrder: HS14031219
 Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)

QC BATCH REPORT

Batch ID: R163789			Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-140331	Units: ug/L				Analysis Date: 31-Mar-2014 12:10				
Client ID:	Run ID: VOA1_163789			SeqNo: 2764606		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
Surr: 1,2-Dichloroethane-d4	50.77	5.0	50	0	102	70 - 125				
Surr: 4-Bromofluorobenzene	49.49	5.0	50	0	99.0	72 - 125				
Surr: Dibromofluoromethane	51.65	5.0	50	0	103	71 - 125				
Surr: Toluene-d8	48.04	5.0	50	0	96.1	75 - 125				

LCS	Sample ID: VLCSW-140331	Units: ug/L				Analysis Date: 31-Mar-2014 10:55				
Client ID:	Run ID: VOA1_163789			SeqNo: 2764605		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	49.48	5.0	50	0	99.0	73 - 121				
Ethylbenzene	51.24	5.0	50	0	102	80 - 120				
Toluene	48.13	5.0	50	0	96.3	80 - 120				
Xylenes, Total	154.2	15	150	0	103	80 - 120				
Surr: 1,2-Dichloroethane-d4	49.5	5.0	50	0	99.0	70 - 125				
Surr: 4-Bromofluorobenzene	48.83	5.0	50	0	97.7	72 - 125				
Surr: Dibromofluoromethane	50.53	5.0	50	0	101	71 - 125				
Surr: Toluene-d8	49.76	5.0	50	0	99.5	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14031219
 Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)

QC BATCH REPORT

Batch ID: R163789		Instrument: VOA1		Method: SW8260						
MS	Sample ID: HS14031187-01AMS	Units: ug/L				Analysis Date: 31-Mar-2014 17:01				
Client ID:	Run ID: VOA1_163789	SeqNo: 2764608		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.33	5.0	50	0	92.7	73 - 121				
Ethylbenzene	44.87	5.0	50	0	89.7	80 - 120				
Toluene	45.71	5.0	50	0	91.4	80 - 120				
Xylenes, Total	137.7	15	150	0	91.8	80 - 120				
Surr: 1,2-Dichloroethane-d4	60.68	5.0	50	0	121	70 - 125				
Surr: 4-Bromofluorobenzene	47.81	5.0	50	0	95.6	72 - 125				
Surr: Dibromofluoromethane	31.48	5.0	50	0	63.0	71 - 125				S
Surr: Toluene-d8	47.14	5.0	50	0	94.3	75 - 125				

MSD	Sample ID: HS14031187-01AMSD	Units: ug/L				Analysis Date: 31-Mar-2014 17:26				
Client ID:	Run ID: VOA1_163789				SeqNo: 2764609		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.87	5.0	50	0	93.7	73 - 121	46.33	1.16	20	
Ethylbenzene	48.13	5.0	50	0	96.3	80 - 120	44.87	7.01	20	
Toluene	46.46	5.0	50	0	92.9	80 - 120	45.71	1.62	20	
Xylenes, Total	146.4	15	150	0	97.6	78 - 121	137.7	6.14	20	
Surr: 1,2-Dichloroethane-d4	48.79	5.0	50	0	97.6	70 - 125	60.68	21.7	20	R
Surr: 4-Bromofluorobenzene	48.69	5.0	50	0	97.4	72 - 125	47.81	1.83	20	
Surr: Dibromofluoromethane	26.08	5.0	50	0	52.2	71 - 125	31.48	18.7	20	S
Surr: Toluene-d8	47.57	5.0	50	0	95.1	75 - 125	47.14	0.918	20	

The following samples were analyzed in this batch: HS14031219-02A

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14031219
 Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)

QC BATCH REPORT

Batch ID: R163863			Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-140401	Units: ug/L				Analysis Date: 01-Apr-2014 12:38				
Client ID:	Run ID: VOA1_163863		SeqNo: 2766665		PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
Surr: 1,2-Dichloroethane-d4	49.97	5.0	50	0	99.9	70 - 125				
Surr: 4-Bromofluorobenzene	47.73	5.0	50	0	95.5	72 - 125				
Surr: Dibromofluoromethane	50.01	5.0	50	0	100	71 - 125				
Surr: Toluene-d8	48.32	5.0	50	0	96.6	75 - 125				

LCS	Sample ID: VLCSW-140401	Units: ug/L				Analysis Date: 01-Apr-2014 15:34				
Client ID:	Run ID: VOA1_163863			SeqNo: 2766878		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	43.28	5.0	50	0	86.6	73 - 121				
Ethylbenzene	49.25	5.0	50	0	98.5	80 - 120				
Toluene	47.75	5.0	50	0	95.5	80 - 120				
Xylenes, Total	143	15	150	0	95.4	80 - 120				
Surr: 1,2-Dichloroethane-d4	50.6	5.0	50	0	101	70 - 125				
Surr: 4-Bromofluorobenzene	50.16	5.0	50	0	100	72 - 125				
Surr: Dibromofluoromethane	48.47	5.0	50	0	96.9	71 - 125				
Surr: Toluene-d8	48.28	5.0	50	0	96.6	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14031219
 Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)

QC BATCH REPORT

Batch ID: R163863		Instrument: VOA1		Method: SW8260						
MS	Sample ID: HS14031216-01AMS	Units: ug/L				Analysis Date: 01-Apr-2014 14:44				
Client ID:	Run ID: VOA1_163863	SeqNo: 2766876		PrepDate:		DF: 25				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1130	120	1250	0	90.4	73 - 121				
Ethylbenzene	1164	120	1250	0	93.2	80 - 120				
Toluene	1135	120	1250	0	90.8	80 - 120				
Xylenes, Total	3495	380	3750	0	93.2	80 - 120				
Surr: 1,2-Dichloroethane-d4	1223	120	1250	0	97.9	70 - 125				
Surr: 4-Bromofluorobenzene	1268	120	1250	0	101	72 - 125				
Surr: Dibromofluoromethane	1271	120	1250	0	102	71 - 125				
Surr: Toluene-d8	1203	120	1250	0	96.2	75 - 125				

MSD	Sample ID: HS14031216-01AMSD	Units: ug/L				Analysis Date: 01-Apr-2014 15:09				
Client ID:	Run ID: VOA1_163863				SeqNo: 2766877		PrepDate:		DF: 25	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1118	120	1250	0	89.4	73 - 121	1130	1.09	20	
Ethylbenzene	1148	120	1250	0	91.8	80 - 120	1164	1.43	20	
Toluene	1135	120	1250	0	90.8	80 - 120	1135	0.0152	20	
Xylenes, Total	3594	380	3750	0	95.8	78 - 121	3495	2.81	20	
Surr: 1,2-Dichloroethane-d4	1192	120	1250	0	95.4	70 - 125	1223	2.59	20	
Surr: 4-Bromofluorobenzene	1256	120	1250	0	101	72 - 125	1268	0.933	20	
Surr: Dibromofluoromethane	1210	120	1250	0	96.8	71 - 125	1271	4.94	20	
Surr: Toluene-d8	1197	120	1250	0	95.7	75 - 125	1203	0.492	20	

The following samples were analyzed in this batch: HS14031219-06A

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14031219
 Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)

QC BATCH REPORT

Batch ID: R163868			Instrument: VOA6		Method: SW8260						
MBLK	Sample ID: VBLKW-140401	Units: ug/L				Analysis Date: 01-Apr-2014 12:11					
Client ID:		Run ID: VOA6_163868		SeqNo: 2766444		PrepDate:		DF: 1			
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene		U	5.0								
Ethylbenzene		U	5.0								
Toluene		U	5.0								
Xylenes, Total		U	15								
Surr: 1,2-Dichloroethane-d4		47.32	5.0	50	0	94.6	70 - 125				
Surr: 4-Bromofluorobenzene		49.48	5.0	50	0	99.0	72 - 125				
Surr: Dibromofluoromethane		49.91	5.0	50	0	99.8	71 - 125				
Surr: Toluene-d8		47.04	5.0	50	0	94.1	75 - 125				

LCS	Sample ID: VLCSW-140401	Units: ug/L				Analysis Date: 01-Apr-2014 10:56				
Client ID:	Run ID: VOA6_163868			SeqNo: 2766443		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	48.28	5.0	50	0	96.6	73 - 121				
Ethylbenzene	48.34	5.0	50	0	96.7	80 - 120				
Toluene	46.21	5.0	50	0	92.4	80 - 120				
Xylenes, Total	147	15	150	0	98.0	80 - 120				
Surr: 1,2-Dichloroethane-d4	46.16	5.0	50	0	92.3	70 - 125				
Surr: 4-Bromofluorobenzene	51.79	5.0	50	0	104	72 - 125				
Surr: Dibromofluoromethane	49.21	5.0	50	0	98.4	71 - 125				
Surr: Toluene-d8	48.71	5.0	50	0	97.4	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14031219
 Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)

QC BATCH REPORT

Batch ID: R163868		Instrument: VOA6		Method: SW8260						
MS	Sample ID: HS14031219-01AMS	Units: ug/L				Analysis Date: 01-Apr-2014 13:49				
Client ID: MW-1	Run ID: VOA6_163868		SeqNo: 2766557		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	43.28	5.0	50	0	86.6	73 - 121				
Ethylbenzene	42.55	5.0	50	0	85.1	80 - 120				
Toluene	41.41	5.0	50	0	82.8	80 - 120				
Xylenes, Total	131.5	15	150	0	87.7	80 - 120				
Surr: 1,2-Dichloroethane-d4	46.38	5.0	50	0	92.8	70 - 125				
Surr: 4-Bromofluorobenzene	51.58	5.0	50	0	103	72 - 125				
Surr: Dibromofluoromethane	48.79	5.0	50	0	97.6	71 - 125				
Surr: Toluene-d8	48.2	5.0	50	0	96.4	75 - 125				

MSD	Sample ID: HS14031219-01AMSD	Units: ug/L				Analysis Date: 01-Apr-2014 14:15				
Client ID: MW-1	Run ID: VOA6_163868				SeqNo: 2766558		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	44.95	5.0	50	0	89.9	73 - 121	43.28	3.78	20	
Ethylbenzene	45.45	5.0	50	0	90.9	80 - 120	42.55	6.57	20	
Toluene	43.06	5.0	50	0	86.1	80 - 120	41.41	3.89	20	
Xylenes, Total	138.4	15	150	0	92.2	78 - 121	131.5	5.07	20	
Surr: 1,2-Dichloroethane-d4	39.46	5.0	50	0	78.9	70 - 125	46.38	16.1	20	
Surr: 4-Bromofluorobenzene	49.74	5.0	50	0	99.5	72 - 125	51.58	3.64	20	
Surr: Dibromofluoromethane	45.6	5.0	50	0	91.2	71 - 125	48.79	6.75	20	
Surr: Toluene-d8	48.48	5.0	50	0	97.0	75 - 125	48.2	0.561	20	

The following samples were analyzed in this batch: HS14031219-01A HS14031219-03A HS14031219-04A HS14031219-05A

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14031219
 Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)

QC BATCH REPORT

Batch ID: R163927			Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140402	Units: ug/L				Analysis Date: 02-Apr-2014 12:08				
Client ID:	Run ID: VOA6_163927		SeqNo: 2770313		PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
Surr: 1,2-Dichloroethane-d4	47.67	5.0	50	0	95.3	70 - 125				
Surr: 4-Bromofluorobenzene	50.4	5.0	50	0	101	72 - 125				
Surr: Dibromofluoromethane	50.19	5.0	50	0	100	71 - 125				
Surr: Toluene-d8	47.55	5.0	50	0	95.1	75 - 125				

LCS	Sample ID: VLCSW-140402	Units: ug/L				Analysis Date: 02-Apr-2014 10:53				
Client ID:	Run ID: VOA6_163927			SeqNo: 2769653		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.79	5.0	50	0	93.6	73 - 121				
Ethylbenzene	47.11	5.0	50	0	94.2	80 - 120				
Toluene	44.7	5.0	50	0	89.4	80 - 120				
Xylenes, Total	142.2	15	150	0	94.8	80 - 120				
Surr: 1,2-Dichloroethane-d4	45.82	5.0	50	0	91.6	70 - 125				
Surr: 4-Bromofluorobenzene	51.53	5.0	50	0	103	72 - 125				
Surr: Dibromofluoromethane	49.12	5.0	50	0	98.2	71 - 125				
Surr: Toluene-d8	48.62	5.0	50	0	97.2	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14031219
 Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)

QC BATCH REPORT

Batch ID: R163927		Instrument: VOA6		Method: SW8260						
MS	Sample ID: HS14031219-07AMS	Units: ug/L				Analysis Date: 02-Apr-2014 14:38				
Client ID: MW-7	Run ID: VOA6_163927		SeqNo: 2770316		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	44.41	5.0	50	0	88.8	73 - 121				
Ethylbenzene	44	5.0	50	0	88.0	80 - 120				
Toluene	42.37	5.0	50	0	84.7	80 - 120				
Xylenes, Total	134.9	15	150	0	89.9	80 - 120				
Surr: 1,2-Dichloroethane-d4	46.44	5.0	50	0	92.9	70 - 125				
Surr: 4-Bromofluorobenzene	51.59	5.0	50	0	103	72 - 125				
Surr: Dibromofluoromethane	49.31	5.0	50	0	98.6	71 - 125				
Surr: Toluene-d8	48.15	5.0	50	0	96.3	75 - 125				

MSD	Sample ID: HS14031219-07AMSD	Units: ug/L				Analysis Date: 02-Apr-2014 15:04				
Client ID: MW-7	Run ID: VOA6_163927				SeqNo: 2770317		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	45.4	5.0	50	0	90.8	73 - 121	44.41	2.2	20	
Ethylbenzene	45.74	5.0	50	0	91.5	80 - 120	44	3.88	20	
Toluene	43.32	5.0	50	0	86.6	80 - 120	42.37	2.23	20	
Xylenes, Total	140.1	15	150	0	93.4	78 - 121	134.9	3.77	20	
Surr: 1,2-Dichloroethane-d4	46.48	5.0	50	0	93.0	70 - 125	46.44	0.0885	20	
Surr: 4-Bromofluorobenzene	51.64	5.0	50	0	103	72 - 125	51.59	0.0936	20	
Surr: Dibromofluoromethane	48.76	5.0	50	0	97.5	71 - 125	49.31	1.11	20	
Surr: Toluene-d8	48.8	5.0	50	0	97.6	75 - 125	48.15	1.35	20	

The following samples were analyzed in this batch: HS14031219-07A HS14031219-08A

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14031219
 Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)

QC BATCH REPORT

Batch ID: R163949			Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140402	Units: ug/L				Analysis Date: 02-Apr-2014 23:36				
Client ID:	Run ID: VOA6_163949		SeqNo: 2769905		PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
Surr: 1,2-Dichloroethane-d4	46.34	5.0	50	0	92.7	70 - 125				
Surr: 4-Bromofluorobenzene	50.35	5.0	50	0	101	72 - 125				
Surr: Dibromofluoromethane	46.83	5.0	50	0	93.7	71 - 125				
Surr: Toluene-d8	46.79	5.0	50	0	93.6	75 - 125				

LCS	Sample ID: VLCSW-140402	Units: ug/L				Analysis Date: 02-Apr-2014 22:45				
Client ID:	Run ID: VOA6_163949			SeqNo: 2769904		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	45.19	5.0	50	0	90.4	73 - 121				
Ethylbenzene	44.37	5.0	50	0	88.7	80 - 120				
Toluene	42.69	5.0	50	0	85.4	80 - 120				
Xylenes, Total	135.9	15	150	0	90.6	80 - 120				
Surr: 1,2-Dichloroethane-d4	45.59	5.0	50	0	91.2	70 - 125				
Surr: 4-Bromofluorobenzene	51.7	5.0	50	0	103	72 - 125				
Surr: Dibromofluoromethane	49.26	5.0	50	0	98.5	71 - 125				
Surr: Toluene-d8	48.07	5.0	50	0	96.1	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14031219
 Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)

QC BATCH REPORT

Batch ID: R163949		Instrument: VOA6		Method: SW8260							
MS	Sample ID:	HS14031220-01AMS				Units: ug/L		Analysis Date: 03-Apr-2014 01:20			
	Client ID:	Run ID: VOA6_163949		SeqNo: 2769909		PrepDate:		DF: 1			
	Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene		42.01	5.0	50	0	84.0	73 - 121				
Ethylbenzene		39.79	5.0	50	0	79.6	80 - 120 S				
Toluene		39.34	5.0	50	0	78.7	80 - 120 S				
Xylenes, Total		122.4	15	150	0	81.6	80 - 120				
Surr: 1,2-Dichloroethane-d4		45.34	5.0	50	0	90.7	70 - 125				
Surr: 4-Bromofluorobenzene		51.82	5.0	50	0	104	72 - 125				
Surr: Dibromofluoromethane		49.04	5.0	50	0	98.1	71 - 125				
Surr: Toluene-d8		47.99	5.0	50	0	96.0	75 - 125				

MSD	Sample ID: HS14031220-01AMSD	Units: ug/L				Analysis Date: 03-Apr-2014 01:46				
Client ID:	Run ID: VOA6_163949				SeqNo: 2769910		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	41.75	5.0	50	0	83.5	73 - 121	42.01	0.634	20	S
Ethylbenzene	40.7	5.0	50	0	81.4	80 - 120	39.79	2.25	20	
Toluene	39.5	5.0	50	0	79.0	80 - 120	39.34	0.401	20	
Xylenes, Total	125.7	15	150	0	83.8	78 - 121	122.4	2.66	20	
Surr: 1,2-Dichloroethane-d4	45.64	5.0	50	0	91.3	70 - 125	45.34	0.657	20	
Surr: 4-Bromofluorobenzene	52.01	5.0	50	0	104	72 - 125	51.82	0.37	20	
Surr: Dibromofluoromethane	49.07	5.0	50	0	98.1	71 - 125	49.04	0.0618	20	
Surr: Toluene-d8	48.3	5.0	50	0	96.6	75 - 125	47.99	0.656	20	

The following samples were analyzed in this batch: HS14031219-10A

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14031219
 Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)

QC BATCH REPORT

Batch ID: R163957			Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-140402	Units: ug/L				Analysis Date: 02-Apr-2014 12:13				
Client ID:	Run ID: VOA1_163957		SeqNo: 2770283		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
Surr: 1,2-Dichloroethane-d4	47.55	5.0	50	0	95.1	70 - 125				
Surr: 4-Bromofluorobenzene	52.42	5.0	50	0	105	72 - 125				
Surr: Dibromofluoromethane	50.54	5.0	50	0	101	71 - 125				
Surr: Toluene-d8	51.24	5.0	50	0	102	75 - 125				

LCS	Sample ID: VLCSW-140402	Units: ug/L				Analysis Date: 02-Apr-2014 15:11				
Client ID:	Run ID: VOA1_163957			SeqNo: 2770287		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	47.64	5.0	50	0	95.3	73 - 121				
Ethylbenzene	51.84	5.0	50	0	104	80 - 120				
Toluene	50.03	5.0	50	0	100	80 - 120				
Xylenes, Total	154.2	15	150	0	103	80 - 120				
Surr: 1,2-Dichloroethane-d4	47.87	5.0	50	0	95.7	70 - 125				
Surr: 4-Bromofluorobenzene	50.83	5.0	50	0	102	72 - 125				
Surr: Dibromofluoromethane	49.77	5.0	50	0	99.5	71 - 125				
Surr: Toluene-d8	51.6	5.0	50	0	103	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14031219
 Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)

QC BATCH REPORT

Batch ID: R163957		Instrument: VOA1		Method: SW8260						
MS	Sample ID: HS14031219-09AMS	Units: ug/L				Analysis Date: 02-Apr-2014 14:19				
Client ID: MW-9	Run ID: VOA1_163957	SeqNo: 2770285		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	45.93	5.0	50	0	91.9	73 - 121				
Ethylbenzene	49.27	5.0	50	0	98.5	80 - 120				
Toluene	48.73	5.0	50	0	97.5	80 - 120				
Xylenes, Total	155.7	15	150	0	104	80 - 120				
Surr: 1,2-Dichloroethane-d4	49.82	5.0	50	0	99.6	70 - 125				
Surr: 4-Bromofluorobenzene	52.36	5.0	50	0	105	72 - 125				
Surr: Dibromofluoromethane	48.27	5.0	50	0	96.5	71 - 125				
Surr: Toluene-d8	50.38	5.0	50	0	101	75 - 125				

MSD	Sample ID: HS14031219-09AMSD	Units: ug/L				Analysis Date: 02-Apr-2014 14:45				
Client ID: MW-9	Run ID: VOA1_163957				SeqNo: 2770286		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	48.37	5.0	50	0	96.7	73 - 121	45.93	5.17	20	
Ethylbenzene	52.86	5.0	50	0	106	80 - 120	49.27	7.03	20	
Toluene	52.74	5.0	50	0	105	80 - 120	48.73	7.89	20	
Xylenes, Total	157.8	15	150	0	105	78 - 121	155.7	1.35	20	
Surr: 1,2-Dichloroethane-d4	48.91	5.0	50	0	97.8	70 - 125	49.82	1.85	20	
Surr: 4-Bromofluorobenzene	51.48	5.0	50	0	103	72 - 125	52.36	1.7	20	
Surr: Dibromofluoromethane	50.62	5.0	50	0	101	71 - 125	48.27	4.76	20	
Surr: Toluene-d8	51.68	5.0	50	0	103	75 - 125	50.38	2.54	20	

The following samples were analyzed in this batch: HS14031219-09A

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14031219
 Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)

QC BATCH REPORT

Batch ID: R231408			Instrument: ICS2100			Method: E300				
MBLK	Sample ID: WBLKW2	Units: mg/L			Analysis Date: 07-Apr-2014 21:13					
Client ID:	Run ID: ICS2100_231408			SeqNo: 2780311		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								

MBLK	Sample ID: WBLKW1	Units: mg/L			Analysis Date: 07-Apr-2014 11:52					
Client ID:	Run ID: ICS2100_231408			SeqNo: 2780275		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								

LCS	Sample ID: WLCSW2	Units: mg/L			Analysis Date: 07-Apr-2014 21:27					
Client ID:	Run ID: ICS2100_231408			SeqNo: 2780312		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.77	0.500	20	0	98.9	90 - 110				

LCS	Sample ID: WLCSW1	Units: mg/L			Analysis Date: 07-Apr-2014 12:07					
Client ID:	Run ID: ICS2100_231408			SeqNo: 2780276		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.87	0.500	20	0	104	90 - 110				

MS	Sample ID: HS14031221-03BMS	Units: mg/L			Analysis Date: 07-Apr-2014 22:25					
Client ID:	Run ID: ICS2100_231408			SeqNo: 2780316		PrepDate:		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	212.7	5.00	100	112	101	80 - 120				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14031219
 Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A008)

QC BATCH REPORT

Batch ID: R231408											Instrument: ICS2100			Method: E300					
MS		Sample ID: HS14031151-02AMS				Units: mg/L			Analysis Date: 07-Apr-2014 13:32										
Client ID:		Run ID: ICS2100_231408				SeqNo: 2780279		PrepDate:		DF: 1000									
Analyte		Result		PQL SPK Val		SPK Ref Value		%REC		Control Limit		RPD Ref Value		%RPD		RPD Limit		Qual	
Chloride		105500		500 10000		101500		39.5		80 - 120								SEO	

MSD	Sample ID:	HS14031221-03BMSD				Units:	mg/L		Analysis Date:		07-Apr-2014 22:40		
	Client ID:	Run ID:				ICS2100_231408		SeqNo:		2780317		PrepDate:	DF: 10
	Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Chloride		217.3	5.00	100	112	105	80 - 120	212.7	2.16	20			

MSD	Sample ID:	HS14031151-02AMSD				Units:	mg/L		Analysis Date: 07-Apr-2014 13:47		
	Client ID:	Run ID: ICS2100_231408				SeqNo: 2780280		PrepDate:		DF: 1000	
	Analyte	Result	PQL SPK Val		SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
	Chloride	107100	500	10000	101500	55.3	80 - 120	105500	1.49	20	SEO

The following samples were analyzed in this batch:

HS14031219-01B	HS14031219-02B	HS14031219-03B	HS14031219-04B
HS14031219-05B	HS14031219-06B	HS14031219-07B	HS14031219-08B
HS14031219-09B			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: GSHI PXP Hill, E.C. Federal #7 TB 55627DM
 (ENV749A008)
WorkOrder: HS14031219

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution

Unit Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	AR - 2014	27-Mar-2015
California	06248CA 2013-2014	31-Jul-2014
Dept of Defense	L2231 Testing	22-Dec-2015
Illinois	003180	09-May-2014
Kansas	E-10352 8/15/2013-2014	31-Jul-2014
Kentucky	95 Year- 2013	30-Apr-2014
Louisiana	03087 2013/2014	30-Jun-2014
North Carolina	624 - 2014	31-Dec-2014
Oklahoma	2013-024	31-Aug-2014
Texas	T104704231-13-12	30-Apr-2014

Sample Receipt Checklist

Client Name: GLEN SPRINGS/CRA

Date/Time Received: **29-Mar-2014 10:15**

Work Order: HS14031219

Received by: **BA11**

Checklist completed by:	<u>Paresh M. Giga</u>	<u>31-Mar-2014</u>	Reviewed by:	<u>Dane J. Wacasey</u>	<u>2-Apr-2014</u>
	eSignature	Date		eSignature	Date

Matrices: **Water**Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	

Temperature(s)/Thermometer(s):	1.0c/1.0c c/U			IR3
Cooler(s)/Kit(s):	5222			
Date/Time sample(s) sent to storage:				
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted	☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A	☒
pH adjusted?	Yes ☐	No ☐	N/A	☒
pH adjusted by:				

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:



Cincinnati, OH
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Everett, WA
+1 425 356 2600

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Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 103164

Environmental

14031219

GLEN SPRINGS/CRA: Glenn Springs Holdings

Project: Primary Clarifier Outlet

WV

ALS Project Manager:

Customer Information				Project Information													
Purchase Order	4501708538	Project Name	GSPI PXP Hill, E.C. Federal #7 TB														
Work Order		Project Number	55627DM (ENV7494008)														
Company Name	Glenn Springs Holdings	Bill To Company	Glenn Springs Holdings														
Send Report To	Angela Bown	Invoice Attn	Jennifer Devonshire														
Address	C/O CRA	Address	C/O CRA														
City/State/Zip	9033 Meridian Way	City/State/Zip	2055 Niagara Falls Blvd, Suite 3														
Phone	West Chester, Ohio, 45069	Phone	Niagara Falls, NY 14304														
Fax	(513) 942-4750	Fax															
e-Mail Address	abown@craworld.com	e-Mail Address															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1	3-27-14	12:20	Water	8	4	X	X									
2	MW-2		12:15	Water	8		X	X									
3	MW-3		12:05	Water	8		X	X									
4	MW-4		12:30	Water			X	X									
5	MW-5		11:55	Water			X	X									
6	MW-6		12:25	Water			X	X									
7	MW-7		12:40	Water			X	X									
8	MW-8		11:50	Water			X	X									
9	MW-9		11:40	Water			X	X									
10	Trip Blank			Water			X										

Shipments		Required Turnaround Time (Check Box)		Results Due Date:	
Date	Time	Ship Method	Required Turnaround Time (Check Box)	Other	Results Due Date:
3-28-14	11:20	Truck	☒ Std 10 WK Days	☐ 2 WK Days	10 Day TAT
3-28-14	10:15	Truck	☒ Std 10 WK Days	☐ 2 WK Days	10 Day TAT
3-28-14	10:15	Truck	☒ Std 10 WK Days	☐ 2 WK Days	10 Day TAT

Received by:		QC Package: (Check One Box Below)	
Date	Time	QC Package: (Check One Box Below)	QC Package: (Check One Box Below)
3-28-14	11:20	☒ Level II Std OC	☐ TRRP Checklist
3-28-14	10:15	☐ Level III Std OC/RAW Date	☐ TRRP Level IV
3-28-14	10:15	☐ Level IV SW846/CLP	☐ Other / EDD

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₃ 7-Other 8-30 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

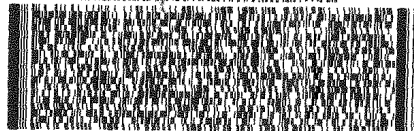
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ORIGIN ID:MAFA (281) 530-5656
ALS LABORATORY GROUP
10450 STANCLIFF RD STE 210
HOUSTON, TX 770994938
UNITED STATES US

SHIP DATE: 26MAR14
ACTWT: 27.5 LB
CAD: 20FFC1501
DIMS: 20x20x10 IN
BILL SENDER

TO CLIENT SERVICES
ALS LAB
10450 STANCLIFF RD
STE 210
HOUSTON TX 77099
(281) 530-5656

REF: DEPT: INU: PDI:



FedEx
Express



1 of 4
TRK# 8042 5198 8669
0215
MASTER

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO SGRA

77099
TX-US IAH



ALS Environmental	
10450 Stancliff Rd, Suite 210 Houston, Texas 77099 Tel: +1 281 530 5656 Fax: +1 281 530 5687	
Date:	3/26/14
Name:	ALS
Company:	ALS
CUSTODY SEAL	
Seal Broken By:	

ALS Environmental	
10450 Stancliff Rd, Suite 210 Houston, Texas 77099 Tel: +1 281 530 5656 Fax: +1 281 530 5687	
Date:	3/26/14
Name:	ALS
Company:	ALS
CUSTODY SEAL	
Seal Broken By:	



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July 07, 2014

Angela Bown
Glenn Springs Holdings
C/O CRA
2055 Niagara Falls Blvd. Suite 3
Niagara Falls, NY 14304

Work Order: **HS14060967**

Laboratory Results for: **55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB**

Dear Angela,

ALS Environmental received 11 sample(s) on Jun 20, 2014 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "Dane Wacasey".

Generated By: Dayna.Fisher

Dane J. Wacasey

Client: Glenn Springs Holdings
Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB
Work Order: HS14060967

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14060967-01	MW-1	Water		19-Jun-2014 11:00	20-Jun-2014 09:10	☐
HS14060967-02	MW-2	Water		19-Jun-2014 10:55	20-Jun-2014 09:10	☐
HS14060967-03	MW-3	Water		19-Jun-2014 10:50	20-Jun-2014 09:10	☐
HS14060967-04	MW-4	Water		19-Jun-2014 10:40	20-Jun-2014 09:10	☐
HS14060967-05	MW-5	Water		19-Jun-2014 10:25	20-Jun-2014 09:10	☐
HS14060967-06	MW-6	Water		19-Jun-2014 10:30	20-Jun-2014 09:10	☐
HS14060967-07	MW-7	Water		19-Jun-2014 10:10	20-Jun-2014 09:10	☐
HS14060967-08	MW-8	Water		19-Jun-2014 10:00	20-Jun-2014 09:10	☐
HS14060967-09	MW-9	Water		19-Jun-2014 09:45	20-Jun-2014 09:10	☐
HS14060967-10	Dup	Water		19-Jun-2014 00:00	20-Jun-2014 09:10	☐
HS14060967-11	Trip Blank	Water		19-Jun-2014 00:00	20-Jun-2014 09:10	☐

Client: Glenn Springs Holdings
Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB
Work Order: HS14060967

CASE NARRATIVE

Work Order Comments

- Analyst Initials and Names:
KBB Karin K. UnderBrink
PC Presenta Cabascango
-

GCMS Volatiles by Method SW8260

Batch ID: R236451

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

WetChemistry by Method E300

Batch ID: R236785

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Batch ID: R236721

- The MS/MSD were preformed on an unrelated sample.

Batch ID: R236691

Sample ID: **HS14060967-07 (MW-7)**

- The MS/MSD were recovered below control limits. The LCS was recovered within criteria.
-

Client: Glenn Springs Holdings
 Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB
 Sample ID: MW-1
 Collection Date: 19-Jun-2014 11:00

ANALYTICAL REPORT

WorkOrder:HS14060967
 Lab ID:HS14060967-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	28-Jun-2014 08:16
Ethylbenzene	U		0.50	5.0	ug/L	1	28-Jun-2014 08:16
Toluene	U		0.50	5.0	ug/L	1	28-Jun-2014 08:16
Xylenes, Total	U		1.5	15	ug/L	1	28-Jun-2014 08:16
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>109</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>28-Jun-2014 08:16</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>94.2</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>28-Jun-2014 08:16</i>
<i>Surr: Dibromofluoromethane</i>	<i>107</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>28-Jun-2014 08:16</i>
<i>Surr: Toluene-d8</i>	<i>98.5</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>28-Jun-2014 08:16</i>
ANIONS - EPA 300.0 (1993)		Method:E300				Analyst: KKB	
Chloride	152		1.00	2.50	mg/L	5	02-Jul-2014 00:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB
Sample ID: MW-2
Collection Date: 19-Jun-2014 10:55

ANALYTICAL REPORT

WorkOrder:HS14060967
Lab ID:HS14060967-02
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	28-Jun-2014 08:43
Ethylbenzene	U		0.50	5.0	ug/L	1	28-Jun-2014 08:43
Toluene	U		0.50	5.0	ug/L	1	28-Jun-2014 08:43
Xylenes, Total	U		1.5	15	ug/L	1	28-Jun-2014 08:43
Surr: 1,2-Dichloroethane-d4	112			70-125	%REC	1	28-Jun-2014 08:43
Surr: 4-Bromofluorobenzene	93.8			72-125	%REC	1	28-Jun-2014 08:43
Surr: Dibromofluoromethane	110			71-125	%REC	1	28-Jun-2014 08:43
Surr: Toluene-d8	98.0			75-125	%REC	1	28-Jun-2014 08:43
ANIONS - EPA 300.0 (1993)			Method:E300			Analyst: KKB	
Chloride	209		1.00	2.50	mg/L	5	02-Jul-2014 00:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB
Sample ID: MW-3
Collection Date: 19-Jun-2014 10:50

ANALYTICAL REPORT

WorkOrder:HS14060967
Lab ID:HS14060967-03
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	28-Jun-2014 09:11
Ethylbenzene	U		0.50	5.0	ug/L	1	28-Jun-2014 09:11
Toluene	U		0.50	5.0	ug/L	1	28-Jun-2014 09:11
Xylenes, Total	U		1.5	15	ug/L	1	28-Jun-2014 09:11
Surr: 1,2-Dichloroethane-d4	114			70-125	%REC	1	28-Jun-2014 09:11
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	28-Jun-2014 09:11
Surr: Dibromofluoromethane	110			71-125	%REC	1	28-Jun-2014 09:11
Surr: Toluene-d8	102			75-125	%REC	1	28-Jun-2014 09:11
ANIONS - EPA 300.0 (1993)			Method:E300			Analyst: KKB	
Chloride	324		1.00	2.50	mg/L	5	02-Jul-2014 00:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB
 Sample ID: MW-4
 Collection Date: 19-Jun-2014 10:40

ANALYTICAL REPORT

WorkOrder:HS14060967
 Lab ID:HS14060967-04
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	28-Jun-2014 09:38
Ethylbenzene	U		0.50	5.0	ug/L	1	28-Jun-2014 09:38
Toluene	U		0.50	5.0	ug/L	1	28-Jun-2014 09:38
Xylenes, Total	U		1.5	15	ug/L	1	28-Jun-2014 09:38
<i>Surr: 1,2-Dichloroethane-d4</i>	112			70-125	%REC	1	28-Jun-2014 09:38
<i>Surr: 4-Bromofluorobenzene</i>	92.0			72-125	%REC	1	28-Jun-2014 09:38
<i>Surr: Dibromofluoromethane</i>	107			71-125	%REC	1	28-Jun-2014 09:38
<i>Surr: Toluene-d8</i>	96.8			75-125	%REC	1	28-Jun-2014 09:38
ANIONS - EPA 300.0 (1993)		Method:E300				Analyst: KKB	
Chloride	537		2.00	5.00	mg/L	10	02-Jul-2014 15:43

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB
Sample ID: MW-5
Collection Date: 19-Jun-2014 10:25

ANALYTICAL REPORT

WorkOrder:HS14060967
Lab ID:HS14060967-05
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	28-Jun-2014 10:06
Ethylbenzene	U		0.50	5.0	ug/L	1	28-Jun-2014 10:06
Toluene	U		0.50	5.0	ug/L	1	28-Jun-2014 10:06
Xylenes, Total	U		1.5	15	ug/L	1	28-Jun-2014 10:06
Surr: 1,2-Dichloroethane-d4	111			70-125	%REC	1	28-Jun-2014 10:06
Surr: 4-Bromofluorobenzene	90.7			72-125	%REC	1	28-Jun-2014 10:06
Surr: Dibromofluoromethane	110			71-125	%REC	1	28-Jun-2014 10:06
Surr: Toluene-d8	95.6			75-125	%REC	1	28-Jun-2014 10:06
ANIONS - EPA 300.0 (1993)			Method:E300			Analyst: KKB	
Chloride	472		1.00	2.50	mg/L	5	02-Jul-2014 00:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB
 Sample ID: MW-6
 Collection Date: 19-Jun-2014 10:30

ANALYTICAL REPORT

WorkOrder:HS14060967
 Lab ID:HS14060967-06
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	28-Jun-2014 10:34
Ethylbenzene	U		0.50	5.0	ug/L	1	28-Jun-2014 10:34
Toluene	U		0.50	5.0	ug/L	1	28-Jun-2014 10:34
Xylenes, Total	U		1.5	15	ug/L	1	28-Jun-2014 10:34
<i>Surr: 1,2-Dichloroethane-d4</i>	114			70-125	%REC	1	28-Jun-2014 10:34
<i>Surr: 4-Bromofluorobenzene</i>	90.3			72-125	%REC	1	28-Jun-2014 10:34
<i>Surr: Dibromofluoromethane</i>	110			71-125	%REC	1	28-Jun-2014 10:34
<i>Surr: Toluene-d8</i>	95.2			75-125	%REC	1	28-Jun-2014 10:34
ANIONS - EPA 300.0 (1993)		Method:E300				Analyst: KKB	
Chloride	115		1.00	2.50	mg/L	5	02-Jul-2014 01:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB
 Sample ID: MW-7
 Collection Date: 19-Jun-2014 10:10

ANALYTICAL REPORT

WorkOrder:HS14060967
 Lab ID:HS14060967-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	28-Jun-2014 11:01
Ethylbenzene	U		0.50	5.0	ug/L	1	28-Jun-2014 11:01
Toluene	U		0.50	5.0	ug/L	1	28-Jun-2014 11:01
Xylenes, Total	U		1.5	15	ug/L	1	28-Jun-2014 11:01
<i>Surr: 1,2-Dichloroethane-d4</i>	112			70-125	%REC	1	28-Jun-2014 11:01
<i>Surr: 4-Bromofluorobenzene</i>	93.1			72-125	%REC	1	28-Jun-2014 11:01
<i>Surr: Dibromofluoromethane</i>	108			71-125	%REC	1	28-Jun-2014 11:01
<i>Surr: Toluene-d8</i>	98.5			75-125	%REC	1	28-Jun-2014 11:01
ANIONS - EPA 300.0 (1993)		Method:E300				Analyst: KKB	
Chloride	1,220		4.00	10.0	mg/L	20	02-Jul-2014 15:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB
 Sample ID: MW-8
 Collection Date: 19-Jun-2014 10:00

ANALYTICAL REPORT

WorkOrder:HS14060967
 Lab ID:HS14060967-08
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	28-Jun-2014 11:29
Ethylbenzene	U		0.50	5.0	ug/L	1	28-Jun-2014 11:29
Toluene	U		0.50	5.0	ug/L	1	28-Jun-2014 11:29
Xylenes, Total	U		1.5	15	ug/L	1	28-Jun-2014 11:29
<i>Surr: 1,2-Dichloroethane-d4</i>	109			70-125	%REC	1	28-Jun-2014 11:29
<i>Surr: 4-Bromofluorobenzene</i>	91.1			72-125	%REC	1	28-Jun-2014 11:29
<i>Surr: Dibromofluoromethane</i>	108			71-125	%REC	1	28-Jun-2014 11:29
<i>Surr: Toluene-d8</i>	96.2			75-125	%REC	1	28-Jun-2014 11:29
ANIONS - EPA 300.0 (1993)		Method:E300				Analyst: KKB	
Chloride	243		1.00	2.50	mg/L	5	02-Jul-2014 02:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB
 Sample ID: MW-9
 Collection Date: 19-Jun-2014 09:45

ANALYTICAL REPORT

WorkOrder:HS14060967
 Lab ID:HS14060967-09
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	28-Jun-2014 11:57
Ethylbenzene	U		0.50	5.0	ug/L	1	28-Jun-2014 11:57
Toluene	U		0.50	5.0	ug/L	1	28-Jun-2014 11:57
Xylenes, Total	U		1.5	15	ug/L	1	28-Jun-2014 11:57
<i>Surr: 1,2-Dichloroethane-d4</i>	112			70-125	%REC	1	28-Jun-2014 11:57
<i>Surr: 4-Bromofluorobenzene</i>	92.5			72-125	%REC	1	28-Jun-2014 11:57
<i>Surr: Dibromofluoromethane</i>	112			71-125	%REC	1	28-Jun-2014 11:57
<i>Surr: Toluene-d8</i>	94.0			75-125	%REC	1	28-Jun-2014 11:57
ANIONS - EPA 300.0 (1993)		Method:E300				Analyst: KKB	
Chloride	136		1.00	2.50	mg/L	5	02-Jul-2014 02:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB
 Sample ID: Dup
 Collection Date: 19-Jun-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14060967
 Lab ID:HS14060967-10
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	28-Jun-2014 12:25
Ethylbenzene	U		0.50	5.0	ug/L	1	28-Jun-2014 12:25
Toluene	U		0.50	5.0	ug/L	1	28-Jun-2014 12:25
Xylenes, Total	U		1.5	15	ug/L	1	28-Jun-2014 12:25
<i>Surr: 1,2-Dichloroethane-d4</i>	113			70-125	%REC	1	28-Jun-2014 12:25
<i>Surr: 4-Bromofluorobenzene</i>	90.8			72-125	%REC	1	28-Jun-2014 12:25
<i>Surr: Dibromofluoromethane</i>	110			71-125	%REC	1	28-Jun-2014 12:25
<i>Surr: Toluene-d8</i>	95.3			75-125	%REC	1	28-Jun-2014 12:25
ANIONS - EPA 300.0 (1993)		Method:E300				Analyst: KKB	
Chloride	1,100		20.0	50.0	mg/L	100	03-Jul-2014 03:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB
Sample ID: Trip Blank
Collection Date: 19-Jun-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14060967
Lab ID:HS14060967-11
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260					Analyst: PC
Benzene	U		0.60	5.0	ug/L	1	28-Jun-2014 03:23
Ethylbenzene	U		0.50	5.0	ug/L	1	28-Jun-2014 03:23
Toluene	U		0.50	5.0	ug/L	1	28-Jun-2014 03:23
Xylenes, Total	U		1.5	15	ug/L	1	28-Jun-2014 03:23
Surr: 1,2-Dichloroethane-d4	109			70-125	%REC	1	28-Jun-2014 03:23
Surr: 4-Bromofluorobenzene	92.5			72-125	%REC	1	28-Jun-2014 03:23
Surr: Dibromofluoromethane	107			71-125	%REC	1	28-Jun-2014 03:23
Surr: Toluene-d8	98.5			75-125	%REC	1	28-Jun-2014 03:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB
WorkOrder: HS14060967

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R236451 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14060967-01	MW-1	19 Jun 2014 11:00			28 Jun 2014 08:16	1
HS14060967-02	MW-2	19 Jun 2014 10:55			28 Jun 2014 08:43	1
HS14060967-03	MW-3	19 Jun 2014 10:50			28 Jun 2014 09:11	1
HS14060967-04	MW-4	19 Jun 2014 10:40			28 Jun 2014 09:38	1
HS14060967-05	MW-5	19 Jun 2014 10:25			28 Jun 2014 10:06	1
HS14060967-06	MW-6	19 Jun 2014 10:30			28 Jun 2014 10:34	1
HS14060967-07	MW-7	19 Jun 2014 10:10			28 Jun 2014 11:01	1
HS14060967-08	MW-8	19 Jun 2014 10:00			28 Jun 2014 11:29	1
HS14060967-09	MW-9	19 Jun 2014 09:45			28 Jun 2014 11:57	1
HS14060967-10	Dup	19 Jun 2014 00:00			28 Jun 2014 12:25	1
HS14060967-11	Trip Blank	19 Jun 2014 00:00			28 Jun 2014 03:23	1
Batch ID R236691 Test Name : ANIONS - EPA 300.0 (1993) Matrix: Water						
HS14060967-01	MW-1	19 Jun 2014 11:00			02 Jul 2014 00:01	5
HS14060967-02	MW-2	19 Jun 2014 10:55			02 Jul 2014 00:16	5
HS14060967-03	MW-3	19 Jun 2014 10:50			02 Jul 2014 00:30	5
HS14060967-05	MW-5	19 Jun 2014 10:25			02 Jul 2014 00:59	5
HS14060967-06	MW-6	19 Jun 2014 10:30			02 Jul 2014 01:14	5
HS14060967-08	MW-8	19 Jun 2014 10:00			02 Jul 2014 02:41	5
HS14060967-09	MW-9	19 Jun 2014 09:45			02 Jul 2014 02:56	5
Batch ID R236721 Test Name : ANIONS - EPA 300.0 (1993) Matrix: Water						
HS14060967-04	MW-4	19 Jun 2014 10:40			02 Jul 2014 15:43	10
HS14060967-07	MW-7	19 Jun 2014 10:10			02 Jul 2014 15:58	20
Batch ID R236785 Test Name : ANIONS - EPA 300.0 (1993) Matrix: Water						
HS14060967-10	Dup	19 Jun 2014 00:00			03 Jul 2014 03:18	100

Client: Glenn Springs Holdings
 WorkOrder: HS14060967
 Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB

QC BATCH REPORT

Batch ID: R236451		Instrument: VOA1		Method: SW8260						
MBLK	Sample ID: VBLKW-140626	Units: ug/L				Analysis Date: 28-Jun-2014 02:56				
Client ID:	Run ID: VOA1_236451	SeqNo: 2900663				PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
Surr: 1,2-Dichloroethane-d4	54.43	5.0	50	0	109	70 - 125				
Surr: 4-Bromofluorobenzene	45.65	5.0	50	0	91.3	72 - 125				
Surr: Dibromofluoromethane	52.95	5.0	50	0	106	71 - 125				
Surr: Toluene-d8	48.26	5.0	50	0	96.5	75 - 125				

LCS	Sample ID: VLCSW-1400627	Units: ug/L				Analysis Date: 28-Jun-2014 02:02				
Client ID:	Run ID: VOA1_236451	SeqNo: 2900662				PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.98	5.0	50	0	94.0	73 - 121				
Ethylbenzene	46.09	5.0	50	0	92.2	80 - 120				
Toluene	48.34	5.0	50	0	96.7	80 - 120				
Xylenes, Total	143.5	15	150	0	95.7	80 - 120				
Surr: 1,2-Dichloroethane-d4	46.69	5.0	50	0	93.4	70 - 125				
Surr: 4-Bromofluorobenzene	49.09	5.0	50	0	98.2	72 - 125				
Surr: Dibromofluoromethane	48.16	5.0	50	0	96.3	71 - 125				
Surr: Toluene-d8	50.05	5.0	50	0	100	75 - 125				

MS	Sample ID: HS14060964-01MS	Units: ug/L				Analysis Date: 28-Jun-2014 04:16				
Client ID:	Run ID: VOA1_236451	SeqNo: 2900666				PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	47.76	5.0	50	0	95.5	73 - 121				
Ethylbenzene	48.89	5.0	50	0	97.8	80 - 120				
Toluene	48.83	5.0	50	0	97.7	80 - 120				
Xylenes, Total	153.1	15	150	0	102	80 - 120				
Surr: 1,2-Dichloroethane-d4	46.61	5.0	50	0	93.2	70 - 125				
Surr: 4-Bromofluorobenzene	50.83	5.0	50	0	102	72 - 125				
Surr: Dibromofluoromethane	48.62	5.0	50	0	97.2	71 - 125				
Surr: Toluene-d8	49.51	5.0	50	0	99.0	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14060967
 Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB

QC BATCH REPORT

Batch ID: R236451		Instrument: VOA1		Method: SW8260						
MSD	Sample ID: HS14060964-01MSD	Units: ug/L				Analysis Date: 28-Jun-2014 04:43				
Client ID:	Run ID: VOA1_236451	SeqNo: 2900667		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	49.4	5.0	50	0	98.8	73 - 121	47.76	3.37	20	
Ethylbenzene	49.7	5.0	50	0	99.4	80 - 120	48.89	1.64	20	
Toluene	50.2	5.0	50	0	100	80 - 120	48.83	2.77	20	
Xylenes, Total	152.7	15	150	0	102	78 - 121	153.1	0.251	20	
Surr: 1,2-Dichloroethane-d4	45.94	5.0	50	0	91.9	70 - 125	46.61	1.45	20	
Surr: 4-Bromofluorobenzene	50.45	5.0	50	0	101	72 - 125	50.83	0.753	20	
Surr: Dibromofluoromethane	47.42	5.0	50	0	94.8	71 - 125	48.62	2.49	20	
Surr: Toluene-d8	48.86	5.0	50	0	97.7	75 - 125	49.51	1.31	20	
The following samples were analyzed in this batch:		HS14060967-01		HS14060967-02		HS14060967-03		HS14060967-04		
		HS14060967-05		HS14060967-06		HS14060967-07		HS14060967-08		
		HS14060967-09		HS14060967-10		HS14060967-11				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14060967
 Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB

QC BATCH REPORT

Batch ID: R236691		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW3	Units: mg/L				Analysis Date: 01-Jul-2014 19:25				
Client ID:	Run ID: ICS2100_236691	SeqNo: 2905407		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								
LCS	Sample ID: WLCSW3	Units: mg/L				Analysis Date: 01-Jul-2014 19:40				
Client ID:	Run ID: ICS2100_236691	SeqNo: 2905408		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.48	0.500	20	0	107	90 - 110				
MS	Sample ID: HS14060967-07MS	Units: mg/L				Analysis Date: 02-Jul-2014 01:43				
Client ID: MW-7	Run ID: ICS2100_236691	SeqNo: 2905428		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1306	5.00	100	1250	56.3	80 - 120				SEO
MSD	Sample ID: HS14060967-07MSD	Units: mg/L				Analysis Date: 02-Jul-2014 02:27				
Client ID: MW-7	Run ID: ICS2100_236691	SeqNo: 2905431		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1311	5.00	100	1250	61.0	80 - 120	1306	0.359	20	SEO
The following samples were analyzed in this batch:										
HS14060967-01		HS14060967-02		HS14060967-03		HS14060967-04				
HS14060967-05		HS14060967-06		HS14060967-07		HS14060967-08				
HS14060967-09										

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14060967
 Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB

QC BATCH REPORT

Batch ID: R236721		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW1	Units: mg/L		Analysis Date: 02-Jul-2014 11:32						
Client ID:	Run ID: ICS2100_236721		SeqNo: 2906031		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.227	0.500								J
LCS	Sample ID: WLCSW1	Units: mg/L		Analysis Date: 02-Jul-2014 11:46						
Client ID:	Run ID: ICS2100_236721		SeqNo: 2906032		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.76	0.500	20	0	104	90 - 110				
MS	Sample ID: HS14061089-01MS	Units: mg/L		Analysis Date: 02-Jul-2014 14:05						
Client ID:	Run ID: ICS2100_236721		SeqNo: 2906039		PrepDate:		DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1157	5.00	100	976	181	80 - 120				SEO
MSD	Sample ID: HS14061089-01MSD	Units: mg/L		Analysis Date: 02-Jul-2014 14:20						
Client ID:	Run ID: ICS2100_236721		SeqNo: 2906040		PrepDate:		DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1163	5.00	100	976	187	80 - 120	1157	0.515	20	SEO
The following samples were analyzed in this batch:										
HS14060967-04 HS14060967-07										

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14060967
 Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB

QC BATCH REPORT

Batch ID: R236785		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW3	Units: mg/L		Analysis Date: 03-Jul-2014 01:36						
Client ID:	Run ID: ICS2100_236785		SeqNo: 2907939		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.205	0.500								J
LCS	Sample ID: WLCSW3	Units: mg/L		Analysis Date: 03-Jul-2014 01:51						
Client ID:	Run ID: ICS2100_236785		SeqNo: 2907940		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.75	0.500	20	0	104	90 - 110				
MS	Sample ID: HS14060944-09MS	Units: mg/L		Analysis Date: 03-Jul-2014 07:54						
Client ID:	Run ID: ICS2100_236785		SeqNo: 2907966		PrepDate:		DF: 1000			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	16690	500	10000	6260	104	80 - 120				
MSD	Sample ID: HS14060944-09MSD	Units: mg/L		Analysis Date: 03-Jul-2014 08:09						
Client ID:	Run ID: ICS2100_236785		SeqNo: 2907967		PrepDate:		DF: 1000			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	16230	500	10000	6260	99.7	80 - 120	16690	2.8	20	
The following samples were analyzed in this batch: HS14060967-10										

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB
WorkOrder: HS14060967

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	AR - 2014	27-Mar-2015
California	06248CA 2013-2014	31-Jul-2014
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003403	09-May-2015
Kansas	E-10352 8/15/2013-2014	31-Jul-2014
Kentucky	KY 2014-2015	30-Apr-2015
North Carolina	624 - 2014	31-Dec-2014
North Dakota	R-193 2025	30-Apr-2015
Oklahoma	2013-024	31-Aug-2014
Texas	TX104704231-14-13	30-Apr-2015

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **20-Jun-2014 09:10**

Work Order: HS14060967

Received by: **LOT**Checklist completed by: Michael E. Schepcoff 24-Jun-2014
eSignature DateReviewed by: Bill Carey 25-Jun-2014
eSignature DateMatrices: **Water**Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	

Temperature(s)/Thermometer(s):	0.6C/0.6C C/U	3	
Cooler(s)/Kit(s):	4792		
Date/Time sample(s) sent to storage:	6/24/2014 13:00		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By: 0

Regarding:

Comments:

Corrective Action:



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COC ID: 099001

HS14060967

Glenn Springs Holdings

55627DM ENV749A008 GSHI PXP Hill EC Federal 7 TB

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ALS Project Manager:



Customer Information		Project Information		
Purchase Order	4501709538	Project Name	GSHI PXP Hill, E.C. Federal #7 TB	A BTEX (B260)
Work Order		Project Number	55627DM (ENV749A008)	B Chloride by 300
Company Name	Glenn Springs Holdings	Bill To Company	Glenn Springs Holdings	C
Send Report To	Angela Bown	Invoice Attn	Jennifer Devonshire	D
Address	C/O CRA	Address	C/O CRA	E
	9033 Meridian Way		2055 Niagara Falls Blvd. Suite 3	F
City/State/Zip	West Chester, Ohio, 45069	City/State/Zip	Niagara Falls, NY 14304	G
Phone	(513) 942-4750	Phone		H
Fax		Fax		I
e-Mail Address		e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1	06-19-14	1100	Water		4	X	X									
2	MW-2		1055	Water		4	X	X									
3	MW-3		1050	Water		4	X	X									
4	MW-4		1040	Water		4	X	X									
5	MW-5		1025	Water		4	X	X									
6	MW-6		1030	Water		4	X	X									
7	MW-7		1010	Water		4	X	X									
8	MW-8		1000	Water		4	X	X									
9	MW-9		0945	Water		4	X	X									
10	Dup		—	Water		4	X	X									

Sampler(s) Please Print & Sign <i>Ryan Reich</i>		Shipment Method <i>Fed Ex</i>		Required Turnaround Time: (Check Box) ☒ Std 10-Wk days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 74 Hour		Results Due Date:	
Relinquished by:	Date:	Time:	Received by:	Notes:			
Relinquished by:	Date:	Time:	Received by (Laboratory):	10 Day TAT			
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035				☒ Level 2 Std QC ☐ TRRP ChkList ☐ Level 3 Std QC/Row da ☐ TRRP Level 4 ☐ Level 4 SW846/CLP ☐ Other/EDD			

- Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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COC ID: 09399

ALS Project Manager:

HS14060967

Glenn Springs Holdings

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55627DM ENV749A008 GSH) PXP Hill EC Federal 7 TB



Customer Information		Project Information		
Purchase Order	4501709538	Project Name	GSHI PXP Hill, E.C. Federal #7 TB	A BTEX (8260)
Work Order		Project Number	55627DM (ENV749A008)	B Chloride by 300
Company Name	Glenn Springs Holdings	Bill To Company	Glenn Springs Holdings	C
Send Report To	Angela Bown	Invoice Attn	Jennifer Devonshire	D
Address	C/O CRA	Address	C/O CRA	E
	9033 Meridian Way		2055 Niagara Falls Blvd. Suite 3	F
City/State/Zip	West Chester, Ohio, 45069	City/State/Zip	Niagara Falls, NY 14304	G
Phone	(513) 942-4750	Phone		H
Fax		Fax		I
e-Mail Address		e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Trip Blank			Water		0	X										
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign <i>[Signature]</i>		Shipment Method <i>Fed Ex</i>		Required Turnaround Time: (Check Box) ☒ Std 10 Wk days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour		Results Due Date:	
Relinquished by:	Date:	Time:	Received by:	Notes:			
				10 Day TAT			
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
						☒ Level 2 Std QC ☐ TRRP ChkList ☐ Level 3 Std QC/Row da ☐ TRRP Level 4 ☐ Level 4 SW846/CLP ☐ Other/EDD	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):				
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035							

- Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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 3. The Chain of Custody is a legal document. All information must be completed accurately.

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 ALS Environmental 10450 Standcliff Rd., Suite 200 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: 6/19/14	Time: 1830	Date:
	Name: Ryan Reid		
	Company: J. R. Reid		

 ALS Environmental 10450 Standcliff Rd., Suite 200 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: 6/19/14	Time: 1830	Date:
	Name: Ryan Reid		
	Company: J. R. Reid		

3 of 4 MPS# 7800 0806 8118 Mstr# 8042 5198 6997 AB SGRA 	FRI — 20 JUN 10:30A PRIORITY OVERNIGHT 77099 TX-US IAH
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10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

October 10, 2014

Angela Bown
Glenn Springs Holdings
C/O CRA
2055 Niagara Falls Blvd. Suite 3
Niagara Falls, NY 14304

Work Order: **HS14100172**

Laboratory Results for: **55627DM GSHI PXP Hill E C Federal 7 TB**

Dear Angela,

ALS Environmental received 10 sample(s) on Oct 03, 2014 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "Dane Wacasey".

Generated By: Dayna.Fisher

Dane J. Wacasey

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
Work Order: HS14100172

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14100172-01	MW-1	Water		30-Sep-2014 13:35	03-Oct-2014 09:53	☐
HS14100172-02	MW-2	Water		30-Sep-2014 13:40	03-Oct-2014 09:53	☐
HS14100172-03	MW-3	Water		30-Sep-2014 13:30	03-Oct-2014 09:53	☐
HS14100172-04	MW-4	Water		30-Sep-2014 14:00	03-Oct-2014 09:53	☐
HS14100172-05	MW-5	Water		30-Sep-2014 14:05	03-Oct-2014 09:53	☐
HS14100172-06	MW-6	Water		30-Sep-2014 13:45	03-Oct-2014 09:53	☐
HS14100172-07	MW-7	Water		30-Sep-2014 13:50	03-Oct-2014 09:53	☐
HS14100172-08	MW-8	Water		30-Sep-2014 14:10	03-Oct-2014 09:53	☐
HS14100172-09	MW-9	Water		30-Sep-2014 14:15	03-Oct-2014 09:53	☐
HS14100172-10	Trip Blank	Water		30-Sep-2014 00:00	03-Oct-2014 09:53	☐

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
Work Order: HS14100172

CASE NARRATIVE

Work Order Comments

- Analyst Names and Initials:
PC Presenta Cabascango
JBA Johnnie B. Allen

GCMS Volatiles by Method SW8260

Batch ID: R242317,R242320

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E300

Batch ID: R242591

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
Sample ID: MW-1
Collection Date: 30-Sep-2014 13:35

ANALYTICAL REPORT

WorkOrder:HS14100172
Lab ID:HS14100172-01
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	06-Oct-2014 19:43
Ethylbenzene	U		0.50	5.0	ug/L	1	06-Oct-2014 19:43
Toluene	U		0.50	5.0	ug/L	1	06-Oct-2014 19:43
Xylenes, Total	U		1.5	15	ug/L	1	06-Oct-2014 19:43
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	1	06-Oct-2014 19:43
Surr: 4-Bromofluorobenzene	95.6			72-125	%REC	1	06-Oct-2014 19:43
Surr: Dibromofluoromethane	101			71-125	%REC	1	06-Oct-2014 19:43
Surr: Toluene-d8	94.5			75-125	%REC	1	06-Oct-2014 19:43
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	118		1.00	2.50	mg/L	5	09-Oct-2014 21:07

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
Sample ID: MW-2
Collection Date: 30-Sep-2014 13:40

ANALYTICAL REPORT

WorkOrder:HS14100172
Lab ID:HS14100172-02
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	06-Oct-2014 20:31
Ethylbenzene	U		0.50	5.0	ug/L	1	06-Oct-2014 20:31
Toluene	U		0.50	5.0	ug/L	1	06-Oct-2014 20:31
Xylenes, Total	U		1.5	15	ug/L	1	06-Oct-2014 20:31
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	1	06-Oct-2014 20:31
Surr: 4-Bromofluorobenzene	96.8			72-125	%REC	1	06-Oct-2014 20:31
Surr: Dibromofluoromethane	101			71-125	%REC	1	06-Oct-2014 20:31
Surr: Toluene-d8	100.0			75-125	%REC	1	06-Oct-2014 20:31
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	175		1.00	2.50	mg/L	5	09-Oct-2014 21:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
Sample ID: MW-3
Collection Date: 30-Sep-2014 13:30

ANALYTICAL REPORT

WorkOrder:HS14100172
Lab ID:HS14100172-03
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	06-Oct-2014 20:55
Ethylbenzene	U		0.50	5.0	ug/L	1	06-Oct-2014 20:55
Toluene	U		0.50	5.0	ug/L	1	06-Oct-2014 20:55
Xylenes, Total	U		1.5	15	ug/L	1	06-Oct-2014 20:55
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>100</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>06-Oct-2014 20:55</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>96.2</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>06-Oct-2014 20:55</i>
<i>Surr: Dibromofluoromethane</i>	<i>99.4</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>06-Oct-2014 20:55</i>
<i>Surr: Toluene-d8</i>	<i>95.7</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>06-Oct-2014 20:55</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	293		2.00	5.00	mg/L	10	09-Oct-2014 21:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
Sample ID: MW-4
Collection Date: 30-Sep-2014 14:00

ANALYTICAL REPORT

WorkOrder:HS14100172
Lab ID:HS14100172-04
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	06-Oct-2014 21:44
Ethylbenzene	U		0.50	5.0	ug/L	1	06-Oct-2014 21:44
Toluene	U		0.50	5.0	ug/L	1	06-Oct-2014 21:44
Xylenes, Total	U		1.5	15	ug/L	1	06-Oct-2014 21:44
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	1	06-Oct-2014 21:44
Surr: 4-Bromofluorobenzene	96.0			72-125	%REC	1	06-Oct-2014 21:44
Surr: Dibromofluoromethane	101			71-125	%REC	1	06-Oct-2014 21:44
Surr: Toluene-d8	97.1			75-125	%REC	1	06-Oct-2014 21:44
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	434		4.00	10.0	mg/L	20	09-Oct-2014 22:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
Sample ID: MW-5
Collection Date: 30-Sep-2014 14:05

ANALYTICAL REPORT

WorkOrder:HS14100172
Lab ID:HS14100172-05
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	07-Oct-2014 06:33
Ethylbenzene	U		0.50	5.0	ug/L	1	07-Oct-2014 06:33
Toluene	U		0.50	5.0	ug/L	1	07-Oct-2014 06:33
Xylenes, Total	U		1.5	15	ug/L	1	07-Oct-2014 06:33
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>100</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 06:33</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>96.5</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 06:33</i>
<i>Surr: Dibromofluoromethane</i>	<i>99.8</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 06:33</i>
<i>Surr: Toluene-d8</i>	<i>96.2</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 06:33</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	449		4.00	10.0	mg/L	20	09-Oct-2014 22:43

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
Sample ID: MW-6
Collection Date: 30-Sep-2014 13:45

ANALYTICAL REPORT

WorkOrder:HS14100172
Lab ID:HS14100172-06
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	07-Oct-2014 06:57
Ethylbenzene	U		0.50	5.0	ug/L	1	07-Oct-2014 06:57
Toluene	U		0.50	5.0	ug/L	1	07-Oct-2014 06:57
Xylenes, Total	U		1.5	15	ug/L	1	07-Oct-2014 06:57
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>100.0</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 06:57</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>95.6</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 06:57</i>
<i>Surr: Dibromofluoromethane</i>	<i>100</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 06:57</i>
<i>Surr: Toluene-d8</i>	<i>96.1</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 06:57</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	102		1.00	2.50	mg/L	5	09-Oct-2014 23:07

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55627DM GSHI PXP Hill E C Federal 7 TB
 Sample ID: MW-7
 Collection Date: 30-Sep-2014 13:50

ANALYTICAL REPORT

WorkOrder:HS14100172
 Lab ID:HS14100172-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	07-Oct-2014 07:21
Ethylbenzene	U		0.50	5.0	ug/L	1	07-Oct-2014 07:21
Toluene	U		0.50	5.0	ug/L	1	07-Oct-2014 07:21
Xylenes, Total	U		1.5	15	ug/L	1	07-Oct-2014 07:21
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>101</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 07:21</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>95.8</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 07:21</i>
<i>Surr: Dibromofluoromethane</i>	<i>101</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 07:21</i>
<i>Surr: Toluene-d8</i>	<i>97.0</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 07:21</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	1,260		20.0	50.0	mg/L	100	09-Oct-2014 23:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55627DM GSHI PXP Hill E C Federal 7 TB
 Sample ID: MW-8
 Collection Date: 30-Sep-2014 14:10

ANALYTICAL REPORT

WorkOrder:HS14100172
 Lab ID:HS14100172-08
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	07-Oct-2014 07:45
Ethylbenzene	U		0.50	5.0	ug/L	1	07-Oct-2014 07:45
Toluene	U		0.50	5.0	ug/L	1	07-Oct-2014 07:45
Xylenes, Total	U		1.5	15	ug/L	1	07-Oct-2014 07:45
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>102</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 07:45</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>96.0</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 07:45</i>
<i>Surr: Dibromofluoromethane</i>	<i>101</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 07:45</i>
<i>Surr: Toluene-d8</i>	<i>96.9</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>07-Oct-2014 07:45</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	213		2.00	5.00	mg/L	10	09-Oct-2014 23:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55627DM GSHI PXP Hill E C Federal 7 TB
 Sample ID: MW-9
 Collection Date: 30-Sep-2014 14:15

ANALYTICAL REPORT

WorkOrder:HS14100172
 Lab ID:HS14100172-09
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	07-Oct-2014 08:09
Ethylbenzene	U		0.50	5.0	ug/L	1	07-Oct-2014 08:09
Toluene	U		0.50	5.0	ug/L	1	07-Oct-2014 08:09
Xylenes, Total	U		1.5	15	ug/L	1	07-Oct-2014 08:09
<i>Surr: 1,2-Dichloroethane-d4</i>	99.9			70-125	%REC	1	07-Oct-2014 08:09
<i>Surr: 4-Bromofluorobenzene</i>	94.5			72-125	%REC	1	07-Oct-2014 08:09
<i>Surr: Dibromofluoromethane</i>	101			71-125	%REC	1	07-Oct-2014 08:09
<i>Surr: Toluene-d8</i>	97.3			75-125	%REC	1	07-Oct-2014 08:09
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	132		1.00	2.50	mg/L	5	10-Oct-2014 01:07

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
Sample ID: Trip Blank
Collection Date: 30-Sep-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14100172
Lab ID:HS14100172-10
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: PC
Benzene	U		0.60	5.0	ug/L	1	06-Oct-2014 19:19
Ethylbenzene	U		0.50	5.0	ug/L	1	06-Oct-2014 19:19
Toluene	U		0.50	5.0	ug/L	1	06-Oct-2014 19:19
Xylenes, Total	U		1.5	15	ug/L	1	06-Oct-2014 19:19
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>102</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>06-Oct-2014 19:19</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>95.3</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>06-Oct-2014 19:19</i>
<i>Surr: Dibromofluoromethane</i>	<i>99.9</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>06-Oct-2014 19:19</i>
<i>Surr: Toluene-d8</i>	<i>99.8</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>06-Oct-2014 19:19</i>

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
WorkOrder: HS14100172

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R242317 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14100172-01	MW-1	30 Sep 2014 13:35			06 Oct 2014 19:43	1
HS14100172-02	MW-2	30 Sep 2014 13:40			06 Oct 2014 20:31	1
HS14100172-03	MW-3	30 Sep 2014 13:30			06 Oct 2014 20:55	1
HS14100172-04	MW-4	30 Sep 2014 14:00			06 Oct 2014 21:44	1
HS14100172-10	Trip Blank	30 Sep 2014 00:00			06 Oct 2014 19:19	1
Batch ID R242320 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14100172-05	MW-5	30 Sep 2014 14:05			07 Oct 2014 06:33	1
HS14100172-06	MW-6	30 Sep 2014 13:45			07 Oct 2014 06:57	1
HS14100172-07	MW-7	30 Sep 2014 13:50			07 Oct 2014 07:21	1
HS14100172-08	MW-8	30 Sep 2014 14:10			07 Oct 2014 07:45	1
HS14100172-09	MW-9	30 Sep 2014 14:15			07 Oct 2014 08:09	1
Batch ID R242591 Test Name : ANIONS BY E300.0 Matrix: Water						
HS14100172-01	MW-1	30 Sep 2014 13:35			09 Oct 2014 21:07	5
HS14100172-02	MW-2	30 Sep 2014 13:40			09 Oct 2014 21:31	5
HS14100172-03	MW-3	30 Sep 2014 13:30			09 Oct 2014 21:55	10
HS14100172-04	MW-4	30 Sep 2014 14:00			09 Oct 2014 22:19	20
HS14100172-05	MW-5	30 Sep 2014 14:05			09 Oct 2014 22:43	20
HS14100172-06	MW-6	30 Sep 2014 13:45			09 Oct 2014 23:07	5
HS14100172-07	MW-7	30 Sep 2014 13:50			09 Oct 2014 23:31	100
HS14100172-08	MW-8	30 Sep 2014 14:10			09 Oct 2014 23:55	10
HS14100172-09	MW-9	30 Sep 2014 14:15			10 Oct 2014 01:07	5

Client: Glenn Springs Holdings
 WorkOrder: HS14100172
 Project: 55627DM GSHI PXP Hill E C Federal 7 TB

QC BATCH REPORT

Batch ID: R242317		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-141006	Units: ug/L		Analysis Date: 06-Oct-2014 12:50					
Client ID:	Run ID: VOA6_242317	SeqNo: 3035736		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	5.0							
Ethylbenzene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	51.05	5.0	50	0	102	70 - 125			
Surr: 4-Bromofluorobenzene	48.51	5.0	50	0	97.0	72 - 125			
Surr: Dibromofluoromethane	50.45	5.0	50	0	101	71 - 125			
Surr: Toluene-d8	48.32	5.0	50	0	96.6	75 - 125			

LCS	Sample ID: VLCSW-141006	Units: ug/L		Analysis Date: 06-Oct-2014 11:37					
Client ID:	Run ID: VOA6_242317	SeqNo: 3035735		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	46.88	5.0	50	0	93.8	73 - 121			
Ethylbenzene	46.68	5.0	50	0	93.4	80 - 120			
Toluene	44.71	5.0	50	0	89.4	80 - 120			
Xylenes, Total	140.2	15	150	0	93.4	80 - 120			
Surr: 1,2-Dichloroethane-d4	50.62	5.0	50	0	101	70 - 125			
Surr: 4-Bromofluorobenzene	51.28	5.0	50	0	103	72 - 125			
Surr: Dibromofluoromethane	51.01	5.0	50	0	102	71 - 125			
Surr: Toluene-d8	49.12	5.0	50	0	98.2	75 - 125			

MS	Sample ID: HS14100169-06MS	Units: ug/L		Analysis Date: 06-Oct-2014 15:15					
Client ID:	Run ID: VOA6_242317	SeqNo: 3035742		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	49.47	5.0	50	1.645	95.6	73 - 121			
Ethylbenzene	47.06	5.0	50	0	94.1	80 - 120			
Toluene	45.58	5.0	50	0	91.2	80 - 120			
Xylenes, Total	140	15	150	0	93.3	80 - 120			
Surr: 1,2-Dichloroethane-d4	50.64	5.0	50	0	101	70 - 125			
Surr: 4-Bromofluorobenzene	51.6	5.0	50	0	103	72 - 125			
Surr: Dibromofluoromethane	50.44	5.0	50	0	101	71 - 125			
Surr: Toluene-d8	49.13	5.0	50	0	98.3	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14100172
 Project: 55627DM GSHI PXP Hill E C Federal 7 TB

QC BATCH REPORT

Batch ID: R242317		Instrument: VOA6		Method: SW8260						
MSD	Sample ID: HS14100169-06MSD	Units: ug/L			Analysis Date: 06-Oct-2014 15:39					
Client ID:	Run ID: VOA6_242317	SeqNo: 3035743		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Benzene	46.36	5.0	50	1.645	89.4	73 - 121	49.47	6.48	20	
Ethylbenzene	42.94	5.0	50	0	85.9	80 - 120	47.06	9.17	20	
Toluene	41.68	5.0	50	0	83.4	80 - 120	45.58	8.94	20	
Xylenes, Total	130.3	15	150	0	86.9	78 - 121	140	7.15	20	
Surr: 1,2-Dichloroethane-d4	50.57	5.0	50	0	101	70 - 125	50.64	0.137	20	
Surr: 4-Bromofluorobenzene	51.11	5.0	50	0	102	72 - 125	51.6	0.954	20	
Surr: Dibromofluoromethane	50.69	5.0	50	0	101	71 - 125	50.44	0.488	20	
Surr: Toluene-d8	48.67	5.0	50	0	97.3	75 - 125	49.13	0.952	20	
The following samples were anayzed in this batch:										
HS14100172-01		HS14100172-02		HS14100172-03		HS14100172-04				
HS14100172-10										

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14100172
 Project: 55627DM GSHI PXP Hill E C Federal 7 TB

QC BATCH REPORT

Batch ID: R242320		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-141006	Units: ug/L		Analysis Date: 07-Oct-2014 00:32					
Client ID:	Run ID: VOA6_242320	SeqNo: 3035802		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	5.0							
Ethylbenzene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	49.56	5.0	50	0	99.1	70 - 125			
Surr: 4-Bromofluorobenzene	47.87	5.0	50	0	95.7	72 - 125			
Surr: Dibromofluoromethane	49.84	5.0	50	0	99.7	71 - 125			
Surr: Toluene-d8	48.39	5.0	50	0	96.8	75 - 125			

LCS	Sample ID: VLCSW-141006	Units: ug/L		Analysis Date: 06-Oct-2014 23:20					
Client ID:	Run ID: VOA6_242320	SeqNo: 3035801		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	46.27	5.0	50	0	92.5	73 - 121			
Ethylbenzene	45.09	5.0	50	0	90.2	80 - 120			
Toluene	43.91	5.0	50	0	87.8	80 - 120			
Xylenes, Total	135.7	15	150	0	90.5	80 - 120			
Surr: 1,2-Dichloroethane-d4	50.5	5.0	50	0	101	70 - 125			
Surr: 4-Bromofluorobenzene	51.4	5.0	50	0	103	72 - 125			
Surr: Dibromofluoromethane	51.17	5.0	50	0	102	71 - 125			
Surr: Toluene-d8	48.99	5.0	50	0	98.0	75 - 125			

MS	Sample ID: HS14100118-05MS	Units: ug/L		Analysis Date: 07-Oct-2014 02:08					
Client ID:	Run ID: VOA6_242320	SeqNo: 3035806		PrepDate:		DF: 25			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	1131	120	1250	23.54	88.6	73 - 121			
Ethylbenzene	1074	120	1250	0	86.0	80 - 120			
Toluene	1047	120	1250	0	83.8	80 - 120			
Xylenes, Total	3245	380	3750	0	86.5	80 - 120			
Surr: 1,2-Dichloroethane-d4	1248	120	1250	0	99.8	70 - 125			
Surr: 4-Bromofluorobenzene	1290	120	1250	0	103	72 - 125			
Surr: Dibromofluoromethane	1273	120	1250	0	102	71 - 125			
Surr: Toluene-d8	1240	120	1250	0	99.2	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14100172
 Project: 55627DM GSHI PXP Hill E C Federal 7 TB

QC BATCH REPORT

Batch ID: R242320		Instrument: VOA6		Method: SW8260						
MSD	Sample ID: HS14100118-05MSD	Units: ug/L			Analysis Date: 07-Oct-2014 02:32					
Client ID:	Run ID: VOA6_242320	SeqNo: 3035807		PrepDate:		DF: 25				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Benzene	1202	120	1250	23.54	94.3	73 - 121	1131	6.04	20	
Ethylbenzene	1133	120	1250	0	90.6	80 - 120	1074	5.27	20	
Toluene	1121	120	1250	0	89.7	80 - 120	1047	6.77	20	
Xylenes, Total	3432	380	3750	0	91.5	78 - 121	3245	5.6	20	
Surr: 1,2-Dichloroethane-d4	1254	120	1250	0	100	70 - 125	1248	0.505	20	
Surr: 4-Bromofluorobenzene	1289	120	1250	0	103	72 - 125	1290	0.0381	20	
Surr: Dibromofluoromethane	1282	120	1250	0	103	71 - 125	1273	0.713	20	
Surr: Toluene-d8	1246	120	1250	0	99.7	75 - 125	1240	0.471	20	
The following samples were anayzed in this batch:										
HS14100172-05		HS14100172-06		HS14100172-07		HS14100172-08				
HS14100172-09										

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14100172
 Project: 55627DM GSHI PXP Hill E C Federal 7 TB

QC BATCH REPORT

Batch ID: R242591		Instrument: ICS3000		Method: E300						
MBLK	Sample ID: WBLKW3-100914	Units: mg/L		Analysis Date: 09-Oct-2014 14:14						
Client ID:	Run ID: ICS3000_242591	SeqNo: 3041497		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								
LCS	Sample ID: WLCSW3-100914	Units: mg/L		Analysis Date: 09-Oct-2014 14:38						
Client ID:	Run ID: ICS3000_242591	SeqNo: 3041498		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.53	0.500	20	0	108	90 - 110				
LCSD	Sample ID: WLCSDW3-100914	Units: mg/L		Analysis Date: 09-Oct-2014 15:02						
Client ID:	Run ID: ICS3000_242591	SeqNo: 3041499		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.51	0.500	20	0	108	90 - 110	21.53	0.0744	20	
MS	Sample ID: HS14100176-03MS	Units: mg/L		Analysis Date: 10-Oct-2014 02:43						
Client ID:	Run ID: ICS3000_242591	SeqNo: 3041525		PrepDate:		DF: 5				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	154.7	2.50	50	101.7	106	80 - 120				
MS	Sample ID: HS14100166-01MS	Units: mg/L		Analysis Date: 09-Oct-2014 17:08						
Client ID:	Run ID: ICS3000_242591	SeqNo: 3041501		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	420.5	5.00	100	317.5	103	80 - 120				
MSD	Sample ID: HS14100176-03MSD	Units: mg/L		Analysis Date: 10-Oct-2014 03:07						
Client ID:	Run ID: ICS3000_242591	SeqNo: 3041526		PrepDate:		DF: 5				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	159.3	2.50	50	101.7	115	80 - 120	154.7	2.92	20	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
WorkOrder: HS14100172
Project: 55627DM GSHI PXP Hill E C Federal 7 TB

QC BATCH REPORT

Batch ID: R242591		Instrument: ICS3000		Method: E300	
MSD	Sample ID: HS14100166-01MSD	Units: mg/L		Analysis Date: 09-Oct-2014 17:32	
Client ID:	Run ID: ICS3000_242591	SeqNo: 3041502		PrepDate:	DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	419.9	5.00	100	317.5 102	80 - 120 420.5 0.132 20

The following samples were analyzed in this batch:

HS14100172-01	HS14100172-02	HS14100172-03	HS14100172-04
HS14100172-05	HS14100172-06	HS14100172-07	HS14100172-08
HS14100172-09			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
WorkOrder: HS14100172

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	AR - 2014	27-Mar-2015
California	2919	31-Jul-2015
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003403	09-May-2015
Kansas	E-10352 8/15/2013-2014	31-Oct-2014
Kentucky	KY 2014-2015	30-Apr-2015
Louisiana	03087 2014/2015	30-Jun-2015
North Carolina	624 - 2014	31-Dec-2014
North Dakota	R-193 2025	30-Apr-2015
Oklahoma	2014-128	31-Aug-2015
Texas	TX104704231-14-13	30-Apr-2015

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **03-Oct-2014 09:53**

Work Order: HS14100172

Received by: **DES**Checklist completed by: Paresh M. Giga
eSignature3-Oct-2014
DateReviewed by: Dane J. Wacasey
eSignature6-Oct-2014
DateMatrices: **Water**Carrier name: **FedEx**

Shipping container/cooler in good condition?

Yes ☒No ☐Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒No ☐Not Present ☐

Custody seals intact on sample bottles?

Yes ☐No ☐Not Present ☒

Chain of custody present?

Yes ☒No ☐

Chain of custody signed when relinquished and received?

Yes ☒No ☐

Chain of custody agrees with sample labels?

Yes ☒No ☐

Samples in proper container/bottle?

Yes ☒No ☐

Sample containers intact?

Yes ☒No ☐

Sufficient sample volume for indicated test?

Yes ☒No ☐

All samples received within holding time?

Yes ☒No ☐

Container/Temp Blank temperature in compliance?

Yes ☒No ☐

Temperature(s)/Thermometer(s):

0.1c/0.1c c/U

IR1

Cooler(s)/Kit(s):

1911

Date/Time sample(s) sent to storage:

10/3/14 19:55

Water - VOA vials have zero headspace?

Yes ☒No ☐No VOA vials submitted ☐

Water - pH acceptable upon receipt?

Yes ☒No ☐N/A ☐

pH adjusted?

Yes ☐No ☒N/A ☐

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By: 0

Regarding:

Comments:

Corrective Action:



Environmental

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Chain of Custody Form

Page 1 of 1

COC ID: 11131

ALS Project Manager:

HS14100172

Glenn Springs Holdings

GSHI PXP Hill, E.C. Federal #7 TB

Weston, WV
3168

5280



Customer Information		Project Information		ALS Project Manager:													
Purchase Order	4501709538	Project Name	GSHI PXP Hill, E.C. Federal #7 TB	A	BTEX (8260)												
Work Order		Project Number	55627DM (ENV749A008)	B	Chloride by 300												
Company Name	Glenn Springs Holdings	Bill To Company	Glenn Springs Holdings	C													
Send Report To	Angela Bown	Invoice Attn	Jennifer Devonshire	D													
Address	C/O CRA 9033 Meridian Way	Address	C/O CRA 2055 Niagara Falls Blvd. Suite 3	E													
City/State/Zip	West Chester, Ohio, 45069	City/State/Zip	Niagara Falls, NY 14304	F													
Phone	(513) 942-4750	Phone		G													
Fax		Fax		H													
e-Mail Address		e-Mail Address		I													
				J													

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1	9/30/14	1335	Water	18	4	X	X									
2	MW-2	9/30/14	1340	Water			X	X									
3	MW-3	9/30/14	1330	Water			X	X									
4	MW-4	9/30/14	1400	Water			X	X									
5	MW-5	9/30/14	1405	Water			X	X									
6	MW-6	9/30/14	1345	Water			X	X									
7	MW-7	9/30/14	1350	Water			X	X									
8	MW-8	9/30/14	1410	Water			X	X									
9	MW-9	9/30/14	1415	Water			X	X									
10	TRIP BLANK			Water			X										

Sampler(s) Please Print & Sign <i>Todd Wells</i>		Shipment Method <i>FedEx</i>		Required Turnaround Time: (Check Box) ☒ Std 10 WK days		Results Due Date:	
Relinquished by: <i>Todd Wells</i>	Date: <i>10/2/14</i>	Time: <i>1345</i>	Received by:	☐ 5 WK Days	☐ 2 WK Days	☐ 24 Hour	Notes:
Relinquished by:	Date: <i>10-5-14</i>	Time: <i>053</i>	Received by (Laboratory): <i>D. Wells</i>	10 Day TAT			
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	Cooler ID <i>1911</i>	Cooler Temp. <i>0.1°</i>	QC Package: (Check One Box Below)	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035				☒ Level 2 Std QC		☐ TRRP ChkList	
				☐ Level 3 Std QC/Row da		☐ TRRP Level 4	
				☐ Level 4 SW846/CLP			
				☐ Other/FOD			

- note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately

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December 30, 2014

Angela Bown
Glenn Springs Holdings
C/O CRA
2055 Niagara Falls Blvd. Suite 3
Niagara Falls, NY 14304

Work Order: **HS14120789**

Laboratory Results for: **55627DM GSHI PXP Hill E C Federal 7 TB**

Dear Angela,

ALS Environmental received 10 sample(s) on Dec 19, 2014 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "Dane J. Wacasey".

Generated By: JumoKe.Lawal
Dane J. Wacasey

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
Work Order: HS14120789

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14120789-01	MW-1	Water		16-Dec-2014 11:57	19-Dec-2014 10:43	☐
HS14120789-02	MW-2	Water		16-Dec-2014 12:03	19-Dec-2014 10:43	☐
HS14120789-03	MW-3	Water		16-Dec-2014 11:47	19-Dec-2014 10:43	☐
HS14120789-04	MW-4	Water		16-Dec-2014 12:33	19-Dec-2014 10:43	☐
HS14120789-05	MW-5	Water		16-Dec-2014 12:15	19-Dec-2014 10:43	☐
HS14120789-06	MW-6	Water		16-Dec-2014 12:09	19-Dec-2014 10:43	☐
HS14120789-07	MW-7	Water		16-Dec-2014 12:38	19-Dec-2014 10:43	☐
HS14120789-08	MW-8	Water		16-Dec-2014 12:27	19-Dec-2014 10:43	☐
HS14120789-09	MW-9	Water		16-Dec-2014 12:21	19-Dec-2014 10:43	☐
HS14120789-10	Trip Blank 111014-92	Water		16-Dec-2014 00:00	19-Dec-2014 10:43	☐

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
Work Order: HS14120789

CASE NARRATIVE

Work Order Comments

- Analyst Initials and Names:
JBA Johnnie B. Allen
PC Presenta Cabascongo

GCMS Volatiles by Method SW8260

Batch ID: R247158

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E300

Batch ID: R247401

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

Client: Glenn Springs Holdings
 Project: 55627DM GSHI PXP Hill E C Federal 7 TB
 Sample ID: MW-1
 Collection Date: 16-Dec-2014 11:57

ANALYTICAL REPORT

WorkOrder:HS14120789
 Lab ID:HS14120789-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	22-Dec-2014 15:55
Ethylbenzene	U		0.50	5.0	ug/L	1	22-Dec-2014 15:55
Toluene	U		0.50	5.0	ug/L	1	22-Dec-2014 15:55
Xylenes, Total	U		1.5	15	ug/L	1	22-Dec-2014 15:55
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>92.7</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 15:55</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>100</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 15:55</i>
<i>Surr: Dibromofluoromethane</i>	<i>92.8</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 15:55</i>
<i>Surr: Toluene-d8</i>	<i>101</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 15:55</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	150		1.00	2.50	mg/L	5	21-Dec-2014 20:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55627DM GSHI PXP Hill E C Federal 7 TB
 Sample ID: MW-2
 Collection Date: 16-Dec-2014 12:03

ANALYTICAL REPORT

WorkOrder:HS14120789
 Lab ID:HS14120789-02
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	22-Dec-2014 16:20
Ethylbenzene	U		0.50	5.0	ug/L	1	22-Dec-2014 16:20
Toluene	U		0.50	5.0	ug/L	1	22-Dec-2014 16:20
Xylenes, Total	U		1.5	15	ug/L	1	22-Dec-2014 16:20
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>92.7</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 16:20</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>103</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 16:20</i>
<i>Surr: Dibromofluoromethane</i>	<i>89.1</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 16:20</i>
<i>Surr: Toluene-d8</i>	<i>102</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 16:20</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	153		1.00	2.50	mg/L	5	21-Dec-2014 21:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55627DM GSHI PXP Hill E C Federal 7 TB
 Sample ID: MW-3
 Collection Date: 16-Dec-2014 11:47

ANALYTICAL REPORT

WorkOrder:HS14120789
 Lab ID:HS14120789-03
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	22-Dec-2014 16:45
Ethylbenzene	U		0.50	5.0	ug/L	1	22-Dec-2014 16:45
Toluene	U		0.50	5.0	ug/L	1	22-Dec-2014 16:45
Xylenes, Total	U		1.5	15	ug/L	1	22-Dec-2014 16:45
<i>Surr: 1,2-Dichloroethane-d4</i>	95.8			70-125	%REC	1	22-Dec-2014 16:45
<i>Surr: 4-Bromofluorobenzene</i>	101			72-125	%REC	1	22-Dec-2014 16:45
<i>Surr: Dibromofluoromethane</i>	91.7			71-125	%REC	1	22-Dec-2014 16:45
<i>Surr: Toluene-d8</i>	99.6			75-125	%REC	1	22-Dec-2014 16:45
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	256		2.00	5.00	mg/L	10	21-Dec-2014 22:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55627DM GSHI PXP Hill E C Federal 7 TB
 Sample ID: MW-4
 Collection Date: 16-Dec-2014 12:33

ANALYTICAL REPORT

WorkOrder:HS14120789
 Lab ID:HS14120789-04
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	22-Dec-2014 17:09
Ethylbenzene	U		0.50	5.0	ug/L	1	22-Dec-2014 17:09
Toluene	U		0.50	5.0	ug/L	1	22-Dec-2014 17:09
Xylenes, Total	U		1.5	15	ug/L	1	22-Dec-2014 17:09
<i>Surr: 1,2-Dichloroethane-d4</i>	93.9			70-125	%REC	1	22-Dec-2014 17:09
<i>Surr: 4-Bromofluorobenzene</i>	97.9			72-125	%REC	1	22-Dec-2014 17:09
<i>Surr: Dibromofluoromethane</i>	91.8			71-125	%REC	1	22-Dec-2014 17:09
<i>Surr: Toluene-d8</i>	101			75-125	%REC	1	22-Dec-2014 17:09
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	488		4.00	10.0	mg/L	20	21-Dec-2014 22:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55627DM GSHI PXP Hill E C Federal 7 TB
 Sample ID: MW-5
 Collection Date: 16-Dec-2014 12:15

ANALYTICAL REPORT

WorkOrder:HS14120789
 Lab ID:HS14120789-05
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	22-Dec-2014 17:34
Ethylbenzene	U		0.50	5.0	ug/L	1	22-Dec-2014 17:34
Toluene	U		0.50	5.0	ug/L	1	22-Dec-2014 17:34
Xylenes, Total	U		1.5	15	ug/L	1	22-Dec-2014 17:34
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>94.0</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 17:34</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>99.0</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 17:34</i>
<i>Surr: Dibromofluoromethane</i>	<i>91.5</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 17:34</i>
<i>Surr: Toluene-d8</i>	<i>102</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 17:34</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	665		4.00	10.0	mg/L	20	21-Dec-2014 22:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55627DM GSHI PXP Hill E C Federal 7 TB
 Sample ID: MW-6
 Collection Date: 16-Dec-2014 12:09

ANALYTICAL REPORT

WorkOrder:HS14120789
 Lab ID:HS14120789-06
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	22-Dec-2014 17:59
Ethylbenzene	U		0.50	5.0	ug/L	1	22-Dec-2014 17:59
Toluene	U		0.50	5.0	ug/L	1	22-Dec-2014 17:59
Xylenes, Total	U		1.5	15	ug/L	1	22-Dec-2014 17:59
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>96.0</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 17:59</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>100</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 17:59</i>
<i>Surr: Dibromofluoromethane</i>	<i>93.0</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 17:59</i>
<i>Surr: Toluene-d8</i>	<i>101</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 17:59</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	97.9		1.00	2.50	mg/L	5	22-Dec-2014 00:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55627DM GSHI PXP Hill E C Federal 7 TB
 Sample ID: MW-7
 Collection Date: 16-Dec-2014 12:38

ANALYTICAL REPORT

WorkOrder:HS14120789
 Lab ID:HS14120789-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	22-Dec-2014 18:23
Ethylbenzene	U		0.50	5.0	ug/L	1	22-Dec-2014 18:23
Toluene	U		0.50	5.0	ug/L	1	22-Dec-2014 18:23
Xylenes, Total	U		1.5	15	ug/L	1	22-Dec-2014 18:23
<i>Surr: 1,2-Dichloroethane-d4</i>	98.1			70-125	%REC	1	22-Dec-2014 18:23
<i>Surr: 4-Bromofluorobenzene</i>	99.8			72-125	%REC	1	22-Dec-2014 18:23
<i>Surr: Dibromofluoromethane</i>	92.2			71-125	%REC	1	22-Dec-2014 18:23
<i>Surr: Toluene-d8</i>	98.3			75-125	%REC	1	22-Dec-2014 18:23
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	1,650		20.0	50.0	mg/L	100	22-Dec-2014 00:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
Sample ID: MW-8
Collection Date: 16-Dec-2014 12:27

ANALYTICAL REPORT

WorkOrder:HS14120789
Lab ID:HS14120789-08
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260					Analyst: PC
Benzene	U		0.60	5.0	ug/L	1	22-Dec-2014 18:48
Ethylbenzene	U		0.50	5.0	ug/L	1	22-Dec-2014 18:48
Toluene	U		0.50	5.0	ug/L	1	22-Dec-2014 18:48
Xylenes, Total	U		1.5	15	ug/L	1	22-Dec-2014 18:48
Surr: 1,2-Dichloroethane-d4	93.3			70-125	%REC	1	22-Dec-2014 18:48
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	22-Dec-2014 18:48
Surr: Dibromofluoromethane	91.6			71-125	%REC	1	22-Dec-2014 18:48
Surr: Toluene-d8	105			75-125	%REC	1	22-Dec-2014 18:48
ANIONS BY E300.0		Method:E300					Analyst: JBA
Chloride	216		2.00	5.00	mg/L	10	22-Dec-2014 00:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
Sample ID: MW-9
Collection Date: 16-Dec-2014 12:21

ANALYTICAL REPORT

WorkOrder:HS14120789
Lab ID:HS14120789-09
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	22-Dec-2014 19:12
Ethylbenzene	U		0.50	5.0	ug/L	1	22-Dec-2014 19:12
Toluene	U		0.50	5.0	ug/L	1	22-Dec-2014 19:12
Xylenes, Total	U		1.5	15	ug/L	1	22-Dec-2014 19:12
<i>Surr: 1,2-Dichloroethane-d4</i>	98.2			70-125	%REC	1	22-Dec-2014 19:12
<i>Surr: 4-Bromofluorobenzene</i>	99.2			72-125	%REC	1	22-Dec-2014 19:12
<i>Surr: Dibromofluoromethane</i>	92.6			71-125	%REC	1	22-Dec-2014 19:12
<i>Surr: Toluene-d8</i>	102			75-125	%REC	1	22-Dec-2014 19:12
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	125		1.00	2.50	mg/L	5	22-Dec-2014 01:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
Sample ID: Trip Blank 111014-92
Collection Date: 16-Dec-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14120789
Lab ID:HS14120789-10
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: PC
Benzene	U		0.60	5.0	ug/L	1	22-Dec-2014 15:31
Ethylbenzene	U		0.50	5.0	ug/L	1	22-Dec-2014 15:31
Toluene	U		0.50	5.0	ug/L	1	22-Dec-2014 15:31
Xylenes, Total	U		1.5	15	ug/L	1	22-Dec-2014 15:31
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>91.4</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 15:31</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>95.2</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 15:31</i>
<i>Surr: Dibromofluoromethane</i>	<i>91.2</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 15:31</i>
<i>Surr: Toluene-d8</i>	<i>101</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>22-Dec-2014 15:31</i>

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
WorkOrder: HS14120789

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R247158		Test Name : VOLATILES - SW8260C			Matrix: Water	
HS14120789-01	MW-1	16 Dec 2014 11:57			22 Dec 2014 15:55	1
HS14120789-02	MW-2	16 Dec 2014 12:03			22 Dec 2014 16:20	1
HS14120789-03	MW-3	16 Dec 2014 11:47			22 Dec 2014 16:45	1
HS14120789-04	MW-4	16 Dec 2014 12:33			22 Dec 2014 17:09	1
HS14120789-05	MW-5	16 Dec 2014 12:15			22 Dec 2014 17:34	1
HS14120789-06	MW-6	16 Dec 2014 12:09			22 Dec 2014 17:59	1
HS14120789-07	MW-7	16 Dec 2014 12:38			22 Dec 2014 18:23	1
HS14120789-08	MW-8	16 Dec 2014 12:27			22 Dec 2014 18:48	1
HS14120789-09	MW-9	16 Dec 2014 12:21			22 Dec 2014 19:12	1
HS14120789-10	Trip Blank 111014-92	16 Dec 2014 00:00			22 Dec 2014 15:31	1
Batch ID R247401		Test Name : ANIONS BY E300.0			Matrix: Water	
HS14120789-01	MW-1	16 Dec 2014 11:57			21 Dec 2014 20:33	5
HS14120789-02	MW-2	16 Dec 2014 12:03			21 Dec 2014 21:45	5
HS14120789-03	MW-3	16 Dec 2014 11:47			21 Dec 2014 22:09	10
HS14120789-04	MW-4	16 Dec 2014 12:33			21 Dec 2014 22:33	20
HS14120789-05	MW-5	16 Dec 2014 12:15			21 Dec 2014 22:57	20
HS14120789-06	MW-6	16 Dec 2014 12:09			22 Dec 2014 00:09	5
HS14120789-07	MW-7	16 Dec 2014 12:38			22 Dec 2014 00:33	100
HS14120789-08	MW-8	16 Dec 2014 12:27			22 Dec 2014 00:57	10
HS14120789-09	MW-9	16 Dec 2014 12:21			22 Dec 2014 01:21	5

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
WorkOrder: HS14120789

QC BATCH REPORT

Batch ID: R247158		Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-141222	Units: ug/L		Analysis Date: 22-Dec-2014 11:25					
Client ID:	Run ID: VOA1_247158	SeqNo: 3137435		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	5.0							
Ethylbenzene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	41.62	5.0	50	0	83.2	70 - 125			
Surr: 4-Bromofluorobenzene	49.7	5.0	50	0	99.4	72 - 125			
Surr: Dibromofluoromethane	44.13	5.0	50	0	88.3	71 - 125			
Surr: Toluene-d8	51.99	5.0	50	0	104	75 - 125			

LCS	Sample ID: VLCSW-141222	Units: ug/L		Analysis Date: 22-Dec-2014 10:36					
Client ID:	Run ID: VOA1_247158	SeqNo: 3137434		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	44.3	5.0	50	0	88.6	73 - 121			
Ethylbenzene	44.92	5.0	50	0	89.8	80 - 120			
Toluene	48.3	5.0	50	0	96.6	80 - 120			
Xylenes, Total	140.2	15	150	0	93.5	80 - 120			
Surr: 1,2-Dichloroethane-d4	47.32	5.0	50	0	94.6	70 - 125			
Surr: 4-Bromofluorobenzene	48.98	5.0	50	0	98.0	72 - 125			
Surr: Dibromofluoromethane	45.49	5.0	50	0	91.0	71 - 125			
Surr: Toluene-d8	49.74	5.0	50	0	99.5	75 - 125			

MS	Sample ID: HS14120763-04MS	Units: ug/L		Analysis Date: 22-Dec-2014 12:14					
Client ID:	Run ID: VOA1_247158	SeqNo: 3137437		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	44.95	5.0	50	0	89.9	73 - 121			
Ethylbenzene	44.25	5.0	50	0	88.5	80 - 120			
Toluene	45.15	5.0	50	0	90.3	80 - 120			
Xylenes, Total	131.8	15	150	0	87.8	80 - 120			
Surr: 1,2-Dichloroethane-d4	45.96	5.0	50	0	91.9	70 - 125			
Surr: 4-Bromofluorobenzene	49.14	5.0	50	0	98.3	72 - 125			
Surr: Dibromofluoromethane	45.91	5.0	50	0	91.8	71 - 125			
Surr: Toluene-d8	46.66	5.0	50	0	93.3	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
WorkOrder: HS14120789

QC BATCH REPORT

Batch ID: R247158		Instrument: VOA1		Method: SW8260						
MSD	Sample ID: HS14120763-04MSD	Units: ug/L			Analysis Date: 22-Dec-2014 12:38					
Client ID:	Run ID: VOA1_247158	SeqNo: 3137438		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Benzene	44.18	5.0	50	0	88.4	73 - 121	44.95	1.73	20	
Ethylbenzene	46.44	5.0	50	0	92.9	80 - 120	44.25	4.82	20	
Toluene	47.54	5.0	50	0	95.1	80 - 120	45.15	5.15	20	
Xylenes, Total	145.2	15	150	0	96.8	78 - 121	131.8	9.72	20	
Surr: 1,2-Dichloroethane-d4	46.25	5.0	50	0	92.5	70 - 125	45.96	0.622	20	
Surr: 4-Bromofluorobenzene	50.81	5.0	50	0	102	72 - 125	49.14	3.35	20	
Surr: Dibromofluoromethane	45.17	5.0	50	0	90.3	71 - 125	45.91	1.61	20	
Surr: Toluene-d8	50.19	5.0	50	0	100	75 - 125	46.66	7.28	20	
The following samples were analyzed in this batch:										
HS14120789-01		HS14120789-02		HS14120789-03		HS14120789-04				
HS14120789-05		HS14120789-06		HS14120789-07		HS14120789-08				
HS14120789-09		HS14120789-10								

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
WorkOrder: HS14120789

QC BATCH REPORT

Batch ID: R247401		Instrument: ICS3000		Method: E300						
MBLK	Sample ID: WBLKW1-122114	Units: mg/L		Analysis Date: 21-Dec-2014 14:34						
Client ID:	Run ID: ICS3000_247401	SeqNo: 3142458		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								
LCS	Sample ID: WLCSW1-122114	Units: mg/L		Analysis Date: 21-Dec-2014 14:58						
Client ID:	Run ID: ICS3000_247401	SeqNo: 3142459		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.95	0.500	20	0	99.8	90 - 110				
LCSD	Sample ID: WLCSDW1-122114	Units: mg/L		Analysis Date: 21-Dec-2014 15:22						
Client ID:	Run ID: ICS3000_247401	SeqNo: 3142460		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.81	0.500	20	0	99.1	90 - 110	19.95	0.699	20	
MS	Sample ID: HS14120806-03MS	Units: mg/L		Analysis Date: 22-Dec-2014 02:57						
Client ID:	Run ID: ICS3000_247401	SeqNo: 3142489		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	61.06	0.500	10	51.14	99.1	80 - 120				O
MS	Sample ID: HS14120789-01MS	Units: mg/L		Analysis Date: 21-Dec-2014 20:57						
Client ID: MW-1	Run ID: ICS3000_247401	SeqNo: 3142474		PrepDate:		DF: 5				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	193	2.50	50	149.8	86.4	80 - 120				
MSD	Sample ID: HS14120806-03MSD	Units: mg/L		Analysis Date: 22-Dec-2014 03:20						
Client ID:	Run ID: ICS3000_247401	SeqNo: 3142490		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	61.05	0.500	10	51.14	99.1	80 - 120	61.06	0.00491	20	O

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
WorkOrder: HS14120789

QC BATCH REPORT

Batch ID: R247401		Instrument: ICS3000		Method: E300	
MSD	Sample ID: HS14120789-01MSD	Units: mg/L		Analysis Date: 21-Dec-2014 21:21	
Client ID: MW-1	Run ID: ICS3000_247401		SeqNo: 3142475	PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	193.5	2.50	50	149.8 87.4	80 - 120 193 0.268 20

The following samples were analyzed in this batch:

HS14120789-01	HS14120789-02	HS14120789-03	HS14120789-04
HS14120789-05	HS14120789-06	HS14120789-07	HS14120789-08
HS14120789-09			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
WorkOrder: HS14120789

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	AR - 2014	27-Mar-2015
California	2919	31-Jul-2015
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003403	09-May-2015
Kansas	E-10352 2014-2015	31-Jul-2015
Kentucky	KY 2014-2015	30-Apr-2015
Louisiana	03087 2014/2015	30-Jun-2015
North Carolina	624 - 2015	31-Dec-2015
North Carolina	624 - 2014	31-Dec-2014
North Dakota	R-193 2025	30-Apr-2015
Oklahoma	2014-128	31-Aug-2015
Texas	T104704231-14-14	30-Apr-2015

Client: Glenn Springs Holdings
Project: 55627DM GSHI PXP Hill E C Federal 7 TB
Work Order: HS14120789

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS14120789-01	MW-1	Login	12/19/2014 5:09:32 PM	NDR	25C
HS14120789-01	MW-1	Login	12/19/2014 5:09:32 PM	NDR	VW-3
HS14120789-02	MW-2	Login	12/19/2014 5:14:40 PM	NDR	25C
HS14120789-02	MW-2	Login	12/19/2014 5:14:40 PM	NDR	VW-3
HS14120789-03	MW-3	Login	12/19/2014 5:14:40 PM	NDR	25C
HS14120789-03	MW-3	Login	12/19/2014 5:14:40 PM	NDR	VW-3
HS14120789-04	MW-4	Login	12/19/2014 5:14:40 PM	NDR	25C
HS14120789-04	MW-4	Login	12/19/2014 5:14:40 PM	NDR	VW-3
HS14120789-05	MW-5	Login	12/19/2014 5:14:40 PM	NDR	25C
HS14120789-05	MW-5	Login	12/19/2014 5:14:40 PM	NDR	VW-3
HS14120789-06	MW-6	Login	12/19/2014 5:14:40 PM	NDR	25C
HS14120789-06	MW-6	Login	12/19/2014 5:14:40 PM	NDR	VW-3
HS14120789-07	MW-7	Login	12/19/2014 5:14:40 PM	NDR	25C
HS14120789-07	MW-7	Login	12/19/2014 5:14:40 PM	NDR	VW-3
HS14120789-08	MW-8	Login	12/19/2014 5:14:40 PM	NDR	25C
HS14120789-08	MW-8	Login	12/19/2014 5:14:40 PM	NDR	VW-3
HS14120789-09	MW-9	Login	12/19/2014 5:14:40 PM	NDR	25C
HS14120789-09	MW-9	Login	12/19/2014 5:14:40 PM	NDR	VW-3
HS14120789-10	Trip Blank 111014-92	Login	12/19/2014 5:15:16 PM	NDR	VW-3

Sample Receipt Checklist

Client Name: GLEN SPRINGS/CRA
Work Order: HS14120789

Date/Time Received: **19-Dec-2014 10:43**
Received by: **CEM**

Checklist completed by: Nilesh D. Ranchod 19-Dec-2014
eSignature Date

Reviewed by: Dane J. Wacasey 23-Dec-2014
eSignature Date

Matrices: **water**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	0.7c / 0.7c c/u 1		
Cooler(s)/Kit(s):	23505		
Date/Time sample(s) sent to storage:	12/19/2014 5:30PM		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: 0 Regarding:

Comments:

Corrective Action:



Environmental

Cincinnati, OH
+1 513 733 5336

Everett, WA
+1 425 356 2600

Fort Collins, CO
+1 970 490 1511

Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

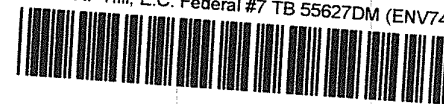
COC ID: 115785

ALS Project Manager:

HS14120789

Glenn Springs Holdings

GSHI PXP Hill, E.C. Federal #7 TB 55627DM (ENV749A)



Customer Information		Project Information	
Purchase Order	4501709538	Project Name	GSHI PXP Hill, E.C. Federal #7 TB
Work Order		Project Number	55627DM (ENV749A008)
Company Name	Glenn Springs Holdings	Bill To Company	Glenn Springs Holdings
Send Report To	Angela Bown	Invoice Attn	Jennifer Devonshire
Address	C/O CRA 9033 Meridian Way	Address	C/O CRA 2055 Niagara Falls Blvd. Suite 3
City/State/Zip	West Chester, Ohio, 45069	City/State/Zip	Niagara Falls, NY 14304
Phone	(513) 942-4750	Phone	
Fax		Fax	
e-Mail Address		e-Mail Address	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1	12/16/14	11:57	Water	1,8	4	X	X									
2	MW-2		12:03	Water			X	X									
3	MW-3		11:47	Water			X	X									
4	MW-4		12:33	Water			X	X									
5	MW-5		12:15	Water			X	X									
6	MW-6		12:09	Water			X	X									
7	MW-7		12:38	Water			X	X									
8	MW-8		12:27	Water			X	X									
9	MW-9		12:21	Water			X	X									
10	Trip Blank			Water			X	X									

Sampler(s) Please Print & Sign <i>Todd Wells</i>		Shipment Method <i>Fed Ex</i>		Required Turnaround Time: (Check Box) ☒ Std. 10 Wk. days		Results Due Date:	
Relinquished by: <i>Todd Wells</i>		Date: 12/18/14	Time: 16:15	Received by:		Notes:	
Relinquished by:		Date: 12/18/14	Time: 10:43	Received by (Laboratory): <i>Ch. M.</i>		Notes:	
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		Notes:	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035				Cooler ID		Cooler Temp.	QC Package: (Check One Box Below)
						☒ Level 2 Std QC ☐ Level 3 Std QC/Row da ☐ Level 4 SW846/CLP ☐ Other/EDD	
						☐ TRRP ChkList ☐ TRRP Level 4	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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4 of 4
MPS# 701 6227 8802
0681
Mstr: 6135 6168 5366

FRI - 19 DEC 10:30A
PRIORITY OVERNIGHT

AB SGRA

0215

DSR
77099
TX-US IAH



	ALS Environmental	Date: Name: Comp:
	10450 Stancliff Rd., Suite 210	
	Houston, Texas 77099	
	Tel. +1 281 530 5656	
	Fax. +1 281 530 5887	

APPENDIX B

B-D and #7 Tank Battery

Lea County

Jal, NM 88252

Inquiry Number: 4210441.1

February 18, 2015

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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Date EDR Searched Historical Sources:

Aerial Photography February 18, 2015

Target Property:

Lea County

Jal, NM 88252

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1968	Aerial Photograph. Scale: 1"=500'	Flight Date: February 04, 1968	EDR
1977	Aerial Photograph. Scale: 1"=1000'	Flight Date: March 29, 1977	EDR
1986	Aerial Photograph. Scale: 1"=1000'	Flight Date: May 06, 1986	EDR
1997	Aerial Photograph. Scale: 1"=500'	DOQQ - acquisition dates: November 01, 1997	USGS/DOQQ
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	USDA/NAIP
2011	Aerial Photograph. Scale: 1"=500'	Flight Year: 2011	USDA/NAIP

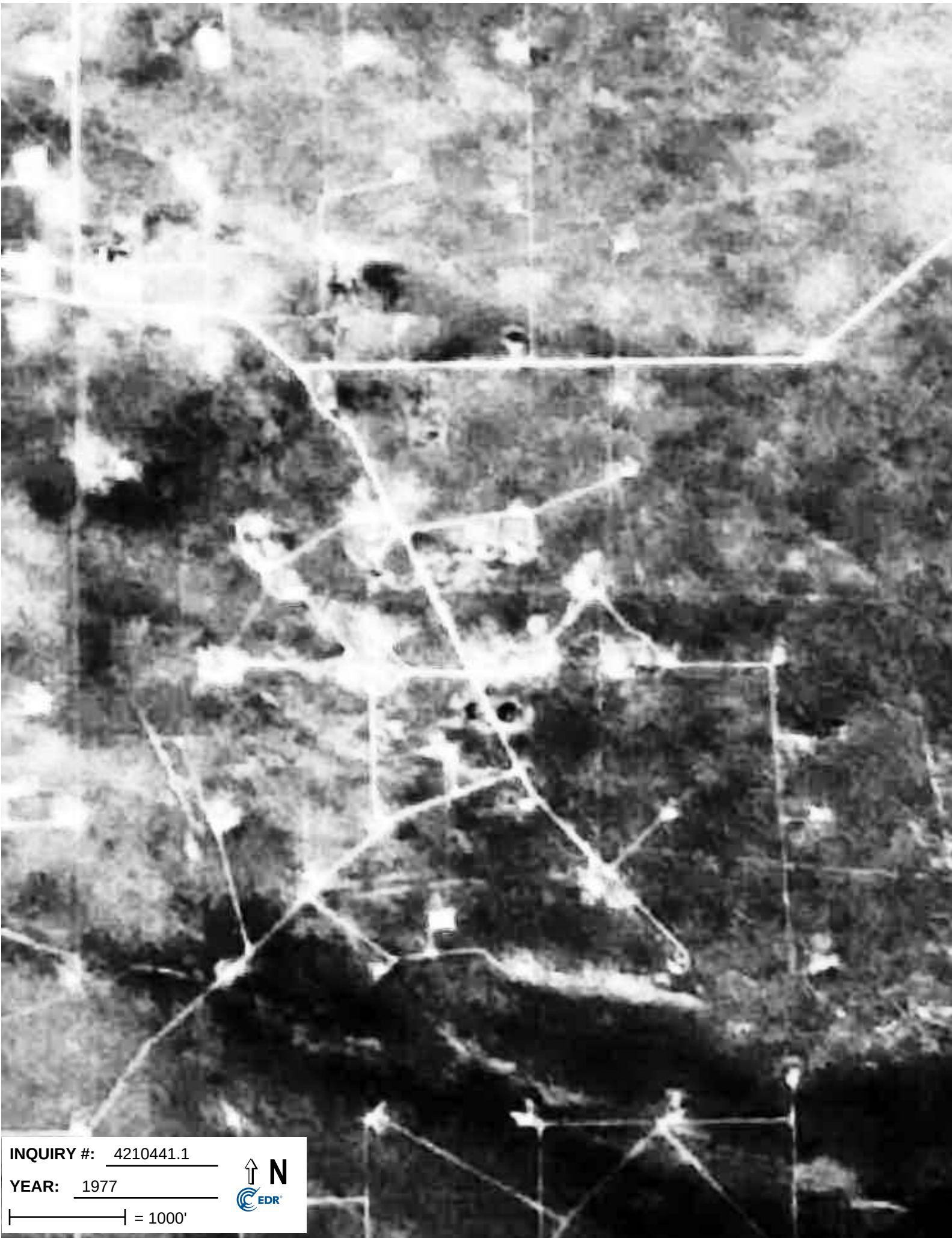


INQUIRY #: 4210441.1

YEAR: 1968

| = 500'





INQUIRY #: 4210441.1

YEAR: 1977

| = 1000'





INQUIRY #: 4210441.1

YEAR: 1986

| = 1000'





INQUIRY #: 4210441.1

YEAR: 1997

| = 500'





INQUIRY #: 4210441.1

YEAR: 2009

| = 500'





INQUIRY #: 4210441.1

YEAR: 2011

| = 500'

