



April 6, 2020

Dylan Rose-Coss
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: 2015 - 2018 Soil Assessment and Groundwater Monitoring Report
Glenn Springs Holdings, Inc.
E.C. Hill "A, B and C" Tank Battery
Section 27, Township 23 South, Range 37 East
Lea County, New Mexico.
1RP-440 and 1RP-462**

Mr. Rose-Coss,

This report summarizes the results of the quarterly sampling events which occurred between 2015 and 2018 for the E. C. Hill A, B and C Tank Battery (Site). The Site is located in Lea County, Section 27, Township 23 South, Range 37 East, approximately 11 miles south of Eunice, New Mexico. The GPS coordinates for the Site are 32.272283°N, 103.151018°W. Prior to being operated by OXY, the facility was operated by Plains Exploration and Production, Pogo Producing Company (Pogo) and Chevron Mid-Continent. The Site location is shown on **Figures 1 and 2**.

FACILITY BACKGROUND

This facility is an historic tank battery, which had numerous spills from previous operators. Prior to being operated by OXY, the facility was operated by Plains Exploration and Production, Pogo Producing Company (Pogo) and Chevron Mid-Continent. During Pogo's operation of this facility, several documented spills occurred over older spills at the facility. The majority of the spills occurred around production equipment and active underground lines. Pogo had proposed deferring all major cleanup activities on the inaccessible areas of the tank battery until the tank battery was abandoned.

In November 2003, Pogo decided to shut down all production to the tank battery and removed all tanks, vessels, equipment and lines in order to make the former tank battery location accessible to perform further assessment. Once the facility was dismantled, the impacted soils were excavated in the areas of the tanks, vessels and

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lines. In February 2004, fifteen test trenches were excavated to a depth of 5 feet below ground surface (bgs) throughout the former tank battery location to delineate the extent of impacted soils. The trenches were found to be impacted with elevated levels of Total Petroleum Hydrocarbons (TPH), Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) and Chlorides. Based on the results of the trenching, it was decided that soil borings would be required to complete the delineation at the site.

Between May and August 2005, thirteen boreholes were installed throughout the former tank battery area. The soil laboratory results indicated the Site was impacted to groundwater with elevated levels of TPH, BTEX and chlorides. It was evident from the boreholes and excavations performed at the site that there was very little lateral migration of hydrocarbons in subsurface soils and the impact was defined. In order to prevent leaching of the surrounding soils to groundwater, a 40-mil thick plastic liner (CAP) was installed in the excavation measuring 100' by 180'. The liner was installed to a depth of 3.5 feet bgs with the impacted excavated soils placed beneath the liner to prevent leaching. Once placed in the ground, the liner was backfilled and the excavation brought up to grade with clean soils.

Between September 2004 and July 2006, Pogo installed five monitor wells (MW-1 through MW-5) to assess the groundwater impacts to the Site. Monitor well MW-1 was installed immediately south of the excavation, while MW-2 and MW-3 were installed north of the excavation. Monitor wells MW-4 and MW-5 were installed to the east and southeast of the excavation. Phase separated hydrocarbons (PSH) were measured in monitor well MW-1, while dissolved phase hydrocarbons were detected in monitor wells MW-3, MW-4 and MW-5 at concentrations below the New Mexico Water Quality Control Commission (NMWQCC) standards. The monitor well locations are shown on **Figure 3**.

Between May 2, 2011 and May 11, 2011, OXY installed two recovery wells (RW-1 and RW-2) in order to recover PSH. Recovery well RW-1 was installed just north of MW-1, whereas RW-2 was installed just southwest of MW-3. PSH were measured in both RW-1 and RW-2. The recovery well locations are shown on **Figure 3**.

Well Installation MW-6 and TMW-7

Tetra Tech personnel mobilized to the Site on September 29, 2015, to supervise soil borings and monitor well installation. The NMOCD requested the installation of two delineation monitor wells: one permanent monitor well (MW-6) to the northeast and one temporary monitor well (TMW-7) southwest of the Site. The locations of these wells are depicted on **Figure 3**.

Following groundwater sampling, the temporary monitor well was to be either:

1. properly plugged and abandoned if NMWQCC standards were not exceeded, or



2. converted to a permanent monitor well if NMWQCC standards were exceeded

Two soil borings were installed at the Site for soil assessment and monitor well installation using air rotary drilling techniques. The soil borings were advanced to approximately 101 feet bgs. Samples from the soil borings were collected at five-foot intervals from surface to 30 feet bgs and at ten-foot intervals down to the total depth. The soil samples were split with half placed in self-sealing plastic bags and the other half in laboratory supplied soil jars. During drilling, observations of any color or odor, photo-ionization detection (PID) readings and conductivity readings were recorded as documented on the Sample Logs included in **Appendix A**.

Soil samples were collected from the intervals listed in the table below and submitted to ALS Laboratories of Houston, Texas for analysis of BTEX by EPA Method SW8260, chlorides by EPA Method SW9056, gasoline range organics by SW8015 and TPH Diesel Range Organics (DRO) by SW8015M. Soil analytical results indicated that no BTEX or GRO concentrations were detected above the method detection limits. No TPH Diesel Range Organics were detected above the method detection limits with the exception of sample MW-6 (5-6') which exhibited a TPH DRO concentration of 2.8 mg/kg. Chloride concentrations were detected as follows:

Sample ID	Chloride Concentration (mg/kg)
MW-6 (5-6')	130
MW-6 (40-41')	2,670
MW-6 (80-81')	63.7
TMW-7 (5-6')	323
TMW-7 (40-41')	35.5
TMW-7 (80-81')	7.06

The laboratory report and chain of custody form for the soil samples are included in **Appendix A**.

The 2-inch monitor wells MW-6 and TMW-7 were installed to a total depth of approximately 100-feet bgs. The locations of the monitor wells are presented on **Figure 3**. Monitor well MW-6 was constructed as a 2-inch diameter well extending to a total depth of 100 feet below ground surface (bgs), with the well screen set between 80 and 100 feet bgs. Temporary monitor well TMW-7 was constructed as a 2-inch diameter well extending to a total depth of 97 feet bgs, with the well screen set between 77 and 97 feet bgs. Well Construction Logs are included in **Appendix A**.

On October 29, 2015, and December 18, 2015, Tetra Tech personnel gauged the



water levels in MW-6 and TMW-7 with an electronic water level meter to the nearest 0.01-foot. Gauging data for the Site is provided in **Table 1**. A groundwater gradient map for the December 2015 sampling event is presented in **Figure 4**. The wells were purged to remove three casing volumes of water with disposable rope or twine and polyethylene bailers for each well. The samples were placed directly from the bailers in to laboratory supplied containers. The samples were properly preserved on ice to 4°C and submitted under proper chain-of-custody control to ALS in Houston, Texas for analysis of BTEX by Method SW8260 and chlorides by Method E300.0.

The analytical results for the sampling on both dates indicate BTEX concentrations below method detection limits for both MW-6 and TMW-7. The chloride concentrations for TMW-7 were below the NMWQCC standard of 250 mg/L during both of the sampling events. In monitor well MW-6, the chloride concentrations exceeded the 250 mg/L NMWQCC standard in both the October 29 and December 18, 2015, groundwater sampling events. The chloride analytical results for MW-6 ranged from 581 mg/L to 617 mg/L. The BTEX and chloride concentration map for the December 2015 groundwater sampling event is included on **Figure 9**. The analytical results are presented in **Table 2**. The laboratory analytical reports and chain of custody documentation are included in **Appendix D**.

Temporary monitor well TMW-7 was plugged and abandoned on March 2, 2016.

RECOVERY SYSTEM OPERATIONS AND MAINTENANCE

During 2014, QED™ skimmer pumps were installed in monitor wells MW-1 and MW-2 and a Xitech skimmer pump was installed in recovery well RW-1 for the recovery of PSH. The skimmer pumps operated with solar recharged battery power and a nitrogen bottle. The product from each well was pumped in to drums inside secondary containment where it is periodically removed for offsite disposal. System schematics are included in **Appendix B**. An estimated volume of 734 gallons of phase separated product (PSH) was recovered during 2015 to 2018, bringing the estimated total volume of PSH recovered since the system started in 2014 to 777gallons.

GAUGING AND MONITOR WELL SAMPLING

In 2015, Tetra Tech Inc. personnel were onsite to gauge monitor wells MW-1, MW-2, MW-3, MW-4, MW-5, RW-1, and RW-2 on a quarterly basis and monitor wells MW-6 and TMW-7 were gauged twice in the last quarter. Monitor wells MW-1, MW-2, MW-3, MW-4, MW-5, RW-1, and RW-2 were gauged on a quarterly basis during 2016. The monitor wells and recovery wells gauged in 2016 were also gauged in first and third quarters of 2017 and 2018. All of the wells on site were gauged with an electronic interface probe to the nearest 0.01 foot. The gauging data is summarized in **Table 1**. During all of the sampling events, PSH were measured in four monitor wells: MW-1, MW-3, RW-1, and RW-2. The range of PSH thickness during the sampling events



were: (MW-1), 0.15 – 2.25 feet; (MW-3), 0.36 – 3.03 feet; (RW-1), 2.20 – 3.13 feet and (RW-2), 0.01 – 2.94 feet. Utilizing the water level elevation calculations, groundwater gradient maps were generated for the following sampling events: December 18, 2015, September 7, 2016, August 29, 2017, February 20, 2018 and August 23, 2018. The groundwater gradient was consistently to the southeast. Groundwater gradient maps for 2015, 2016, 2017, and 2018 sampling events are included as **Figures 4 through 8**.

During each groundwater sampling event, the monitor wells were purged to remove three well casing volumes of water using disposable rope or twine with a new polyethylene bailer 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 E300.

Analytical results indicate that BTEX concentrations were below method detection limits for all monitor wells sampled during all of the sampling events.

Chloride analytical results for monitor wells MW-2, MW-5, and TMW-7 were below the 250 mg/L New Mexico Water Quality Control Commission (NMWQCC) standard during all 2015, 2016, 2017 and 2018 sampling events. The chloride analytical results for MW-4 and MW-6 exceeded the NMWQCC standards during all 2015, 2016, 2017 and 2018 sampling events. In monitor well MW-4, chloride concentrations ranged from 386 mg/L on August 23, 2018 to 750 mg/L on June 18, 2015. In monitor well MW-6, chloride concentrations ranged from 429 mg/L on June 30, 2016 to 1,110 mg/L on August 23, 2018.

Graphs of chloride concentrations versus groundwater elevations for monitor wells MW-2, MW-4, MW-5, and MW-6 are included in **Appendix C**. These graphs indicate generally stable chloride concentrations in monitor well MW-2 and fluctuations within the historic range of concentrations in monitor well MW-5. For the two monitor wells with chloride concentrations exceeding the NMWQCC standards, chloride concentrations in downgradient monitor well MW-4 have been fluctuating within the historic range of concentrations with a declining trend between 2015 and 2018 and chloride concentrations in cross gradient monitor well MW-6 have been increasing.

Chloride concentration maps for December 18, 2015, September 9, 2016, August 29, 2017, February 21, 2018 and August 23, 2018 are included as **Figures 9 through 13**. The groundwater analytical data is summarized in **Table 2**. Copies of the laboratory analytical reports are included in **Appendix D**.



CONCLUSIONS

1. Chloride concentrations for monitor wells MW-4 and MW-6 exceed the NMWQCC standard of 250 mg/L. Chloride concentrations in downgradient monitor well MW-4 have been fluctuating within the historic range of concentrations with a declining trend between 2015 and 2018 and chloride concentrations in cross gradient monitor well MW-6 have been increasing
2. Chloride concentrations for monitor wells MW-2 and MW-5 were below the NMWQCC standard of 250 mg/L for all sampling events during 2015 through 2018.
3. Analytical results indicate that at all four wells sampled have BTEX concentrations below the method detection limits.
4. A total estimated volume of 777 gallons of PSH has been recovered by the remediation system between startup in 2014 and December 2018.

PROPOSED 2019 GROUNDWATER MONITORING PROGRAM

Continued semi-annual groundwater monitoring and PSH recovery system operations is proposed for 2019.

If you have any questions or comments concerning this report, please feel free to contact Ray Cheatham at (713)203-0852.

Respectfully submitted,
Tetra Tech, Inc.

A handwritten signature in black ink, appearing to read 'R Cheatham'.

Ray Cheatham
Principal Geologist

A handwritten signature in black ink, appearing to read 'Mike Carmona'.

Mike Carmona
Project Manager

Attachments:

Figures

Tables

Appendix A – MW-6 & TWM-7 Drilling Logs, Well Construction, and Soil Laboratory Report

Appendix B – Recovery System Schematics

Appendix C – Groundwater Elevation and Chloride Concentration Graphs

Appendix D – Groundwater Laboratory Reports

cc: Dusty Wilson – Glenn Springs Holdings, Inc.

Figures

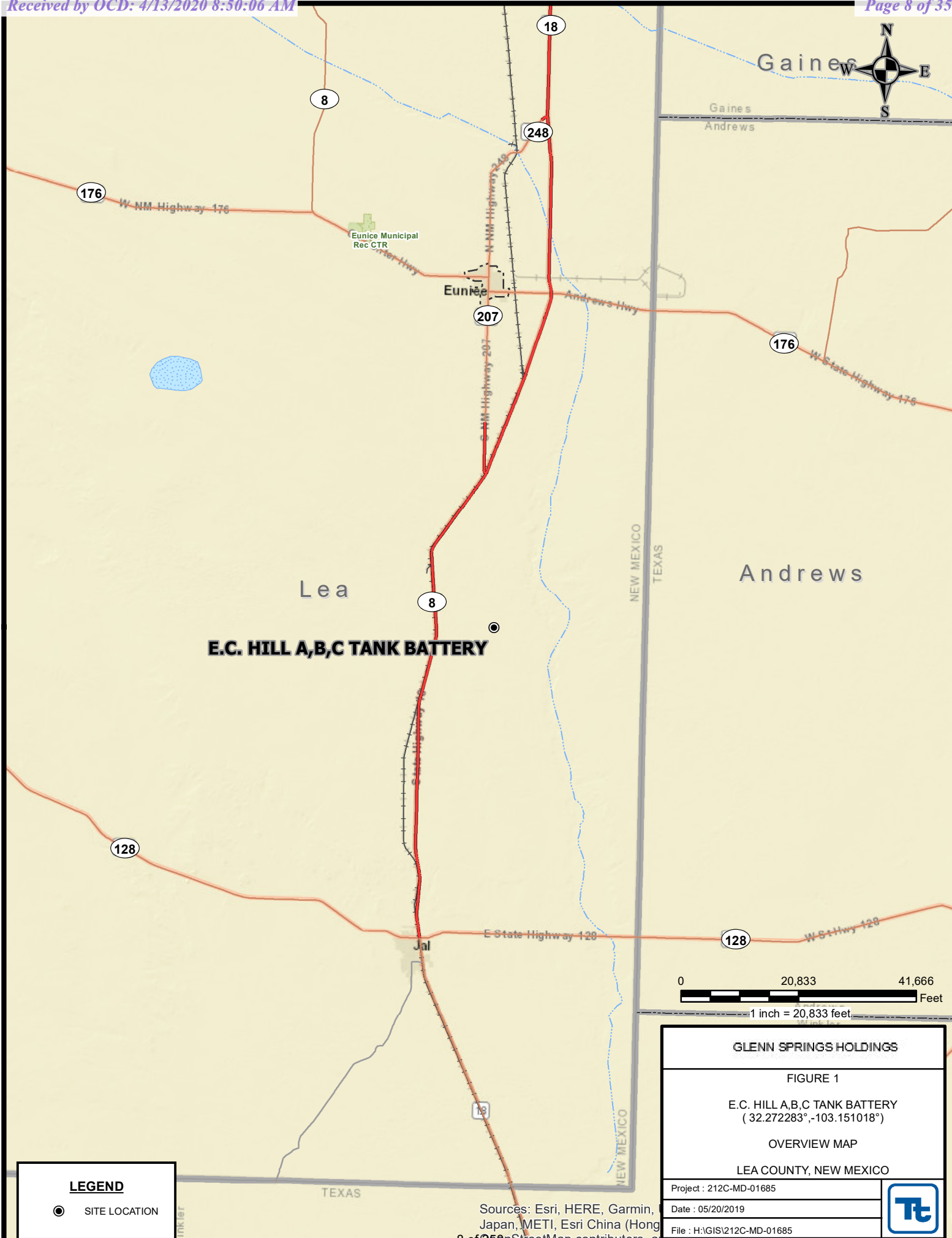






FIGURE NO. 3

LEGEND ● MONITOR WELL LOCATIONS △ SKIMMER PUMP SYSTEM --- STEEL PIPE --- ABOVEGROUND POLYPIPE --- BURIED PIPELINE	NOTES:	TETRA TECH 901 W. WALL STREET STE. 100 MIDLAND, TEXAS (432) 682-4559	GLENN SPRINGS HOLDINGS	NORTH 0 20 60ft	SITE MAP E.C. HILL "A", "B", "C" TANK BATTERY LEA COUNTY, NEW MEXICO <table border="1"><tr><td>Project: 212C-MD-01685</td><td>REV.</td></tr><tr><td>Date: 5/21/2019</td><td></td></tr><tr><td>File: H:\Acad Data\GLENN SPRINGS\2019\01685</td><td></td></tr></table>	Project: 212C-MD-01685	REV.	Date: 5/21/2019		File: H:\Acad Data\GLENN SPRINGS\2019\01685	
Project: 212C-MD-01685	REV.										
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FIGURE NO. 4

LEGEND ● MONITOR WELL LOCATIONS ⊕ TEMPORARY MONITOR WELL — 3189.50 — GROUNDWATER ELEVATION CONTOUR INTERVAL = .25 FT. 3189.64 GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL) → APPARENT GROUNDWATER GRADIENT △ SKIMMER PUMP SYSTEM	NOTES:	TETRA TECH 901 W. WALL STREET STE. 100 MIDLAND, TEXAS (432) 682-4559	GLENN SPRINGS HOLDINGS NORTH 0 20 60ft	GROUNDWATER GRADIENT MAP DECEMBER 18, 2015 E.C. HILL "A", "B", "C" TANK BATTERY LEA COUNTY, NEW MEXICO <table border="1"><tr><td>Project: 212C-MD-01685</td><td>REV.</td></tr><tr><td>Date: 7/12/2019</td><td></td></tr><tr><td colspan="2">File: H:\Acad Data\GLENN SPRINGS\2015\212C-MD-01685 E.C. HILL A, B, C.TB</td></tr></table>	Project: 212C-MD-01685	REV.	Date: 7/12/2019		File: H:\Acad Data\GLENN SPRINGS\2015\212C-MD-01685 E.C. HILL A, B, C.TB	
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FIGURE NO. 5

LEGEND ● MONITOR WELL LOCATIONS ⊕ TEMPORARY MONITOR WELL — GROUNDWATER ELEVATION CONTOUR INTERVAL = .25 FT. 3189.79 GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL) → APPARENT GROUNDWATER GRADIENT △ SKIMMER PUMP SYSTEM	NOTES:	TETRA TECH 901 W. WALL STREET STE. 100 MIDLAND, TEXAS (432) 682-4559	GLENN SPRINGS HOLDINGS	NORTH 0 20 60ft	GROUNDWATER GRADIENT MAP SEPTEMBER 07, 2016 E.C. HILL "A", "B", "C" TANK BATTERY LEA COUNTY, NEW MEXICO <table border="1"><tr><td>Project: 212C-MD-01685</td><td>REV.</td></tr><tr><td>Date: 8/2/2019</td><td></td></tr><tr><td colspan="2">File: 212C-MD-01685 E.C.HILL A, B, C TB GW GRADIENT MAP FIG. 5</td></tr></table>	Project: 212C-MD-01685	REV.	Date: 8/2/2019		File: 212C-MD-01685 E.C.HILL A, B, C TB GW GRADIENT MAP FIG. 5	
Project: 212C-MD-01685	REV.										
Date: 8/2/2019											
File: 212C-MD-01685 E.C.HILL A, B, C TB GW GRADIENT MAP FIG. 5											



FIGURE NO. 6

LEGEND ● MONITOR WELL LOCATIONS ⊕ TEMPORARY MONITOR WELL 3189.50 GROUNDWATER ELEVATION CONTOUR INTERVAL = .25 FT. 3189.15 GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL) → APPARENT GROUNDWATER GRADIENT △ SKIMMER PUMP SYSTEM	NOTES:	TETRA TECH 901 W. WALL STREET STE. 100 MIDLAND, TEXAS (432) 682-4559	GLENN SPRINGS HOLDINGS NORTH 0 20 60ft	GROUNDWATER GRADIENT MAP AUGUST 29, 2017 E.C. HILL "A", "B", "C" TANK BATTERY LEA COUNTY, NEW MEXICO <table border="1"> <tr> <td>Project: 212C-MD-01685</td> <td>REV.</td> </tr> <tr> <td>Date: 8/2/2019</td> <td></td> </tr> <tr> <td colspan="2">File: 212C-MD-01685 E.C.HILL A, B, C TB GW GRADIENT MAP FIG. 6</td> </tr> </table>	Project: 212C-MD-01685	REV.	Date: 8/2/2019		File: 212C-MD-01685 E.C.HILL A, B, C TB GW GRADIENT MAP FIG. 6	
Project: 212C-MD-01685	REV.									
Date: 8/2/2019										
File: 212C-MD-01685 E.C.HILL A, B, C TB GW GRADIENT MAP FIG. 6										



FIGURE NO. 7

LEGEND ● MONITOR WELL LOCATIONS ⊕ TEMPORARY MONITOR WELL — 3189.50 — GROUNDWATER ELEVATION CONTOUR INTERVAL = .25 FT. 2816.08 GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL) → APPARENT GROUNDWATER GRADIENT △ SKIMMER PUMP SYSTEM	NOTES:	TETRA TECH 901 W. WALL STREET STE. 101 MIDLAND, TEXAS (432) 682-4559	GLENN SPRINGS HOLDINGS NORTH 0 20 60ft	GROUNDWATER GRADIENT MAP FEBRUARY 20, 2018 E.C. HILL "A", "B", "C" TANK BATTERY LEA COUNTY, NEW MEXICO <table border="1"><tr><td>Project: 212C-MD-01685</td></tr><tr><td>Date: 7/30/2019</td></tr><tr><td>File: H:\Acad Data\GLENN SPRINGS2018\New Folder</td></tr></table>	Project: 212C-MD-01685	Date: 7/30/2019	File: H:\Acad Data\GLENN SPRINGS2018\New Folder
Project: 212C-MD-01685							
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FIGURE NO. 8

LEGEND ● MONITOR WELL LOCATIONS ⊕ TEMPORARY MONITOR WELL 3189.25 GROUNDWATER ELEVATION 3189.07 GROUNDWATER ELEVATION → APPARENT GROUNDWATER GRADIENT △ SKIMMER PUMP SYSTEM	NOTES: RESULTS IN mg/L PRODUCT THICKNESS MEASURE ON 08/23/2018	TETRA TECH 901 W. WALL STREET STE. 101 MIDLAND, TEXAS	GLENN SPRINGS HOLDINGS	NORTH 0 20 60ft	GROUNDWATER GRADIENT MAP AUGUST 23, 2018 E.C. HILL "A", "B", "C" TANK BATTERY LEA COUNTY, NEW MEXICO <table><tr><td>Project: 212C-MD-00765</td></tr><tr><td>Date: 7/31/2019</td></tr><tr><td>File: H:\Acad Data\GLENN SPRINGS\2018\212C-MD-01685 E.C. HILL A, B, C.TB</td></tr></table>	Project: 212C-MD-00765	Date: 7/31/2019	File: H:\Acad Data\GLENN SPRINGS\2018\212C-MD-01685 E.C. HILL A, B, C.TB
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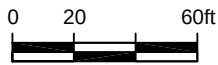
LEGEND ⊕ MONITOR WELL LOCATIONS ⊕ TEMPORARY MONITOR WELLS △ SKIMMER PUMP SYSTEM RESULTS IN mg/L PRODUCT THICKNESS MEASURE ON 08/23/2018	NOTES:	 TETRA TECH 901 W. WALL STREET STE. 101 MIDLAND, TEXAS (432) 682-4559	GLENN SPRINGS HOLDINGS NORTH  	FIGURE NO. 9 BTEX & CHLORIDE CONCENTRATION MAP DECEMBER 18, 2015 E.C. HILL "A", "B", "C" TANK BATTERY LEA COUNTY, NEW MEXICO <table border="1"> <tr> <td>Project: 212C-MD-01685</td> </tr> <tr> <td>Date: 7/31/2019</td> </tr> <tr> <td>File: H:\Acad Data\GLENN SPRINGS\2015\212C-MD-01685 E.C. HILL A, B, C.TB</td> </tr> </table>	Project: 212C-MD-01685	Date: 7/31/2019	File: H:\Acad Data\GLENN SPRINGS\2015\212C-MD-01685 E.C. HILL A, B, C.TB
Project: 212C-MD-01685							
Date: 7/31/2019							
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FIGURE NO. 10

LEGEND - MONITOR WELL LOCATIONS - TEMPORARY MONITOR WELL - SKIMMER PUMP SYSTEM	NOTES:	TETRA TECH 901 W. WALL STREET STE. 101 MIDLAND, TEXAS (432) 682-4559	GLENN SPRINGS HOLDINGS NORTH 0 20 60ft	BTEX & CHLORIDE CONCENTRATION MAP SEPTEMBER 09, 2016 E.C. HILL "A", "B", "C" TANK BATTERY LEA COUNTY, NEW MEXICO <table border="1"> <tr> <td>Project: 212C-MD-01685</td> </tr> <tr> <td>Date: 8/1/2019</td> </tr> <tr> <td>File: H:\Acad Data\GLENN SPRINGS\2016\212C-MD-01685 E.C. HILL A, B, C.TB</td> </tr> </table>	Project: 212C-MD-01685	Date: 8/1/2019	File: H:\Acad Data\GLENN SPRINGS\2016\212C-MD-01685 E.C. HILL A, B, C.TB
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Date: 8/1/2019							
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LEGEND - MONITOR WELL LOCATIONS - TEMPORARY MONITOR WELL - SKIMMER PUMP SYSTEM RESULTS IN mg/L	NOTES:	TETRA TECH 901 W. WALL STREET STE. 101 MIDLAND, TEXAS (432) 682-4559	GLENN SPRINGS HOLDINGS NORTH 0 20 60ft	FIGURE NO. 11 BTEX & CHLORIDE CONCENTRATION MAP AUGUST 29, 2017 E.C. HILL "A", "B", "C" TANK BATTERY LEA COUNTY, NEW MEXICO Project: 212C-MD-01685 Date: 8/2/2019 File: H:\Acad Data\GLENN SPRINGS\2017\212C-MD-01685 E.C. HILL A, B, C.TB
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LEGEND

- MONITOR WELL LOCATIONS
- TEMPORARY MONITOR WELL
- SKIMMER PUMP SYSTEM

RESULTS IN mg/L
PRODUCT THICKNESS MEASURE ON 02/20/2018

NOTES:

TETRA TECH
901 W. WALL STREET STE. 101
MIDLAND, TEXAS
(432) 682-4559

GLENN SPRINGS HOLDINGS

FIGURE NO. 12

BTEX & CHLORIDE CONCENTRATION MAP
FEBRUARY 21, 2018

E.C. HILL "A", "B", "C" TANK BATTERY
LEA COUNTY, NEW MEXICO

Project: 212C-MD-01685
Date: 7/31/2019
File: H:\Acad Data\GLENN SPRINGS\2018\212C-MD-01685 E.C. HILL A, B, C.TB

NORTH

0 20 60ft



LEGEND - MONITOR WELL LOCATIONS - TEMPORARY MONITOR WELL - SKIMMER PUMP SYSTEM RESULTS IN mg/L PRODUCT THICKNESS MEASURE ON 08/23/2018	NOTES:	TETRA TECH 901 W. WALL STREET STE. 101 MIDLAND, TEXAS (432) 682-4559	GLENN SPRINGS HOLDINGS NORTH 0 20 60ft	FIGURE NO. 13 BTEX & CHLORIDE CONCENTRATION MAP AUGUST 23, 2018 E.C. HILL "A", "B", "C" TANK BATTERY LEA COUNTY, NEW MEXICO <table border="1"><tr><td>Project: 212C-MD-01685</td></tr><tr><td>Date: 7/30/2019</td></tr><tr><td>File: H:\Acad Data\GLENN SPRINGS\2018\212C-MD-01685 E.C. HILL A, B, C.TB</td></tr></table>	Project: 212C-MD-01685	Date: 7/30/2019	File: H:\Acad Data\GLENN SPRINGS\2018\212C-MD-01685 E.C. HILL A, B, C.TB
Project: 212C-MD-01685							
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Tables

Table 1
Glenn Springs Holdings
E.C. Hill A, B & C Tank Battery
Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Gauged	Well Total Depth (ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Top of Casing Elevation, feet AMSL	Groundwater Elevation (ft)
MW-1	09/17/04	115	-	88.46	-	3274.52	3186.06
	06/17/05	115	86.01	86.04	0.03	3274.52	3188.48
	11/14/05	115	85.82	85.94	0.12	3274.52	3188.49
	03/22/06	115	85.89	87.14	1.25	3274.52	3188.32
	09/22/06	115	85.63	88.26	2.63	3274.52	3188.23
	03/16/07	115	85.65	88.70	3.05	3274.52	3188.11
	06/06/07	115	85.52	88.51	2.99	3274.52	3188.25
	09/28/07	115	85.60	88.62	3.02	3274.52	3188.17
	12/18/07	115	NM	NM	NM	NM	NM
	03/28/08	115	85.70	88.94	3.24	3274.52	3188.01
	06/26/08	115	85.59	88.66	3.07	3274.52	3188.16
	09/22/08	115	85.78	88.20	2.42	3274.52	3188.14
	12/04/08	115	86.01	88.80	2.79	3274.52	3187.81
	03/12/09	115	85.68	88.60	2.92	3274.52	3188.11
	06/22/09	115	85.65	88.63	2.98	3274.52	3188.13
	09/16/09	115	85.74	88.94	3.20	3274.52	3187.98
	12/09/09	115	85.67	88.70	3.03	3274.52	3188.09
	03/10/10	115	85.62	88.68	3.06	3274.52	3188.14
	06/08/10	115	85.70	88.89	3.19	3274.52	3188.02
	09/13/10	115	85.68	88.84	3.16	3274.52	3188.05
	12/14/10	115	85.63	88.78	3.15	3274.52	3188.10
	03/10/11	115	85.63	88.86	3.23	3274.52	3188.08
	06/13/11	115	85.63	88.75	3.12	3274.52	3188.11
	09/19/11	115	85.81	89.13	3.32	3274.52	3187.88
	12/12/11	115	85.83	88.92	3.09	3274.52	3187.92
	03/22/12	115	85.78	89.96	4.18	3274.52	3187.70
	04/06/12	115	85.77	89.97	4.20	3274.52	3187.70
	06/20/12	115	85.75	89.03	3.28	3274.52	3187.95
	09/24/12	115	85.97	88.20	2.23	3274.52	3187.99
	12/14/12	115	86.01	87.13	1.12	3274.52	3188.23
	03/27/13	115	85.93	87.95	2.02	3274.52	3188.09
	06/07/13	115	85.94	88.30	2.36	3274.52	3187.99
	06/24/13	115	86.05	88.43	2.38	3274.52	3187.88
	07/08/13	115	86.28	87.51	1.23	3274.52	3187.93
	07/23/13	115	86.30	87.20	0.90	3274.52	3188.00
	08/06/13	115	86.40	86.70	0.30	3274.52	3188.05
	09/19/13	115	NG	NG	-	3274.52	-
	11/07/13	115	86.12	87.60	1.48	3274.52	3188.03
	12/27/13	115	86.26	87.38	1.12	3274.52	3187.98
	03/27/14	112.68	86.14	87.39	1.25	3274.52	3188.07
	06/17/14	112.68	86.11	88.04	1.93	3274.52	3187.93
	09/26/14	112.68	86.24	86.78	0.54	3274.52	3188.15
	12/16/14	112.68	86.27	86.84	0.57	3274.52	3188.11
	03/24/15	-	86.20	86.35	0.15	3274.52	3188.28
	04/09/15	-	86.11	86.57	0.46	3274.52	3188.30
	06/18/15	-	86.10	86.90	0.80	3274.52	3188.22
	07/30/15	-	85.88	87.30	1.42	3274.52	3188.29
	08/05/15	-	85.86	87.51	1.65	3274.52	3188.25
	08/18/15	-	86.06	86.09	0.03	3274.52	3188.45
	09/09/15	112.68	86.11	86.35	0.24	3274.52	3188.35
	12/18/15	-	86.12	86.65	0.53	3275.89	3189.64
	03/14/16	-	85.95	87.45	1.50	3275.89	3189.57
	06/28/16	-	86.19	86.48	0.29	3275.89	3189.63
	09/07/16	-	86.01	86.52	0.51	3275.89	3189.79
	12/06/16	-	86.12	86.90	0.78	3275.89	3189.63
	03/01/17	112.30	86.10	87.25	1.15	3275.89	3189.59
	08/29/17	-	86.96	88.18	1.22	3275.89	3188.72
	02/20/18	-	85.77	88.02	2.25	3275.89	3189.72
	08/23/18	-	85.86	88.10	2.24	3275.89	3189.64

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Table 1
Glenn Springs Holdings
E.C. Hill A, B & C Tank Battery
Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Gauged	Well Total Depth (ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Top of Casing Elevation, feet AMSL	Groundwater Elevation (ft)
MW-2	06/17/05	102	-	86.04	-	3274.99	3188.95
	11/14/05	102	-	85.9	-	3274.99	3189.09
	03/22/06	102	-	86.08	-	3274.99	3188.91
	09/22/06	102	NM	NM	NM	3274.99	NM
	03/16/07	102	-	86.23	-	3274.99	3188.76
	06/06/07	102	-	86.10	-	3274.99	3188.89
	09/28/07	102	-	86.22	-	3274.99	3188.77
	12/18/07	102	-	86.20	-	3274.99	3188.79
	03/28/08	102	-	86.26	-	3274.99	3188.73
	06/26/08	102	-	86.16	-	3274.99	3188.83
	09/22/08	102	-	86.23	-	3274.99	3188.76
	12/04/08	102	-	86.60	-	3274.99	3188.39
	03/12/09	102	-	86.25	-	3274.99	3188.74
	06/22/09	102	-	86.25	-	3274.99	3188.74
	09/16/09	102	-	86.58	-	3274.99	3188.41
	12/09/09	102	-	86.28	-	3274.99	3188.71
	03/10/10	102	-	86.57	-	3274.99	3188.42
	06/08/10	102	-	86.29	-	3274.99	3188.70
	09/13/10	102	-	86.23	-	3274.99	3188.76
	12/14/10	102	-	87.02	-	3274.99	3187.97
	03/10/11	102	-	86.25	-	3274.99	3188.74
	06/13/11	102	-	86.23	-	3274.99	3188.76
	09/19/11	102	-	86.36	-	3274.99	3188.63
	12/12/11	102	-	86.40	-	3274.99	3188.59
	03/22/12	102	-	86.41	-	3274.99	3188.58
	04/06/12	102	-	86.27	-	3274.99	3188.72
	06/20/12	102	-	86.39	-	3274.99	3188.60
	09/24/12	102	-	86.32	-	3274.99	3188.67
	12/14/12	102	-	86.30	-	3274.99	3188.69
	03/27/13	102	-	86.32	-	3274.99	3188.67
	06/06/13	102	-	86.40	-	3274.99	3188.59
	09/19/13	101.60	-	86.38	-	3274.99	3188.61
	11/07/13	101.60	-	86.49	-	3274.99	3188.50
	12/26/13	101.60	-	86.48	-	3274.99	3188.51
	03/27/14	100.10	-	86.42	-	3274.99	3188.57
	06/17/14	100.10	-	86.45	-	3274.99	3188.54
	09/26/14	100.00	-	86.49	-	3274.99	3188.50
	12/16/14	100.00	-	86.23	-	3274.99	3188.76
	03/24/15	-	-	86.26	-	3274.99	3188.73
	06/18/15	-	-	86.33	-	3274.99	3188.66
	08/05/15	-	-	86.25	-	3274.99	3188.74
	09/09/15	100.00	-	86.21	-	3274.99	3188.78
	12/18/15	-	-	86.16	-	3276.46	3190.30
	03/14/16	100.00	-	86.23	-	3276.46	3190.23
	06/28/16	100.00	-	86.31	-	3276.46	3190.15
	09/07/16	-	-	86.29	-	3276.46	3190.17
	12/06/16	-	-	86.38	-	3276.46	3190.08
	03/01/17	99.25	-	86.40	-	3276.46	3190.06
	08/29/17	99.25	-	86.34	-	3276.46	3190.12
	02/20/18	99.55	-	86.19	-	3276.46	3190.27
	08/23/18	-	-	86.44	-	3276.46	3190.02

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E.C. Hill A, B & C Tank Battery
Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Gauged	Well Total Depth (ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Top of Casing Elevation, feet AMSL	Groundwater Elevation (ft)
MW-3	11/14/05	101	-	87.96	-	3276.48	3188.50
	03/22/06	101	-	87.99	-	3276.48	3188.49
	09/22/06	101	-	88.02	-	3276.48	3188.46
	03/16/07	101	-	88.08	-	3276.48	3188.40
	06/06/07	101	-	88.00	-	3276.48	3188.48
	09/28/07	101	-	88.10	-	3276.48	3188.38
	12/18/07	101	-	88.08	-	3276.48	3188.40
	03/28/08	101	87.76	90.27	2.51	3276.48	3188.09
	06/26/08	101	87.60	90.51	2.91	3276.48	3188.15
	09/22/08	101	87.66	90.63	2.97	3276.48	3188.08
	12/04/08	101	87.94	90.98	3.04	3276.48	3187.78
	03/12/09	101	87.63	90.67	3.04	3276.48	3188.09
	06/22/09	101	87.60	90.69	3.09	3276.48	3188.11
	09/16/09	101	87.73	90.82	3.09	3276.48	3187.98
	12/09/09	101	87.64	90.69	3.05	3276.48	3188.08
	03/10/10	101	87.58	90.68	3.10	3276.48	3188.13
	06/08/10	101	87.68	89.80	2.12	3276.48	3188.27
	09/13/10	101	87.66	90.77	3.11	3276.48	3188.04
	12/14/10	101	87.63	90.67	3.04	3276.48	3188.09
	03/10/11	101	87.60	90.67	3.07	3276.48	3188.11
	06/13/11	101	87.59	90.67	3.08	3276.48	3188.12
	09/19/11	101	87.80	90.67	2.87	3276.48	3187.96
	12/12/11	101	87.74	90.67	2.93	3276.48	3188.01
	03/22/12	101	87.75	90.97	3.22	3276.48	3187.93
	04/06/12	101	87.74	90.96	3.22	3276.48	3187.94
	06/20/12	101	87.71	90.95	3.24	3276.48	3187.96
	09/24/12	101	87.77	91.03	3.26	3276.48	3187.90
	12/14/12	101	87.73	91.02	3.29	3276.48	3187.93
	03/27/13	101	87.72	90.96	3.24	3276.48	3187.95
	06/07/13	101	87.78	91.10	3.32	3276.48	3187.87
	06/24/13	101	87.87	91.15	3.28	3276.48	3187.79
	07/08/13	101	87.97	90.88	2.91	3276.48	3187.78
	07/23/13	101	87.90	91.00	3.10	3276.48	3187.81
	08/06/13	101	87.91	91.03	3.12	3276.48	3187.79
	09/19/13	101	NG	NG	-	3276.48	-
	11/07/13	101	87.79	91.11	3.32	3276.48	3187.86
	12/26/13	101	87.90	91.08	3.18	3276.48	3187.79
	03/27/14	106.14	87.83	90.70	2.87	3276.48	3187.93
	06/17/14	106.14	88.02	90.37	2.35	3276.48	3187.87
	09/26/14	106.14	87.99	90.73	2.74	3276.48	3187.81
	12/16/14	106.14	87.90	90.71	2.81	3276.48	3187.88
	03/24/15	-	88.20	88.56	0.36	3276.48	3188.19
	04/09/15	-	87.82	90.17	2.35	3276.48	3188.07
	06/18/15	-	87.91	90.24	2.33	3276.48	3187.99
	07/30/15	-	87.74	90.08	2.34	3276.48	3188.16
	08/05/15	-	88.15	88.30	0.15	3276.48	3188.29
	08/18/15	-	88.06	88.25	0.19	3276.48	3188.37
	09/09/15	106.14	87.71	90.48	2.77	3276.48	3188.08
	12/18/15	-	87.90	90.06	2.16	3277.87	3189.43
	03/14/16	106.14	87.89	89.55	1.66	3277.87	3189.57
	06/28/16	-	87.75	90.60	2.85	3277.87	3189.41
	09/07/16	-	87.72	89.89	2.17	3277.87	3189.77
	12/06/16	-	87.73	89.92	2.19	3277.87	3189.76
	03/01/17	104.52	88.00	90.33	2.33	3277.87	3189.46
	08/29/17	104.52	87.99	91.02	3.03	3277.87	3189.35
	02/20/18	-	87.85	89.67	1.82	3277.87	3189.70
	08/23/18	-	88.00	89.84	1.84	3277.87	3189.55

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Table 1
Glenn Springs Holdings
E.C. Hill A, B & C Tank Battery
Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Gauged	Well Total Depth (ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Top of Casing Elevation, feet AMSL	Groundwater Elevation (ft)
MW-4	09/22/06	100	-	87.22	-	3275.22	3188.00
	03/16/07	100	-	87.29	-	3275.22	3187.93
	06/06/07	100	-	87.20	-	3275.22	3188.02
	09/28/07	100	-	87.31	-	3275.22	3187.91
	12/18/07	100	-	87.29	-	3275.22	3187.93
	03/28/08	100	-	87.33	-	3275.22	3187.89
	06/26/08	100	-	87.26	-	3275.22	3187.96
	09/22/08	100	-	87.32	-	3275.22	3187.90
	12/04/08	100	-	87.50	-	3275.22	3187.72
	03/12/09	100	-	87.34	-	3275.22	3187.88
	06/22/09	100	-	87.32	-	3275.22	3187.90
	09/16/09	100	-	87.39	-	3275.22	3187.83
	12/09/09	100	-	87.32	-	3275.22	3187.90
	03/10/10	100	-	87.27	-	3275.22	3187.95
	06/08/10	100	-	87.34	-	3275.22	3187.88
	09/13/10	100	-	87.32	-	3275.22	3187.90
	12/14/10	100	-	88.13	-	3275.22	3187.09
	03/10/11	100	-	87.34	-	3275.22	3187.88
	06/13/11	100	-	87.32	-	3275.22	3187.90
	09/19/11	100	-	87.43	-	3275.22	3187.79
	12/12/11	100	-	87.48	-	3275.22	3187.74
	03/22/12	100	-	87.31	-	3275.22	3187.91
	04/06/12	100	-	87.35	-	3275.22	3187.87
	06/20/12	100	-	87.43	-	3275.22	3187.79
	09/24/12	100	-	87.36	-	3275.22	3187.86
	12/14/12	100	-	87.44	-	3275.22	3187.78
	03/27/13	100	-	87.43	-	3275.22	3187.79
	06/06/13	100	-	87.51	-	3275.22	3187.71
	09/19/13	100	-	87.51	-	3275.22	3187.71
	11/07/13	100	-	87.61	-	3275.22	3187.61
	12/26/13	100	-	87.56	-	3275.22	3187.66
	03/27/14	101.31	-	87.52	-	3275.22	3187.70
	06/17/14	101.31	-	87.52	-	3275.22	3187.70
	09/26/14	101.22	-	87.59	-	3275.22	3187.63
	12/16/14	101.22	-	87.35	-	3275.22	3187.87
	03/24/15	-	-	87.32	-	3275.22	3187.90
	06/18/15	100.66	-	87.48	-	3275.22	3187.74
	08/05/15	-	-	87.38	-	3275.22	3187.84
	09/09/15	100.66	-	87.27	-	3275.22	3187.95
	12/18/15	100.66	-	87.30	-	3276.59	3189.29
	03/14/16	100.66	-	87.29	-	3276.59	3189.30
	06/28/16	100.66	-	87.36	-	3276.59	3189.23
	09/07/16	-	-	87.41	-	3276.59	3189.18
	12/06/16	-	-	87.45	-	3276.59	3189.14
	03/01/17	100.67	-	87.43	-	3276.59	3189.16
	08/29/17	100.67	-	87.41	-	3276.59	3189.18
	02/20/18	100.71	-	87.21	-	3276.59	3189.38
	08/23/18	-	-	87.52	-	3276.59	3189.07

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Table 1
Glenn Springs Holdings
E.C. Hill A, B & C Tank Battery
Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Gauged	Well Total Depth (ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Top of Casing Elevation, feet AMSL	Groundwater Elevation (ft)
MW-5	09/22/06	100	-	87.04	-	3275.04	3188.00
	03/16/07	100	-	87.11	-	3275.04	3187.93
	06/06/07	100	-	87.02	-	3275.04	3188.02
	09/28/07	100	-	87.10	-	3275.04	3187.94
	12/18/07	100	-	87.09	-	3275.04	3187.95
	03/28/08	100	-	87.14	-	3275.04	3187.90
	06/26/08	100	-	87.08	-	3275.04	3187.96
	09/22/08	100	-	87.13	-	3275.04	3187.91
	12/04/08	100	-	87.50	-	3275.04	3187.54
	03/12/09	100	-	87.17	-	3275.04	3187.87
	06/22/09	100	-	87.12	-	3275.04	3187.92
	09/16/09	100	-	87.23	-	3275.04	3187.81
	12/09/09	100	-	87.23	-	3275.04	3187.81
	03/10/10	100	-	87.10	-	3275.04	3187.94
	06/08/10	100	-	87.19	-	3275.04	3187.85
	09/13/10	100	-	87.18	-	3275.04	3187.86
	12/14/10	100	-	87.94	-	3275.04	3187.10
	03/10/11	100	-	87.17	-	3275.04	3187.87
	06/13/11	100	-	87.14	-	3275.04	3187.90
	09/19/11	100	-	87.25	-	3275.04	3187.79
	12/12/11	100	-	87.29	-	3275.04	3187.75
	03/22/12	100	-	87.31	-	3275.04	3187.73
	04/06/12	100	-	87.21	-	3275.04	3187.83
	06/20/12	100	-	87.29	-	3275.04	3187.75
	09/24/12	100	-	87.30	-	3275.04	3187.74
	12/14/12	100	-	87.25	-	3275.04	3187.79
	03/27/13	100	-	87.21	-	3275.04	3187.83
	06/06/13	100	-	87.31	-	3275.04	3187.73
	09/19/13	101.48	-	87.30	-	3275.04	3187.74
	11/07/13	101.48	-	87.43	-	3275.04	3187.61
	12/26/13	101.48	-	87.41	-	3275.04	3187.63
	03/27/14	99.33	-	87.34	-	3275.04	3187.70
	06/17/14	99.33	-	87.34	-	3275.04	3187.70
	09/26/14	99.32	-	87.40	-	3275.04	3187.64
	12/16/14	99.32	-	87.15	-	3275.04	3187.89
	03/24/15	-	-	87.12	-	3275.04	3187.92
	06/18/15	99.30	-	87.60	-	3275.04	3187.44
	08/05/15	-	-	87.15	-	3275.04	3187.89
	09/09/15	99.30	-	87.10	-	3275.04	3187.94
	12/18/15	99.30	-	87.09	-	3276.40	3189.31
	03/14/16	99.30	-	87.11	-	3276.40	3189.29
	06/28/16	99.30	-	87.21	-	3276.40	3189.19
	09/07/16	-	-	87.24	-	3276.40	3189.16
	12/06/16	-	-	87.23	-	3276.40	3189.17
	03/01/17	98.91	-	87.27	-	3276.40	3189.13
	08/29/17	98.91	-	87.25	-	3276.40	3189.15
	02/20/18	98.97	-	87.06	-	3276.40	3189.34
	08/23/18	-	-	87.31	-	3276.40	3189.09

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Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Gauged	Well Total Depth (ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Top of Casing Elevation, feet AMSL	Groundwater Elevation (ft)
MW-6	10/02/15		-	86.77	-	3276.75	3189.98
	10/29/16			86.79		3276.75	3189.96
	12/18/15		-	86.79	-	3276.75	3189.96
	03/14/16	100	-	86.75	-	3276.75	3190.00
	06/28/16	100	-	86.86	-	3276.75	3189.89
	09/07/16	-	-	86.81	-	3276.75	3189.94
	12/06/16	-	-	86.89	-	3276.75	3189.86
	03/01/17	101.20	-	86.89	-	3276.75	3189.86
	08/29/17	101.20	-	86.87	-	3276.75	3189.88
	02/20/18	100.95	-	86.72	-	3276.75	3190.03
	08/23/18	-	-	86.90	-	3276.75	3189.85
TMW-7	10/02/15	-	-	92.56	-	3280.64	3188.08
	10/29/16	94.80	-	90.58	-	3280.64	3190.06
	12/18/15	-	-	90.56	-	3280.64	3190.08
	03/02/16	94.80	-	90.59	-	3280.64	3190.05
RW-1	06/13/11	-	-	88.70	-	NA	NA
	09/19/11	-	88.67	89.96	1.29	-	-
	12/12/11	-	88.32	91.45	3.13	-	-
	03/22/12	-	88.31	91.47	3.16	-	-
	04/06/12	-	88.30	91.46	3.16	-	-
	06/20/12	-	88.30	91.50	3.20	-	-
	09/24/12	-	88.33	91.55	3.22	-	-
RW-1	12/14/12	-	88.46	90.55	2.09	-	-
	03/27/13	-	88.83	88.88	0.05	-	-
	06/07/13	-	88.41	91.32	2.91	-	-
	09/19/13	-	NG	-	-	-	-
	11/07/13	-	88.42	91.40	2.98	-	-
	12/26/13	-	88.41	91.44	3.03	-	-
	03/27/14	-	88.39	91.46	3.07	-	-
	06/17/14	-	88.48	91.51	3.03	-	-
	09/26/14	-	88.38	91.37	2.99	-	-
	12/16/14	-	88.39	91.41	3.02	-	-
	03/24/15	-	88.35	91.11	2.76	-	-
	04/09/15	-	88.31	91.11	2.80	-	-
	06/18/15	-	88.26	91.05	2.79	-	-
	07/09/15	-	88.30	90.96	2.66	-	-
	07/29/15	-	88.30	90.81	2.51	-	-
	08/05/15	-	88.26	90.67	2.41	-	-
	08/18/15	-	88.58	88.93	0.35	-	-
	09/09/15	-	88.26	91.39	3.13	-	-
	12/18/15	-	88.40	90.60	2.20	3278.48	3189.53
	03/14/16	-	88.32	90.68	2.36	3278.48	3189.57
	06/28/16	-	88.37	90.75	2.38	3278.48	3189.52
	09/07/16	-	88.35	90.77	2.42	3278.48	3189.70
	12/06/16	-	88.33	90.80	2.47	3278.48	3189.72
	03/01/17	104.20	88.45	90.80	2.35	3278.48	3189.62
	08/29/17	104.20	88.59	91.05	2.46	3278.48	3189.46
	02/20/18	-	88.29	90.58	2.29	3278.48	3189.79
	08/23/18	-	88.39	90.88	2.49	3278.48	3189.65

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Table 1
Glenn Springs Holdings
E.C. Hill A, B & C Tank Battery
Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Gauged	Well Total Depth (ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Top of Casing Elevation, feet AMSL	Groundwater Elevation (ft)
RW-2	06/13/11	-	-	88.75	-	NA	NA
	09/19/11	-	-	88.92	-	-	-
	12/12/11	-	-	88.88	-	-	-
	03/22/12	-	88.87	88.91	0.04	-	-
	04/06/12	-	88.88	88.93	0.05	-	-
	06/20/12	-	88.84	88.96	0.12	-	-
	09/24/12	-	88.87	89.11	0.24	-	-
	12/14/12	-	88.89	89.01	0.12	-	-
	03/27/13	-	88.83	89.11	0.28	-	-
	06/07/13	-	88.91	89.32	0.41	-	-
	06/24/13	-	88.96	89.34	0.38	-	-
	07/08/13	-	89.03	89.24	0.21	-	-
	07/23/13	-	89.00	89.20	0.20	-	-
	08/06/13	-	89.00	89.20	0.20	-	-
	09/19/13	-	NG	-	-	-	-
	11/07/13	-	88.93	89.26	0.33	-	-
	12/26/13	-	88.95	89.25	0.30	-	-
	03/27/14	-	88.88	89.21	0.33	-	-
	06/17/14	-	88.96	89.39	0.43	-	-
	09/26/14	-	88.96	89.48	0.52	-	-
	12/16/14	-	88.92	89.47	0.55	-	-
	03/24/15	-	88.74	89.35	0.61	-	-
	06/18/15	-	88.70	89.50	0.80	-	-
	08/05/15	-	88.71	89.04	0.33	-	-
	08/18/15	-	88.71	88.72	0.01	-	-
	09/09/15	-	88.74	88.75	0.01	-	-
	12/18/15	-	88.70	89.45	0.75	3278.47	3189.58
	03/14/16	-	88.60	89.49	0.89	3278.47	3189.65
	06/28/16	-	88.71	89.48	0.77	3278.47	3189.57
	09/07/16	-	88.68	89.46	0.78	3278.47	3189.65
	12/06/16	-	88.66	89.49	0.83	3278.47	3189.67
	03/01/17	107.92	88.56	90.80	2.24	3278.47	3189.52
	08/29/17	107.92	88.40	91.34	2.94	3278.47	3189.56
	02/20/18	-	88.26	90.98	2.72	3278.47	3189.74
	08/23/18	-	88.35	90.91	2.56	3278.47	3189.67

(-) No data

(TOC) Top of casing

(MW-1 and MW-3) Groundwater elevation corrected using 0.75 specific gravity

NM - Not Measured

NA - Top of Casing Elevation not available

NG - Not Gauged, instrument malfunction

TOC elevations resurveyed by John West Survey Company on October 29, 2015. This was the initial survey-for MW-6, TMW-7, RW-1 and RW-2.

TMW-7 plugged on March 2, 2016.

8/26/2016, LNAPL Specific Gravity analysis: RW-1 = 0.824 and MW-3 = 0.826, used to correct groundwater elevations

Specific Gravity of 0.824 to correct RW-1 and MW-1; SG = 0.826 to correct RW-2 and MW-3 groundwater elevations

Table 2

E.C. Hill A, B & C Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	Chloride (mg/l)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			0.010 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L		250.0 mg/L*
MW-1	09/17/04	-	0.0385	0.0146	0.00694	0.0341	0.09414	195
	10/12/04	-	0.111	0.0197	0.0166	0.0699	0.2172	133
	06/24/05	0.03	-	-	-	-	-	-
	11/14/05	0.12	0.495	0.0809	0.137	0.253	0.9659	178
	03/22/06	1.25	-	-	-	-	-	-
	09/22/06	2.63	-	-	-	-	-	-
	03/16/07	3.05	-	-	-	-	-	-
	06/06/07	2.99	-	-	-	-	-	-
	09/28/07	3.02	-	-	-	-	-	-
	12/18/07	NM	-	-	-	-	-	-
	03/28/08	3.24	-	-	-	-	-	-
	06/26/08	3.07	-	-	-	-	-	-
	09/22/08	2.42	-	-	-	-	-	-
	12/04/08	2.79	-	-	-	-	-	-
	03/12/09	2.92	-	-	-	-	-	-
	06/22/09	2.98	-	-	-	-	-	-
	09/16/09	3.20	-	-	-	-	-	-
	12/09/09	3.03	-	-	-	-	-	-
	03/10/10	3.06	-	-	-	-	-	-
	06/08/10	3.19	-	-	-	-	-	-
	09/13/10	3.16	-	-	-	-	-	-
	12/14/10	3.15	-	-	-	-	-	-
	03/10/11	3.23	-	-	-	-	-	-
	06/13/11	3.12	-	-	-	-	-	-
	09/19/11	3.32	-	-	-	-	-	-
	12/12/11	3.09	-	-	-	-	-	-
	03/22/12	4.18	-	-	-	-	-	-
	04/06/12	4.20	-	-	-	-	-	-
	06/20/12	3.28	-	-	-	-	-	-
	09/24/12	2.23	-	-	-	-	-	-
	12/14/12	1.12	-	-	-	-	-	-
	03/27/13	2.02	-	-	-	-	-	-
	06/07/13	2.36	-	-	-	-	-	-

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Table 2

E.C. Hill A, B & C Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	Chloride (mg/l)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			0.010 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L		250.0 mg/L*
MW-1	09/19/13	NG	-	-	-	-	-	-
	12/27/13	1.12	-	-	-	-	-	-
	03/27/14	1.25	-	-	-	-	-	-
	06/19/14	1.93	-	-	-	-	-	-
	09/26/14	0.54	-	-	-	-	-	-
	12/16/14	0.73	-	-	-	-	-	-
	03/24/15	0.15	-	-	-	-	-	-
	04/09/15	0.46	-	-	-	-	-	-
	06/18/15	0.80	-	-	-	-	-	-
	09/09/15	0.24	-	-	-	-	-	-
	12/18/15	0.53	-	-	-	-	-	-
	03/16/16	1.50	-	-	-	-	-	-
	06/30/16	0.29	-	-	-	-	-	-
	09/09/16	0.51	-	-	-	-	-	-
	12/07/16	0.78	-	-	-	-	-	-
	03/01/17	1.15	-	-	-	-	-	-
	08/29/17	1.22	-	-	-	-	-	-
	02/20/18	2.25	-	-	-	-	-	-
	08/23/18	2.24	-	-	-	-	-	-
MW-2	06/24/05	-	<0.001	<0.001	<0.001	<0.001	<0.001	102
	11/14/05	-	<0.001	<0.001	<0.001	<0.001	<0.001	61.9
	03/22/06	-	<0.001	<0.001	<0.001	<0.001	<0.001	63.0
	09/22/06	NM	NM	NM	NM	NM	NM	NM
	03/16/07	-	<0.001	<0.001	<0.001	<0.001	<0.001	74.0
	06/06/07	-	<0.001	<0.001	<0.001	<0.001	<0.001	71.8
	09/28/07	-	<0.001	<0.001	<0.001	<0.001	<0.001	47.6
	12/18/07	-	<0.001	<0.001	<0.001	<0.001	<0.001	<200
	03/28/08	-	<0.001	<0.001	<0.001	<0.001	<0.001	83.3
	06/26/08	-	<0.001	<0.001	<0.001	<0.001	<0.001	85.0
	09/22/08	-	<0.001	<0.001	<0.001	<0.001	<0.001	78.0
	12/04/08	-	<0.0005	<0.0005	<0.0005	<0.001	<0.001	94.5
	03/12/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	87.2
	09/16/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	83.3
	12/09/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	87.9
	03/10/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	88.3
	06/08/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	90.3
	09/13/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	86.0
	12/14/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	85.3
	03/10/11	-	<0.001	<0.001	<0.001	<0.003	<0.003	82.2
	06/13/11	-	<0.00014	<0.00020	<0.00030	<0.00023	<0.00030	89

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Table 2

E.C. Hill A, B & C Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	Chloride (mg/l)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			0.010 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L		250.0 mg/L*
MW-2	09/19/11	-	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	88
	12/12/11	-	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	87
	04/06/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	295
	06/20/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	98.0
	09/24/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	96.9
	12/14/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	82.4
	03/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	86.6
	06/07/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	95.7
	09/19/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	94.1
	12/27/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	87.4
	03/27/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	93.2
	06/19/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	101
	09/30/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	94.2
	12/16/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	89.4
	03/24/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	88.5
	06/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	89.4
	09/09/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	86.2
	12/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	83.2
	03/16/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	91.4
	06/30/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	85.2
	09/09/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	86.3
	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	103
	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	86.7
	08/31/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	85.5
	02/21/18	-	<0.005	<0.005	<0.005	<0.005	<0.005	90.7
	08/23/18	-	<0.005	<0.005	<0.005	<0.005	<0.005	88.6
Dup	08/23/18		<0.005	<0.005	<0.005	<0.005	<0.005	128
MW-3	06/24/05	-	0.00166	0.0026	0.00143	0.0137	0.01939	420
	11/14/05	-	0.0037	<0.001	0.00132	0.006	0.01102	310
	03/22/06	-	0.0028	<0.001	0.00397	0.0047	0.01147	285
	09/22/06	-	0.00232	<0.001	<0.001	<0.001	0.00232	330
	03/16/07	-	<0.001	<0.001	<0.001	<0.001	<0.001	297
	06/06/07	-	0.00114	<0.001	<0.001	<0.001	0.00114	302
	09/28/07	-	<0.001	<0.001	<0.001	<0.001	<0.001	279
	12/18/07	-	<0.001	<0.001	<0.001	<0.001	<0.001	<200
	03/28/08	2.51	-	-	-	-	-	-
	06/26/08	2.91	-	-	-	-	-	-
	09/22/08	2.97	-	-	-	-	-	-
	12/04/08	3.04	-	-	-	-	-	-
	03/12/09	3.04	-	-	-	-	-	-
	06/22/09	3.09	-	-	-	-	-	-
	09/16/09	2.97	-	-	-	-	-	-
	12/09/09	3.05	-	-	-	-	-	-

Table 2

E.C. Hill A, B & C Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	Chloride (mg/l)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			0.010 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L		250.0 mg/L*
MW-3	03/10/10	3.10	-	-	-	-	-	-
	06/08/10	2.97	-	-	-	-	-	-
	09/13/10	3.11	-	-	-	-	-	-
	12/14/10	3.04	-	-	-	-	-	-
	03/10/11	3.05	-	-	-	-	-	-
	06/13/11	3.08	-	-	-	-	-	-
	09/19/11	3.08	-	-	-	-	-	-
	12/12/11	3.22	-	-	-	-	-	-
	03/22/12	3.22	-	-	-	-	-	-
	04/06/12	3.22	-	-	-	-	-	-
	06/20/12	3.24	-	-	-	-	-	-
	09/24/12	3.26	-	-	-	-	-	-
	12/14/12	3.29	-	-	-	-	-	-
	03/27/13	3.24	-	-	-	-	-	-
	06/07/13	3.32	-	-	-	-	-	-
	09/19/13	NG	-	-	-	-	-	-
	12/27/13	3.18	-	-	-	-	-	-
	03/27/14	2.87	-	-	-	-	-	-
	06/19/14	2.35	-	-	-	-	-	-
	09/26/14	2.74	-	-	-	-	-	-
	12/16/14	2.83	-	-	-	-	-	-
	03/24/15	0.36	-	-	-	-	-	-
	04/09/15	2.69	-	-	-	-	-	-
	06/18/15	2.33	-	-	-	-	-	-
	09/09/15	2.77	-	-	-	-	-	-
	12/18/15	2.16	-	-	-	-	-	-
	03/16/16	1.66	-	-	-	-	-	-
	06/30/16	2.85	-	-	-	-	-	-
	09/09/16	2.17	-	-	-	-	-	-
	12/07/16	2.19	-	-	-	-	-	-
	03/01/17	2.33	-	-	-	-	-	-
	08/29/17	3.03	-	-	-	-	-	-
	02/20/18	1.82	-	-	-	-	-	-
	08/23/18	1.84	-	-	-	-	-	-

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Table 2

E.C. Hill A, B & C Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	Chloride (mg/l)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			0.010 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L		250.0 mg/L*
MW-4	09/22/06	-	<0.001	<0.001	<0.001	<0.001	<0.001	606
	03/16/07	-	<0.001	<0.001	<0.001	<0.001	<0.001	462
	06/06/07	-	<0.001	<0.001	<0.001	<0.001	<0.001	480
	09/28/07	-	<0.001	<0.001	<0.001	<0.001	<0.001	638
	12/18/07	-	<0.001	<0.001	<0.001	<0.001	<0.001	238
	03/28/08	-	<0.001	<0.001	<0.001	<0.001	<0.001	510
	06/26/08	-	<0.001	<0.001	<0.001	<0.001	<0.001	1,080
	09/22/08	-	<0.001	<0.001	<0.001	<0.001	<0.001	932
	12/04/08	-	0.00068	<0.0005	<0.0005	<0.001	<0.001	761
	03/12/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	383
	06/22/09	-	0.00051	<0.001	<0.001	<0.003	<0.003	717
	09/16/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	773
	12/09/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	711
	03/10/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	749
	06/08/10	-	0.00069	<0.001	<0.001	<0.003	<0.003	616
	09/13/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	450
	12/14/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	355
	03/10/11	-	0.00078	<0.001	<0.001	<0.003	0.00078	256
	06/13/11	-	0.00038	<0.00020	<0.00030	<0.00023	0.00038	520
	09/19/11	-	0.00051 J	<0.00030	<0.00020	<0.00023	0.00051 J	630
	12/12/11	-	0.00091 J	<0.00030	<0.00020	<0.00023	0.00091 J	660
	04/06/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	161
	06/20/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	668
	09/24/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	708
	12/14/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	349
	03/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	565
	06/07/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	388
	09/19/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	378
	12/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	499
	03/27/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	537
	06/19/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	545
	09/30/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	223
	12/16/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	465
	03/24/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	477
	06/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	750
	09/09/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	683
	12/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	526
	03/16/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	525
	06/30/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	471

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Table 2

E.C. Hill A, B & C Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	Chloride (mg/l)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			0.010 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L		250.0 mg/L*
MW-4	09/09/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	568
	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	666
Dup	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	678
	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	487
	08/31/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	517
	02/21/18	-	<0.005	<0.005	<0.005	<0.005	<0.005	501
Dup	02/21/18	-	<0.005	<0.005	<0.005	<0.005	<0.005	482
	08/23/18	-	<0.005	<0.005	<0.005	<0.005	<0.005	386
MW-5	09/22/06	-	<0.001	<0.001	<0.001	<0.001	<0.001	95.7
	03/16/07	-	0.00375	<0.001	<0.001	<0.001	0.00375	102
	06/06/07	-	0.00277	<0.001	<0.001	<0.001	0.00277	126
	09/28/07	-	0.0132	<0.001	<0.001	<0.001	0.0132	31.7
	12/18/07	-	0.0290	<0.001	<0.001	0.0024	0.0314	<200
	03/28/08	-	0.0018	<0.001	<0.001	<0.001	0.0018	85.4
	06/26/08	-	<0.001	<0.001	<0.001	<0.001	<0.001	132
	09/22/08	-	<0.001	<0.001	<0.001	<0.001	<0.001	90.9
	12/04/08	-	<0.0005	<0.0005	<0.0005	<0.001	<0.001	124
	03/12/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	90.5
Dup	03/12/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	82.7
	06/22/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	82.6
Dup	06/22/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	92.2
	09/16/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	77.1
Dup	09/16/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	104
	12/09/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	78.5
	03/10/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	79.2
Dup	03/10/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	77.4
	06/08/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	80.3
	09/13/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	81.8
	12/14/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	73.3
	03/10/11	-	<0.001	<0.001	<0.001	<0.003	<0.003	72.6
	06/13/11	-	<0.00014	<0.00020	<0.00030	<0.00023	<0.00030	80
	09/19/11	-	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	76
	12/12/11	-	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	81
	04/06/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	116
	06/20/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	103
	09/24/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	139
	12/14/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	108
	03/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	151
	06/07/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	153
	09/19/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	150
	12/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	159
	03/27/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	112
	06/19/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	110
	09/30/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	102

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Table 2

E.C. Hill A, B & C Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	Chloride (mg/l)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			0.010 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L		250.0 mg/L*
MW-5 Dup	12/16/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	109
	03/24/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	92.3
	06/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	108
	09/09/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	116
	12/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	125
	03/16/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	99.6
	06/30/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	77.2
	09/09/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	74.7
	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	89.1
	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	75.0
	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	41.5
	08/31/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	75.9
	02/21/18	-	<0.005	<0.005	<0.005	<0.005	<0.005	117
	08/23/18	-	<0.005	<0.005	<0.005	<0.005	<0.005	103
MW-6 Dup Dup Dup Dup Dup	10/29/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	617
	12/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	581
	03/16/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	639
	03/16/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	646
	06/30/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	429
	06/30/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	446
	09/09/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	724
	09/09/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	732
	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	758
	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	485
	08/31/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	914
	08/31/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	953
	02/21/18	-	<0.005	<0.005	<0.005	<0.005	<0.005	1,030
	08/23/18	-	<0.005	<0.005	<0.005	<0.005	<0.005	1,110
TMW-7	10/29/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	102
	12/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	102

Table 2

E.C. Hill A, B & C Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	Chloride (mg/l)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			0.010 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L		250.0 mg/L*
RW-1	06/13/11	-	-	-	-	-	-	-
	09/19/11	1.29	-	-	-	-	-	-
	12/12/11	3.13	-	-	-	-	-	-
	04/06/12	3.16	-	-	-	-	-	-
	06/20/12	3.20	-	-	-	-	-	-
	09/24/12	3.22	-	-	-	-	-	-
	12/14/12	2.09	-	-	-	-	-	-
	03/27/13	0.05	-	-	-	-	-	-
	06/07/13	2.91	-	-	-	-	-	-
	09/19/13	NG	-	-	-	-	-	-
	12/27/13	3.03	-	-	-	-	-	-
	03/27/14	3.07	-	-	-	-	-	-
	06/19/14	3.03	-	-	-	-	-	-
	09/26/14	2.99	-	-	-	-	-	-
	12/16/14	2.97	-	-	-	-	-	-
	03/24/15	2.76	-	-	-	-	-	-
	04/09/15	2.80	-	-	-	-	-	-
	06/18/15	2.79	-	-	-	-	-	-
	09/09/15	3.13	-	-	-	-	-	-
	12/18/15	2.20	-	-	-	-	-	-
	03/16/16	2.36	-	-	-	-	-	-
	06/30/16	2.38	-	-	-	-	-	-
	09/09/16	2.42	-	-	-	-	-	-
	12/07/16	2.47	-	-	-	-	-	-
	03/01/17	2.35	-	-	-	-	-	-
	08/29/17	2.46	-	-	-	-	-	-
	02/20/18	2.29	-	-	-	-	-	-
	08/23/18	2.49	-	-	-	-	-	-

Table 2

E.C. Hill A, B & C Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Total BTEX (mg/l)	Chloride (mg/l)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			0.010 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L		250.0 mg/L*
RW-2	06/13/11	-	-	-	-	-	-	-
	09/19/11	-	-	-	-	-	-	-
	12/12/11	-	-	-	-	-	-	-
	04/06/12	0.05	-	-	-	-	-	-
	06/20/12	0.12	-	-	-	-	-	-
	09/24/12	0.24	-	-	-	-	-	-
	12/14/12	0.12	-	-	-	-	-	-
	03/27/13	0.28	-	-	-	-	-	-
	06/07/13	0.41	-	-	-	-	-	-
	09/19/13	NG	-	-	-	-	-	-
	12/27/13	0.30	-	-	-	-	-	-
	03/27/14	0.33	-	-	-	-	-	-
	06/19/14	0.43	-	-	-	-	-	-
	09/26/14	0.52	-	-	-	-	-	-
	12/16/14	0.48	-	-	-	-	-	-
	03/24/15	0.61	-	-	-	-	-	-
	06/18/15	0.80	-	-	-	-	-	-
	09/09/15	0.01	-	-	-	-	-	-
	12/18/15	0.75	-	-	-	-	-	-
	03/16/16	0.89	-	-	-	-	-	-
	06/30/16	0.77	-	-	-	-	-	-
	09/09/16	0.78	-	-	-	-	-	-
	12/07/16	0.83	-	-	-	-	-	-
	03/01/17	2.24	-	-	-	-	-	-
	08/29/17	2.94	-	-	-	-	-	-
	02/20/18	2.72	-	-	-	-	-	-
	08/23/18	2.56	-	-	-	-	-	-

(-) Not Analyzed

NM - Not Measured

NG - Not Gauged, Instrument Malfunction

Appendix A

***MW-6 & TMW-7 Drilling Logs,
Well Construction and Soil
Laboratory Report***

SAMPLE LOG

[illegible]

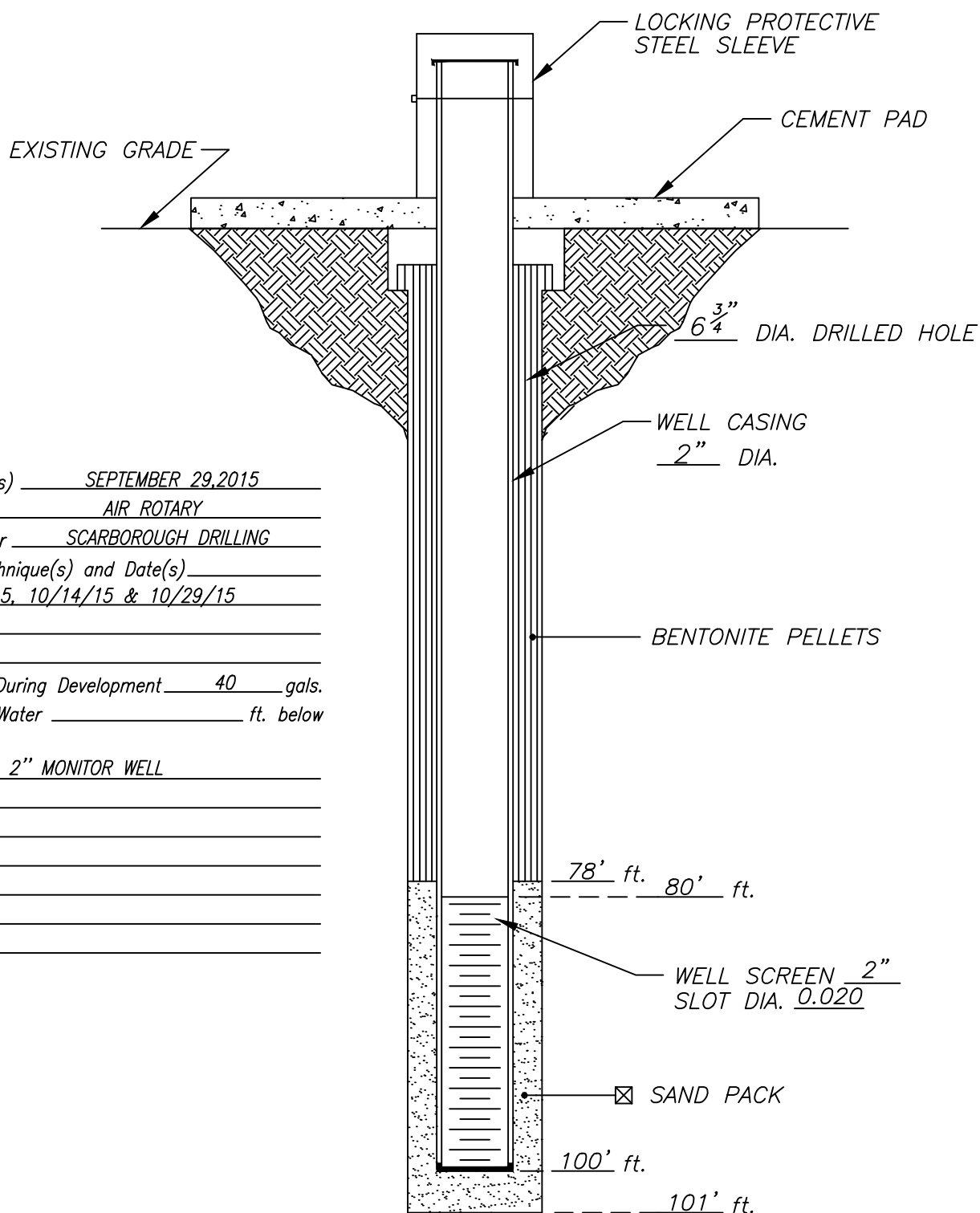
Notes: 2" PVC casing set at 100' bgs

SAMPLE LOG

[illegible]

Notes: Drilled bore to 101' bgs, but lost hole back to 97' bgs when setting casing

WELL CONSTRUCTION LOG



Installation Date(s) SEPTEMBER 29, 2015
 Drilling Method AIR ROTARY
 Drilling Contractor SCARBOROUGH DRILLING
 Development Technique(s) and Date(s) BAILING 10/02/15, 10/14/15 & 10/29/15

Water Removed During Development 40 gals.
Static Depth to Water _____ ft. below
Ground Level
Well Purpose 2" MONITOR WELL

Remarks _____

DATE: 09/29/2015

TETRA TECH, INC.
MIDLAND, TEXAS

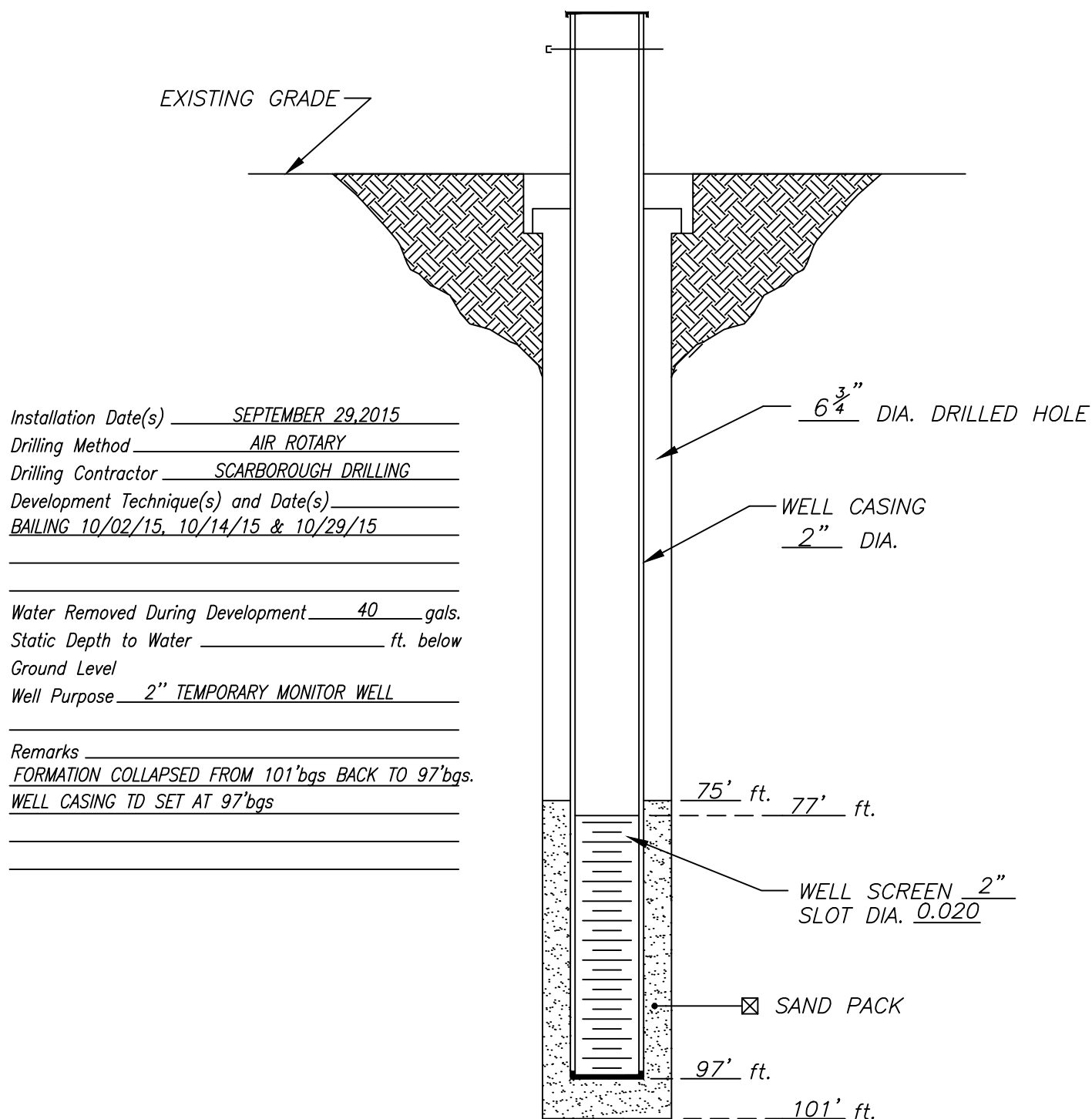
CLIENT: *GLENN SPRINGS HOLDINGS, INC.*
PROJECT: *E.C. HILL A, B, & C TANK BATTERY*
LOCATION: *LEA COUNTY, NEW MEXICO*

WELL NO.

MW-6

212C-MD-00233

WELL CONSTRUCTION LOG



DATE: 09/29/2015

TETRA TECH, INC.
MIDLAND, TEXASCLIENT: GLENN SPRINGS HOLDINGS, INC.
PROJECT: E.C. HILL A, B, & C TANK BATTERY
LOCATION: LEA COUNTY, NEW MEXICO

WELL NO.

TMW-7

212C-MD-00233



10450 Stancliff Rd. Suite 210
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www.alsglobal.com

October 19, 2015

Angela Bown
Glenn Springs Holdings, Inc.
C/O GHD
PO Box 485
Addison, TX 75001

Work Order: **HS15100394**

Laboratory Results for: **55628DM GSHI PXP Hill EC ABC TB**

Dear Angela,

ALS Environmental received 6 sample(s) on Oct 09, 2015 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: Jumoke.Lawal
Dane J. Wacasey

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill EC ABC TB
Work Order: HS15100394

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS15100394-01	MW-6 (5-6')	Soil		29-Sep-2015 00:00	09-Oct-2015 08:44	☐
HS15100394-02	MW-6 (40-41')	Soil		29-Sep-2015 00:00	09-Oct-2015 08:44	☐
HS15100394-03	MW-6 (80-81')	Soil		29-Sep-2015 00:00	09-Oct-2015 08:44	☐
HS15100394-04	TMW-7 (5-6')	Soil		29-Sep-2015 00:00	09-Oct-2015 08:44	☐
HS15100394-05	TMW-7 (40-41')	Soil		29-Sep-2015 00:00	09-Oct-2015 08:44	☐
HS15100394-06	TMW-7 (80-81')	Soil		29-Sep-2015 00:00	09-Oct-2015 08:44	☐

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill EC ABC TB
Work Order: HS15100394

CASE NARRATIVE

GC Semivolatiles by Method SW8015M**Batch ID: 98015**

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

GC Volatiles by Method SW8015**Batch ID: R263023**

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

GCMS Volatiles by Method SW8260**Batch ID: R262855**Sample ID: **HS15100391-12MS**

- MS and MSD are for an unrelated sample

WetChemistry by Method SW3550**Batch ID: R263179**

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

WetChemistry by Method SW9056**Batch ID: 98037**

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

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill EC ABC TB
 Sample ID: MW-6 (5-6')
 Collection Date: 29-Sep-2015 00:00

ANALYTICAL REPORT

WorkOrder:HS15100394
 Lab ID:HS15100394-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR			
Benzene	U		0.00053	0.0053	mg/Kg-dry	1	12-Oct-2015 12:56
Ethylbenzene	U		0.00074	0.0053	mg/Kg-dry	1	12-Oct-2015 12:56
m,p-Xylene	U		0.0017	0.011	mg/Kg-dry	1	12-Oct-2015 12:56
o-Xylene	U		0.0011	0.0053	mg/Kg-dry	1	12-Oct-2015 12:56
Toluene	U		0.00063	0.0053	mg/Kg-dry	1	12-Oct-2015 12:56
Xylenes, Total	U		0.0025	0.011	mg/Kg-dry	1	12-Oct-2015 12:56
Surr: 1,2-Dichloroethane-d4	88.5			70-128	%REC	1	12-Oct-2015 12:56
Surr: 4-Bromofluorobenzene	97.0			73-126	%REC	1	12-Oct-2015 12:56
Surr: Dibromofluoromethane	95.2			71-128	%REC	1	12-Oct-2015 12:56
Surr: Toluene-d8	101			73-127	%REC	1	12-Oct-2015 12:56
ANIONS BY SW9056A		Method:SW9056		Prep:SW9056 / 14-Oct-2015 Analyst: JBA			
Chloride	130		1.90	4.75	mg/Kg-dry	1	15-Oct-2015 18:17
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: SFE			
Gasoline Range Organics	U		0.011	0.053	mg/Kg-dry	1	13-Oct-2015 19:16
Surr: 4-Bromofluorobenzene	79.3			70-130	%REC	1	13-Oct-2015 19:16
MOISTURE		Method:SW3550		Analyst: JHD			
Percent Moisture	2.62		0.0100	0.0100	wt%	1	16-Oct-2015 12:02
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 13-Oct-2015 Analyst: KMB			
TPH (Diesel Range)	2.8		0.51	1.7	mg/Kg-dry	1	14-Oct-2015 19:18
Surr: 2-Fluorobiphenyl	94.3			60-135	%REC	1	14-Oct-2015 19:18

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

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill EC ABC TB
 Sample ID: MW-6 (40-41')
 Collection Date: 29-Sep-2015 00:00

ANALYTICAL REPORT

WorkOrder:HS15100394
 Lab ID:HS15100394-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR			
Benzene	U		0.00057	0.0057	mg/Kg-dry	1	12-Oct-2015 12:33
Ethylbenzene	U		0.00080	0.0057	mg/Kg-dry	1	12-Oct-2015 12:33
m,p-Xylene	U		0.0018	0.011	mg/Kg-dry	1	12-Oct-2015 12:33
o-Xylene	U		0.0011	0.0057	mg/Kg-dry	1	12-Oct-2015 12:33
Toluene	U		0.00068	0.0057	mg/Kg-dry	1	12-Oct-2015 12:33
Xylenes, Total	U		0.0027	0.011	mg/Kg-dry	1	12-Oct-2015 12:33
Surr: 1,2-Dichloroethane-d4	98.8			70-128	%REC	1	12-Oct-2015 12:33
Surr: 4-Bromofluorobenzene	100			73-126	%REC	1	12-Oct-2015 12:33
Surr: Dibromofluoromethane	105			71-128	%REC	1	12-Oct-2015 12:33
Surr: Toluene-d8	99.3			73-127	%REC	1	12-Oct-2015 12:33
ANIONS BY SW9056A		Method:SW9056		Prep:SW9056 / 14-Oct-2015 Analyst: JBA			
Chloride	2,670		19.1	47.6	mg/Kg-dry	10	15-Oct-2015 19:21
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: SFE			
Gasoline Range Organics	U		0.011	0.054	mg/Kg-dry	1	13-Oct-2015 20:04
Surr: 4-Bromofluorobenzene	76.0			70-130	%REC	1	13-Oct-2015 20:04
MOISTURE		Method:SW3550		Analyst: JHD			
Percent Moisture	7.02		0.0100	0.0100	wt%	1	16-Oct-2015 12:02
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 13-Oct-2015 Analyst: KMB			
TPH (Diesel Range)	U		0.54	1.8	mg/Kg-dry	1	14-Oct-2015 20:30
Surr: 2-Fluorobiphenyl	86.7			60-135	%REC	1	14-Oct-2015 20:30

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

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill EC ABC TB
 Sample ID: MW-6 (80-81')
 Collection Date: 29-Sep-2015 00:00

ANALYTICAL REPORT

WorkOrder:HS15100394
 Lab ID:HS15100394-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR	
Benzene	U		0.00054	0.0054	mg/Kg-dry	1	12-Oct-2015 13:20
Ethylbenzene	U		0.00076	0.0054	mg/Kg-dry	1	12-Oct-2015 13:20
m,p-Xylene	U		0.0017	0.011	mg/Kg-dry	1	12-Oct-2015 13:20
o-Xylene	U		0.0011	0.0054	mg/Kg-dry	1	12-Oct-2015 13:20
Toluene	U		0.00065	0.0054	mg/Kg-dry	1	12-Oct-2015 13:20
Xylenes, Total	U		0.0026	0.011	mg/Kg-dry	1	12-Oct-2015 13:20
Surr: 1,2-Dichloroethane-d4	81.4			70-128	%REC	1	12-Oct-2015 13:20
Surr: 4-Bromofluorobenzene	95.7			73-126	%REC	1	12-Oct-2015 13:20
Surr: Dibromofluoromethane	94.3			71-128	%REC	1	12-Oct-2015 13:20
Surr: Toluene-d8	102			73-127	%REC	1	12-Oct-2015 13:20
ANIONS BY SW9056A		Method:SW9056				Prep:SW9056 / 14-Oct-2015 Analyst: JBA	
Chloride	63.7		1.95	4.87	mg/Kg-dry	1	15-Oct-2015 19:42
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: SFE	
Gasoline Range Organics	U		0.011	0.054	mg/Kg-dry	1	13-Oct-2015 20:20
Surr: 4-Bromofluorobenzene	79.2			70-130	%REC	1	13-Oct-2015 20:20
MOISTURE		Method:SW3550				Analyst: JHD	
Percent Moisture	1.91		0.0100	0.0100	wt%	1	16-Oct-2015 12:02
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3541 / 13-Oct-2015 Analyst: KMB	
TPH (Diesel Range)	U		0.51	1.7	mg/Kg-dry	1	14-Oct-2015 20:54
Surr: 2-Fluorobiphenyl	93.2			60-135	%REC	1	14-Oct-2015 20:54

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

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill EC ABC TB
 Sample ID: TMW-7 (5-6')
 Collection Date: 29-Sep-2015 00:00

ANALYTICAL REPORT

WorkOrder:HS15100394
 Lab ID:HS15100394-04
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR			
Benzene	U		0.00053	0.0053	mg/Kg-dry	1	12-Oct-2015 13:44
Ethylbenzene	U		0.00074	0.0053	mg/Kg-dry	1	12-Oct-2015 13:44
m,p-Xylene	U		0.0017	0.011	mg/Kg-dry	1	12-Oct-2015 13:44
o-Xylene	U		0.0011	0.0053	mg/Kg-dry	1	12-Oct-2015 13:44
Toluene	U		0.00063	0.0053	mg/Kg-dry	1	12-Oct-2015 13:44
Xylenes, Total	U		0.0025	0.011	mg/Kg-dry	1	12-Oct-2015 13:44
Surr: 1,2-Dichloroethane-d4	83.4			70-128	%REC	1	12-Oct-2015 13:44
Surr: 4-Bromofluorobenzene	97.5			73-126	%REC	1	12-Oct-2015 13:44
Surr: Dibromofluoromethane	93.2			71-128	%REC	1	12-Oct-2015 13:44
Surr: Toluene-d8	100			73-127	%REC	1	12-Oct-2015 13:44
ANIONS BY SW9056A		Method:SW9056		Prep:SW9056 / 14-Oct-2015 Analyst: JBA			
Chloride	323		1.99	4.98	mg/Kg-dry	1	15-Oct-2015 20:03
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: SFE			
Gasoline Range Organics	U		0.011	0.053	mg/Kg-dry	1	13-Oct-2015 20:36
Surr: 4-Bromofluorobenzene	79.7			70-130	%REC	1	13-Oct-2015 20:36
MOISTURE		Method:SW3550		Analyst: JHD			
Percent Moisture	5.10		0.0100	0.0100	wt%	1	16-Oct-2015 12:02
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 13-Oct-2015 Analyst: KMB			
TPH (Diesel Range)	U		0.53	1.8	mg/Kg-dry	1	14-Oct-2015 21:18
Surr: 2-Fluorobiphenyl	64.5			60-135	%REC	1	14-Oct-2015 21:18

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

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill EC ABC TB
 Sample ID: TMW-7 (40-41')
 Collection Date: 29-Sep-2015 00:00

ANALYTICAL REPORT

WorkOrder:HS15100394
 Lab ID:HS15100394-05
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR			
Benzene	U		0.00067	0.0067	mg/Kg-dry	1	12-Oct-2015 14:07
Ethylbenzene	U		0.00094	0.0067	mg/Kg-dry	1	12-Oct-2015 14:07
m,p-Xylene	U		0.0022	0.013	mg/Kg-dry	1	12-Oct-2015 14:07
o-Xylene	U		0.0013	0.0067	mg/Kg-dry	1	12-Oct-2015 14:07
Toluene	U		0.00081	0.0067	mg/Kg-dry	1	12-Oct-2015 14:07
Xylenes, Total	U		0.0032	0.013	mg/Kg-dry	1	12-Oct-2015 14:07
Surr: 1,2-Dichloroethane-d4	87.0			70-128	%REC	1	12-Oct-2015 14:07
Surr: 4-Bromofluorobenzene	96.5			73-126	%REC	1	12-Oct-2015 14:07
Surr: Dibromofluoromethane	95.4			71-128	%REC	1	12-Oct-2015 14:07
Surr: Toluene-d8	103			73-127	%REC	1	12-Oct-2015 14:07
ANIONS BY SW9056A		Method:SW9056		Prep:SW9056 / 14-Oct-2015 Analyst: JBA			
Chloride	35.5		2.29	5.72	mg/Kg-dry	1	15-Oct-2015 20:24
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: SFE			
Gasoline Range Organics	U		0.013	0.067	mg/Kg-dry	1	13-Oct-2015 20:52
Surr: 4-Bromofluorobenzene	78.1			70-130	%REC	1	13-Oct-2015 20:52
MOISTURE		Method:SW3550		Analyst: JHD			
Percent Moisture	19.7		0.0100	0.0100	wt%	1	16-Oct-2015 12:02
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 13-Oct-2015 Analyst: KMB			
TPH (Diesel Range)	U		0.62	2.1	mg/Kg-dry	1	14-Oct-2015 21:42
Surr: 2-Fluorobiphenyl	81.6			60-135	%REC	1	14-Oct-2015 21:42

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

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill EC ABC TB
 Sample ID: TMW-7 (80-81')
 Collection Date: 29-Sep-2015 00:00

ANALYTICAL REPORT

WorkOrder:HS15100394
 Lab ID:HS15100394-06
 Matrix:Soil

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR			
Benzene	U		0.00053	0.0053	mg/Kg-dry	1	12-Oct-2015 14:31
Ethylbenzene	U		0.00075	0.0053	mg/Kg-dry	1	12-Oct-2015 14:31
m,p-Xylene	U		0.0017	0.011	mg/Kg-dry	1	12-Oct-2015 14:31
o-Xylene	U		0.0011	0.0053	mg/Kg-dry	1	12-Oct-2015 14:31
Toluene	U		0.00064	0.0053	mg/Kg-dry	1	12-Oct-2015 14:31
Xylenes, Total	U		0.0026	0.011	mg/Kg-dry	1	12-Oct-2015 14:31
Surr: 1,2-Dichloroethane-d4	74.3			70-128	%REC	1	12-Oct-2015 14:31
Surr: 4-Bromofluorobenzene	96.0			73-126	%REC	1	12-Oct-2015 14:31
Surr: Dibromofluoromethane	85.2			71-128	%REC	1	12-Oct-2015 14:31
Surr: Toluene-d8	96.6			73-127	%REC	1	12-Oct-2015 14:31
ANIONS BY SW9056A		Method:SW9056		Prep:SW9056 / 14-Oct-2015 Analyst: JBA			
Chloride	7.06		2.05	5.12	mg/Kg-dry	1	15-Oct-2015 20:46
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: SFE			
Gasoline Range Organics	U		0.010	0.052	mg/Kg-dry	1	13-Oct-2015 21:56
Surr: 4-Bromofluorobenzene	82.0			70-130	%REC	1	13-Oct-2015 21:56
MOISTURE		Method:SW3550		Analyst: JHD			
Percent Moisture	5.60		0.0100	0.0100	wt%	1	16-Oct-2015 12:02
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 13-Oct-2015 Analyst: KMB			
TPH (Diesel Range)	U		0.53	1.8	mg/Kg-dry	1	14-Oct-2015 22:06
Surr: 2-Fluorobiphenyl	102			60-135	%REC	1	14-Oct-2015 22:06

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

ALS Group USA, Corp

Date: 19-Oct-15

WEIGHT LOG

Client: Glenn Springs Holdings, Inc.

Project: 55628DM GSHI PXP Hill EC ABC TB

WorkOrder: HS15100394

Batch ID: 581 Method: VOLATILES BY SW8260C

SamplID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS15100394-01	1	4.831 (g)	5 (mL)	1.03	Bulk (5030B)
HS15100394-02	1	4.727 (g)	5 (mL)	1.06	Bulk (5030B)
HS15100394-03	1	4.731 (g)	5 (mL)	1.06	Bulk (5030B)
HS15100394-04	1	5.001 (g)	5 (mL)	1	Bulk (5030B)
HS15100394-05	1	4.623 (g)	5 (mL)	1.08	Bulk (5030B)
HS15100394-06	1	4.946 (g)	5 (mL)	1.01	Bulk (5030B)

Batch ID: 98015 Method: TPH DRO/ORO BY SW8015C Prep: 8015SPR_LL

SamplID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS15100394-01	1	30.01	1 (mL)	0.03332
HS15100394-02	1	30.07	1 (mL)	0.03326
HS15100394-03	1	30.01	1 (mL)	0.03332
HS15100394-04	1	30.03	1 (mL)	0.0333
HS15100394-05	1	30.07	1 (mL)	0.03326
HS15100394-06	1	30.02	1 (mL)	0.03331

Batch ID: 98037 Method: ANIONS BY SW9056A Prep: 9056_S_PR

SamplID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS15100394-01	1	5.3992	50 (mL)	9.261
HS15100394-02	1	5.645	50 (mL)	8.857
HS15100394-03	1	5.2338	50 (mL)	9.553
HS15100394-04	1	5.2866	50 (mL)	9.458
HS15100394-05	1	5.446	50 (mL)	9.181
HS15100394-06	1	5.1691	50 (mL)	9.673

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill EC ABC TB
WorkOrder: HS15100394

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 98015 Test Name : TPH DRO/ORO BY SW8015C Matrix: Soil						
HS15100394-01	MW-6 (5-6')	29 Sep 2015 00:00		13 Oct 2015 18:38	14 Oct 2015 19:18	1
HS15100394-02	MW-6 (40-41')	29 Sep 2015 00:00		13 Oct 2015 18:38	14 Oct 2015 20:30	1
HS15100394-03	MW-6 (80-81')	29 Sep 2015 00:00		13 Oct 2015 18:38	14 Oct 2015 20:54	1
HS15100394-04	TMW-7 (5-6')	29 Sep 2015 00:00		13 Oct 2015 18:38	14 Oct 2015 21:18	1
HS15100394-05	TMW-7 (40-41')	29 Sep 2015 00:00		13 Oct 2015 18:38	14 Oct 2015 21:42	1
HS15100394-06	TMW-7 (80-81')	29 Sep 2015 00:00		13 Oct 2015 18:38	14 Oct 2015 22:06	1
Batch ID 98037 Test Name : ANIONS BY SW9056A Matrix: Soil						
HS15100394-01	MW-6 (5-6')	29 Sep 2015 00:00		14 Oct 2015 10:41	15 Oct 2015 18:17	1
HS15100394-02	MW-6 (40-41')	29 Sep 2015 00:00		14 Oct 2015 10:41	15 Oct 2015 19:21	10
HS15100394-03	MW-6 (80-81')	29 Sep 2015 00:00		14 Oct 2015 10:41	15 Oct 2015 19:42	1
HS15100394-04	TMW-7 (5-6')	29 Sep 2015 00:00		14 Oct 2015 10:41	15 Oct 2015 20:03	1
HS15100394-05	TMW-7 (40-41')	29 Sep 2015 00:00		14 Oct 2015 10:41	15 Oct 2015 20:24	1
HS15100394-06	TMW-7 (80-81')	29 Sep 2015 00:00		14 Oct 2015 10:41	15 Oct 2015 20:46	1
Batch ID R262855 Test Name : VOLATILES BY SW8260C Matrix: Soil						
HS15100394-01	MW-6 (5-6')	29 Sep 2015 00:00			12 Oct 2015 12:56	1
HS15100394-02	MW-6 (40-41')	29 Sep 2015 00:00			12 Oct 2015 12:33	1
HS15100394-03	MW-6 (80-81')	29 Sep 2015 00:00			12 Oct 2015 13:20	1
HS15100394-04	TMW-7 (5-6')	29 Sep 2015 00:00			12 Oct 2015 13:44	1
HS15100394-05	TMW-7 (40-41')	29 Sep 2015 00:00			12 Oct 2015 14:07	1
HS15100394-06	TMW-7 (80-81')	29 Sep 2015 00:00			12 Oct 2015 14:31	1
Batch ID R263023 Test Name : GASOLINE RANGE ORGANICS BY SW8015C Matrix: Soil						
HS15100394-01	MW-6 (5-6')	29 Sep 2015 00:00			13 Oct 2015 19:16	1
HS15100394-02	MW-6 (40-41')	29 Sep 2015 00:00			13 Oct 2015 20:04	1
HS15100394-03	MW-6 (80-81')	29 Sep 2015 00:00			13 Oct 2015 20:20	1
HS15100394-04	TMW-7 (5-6')	29 Sep 2015 00:00			13 Oct 2015 20:36	1
HS15100394-05	TMW-7 (40-41')	29 Sep 2015 00:00			13 Oct 2015 20:52	1
HS15100394-06	TMW-7 (80-81')	29 Sep 2015 00:00			13 Oct 2015 21:56	1
Batch ID R263179 Test Name : MOISTURE Matrix: Soil						
HS15100394-01	MW-6 (5-6')	29 Sep 2015 00:00			16 Oct 2015 12:02	1
HS15100394-02	MW-6 (40-41')	29 Sep 2015 00:00			16 Oct 2015 12:02	1
HS15100394-03	MW-6 (80-81')	29 Sep 2015 00:00			16 Oct 2015 12:02	1
HS15100394-04	TMW-7 (5-6')	29 Sep 2015 00:00			16 Oct 2015 12:02	1
HS15100394-05	TMW-7 (40-41')	29 Sep 2015 00:00			16 Oct 2015 12:02	1
HS15100394-06	TMW-7 (80-81')	29 Sep 2015 00:00			16 Oct 2015 12:02	1

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill EC ABC TB
 WorkOrder: HS15100394

QC BATCH REPORT

Batch ID: 98015		Instrument: FID-8		Method: SW8015M					
MBLK	Sample ID: MBLK-98015	Units: mg/Kg			Analysis Date: 14-Oct-2015 18:30				
Client ID:	Run ID: FID-8_263215	SeqNo: 3464235		PrepDate: 13-Oct-2015		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
TPH (Diesel Range)	U	1.7							
Surr: 2-Fluorobiphenyl	2.652	0.10	3.33	0	79.6	60 - 135			
LCS	Sample ID: LCS-98015	Units: mg/Kg			Analysis Date: 14-Oct-2015 18:54				
Client ID:	Run ID: FID-8_263215	SeqNo: 3464236		PrepDate: 13-Oct-2015		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
TPH (Diesel Range)	26.3	1.7	33.33	0	78.9	70 - 130			
Surr: 2-Fluorobiphenyl	2.897	0.10	3.33	0	87.0	60 - 135			
MS	Sample ID: HS15100394-01MS	Units: mg/Kg			Analysis Date: 14-Oct-2015 19:42				
Client ID: MW-6 (5-6')	Run ID: FID-8_263215	SeqNo: 3464238		PrepDate: 13-Oct-2015		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
TPH (Diesel Range)	39.76	1.7	33.26	2.741	111	70 - 130			
Surr: 2-Fluorobiphenyl	3.84	0.10	3.323	0	116	60 - 135			
MSD	Sample ID: HS15100394-01MSD	Units: mg/Kg			Analysis Date: 14-Oct-2015 20:06				
Client ID: MW-6 (5-6')	Run ID: FID-8_263215	SeqNo: 3464239		PrepDate: 13-Oct-2015		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
TPH (Diesel Range)	35.79	1.7	33.3	2.741	99.3	70 - 130	39.76	10.5	30
Surr: 2-Fluorobiphenyl	3.47	0.10	3.327	0	104	60 - 135	3.84	10.1	30
The following samples were analyzed in this batch:									
HS15100394-01		HS15100394-02		HS15100394-03		HS15100394-04			
HS15100394-05		HS15100394-06							

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

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill EC ABC TB
WorkOrder: HS15100394

QC BATCH REPORT

Batch ID: R263023		Instrument: FID-14		Method: SW8015					
MBLK	Sample ID: BLK-151013	Units: mg/Kg		Analysis Date: 13-Oct-2015 18:55					
Client ID:	Run ID: FID-14_263023	SeqNo: 3460343		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics U 0.050

Surr: 4-Bromofluorobenzene 0.07905 0.0050 0.1 0 79.1 70 - 130

LCS	Sample ID: LCS-151013	Units: mg/Kg		Analysis Date: 13-Oct-2015 18:23					
Client ID:	Run ID: FID-14_263023	SeqNo: 3460341		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics 1.029 0.050 1 0 103 70 - 130

Surr: 4-Bromofluorobenzene 0.09369 0.0050 0.1 0 93.7 70 - 130

MS	Sample ID: HS15100394-01MS	Units: mg/Kg		Analysis Date: 13-Oct-2015 19:32					
Client ID: MW-6 (5-6')	Run ID: FID-14_263023	SeqNo: 3460345		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics 0.9467 0.050 1 0 94.7 70 - 130

Surr: 4-Bromofluorobenzene 0.08978 0.0050 0.1 0 89.8 70 - 130

MSD	Sample ID: HS15100394-01MSD	Units: mg/Kg		Analysis Date: 13-Oct-2015 19:48					
Client ID: MW-6 (5-6')	Run ID: FID-14_263023	SeqNo: 3460346		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Gasoline Range Organics 0.9005 0.050 1 0 90.0 70 - 130 0.9467 5 30

Surr: 4-Bromofluorobenzene 0.08044 0.0050 0.1 0 80.4 70 - 130 0.08978 11 30

The following samples were analyzed in this batch:

HS15100394-01	HS15100394-02	HS15100394-03	HS15100394-04
HS15100394-05	HS15100394-06		

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

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill EC ABC TB
WorkOrder: HS15100394

QC BATCH REPORT

Batch ID: R262855		Instrument: VOA8		Method: SW8260					
MBLK	Sample ID: VBLKS1-101215	Units: ug/Kg		Analysis Date: 12-Oct-2015 09:02					
Client ID:	Run ID: VOA8_262855	SeqNo: 3456890		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							
m,p-Xylene	U	10							
o-Xylene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	10							
Surr: 1,2-Dichloroethane-d4	41.54	0	50	0	83.1	70 - 128			
Surr: 4-Bromofluorobenzene	48.38	0	50	0	96.8	73 - 126			
Surr: Dibromofluoromethane	47.87	0	50	0	95.7	71 - 128			
Surr: Toluene-d8	50.05	0	50	0	100	73 - 127			

LCS	Sample ID: VLCSS1-101215	Units: ug/Kg		Analysis Date: 12-Oct-2015 08:15					
Client ID:	Run ID: VOA8_262855	SeqNo: 3456889		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	56.69	5.0	50	0	113	79 - 122			
Ethylbenzene	53.31	5.0	50	0	107	80 - 122			
m,p-Xylene	109.5	10	100	0	109	79 - 122			
o-Xylene	53.79	5.0	50	0	108	80 - 123			
Toluene	53.79	5.0	50	0	108	79 - 120			
Xylenes, Total	163.2	10	150	0	109	80 - 120			
Surr: 1,2-Dichloroethane-d4	50.4	0	50	0	101	70 - 128			
Surr: 4-Bromofluorobenzene	50.41	0	50	0	101	73 - 126			
Surr: Dibromofluoromethane	50.6	0	50	0	101	71 - 128			
Surr: Toluene-d8	48.26	0	50	0	96.5	73 - 127			

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

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill EC ABC TB
WorkOrder: HS15100394

QC BATCH REPORT

Batch ID: R262855		Instrument: VOA8		Method: SW8260						
MS		Sample ID: HS15100391-12MS		Units: ug/Kg		Analysis Date: 12-Oct-2015 11:22				
Client ID:		Run ID: VOA8_262855		SeqNo: 3457173		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	36.65	5.0	50	0	73.3	79 - 122				S
Ethylbenzene	27.98	5.0	50	0	56.0	80 - 122				S
m,p-Xylene	54.72	10	100	0	54.7	79 - 122				S
o-Xylene	27.52	5.0	50	0	55.0	80 - 123				S
Toluene	31.62	5.0	50	0	63.2	79 - 120				S
Xylenes, Total	82.23	10	150	0	54.8	80 - 120				S
Surr: 1,2-Dichloroethane-d4	51.97	0	50	0	104	70 - 128				
Surr: 4-Bromofluorobenzene	50.63	0	50	0	101	73 - 126				
Surr: Dibromofluoromethane	43.5	0	50	0	87.0	71 - 128				
Surr: Toluene-d8	48.63	0	50	0	97.3	73 - 127				

MSD		Sample ID: HS15100391-12MSD		Units: ug/Kg		Analysis Date: 12-Oct-2015 11:46				
Client ID:		Run ID: VOA8_262855		SeqNo: 3457174		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	28.43	5.0	50	0	56.9	79 - 122	36.65	25.3	30	S
Ethylbenzene	17.86	5.0	50	0	35.7	80 - 122	27.98	44.1	30	SR
m,p-Xylene	33.93	10	100	0	33.9	79 - 122	54.72	46.9	30	SR
o-Xylene	16.83	5.0	50	0	33.7	80 - 123	27.52	48.2	30	SR
Toluene	22.94	5.0	50	0	45.9	79 - 120	31.62	31.8	30	SR
Xylenes, Total	50.76	10	150	0	33.8	80 - 120	82.23	47.3	30	SR
Surr: 1,2-Dichloroethane-d4	52.76	0	50	0	106	70 - 128	51.97	1.51	30	
Surr: 4-Bromofluorobenzene	49.3	0	50	0	98.6	73 - 126	50.63	2.66	30	
Surr: Dibromofluoromethane	51.55	0	50	0	103	71 - 128	43.5	17	30	
Surr: Toluene-d8	50.36	0	50	0	101	73 - 127	48.63	3.5	30	

The following samples were analyzed in this batch:

HS15100394-01	HS15100394-02	HS15100394-03	HS15100394-04
HS15100394-05	HS15100394-06		

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

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill EC ABC TB
WorkOrder: HS15100394

QC BATCH REPORT

Batch ID: 98037		Instrument: ICS3000		Method: SW9056						
MBLK	Sample ID: MBLK-98037	Units: mg/Kg			Analysis Date: 15-Oct-2015 10:49					
Client ID:	Run ID: ICS3000_263159	SeqNo: 3462998			PrepDate: 14-Oct-2015		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	5.00								
LCS	Sample ID: LCS-98037	Units: mg/Kg			Analysis Date: 15-Oct-2015 11:10					
Client ID:	Run ID: ICS3000_263159	SeqNo: 3462999			PrepDate: 14-Oct-2015		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	218.8	5.00	200	0	109	80 - 120				
LCSD	Sample ID: LCSD-98037	Units: mg/Kg			Analysis Date: 15-Oct-2015 11:31					
Client ID:	Run ID: ICS3000_263159	SeqNo: 3463000			PrepDate: 14-Oct-2015		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	213.6	5.00	200	0	107	80 - 120	218.8	2.42	20	
MS	Sample ID: HS15100391-45MS	Units: mg/Kg			Analysis Date: 15-Oct-2015 12:13					
Client ID:	Run ID: ICS3000_263159	SeqNo: 3463002			PrepDate: 14-Oct-2015		DF: 5			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1102	24.2	484.5	619.3	99.6	80 - 120				
MSD	Sample ID: HS15100391-45MSD	Units: mg/Kg			Analysis Date: 15-Oct-2015 12:34					
Client ID:	Run ID: ICS3000_263159	SeqNo: 3463003			PrepDate: 14-Oct-2015		DF: 5			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1140	24.3	486.9	619.3	107	80 - 120	1102	3.4	20	
The following samples were analyzed in this batch:										
			HS15100394-01	HS15100394-02	HS15100394-03		HS15100394-04			
			HS15100394-05	HS15100394-06						

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

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill EC ABC TB
WorkOrder: HS15100394

QC BATCH REPORT

Batch ID: R263179											Instrument: Balance1		Method: SW3550			
DUP		Sample ID: HS15100499-02DUP			Units: wt%			Analysis Date: 16-Oct-2015 12:02								
Client ID:		Run ID: Balance1_263179			SeqNo: 3463502			PrepDate:		DF: 1						
Analyte		Result		PQL	SPK Val		SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual				

Percent Moisture	17.4	0.0100		16.9	2.92	20
------------------	------	--------	--	------	------	----

The following samples were analyzed in this batch:

HS15100394-01	HS15100394-02	HS15100394-03	HS15100394-04
HS15100394-05	HS15100394-06		

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

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill EC ABC TB
WorkOrder: HS15100394

**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
mg/Kg-dry	Milligrams per Kilogram- Dry weight corrected

ALS Group USA, Corp

Date: 19-Oct-15

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	15-024-0	27-Mar-2016
California	2919	31-Jul-2016
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003622	09-May-2016
Kansas	E-10352 2014-2015	30-Nov-2015
Kentucky	KY 2015-2016	30-Apr-2016
Louisiana	03087 2015/2016	30-Jun-2016
North Carolina	624 - 2015	31-Dec-2015
North Dakota	R-193 2015-2016	30-Apr-2016
Oklahoma	2015-047	31-Aug-2016
Texas	T104704231-15-15	30-Apr-2016

ALS Group USA, Corp

Date: 19-Oct-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill EC ABC TB
Work Order: HS15100394

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS15100394-01	MW-6 (5-6')	Login	10/9/2015 5:54:55 PM	RPG	VW-2
HS15100394-02	MW-6 (40-41')	Login	10/9/2015 5:54:55 PM	RPG	VW-2
HS15100394-03	MW-6 (80-81')	Login	10/9/2015 5:54:55 PM	RPG	VW-2
HS15100394-04	TMW-7 (5-6')	Login	10/9/2015 5:54:55 PM	RPG	VW-2
HS15100394-05	TMW-7 (40-41')	Login	10/9/2015 5:54:55 PM	RPG	VW-2
HS15100394-06	TMW-7 (80-81')	Login	10/9/2015 5:54:55 PM	RPG	VW-2

ALS Group USA, Corp

Date: 19-Oct-15

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **09-Oct-2015 08:44**

Work Order: HS15100394

Received by: **RPG**

Checklist completed by:	<u>Raegen Giga</u>	<u>9-Oct-2015</u>	Reviewed by:	<u>Dane J. Wacasey</u>	<u>12-Oct-2015</u>
	eSignature	Date		eSignature	Date

Matrices: **soil**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 ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☒
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):	0.5c/0.4c - 1.1c/1.0c uc/c	IR 1
--------------------------------	----------------------------	------

Cooler(s)/Kit(s):	5170/Lg Blue
-------------------	--------------

Date/Time sample(s) sent to storage:	10/09/2015 18:05
--------------------------------------	------------------

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:	Trip Blank listed on COC 134664 (Lg Blue cooler) was not received.
--------------	--

Client Contacted:	Date Contacted:	Person Contacted:
-------------------	-----------------	-------------------

Contacted By:	0	Regarding:
---------------	---	------------

Comments:	
-----------	--

Corrective Action:	
--------------------	--



Environmental

Cincinnati, OH
+1 513 733 5336Everett, WA
+1 425 356 2600Fort Collins, CO
+1 970 490 1511Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 134664

HS15100394

Glenn Springs Holdings, Inc.

55628DM GSHI PXP Hill E.C. ABC TB



Customer Information				Project Information				ALS Project Manager:												
Purchase Order	4501709538			Project Name	GSHI PXP Hill, E.C. ABC TB			A	BTEX (8200) 8021B											
Work Order				Project Number	55628DM (ENV749A10)			B	Chloride (300) TPH 8015 Mod.											
Company Name	Glenn Springs Holdings			Bill To Company	Glenn Springs Holdings			C	Chloride 300											
Send Report To	Angela Bown			Invoice Attn	Jennifer Devonshire			D												
Address	C/O GHD 9033 Meridian Way			Address	C/O GHD 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	angela.bown@ghd.com			e-Mail Address	jennifer.devonshire@ghd.com			I												
								J												

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-6 5-6'	9/29/15		Water Soil			X	X	X								
2	MW-6 40-41'			Water Soil			X	X	X								
3	Trip Blank			Water Soil			X										
4	MW-6 80-81'			Soil			X	X	X								
5	TMW-7 5-6'			Soil			X	X	X								
6	TMW-7 40-41'			Soil			X	X	X								
7	TMW-7 80-81'			Soil			X	X	X								
8																	
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Todd Wells		Fed Ex		☒ Std 10 WK days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour			
Relinquished by:	Date:	Time:	Received by:	Notes:			
Todd Wells	10/8/15	5:00	AG Gima	10 Day TAT			
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
			10/09/15 08:44	5170	0.5	☒ Level 2 Std QC ☐ TRRP ChkList	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	1g Blue	1.1	☐ Level 3 Std QC/Row dz ☐ TRRP Level 4	
						☐ Level 4 SW846/CLP ☐ Other/EDD	

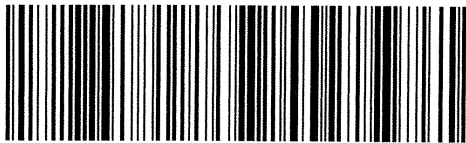
Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 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.

 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	5170	CUSTODY SEAL		Seal Broken By:
		Date: 10/8/15	Time: 3:00	SM
		Name: Todd Wells		Date: 10/09/15
		Company: [Signature]		

5170

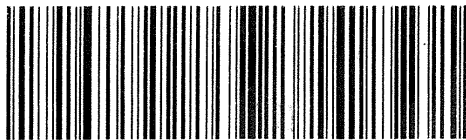
10/09/15

FedEx TRK# 8079 4508 9939 0215	10:30A PRIORITY OVERNIGHT
43 SGRA	5170 77099 TX-US IAH
	
290240 09Oct 01:59 AFHUU 539C3/401A/14AA	

 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	lg Blue	CUSTODY SEAL		Seal Broken By:
		Date: 10/8/15	Time: 5:15	SM
		Name: Todd Wells		Date: 10/09/15
		Company: [Signature]		

lg Blue

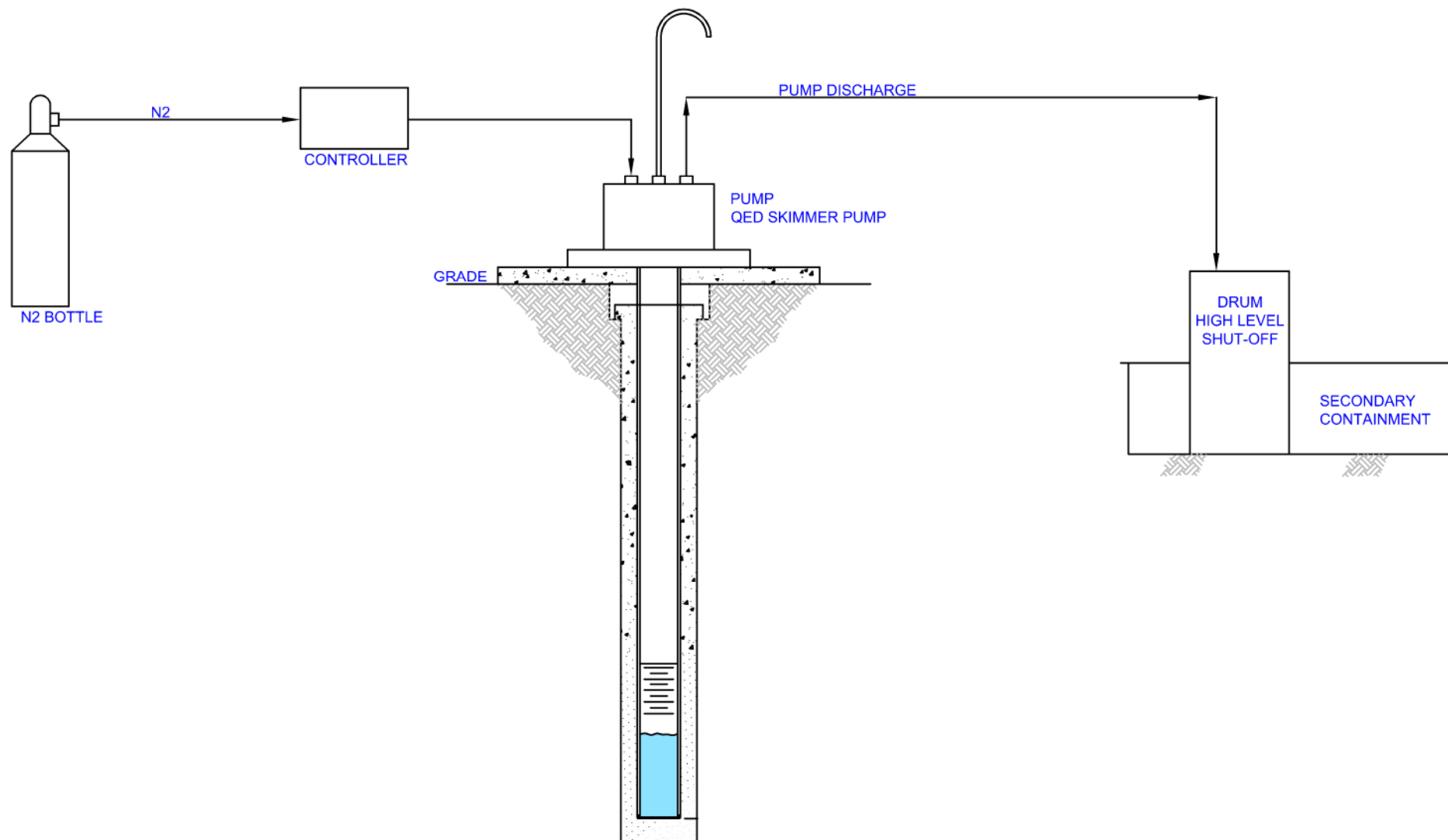
10/09/15

2 of 2	FRI - 09 OCT 10:30A
MPS# 7814 8128 4153 0681	PRIORITY OVERNIGHT
Mstr# 8079 4508 9939 0215	
AB SGRA	lg Blue 77099 TX-US IAH
	

Appendix B

Recovery System Schematics

MW-1



TETRA TECH
901 W. WALL STREET STE. 100
MIDLAND, TEXAS
(432) 682-4559

GLENN SPRINGS HOLDINGS

PFD SCHEMATIC/PRODUCT WELLS

E.C. HILL A, B, C, TANK BATTERY
LEA COUNTY, NEW MEXICO

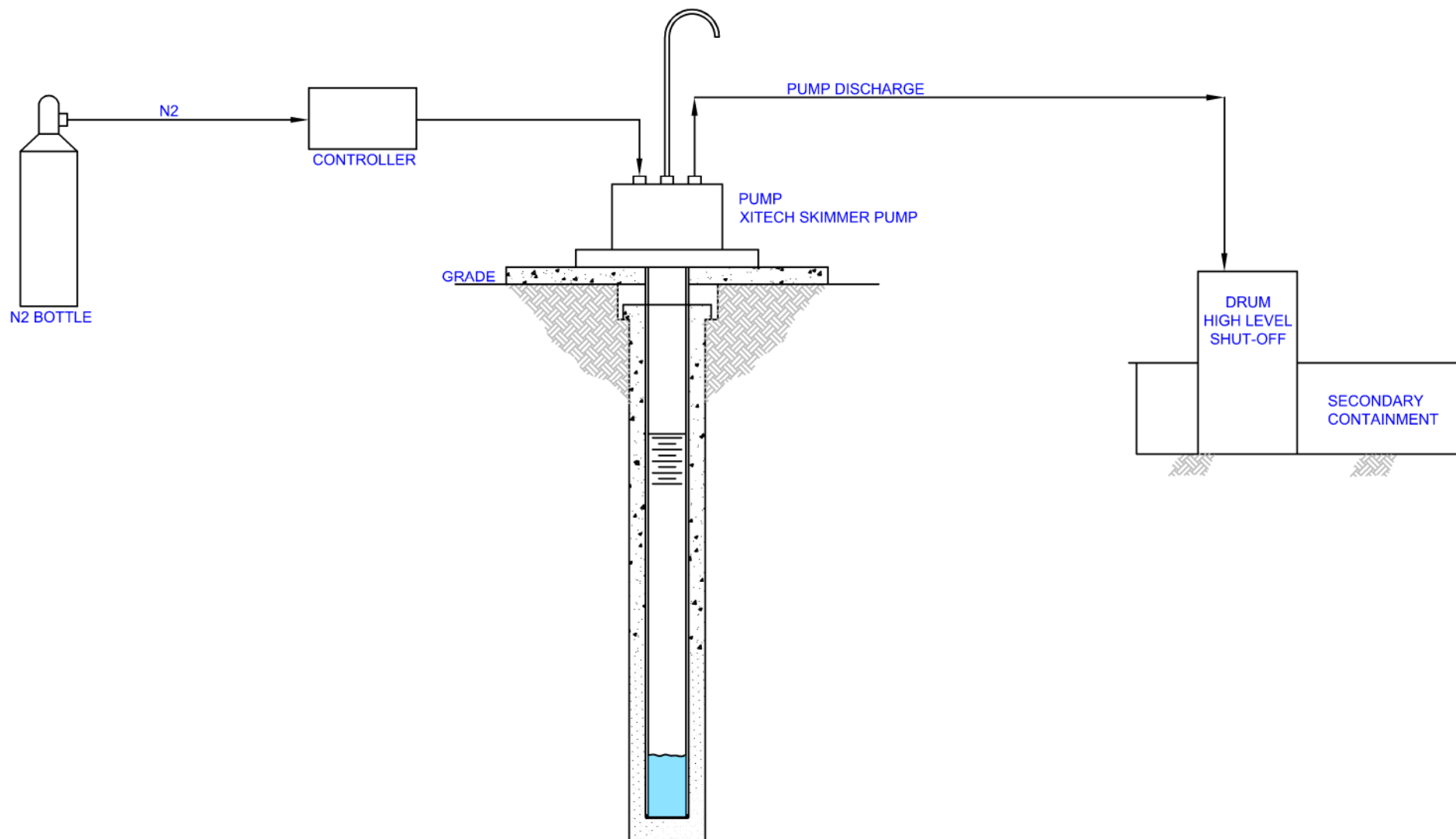
Project: 212C-MD-01685

Date: 8/27/2019

File: GLENN SPRINGS HOLDINGS A,B,C TB DETAIL MW1

REV.

MW-2



TETRA TECH
901 W. WALL STREET STE. 100
MIDLAND, TEXAS
(432) 682-4559

GLENN SPRINGS HOLDINGS

PFD SCHEMATIC/PRODUCT WELLS

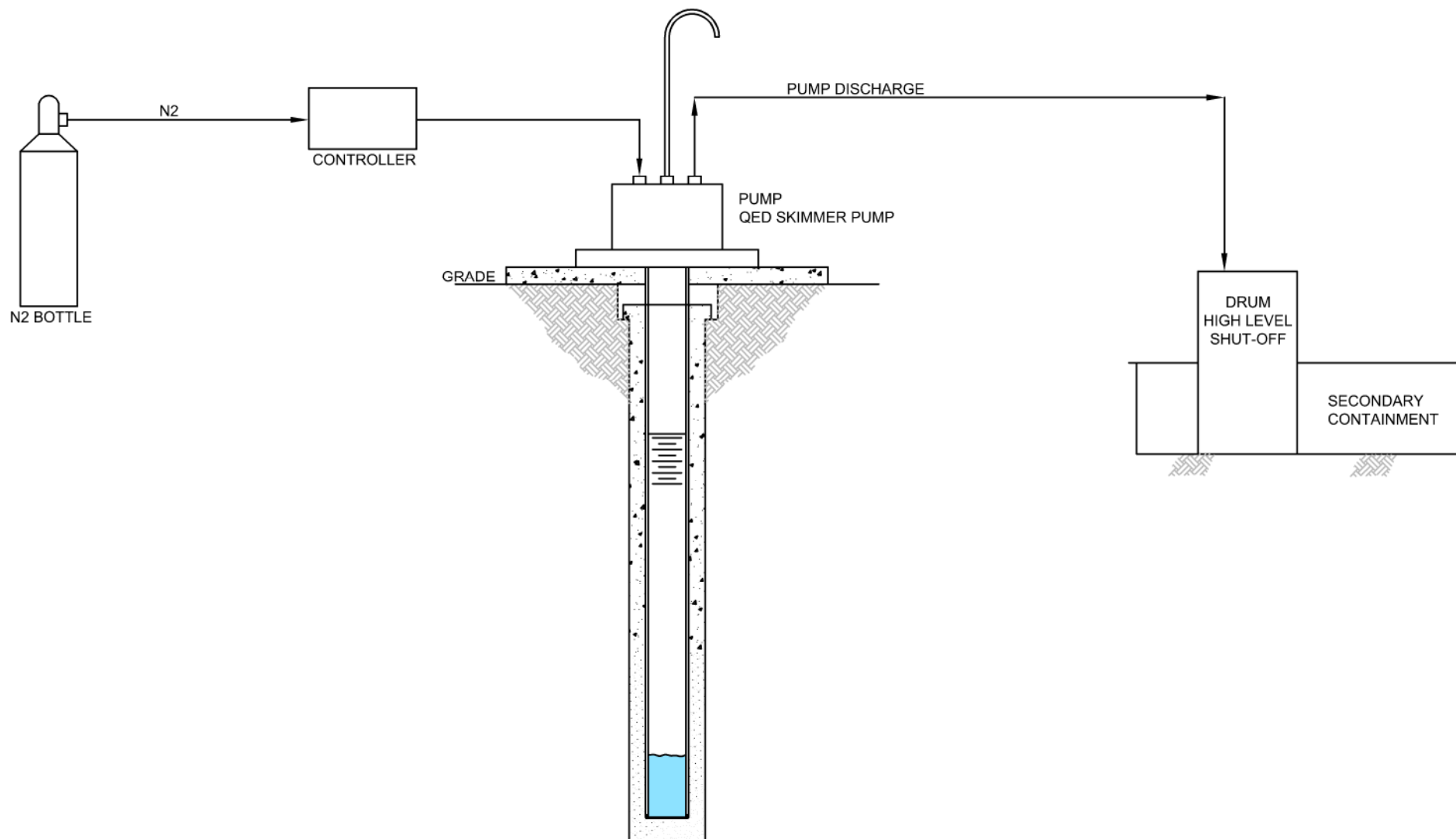
E.C. HILL A, B, C, TANK BATTERY
LEA COUNTY, NEW MEXICO

Project: 212C-MD-01685

Date: 9/12/2019

File: GLENN SPRINGS HOLDINGS A,B,C TB DETAL RW1

REV.

RW-1

TETRA TECH
 901 W. WALL STREET STE. 100
 MIDLAND, TEXAS
 (432) 682-4559

GLENN SPRINGS HOLDINGS

PFD SCHEMATIC/PRODUCT WELLS

E.C. HILL A, B, C, TANK BATTERY
 LEA COUNTY, NEW MEXICO

Project: 212C-MD-01685

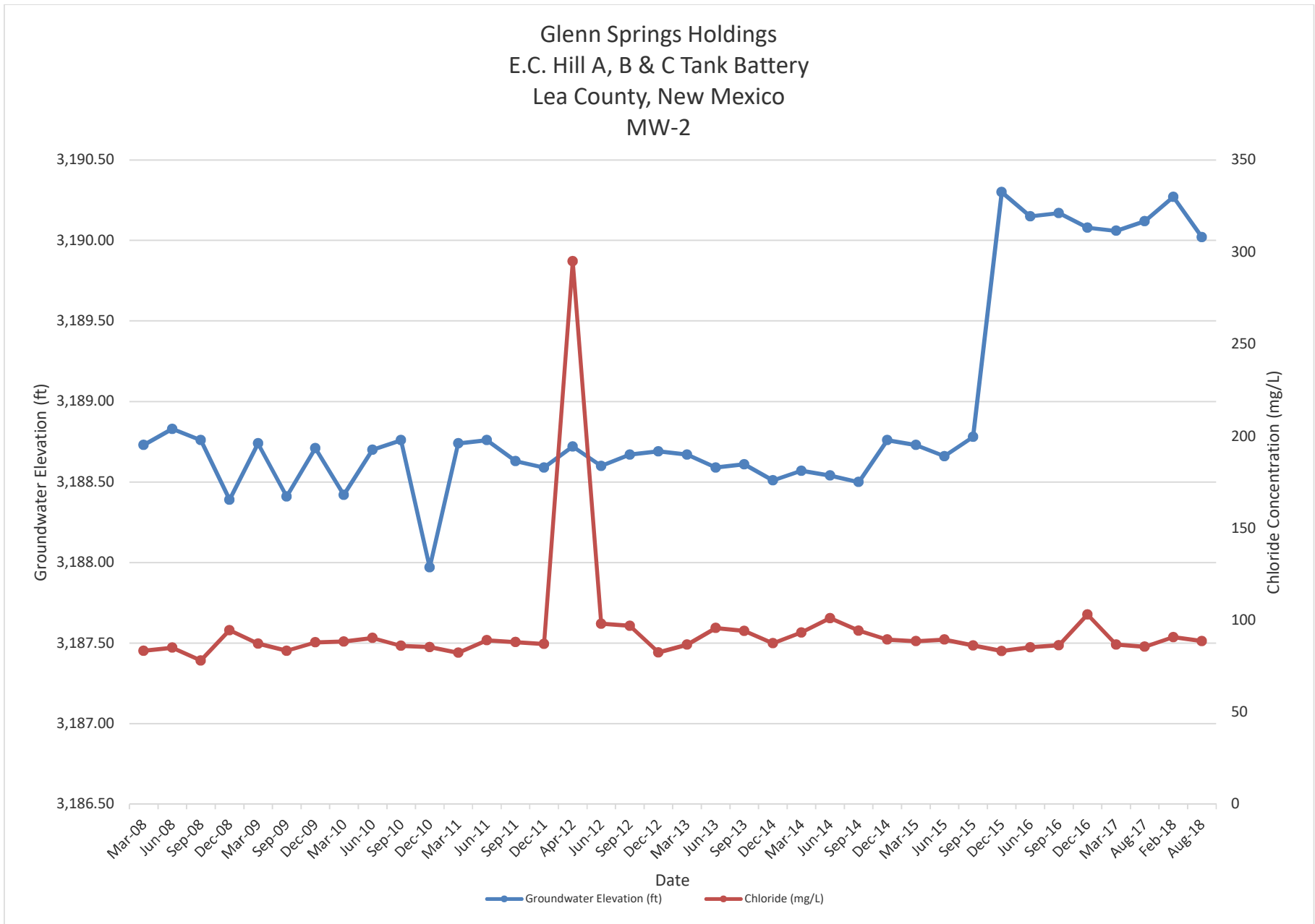
Date: 8/27/2019

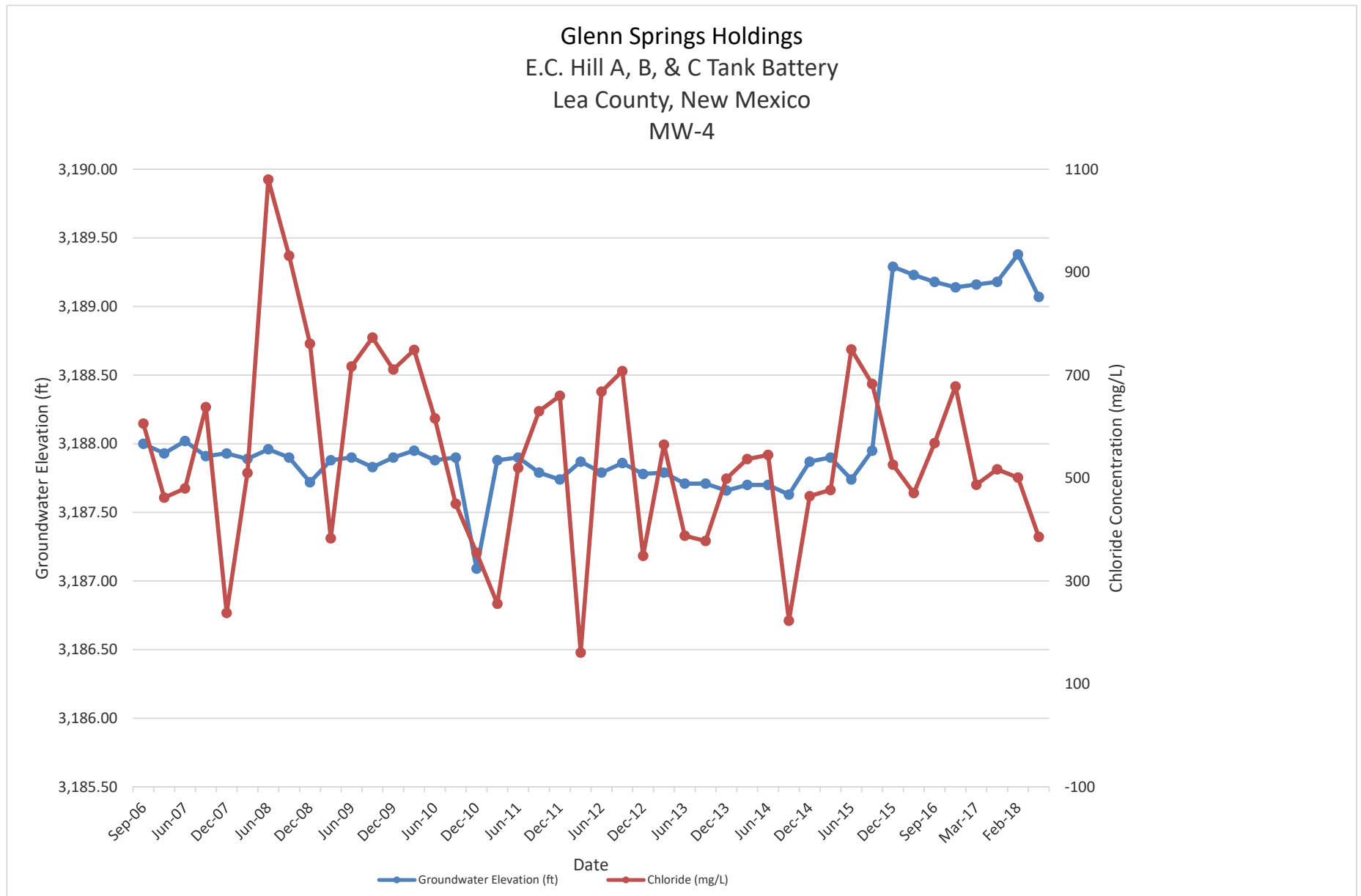
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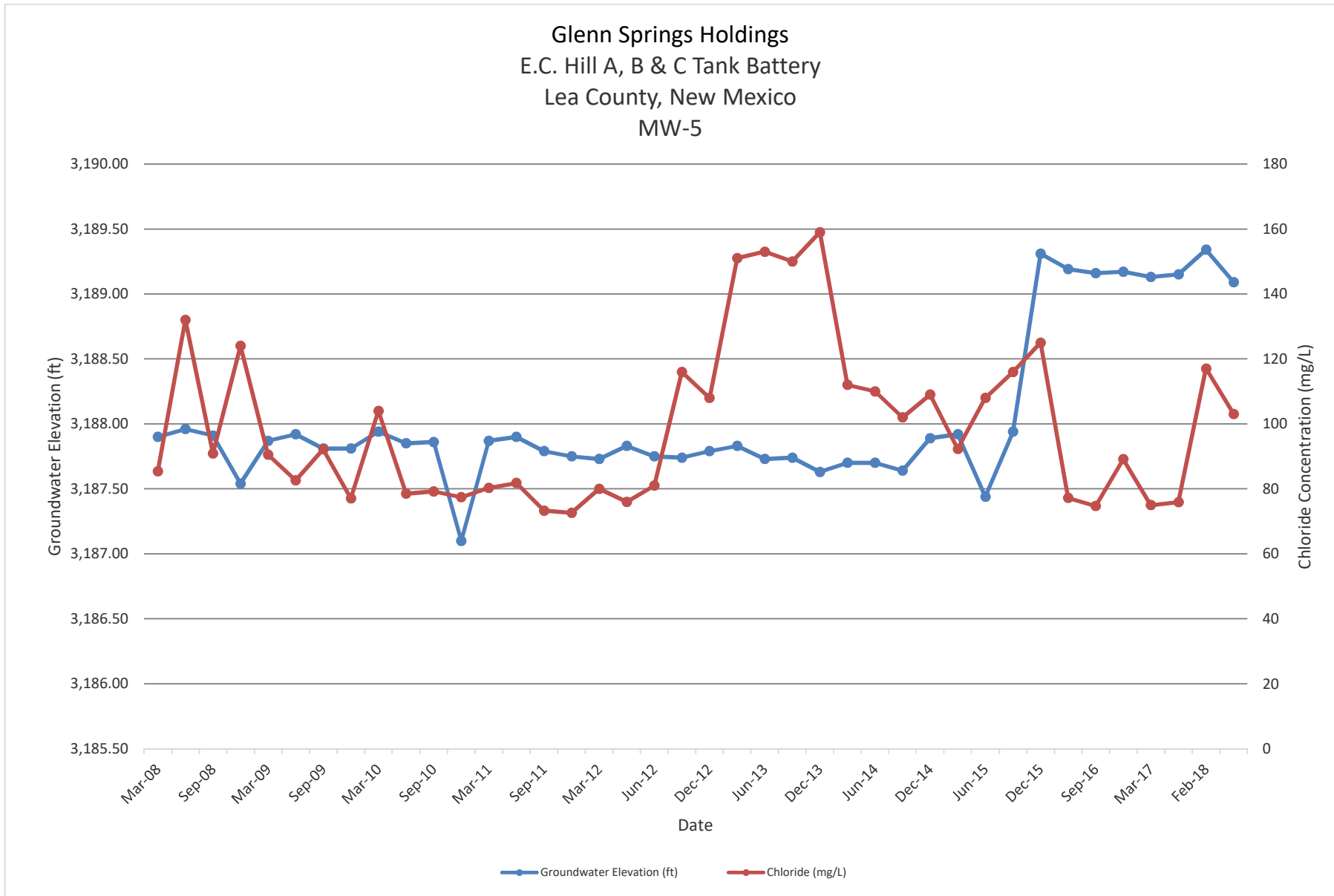
REV.

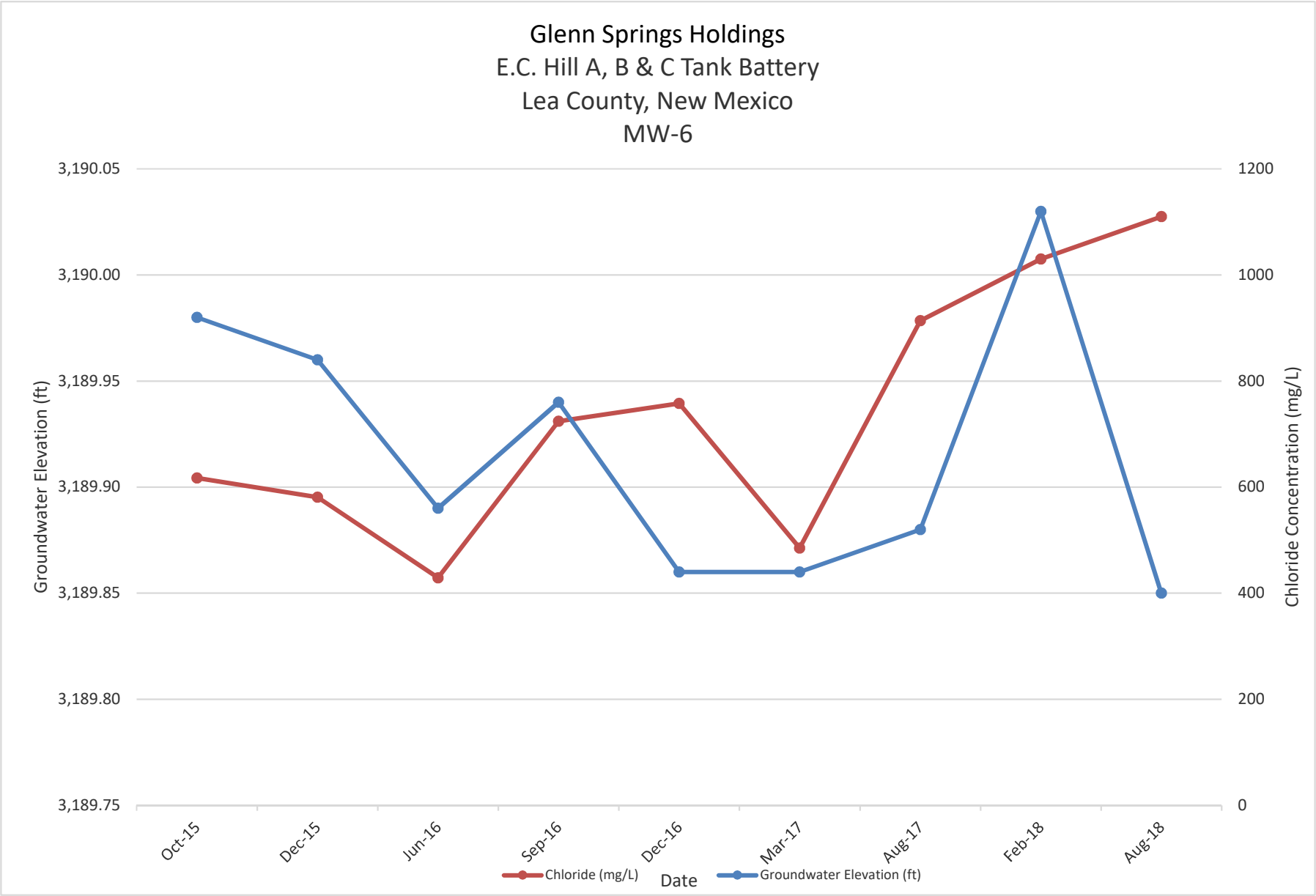
Appendix C

Groundwater Elevation and Chloride Concentration Graphs









Appendix D

Groundwater Laboratory Reports

2015



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

April 01, 2015

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

Work Order: **HS15031017**

Laboratory Results for: **55628DM GSHI PXP Hill E.C. ABC TB**

Dear Angela,

ALS Environmental received 4 sample(s) on Mar 27, 2015 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: Jumoke.Lawal

Dane J. Wacasey

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS15031017

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS15031017-01	MW-2	Water		24-Mar-2015 12:40	27-Mar-2015 09:10	☐
HS15031017-02	MW-4	Water		24-Mar-2015 12:40	27-Mar-2015 09:10	☐
HS15031017-03	MW-5	Water		24-Mar-2015 12:45	27-Mar-2015 09:10	☐
HS15031017-04	Trip Blank 021715-90	Water		24-Mar-2015 00:00	27-Mar-2015 09:10	☐

ALS Group USA, Corp

Date: 07-Apr-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS15031017

CASE NARRATIVE**Work Order Comments**

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

GCMS Volatiles by Method SW8260**Batch ID: R251881,R251986**

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

Batch ID: R251921Sample ID: **MW-2 (HS15031017-01MS)**

- The MSD failed recovery limits for Toluene due to suspect matrix effect. The LCS was within acceptance limits.

WetChemistry by Method E300**Batch ID: R251907**Sample ID: **HS15031027-05**

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

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-2
 Collection Date: 24-Mar-2015 12:40

ANALYTICAL REPORT

WorkOrder:HS15031017
 Lab ID:HS15031017-01
 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	30-Mar-2015 12:02
Ethylbenzene	U		0.50	5.0	ug/L	1	30-Mar-2015 12:02
Toluene	U		0.50	5.0	ug/L	1	30-Mar-2015 12:02
Xylenes, Total	U		1.5	15	ug/L	1	30-Mar-2015 12:02
Surr: 1,2-Dichloroethane-d4	94.2			70-125	%REC	1	30-Mar-2015 12:02
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	30-Mar-2015 12:02
Surr: Dibromofluoromethane	94.0			71-125	%REC	1	30-Mar-2015 12:02
Surr: Toluene-d8	99.5			75-125	%REC	1	30-Mar-2015 12:02
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	88.5		1.00	2.50	mg/L	5	30-Mar-2015 19:14

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

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-4
 Collection Date: 24-Mar-2015 12:40

ANALYTICAL REPORT

WorkOrder:HS15031017
 Lab ID:HS15031017-02
 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	30-Mar-2015 12:08
Ethylbenzene	U		0.50	5.0	ug/L	1	30-Mar-2015 12:08
Toluene	U		0.50	5.0	ug/L	1	30-Mar-2015 12:08
Xylenes, Total	U		1.5	15	ug/L	1	30-Mar-2015 12:08
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	30-Mar-2015 12:08
Surr: 4-Bromofluorobenzene	96.4			72-125	%REC	1	30-Mar-2015 12:08
Surr: Dibromofluoromethane	99.9			71-125	%REC	1	30-Mar-2015 12:08
Surr: Toluene-d8	98.0			75-125	%REC	1	30-Mar-2015 12:08
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	477		2.00	5.00	mg/L	10	30-Mar-2015 19:36

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

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-5
 Collection Date: 24-Mar-2015 12:45

ANALYTICAL REPORT

WorkOrder:HS15031017
 Lab ID:HS15031017-03
 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	31-Mar-2015 11:47
Ethylbenzene	U		0.50	5.0	ug/L	1	31-Mar-2015 11:47
Toluene	U		0.50	5.0	ug/L	1	31-Mar-2015 11:47
Xylenes, Total	U		1.5	15	ug/L	1	31-Mar-2015 11:47
Surr: 1,2-Dichloroethane-d4	93.3			70-125	%REC	1	31-Mar-2015 11:47
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	31-Mar-2015 11:47
Surr: Dibromofluoromethane	93.8			71-125	%REC	1	31-Mar-2015 11:47
Surr: Toluene-d8	99.7			75-125	%REC	1	31-Mar-2015 11:47
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	92.3		2.00	5.00	mg/L	10	30-Mar-2015 19:58

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

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: Trip Blank 021715-90
 Collection Date: 24-Mar-2015 00:00

ANALYTICAL REPORT

WorkOrder:HS15031017
 Lab ID:HS15031017-04
 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	30-Mar-2015 11:37
Ethylbenzene	U		0.50	5.0	ug/L	1	30-Mar-2015 11:37
Toluene	U		0.50	5.0	ug/L	1	30-Mar-2015 11:37
Xylenes, Total	U		1.5	15	ug/L	1	30-Mar-2015 11:37
Surr: 1,2-Dichloroethane-d4	99.9			70-125	%REC	1	30-Mar-2015 11:37
Surr: 4-Bromofluorobenzene	109			72-125	%REC	1	30-Mar-2015 11:37
Surr: Dibromofluoromethane	93.5			71-125	%REC	1	30-Mar-2015 11:37
Surr: Toluene-d8	100			75-125	%REC	1	30-Mar-2015 11:37

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

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15031017

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R251881	Test Name : VOLATILES - SW8260C			Matrix: Water		
HS15031017-02	MW-4	24 Mar 2015 12:40			30 Mar 2015 12:08	1
Batch ID R251907	Test Name : ANIONS BY E300.0			Matrix: Water		
HS15031017-01	MW-2	24 Mar 2015 12:40			30 Mar 2015 19:14	5
HS15031017-02	MW-4	24 Mar 2015 12:40			30 Mar 2015 19:36	10
HS15031017-03	MW-5	24 Mar 2015 12:45			30 Mar 2015 19:58	10
Batch ID R251921	Test Name : VOLATILES - SW8260C			Matrix: Water		
HS15031017-01	MW-2	24 Mar 2015 12:40			30 Mar 2015 12:02	1
HS15031017-04	Trip Blank 021715-90	24 Mar 2015 00:00			30 Mar 2015 11:37	1
Batch ID R251986	Test Name : VOLATILES - SW8260C			Matrix: Water		
HS15031017-03	MW-5	24 Mar 2015 12:45			31 Mar 2015 11:47	1

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15031017

QC BATCH REPORT

Batch ID: R251881		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-150330	Units: ug/L		Analysis Date: 30-Mar-2015 11:19					
Client ID:	Run ID: VOA6_251881	SeqNo: 3227659		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	51.07	5.0	50	0	102	70 - 125			
Surr: 4-Bromofluorobenzene	47.69	5.0	50	0	95.4	72 - 125			
Surr: Dibromofluoromethane	48.38	5.0	50	0	96.8	71 - 125			
Surr: Toluene-d8	49.59	5.0	50	0	99.2	75 - 125			

LCS	Sample ID: VLCSW-150330	Units: ug/L		Analysis Date: 30-Mar-2015 10:07					
Client ID:	Run ID: VOA6_251881	SeqNo: 3227658		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	49.36	5.0	50	0	98.7	73 - 121			
Ethylbenzene	47.84	5.0	50	0	95.7	80 - 120			
Toluene	47.85	5.0	50	0	95.7	80 - 120			
Xylenes, Total	141.8	15	150	0	94.6	80 - 120			
Surr: 1,2-Dichloroethane-d4	51.61	5.0	50	0	103	70 - 125			
Surr: 4-Bromofluorobenzene	52.43	5.0	50	0	105	72 - 125			
Surr: Dibromofluoromethane	50.89	5.0	50	0	102	71 - 125			
Surr: Toluene-d8	49.1	5.0	50	0	98.2	75 - 125			

MS	Sample ID: HS15031017-02MS	Units: ug/L		Analysis Date: 30-Mar-2015 14:56					
Client ID: MW-4	Run ID: VOA6_251881	SeqNo: 3227668		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	48.17	5.0	50	0	96.3	73 - 121			
Ethylbenzene	46.34	5.0	50	0	92.7	80 - 120			
Toluene	46.94	5.0	50	0	93.9	80 - 120			
Xylenes, Total	143.6	15	150	0	95.7	80 - 120			
Surr: 1,2-Dichloroethane-d4	52.41	5.0	50	0	105	70 - 125			
Surr: 4-Bromofluorobenzene	52.76	5.0	50	0	106	72 - 125			
Surr: Dibromofluoromethane	51.17	5.0	50	0	102	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.

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 WorkOrder: HS15031017

QC BATCH REPORT

Batch ID: R251881		Instrument: VOA6		Method: SW8260						
MSD		Sample ID: HS15031017-02MSD		Units: ug/L		Analysis Date: 30-Mar-2015 15:21				
Client ID: MW-4		Run ID: VOA6_251881		SeqNo: 3227669		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.37	5.0	50	0	92.7	73 - 121	48.17	3.81	20	
Ethylbenzene	46.25	5.0	50	0	92.5	80 - 120	46.34	0.183	20	
Toluene	46.25	5.0	50	0	92.5	80 - 120	46.94	1.48	20	
Xylenes, Total	142.9	15	150	0	95.3	78 - 121	143.6	0.49	20	
Surr: 1,2-Dichloroethane-d4	51.44	5.0	50	0	103	70 - 125	52.41	1.86	20	
Surr: 4-Bromofluorobenzene	52.18	5.0	50	0	104	72 - 125	52.76	1.1	20	
Surr: Dibromofluoromethane	50.17	5.0	50	0	100	71 - 125	51.17	1.96	20	
Surr: Toluene-d8	48.79	5.0	50	0	97.6	75 - 125	48.28	1.05	20	

The following samples were analyzed in this batch: HS15031017-02

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

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15031017

QC BATCH REPORT

Batch ID: R251921		Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-150330	Units: ug/L		Analysis Date: 30-Mar-2015 11:12					
Client ID:	Run ID: VOA1_251921	SeqNo: 3228563		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	48.68	5.0	50	0	97.4	70 - 125			
Surr: 4-Bromofluorobenzene	51.96	5.0	50	0	104	72 - 125			
Surr: Dibromofluoromethane	45.49	5.0	50	0	91.0	71 - 125			
Surr: Toluene-d8	50.51	5.0	50	0	101	75 - 125			

LCS	Sample ID: VLCSW-150330	Units: ug/L		Analysis Date: 30-Mar-2015 10:23					
Client ID:	Run ID: VOA1_251921	SeqNo: 3228562		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	46.93	5.0	50	0	93.9	80 - 120			
Toluene	42.57	5.0	50	0	85.1	80 - 120			
Xylenes, Total	133.8	15	150	0	89.2	80 - 120			
Surr: 1,2-Dichloroethane-d4	49.2	5.0	50	0	98.4	70 - 125			
Surr: 4-Bromofluorobenzene	49.96	5.0	50	0	99.9	72 - 125			
Surr: Dibromofluoromethane	48.18	5.0	50	0	96.4	71 - 125			
Surr: Toluene-d8	50.96	5.0	50	0	102	75 - 125			

MS	Sample ID: HS15031017-01MS	Units: ug/L		Analysis Date: 30-Mar-2015 14:05					
Client ID: MW-2	Run ID: VOA1_251921	SeqNo: 3228567		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	41.15	5.0	50	0	82.3	73 - 121			
Ethylbenzene	41.15	5.0	50	0	82.3	80 - 120			
Toluene	40.75	5.0	50	0	81.5	80 - 120			
Xylenes, Total	124.6	15	150	0	83.1	80 - 120			
Surr: 1,2-Dichloroethane-d4	53.71	5.0	50	0	107	70 - 125			
Surr: 4-Bromofluorobenzene	50.25	5.0	50	0	100	72 - 125			
Surr: Dibromofluoromethane	50.3	5.0	50	0	101	71 - 125			
Surr: Toluene-d8	47.73	5.0	50	0	95.5	75 - 125			

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

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 WorkOrder: HS15031017

QC BATCH REPORT

Batch ID: R251921		Instrument: VOA1		Method: SW8260						
MSD		Sample ID: HS15031017-01MSD		Units: ug/L		Analysis Date: 30-Mar-2015 14:30				
Client ID: MW-2		Run ID: VOA1_251921		SeqNo: 3228568		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	41.09	5.0	50	0	82.2	73 - 121	41.15	0.143	20	
Ethylbenzene	40.31	5.0	50	0	80.6	80 - 120	41.15	2.06	20	
Toluene	39.81	5.0	50	0	79.6	80 - 120	40.75	2.33	20	S
Xylenes, Total	123.3	15	150	0	82.2	78 - 121	124.6	1.06	20	
Surr: 1,2-Dichloroethane-d4	51.85	5.0	50	0	104	70 - 125	53.71	3.54	20	
Surr: 4-Bromofluorobenzene	50.32	5.0	50	0	101	72 - 125	50.25	0.146	20	
Surr: Dibromofluoromethane	49	5.0	50	0	98.0	71 - 125	50.3	2.63	20	
Surr: Toluene-d8	49.09	5.0	50	0	98.2	75 - 125	47.73	2.81	20	
The following samples were analyzed in this batch: HS15031017-01 HS15031017-04										

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

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 WorkOrder: HS15031017

QC BATCH REPORT

Batch ID: R251986		Instrument: VOA1		Method: SW8260						
MBLK	Sample ID: VBLKW-150331	Units: ug/L			Analysis Date: 31-Mar-2015 11:23					
Client ID:	Run ID: VOA1_251986	SeqNo: 3229791		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	45.82	5.0	50	0	91.6	70 - 125				
Surr: 4-Bromofluorobenzene	49.21	5.0	50	0	98.4	72 - 125				
Surr: Dibromofluoromethane	46.03	5.0	50	0	92.1	71 - 125				
Surr: Toluene-d8	48.23	5.0	50	0	96.5	75 - 125				

LCS	Sample ID: VLCSW-150331		Units: ug/L		Analysis Date: 31-Mar-2015 10:34				
Client ID:	Run ID: VOA1_251986		SeqNo: 3229790		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	44.61	5.0	50	0	89.2	73 - 121				
Ethylbenzene	45.28	5.0	50	0	90.6	80 - 120				
Toluene	41.4	5.0	50	0	82.8	80 - 120				
Xylenes, Total	126.9	15	150	0	84.6	80 - 120				
Surr: 1,2-Dichloroethane-d4	48.81	5.0	50	0	97.6	70 - 125				
Surr: 4-Bromofluorobenzene	49.55	5.0	50	0	99.1	72 - 125				
Surr: Dibromofluoromethane	47.65	5.0	50	0	95.3	71 - 125				
Surr: Toluene-d8	48.73	5.0	50	0	97.5	75 - 125				

MS										
Sample ID: HS15031017-03MS		Units: ug/L			Analysis Date: 31-Mar-2015 13:01					
Client ID: MW-5		Run ID: VOA1_251986		SeqNo: 3229795		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Benzene	44.6	5.0	50	0	89.2	73 - 121				
Ethylbenzene	44.31	5.0	50	0	88.6	80 - 120				
Toluene	40.19	5.0	50	0	80.4	80 - 120				
Xylenes, Total	132.3	15	150	0	88.2	80 - 120				
Surr: 1,2-Dichloroethane-d4	49.49	5.0	50	0	99.0	70 - 125				
Surr: 4-Bromofluorobenzene	52.68	5.0	50	0	105	72 - 125				
Surr: Dibromofluoromethane	49.12	5.0	50	0	98.2	71 - 125				
Surr: Toluene-d8	50.04	5.0	50	0	100	75 - 125				

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

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15031017

QC BATCH REPORT

Batch ID: R251986		Instrument: VOA1		Method: SW8260						
MSD		Sample ID: HS15031017-03MSD		Units: ug/L		Analysis Date: 31-Mar-2015 13:26				
Client ID: MW-5		Run ID: VOA1_251986		SeqNo: 3229796		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	41.33	5.0	50	0	82.7	73 - 121	44.6	7.61	20	
Ethylbenzene	44.58	5.0	50	0	89.2	80 - 120	44.31	0.604	20	
Toluene	42.43	5.0	50	0	84.9	80 - 120	40.19	5.41	20	
Xylenes, Total	130.2	15	150	0	86.8	78 - 121	132.3	1.6	20	
Surr: 1,2-Dichloroethane-d4	49.21	5.0	50	0	98.4	70 - 125	49.49	0.564	20	
Surr: 4-Bromofluorobenzene	50.66	5.0	50	0	101	72 - 125	52.68	3.91	20	
Surr: Dibromofluoromethane	48.32	5.0	50	0	96.6	71 - 125	49.12	1.64	20	
Surr: Toluene-d8	49.29	5.0	50	0	98.6	75 - 125	50.04	1.51	20	

The following samples were analyzed in this batch: HS15031017-03

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

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15031017

QC BATCH REPORT

Batch ID: R251907		Instrument: ICS3K2		Method: E300						
MBLK	Sample ID: WBLKW1-033015	Units: mg/L		Analysis Date: 30-Mar-2015 09:40						
Client ID:	Run ID: ICS3K2_251907	SeqNo: 3228272		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: WLCSW1-033015	Units: mg/L		Analysis Date: 30-Mar-2015 10:02						
Client ID:	Run ID: ICS3K2_251907	SeqNo: 3228273		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.15	0.500	20	0	101	90 - 110				
LCSD	Sample ID: WLCSDW1-033015	Units: mg/L		Analysis Date: 30-Mar-2015 10:24						
Client ID:	Run ID: ICS3K2_251907	SeqNo: 3228274		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.91	0.500	20	0	99.5	90 - 110	20.15	1.22	20	
MS	Sample ID: HS15031027-05MS	Units: mg/L		Analysis Date: 30-Mar-2015 12:38						
Client ID:	Run ID: ICS3K2_251907	SeqNo: 3228280		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	37.12	0.500	10	27.46	96.6	80 - 120				
MS	Sample ID: HS15031017-03MS	Units: mg/L		Analysis Date: 30-Mar-2015 21:03						
Client ID: MW-5	Run ID: ICS3K2_251907	SeqNo: 3228296		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	189.6	5.00	100	92.3	97.3	80 - 120				
MSD	Sample ID: HS15031027-05MSD	Units: mg/L		Analysis Date: 30-Mar-2015 12:59						
Client ID:	Run ID: ICS3K2_251907	SeqNo: 3228281		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	37.08	0.500	10	27.46	96.1	80 - 120	37.12	0.116	20	

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

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15031017

QC BATCH REPORT

Batch ID: R251907		Instrument: ICS3K2		Method: E300						
MSD	Sample ID: HS15031017-03MSD	Units: mg/L		Analysis Date: 30-Mar-2015 21:25						
Client ID: MW-5	Run ID: ICS3K2_251907		SeqNo: 3228297		PrepDate:		DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	195.7	5.00	100	92.3	103	80 - 120	189.6	3.19	20	

The following samples were analyzed in this batch: HS15031017-01 HS15031017-02 HS15031017-03

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

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15031017

**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

ALS Group USA, Corp

Date: 01-Apr-15

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	15-024-0	27-Mar-2016
California	2919	31-Jul-2016
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 Dakota	R-193 2025	30-Apr-2015
Oklahoma	2014-128	31-Aug-2015
Texas	T104704231-14-14	30-Apr-2015

ALS Group USA, Corp

Date: 01-Apr-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS15031017

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS15031017-01	MW-2	Login	3/27/2015 6:23:52 PM	RPG	19E
HS15031017-01	MW-2	Login	3/27/2015 6:23:52 PM	RPG	VW-3
HS15031017-02	MW-4	Login	3/27/2015 6:23:52 PM	RPG	19E
HS15031017-02	MW-4	Login	3/27/2015 6:23:52 PM	RPG	VW-3
HS15031017-03	MW-5	Login	3/27/2015 6:23:52 PM	RPG	25C
HS15031017-03	MW-5	Login	3/27/2015 6:23:52 PM	RPG	VW-3
HS15031017-04	Trip Blank 021715-90	Login	3/27/2015 6:23:52 PM	RPG	VW-3

ALS Group USA, Corp

Date: 01-Apr-15

Sample Receipt Checklist

Client Name: GLEN SPRINGS/CRA

Date/Time Received: **27-Mar-2015 09:10**

Work Order: HS15031017

Received by: **DES**

Checklist completed by:	<u>Raegen Giga</u>	<u>27-Mar-2015</u>	Reviewed by:	<u>Dane J. Wacasey</u>	<u>30-Mar-2015</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):	3.9c/3.9c c/u		IR 1
Cooler(s)/Kit(s):	4916		
Date/Time sample(s) sent to storage:	03/27/2015 18:30		
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 5336Fort Collins, CO
+1 970 490 1511Everett, WA
+1 425 356 2600Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 118693

HS15031017

Glenn Springs Holdings

55628DM GSHI PXP Hill E C ABC TB



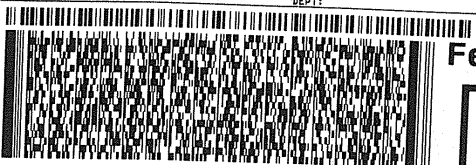
Customer Information				Project Information				ALS Project Manager:											
Purchase Order	4501709538	Project Name	GSHI PXP Hill, E.C. ABC TB	A	BTEX (8260)														
Work Order		Project Number	55628DM (ENV749A10)	B	Chloride (300)														
Company Name	Glenn Springs Holdings	Bill To Company	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	abown@craworld.com	e-Mail Address	jdevonshire@craworld.com	I															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	MW-1			Water	1/8		X	X											
2	MW-2	3-24-15	1240	Water	1/8	4	X	X											
3	MW-3			Water			X	X											
4	MW-4	3-24-15	1240	Water	1/8	4	X	X											
5	MW-5	3-24-15	1245	Water	1/8	4	X	X											
6	Trip Blank			Water			X												
7																			
8																			
9																			
10																			

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
<i>Matthew McManus</i>		Fed Ex		☒ Std 10 WK days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour			
Relinquished by:	Date:	Time:	Received by:	Notes:			
<i>Gold Wells</i>	3/26/15	1615	<i>[Signature]</i>				
Relinquished by:	Date:	Time:	Received by (Laboratory):	10 Day TAT			
			3-27-15 09:10	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	4916	3.9°	☒ Level 2 Std QC ☐ Level 3 Std QC/Row da ☐ Level 4 SW846/CLP ☐ Other/EDD	
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				☐ 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.

Copyright 2011 by ALS Environmental.

 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Signatures By:  3/27/15
	Date: 3/27/15 Name: Todd Wells Company: FW	Time: 1615	

ORIGIN ID:MAFA (432) 682-4559 TODD WELLS TETRA TECH 4000 N BIG SPRING ST MIDLAND, TX 79705 UNITED STATES US	SHIP DATE: 26MAR15 ACTWGT: 24.5 LB CAD: 6991681/SSFO1521 DIMS: 18x16x11 IN BILL THIRD PARTY
TO ALS LABORATORY GROUP 10450 STANCLIFF RD STE 210 STE 210 HOUSTON TX 77099	
(000) 000-0000 INVT PO:	REF: DEPT:
	
FedEx Express 	
TRK# 7804 0961 8323 0201	FRI - 27 MAR 10:30A PRIORITY OVERNIGHT DSR 77099 TX-US IAH
AB SGRA	
	



10450 Stancliff Rd. Suite 210
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June 24, 2015

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

Work Order: **HS15060873**

Laboratory Results for: **55628DM GSHI PXP Hill E.C. ABC TB**

Dear Angela,

ALS Environmental received 4 sample(s) on Jun 20, 2015 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

ALS Group USA, Corp

Date: 24-Jun-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS15060873

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS15060873-01	MW-2	Water		18-Jun-2015 12:20	20-Jun-2015 11:00	☐
HS15060873-02	MW-4	Water		18-Jun-2015 13:15	20-Jun-2015 11:00	☐
HS15060873-03	MW-5	Water		18-Jun-2015 14:20	20-Jun-2015 11:00	☐
HS15060873-04	Trip Blank	Water		18-Jun-2015 00:00	20-Jun-2015 11:00	☐

ALS Group USA, Corp

Date: 24-Jun-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS15060873

CASE NARRATIVE

Work Order Comments

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

GCMS Volatiles by Method SW8260

Batch ID: R256654

- Sample ID: **MW-2 (HS15060873-01)**
- MS/MSD failed QC limits due to suspect matrix effect.

WetChemistry by Method E300

Batch ID: R256662

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

ALS Group USA, Corp

Date: 24-Jun-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-2
 Collection Date: 18-Jun-2015 12:20

ANALYTICAL REPORT

WorkOrder:HS15060873
 Lab ID:HS15060873-01
 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	21-Jun-2015 13:10
Ethylbenzene	U		0.50	5.0	ug/L	1	21-Jun-2015 13:10
Toluene	U		0.50	5.0	ug/L	1	21-Jun-2015 13:10
Xylenes, Total	U		1.5	15	ug/L	1	21-Jun-2015 13:10
Surr: 1,2-Dichloroethane-d4	109			70-125	%REC	1	21-Jun-2015 13:10
Surr: 4-Bromofluorobenzene	96.3			72-125	%REC	1	21-Jun-2015 13:10
Surr: Dibromofluoromethane	110			71-125	%REC	1	21-Jun-2015 13:10
Surr: Toluene-d8	100.0			75-125	%REC	1	21-Jun-2015 13:10
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	89.4		2.00	5.00	mg/L	10	22-Jun-2015 20:38

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

ALS Group USA, Corp

Date: 24-Jun-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-4
 Collection Date: 18-Jun-2015 13:15

ANALYTICAL REPORT

WorkOrder:HS15060873
 Lab ID:HS15060873-02
 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	21-Jun-2015 14:44
Ethylbenzene	U		0.50	5.0	ug/L	1	21-Jun-2015 14:44
Toluene	U		0.50	5.0	ug/L	1	21-Jun-2015 14:44
Xylenes, Total	U		1.5	15	ug/L	1	21-Jun-2015 14:44
Surr: 1,2-Dichloroethane-d4	112			70-125	%REC	1	21-Jun-2015 14:44
Surr: 4-Bromofluorobenzene	95.7			72-125	%REC	1	21-Jun-2015 14:44
Surr: Dibromofluoromethane	113			71-125	%REC	1	21-Jun-2015 14:44
Surr: Toluene-d8	99.4			75-125	%REC	1	21-Jun-2015 14:44
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	750		8.00	20.0	mg/L	40	22-Jun-2015 21:00

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

ALS Group USA, Corp

Date: 24-Jun-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-5
 Collection Date: 18-Jun-2015 14:20

ANALYTICAL REPORT

WorkOrder:HS15060873
 Lab ID:HS15060873-03
 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	21-Jun-2015 15:08
Ethylbenzene	U		0.50	5.0	ug/L	1	21-Jun-2015 15:08
Toluene	U		0.50	5.0	ug/L	1	21-Jun-2015 15:08
Xylenes, Total	U		1.5	15	ug/L	1	21-Jun-2015 15:08
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	21-Jun-2015 15:08
Surr: 4-Bromofluorobenzene	94.5			72-125	%REC	1	21-Jun-2015 15:08
Surr: Dibromofluoromethane	111			71-125	%REC	1	21-Jun-2015 15:08
Surr: Toluene-d8	100			75-125	%REC	1	21-Jun-2015 15:08
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	108		2.00	5.00	mg/L	10	22-Jun-2015 21:21

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

ALS Group USA, Corp

Date: 24-Jun-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: Trip Blank
 Collection Date: 18-Jun-2015 00:00

ANALYTICAL REPORT

WorkOrder:HS15060873
 Lab ID:HS15060873-04
 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	21-Jun-2015 15:32
Ethylbenzene	U		0.50	5.0	ug/L	1	21-Jun-2015 15:32
Toluene	U		0.50	5.0	ug/L	1	21-Jun-2015 15:32
Xylenes, Total	U		1.5	15	ug/L	1	21-Jun-2015 15:32
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	21-Jun-2015 15:32
Surr: 4-Bromofluorobenzene	94.7			72-125	%REC	1	21-Jun-2015 15:32
Surr: Dibromofluoromethane	113			71-125	%REC	1	21-Jun-2015 15:32
Surr: Toluene-d8	100			75-125	%REC	1	21-Jun-2015 15:32

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

ALS Group USA, Corp

Date: 24-Jun-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15060873

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R256654	Test Name : VOLATILES - SW8260C			Matrix: Water		
HS15060873-01	MW-2	18 Jun 2015 12:20			21 Jun 2015 13:10	1
HS15060873-02	MW-4	18 Jun 2015 13:15			21 Jun 2015 14:44	1
HS15060873-03	MW-5	18 Jun 2015 14:20			21 Jun 2015 15:08	1
HS15060873-04	Trip Blank	18 Jun 2015 00:00			21 Jun 2015 15:32	1
Batch ID R256662	Test Name : ANIONS BY E300.0			Matrix: Water		
HS15060873-01	MW-2	18 Jun 2015 12:20			22 Jun 2015 20:38	10
HS15060873-02	MW-4	18 Jun 2015 13:15			22 Jun 2015 21:00	40
HS15060873-03	MW-5	18 Jun 2015 14:20			22 Jun 2015 21:21	10

ALS Group USA, Corp

Date: 24-Jun-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15060873

QC BATCH REPORT

Batch ID: R256654		Instrument: VOA7		Method: SW8260					
MBLK	Sample ID: VBLKW-150621	Units: ug/L		Analysis Date: 21-Jun-2015 12:46					
Client ID:	Run ID: VOA7_256654	SeqNo: 3329331		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	56.07	0	50	0	112	70 - 125			
Surr: 4-Bromofluorobenzene	47.51	0	50	0	95.0	72 - 125			
Surr: Dibromofluoromethane	54.88	0	50	0	110	71 - 125			
Surr: Toluene-d8	49.97	0	50	0	99.9	75 - 125			

LCS	Sample ID: VLCSW-150621	Units: ug/L		Analysis Date: 21-Jun-2015 11:12					
Client ID:	Run ID: VOA7_256654	SeqNo: 3329330		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	52.83	5.0	50	0	106	73 - 121			
Ethylbenzene	51.49	5.0	50	0	103	80 - 120			
Toluene	50.68	5.0	50	0	101	80 - 120			
Xylenes, Total	156.3	15	150	0	104	80 - 120			
Surr: 1,2-Dichloroethane-d4	56.83	0	50	0	114	70 - 125			
Surr: 4-Bromofluorobenzene	51.45	0	50	0	103	72 - 125			
Surr: Dibromofluoromethane	53.64	0	50	0	107	71 - 125			
Surr: Toluene-d8	49.16	0	50	0	98.3	75 - 125			

MS	Sample ID: HS15060873-01MS	Units: ug/L		Analysis Date: 21-Jun-2015 13:34					
Client ID: MW-2	Run ID: VOA7_256654	SeqNo: 3329333		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	97.79	5.0	50	0	196	73 - 121			S
Ethylbenzene	91.66	5.0	50	0	183	80 - 120			S
Toluene	92.55	5.0	50	0	185	80 - 120			S
Xylenes, Total	281.3	15	150	0	188	80 - 120			S
Surr: 1,2-Dichloroethane-d4	58.11	0	50	0	116	70 - 125			
Surr: 4-Bromofluorobenzene	51.13	0	50	0	102	72 - 125			
Surr: Dibromofluoromethane	56.75	0	50	0	113	71 - 125			
Surr: Toluene-d8	48.92	0	50	0	97.8	75 - 125			

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

ALS Group USA, Corp

Date: 24-Jun-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 WorkOrder: HS15060873

QC BATCH REPORT

Batch ID: R256654		Instrument: VOA7		Method: SW8260						
MSD		Sample ID: HS15060873-01MSD		Units: ug/L		Analysis Date: 21-Jun-2015 13:57				
Client ID: MW-2		Run ID: VOA7_256654		SeqNo: 3329334		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	107.4	5.0	50	0	215	73 - 121	97.79	9.36	20	S
Ethylbenzene	102.5	5.0	50	0	205	80 - 120	91.66	11.2	20	S
Toluene	101.8	5.0	50	0	204	80 - 120	92.55	9.57	20	S
Xylenes, Total	312.2	15	150	0	208	78 - 121	281.3	10.4	20	S
Surr: 1,2-Dichloroethane-d4	59.14	0	50	0	118	70 - 125	58.11	1.76	20	
Surr: 4-Bromofluorobenzene	51.62	0	50	0	103	72 - 125	51.13	0.959	20	
Surr: Dibromofluoromethane	56.68	0	50	0	113	71 - 125	56.75	0.121	20	
Surr: Toluene-d8	49.17	0	50	0	98.3	75 - 125	48.92	0.492	20	
The following samples were analyzed in this batch:										
HS15060873-01		HS15060873-02		HS15060873-03		HS15060873-04				

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

ALS Group USA, Corp

Date: 24-Jun-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15060873

QC BATCH REPORT

Batch ID: R256662		Instrument: ICS3K2		Method: E300						
MBLK	Sample ID: WBLKW2-062215	Units: mg/L		Analysis Date: 22-Jun-2015 13:47						
Client ID:	Run ID: ICS3K2_256662	SeqNo: 3329599		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: WLCSW2-062215	Units: mg/L		Analysis Date: 22-Jun-2015 14:08						
Client ID:	Run ID: ICS3K2_256662	SeqNo: 3329600		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.97	0.500	20	0	105	90 - 110				
LCSD	Sample ID: WLCSDW2-062215	Units: mg/L		Analysis Date: 22-Jun-2015 14:30						
Client ID:	Run ID: ICS3K2_256662	SeqNo: 3329601		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.01	0.500	20	0	105	90 - 110	20.97	0.172	20	
MS	Sample ID: HS15060875-03MS	Units: mg/L		Analysis Date: 22-Jun-2015 22:48						
Client ID:	Run ID: ICS3K2_256662	SeqNo: 3329620		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	61.9	0.500	10	52.38	95.1	80 - 120				O
MS	Sample ID: HS15060833-06MS	Units: mg/L		Analysis Date: 22-Jun-2015 17:44						
Client ID:	Run ID: ICS3K2_256662	SeqNo: 3329606		PrepDate:		DF: 20				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	569	10.0	200	351.8	109	80 - 120				
MSD	Sample ID: HS15060875-03MSD	Units: mg/L		Analysis Date: 22-Jun-2015 23:53						
Client ID:	Run ID: ICS3K2_256662	SeqNo: 3329623		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	62.39	0.500	10	52.38	100	80 - 120	61.9	0.789	20	O

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

ALS Group USA, Corp

Date: 24-Jun-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15060873

QC BATCH REPORT

Batch ID: R256662		Instrument: ICS3K2		Method: E300	
MSD	Sample ID: HS15060833-06MSD	Units: mg/L		Analysis Date: 22-Jun-2015 18:06	
Client ID:	Run ID: ICS3K2_256662		SeqNo: 3329607	PrepDate:	DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	569	10.0	200	351.8 109	80 - 120 569 0.00211 20
The following samples were analyzed in this batch:		HS15060873-01	HS15060873-02	HS15060873-03	

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

ALS Group USA, Corp

Date: 24-Jun-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15060873

**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

ALS Group USA, Corp

Date: 24-Jun-15

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	15-024-0	27-Mar-2016
California	2919	31-Jul-2016
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003622	09-May-2016
Kansas	E-10352 2014-2015	31-Jul-2015
Louisiana	03087 2014/2015	30-Jun-2015
North Carolina	624 - 2015	31-Dec-2015
Oklahoma	2014-128	31-Aug-2015
Texas	T104704231-15-15	30-Apr-2016

ALS Group USA, Corp

Date: 24-Jun-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS15060873

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS15060873-01	MW-2	Login	6/20/2015 12:38:57 PM	PMG	13B
HS15060873-01	MW-2	Login	6/20/2015 12:38:57 PM	PMG	VW-3
HS15060873-02	MW-4	Login	6/20/2015 12:38:57 PM	PMG	13B
HS15060873-02	MW-4	Login	6/20/2015 12:38:57 PM	PMG	VW-3
HS15060873-03	MW-5	Login	6/20/2015 12:38:57 PM	PMG	13B
HS15060873-03	MW-5	Login	6/20/2015 12:38:57 PM	PMG	VW-3
HS15060873-04	Trip Blank	Login	6/20/2015 12:42:13 PM	PMG	VW-3

ALS Group USA, Corp

Date: 24-Jun-15

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **20-Jun-2015 11:00**

Work Order: HS15060873

Received by: **PMG**Checklist completed by: Paresh M. Giga
eSignature20-Jun-2015
Date

Reviewed by:

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):

1.1c/1.4c U/C

IR4

Cooler(s)/Kit(s):

4974

Date/Time sample(s) sent to storage:

6/20/15 12:50

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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+1 425 356 2600Fort Collins, CO
+1 970 490 1511Holland, MI
+1 616 399 6070

Chain of Custody Form

Page ____ of ____

COC ID: 128225

HS15060873

Glenn Springs Holdings

55628DM (ENV749A10) GSHI PXP Hill E.C. ABC TB



Customer Information				ALS Project Manager:															
Purchase Order		Project Name		Project Number		Bill To Company		Invoice Attn		Address		City/State/Zip		Phone		Fax		e-Mail Address	
4501709538		GSHI PXP Hill, E.C. ABC TB		55628DM (ENV749A10)		Glenn Springs Holdings		Jennifer Devonshire		C/O CRA		West Chester, Ohio, 45069		(513) 942-4750				abown@craworld.com	
Work Order		Project Name		Project Number		Bill To Company		Invoice Attn		Address		City/State/Zip		Phone		Fax		e-Mail Address	
		GSHI PXP Hill, E.C. ABC TB		55628DM (ENV749A10)		Glenn Springs Holdings		Jennifer Devonshire		C/O CRA		West Chester, Ohio, 45069		(513) 942-4750				abown@craworld.com	
Company Name		Project Name		Project Number		Bill To Company		Invoice Attn		Address		City/State/Zip		Phone		Fax		e-Mail Address	
Glenn Springs Holdings		GSHI PXP Hill, E.C. ABC TB		55628DM (ENV749A10)		Glenn Springs Holdings		Jennifer Devonshire		C/O CRA		West Chester, Ohio, 45069		(513) 942-4750				abown@craworld.com	
Send Report To		Project Name		Project Number		Bill To Company		Invoice Attn		Address		City/State/Zip		Phone		Fax		e-Mail Address	
Angela Bown		GSHI PXP Hill, E.C. ABC TB		55628DM (ENV749A10)		Glenn Springs Holdings		Jennifer Devonshire		C/O CRA		West Chester, Ohio, 45069		(513) 942-4750				abown@craworld.com	
Address		Project Name		Project Number		Bill To Company		Invoice Attn		Address		City/State/Zip		Phone		Fax		e-Mail Address	
C/O CRA		GSHI PXP Hill, E.C. ABC TB		55628DM (ENV749A10)		Glenn Springs Holdings		Jennifer Devonshire		C/O CRA		West Chester, Ohio, 45069		(513) 942-4750				abown@craworld.com	
9033 Meridian Way		GSHI PXP Hill, E.C. ABC TB		55628DM (ENV749A10)		Glenn Springs Holdings		Jennifer Devonshire		C/O CRA		West Chester, Ohio, 45069		(513) 942-4750				abown@craworld.com	
City/State/Zip		Project Name		Project Number		Bill To Company		Invoice Attn		Address		City/State/Zip		Phone		Fax		e-Mail Address	
West Chester, Ohio, 45069		GSHI PXP Hill, E.C. ABC TB		55628DM (ENV749A10)		Glenn Springs Holdings		Jennifer Devonshire		C/O CRA		West Chester, Ohio, 45069		(513) 942-4750				abown@craworld.com	
Phone		Project Name		Project Number		Bill To Company		Invoice Attn		Address		City/State/Zip		Phone		Fax		e-Mail Address	
(513) 942-4750		GSHI PXP Hill, E.C. ABC TB		55628DM (ENV749A10)		Glenn Springs Holdings		Jennifer Devonshire		C/O CRA		West Chester, Ohio, 45069		(513) 942-4750				abown@craworld.com	
Fax		Project Name		Project Number		Bill To Company		Invoice Attn		Address		City/State/Zip		Phone		Fax		e-Mail Address	
		GSHI PXP Hill, E.C. ABC TB		55628DM (ENV749A10)		Glenn Springs Holdings		Jennifer Devonshire		C/O CRA		West Chester, Ohio, 45069		(513) 942-4750				abown@craworld.com	
e-Mail Address		Project Name		Project Number		Bill To Company		Invoice Attn		Address		City/State/Zip		Phone		Fax		e-Mail Address	
abown@craworld.com		GSHI PXP Hill, E.C. ABC TB		55628DM (ENV749A10)		Glenn Springs Holdings		Jennifer Devonshire		C/O CRA		West Chester, Ohio, 45069		(513) 942-4750				abown@craworld.com	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1			Water				X	X								
2	MW-2	6-18-15	1220	Water	1/18	4		X	X								
3	MW-3			Water	1/18			X	X								
4	MW-4	6-18-15	1315	Water	1/18	4		X	X								
5	MW-5	6-18-15	1420	Water	1/18	4		X	X								
6	Trip Blank	6-18-15	NA	Water	1/18	2		X									
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Matthew McDaniel		FedEx		☒ Std 10 WK days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour			
Relinquished by:		Date:	Time:	Received by:		Notes:	
Matthew McDaniel		6-19-15	1200	Matthew McDaniel		10 Day TAT	
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID	
				Matthew McDaniel		4974	
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		Cooler Temp.	
				Matthew McDaniel		11.0	
Preservative Key:		QC Package: (Check One Box Below)					
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 ☐ Level 3 Std QC/Row ca ☐ Level 4 SW46/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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 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken
	Date:	Time:	
	Name:		Date:
	Company:		

 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date:	Time:	
	Name:		Date:
	Company:		

4 of 4

MPS# 7808 5066 0553

Mstr# 8071 0710 5568

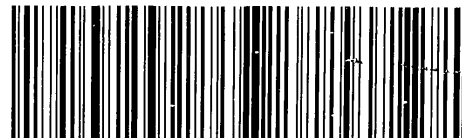
XO SGRA

SATURDAY 12:00P

PRIORITY OVERNIGHT

77099

TX-US IAH





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Houston, TX 77099
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September 21, 2015

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

Work Order: **HS15090472**

Laboratory Results for: **55628DM GSHI PXP Hill E.C. ABC TB**

Dear Angela,

ALS Environmental received 4 sample(s) on Sep 11, 2015 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

ALS Group USA, Corp

Date: 21-Sep-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS15090472

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS15090472-01	MW-2	Water		09-Sep-2015 12:30	11-Sep-2015 09:05	☐
HS15090472-02	MW-4	Water		09-Sep-2015 13:00	11-Sep-2015 09:05	☐
HS15090472-03	MW-5	Water		09-Sep-2015 13:30	11-Sep-2015 09:05	☐
HS15090472-04	TRIP BLANK 082815-05	Water		09-Sep-2015 00:00	11-Sep-2015 09:05	☐

ALS Group USA, Corp

Date: 21-Sep-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS15090472

CASE NARRATIVE

GCMS Volatiles by Method SW8260**Batch ID: R261167**

Sample ID: **HS15090419-01**
• MS and MSD are for an unrelated sample

WetChemistry by Method E300**Batch ID: R261289**

Sample ID: **HS15090585-01MS**
• MS and MSD are for an unrelated sample

Sample ID: **MW-2 (HS15090472-01MS)**
• The MS and/or MSD recovery was outside of the control; however, the result in the parent sample is greater than 4x the spike amount.

Batch ID: R261315

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

Analyst Names and Initials

KHT Kory H. Tate

PC Presenta Cabascango

ALS Group USA, Corp

Date: 21-Sep-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-2
 Collection Date: 09-Sep-2015 12:30

ANALYTICAL REPORT

WorkOrder:HS15090472
 Lab ID:HS15090472-01
 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	14-Sep-2015 21:11
Ethylbenzene	U		0.50	5.0	ug/L	1	14-Sep-2015 21:11
Toluene	U		0.50	5.0	ug/L	1	14-Sep-2015 21:11
Xylenes, Total	U		1.5	15	ug/L	1	14-Sep-2015 21:11
Surr: 1,2-Dichloroethane-d4	90.0			70-125	%REC	1	14-Sep-2015 21:11
Surr: 4-Bromofluorobenzene	95.5			72-125	%REC	1	14-Sep-2015 21:11
Surr: Dibromofluoromethane	97.8			71-125	%REC	1	14-Sep-2015 21:11
Surr: Toluene-d8	105			75-125	%REC	1	14-Sep-2015 21:11
ANIONS BY E300.0		Method:E300				Analyst: KHT	
Chloride	86.2		0.200	0.500	mg/L	1	16-Sep-2015 03:52

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

ALS Group USA, Corp

Date: 21-Sep-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-4
 Collection Date: 09-Sep-2015 13:00

ANALYTICAL REPORT

WorkOrder:HS15090472
 Lab ID:HS15090472-02
 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	14-Sep-2015 22:04
Ethylbenzene	U		0.50	5.0	ug/L	1	14-Sep-2015 22:04
Toluene	U		0.50	5.0	ug/L	1	14-Sep-2015 22:04
Xylenes, Total	U		1.5	15	ug/L	1	14-Sep-2015 22:04
Surr: 1,2-Dichloroethane-d4	89.2			70-125	%REC	1	14-Sep-2015 22:04
Surr: 4-Bromofluorobenzene	98.4			72-125	%REC	1	14-Sep-2015 22:04
Surr: Dibromofluoromethane	95.2			71-125	%REC	1	14-Sep-2015 22:04
Surr: Toluene-d8	109			75-125	%REC	1	14-Sep-2015 22:04
ANIONS BY E300.0		Method:E300				Analyst: KHT	
Chloride	683		4.00	10.0	mg/L	20	16-Sep-2015 05:34

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

ALS Group USA, Corp

Date: 21-Sep-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-5
 Collection Date: 09-Sep-2015 13:30

ANALYTICAL REPORT

WorkOrder:HS15090472
 Lab ID:HS15090472-03
 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	14-Sep-2015 22:57
Ethylbenzene	U		0.50	5.0	ug/L	1	14-Sep-2015 22:57
Toluene	U		0.50	5.0	ug/L	1	14-Sep-2015 22:57
Xylenes, Total	U		1.5	15	ug/L	1	14-Sep-2015 22:57
Surr: 1,2-Dichloroethane-d4	85.6			70-125	%REC	1	14-Sep-2015 22:57
Surr: 4-Bromofluorobenzene	95.1			72-125	%REC	1	14-Sep-2015 22:57
Surr: Dibromofluoromethane	94.8			71-125	%REC	1	14-Sep-2015 22:57
Surr: Toluene-d8	103			75-125	%REC	1	14-Sep-2015 22:57
ANIONS BY E300.0		Method:E300				Analyst: KHT	
Chloride	116		2.00	5.00	mg/L	10	16-Sep-2015 06:32

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

ALS Group USA, Corp

Date: 21-Sep-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: TRIP BLANK 082815-05
 Collection Date: 09-Sep-2015 00:00

ANALYTICAL REPORT

WorkOrder:HS15090472
 Lab ID:HS15090472-04
 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	14-Sep-2015 23:23
Ethylbenzene	U		0.50	5.0	ug/L	1	14-Sep-2015 23:23
Toluene	U		0.50	5.0	ug/L	1	14-Sep-2015 23:23
Xylenes, Total	U		1.5	15	ug/L	1	14-Sep-2015 23:23
Surr: 1,2-Dichloroethane-d4	85.4			70-125	%REC	1	14-Sep-2015 23:23
Surr: 4-Bromofluorobenzene	91.0			72-125	%REC	1	14-Sep-2015 23:23
Surr: Dibromofluoromethane	91.7			71-125	%REC	1	14-Sep-2015 23:23
Surr: Toluene-d8	102			75-125	%REC	1	14-Sep-2015 23:23

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

ALS Group USA, Corp

Date: 21-Sep-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15090472

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R261167	Test Name : VOLATILES - SW8260C			Matrix: Water		
HS15090472-01	MW-2	09 Sep 2015 12:30			14 Sep 2015 21:11	1
HS15090472-02	MW-4	09 Sep 2015 13:00			14 Sep 2015 22:04	1
HS15090472-03	MW-5	09 Sep 2015 13:30			14 Sep 2015 22:57	1
HS15090472-04	TRIP BLANK 082815-05	09 Sep 2015 00:00			14 Sep 2015 23:23	1
Batch ID R261289	Test Name : ANIONS BY E300.0			Matrix: Water		
HS15090472-01	MW-2	09 Sep 2015 12:30			16 Sep 2015 03:52	1
Batch ID R261315	Test Name : ANIONS BY E300.0			Matrix: Water		
HS15090472-02	MW-4	09 Sep 2015 13:00			16 Sep 2015 05:34	20
HS15090472-03	MW-5	09 Sep 2015 13:30			16 Sep 2015 06:32	10

ALS Group USA, Corp

Date: 21-Sep-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15090472

QC BATCH REPORT

Batch ID: R261167		Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-150914	Units: ug/L		Analysis Date: 14-Sep-2015 13:12					
Client ID:	Run ID: VOA1_261167	SeqNo: 3421979		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	42.76	0	50	0	85.5	70 - 125			
Surr: 4-Bromofluorobenzene	47.38	0	50	0	94.8	72 - 125			
Surr: Dibromofluoromethane	49.28	0	50	0	98.6	71 - 125			
Surr: Toluene-d8	48.32	0	50	0	96.6	75 - 125			

LCS	Sample ID: VLCSW-150914	Units: ug/L		Analysis Date: 14-Sep-2015 12:19					
Client ID:	Run ID: VOA1_261167	SeqNo: 3421978		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	43.31	5.0	50	0	86.6	80 - 120			
Toluene	41.82	5.0	50	0	83.6	80 - 120			
Xylenes, Total	126.5	15	150	0	84.4	80 - 120			
Surr: 1,2-Dichloroethane-d4	44.64	0	50	0	89.3	70 - 125			
Surr: 4-Bromofluorobenzene	48.11	0	50	0	96.2	72 - 125			
Surr: Dibromofluoromethane	46.49	0	50	0	93.0	71 - 125			
Surr: Toluene-d8	48.56	0	50	0	97.1	75 - 125			

MS	Sample ID: HS15090419-01MS	Units: ug/L		Analysis Date: 14-Sep-2015 15:24					
Client ID:	Run ID: VOA1_261167	SeqNo: 3421981		PrepDate:		DF: 50			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	5280	250	2500	2054	129	73 - 121			S
Ethylbenzene	2726	250	2500	369.3	94.3	80 - 120			
Toluene	2819	250	2500	374.4	97.8	80 - 120			
Xylenes, Total	8386	750	7500	1316	94.3	80 - 120			
Surr: 1,2-Dichloroethane-d4	2322	0	2500	0	92.9	70 - 125			
Surr: 4-Bromofluorobenzene	2257	0	2500	0	90.3	72 - 125			
Surr: Dibromofluoromethane	2460	0	2500	0	98.4	71 - 125			
Surr: Toluene-d8	2662	0	2500	0	106	75 - 125			

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

ALS Group USA, Corp

Date: 21-Sep-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15090472

QC BATCH REPORT

Batch ID: R261167		Instrument: VOA1		Method: SW8260						
MSD		Sample ID: HS15090419-01MSD		Units: ug/L		Analysis Date: 14-Sep-2015 15:51				
Client ID:		Run ID: VOA1_261167		SeqNo: 3421982		PrepDate:		DF: 50		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	5290	250	2500	2054	129	73 - 121	5280	0.178	20	S
Ethylbenzene	2710	250	2500	369.3	93.6	80 - 120	2726	0.595	20	
Toluene	2750	250	2500	374.4	95.0	80 - 120	2819	2.48	20	
Xylenes, Total	8204	750	7500	1316	91.8	78 - 121	8386	2.2	20	
Surr: 1,2-Dichloroethane-d4	2399	0	2500	0	96.0	70 - 125	2322	3.29	20	
Surr: 4-Bromofluorobenzene	2252	0	2500	0	90.1	72 - 125	2257	0.191	20	
Surr: Dibromofluoromethane	2506	0	2500	0	100	71 - 125	2460	1.84	20	
Surr: Toluene-d8	2517	0	2500	0	101	75 - 125	2662	5.61	20	
The following samples were analyzed in this batch:										
HS15090472-01		HS15090472-02		HS15090472-03		HS15090472-04				

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

ALS Group USA, Corp

Date: 21-Sep-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15090472

QC BATCH REPORT

Batch ID: R261289		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW1-091515	Units: mg/L		Analysis Date: 15-Sep-2015 11:53						
Client ID:	Run ID: ICS2100_261289	SeqNo: 3424383		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: WLCSW1-091515	Units: mg/L		Analysis Date: 15-Sep-2015 12:07						
Client ID:	Run ID: ICS2100_261289	SeqNo: 3424384		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.89	0.500	20	0	99.4	90 - 110				
LCSD	Sample ID: WLCSDW1-091515	Units: mg/L		Analysis Date: 15-Sep-2015 12:22						
Client ID:	Run ID: ICS2100_261289	SeqNo: 3424385		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.48	0.500	20	0	97.4	90 - 110	19.89	2.09	20	
MS	Sample ID: HS15090585-01MS	Units: mg/L		Analysis Date: 15-Sep-2015 15:52						
Client ID:	Run ID: ICS2100_261289	SeqNo: 3424395		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	102.6	0.500	10	94.66	79.4	80 - 120				SEO
MS	Sample ID: HS15090525-01MS	Units: mg/L		Analysis Date: 15-Sep-2015 20:35						
Client ID:	Run ID: ICS2100_261289	SeqNo: 3424403		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	11.77	0.500	10	1.48	103	80 - 120				
MS	Sample ID: HS15090472-01MS	Units: mg/L		Analysis Date: 16-Sep-2015 04:06						
Client ID: MW-2	Run ID: ICS2100_261289	SeqNo: 3424434		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	93.31	0.500	10	86.21	71.0	80 - 120				SO

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

ALS Group USA, Corp

Date: 21-Sep-15

Client: Glenn Springs Holdings
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 WorkOrder: HS15090472

QC BATCH REPORT

Batch ID: R261289		Instrument: ICS2100		Method: E300							
MSD		Sample ID: HS15090585-01MSD		Units: mg/L		Analysis Date: 15-Sep-2015 16:07					
Client ID:		Run ID: ICS2100_261289		SeqNo: 3424396		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	103.8	0.500	10	94.66	91.2	80 - 120	102.6	1.14	20	EO	
MSD		Sample ID: HS15090525-01MSD		Units: mg/L		Analysis Date: 15-Sep-2015 20:50					
Client ID:		Run ID: ICS2100_261289		SeqNo: 3424404		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	11.99	0.500	10	1.48	105	80 - 120	11.77	1.87	20		
MSD		Sample ID: HS15090472-01MSD		Units: mg/L		Analysis Date: 16-Sep-2015 04:21					
Client ID: MW-2		Run ID: ICS2100_261289		SeqNo: 3424435		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	94.57	0.500	10	86.21	83.6	80 - 120	93.31	1.34	20	O	
The following samples were analyzed in this batch: HS15090472-01											

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

ALS Group USA, Corp

Date: 21-Sep-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15090472

QC BATCH REPORT

Batch ID: R261315		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW2-091515	Units: mg/L		Analysis Date: 16-Sep-2015 04:50						
Client ID:	Run ID: ICS2100_261315	SeqNo: 3425109		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: WLCSW2-091515	Units: mg/L		Analysis Date: 16-Sep-2015 05:04						
Client ID:	Run ID: ICS2100_261315	SeqNo: 3425110		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.62	0.500	20	0	98.1	90 - 110				
LCSD	Sample ID: WLCSDW2-091515	Units: mg/L		Analysis Date: 16-Sep-2015 05:19						
Client ID:	Run ID: ICS2100_261315	SeqNo: 3425111		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.37	0.500	20	0	96.8	90 - 110	19.62	1.33	20	
MS	Sample ID: HS15090540-08MS	Units: mg/L		Analysis Date: 16-Sep-2015 18:28						
Client ID:	Run ID: ICS2100_261315	SeqNo: 3425157		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	29.06	0.500	10	18.72	103	80 - 120				
MS	Sample ID: HS15090540-01MS	Units: mg/L		Analysis Date: 16-Sep-2015 11:23						
Client ID:	Run ID: ICS2100_261315	SeqNo: 3425136		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	15.17	0.500	10	4.769	104	80 - 120				
MS	Sample ID: HS15090473-04MS	Units: mg/L		Analysis Date: 16-Sep-2015 07:30						
Client ID:	Run ID: ICS2100_261315	SeqNo: 3425120		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	156.6	0.500	10	148.2	83.3	80 - 120				EO

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

ALS Group USA, Corp

Date: 21-Sep-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15090472

QC BATCH REPORT

Batch ID: R261315		Instrument: ICS2100		Method: E300						
MSD	Sample ID: HS15090540-08MSD	Units: mg/L		Analysis Date: 16-Sep-2015 18:42						
Client ID:	Run ID: ICS2100_261315	SeqNo: 3425158		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	29.34	0.500	10	18.72	106	80 - 120	29.06	0.959	20	
MSD	Sample ID: HS15090540-01MSD	Units: mg/L		Analysis Date: 16-Sep-2015 12:06						
Client ID:	Run ID: ICS2100_261315	SeqNo: 3425139		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	15.61	0.500	10	4.769	108	80 - 120	15.17	2.9	20	
MSD	Sample ID: HS15090473-04MSD	Units: mg/L		Analysis Date: 16-Sep-2015 07:44						
Client ID:	Run ID: ICS2100_261315	SeqNo: 3425121		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	156.5	0.500	10	148.2	83.0	80 - 120	156.6	0.016	20	EO
The following samples were analyzed in this batch:										
			HS15090472-02 HS15090472-03							

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

ALS Group USA, Corp

Date: 21-Sep-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15090472

**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

ALS Group USA, Corp

Date: 21-Sep-15

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	15-024-0	27-Mar-2016
California	2919	31-Jul-2016
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003622	09-May-2016
Kansas	E-10352 2014-2015	30-Sep-2015
Kentucky	KY 2015-2016	30-Apr-2016
Louisiana	03087 2015/2016	30-Jun-2016
North Carolina	624 - 2015	31-Dec-2015
Oklahoma	2015-047	31-Aug-2016
Texas	T104704231-15-15	30-Apr-2016

ALS Group USA, Corp

Date: 21-Sep-15

Client: Glenn Springs Holdings
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS15090472

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS15090472-01	MW-2	Login	9/11/2015 1:21:45 PM	RPG	1C
HS15090472-01	MW-2	Login	9/11/2015 1:21:45 PM	RPG	VW-3
HS15090472-02	MW-4	Login	9/11/2015 1:21:45 PM	RPG	1C
HS15090472-02	MW-4	Login	9/11/2015 1:21:45 PM	RPG	VW-3
HS15090472-03	MW-5	Login	9/11/2015 1:21:45 PM	RPG	1C
HS15090472-03	MW-5	Login	9/11/2015 1:21:45 PM	RPG	VW-3
HS15090472-04	TRIP BLANK 082815-05	Login	9/11/2015 1:21:45 PM	RPG	VW-3

ALS Group USA, Corp

Date: 21-Sep-15

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **11-Sep-2015 09:05**

Work Order: HS15090472

Received by: **BHH**

Checklist completed by:	<u>Raegen Giga</u>	11-Sep-2015	Reviewed by:	<u>Dane J. Wacasey</u>	15-Sep-2015
	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 ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☒
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):	0.9c/0.8c uc/c	IR 1
Cooler(s)/Kit(s):	23576	
Date/Time sample(s) sent to storage:	09/11/2015 13:24	

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:	
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Corrective Action:	
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Chain of Custody Form

HS15090472

Page ____ of ____

COC ID: 131254

Glenn Springs Holdings

55628DM GSHI PXP Hill E.C. ABC TB



ALS Project Manager:

Customer Information		Project Information		ALS Project Manager:	
Purchase Order	4501709538	Project Name	GSHI PXP Hill, E.C. ABC TB	A	BTEX (8260)
Work Order		Project Number	55628DM (ENV749A10)	B	Chloride (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	abown@craworld.com	e-Mail Address	jdevonshire@craworld.com	I	
				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1	—	—	Water	—	—	X	X									
2	MW-2	9-9-15	1230	Water	1+8	4	X	X									
3	MW-3	—	—	Water	—	—	X	X									
4	MW-4	9-9-15	1300	Water	1+8	4	X	X									
5	MW-5	9-9-15	1330	Water	1+8	4	X	X									
6	Trip Blank			Water			X										
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign <i>Matthew McDaniel</i>		Shipment Method <i>Fedex</i>		Required Turnaround Time: (Check Box) ☒ Std 10 Wk Days ☐ Other		Results Due Date:		
Relinquished by: <i>MS McDaniel</i>	Date: 9-10-15	Time: 1415	Received by:	☒ Std 10 Wk Days	Notes:	☐ 3 Wk Days	☐ 2 Wk Days	☐ 24 Hour
Relinquished by:	Date:	Time:	Received by (Laboratory): <i>BH Cann</i>	<i>09/11/15 10:05</i>	Cooler ID: <i>23576</i>	Cooler Temp. <i>41C</i>	QC Package: (Check One Box Below)	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		<i>22#1</i>	<i>CF-0-1</i>	☒ Level 2 Std QC	☐ TRRP ChkList
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 3 Std QC/Row da	☐ TRRP Level 4
							☐ Level 4 SW846/CLP	
							☐ Other/ECG	

- 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.

Copyright 2011 by ALS Environmental.

23576

 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	Date: <u>9-7-20</u> Name: <u>Paul</u> Company: <u>724</u>		Seal Broken By: <u>1310</u> Date: <u>9/11/20</u>
	15:00 09/11 1310		

ORIGIN ID: MAFA (281) 530-5656 ALS ENVIRONMENTAL HOUSTON LAB 10450 STANCLIFF RD STE 210 HOUSTON, TX 770994338 UNITED STATES US		SHIP DATE: 10SEP15 ACTWGT: 26.2 LB CAD: 7POS1601 DIMS: 18x10x10 IN BILL SENDER
TO CLIENT SERVICES ALS LABORATORY GROUP 10450 STANCLIFF RD STE 210 HOUSTON TX 77099 (281) 530-5656 INU: PO: REF: DEPT:		
		FedEx Express 
2 of 4 7813 1083 2216 8079 4509 4835 SGRA 		FRI - 11 SEP AA STANDARD OVERNIGHT 77099 TX-US IAH



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www.alsglobal.com

November 09, 2015

Angela Bown
Glenn Springs Holdings, Inc.

PO Box 485
Addison, TX 75001

Work Order: **HS15110175**

Laboratory Results for: **55628DM GSHI PXP Hill E.C. ABC TB**

Dear Angela,

ALS Environmental received 3 sample(s) on Nov 04, 2015 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

ALS Group USA, Corp

Date: 09-Nov-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS15110175

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS15110175-01	MW-6	Water		29-Oct-2015 12:43	04-Nov-2015 09:00	☐
HS15110175-02	TMW-7	Water		29-Oct-2015 13:35	04-Nov-2015 09:00	☐
HS15110175-03	Trip Blank	Water		29-Oct-2015 00:00	04-Nov-2015 09:00	☐

ALS Group USA, Corp

Date: 09-Nov-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS15110175

CASE NARRATIVE

GCMS Volatiles by Method SW8260

Batch ID: R264448

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

Batch ID: R264310

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

WetChemistry by Method E300

Batch ID: R264295

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

Analyst Initials and Names

PC Presenta Cabascango
JBA Johnnie B. Allen

ALS Group USA, Corp

Date: 09-Nov-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-6
 Collection Date: 29-Oct-2015 12:43

ANALYTICAL REPORT

WorkOrder:HS15110175
 Lab ID:HS15110175-01
 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	07-Nov-2015 02:39
Ethylbenzene	U		0.50	5.0	ug/L	1	07-Nov-2015 02:39
Toluene	U		0.50	5.0	ug/L	1	07-Nov-2015 02:39
Xylenes, Total	U		1.5	15	ug/L	1	07-Nov-2015 02:39
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	07-Nov-2015 02:39
Surr: 4-Bromofluorobenzene	89.0			72-125	%REC	1	07-Nov-2015 02:39
Surr: Dibromofluoromethane	101			71-125	%REC	1	07-Nov-2015 02:39
Surr: Toluene-d8	94.6			75-125	%REC	1	07-Nov-2015 02:39
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	617		4.00	10.0	mg/L	20	04-Nov-2015 21:48

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

ALS Group USA, Corp

Date: 09-Nov-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: TMW-7
 Collection Date: 29-Oct-2015 13:35

ANALYTICAL REPORT

WorkOrder:HS15110175
 Lab ID:HS15110175-02
 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	07-Nov-2015 03:03
Ethylbenzene	U		0.50	5.0	ug/L	1	07-Nov-2015 03:03
Toluene	U		0.50	5.0	ug/L	1	07-Nov-2015 03:03
Xylenes, Total	U		1.5	15	ug/L	1	07-Nov-2015 03:03
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	1	07-Nov-2015 03:03
Surr: 4-Bromofluorobenzene	92.0			72-125	%REC	1	07-Nov-2015 03:03
Surr: Dibromofluoromethane	104			71-125	%REC	1	07-Nov-2015 03:03
Surr: Toluene-d8	99.6			75-125	%REC	1	07-Nov-2015 03:03
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	102		2.00	5.00	mg/L	10	04-Nov-2015 22:02

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

ALS Group USA, Corp

Date: 09-Nov-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: Trip Blank
 Collection Date: 29-Oct-2015 00:00

ANALYTICAL REPORT

WorkOrder:HS15110175
 Lab ID:HS15110175-03
 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	05-Nov-2015 23:08
Ethylbenzene	U		0.50	5.0	ug/L	1	05-Nov-2015 23:08
Toluene	U		0.50	5.0	ug/L	1	05-Nov-2015 23:08
Xylenes, Total	U		1.5	15	ug/L	1	05-Nov-2015 23:08
Surr: 1,2-Dichloroethane-d4	99.3			70-125	%REC	1	05-Nov-2015 23:08
Surr: 4-Bromofluorobenzene	97.5			72-125	%REC	1	05-Nov-2015 23:08
Surr: Dibromofluoromethane	98.0			71-125	%REC	1	05-Nov-2015 23:08
Surr: Toluene-d8	98.3			75-125	%REC	1	05-Nov-2015 23:08

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

ALS Group USA, Corp

Date: 09-Nov-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15110175

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R264295	Test Name : ANIONS BY E300.0		Matrix: Water			
HS15110175-01	MW-6	29 Oct 2015 12:43			04 Nov 2015 21:48	20
HS15110175-02	TMW-7	29 Oct 2015 13:35			04 Nov 2015 22:02	10
Batch ID R264310	Test Name : VOLATILES - SW8260C		Matrix: Water			
HS15110175-03	Trip Blank	29 Oct 2015 00:00			05 Nov 2015 23:08	1
Batch ID R264448	Test Name : VOLATILES - SW8260C		Matrix: Water			
HS15110175-01	MW-6	29 Oct 2015 12:43			07 Nov 2015 02:39	1
HS15110175-02	TMW-7	29 Oct 2015 13:35			07 Nov 2015 03:03	1

ALS Group USA, Corp

Date: 09-Nov-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15110175

QC BATCH REPORT

Batch ID: R264310		Instrument: VOA1		Method: SW8260						
MBLK	Sample ID: VBLKW-151105	Units: ug/L			Analysis Date: 05-Nov-2015 13:02					
Client ID:	Run ID: VOA1_264310	SeqNo: 3485115		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	50.37	0	50	0	101	70 - 125				
Surr: 4-Bromofluorobenzene	49.09	0	50	0	98.2	72 - 125				
Surr: Dibromofluoromethane	51	0	50	0	102	71 - 125				
Surr: Toluene-d8	50.23	0	50	0	100	75 - 125				

LCS	Sample ID: VLCSW-151105			Units: ug/L		Analysis Date: 05-Nov-2015 12:09			
Client ID:	Run ID: VOA1_264310			SeqNo: 3484970		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	48.34	5.0	50	0	96.7	73 - 121				
Ethylbenzene	46.28	5.0	50	0	92.6	80 - 120				
Toluene	44.7	5.0	50	0	89.4	80 - 120				
Xylenes, Total	140.1	15	150	0	93.4	80 - 120				
Surr: 1,2-Dichloroethane-d4	49.12	0	50	0	98.2	70 - 125				
Surr: 4-Bromofluorobenzene	48.8	0	50	0	97.6	72 - 125				
Surr: Dibromofluoromethane	48.09	0	50	0	96.2	71 - 125				
Surr: Toluene-d8	47.83	0	50	0	95.7	75 - 125				

MS										
Sample ID:		HS15110191-01MS			Units: ug/L		Analysis Date: 05-Nov-2015 15:13			
Client ID:		Run ID:		VOA1_264310		SeqNo: 3485449		PrepDate:		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Benzene	4778	500	5000	0	95.6	73 - 121				
Ethylbenzene	4353	500	5000	0	87.1	80 - 120				
Toluene	4375	500	5000	0	87.5	80 - 120				
Xylenes, Total	14000	1500	15000	0	93.3	80 - 120				
Surr: 1,2-Dichloroethane-d4	4907	0	5000	0	98.1	70 - 125				
Surr: 4-Bromofluorobenzene	4840	0	5000	0	96.8	72 - 125				
Surr: Dibromofluoromethane	5041	0	5000	0	101	71 - 125				
Surr: Toluene-d8	4866	0	5000	0	97.3	75 - 125				

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

ALS Group USA, Corp

Date: 09-Nov-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 WorkOrder: HS15110175

QC BATCH REPORT

Batch ID: R264310		Instrument: VOA1		Method: SW8260						
MSD		Sample ID: HS15110191-01MSD		Units: ug/L		Analysis Date: 05-Nov-2015 15:40				
Client ID:		Run ID: VOA1_264310		SeqNo: 3485450		PrepDate:		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	4836	500	5000	0	96.7	73 - 121	4778	1.2	20	
Ethylbenzene	4491	500	5000	0	89.8	80 - 120	4353	3.13	20	
Toluene	4334	500	5000	0	86.7	80 - 120	4375	0.942	20	
Xylenes, Total	13430	1500	15000	0	89.6	78 - 121	14000	4.1	20	
Surr: 1,2-Dichloroethane-d4	4972	0	5000	0	99.4	70 - 125	4907	1.32	20	
Surr: 4-Bromofluorobenzene	4841	0	5000	0	96.8	72 - 125	4840	0.0176	20	
Surr: Dibromofluoromethane	4920	0	5000	0	98.4	71 - 125	5041	2.42	20	
Surr: Toluene-d8	4844	0	5000	0	96.9	75 - 125	4866	0.466	20	

The following samples were analyzed in this batch: HS15110175-03

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

ALS Group USA, Corp

Date: 09-Nov-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15110175

QC BATCH REPORT

Batch ID: R264448		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-151105	Units: ug/L		Analysis Date: 06-Nov-2015 19:49					
Client ID:	Run ID: VOA6_264448		SeqNo: 3487765		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	50.49	0	50	0	101	70 - 125			
Surr: 4-Bromofluorobenzene	45.87	0	50	0	91.7	72 - 125			
Surr: Dibromofluoromethane	49.2	0	50	0	98.4	71 - 125			
Surr: Toluene-d8	48.51	0	50	0	97.0	75 - 125			

LCS	Sample ID: VLCSW-151106	Units: ug/L		Analysis Date: 06-Nov-2015 18:36					
Client ID:	Run ID: VOA6_264448		SeqNo: 3487764		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	47.09	5.0	50	0	94.2	73 - 121			
Ethylbenzene	45.22	5.0	50	0	90.4	80 - 120			
Toluene	46.14	5.0	50	0	92.3	80 - 120			
Xylenes, Total	136.7	15	150	0	91.2	80 - 120			
Surr: 1,2-Dichloroethane-d4	47.82	0	50	0	95.6	70 - 125			
Surr: 4-Bromofluorobenzene	47.95	0	50	0	95.9	72 - 125			
Surr: Dibromofluoromethane	46.15	0	50	0	92.3	71 - 125			
Surr: Toluene-d8	46.62	0	50	0	93.2	75 - 125			

MS	Sample ID: HS15110235-01MS	Units: ug/L		Analysis Date: 06-Nov-2015 20:37					
Client ID:	Run ID: VOA6_264448		SeqNo: 3487767		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	50.67	5.0	50	5.462	90.4	73 - 121			
Ethylbenzene	43.1	5.0	50	0	86.2	80 - 120			
Toluene	43.79	5.0	50	0.4576	86.7	80 - 120			
Xylenes, Total	130.3	15	150	1.198	86.1	80 - 120			
Surr: 1,2-Dichloroethane-d4	48.12	0	50	0	96.2	70 - 125			
Surr: 4-Bromofluorobenzene	47.6	0	50	0	95.2	72 - 125			
Surr: Dibromofluoromethane	46.81	0	50	0	93.6	71 - 125			
Surr: Toluene-d8	45.55	0	50	0	91.1	75 - 125			

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

ALS Group USA, Corp

Date: 09-Nov-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15110175

QC BATCH REPORT

Batch ID: R264448		Instrument: VOA6		Method: SW8260						
MSD		Sample ID: HS15110235-01MSD		Units: ug/L		Analysis Date: 06-Nov-2015 21:01				
Client ID:		Run ID: VOA6_264448		SeqNo: 3487768		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	50.8	5.0	50	5.462	90.7	73 - 121	50.67	0.245	20	
Ethylbenzene	43.81	5.0	50	0	87.6	80 - 120	43.1	1.65	20	
Toluene	44.7	5.0	50	0.4576	88.5	80 - 120	43.79	2.07	20	
Xylenes, Total	133.2	15	150	1.198	88.0	78 - 121	130.3	2.21	20	
Surr: 1,2-Dichloroethane-d4	48.35	0	50	0	96.7	70 - 125	48.12	0.482	20	
Surr: 4-Bromofluorobenzene	48.97	0	50	0	97.9	72 - 125	47.6	2.83	20	
Surr: Dibromofluoromethane	47.23	0	50	0	94.5	71 - 125	46.81	0.877	20	
Surr: Toluene-d8	47.32	0	50	0	94.6	75 - 125	45.55	3.81	20	
The following samples were analyzed in this batch:										
			HS15110175-01		HS15110175-02					

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

ALS Group USA, Corp

Date: 09-Nov-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15110175

QC BATCH REPORT

Batch ID: R264295		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW1-110415	Units: mg/L		Analysis Date: 04-Nov-2015 11:28						
Client ID:	Run ID: ICS2100_264295	SeqNo: 3484661		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: WLCSW1-110415	Units: mg/L		Analysis Date: 04-Nov-2015 11:43						
Client ID:	Run ID: ICS2100_264295	SeqNo: 3484662		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.35	0.500	20	0	96.8	90 - 110				
LCSD	Sample ID: WLCSDW1-110415	Units: mg/L		Analysis Date: 04-Nov-2015 11:57						
Client ID:	Run ID: ICS2100_264295	SeqNo: 3484663		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.65	0.500	20	0	98.3	90 - 110	19.35	1.53	20	
MS	Sample ID: HS15110171-06MS	Units: mg/L		Analysis Date: 04-Nov-2015 21:19						
Client ID:	Run ID: ICS2100_264295	SeqNo: 3484686		PrepDate:		DF: 50				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1507	25.0	500	999.7	101	80 - 120				
MS	Sample ID: HS15110076-01MS	Units: mg/L		Analysis Date: 04-Nov-2015 13:53						
Client ID:	Run ID: ICS2100_264295	SeqNo: 3484665		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.19	0.500	10	10.29	99.0	80 - 120				
MSD	Sample ID: HS15110171-06MSD	Units: mg/L		Analysis Date: 04-Nov-2015 21:33						
Client ID:	Run ID: ICS2100_264295	SeqNo: 3484687		PrepDate:		DF: 50				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1490	25.0	500	999.7	98.0	80 - 120	1507	1.12	20	

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

ALS Group USA, Corp

Date: 09-Nov-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15110175

QC BATCH REPORT

Batch ID: R264295		Instrument: ICS2100		Method: E300	
MSD	Sample ID: HS15110076-01MSD	Units: mg/L		Analysis Date: 04-Nov-2015 14:08	
Client ID:	Run ID: ICS2100_264295	SeqNo: 3484666		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	20.46	0.500	10	10.29 102	80 - 120 20.19 1.32 20

The following samples were analyzed in this batch: HS15110175-01 HS15110175-02

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

ALS Group USA, Corp

Date: 09-Nov-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15110175

**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

ALS Group USA, Corp

Date: 09-Nov-15

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	15-024-0	27-Mar-2016
California	2919	31-Jul-2016
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003622	09-May-2016
Kansas	E-10352 2014-2015	30-Nov-2015
Kentucky	KY 2015-2016	30-Apr-2016
Louisiana	03087 2015/2016	30-Jun-2016
North Carolina	624 - 2015	31-Dec-2015
North Dakota	R-193 2015-2016	30-Apr-2016
Oklahoma	2015-047	31-Aug-2016
Texas	T104704231-15-15	30-Apr-2016

ALS Group USA, Corp

Date: 09-Nov-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS15110175

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS15110175-01	MW-6	Login	11/4/2015 7:12:31 PM	PMG	2A
HS15110175-01	MW-6	Login	11/4/2015 7:12:31 PM	PMG	VW-3
HS15110175-02	TMW-7	Login	11/4/2015 7:12:31 PM	PMG	2A
HS15110175-02	TMW-7	Login	11/4/2015 7:12:31 PM	PMG	VW-3
HS15110175-03	Trip Blank	Login	11/4/2015 7:12:31 PM	PMG	VW-3

ALS Group USA, Corp

Date: 09-Nov-15

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **04-Nov-2015 09:00**

Work Order: HS15110175

Received by: **BHH**Checklist completed by: Paresh M. Giga
eSignature4-Nov-2015
DateReviewed by: Dane J. Wacasey
eSignature5-Nov-2015
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 ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☒
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):

4.5c/4.8c U/C

IR4

Cooler(s)/Kit(s):

2626

Date/Time sample(s) sent to storage:

11/4/15 19:20

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:

HS15110175



Environmental

Everett, WA
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+1 616 399 6070

Page 1 of 1

COC ID: 13025

ALS Project Manager:

Glenn Springs Holdings, Inc.
55628DM GSHI PXP Hill E.C. ABC TB

Customer Information				Project Information																
Purchase Order	4501709538			Project Name	GSHI PXP Hill, E.C. ABC TB			A	BTEX (8260)											
Work Order				Project Number	55628DM (ENV749A10)			B	Chloride (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 GHD			Address	C/O GHD			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	angela.bown@ghd.com			e-Mail Address	jennifer.devonshire@ghd.com			J												

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-6	10-29-15	12:43	Water	1.8	4	X	X									
2	MW-TMW-7	10-29-15	13:35	Water	1.8	4	X	X									
3	Trip Blank			Water			X										
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign				Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:			
<i>Angela Bown</i>				FedEx		☒ Std-10 WK days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour							
Relinquished by:		Date:	Time:	Received by:		Notes:							
<i>Angela Bown</i>		11/3/15	16:30	<i>B/H</i>		11/4/15 09:00							
Relinquished by:		Date:	Time:	Received by (Laboratory):		10 Day TAT							
						Cooler ID: 2626 Cooler Temp: 4.5°C							
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		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							

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 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.
 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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Customer Seal
DATE 11/4/2015
SIGNATURE [Signature]

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
263794

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TRK# 8033 8132 3399
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WED - 04 NOV 10:30A
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AB SGRA

RT 917
FZ B03
1 10:30 A
339c 11
16/3108



10450 Stancliff Rd. Suite 210
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December 29, 2015

Angela Bown
Glenn Springs Holdings, Inc.

PO Box 485
Addison, TX 75001

Work Order: **HS15120863**

Laboratory Results for: **55628DM GSHI PXP Hill E.C. ABC TB**

Dear Angela,

ALS Environmental received 6 sample(s) on Dec 19, 2015 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: Jumoke.Lawal
Dane J. Wacasey

ALS Group USA, Corp

Date: 29-Dec-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS15120863

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS15120863-01	MW-2	Water		18-Dec-2015 12:15	19-Dec-2015 10:00	☐
HS15120863-02	MW-4	Water		18-Dec-2015 11:40	19-Dec-2015 10:00	☐
HS15120863-03	MW-5	Water		18-Dec-2015 11:50	19-Dec-2015 10:00	☐
HS15120863-04	MW-6	Water		18-Dec-2015 11:25	19-Dec-2015 10:00	☐
HS15120863-05	TMW-7	Water		18-Dec-2015 12:30	19-Dec-2015 10:00	☐
HS15120863-06	Trip Blank-112015-25	Water		18-Dec-2015 00:00	19-Dec-2015 10:00	☐

ALS Group USA, Corp

Date: 29-Dec-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS15120863

CASE NARRATIVE

GCMS Volatiles by Method SW8260

Batch ID: R266847

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

WetChemistry by Method E300

Batch ID: R266950

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

Analyst Names and Initials:

JBA Johnnie B. Allen
PC Presenta Cabascango

ALS Group USA, Corp

Date: 29-Dec-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-2
 Collection Date: 18-Dec-2015 12:15

ANALYTICAL REPORT

WorkOrder:HS15120863
 Lab ID:HS15120863-01
 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	24-Dec-2015 07:27
Ethylbenzene	U		0.50	5.0	ug/L	1	24-Dec-2015 07:27
Toluene	U		0.50	5.0	ug/L	1	24-Dec-2015 07:27
Xylenes, Total	U		1.5	15	ug/L	1	24-Dec-2015 07:27
Surr: 1,2-Dichloroethane-d4	108			70-125	%REC	1	24-Dec-2015 07:27
Surr: 4-Bromofluorobenzene	86.4			72-125	%REC	1	24-Dec-2015 07:27
Surr: Dibromofluoromethane	106			71-125	%REC	1	24-Dec-2015 07:27
Surr: Toluene-d8	93.0			75-125	%REC	1	24-Dec-2015 07:27
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	83.2		1.00	2.50	mg/L	5	28-Dec-2015 14:34

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

ALS Group USA, Corp

Date: 29-Dec-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-4
 Collection Date: 18-Dec-2015 11:40

ANALYTICAL REPORT

WorkOrder:HS15120863
 Lab ID:HS15120863-02
 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	24-Dec-2015 07:51
Ethylbenzene	U		0.50	5.0	ug/L	1	24-Dec-2015 07:51
Toluene	U		0.50	5.0	ug/L	1	24-Dec-2015 07:51
Xylenes, Total	U		1.5	15	ug/L	1	24-Dec-2015 07:51
Surr: 1,2-Dichloroethane-d4	107			70-125	%REC	1	24-Dec-2015 07:51
Surr: 4-Bromofluorobenzene	86.6			72-125	%REC	1	24-Dec-2015 07:51
Surr: Dibromofluoromethane	106			71-125	%REC	1	24-Dec-2015 07:51
Surr: Toluene-d8	92.4			75-125	%REC	1	24-Dec-2015 07:51
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	526		4.00	10.0	mg/L	20	28-Dec-2015 14:49

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

ALS Group USA, Corp

Date: 29-Dec-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-5
 Collection Date: 18-Dec-2015 11:50

ANALYTICAL REPORT

WorkOrder:HS15120863
 Lab ID:HS15120863-03
 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	24-Dec-2015 08:15
Ethylbenzene	U		0.50	5.0	ug/L	1	24-Dec-2015 08:15
Toluene	U		0.50	5.0	ug/L	1	24-Dec-2015 08:15
Xylenes, Total	U		1.5	15	ug/L	1	24-Dec-2015 08:15
Surr: 1,2-Dichloroethane-d4	107			70-125	%REC	1	24-Dec-2015 08:15
Surr: 4-Bromofluorobenzene	87.9			72-125	%REC	1	24-Dec-2015 08:15
Surr: Dibromofluoromethane	106			71-125	%REC	1	24-Dec-2015 08:15
Surr: Toluene-d8	89.5			75-125	%REC	1	24-Dec-2015 08:15
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	125		1.00	2.50	mg/L	5	28-Dec-2015 15:33

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

ALS Group USA, Corp

Date: 29-Dec-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-6
 Collection Date: 18-Dec-2015 11:25

ANALYTICAL REPORT

WorkOrder:HS15120863
 Lab ID:HS15120863-04
 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	24-Dec-2015 08:39
Ethylbenzene	U		0.50	5.0	ug/L	1	24-Dec-2015 08:39
Toluene	U		0.50	5.0	ug/L	1	24-Dec-2015 08:39
Xylenes, Total	U		1.5	15	ug/L	1	24-Dec-2015 08:39
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	1	24-Dec-2015 08:39
Surr: 4-Bromofluorobenzene	87.0			72-125	%REC	1	24-Dec-2015 08:39
Surr: Dibromofluoromethane	108			71-125	%REC	1	24-Dec-2015 08:39
Surr: Toluene-d8	90.5			75-125	%REC	1	24-Dec-2015 08:39
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	581		4.00	10.0	mg/L	20	28-Dec-2015 15:47

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

ALS Group USA, Corp

Date: 29-Dec-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: TMW-7
 Collection Date: 18-Dec-2015 12:30

ANALYTICAL REPORT

WorkOrder:HS15120863
 Lab ID:HS15120863-05
 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	24-Dec-2015 09:03
Ethylbenzene	U		0.50	5.0	ug/L	1	24-Dec-2015 09:03
Toluene	U		0.50	5.0	ug/L	1	24-Dec-2015 09:03
Xylenes, Total	U		1.5	15	ug/L	1	24-Dec-2015 09:03
Surr: 1,2-Dichloroethane-d4	107			70-125	%REC	1	24-Dec-2015 09:03
Surr: 4-Bromofluorobenzene	87.5			72-125	%REC	1	24-Dec-2015 09:03
Surr: Dibromofluoromethane	110			71-125	%REC	1	24-Dec-2015 09:03
Surr: Toluene-d8	93.7			75-125	%REC	1	24-Dec-2015 09:03
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	102		1.00	2.50	mg/L	5	28-Dec-2015 16:02

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

ALS Group USA, Corp

Date: 29-Dec-15

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: Trip Blank-112015-25
 Collection Date: 18-Dec-2015 00:00

ANALYTICAL REPORT

WorkOrder:HS15120863
 Lab ID:HS15120863-06
 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	24-Dec-2015 07:03
Ethylbenzene	U		0.50	5.0	ug/L	1	24-Dec-2015 07:03
Toluene	U		0.50	5.0	ug/L	1	24-Dec-2015 07:03
Xylenes, Total	U		1.5	15	ug/L	1	24-Dec-2015 07:03
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	24-Dec-2015 07:03
Surr: 4-Bromofluorobenzene	86.7			72-125	%REC	1	24-Dec-2015 07:03
Surr: Dibromofluoromethane	107			71-125	%REC	1	24-Dec-2015 07:03
Surr: Toluene-d8	92.0			75-125	%REC	1	24-Dec-2015 07:03

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

ALS Group USA, Corp

Date: 29-Dec-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15120863

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R266847	Test Name : VOLATILES - SW8260C			Matrix: Water		
HS15120863-01	MW-2	18 Dec 2015 12:15			24 Dec 2015 07:27	1
HS15120863-02	MW-4	18 Dec 2015 11:40			24 Dec 2015 07:51	1
HS15120863-03	MW-5	18 Dec 2015 11:50			24 Dec 2015 08:15	1
HS15120863-04	MW-6	18 Dec 2015 11:25			24 Dec 2015 08:39	1
HS15120863-05	TMW-7	18 Dec 2015 12:30			24 Dec 2015 09:03	1
HS15120863-06	Trip Blank-112015-25	18 Dec 2015 00:00			24 Dec 2015 07:03	1
Batch ID R266950	Test Name : ANIONS BY E300.0			Matrix: Water		
HS15120863-01	MW-2	18 Dec 2015 12:15			28 Dec 2015 14:34	5
HS15120863-02	MW-4	18 Dec 2015 11:40			28 Dec 2015 14:49	20
HS15120863-03	MW-5	18 Dec 2015 11:50			28 Dec 2015 15:33	5
HS15120863-04	MW-6	18 Dec 2015 11:25			28 Dec 2015 15:47	20
HS15120863-05	TMW-7	18 Dec 2015 12:30			28 Dec 2015 16:02	5

ALS Group USA, Corp

Date: 29-Dec-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15120863

QC BATCH REPORT

Batch ID: R266847		Instrument: VOA6		Method: SW8260						
MBLK	Sample ID: VBLKW-151223	Units: ug/L			Analysis Date: 24-Dec-2015 00:37					
Client ID:	Run ID: VOA6_266847	SeqNo: 3535512		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	51.72	0	50	0	103	70 - 125				
Surr: 4-Bromofluorobenzene	43.85	0	50	0	87.7	72 - 125				
Surr: Dibromofluoromethane	54.17	0	50	0	108	71 - 125				
Surr: Toluene-d8	46.67	0	50	0	93.3	75 - 125				

LCS	Sample ID: VLCSW-151223			Units: ug/L		Analysis Date: 23-Dec-2015 23:49			
Client ID:	Run ID: VOA6_266847			SeqNo: 3535511		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	49.95	5.0	50	0	99.9	73 - 121				
Ethylbenzene	41.97	5.0	50	0	83.9	80 - 120				
Toluene	41.93	5.0	50	0	83.9	80 - 120				
Xylenes, Total	127.7	15	150	0	85.2	80 - 120				
Surr: 1,2-Dichloroethane-d4	55.06	0	50	0	110	70 - 125				
Surr: 4-Bromofluorobenzene	49.59	0	50	0	99.2	72 - 125				
Surr: Dibromofluoromethane	54.3	0	50	0	109	71 - 125				
Surr: Toluene-d8	44.49	0	50	0	89.0	75 - 125				

MS Sample ID: HS15120765-15MS Units: ug/L Analysis Date: 24-Dec-2015 02:38										
Client ID:		Run ID: VOA6_266847		SeqNo: 3535517		PrepDate:		DF: 25		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Benzene	1436	120	1250	192.2	99.5	73 - 121				
Ethylbenzene	1070	120	1250	0	85.6	80 - 120				
Toluene	1070	120	1250	0	85.6	80 - 120				
Xylenes, Total	3189	380	3750	0	85.0	80 - 120				
Surr: 1,2-Dichloroethane-d4	1365	0	1250	0	109	70 - 125				
Surr: 4-Bromofluorobenzene	1264	0	1250	0	101	72 - 125				
Surr: Dibromofluoromethane	1355	0	1250	0	108	71 - 125				
Surr: Toluene-d8	1129	0	1250	0	90.3	75 - 125				

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

ALS Group USA, Corp

Date: 29-Dec-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15120863

QC BATCH REPORT

Batch ID: R266847		Instrument: VOA6		Method: SW8260					
MSD	Sample ID: HS15120765-15MSD	Units: ug/L			Analysis Date: 24-Dec-2015 03:02				
Client ID:	Run ID: VOA6_266847	SeqNo: 3535518		PrepDate:		DF: 25			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Benzene	1364	120	1250	192.2	93.7	73 - 121	1436	5.19	20
Ethylbenzene	1010	120	1250	0	80.8	80 - 120	1070	5.81	20
Toluene	1002	120	1250	0	80.2	80 - 120	1070	6.49	20
Xylenes, Total	3049	380	3750	0	81.3	78 - 121	3189	4.48	20
Surr: 1,2-Dichloroethane-d4	1383	0	1250	0	111	70 - 125	1365	1.34	20
Surr: 4-Bromofluorobenzene	1258	0	1250	0	101	72 - 125	1264	0.5	20
Surr: Dibromofluoromethane	1358	0	1250	0	109	71 - 125	1355	0.245	20
Surr: Toluene-d8	1122	0	1250	0	89.7	75 - 125	1129	0.632	20
The following samples were analyzed in this batch:									
HS15120863-01		HS15120863-02		HS15120863-03		HS15120863-04			
HS15120863-05		HS15120863-06							

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

ALS Group USA, Corp

Date: 29-Dec-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15120863

QC BATCH REPORT

Batch ID: R266950		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW1-122815	Units: mg/L		Analysis Date: 28-Dec-2015 11:52						
Client ID:	Run ID: ICS2100_266950	SeqNo: 3537691		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: WLCSW1-122815	Units: mg/L		Analysis Date: 28-Dec-2015 12:07						
Client ID:	Run ID: ICS2100_266950	SeqNo: 3537692		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.02	0.500	20	0	100	90 - 110				
LCSD	Sample ID: WLCSDW1-122815	Units: mg/L		Analysis Date: 28-Dec-2015 12:21						
Client ID:	Run ID: ICS2100_266950	SeqNo: 3537693		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.04	0.500	20	0	100	90 - 110	20.02	0.0849	20	
MS	Sample ID: HS15120865-02MS	Units: mg/L		Analysis Date: 28-Dec-2015 16:45						
Client ID:	Run ID: ICS2100_266950	SeqNo: 3537708		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	265.7	5.00	100	162.3	103	80 - 120				
MS	Sample ID: HS15120855-01MS	Units: mg/L		Analysis Date: 28-Dec-2015 13:36						
Client ID:	Run ID: ICS2100_266950	SeqNo: 3537695		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	381.9	5.00	100	285.9	96.0	80 - 120				
MSD	Sample ID: HS15120865-02MSD	Units: mg/L		Analysis Date: 28-Dec-2015 17:00						
Client ID:	Run ID: ICS2100_266950	SeqNo: 3537709		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	262.5	5.00	100	162.3	100	80 - 120	265.7	1.23	20	

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

ALS Group USA, Corp

Date: 29-Dec-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15120863

QC BATCH REPORT

Batch ID: R266950		Instrument: ICS2100		Method: E300	
MSD	Sample ID: HS15120855-01MSD	Units: mg/L		Analysis Date: 28-Dec-2015 13:51	
Client ID:	Run ID: ICS2100_266950	SeqNo: 3537696		PrepDate:	DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	389.5	5.00	100	285.9 104	80 - 120 381.9 1.97 20
The following samples were analyzed in this batch:					
HS15120863-01		HS15120863-02		HS15120863-03	
HS15120863-05				HS15120863-04	

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

ALS Group USA, Corp

Date: 29-Dec-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS15120863

**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

ALS Group USA, Corp

Date: 29-Dec-15

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	15-024-0	27-Mar-2016
California	2919	31-Jul-2016
Illinois	003622	09-May-2016
Kansas	E-10352 2014-2015	31-Jan-2016
Kentucky	KY 2015-2016	30-Apr-2016
Louisiana	03087 2015/2016	30-Jun-2016
North Carolina	624 - 2015	31-Dec-2015
North Dakota	R-193 2015-2016	30-Apr-2016
Oklahoma	2015-047	31-Aug-2016
Texas	T104704231-15-15	30-Apr-2016

ALS Group USA, Corp

Date: 29-Dec-15

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS15120863

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS15120863-01	MW-2	Login	12/21/2015 12:18:14 PM	BHH	19C
HS15120863-01	MW-2	Login	12/21/2015 12:18:14 PM	BHH	VW-3
HS15120863-02	MW-4	Login	12/21/2015 12:18:14 PM	BHH	19C
HS15120863-02	MW-4	Login	12/21/2015 12:18:14 PM	BHH	VW-3
HS15120863-03	MW-5	Login	12/21/2015 12:18:14 PM	BHH	19C
HS15120863-03	MW-5	Login	12/21/2015 12:18:14 PM	BHH	VW-3
HS15120863-04	MW-6	Login	12/21/2015 12:18:14 PM	BHH	19C
HS15120863-04	MW-6	Login	12/21/2015 12:18:14 PM	BHH	VW-3
HS15120863-05	TMW-7	Login	12/21/2015 12:18:14 PM	BHH	19C
HS15120863-05	TMW-7	Login	12/21/2015 12:18:14 PM	BHH	VW-3
HS15120863-06	Trip Blank-112015-25	Login	12/21/2015 12:18:14 PM	BHH	VW-3

ALS Group USA, Corp

Date: 29-Dec-15

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **19-Dec-2015 10:00**

Work Order: HS15120863

Received by: **BHH**

Checklist completed by:	<u>Baudelio Hernandez</u>	21-Dec-2015	Reviewed by:	<u>Dane J. Wacasey</u>	23-Dec-2015
	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 ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☒
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):	2.7c / 2.9c u/c	IR#4	
Cooler(s)/Kit(s):	42584		
Date/Time sample(s) sent to storage:	12/21/2015 12:25		
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:



Chain of Custody Form

HS15120863

Page ____ of ____

COC ID: 136563

Glenn Springs Holdings, Inc.

55628DM GSHI PXP Hill E.C. ABC TB



Environmental

Customer Information				Project Information				ALS Project Manager:												
Purchase Order	4501709538			Project Name	55628DM GSHI PXP Hill E.C. ABC TB			A	8260_W (BTEX)											
Work Order				Project Number				B	300_W (Chloride)											
Company Name	Glenn Springs Holdings, Inc.			Bill To Company	Glenn Springs Holdings, Inc.			C	8260_W (BTEX-Trip Blank)											
Send Report To	Angela Bown			Invoice Attn	Jen Devonshire			D												
Address	PO Box 485			Address	PO Box 485			E												
City/State/Zip	Addison, TX 75001			City/State/Zip	Addison, TX 75001			F												
Phone				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	12-18-15		Water	1/5	4	X	X									
2	MW-2	12-18-15	1215	Water		4	X	X									
3	MW-3			Water		4	X	X									
4	MW-4	12-18-15	1140	Water		4	X	X									
5	MW-5	12-18-15	1150	Water		4	X	X									
6	MW-6	12-18-15	1125	Water		4	X	X									
7	TMW-7	12-18-15	1230	Water		4	X	X									
8	Trip Blank			Water		2			X								
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Matthew McDaniel		FedEx		TAT 10 days			
Relinquished by:		Date:	Time:	Received by:		Notes:	
Matthew McDaniel		12-18-15	1400	12/19/15		1000	
Relinquished by:		Date:	Time:	Received by (Laboratory):		(GSHI PXP Hill E.C. ABC TB)	
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		QC Package: (Check One Box Below)	
						Cooler ID: 42584	
						Cooler Temp: 2.7°	
						QC Level: STD	
						Other: #5	

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
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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.

Copyright 2011 by ALS Environmental.

 ALS Environmental 10450 Stancil Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: 12-18-15 Name: Robert Mueller Company: Terra Tech	Time: 1600	SM Date: 12/19/15

42584

DEC 19 2015

FedEx TRK# 0221 6355 5185 5438	SATURDAY 12:00P PRIORITY OVERNIGHT
A0 SGRA 42584	77099 TX-US IAH
	

2016



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

March 24, 2016

Angela Bown
Glenn Springs Holdings, Inc.

PO Box 485
Addison, TX 75001

Work Order: **HS16030904**

Laboratory Results for: **55628DM GSHI PXP Hill E.C. ABC TB**

Dear Angela,

ALS Environmental received 6 sample(s) on Mar 19, 2016 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: Jumoke.Lawal
Dane J. Wacasey

ALS Group USA, Corp

Date: 24-Mar-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS16030904

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS16030904-01	MW-2	Water		16-Mar-2016 12:55	19-Mar-2016 09:25	☐
HS16030904-02	MW-4	Water		16-Mar-2016 12:00	19-Mar-2016 09:25	☐
HS16030904-03	MW-5	Water		16-Mar-2016 12:25	19-Mar-2016 09:25	☐
HS16030904-04	MW-6	Water		16-Mar-2016 13:15	19-Mar-2016 09:25	☐
HS16030904-05	Trip Blank-021116-18	Water		16-Mar-2016 00:00	19-Mar-2016 09:25	☐
HS16030904-06	Dup 1	Water		16-Mar-2016 00:00	19-Mar-2016 09:25	☐

ALS Group USA, Corp

Date: 24-Mar-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS16030904

CASE NARRATIVE

GCMS Volatiles by Method SW8260

Batch ID: R271210

Sample ID: **HS16030903-01MS**
• MS and MSD are for an unrelated sample

WetChemistry by Method E300

Batch ID: R271186

Sample ID: **HS16030905-02MS**
• MS and MSD are for an unrelated sample

Sample ID: **MW-2 (HS16030904-01MS)**
• MS/MSD Spiked 2X normal level

ALS Group USA, Corp

Date: 24-Mar-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-2
 Collection Date: 16-Mar-2016 12:55

ANALYTICAL REPORT

WorkOrder:HS16030904
 Lab ID:HS16030904-01
 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	23-Mar-2016 06:55
Ethylbenzene	U		0.50	5.0	ug/L	1	23-Mar-2016 06:55
Toluene	U		0.50	5.0	ug/L	1	23-Mar-2016 06:55
Xylenes, Total	U		1.5	15	ug/L	1	23-Mar-2016 06:55
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	1	23-Mar-2016 06:55
Surr: 4-Bromofluorobenzene	105			72-125	%REC	1	23-Mar-2016 06:55
Surr: Dibromofluoromethane	94.4			71-125	%REC	1	23-Mar-2016 06:55
Surr: Toluene-d8	104			75-125	%REC	1	23-Mar-2016 06:55
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	91.4		1.00	2.50	mg/L	5	22-Mar-2016 05:49

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

ALS Group USA, Corp

Date: 24-Mar-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-4
 Collection Date: 16-Mar-2016 12:00

ANALYTICAL REPORT

WorkOrder:HS16030904
 Lab ID:HS16030904-02
 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	23-Mar-2016 07:21
Ethylbenzene	U		0.50	5.0	ug/L	1	23-Mar-2016 07:21
Toluene	U		0.50	5.0	ug/L	1	23-Mar-2016 07:21
Xylenes, Total	U		1.5	15	ug/L	1	23-Mar-2016 07:21
Surr: 1,2-Dichloroethane-d4	101			70-125	%REC	1	23-Mar-2016 07:21
Surr: 4-Bromofluorobenzene	106			72-125	%REC	1	23-Mar-2016 07:21
Surr: Dibromofluoromethane	92.8			71-125	%REC	1	23-Mar-2016 07:21
Surr: Toluene-d8	98.9			75-125	%REC	1	23-Mar-2016 07:21
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	525		4.00	10.0	mg/L	20	22-Mar-2016 07:34

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

ALS Group USA, Corp

Date: 24-Mar-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-5
 Collection Date: 16-Mar-2016 12:25

ANALYTICAL REPORT

WorkOrder:HS16030904
 Lab ID:HS16030904-03
 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	23-Mar-2016 07:47
Ethylbenzene	U		0.50	5.0	ug/L	1	23-Mar-2016 07:47
Toluene	U		0.50	5.0	ug/L	1	23-Mar-2016 07:47
Xylenes, Total	U		1.5	15	ug/L	1	23-Mar-2016 07:47
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	1	23-Mar-2016 07:47
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	23-Mar-2016 07:47
Surr: Dibromofluoromethane	94.2			71-125	%REC	1	23-Mar-2016 07:47
Surr: Toluene-d8	101			75-125	%REC	1	23-Mar-2016 07:47
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	99.6		1.00	2.50	mg/L	5	22-Mar-2016 07:56

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

ALS Group USA, Corp

Date: 24-Mar-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-6
 Collection Date: 16-Mar-2016 13:15

ANALYTICAL REPORT

WorkOrder:HS16030904
 Lab ID:HS16030904-04
 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	23-Mar-2016 08:13
Ethylbenzene	U		0.50	5.0	ug/L	1	23-Mar-2016 08:13
Toluene	U		0.50	5.0	ug/L	1	23-Mar-2016 08:13
Xylenes, Total	U		1.5	15	ug/L	1	23-Mar-2016 08:13
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	23-Mar-2016 08:13
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	23-Mar-2016 08:13
Surr: Dibromofluoromethane	94.9			71-125	%REC	1	23-Mar-2016 08:13
Surr: Toluene-d8	99.1			75-125	%REC	1	23-Mar-2016 08:13
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	639		4.00	10.0	mg/L	20	22-Mar-2016 08:17

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

ALS Group USA, Corp

Date: 24-Mar-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: Trip Blank-021116-18
 Collection Date: 16-Mar-2016 00:00

ANALYTICAL REPORT

WorkOrder:HS16030904
 Lab ID:HS16030904-05
 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	23-Mar-2016 08:39
Ethylbenzene	U		0.50	5.0	ug/L	1	23-Mar-2016 08:39
Toluene	U		0.50	5.0	ug/L	1	23-Mar-2016 08:39
Xylenes, Total	U		1.5	15	ug/L	1	23-Mar-2016 08:39
Surr: 1,2-Dichloroethane-d4	99.3			70-125	%REC	1	23-Mar-2016 08:39
Surr: 4-Bromofluorobenzene	97.8			72-125	%REC	1	23-Mar-2016 08:39
Surr: Dibromofluoromethane	93.9			71-125	%REC	1	23-Mar-2016 08:39
Surr: Toluene-d8	104			75-125	%REC	1	23-Mar-2016 08:39

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

ALS Group USA, Corp

Date: 24-Mar-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: Dup 1
 Collection Date: 16-Mar-2016 00:00

ANALYTICAL REPORT

WorkOrder:HS16030904
 Lab ID:HS16030904-06
 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	23-Mar-2016 09:05
Ethylbenzene	U		0.50	5.0	ug/L	1	23-Mar-2016 09:05
Toluene	U		0.50	5.0	ug/L	1	23-Mar-2016 09:05
Xylenes, Total	U		1.5	15	ug/L	1	23-Mar-2016 09:05
Surr: 1,2-Dichloroethane-d4	92.8			70-125	%REC	1	23-Mar-2016 09:05
Surr: 4-Bromofluorobenzene	107			72-125	%REC	1	23-Mar-2016 09:05
Surr: Dibromofluoromethane	91.1			71-125	%REC	1	23-Mar-2016 09:05
Surr: Toluene-d8	98.4			75-125	%REC	1	23-Mar-2016 09:05
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	646		4.00	10.0	mg/L	20	22-Mar-2016 08:38

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

ALS Group USA, Corp

Date: 24-Mar-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16030904

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R271186 Test Name : ANIONS BY E300.0 Matrix: Water						
HS16030904-01	MW-2	16 Mar 2016 12:55			22 Mar 2016 05:49	5
HS16030904-02	MW-4	16 Mar 2016 12:00			22 Mar 2016 07:34	20
HS16030904-03	MW-5	16 Mar 2016 12:25			22 Mar 2016 07:56	5
HS16030904-04	MW-6	16 Mar 2016 13:15			22 Mar 2016 08:17	20
HS16030904-06	Dup 1	16 Mar 2016 00:00			22 Mar 2016 08:38	20
Batch ID R271210 Test Name : VOLATILES - SW8260C Matrix: Water						
HS16030904-01	MW-2	16 Mar 2016 12:55			23 Mar 2016 06:55	1
HS16030904-02	MW-4	16 Mar 2016 12:00			23 Mar 2016 07:21	1
HS16030904-03	MW-5	16 Mar 2016 12:25			23 Mar 2016 07:47	1
HS16030904-04	MW-6	16 Mar 2016 13:15			23 Mar 2016 08:13	1
HS16030904-05	Trip Blank-021116-18	16 Mar 2016 00:00			23 Mar 2016 08:39	1
HS16030904-06	Dup 1	16 Mar 2016 00:00			23 Mar 2016 09:05	1

ALS Group USA, Corp

Date: 24-Mar-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16030904

QC BATCH REPORT

Batch ID: R271210		Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-160322	Units: ug/L		Analysis Date: 23-Mar-2016 00:23					
Client ID:	Run ID: VOA1_271210		SeqNo: 3620931		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	47.16	0	50	0	94.3	70 - 125			
Surr: 4-Bromofluorobenzene	53.36	0	50	0	107	72 - 125			
Surr: Dibromofluoromethane	45.22	0	50	0	90.4	71 - 125			
Surr: Toluene-d8	51.68	0	50	0	103	75 - 125			

LCS	Sample ID: VLCSW-160322	Units: ug/L		Analysis Date: 22-Mar-2016 23:31					
Client ID:	Run ID: VOA1_271210		SeqNo: 3620930		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	45.65	5.0	50	0	91.3	73 - 121			
Ethylbenzene	44.75	5.0	50	0	89.5	80 - 120			
Toluene	44.97	5.0	50	0	89.9	80 - 120			
Xylenes, Total	138.2	15	150	0	92.1	80 - 120			
Surr: 1,2-Dichloroethane-d4	48.63	0	50	0	97.3	70 - 125			
Surr: 4-Bromofluorobenzene	50.45	0	50	0	101	72 - 125			
Surr: Dibromofluoromethane	47.07	0	50	0	94.1	71 - 125			
Surr: Toluene-d8	49.27	0	50	0	98.5	75 - 125			

MS	Sample ID: HS16030903-01MS	Units: ug/L		Analysis Date: 23-Mar-2016 02:07					
Client ID:	Run ID: VOA1_271210		SeqNo: 3620935		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	41.93	5.0	50	0	83.9	73 - 121			
Ethylbenzene	39.61	5.0	50	0	79.2	80 - 120			S
Toluene	39.76	5.0	50	0	79.5	80 - 120			S
Xylenes, Total	119.6	15	150	0	79.7	80 - 120			S
Surr: 1,2-Dichloroethane-d4	50.12	0	50	0	100	70 - 125			
Surr: 4-Bromofluorobenzene	47.75	0	50	0	95.5	72 - 125			
Surr: Dibromofluoromethane	47.5	0	50	0	95.0	71 - 125			
Surr: Toluene-d8	49.42	0	50	0	98.8	75 - 125			

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

ALS Group USA, Corp

Date: 24-Mar-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 WorkOrder: HS16030904

QC BATCH REPORT

Batch ID: R271210		Instrument: VOA1		Method: SW8260						
MSD	Sample ID: HS16030903-01	MSD		Units: ug/L	Analysis Date: 23-Mar-2016 02:33					
Client ID:	Run ID: VOA1_271210		SeqNo: 3620936		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Benzene	44.74	5.0	50	0	89.5	73 - 121	41.93	6.48	20	
Ethylbenzene	43.98	5.0	50	0	88.0	80 - 120	39.61	10.5	20	
Toluene	46.67	5.0	50	0	93.3	80 - 120	39.76	16	20	
Xylenes, Total	140.9	15	150	0	94.0	78 - 121	119.6	16.4	20	
Surr: 1,2-Dichloroethane-d4	50.05	0	50	0	100	70 - 125	50.12	0.152	20	
Surr: 4-Bromofluorobenzene	51.89	0	50	0	104	72 - 125	47.75	8.33	20	
Surr: Dibromofluoromethane	45.9	0	50	0	91.8	71 - 125	47.5	3.42	20	
Surr: Toluene-d8	51.47	0	50	0	103	75 - 125	49.42	4.06	20	
The following samples were analyzed in this batch:		HS16030904-01	HS16030904-02	HS16030904-03		HS16030904-04				
		HS16030904-05	HS16030904-06							

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

ALS Group USA, Corp

Date: 24-Mar-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16030904

QC BATCH REPORT

Batch ID: R271186		Instrument: ICS3000		Method: E300						
MBLK	Sample ID: WBLKW2-032116	Units: mg/L		Analysis Date: 22-Mar-2016 04:45						
Client ID:	Run ID: ICS3000_271186	SeqNo: 3620250		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: WLCSW2-032116	Units: mg/L		Analysis Date: 22-Mar-2016 05:06						
Client ID:	Run ID: ICS3000_271186	SeqNo: 3620251		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.87	0.500	20	0	99.3	90 - 110				
LCSD	Sample ID: WLCSDW2-032116	Units: mg/L		Analysis Date: 22-Mar-2016 05:27						
Client ID:	Run ID: ICS3000_271186	SeqNo: 3620252		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.83	0.500	20	0	99.1	90 - 110	19.87	0.212	20	
MS	Sample ID: HS16030905-02MS	Units: mg/L		Analysis Date: 22-Mar-2016 11:06						
Client ID:	Run ID: ICS3000_271186	SeqNo: 3620268		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	64.24	0.500	10	57.63	66.1	80 - 120				SO
MS	Sample ID: HS16030904-01MS	Units: mg/L		Analysis Date: 22-Mar-2016 06:52						
Client ID: MW-2	Run ID: ICS3000_271186	SeqNo: 3620256		PrepDate:		DF: 5				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	192.9	2.50	100	91.43	101	80 - 120				
MSD	Sample ID: HS16030905-02MSD	Units: mg/L		Analysis Date: 22-Mar-2016 11:28						
Client ID:	Run ID: ICS3000_271186	SeqNo: 3620269		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	63.71	0.500	10	57.63	60.8	80 - 120	64.24	0.827	20	SO

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

ALS Group USA, Corp

Date: 24-Mar-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16030904

QC BATCH REPORT

Batch ID: R271186		Instrument: ICS3000		Method: E300						
MSD	Sample ID: HS16030904-01MSD		Units: mg/L			Analysis Date: 22-Mar-2016 07:13				
	Client ID: MW-2		Run ID: ICS3000_271186		SeqNo: 3620257		PrepDate:		DF: 5	
	Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride		192.8	2.50	100	91.43	101	80 - 120	192.9	0.0524	20

The following samples were analyzed in this batch:

HS16030904-01	HS16030904-02	HS16030904-03	HS16030904-04
HS16030904-06			

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

ALS Group USA, Corp

Date: 24-Mar-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16030904

**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

ALS Group USA, Corp

Date: 24-Mar-16

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	15-024-0	27-Mar-2016
California	2919	31-Jul-2016
Illinois	003622	09-May-2016
Kentucky	KY 2015-2016	30-Apr-2016
Louisiana	03087 2015/2016	30-Jun-2016
North Carolina	624 - 2016	31-Dec-2016
North Dakota	R-193 2015-2016	30-Apr-2016
Oklahoma	2015-047	31-Aug-2016
Texas	T104704231-15-15	30-Apr-2016

ALS Group USA, Corp

Date: 24-Mar-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS16030904

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS16030904-01	MW-2	Login	3/19/2016 1:03:00 PM	BHH	10A
HS16030904-01	MW-2	Login	3/19/2016 1:03:00 PM	BHH	VW-3
HS16030904-02	MW-4	Login	3/19/2016 1:03:00 PM	BHH	10A
HS16030904-02	MW-4	Login	3/19/2016 1:03:00 PM	BHH	VW-3
HS16030904-03	MW-5	Login	3/19/2016 1:03:00 PM	BHH	10A
HS16030904-03	MW-5	Login	3/19/2016 1:03:00 PM	BHH	VW-3
HS16030904-04	MW-6	Login	3/19/2016 1:03:00 PM	BHH	10A
HS16030904-04	MW-6	Login	3/19/2016 1:03:00 PM	BHH	VW-3
HS16030904-05	Trip Blank-021116-18	Login	3/19/2016 1:03:00 PM	BHH	VW-3
HS16030904-06	Dup 1	Login	3/19/2016 1:03:00 PM	BHH	10A
HS16030904-06	Dup 1	Login	3/19/2016 1:03:00 PM	BHH	VW-3

ALS Group USA, Corp

Date: 24-Mar-16

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **19-Mar-2016 09:25**

Work Order: HS16030904

Received by: **BHH**

Checklist completed by: Baudelio Hernandez 19-Mar-2016
eSignature Date

Reviewed by: Dane J. Wacasey 22-Mar-2016
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 ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☒
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): 2.1c / 2.7c u/c IR#4

Cooler(s)/Kit(s): 24424

Date/Time sample(s) sent to storage: 03/19/2016 13:05

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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+1 425 356 2600Fort Collins, CO
+1 970 490 1511Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 138247

Houston, TX
+1 281 530 5656Middletown, PA
+1 717 944 5541Spring City, PA
+1 610 948 4903Salt Lake City, UT
+1 801 266 7700South Charleston, WV
+1 304 356 3168York, PA
+1 717 505 5280

Customer Information						Project Information						Parameter/Method Request for Analysis												
Purchase Order	4502201559					Project Name	GSHI PXP Hill, E.C. ABC TB					A	BTEX (8280)											
Work Order						Project Number	55628DM (ENV749A10)					B	Chloride (300)											
Company Name	Glenn Springs Holdings					Bill To Company	Glenn Springs Holdings					C	HS16030904 Glenn Springs Holdings, Inc. 55628DM GSHI PXP Hill E.C. ABC TB 											
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	abown@craworld.com					e-Mail Address	jdevonshire@craworld.com					I												
												J												

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1			Water	821	4	X	X									
2	MW-2	3/16/16	12:55	Water	821	4	X	X									
3	MW-3			Water		4	X	X									
4	MW-4	3/16/16	12:00	Water	821	4	X	X									
5	MW-5	3/16/16	12:25	Water	821	4	X	X									
6	MW-6	3/16/16	13:15	Water	821	4	X	X									
7	MW-7			Water		4	X	X									
8	Trip Blank					2	X										
9	Dup	3/16/16		Water	821		X	X									
10																	

Sampler(s) Please Print & Sign <i>Clint Merritt</i>				Shipment Method <i>FedEx</i>		Required Turnaround Time: (Check Box) ☒ Std 10 WK days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour				Results Due Date:			
Relinquished by: <i>Clint Merritt</i>		Date: <i>3.16.16</i>	Time: <i>14:25</i>		Received by: <i>BH Sims</i>		Notes: 10 Day TAT						
Relinquished by:		Date:	Time:		Received by (Laboratory): <i>03/19/16 09:25</i>		Cooler ID <i>24024</i>		Cooler Temp. <i>4/1</i>		QC Package: (Check One Box Below)		
Logged by (Laboratory):		Date:	Time:		Checked by (Laboratory):						☒ Level 2 Std QC ☐ Level 3 Std QC/Row dz ☐ Level 4 SW846/CLP ☐ Other/EDD		
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.

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.

JPR #4

CIFO-6

Copyright 2011 by ALS Environmental.

 ALS Environmental 10450 Stancil Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: <u>3.16.16</u>	Time: <u>14:25</u>	<u>CM</u>
	Name: <u>Christine Smith</u>		Date:
	Company: <u>Ultra Tech</u>		<u>03/19/16</u>

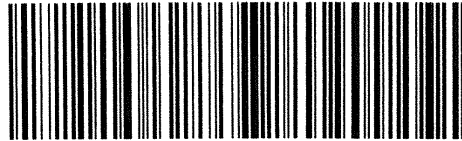
24424

MAR 19 2016

FedEx
TRK# 6355 5187 2452
0221

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO SGRA 24424 77099
TX-US IAH



1175927 03/18 54011/CF34/727F



10450 Stancliff Rd. Suite 210
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July 13, 2016

Angela Bown
Glenn Springs Holdings, Inc.

PO Box 2148
Houston, TX 77252-2148

Work Order: **HS16070050**

Laboratory Results for: **55628DM GSHI PXP Hill E.C. ABC TB**

Dear Angela,

ALS Environmental received 6 sample(s) on Jul 01, 2016 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: Jumoke.Lawal
Dane J. Wacasey

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS16070050

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS16070050-01	MW-2	Water		30-Jun-2016 13:15	01-Jul-2016 08:50	☐
HS16070050-02	MW-4	Water		30-Jun-2016 12:30	01-Jul-2016 08:50	☐
HS16070050-03	MW-5	Water		30-Jun-2016 12:15	01-Jul-2016 08:50	☐
HS16070050-04	MW-6	Water		30-Jun-2016 13:10	01-Jul-2016 08:50	☐
HS16070050-05	DUP	Water		30-Jun-2016 00:00	01-Jul-2016 08:50	☐
HS16070050-06	Trip Blank	Water	052316-99	30-Jun-2016 00:00	01-Jul-2016 08:50	☐

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS16070050

CASE NARRATIVE

GCMS Volatiles by Method SW8260

Batch ID: R277480

Sample ID: **HS16070111-01MS**
• MS/MSD is for an unrelated sample.

Batch ID: R277463,R277558

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

WetChemistry by Method E300

Batch ID: R277916

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

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-2
 Collection Date: 30-Jun-2016 13:15

ANALYTICAL REPORT

WorkOrder:HS16070050
 Lab ID:HS16070050-01
 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	03-Jul-2016 22:12
Ethylbenzene	U		0.50	5.0	ug/L	1	03-Jul-2016 22:12
Toluene	U		0.50	5.0	ug/L	1	03-Jul-2016 22:12
Xylenes, Total	U		1.5	15	ug/L	1	03-Jul-2016 22:12
Surr: 1,2-Dichloroethane-d4	99.1			70-125	%REC	1	03-Jul-2016 22:12
Surr: 4-Bromofluorobenzene	97.3			72-125	%REC	1	03-Jul-2016 22:12
Surr: Dibromofluoromethane	106			71-125	%REC	1	03-Jul-2016 22:12
Surr: Toluene-d8	97.3			75-125	%REC	1	03-Jul-2016 22:12
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	85.2		1.00	2.50	mg/L	5	12-Jul-2016 08:29

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

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-4
 Collection Date: 30-Jun-2016 12:30

ANALYTICAL REPORT

WorkOrder:HS16070050
 Lab ID:HS16070050-02
 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	03-Jul-2016 22:39
Ethylbenzene	U		0.50	5.0	ug/L	1	03-Jul-2016 22:39
Toluene	U		0.50	5.0	ug/L	1	03-Jul-2016 22:39
Xylenes, Total	U		1.5	15	ug/L	1	03-Jul-2016 22:39
Surr: 1,2-Dichloroethane-d4	94.4			70-125	%REC	1	03-Jul-2016 22:39
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	03-Jul-2016 22:39
Surr: Dibromofluoromethane	100			71-125	%REC	1	03-Jul-2016 22:39
Surr: Toluene-d8	106			75-125	%REC	1	03-Jul-2016 22:39
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	471		4.00	10.0	mg/L	20	12-Jul-2016 09:42

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

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-5
 Collection Date: 30-Jun-2016 12:15

ANALYTICAL REPORT

WorkOrder:HS16070050
 Lab ID:HS16070050-03
 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	05-Jul-2016 12:17
Ethylbenzene	U		0.50	5.0	ug/L	1	05-Jul-2016 12:17
Toluene	U		0.50	5.0	ug/L	1	05-Jul-2016 12:17
Xylenes, Total	U		1.5	15	ug/L	1	05-Jul-2016 12:17
Surr: 1,2-Dichloroethane-d4	91.7			70-125	%REC	1	05-Jul-2016 12:17
Surr: 4-Bromofluorobenzene	96.4			72-125	%REC	1	05-Jul-2016 12:17
Surr: Dibromofluoromethane	99.3			71-125	%REC	1	05-Jul-2016 12:17
Surr: Toluene-d8	94.9			75-125	%REC	1	05-Jul-2016 12:17
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	77.2		1.00	2.50	mg/L	5	12-Jul-2016 09:57

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

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-6
 Collection Date: 30-Jun-2016 13:10

ANALYTICAL REPORT

WorkOrder:HS16070050
 Lab ID:HS16070050-04
 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	05-Jul-2016 12:41
Ethylbenzene	U		0.50	5.0	ug/L	1	05-Jul-2016 12:41
Toluene	U		0.50	5.0	ug/L	1	05-Jul-2016 12:41
Xylenes, Total	U		1.5	15	ug/L	1	05-Jul-2016 12:41
Surr: 1,2-Dichloroethane-d4	92.1			70-125	%REC	1	05-Jul-2016 12:41
Surr: 4-Bromofluorobenzene	96.1			72-125	%REC	1	05-Jul-2016 12:41
Surr: Dibromofluoromethane	98.4			71-125	%REC	1	05-Jul-2016 12:41
Surr: Toluene-d8	97.4			75-125	%REC	1	05-Jul-2016 12:41
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	429		4.00	10.0	mg/L	20	12-Jul-2016 10:11

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

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: DUP
 Collection Date: 30-Jun-2016 00:00

ANALYTICAL REPORT

WorkOrder:HS16070050
 Lab ID:HS16070050-05
 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	05-Jul-2016 15:14
Ethylbenzene	U		0.50	5.0	ug/L	1	05-Jul-2016 15:14
Toluene	U		0.50	5.0	ug/L	1	05-Jul-2016 15:14
Xylenes, Total	U		1.5	15	ug/L	1	05-Jul-2016 15:14
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	1	05-Jul-2016 15:14
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	05-Jul-2016 15:14
Surr: Dibromofluoromethane	102			71-125	%REC	1	05-Jul-2016 15:14
Surr: Toluene-d8	104			75-125	%REC	1	05-Jul-2016 15:14
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	446		4.00	10.0	mg/L	20	12-Jul-2016 10:26

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

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Sample ID: Trip Blank
Collection Date: 30-Jun-2016 00:00

ANALYTICAL REPORT

WorkOrder:HS16070050
Lab ID:HS16070050-06
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	05-Jul-2016 11:53
Ethylbenzene	U		0.50	5.0	ug/L	1	05-Jul-2016 11:53
Toluene	U		0.50	5.0	ug/L	1	05-Jul-2016 11:53
Xylenes, Total	U		1.5	15	ug/L	1	05-Jul-2016 11:53
Surr: 1,2-Dichloroethane-d4	92.0			70-125	%REC	1	05-Jul-2016 11:53
Surr: 4-Bromofluorobenzene	95.8			72-125	%REC	1	05-Jul-2016 11:53
Surr: Dibromofluoromethane	100.0			71-125	%REC	1	05-Jul-2016 11:53
Surr: Toluene-d8	97.1			75-125	%REC	1	05-Jul-2016 11:53

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

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16070050

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R277463 Test Name : VOLATILES - SW8260C Matrix: Water						
HS16070050-01	MW-2	30 Jun 2016 13:15			03 Jul 2016 22:12	1
HS16070050-02	MW-4	30 Jun 2016 12:30			03 Jul 2016 22:39	1
Batch ID R277480 Test Name : VOLATILES - SW8260C Matrix: Water						
HS16070050-05	DUP	30 Jun 2016 00:00			05 Jul 2016 15:14	1
Batch ID R277558 Test Name : VOLATILES - SW8260C Matrix: Water						
HS16070050-03	MW-5	30 Jun 2016 12:15			05 Jul 2016 12:17	1
HS16070050-04	MW-6	30 Jun 2016 13:10			05 Jul 2016 12:41	1
HS16070050-06	Trip Blank	30 Jun 2016 00:00			05 Jul 2016 11:53	1
Batch ID R277916 Test Name : ANIONS BY E300.0 Matrix: Water						
HS16070050-01	MW-2	30 Jun 2016 13:15			12 Jul 2016 08:29	5
HS16070050-02	MW-4	30 Jun 2016 12:30			12 Jul 2016 09:42	20
HS16070050-03	MW-5	30 Jun 2016 12:15			12 Jul 2016 09:57	5
HS16070050-04	MW-6	30 Jun 2016 13:10			12 Jul 2016 10:11	20
HS16070050-05	DUP	30 Jun 2016 00:00			12 Jul 2016 10:26	20

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16070050

QC BATCH REPORT

Batch ID: R277463		Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-160703	Units: ug/L		Analysis Date: 03-Jul-2016 12:56					
Client ID:	Run ID: VOA1_277463		SeqNo: 3748061		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	47.52	0	50	0	95.0	70 - 125			
Surr: 4-Bromofluorobenzene	48.78	0	50	0	97.6	72 - 125			
Surr: Dibromofluoromethane	48.53	0	50	0	97.1	71 - 125			
Surr: Toluene-d8	49.09	0	50	0	98.2	75 - 125			

LCS	Sample ID: VLCSW-160703	Units: ug/L		Analysis Date: 03-Jul-2016 11:37					
Client ID:	Run ID: VOA1_277463		SeqNo: 3748060		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	51.1	5.0	50	0	102	73 - 121			
Ethylbenzene	47.99	5.0	50	0	96.0	80 - 120			
Toluene	51.73	5.0	50	0	103	80 - 120			
Xylenes, Total	145.6	15	150	0	97.1	80 - 120			
Surr: 1,2-Dichloroethane-d4	48.71	0	50	0	97.4	70 - 125			
Surr: 4-Bromofluorobenzene	46.11	0	50	0	92.2	72 - 125			
Surr: Dibromofluoromethane	49.2	0	50	0	98.4	71 - 125			
Surr: Toluene-d8	50.09	0	50	0	100	75 - 125			

MS	Sample ID: HS16070044-01MS	Units: ug/L		Analysis Date: 03-Jul-2016 14:41					
Client ID:	Run ID: VOA1_277463		SeqNo: 3748063		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	44.66	5.0	50	0	89.3	73 - 121			
Ethylbenzene	43.35	5.0	50	0	86.7	80 - 120			
Toluene	49.36	5.0	50	0	98.7	80 - 120			
Xylenes, Total	135.1	15	150	0	90.1	80 - 120			
Surr: 1,2-Dichloroethane-d4	49.32	0	50	0	98.6	70 - 125			
Surr: 4-Bromofluorobenzene	50.15	0	50	0	100	72 - 125			
Surr: Dibromofluoromethane	50.42	0	50	0	101	71 - 125			
Surr: Toluene-d8	47.2	0	50	0	94.4	75 - 125			

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

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 WorkOrder: HS16070050

QC BATCH REPORT

Batch ID: R277463		Instrument: VOA1		Method: SW8260						
MSD	Sample ID: HS16070044-01MSD		Units: ug/L		Analysis Date: 03-Jul-2016 15:07					
	Client ID:		Run ID: VOA1_277463		SeqNo: 3748064		PrepDate:		DF: 1	
	Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene		43.94	5.0	50	0	87.9	73 - 121	44.66	1.63	20
Ethylbenzene		43.08	5.0	50	0	86.2	80 - 120	43.35	0.626	20
Toluene		47.16	5.0	50	0	94.3	80 - 120	49.36	4.56	20
Xylenes, Total		137.2	15	150	0	91.5	78 - 121	135.1	1.57	20
Surr: 1,2-Dichloroethane-d4		48.74	0	50	0	97.5	70 - 125	49.32	1.18	20
Surr: 4-Bromofluorobenzene		49.06	0	50	0	98.1	72 - 125	50.15	2.19	20
Surr: Dibromofluoromethane		51.93	0	50	0	104	71 - 125	50.42	2.96	20
Surr: Toluene-d8		48.47	0	50	0	96.9	75 - 125	47.2	2.67	20
The following samples were analyzed in this batch: HS16070050-01 HS16070050-02										

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

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16070050

QC BATCH REPORT

Batch ID: R277480		Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-160703	Units: ug/L		Analysis Date: 05-Jul-2016 12:09					
Client ID:	Run ID: VOA1_277480	SeqNo: 3748370		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	52.5	0	50	0	105	70 - 125			
Surr: 4-Bromofluorobenzene	50.78	0	50	0	102	72 - 125			
Surr: Dibromofluoromethane	53.71	0	50	0	107	71 - 125			
Surr: Toluene-d8	48.96	0	50	0	97.9	75 - 125			

LCS	Sample ID: VLCSW-160705	Units: ug/L		Analysis Date: 05-Jul-2016 10:49					
Client ID:	Run ID: VOA1_277480	SeqNo: 3748369		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	48.83	5.0	50	0	97.7	73 - 121			
Ethylbenzene	47.86	5.0	50	0	95.7	80 - 120			
Toluene	49.24	5.0	50	0	98.5	80 - 120			
Xylenes, Total	151.6	15	150	0	101	80 - 120			
Surr: 1,2-Dichloroethane-d4	50.41	0	50	0	101	70 - 125			
Surr: 4-Bromofluorobenzene	52.16	0	50	0	104	72 - 125			
Surr: Dibromofluoromethane	47.23	0	50	0	94.5	71 - 125			
Surr: Toluene-d8	50.1	0	50	0	100	75 - 125			

MS	Sample ID: HS16070111-01MS	Units: ug/L		Analysis Date: 05-Jul-2016 14:21					
Client ID:	Run ID: VOA1_277480	SeqNo: 3748555		PrepDate:		DF: 25			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	1092	120	1250	0	87.3	73 - 121			
Ethylbenzene	946.1	120	1250	0	75.7	80 - 120			S
Toluene	1106	120	1250	0	88.4	80 - 120			
Xylenes, Total	3237	380	3750	0	86.3	80 - 120			
Surr: 1,2-Dichloroethane-d4	1361	0	1250	0	109	70 - 125			
Surr: 4-Bromofluorobenzene	1240	0	1250	0	99.2	72 - 125			
Surr: Dibromofluoromethane	1352	0	1250	0	108	71 - 125			
Surr: Toluene-d8	1208	0	1250	0	96.6	75 - 125			

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

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 WorkOrder: HS16070050

QC BATCH REPORT

Batch ID: R277480		Instrument: VOA1		Method: SW8260						
MSD	Sample ID: HS16070111-01MSD	Units: ug/L			Analysis Date: 05-Jul-2016 14:47					
Client ID:	Run ID: VOA1_277480	SeqNo: 3748556		PrepDate:		DF: 25				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Benzene	1063	120	1250	0	85.0	73 - 121	1092	2.68	20	
Ethylbenzene	1025	120	1250	0	82.0	80 - 120	946.1	8.04	20	
Toluene	1067	120	1250	0	85.4	80 - 120	1106	3.54	20	
Xylenes, Total	3232	380	3750	0	86.2	78 - 121	3237	0.158	20	
Surr: 1,2-Dichloroethane-d4	1287	0	1250	0	103	70 - 125	1361	5.57	20	
Surr: 4-Bromofluorobenzene	1222	0	1250	0	97.8	72 - 125	1240	1.49	20	
Surr: Dibromofluoromethane	1335	0	1250	0	107	71 - 125	1352	1.28	20	
Surr: Toluene-d8	1205	0	1250	0	96.4	75 - 125	1208	0.197	20	

The following samples were analyzed in this batch: HS16070050-05

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

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16070050

QC BATCH REPORT

Batch ID: R277558		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-160705	Units: ug/L		Analysis Date: 05-Jul-2016 11:29					
Client ID:	Run ID: VOA6_277558	SeqNo: 3749713		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	46.59	0	50	0	93.2	70 - 125			
Surr: 4-Bromofluorobenzene	48.38	0	50	0	96.8	72 - 125			
Surr: Dibromofluoromethane	50.42	0	50	0	101	71 - 125			
Surr: Toluene-d8	49.07	0	50	0	98.1	75 - 125			

LCS	Sample ID: VLCSW-160705	Units: ug/L		Analysis Date: 05-Jul-2016 10:18					
Client ID:	Run ID: VOA6_277558	SeqNo: 3749712		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	51.39	5.0	50	0	103	73 - 121			
Ethylbenzene	47.95	5.0	50	0	95.9	80 - 120			
Toluene	47.63	5.0	50	0	95.3	80 - 120			
Xylenes, Total	144.9	15	150	0	96.6	80 - 120			
Surr: 1,2-Dichloroethane-d4	44.49	0	50	0	89.0	70 - 125			
Surr: 4-Bromofluorobenzene	48.72	0	50	0	97.4	72 - 125			
Surr: Dibromofluoromethane	48.81	0	50	0	97.6	71 - 125			
Surr: Toluene-d8	48.48	0	50	0	97.0	75 - 125			

MS	Sample ID: HS16070050-03MS	Units: ug/L		Analysis Date: 05-Jul-2016 15:05					
Client ID: MW-5	Run ID: VOA6_277558	SeqNo: 3749717		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	46.91	5.0	50	0	93.8	73 - 121			
Ethylbenzene	43.98	5.0	50	0	88.0	80 - 120			
Toluene	44.2	5.0	50	0	88.4	80 - 120			
Xylenes, Total	133.6	15	150	0	89.0	80 - 120			
Surr: 1,2-Dichloroethane-d4	44.38	0	50	0	88.8	70 - 125			
Surr: 4-Bromofluorobenzene	49.42	0	50	0	98.8	72 - 125			
Surr: Dibromofluoromethane	48.68	0	50	0	97.4	71 - 125			
Surr: Toluene-d8	48.47	0	50	0	96.9	75 - 125			

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

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16070050

QC BATCH REPORT

Batch ID: R277558		Instrument: VOA6		Method: SW8260						
MSD		Sample ID: HS16070050-03MSD	Units: ug/L		Analysis Date: 05-Jul-2016 15:29					
Client ID: MW-5	Run ID: VOA6_277558		SeqNo: 3749718		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	45.91	5.0	50	0	91.8	73 - 121	46.91	2.15	20	
Ethylbenzene	43.13	5.0	50	0	86.3	80 - 120	43.98	1.97	20	
Toluene	43.19	5.0	50	0	86.4	80 - 120	44.2	2.32	20	
Xylenes, Total	130.4	15	150	0	86.9	78 - 121	133.6	2.42	20	
Surr: 1,2-Dichloroethane-d4	44.1	0	50	0	88.2	70 - 125	44.38	0.642	20	
Surr: 4-Bromofluorobenzene	48.25	0	50	0	96.5	72 - 125	49.42	2.39	20	
Surr: Dibromofluoromethane	48.54	0	50	0	97.1	71 - 125	48.68	0.28	20	
Surr: Toluene-d8	47.89	0	50	0	95.8	75 - 125	48.47	1.21	20	
The following samples were analyzed in this batch:										
HS16070050-03		HS16070050-04		HS16070050-06						

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

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16070050

QC BATCH REPORT

Batch ID: R277916		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW1-071213	Units: mg/L		Analysis Date: 12-Jul-2016 06:18						
Client ID:	Run ID: ICS2100_277916	SeqNo: 3757201		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: WLC SW1-071213	Units: mg/L		Analysis Date: 12-Jul-2016 06:33						
Client ID:	Run ID: ICS2100_277916	SeqNo: 3757203		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.54	0.500	20	0	97.7	90 - 110				
LCSD	Sample ID: WLCSDW1-071213	Units: mg/L		Analysis Date: 12-Jul-2016 06:48						
Client ID:	Run ID: ICS2100_277916	SeqNo: 3757204		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.79	0.500	20	0	99.0	90 - 110	19.54	1.27	20	
MS	Sample ID: HS16070050-01MS	Units: mg/L		Analysis Date: 12-Jul-2016 09:13						
Client ID: MW-2	Run ID: ICS2100_277916	SeqNo: 3757217		PrepDate:		DF: 5				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	130	2.50	50	85.2	89.6	80 - 120				
MS	Sample ID: HS16070049-01MS	Units: mg/L		Analysis Date: 12-Jul-2016 07:17						
Client ID:	Run ID: ICS2100_277916	SeqNo: 3757208		PrepDate:		DF: 400				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	12970	200	4000	9272	92.5	80 - 120				
MSD	Sample ID: HS16070050-01MSD	Units: mg/L		Analysis Date: 12-Jul-2016 09:28						
Client ID: MW-2	Run ID: ICS2100_277916	SeqNo: 3757218		PrepDate:		DF: 5				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	130.7	2.50	50	85.2	90.9	80 - 120	130	0.495	20	

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

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16070050

QC BATCH REPORT

Batch ID: R277916		Instrument: ICS2100		Method: E300	
MSD	Sample ID: HS16070049-01MSD	Units: mg/L		Analysis Date: 12-Jul-2016 07:31	
Client ID:	Run ID: ICS2100_277916	SeqNo: 3757209		PrepDate:	DF: 400
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	13160	200	4000	9272 97.3	80 - 120 12970 1.48 20
The following samples were analyzed in this batch:					
HS16070050-01 HS16070050-02 HS16070050-03 HS16070050-04 HS16070050-05					

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

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16070050

**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

ALS Group USA, Corp

Date: 13-Jul-16

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	16-022-0	27-Mar-2017
California	2919	31-Jul-2016
Illinois	003872	09-May-2017
Kansas	E-10352 2014-2015	31-Jul-2016
Kentucky	96 2016-2017	30-Apr-2017
Louisiana	03087 2016/2017	30-Jun-2017
North Carolina	624 - 2016	31-Dec-2016
North Dakota	R193 2016-2017	30-Apr-2017
Oklahoma	2015-047	31-Aug-2016
Texas	TX104704231-16-17	30-Apr-2017

ALS Group USA, Corp

Date: 13-Jul-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS16070050

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS16070050-01	MW-2	Login	7/1/2016 3:49:29 PM	CGG	14A
HS16070050-01	MW-2	Login	7/1/2016 3:49:29 PM	CGG	VW-3
HS16070050-02	MW-4	Login	7/1/2016 3:49:29 PM	CGG	14A
HS16070050-02	MW-4	Login	7/1/2016 3:49:29 PM	CGG	VW-3
HS16070050-03	MW-5	Login	7/1/2016 3:49:29 PM	CGG	14A
HS16070050-03	MW-5	Login	7/1/2016 3:49:29 PM	CGG	VW-3
HS16070050-04	MW-6	Login	7/1/2016 3:49:29 PM	CGG	14A
HS16070050-04	MW-6	Login	7/1/2016 3:49:29 PM	CGG	VW-3
HS16070050-05	DUP	Login	7/1/2016 3:49:29 PM	CGG	14A
HS16070050-05	DUP	Login	7/1/2016 3:49:29 PM	CGG	VW-3
HS16070050-06	Trip Blank	Login	7/1/2016 3:49:29 PM	CGG	VW-3

ALS Group USA, Corp

Date: 13-Jul-16

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **01-Jul-2016 08:50**

Work Order: HS16070050

Received by: **JRM**

Checklist completed by:	<u>Corey Grandits</u>	<u>1-Jul-2016</u>	Reviewed by:	<u>Dane J. Wacasey</u>	<u>5-Jul-2016</u>
	eSignature	Date		eSignature	Date

Matrices: **Water**Carrier name: **FedEx Priority Overnight**

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 ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☒
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):	3.2c/3.8c uc/c	IR#5
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Cooler(s)/Kit(s):	24408
-------------------	-------

Date/Time sample(s) sent to storage:	07/01/2016 15:55
--------------------------------------	------------------

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:

Regarding:

Comments:

Corrective Action:



Environmental

Cincinnati, OH
+1 513 733 5336Fort Collins, CO
+1 970 490 1511Everett, WA
+1 425 356 2600Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 142023

HS16070050

Glenn Springs Holdings, Inc.

55628DM GSHI PXP Hill E.C. ABC TB



m, WV

.8

10

Customer Information			Project Information			ALS Project Manager:												
Purchase Order	4502201559 ENV 749-4	Project Name	55628DM GSHI PXP Hill E.C. ABC TB			A												
Work Order		Project Number	ENV749A10			B	8260_W (BTEX)											
Company Name	Glenn Springs Holdings, Inc.	Bill To Company	Glenn Springs Holdings, Inc.			C	300_W (Chloride)											
Send Report To	Angela Bown	Invoice Attn	Jen Devonshire			D	8260_W (BTEX-Trip Blank)											
Address		Address				E												
City/State/Zip	PO Box 2148	City/State/Zip	PO Box 2148			F												
Phone	Houston, TX 77252-2148	Phone	Houston, TX 77252-2148			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	6.30.16	13:15	Water		4	X	X									
2	MW-2	6.30.16	13:15	Water	1.8	4	X	X									
3	MW-3	6.30.16		Water		4	X	X									
4	MW-4	6.30.16	12:30	Water	1.8	4	X	X									
5	MW-5	6.30.16	12:15	Water		4	X	X									
6	MW-6	6.30.16	13:10	Water		4	X	X									
7	MW-7			Water		4	X	X									
8	Trip Blank			Water		4	X	X									
9	Dup	6.30.16	—	Water	1.8	4	X	X									
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
<i>Cliff A. Smith</i>		Fed ex		TAT 10 days			
Relinquished by:	Date:	Time:	Received by:	Notes:			
<i>Cliff A. Smith</i>	6.30.16	17:04					
Relinquished by:	Date:	Time:	Received by (Laboratory):	QC Package: (Check One Box Below)			
			<i>JM</i> 7/1/16 08:5	☒ (GSHI PXP Hill E.C. ABC TB) Cooler ID: 21403 Cooler Temp: 4.6			
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	QC Level STD			
				Other:			

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 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.

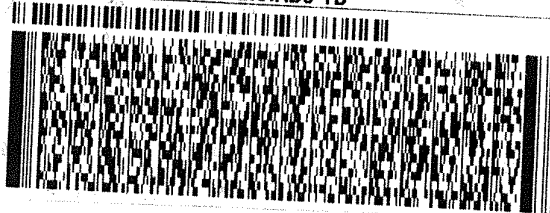
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.

3. The Chain of Custody is a legal document.

Page 23 of 24

Copyright 2011 by ALS Environmental.

	ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
		Date: <u>6-30-16</u> Time: <u>1600</u> Name: <u>Ed Mather</u> Company: <u>ALC Tech</u>		Date:

TO SHIPPING DEPT ALS LABORATORY GROUP 10450 STANCLIFF SUITE 210 HOUSTON TX 77099 (281) 630-5656 REF: GSHI PXP HILL E.C.ABC TB		BILL SENDER	
		FedEx Express 	
FedEx TRK# 0221 6355 5189 5383		FRI - 01 JUL 10:30A PRIORITY OVERNIGHT 770 TX-US	
AB SGRA			



10450 Stancliff Rd. Suite 210
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www.alsglobal.com

September 19, 2016

Angela Bown
Glenn Springs Holdings, Inc.

PO Box 2148
Houston, TX 77252-2148

Work Order: **HS16090527**

Laboratory Results for: **55628DM GSHI PXP Hill E.C. ABC TB**

Dear Angela,

ALS Environmental received 6 sample(s) on Sep 13, 2016 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

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS16090527

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS16090527-01	MW-2	Water		09-Sep-2016 14:15	13-Sep-2016 08:45	☐
HS16090527-02	MW-4	Water		09-Sep-2016 13:45	13-Sep-2016 08:45	☐
HS16090527-03	MW-5	Water		09-Sep-2016 15:00	13-Sep-2016 08:45	☐
HS16090527-04	MW-6	Water		09-Sep-2016 14:40	13-Sep-2016 08:45	☐
HS16090527-05	Trip Blank	Water	082416-90	09-Sep-2016 00:00	13-Sep-2016 08:45	☐
HS16090527-06	Dup	Water		09-Sep-2016 00:00	13-Sep-2016 08:45	☐

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS16090527

CASE NARRATIVE

GCMS Volatiles by Method SW8260

Batch ID: R281303

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

Batch ID: R281292

Sample ID: **HS16090482-01MSD**
• MSD is for an unrelated sample

WetChemistry by Method E300

Batch ID: R281527

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

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-2
 Collection Date: 09-Sep-2016 14:15

ANALYTICAL REPORT

WorkOrder:HS16090527
 Lab ID:HS16090527-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: AKP	
Benzene	U		0.60	5.0	ug/L	1	13-Sep-2016 18:50
Ethylbenzene	U		0.50	5.0	ug/L	1	13-Sep-2016 18:50
Toluene	U		0.50	5.0	ug/L	1	13-Sep-2016 18:50
Xylenes, Total	U		1.5	15	ug/L	1	13-Sep-2016 18:50
Surr: 1,2-Dichloroethane-d4	121			70-125	%REC	1	13-Sep-2016 18:50
Surr: 4-Bromofluorobenzene	89.8			72-125	%REC	1	13-Sep-2016 18:50
Surr: Dibromofluoromethane	121			71-125	%REC	1	13-Sep-2016 18:50
Surr: Toluene-d8	108			75-125	%REC	1	13-Sep-2016 18:50
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	86.3		1.00	2.50	mg/L	5	16-Sep-2016 14:03

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

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-4
 Collection Date: 09-Sep-2016 13:45

ANALYTICAL REPORT

WorkOrder:HS16090527
 Lab ID:HS16090527-02
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: AKP	
Benzene	U		0.60	5.0	ug/L	1	13-Sep-2016 19:16
Ethylbenzene	U		0.50	5.0	ug/L	1	13-Sep-2016 19:16
Toluene	U		0.50	5.0	ug/L	1	13-Sep-2016 19:16
Xylenes, Total	U		1.5	15	ug/L	1	13-Sep-2016 19:16
Surr: 1,2-Dichloroethane-d4	118			70-125	%REC	1	13-Sep-2016 19:16
Surr: 4-Bromofluorobenzene	90.1			72-125	%REC	1	13-Sep-2016 19:16
Surr: Dibromofluoromethane	117			71-125	%REC	1	13-Sep-2016 19:16
Surr: Toluene-d8	107			75-125	%REC	1	13-Sep-2016 19:16
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	568		4.00	10.0	mg/L	20	16-Sep-2016 14:47

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

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-5
 Collection Date: 09-Sep-2016 15:00

ANALYTICAL REPORT

WorkOrder:HS16090527
 Lab ID:HS16090527-03
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: AKP	
Benzene	U		0.60	5.0	ug/L	1	13-Sep-2016 19:43
Ethylbenzene	U		0.50	5.0	ug/L	1	13-Sep-2016 19:43
Toluene	U		0.50	5.0	ug/L	1	13-Sep-2016 19:43
Xylenes, Total	U		1.5	15	ug/L	1	13-Sep-2016 19:43
Surr: 1,2-Dichloroethane-d4	117			70-125	%REC	1	13-Sep-2016 19:43
Surr: 4-Bromofluorobenzene	88.1			72-125	%REC	1	13-Sep-2016 19:43
Surr: Dibromofluoromethane	119			71-125	%REC	1	13-Sep-2016 19:43
Surr: Toluene-d8	107			75-125	%REC	1	13-Sep-2016 19:43
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	74.7		1.00	2.50	mg/L	5	16-Sep-2016 15:01

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

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-6
 Collection Date: 09-Sep-2016 14:40

ANALYTICAL REPORT

WorkOrder:HS16090527
 Lab ID:HS16090527-04
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: AKP	
Benzene	U		0.60	5.0	ug/L	1	13-Sep-2016 20:09
Ethylbenzene	U		0.50	5.0	ug/L	1	13-Sep-2016 20:09
Toluene	U		0.50	5.0	ug/L	1	13-Sep-2016 20:09
Xylenes, Total	U		1.5	15	ug/L	1	13-Sep-2016 20:09
Surr: 1,2-Dichloroethane-d4	119			70-125	%REC	1	13-Sep-2016 20:09
Surr: 4-Bromofluorobenzene	86.8			72-125	%REC	1	13-Sep-2016 20:09
Surr: Dibromofluoromethane	122			71-125	%REC	1	13-Sep-2016 20:09
Surr: Toluene-d8	106			75-125	%REC	1	13-Sep-2016 20:09
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	724		4.00	10.0	mg/L	20	16-Sep-2016 15:16

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

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: Trip Blank
 Collection Date: 09-Sep-2016 00:00

ANALYTICAL REPORT

WorkOrder:HS16090527
 Lab ID:HS16090527-05
 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	13-Sep-2016 13:12
Ethylbenzene	U		0.50	5.0	ug/L	1	13-Sep-2016 13:12
Toluene	U		0.50	5.0	ug/L	1	13-Sep-2016 13:12
Xylenes, Total	U		1.5	15	ug/L	1	13-Sep-2016 13:12
Surr: 1,2-Dichloroethane-d4	103			70-125	%REC	1	13-Sep-2016 13:12
Surr: 4-Bromofluorobenzene	97.9			72-125	%REC	1	13-Sep-2016 13:12
Surr: Dibromofluoromethane	102			71-125	%REC	1	13-Sep-2016 13:12
Surr: Toluene-d8	104			75-125	%REC	1	13-Sep-2016 13:12

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

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: Dup
 Collection Date: 09-Sep-2016 00:00

ANALYTICAL REPORT

WorkOrder:HS16090527
 Lab ID:HS16090527-06
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: AKP	
Benzene	U		0.60	5.0	ug/L	1	13-Sep-2016 20:36
Ethylbenzene	U		0.50	5.0	ug/L	1	13-Sep-2016 20:36
Toluene	U		0.50	5.0	ug/L	1	13-Sep-2016 20:36
Xylenes, Total	U		1.5	15	ug/L	1	13-Sep-2016 20:36
Surr: 1,2-Dichloroethane-d4	119			70-125	%REC	1	13-Sep-2016 20:36
Surr: 4-Bromofluorobenzene	85.9			72-125	%REC	1	13-Sep-2016 20:36
Surr: Dibromofluoromethane	119			71-125	%REC	1	13-Sep-2016 20:36
Surr: Toluene-d8	105			75-125	%REC	1	13-Sep-2016 20:36
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	732		4.00	10.0	mg/L	20	16-Sep-2016 15:31

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

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16090527

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R281292	Test Name : VOLATILES - SW8260C		Matrix: Water			
HS16090527-01	MW-2	09 Sep 2016 14:15			13 Sep 2016 18:50	1
HS16090527-02	MW-4	09 Sep 2016 13:45			13 Sep 2016 19:16	1
HS16090527-03	MW-5	09 Sep 2016 15:00			13 Sep 2016 19:43	1
HS16090527-04	MW-6	09 Sep 2016 14:40			13 Sep 2016 20:09	1
HS16090527-06	Dup	09 Sep 2016 00:00			13 Sep 2016 20:36	1
Batch ID R281303	Test Name : VOLATILES - SW8260C		Matrix: Water			
HS16090527-05	Trip Blank	09 Sep 2016 00:00			13 Sep 2016 13:12	1
Batch ID R281527	Test Name : ANIONS BY E300.0		Matrix: Water			
HS16090527-01	MW-2	09 Sep 2016 14:15			16 Sep 2016 14:03	5
HS16090527-02	MW-4	09 Sep 2016 13:45			16 Sep 2016 14:47	20
HS16090527-03	MW-5	09 Sep 2016 15:00			16 Sep 2016 15:01	5
HS16090527-04	MW-6	09 Sep 2016 14:40			16 Sep 2016 15:16	20
HS16090527-06	Dup	09 Sep 2016 00:00			16 Sep 2016 15:31	20

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16090527

QC BATCH REPORT

Batch ID: R281292		Instrument: VOA4		Method: SW8260					
MBLK	Sample ID: VBLKW-160913	Units: ug/L		Analysis Date: 13-Sep-2016 10:45					
Client ID:	Run ID: VOA4_281292	SeqNo: 3824333		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	57.14	0	50	0	114	70 - 125			
Surr: 4-Bromofluorobenzene	45.77	0	50	0	91.5	72 - 125			
Surr: Dibromofluoromethane	57.24	0	50	0	114	71 - 125			
Surr: Toluene-d8	53.6	0	50	0	107	75 - 125			

LCS	Sample ID: VLCSW-160913	Units: ug/L		Analysis Date: 13-Sep-2016 09:27					
Client ID:	Run ID: VOA4_281292	SeqNo: 3824331		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	56.39	5.0	50	0	113	73 - 121			
Ethylbenzene	52.79	5.0	50	0	106	80 - 120			
Toluene	52.65	5.0	50	0	105	80 - 120			
Xylenes, Total	162	15	150	0	108	80 - 120			
Surr: 1,2-Dichloroethane-d4	53.87	0	50	0	108	70 - 125			
Surr: 4-Bromofluorobenzene	49.42	0	50	0	98.8	72 - 125			
Surr: Dibromofluoromethane	56.57	0	50	0	113	71 - 125			
Surr: Toluene-d8	52.37	0	50	0	105	75 - 125			

LCSD	Sample ID: VLCSW-160913	Units: ug/L		Analysis Date: 13-Sep-2016 09:53					
Client ID:	Run ID: VOA4_281292	SeqNo: 3824332		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	53.76	5.0	50	0	108	73 - 121	56.39	4.76	20
Ethylbenzene	51.12	5.0	50	0	102	80 - 120	52.79	3.22	20
Toluene	50.44	5.0	50	0	101	80 - 120	52.65	4.29	20
Xylenes, Total	156.2	15	150	0	104	78 - 121	162	3.67	20
Surr: 1,2-Dichloroethane-d4	55.31	0	50	0	111	70 - 125	53.87	2.64	20
Surr: 4-Bromofluorobenzene	48.87	0	50	0	97.7	72 - 125	49.42	1.12	20
Surr: Dibromofluoromethane	57.54	0	50	0	115	71 - 125	56.57	1.7	20
Surr: Toluene-d8	51.7	0	50	0	103	75 - 125	52.37	1.29	20

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

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16090527

QC BATCH REPORT

Batch ID: R281292		Instrument: VOA4		Method: SW8260						
MS		Sample ID: HS16090482-01MS		Units: ug/L		Analysis Date: 13-Sep-2016 15:18				
Client ID:		Run ID: VOA4_281292		SeqNo: 3824335		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	54.6	5.0	50	0	109	73 - 121				
Ethylbenzene	52.42	5.0	50	0	105	80 - 120				
Toluene	51.68	5.0	50	0	103	80 - 120				
Xylenes, Total	156.9	15	150	0	105	80 - 120				
Surr: 1,2-Dichloroethane-d4	54.43	0	50	0	109	70 - 125				
Surr: 4-Bromofluorobenzene	48.89	0	50	0	97.8	72 - 125				
Surr: Dibromofluoromethane	55.94	0	50	0	112	71 - 125				
Surr: Toluene-d8	50.63	0	50	0	101	75 - 125				

MSD		Sample ID: HS16090482-01MSD		Units: ug/L		Analysis Date: 13-Sep-2016 15:45				
Client ID:		Run ID: VOA4_281292		SeqNo: 3824336		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	12.14	5.0	50	0	24.3	73 - 121	54.6	127	20	SR
Ethylbenzene	11.06	5.0	50	0	22.1	80 - 120	52.42	130	20	SR
Toluene	11.46	5.0	50	0	22.9	80 - 120	51.68	127	20	SR
Xylenes, Total	33.97	15	150	0	22.6	78 - 121	156.9	129	20	SR
Surr: 1,2-Dichloroethane-d4	57.51	0	50	0	115	70 - 125	54.43	5.52	20	
Surr: 4-Bromofluorobenzene	44.26	0	50	0	88.5	72 - 125	48.89	9.94	20	
Surr: Dibromofluoromethane	54.91	0	50	0	110	71 - 125	55.94	1.85	20	
Surr: Toluene-d8	49.32	0	50	0	98.6	75 - 125	50.63	2.62	20	

The following samples were analyzed in this batch:

HS16090527-01	HS16090527-02	HS16090527-03	HS16090527-04
HS16090527-06			

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

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16090527

QC BATCH REPORT

Batch ID: R281303		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-160913	Units: ug/L		Analysis Date: 13-Sep-2016 11:37					
Client ID:	Run ID: VOA6_281303	SeqNo: 3824573		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	51.66	0	50	0	103	70 - 125			
Surr: 4-Bromofluorobenzene	48.84	0	50	0	97.7	72 - 125			
Surr: Dibromofluoromethane	51.47	0	50	0	103	71 - 125			
Surr: Toluene-d8	51.92	0	50	0	104	75 - 125			

LCS	Sample ID: VLCSW-160913	Units: ug/L		Analysis Date: 13-Sep-2016 10:25					
Client ID:	Run ID: VOA6_281303	SeqNo: 3824572		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	46.72	5.0	50	0	93.4	73 - 121			
Ethylbenzene	46.77	5.0	50	0	93.5	80 - 120			
Toluene	45.48	5.0	50	0	91.0	80 - 120			
Xylenes, Total	140.1	15	150	0	93.4	80 - 120			
Surr: 1,2-Dichloroethane-d4	49.26	0	50	0	98.5	70 - 125			
Surr: 4-Bromofluorobenzene	50.2	0	50	0	100	72 - 125			
Surr: Dibromofluoromethane	49.87	0	50	0	99.7	71 - 125			
Surr: Toluene-d8	51.05	0	50	0	102	75 - 125			

MS	Sample ID: HS16090407-04MS	Units: ug/L		Analysis Date: 13-Sep-2016 14:35					
Client ID:	Run ID: VOA6_281303	SeqNo: 3824576		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	47.34	5.0	50	0	94.7	73 - 121			
Ethylbenzene	44.69	5.0	50	0	89.4	80 - 120			
Toluene	43.09	5.0	50	0	86.2	80 - 120			
Xylenes, Total	134.4	15	150	0	89.6	80 - 120			
Surr: 1,2-Dichloroethane-d4	50.28	0	50	0	101	70 - 125			
Surr: 4-Bromofluorobenzene	49.17	0	50	0	98.3	72 - 125			
Surr: Dibromofluoromethane	49.65	0	50	0	99.3	71 - 125			
Surr: Toluene-d8	50.14	0	50	0	100	75 - 125			

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

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 WorkOrder: HS16090527

QC BATCH REPORT

Batch ID: R281303		Instrument: VOA6		Method: SW8260	
MSD	Sample ID: HS16090407-04MSD	Units: ug/L		Analysis Date: 13-Sep-2016 14:59	
Client ID:	Run ID: VOA6_281303	SeqNo: 3824577		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Benzene	46.1	5.0	50	0 92.2	73 - 121 47.34 2.65 20
Ethylbenzene	45.52	5.0	50	0 91.0	80 - 120 44.69 1.84 20
Toluene	44.35	5.0	50	0 88.7	80 - 120 43.09 2.87 20
Xylenes, Total	137	15	150	0 91.3	78 - 121 134.4 1.93 20
Surr: 1,2-Dichloroethane-d4	48.24	0	50	0 96.5	70 - 125 50.28 4.14 20
Surr: 4-Bromofluorobenzene	49.68	0	50	0 99.4	72 - 125 49.17 1.02 20
Surr: Dibromofluoromethane	49.84	0	50	0 99.7	71 - 125 49.65 0.379 20
Surr: Toluene-d8	51.01	0	50	0 102	75 - 125 50.14 1.73 20

The following samples were analyzed in this batch: HS16090527-05

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

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16090527

QC BATCH REPORT

Batch ID: R281527		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW1-091616	Units: mg/L		Analysis Date: 16-Sep-2016 08:30						
Client ID:	Run ID: ICS2100_281527	SeqNo: 3829101		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: WLCSW1-091616	Units: mg/L		Analysis Date: 16-Sep-2016 09:27						
Client ID:	Run ID: ICS2100_281527	SeqNo: 3829102		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.96	0.500	20	0	99.8	90 - 110				
LCSD	Sample ID: WLCSDW1-091616	Units: mg/L		Analysis Date: 16-Sep-2016 09:42						
Client ID:	Run ID: ICS2100_281527	SeqNo: 3829103		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.11	0.500	20	0	101	90 - 110	19.96	0.784	20	
MS	Sample ID: HS16090544-03MS	Units: mg/L		Analysis Date: 16-Sep-2016 17:56						
Client ID:	Run ID: ICS2100_281527	SeqNo: 3829120		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	302.5	5.00	100	215.7	86.8	80 - 120				
MS	Sample ID: HS16090527-01MS	Units: mg/L		Analysis Date: 16-Sep-2016 14:18						
Client ID: MW-2	Run ID: ICS2100_281527	SeqNo: 3829105		PrepDate:		DF: 5				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	134.5	2.50	50	86.27	96.5	80 - 120				
MSD	Sample ID: HS16090544-03MSD	Units: mg/L		Analysis Date: 16-Sep-2016 18:11						
Client ID:	Run ID: ICS2100_281527	SeqNo: 3829121		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	307.5	5.00	100	215.7	91.8	80 - 120	302.5	1.63	20	

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

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16090527

QC BATCH REPORT

Batch ID: R281527											Instrument: ICS2100			Method: E300		
MSD		Sample ID: HS16090527-01MSD		Units: mg/L			Analysis Date: 16-Sep-2016 14:32									
Client ID: MW-2		Run ID: ICS2100_281527			SeqNo: 3829106		PrepDate:		DF: 5							
Analyte		Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual					
Chloride		133.2		2.50	50	86.27	93.9	80 - 120	134.5	0.973	20					

The following samples were analyzed in this batch:

HS16090527-01	HS16090527-02	HS16090527-03	HS16090527-04
HS16090527-06			

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

ALS Group USA, Corp

Date: 19-Sep-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16090527

**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

ALS Group USA, Corp

Date: 19-Sep-16

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	16-022-1	27-Mar-2017
Illinois	003872	09-May-2017
Kansas	E-10352 2015-2016	30-Sep-2016
Kentucky	96 2016-2017	30-Apr-2017
Louisiana	03087 2016-2017	30-Jun-2017
North Carolina	624 - 2016	31-Dec-2016
North Dakota	R193 2016-2017	30-Apr-2017
Oklahoma	2016-122	31-Aug-2017
Texas	TX104704231-16-17	30-Apr-2017

ALS Group USA, Corp

Date: 19-Sep-16

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **13-Sep-2016 08:45**

Work Order: HS16090527

Received by: **RPG**

Checklist completed by:	<u>Corey Grandits</u>	<u>13-Sep-2016</u>	Reviewed by:	<u>Dane J. Wacasey</u>	<u>15-Sep-2016</u>
	eSignature	Date		eSignature	Date

Matrices: **Water**Carrier name: **FedEx Priority Overnight**

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 ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☒
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):	0.9c/1.6c uc/c	IR#11
--------------------------------	----------------	-------

Cooler(s)/Kit(s):	24129
-------------------	-------

Date/Time sample(s) sent to storage:	09/13/2016 10:30
--------------------------------------	------------------

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:



Environmental

Cincinnati, OH
+1 513 733 5336Fort Collins, CO
+1 970 490 1511Everett, WA
+1 425 356 2600Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 151440

Houston, TX
+1 281 530 5656Spring City, PA
+1 610 948 4903Middletown, PA
+1 717 944 5541Salt Lake City, UT
+1 801 266 7700South Charleston, WV
+1 304 356 3168York, PA
+1 717 505 5280

Customer Information				Project Information				Parameter/Method Request for Analysis												
Purchase Order	4502201559 ENV 749-4			Project Name	55628DM GSHI PXP Hill E.C. ABC TB			A	8260_W (BTEX)											
Work Order				Project Number	ENV749A10			B	300_W (Chloride)											
Company Name	Glenn Springs Holdings, Inc.			Bill To Company	Glenn Springs Holdings, Inc.			C	8260_W (BTEX-Trip Blank)											
Send Report To	Angela Bown			Invoice Attn	Jen Devonshire			D	HS16090527 Glenn Springs Holdings, Inc. 55628DM GSHI PXP Hill E.C. ABC TB 											
Address	PO Box 2148			Address	PO Box 2148			E												
City/State/Zip	Houston, TX 77252-2148			City/State/Zip	Houston, TX 77252-2148			F												
Phone				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			Water	1	4	X	X									
2	MW-2	9-9-16	1415	Water	1/8	4	X	X									
3	MW-3			Water		4	X	X									
4	MW-4	9-9-16	1345	Water		4	X	X									
5	MW-5	9-9-16	1500	Water		4	X	X									
6	MW-6	9-9-16	1440	Water		4	X	X									
7	MW-7			Water		4	X	X									
8	Trip Blank			Water		2			X								
9	Dup	9-9-16		W		4	X	X									
10																	

Sampler(s) Please Print & Sign <i>C. L. Perre</i> <i>Colo Perre</i>				Shipment Method <i>Fedex</i>		Required Turnaround Time: (Check Box) TAT <u>10 days</u> Other: _____				Results Due Date: _____			
Relinquished by: <i>C. L. Perre</i>		Date: <i>9-12-16</i>	Time: <i>1700</i>	Received by:		Notes: [GSHI PXP Hill EC ABC TB]							
Relinquished by:		Date:	Time:	Received by (Laboratory): <i>R. C. G. 9/13/16 08:45 am</i>		Cooler ID <i>24129</i>		Cooler Temp. <i>0.9</i>		QC Package: (Check One Box Below)			
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		<i>12 11</i>		<i>CF 10-7</i>		QC Level <u>STD</u>			
										Other: _____			

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 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.

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.

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Page 20 of 21

 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: 9-13-16	Time: 1200	Date: 09/13/16
	Name: [Signature]	Company: [Signature]	

24129

SEP 13 2016

 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: 9-13-16	Time: 1200	Date: 09/13/16
	Name: [Signature]	Company: [Signature]	

FedEx
TRK# 0221 6786 7200 0021

TUE - 13 SEP 10:30A
PRIORITY OVERNIGHT

AB SGRA 24129

77099
TX-US IAH



#2630577 09/12 544J1/A053/14E8



10450 Stancliff Rd. Suite 210
Houston, TX 77099
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F: +1 281 530 5887
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December 19, 2016

Angela Bown
Glenn Springs Holdings, Inc.
PO Box 2148

Houston, TX 77252-2148

Work Order: **HS16120477**

Laboratory Results for: **55628DM GSHI PXP Hill E.C. ABC TB**

Dear Angela,

ALS Environmental received 6 sample(s) on Dec 08, 2016 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: Jumoke.Lawal
Dane J. Wacasey

ALS Group USA, Corp

Date: 19-Dec-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS16120477

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS16120477-01	MW-2	Water		07-Dec-2016 11:20	08-Dec-2016 09:00	☐
HS16120477-02	MW-4	Water		07-Dec-2016 11:00	08-Dec-2016 09:00	☐
HS16120477-03	MW-5	Water		07-Dec-2016 11:35	08-Dec-2016 09:00	☐
HS16120477-04	MW-6	Water		07-Dec-2016 10:40	08-Dec-2016 09:00	☐
HS16120477-05	DUP	Water		07-Dec-2016 00:00	08-Dec-2016 09:00	☐
HS16120477-06	Trip Blank	Water		07-Dec-2016 00:00	08-Dec-2016 09:00	☐

ALS Group USA, Corp

Date: 19-Dec-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS16120477

CASE NARRATIVE

GCMS Volatiles by Method SW8260

Batch ID: R286437

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

WetChemistry by Method E300

Batch ID: R286680

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

ALS Group USA, Corp

Date: 19-Dec-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-2
 Collection Date: 07-Dec-2016 11:20

ANALYTICAL REPORT

WorkOrder:HS16120477
 Lab ID:HS16120477-01
 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	13-Dec-2016 05:23
Ethylbenzene	U		0.50	5.0	ug/L	1	13-Dec-2016 05:23
Toluene	U		0.50	5.0	ug/L	1	13-Dec-2016 05:23
Xylenes, Total	U		0.50	5.0	ug/L	1	13-Dec-2016 05:23
Surr: 1,2-Dichloroethane-d4	109			70-125	%REC	1	13-Dec-2016 05:23
Surr: 4-Bromofluorobenzene	90.8			72-125	%REC	1	13-Dec-2016 05:23
Surr: Dibromofluoromethane	117			71-125	%REC	1	13-Dec-2016 05:23
Surr: Toluene-d8	97.5			75-125	%REC	1	13-Dec-2016 05:23
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	103		1.00	2.50	mg/L	5	16-Dec-2016 00:26

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

ALS Group USA, Corp

Date: 19-Dec-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-4
 Collection Date: 07-Dec-2016 11:00

ANALYTICAL REPORT

WorkOrder:HS16120477
 Lab ID:HS16120477-02
 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	13-Dec-2016 05:46
Ethylbenzene	U		0.50	5.0	ug/L	1	13-Dec-2016 05:46
Toluene	U		0.50	5.0	ug/L	1	13-Dec-2016 05:46
Xylenes, Total	U		0.50	5.0	ug/L	1	13-Dec-2016 05:46
Surr: 1,2-Dichloroethane-d4	109			70-125	%REC	1	13-Dec-2016 05:46
Surr: 4-Bromofluorobenzene	92.0			72-125	%REC	1	13-Dec-2016 05:46
Surr: Dibromofluoromethane	116			71-125	%REC	1	13-Dec-2016 05:46
Surr: Toluene-d8	95.3			75-125	%REC	1	13-Dec-2016 05:46
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	666		4.00	10.0	mg/L	20	16-Dec-2016 00:47

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

ALS Group USA, Corp

Date: 19-Dec-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-5
 Collection Date: 07-Dec-2016 11:35

ANALYTICAL REPORT

WorkOrder:HS16120477
 Lab ID:HS16120477-03
 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	13-Dec-2016 06:10
Ethylbenzene	U		0.50	5.0	ug/L	1	13-Dec-2016 06:10
Toluene	U		0.50	5.0	ug/L	1	13-Dec-2016 06:10
Xylenes, Total	U		0.50	5.0	ug/L	1	13-Dec-2016 06:10
Surr: 1,2-Dichloroethane-d4	107			70-125	%REC	1	13-Dec-2016 06:10
Surr: 4-Bromofluorobenzene	91.5			72-125	%REC	1	13-Dec-2016 06:10
Surr: Dibromofluoromethane	115			71-125	%REC	1	13-Dec-2016 06:10
Surr: Toluene-d8	97.6			75-125	%REC	1	13-Dec-2016 06:10
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	89.1		1.00	2.50	mg/L	5	16-Dec-2016 01:08

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

ALS Group USA, Corp

Date: 19-Dec-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-6
 Collection Date: 07-Dec-2016 10:40

ANALYTICAL REPORT

WorkOrder:HS16120477
 Lab ID:HS16120477-04
 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	13-Dec-2016 06:34
Ethylbenzene	U		0.50	5.0	ug/L	1	13-Dec-2016 06:34
Toluene	U		0.50	5.0	ug/L	1	13-Dec-2016 06:34
Xylenes, Total	U		0.50	5.0	ug/L	1	13-Dec-2016 06:34
Surr: 1,2-Dichloroethane-d4	111			70-125	%REC	1	13-Dec-2016 06:34
Surr: 4-Bromofluorobenzene	90.4			72-125	%REC	1	13-Dec-2016 06:34
Surr: Dibromofluoromethane	117			71-125	%REC	1	13-Dec-2016 06:34
Surr: Toluene-d8	98.6			75-125	%REC	1	13-Dec-2016 06:34
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	758		4.00	10.0	mg/L	20	16-Dec-2016 01:30

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

ALS Group USA, Corp

Date: 19-Dec-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: DUP
 Collection Date: 07-Dec-2016 00:00

ANALYTICAL REPORT

WorkOrder:HS16120477
 Lab ID:HS16120477-05
 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	13-Dec-2016 06:58
Ethylbenzene	U		0.50	5.0	ug/L	1	13-Dec-2016 06:58
Toluene	U		0.50	5.0	ug/L	1	13-Dec-2016 06:58
Xylenes, Total	U		0.50	5.0	ug/L	1	13-Dec-2016 06:58
Surr: 1,2-Dichloroethane-d4	109			70-125	%REC	1	13-Dec-2016 06:58
Surr: 4-Bromofluorobenzene	90.6			72-125	%REC	1	13-Dec-2016 06:58
Surr: Dibromofluoromethane	116			71-125	%REC	1	13-Dec-2016 06:58
Surr: Toluene-d8	98.1			75-125	%REC	1	13-Dec-2016 06:58
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	678		4.00	10.0	mg/L	20	16-Dec-2016 01:51

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

ALS Group USA, Corp

Date: 19-Dec-16

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: Trip Blank
 Collection Date: 07-Dec-2016 00:00

ANALYTICAL REPORT

WorkOrder:HS16120477
 Lab ID:HS16120477-06
 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	13-Dec-2016 04:59
Ethylbenzene	U		0.50	5.0	ug/L	1	13-Dec-2016 04:59
Toluene	U		0.50	5.0	ug/L	1	13-Dec-2016 04:59
Xylenes, Total	U		0.50	5.0	ug/L	1	13-Dec-2016 04:59
Surr: 1,2-Dichloroethane-d4	108			70-125	%REC	1	13-Dec-2016 04:59
Surr: 4-Bromofluorobenzene	90.4			72-125	%REC	1	13-Dec-2016 04:59
Surr: Dibromofluoromethane	114			71-125	%REC	1	13-Dec-2016 04:59
Surr: Toluene-d8	98.4			75-125	%REC	1	13-Dec-2016 04:59

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

ALS Group USA, Corp

Date: 19-Dec-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16120477

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R286437		Test Name : VOLATILES - SW8260C		Matrix: Water		
HS16120477-01	MW-2	07 Dec 2016 11:20			13 Dec 2016 05:23	1
HS16120477-02	MW-4	07 Dec 2016 11:00			13 Dec 2016 05:46	1
HS16120477-03	MW-5	07 Dec 2016 11:35			13 Dec 2016 06:10	1
HS16120477-04	MW-6	07 Dec 2016 10:40			13 Dec 2016 06:34	1
HS16120477-05	DUP	07 Dec 2016 00:00			13 Dec 2016 06:58	1
HS16120477-06	Trip Blank	07 Dec 2016 00:00			13 Dec 2016 04:59	1
Batch ID R286680		Test Name : ANIONS BY E300.0		Matrix: Water		
HS16120477-01	MW-2	07 Dec 2016 11:20			16 Dec 2016 00:26	5
HS16120477-02	MW-4	07 Dec 2016 11:00			16 Dec 2016 00:47	20
HS16120477-03	MW-5	07 Dec 2016 11:35			16 Dec 2016 01:08	5
HS16120477-04	MW-6	07 Dec 2016 10:40			16 Dec 2016 01:30	20
HS16120477-05	DUP	07 Dec 2016 00:00			16 Dec 2016 01:51	20

ALS Group USA, Corp

Date: 19-Dec-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16120477

QC BATCH REPORT

Batch ID: R286437		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-161212	Units: ug/L		Analysis Date: 13-Dec-2016 00:13					
Client ID:	Run ID: VOA6_286437	SeqNo: 3926971		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	5.0							
Surr: 1,2-Dichloroethane-d4	54.34	0	50	0	109	70 - 125			
Surr: 4-Bromofluorobenzene	45.35	0	50	0	90.7	72 - 125			
Surr: Dibromofluoromethane	58.03	0	50	0	116	71 - 125			
Surr: Toluene-d8	48.86	0	50	0	97.7	75 - 125			

LCS	Sample ID: VLCSW-161212	Units: ug/L		Analysis Date: 12-Dec-2016 23:25					
Client ID:	Run ID: VOA6_286437	SeqNo: 3926970		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	53.09	5.0	50	0	106	73 - 121			
Ethylbenzene	45.92	5.0	50	0	91.8	80 - 120			
Toluene	44.32	5.0	50	0	88.6	80 - 120			
Xylenes, Total	137	5.0	150	0	91.3	80 - 120			
Surr: 1,2-Dichloroethane-d4	54.82	0	50	0	110	70 - 125			
Surr: 4-Bromofluorobenzene	47.35	0	50	0	94.7	72 - 125			
Surr: Dibromofluoromethane	59.38	0	50	0	119	71 - 125			
Surr: Toluene-d8	49.64	0	50	0	99.3	75 - 125			

MS	Sample ID: HS16120517-01MS	Units: ug/L		Analysis Date: 13-Dec-2016 02:12					
Client ID:	Run ID: VOA6_286437	SeqNo: 3926974		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	52.02	5.0	50	0	104	73 - 121			
Ethylbenzene	44.49	5.0	50	0	89.0	80 - 120			
Toluene	43.55	5.0	50	0	87.1	80 - 120			
Xylenes, Total	133	5.0	150	0	88.7	80 - 120			
Surr: 1,2-Dichloroethane-d4	53.57	0	50	0	107	70 - 125			
Surr: 4-Bromofluorobenzene	46.72	0	50	0	93.4	72 - 125			
Surr: Dibromofluoromethane	57.6	0	50	0	115	71 - 125			
Surr: Toluene-d8	48.21	0	50	0	96.4	75 - 125			

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

ALS Group USA, Corp

Date: 19-Dec-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16120477

QC BATCH REPORT

Batch ID: R286437		Instrument: VOA6		Method: SW8260					
MSD	Sample ID: HS16120517-01MSD	Units: ug/L			Analysis Date: 13-Dec-2016 02:36				
Client ID:	Run ID: VOA6_286437	SeqNo: 3926975		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	52.81	5.0	50	0	106	73 - 121	52.02	1.51	20
Ethylbenzene	45.61	5.0	50	0	91.2	80 - 120	44.49	2.49	20
Toluene	44.71	5.0	50	0	89.4	80 - 120	43.55	2.62	20
Xylenes, Total	137.5	5.0	150	0	91.7	78 - 121	133	3.35	20
Surr: 1,2-Dichloroethane-d4	54.88	0	50	0	110	70 - 125	53.57	2.43	20
Surr: 4-Bromofluorobenzene	46.47	0	50	0	92.9	72 - 125	46.72	0.52	20
Surr: Dibromofluoromethane	59.17	0	50	0	118	71 - 125	57.6	2.69	20
Surr: Toluene-d8	48.51	0	50	0	97.0	75 - 125	48.21	0.627	20
The following samples were analyzed in this batch:									
HS16120477-01		HS16120477-02		HS16120477-03		HS16120477-04			
HS16120477-05		HS16120477-06							

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

ALS Group USA, Corp

Date: 19-Dec-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16120477

QC BATCH REPORT

Batch ID: R286680		Instrument: ICS3000		Method: E300						
MBLK	Sample ID: WBLKW1-121516	Units: mg/L		Analysis Date: 15-Dec-2016 11:10						
Client ID:	Run ID: ICS3000_286680	SeqNo: 3932285		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: WLCBW1-121516	Units: mg/L		Analysis Date: 15-Dec-2016 11:31						
Client ID:	Run ID: ICS3000_286680	SeqNo: 3932286		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.35	0.500	20	0	102	90 - 110				
LCSD	Sample ID: WLCSDW1-121516	Units: mg/L		Analysis Date: 15-Dec-2016 11:52						
Client ID:	Run ID: ICS3000_286680	SeqNo: 3932287		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.43	0.500	20	0	102	90 - 110	20.35	0.397	20	
MS	Sample ID: HS16120475-01MS	Units: mg/L		Analysis Date: 15-Dec-2016 21:57						
Client ID:	Run ID: ICS3000_286680	SeqNo: 3932303		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	378.5	5.00	100	283.1	95.3	80 - 120				
MS	Sample ID: HS16120474-01MS	Units: mg/L		Analysis Date: 15-Dec-2016 16:59						
Client ID:	Run ID: ICS3000_286680	SeqNo: 3932289		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	351.4	5.00	100	255.9	95.5	80 - 120				
MSD	Sample ID: HS16120475-01MSD	Units: mg/L		Analysis Date: 15-Dec-2016 22:18						
Client ID:	Run ID: ICS3000_286680	SeqNo: 3932304		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	380.3	5.00	100	283.1	97.2	80 - 120	378.5	0.485	20	

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

ALS Group USA, Corp

Date: 19-Dec-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16120477

QC BATCH REPORT

Batch ID: R286680		Instrument: ICS3000		Method: E300	
MSD	Sample ID: HS16120474-01MSD	Units: mg/L		Analysis Date: 15-Dec-2016 17:21	
Client ID:	Run ID: ICS3000_286680	SeqNo: 3932290		PrepDate:	DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	348.9	5.00	100	255.9	93.0	80 - 120	351.4	0.713	20
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The following samples were analyzed in this batch:

HS16120477-01	HS16120477-02	HS16120477-03	HS16120477-04
HS16120477-05			

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

ALS Group USA, Corp

Date: 19-Dec-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS16120477

**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

ALS Group USA, Corp

Date: 19-Dec-16

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	16-022-1	27-Mar-2017
California	2919 2016-2018	31-Jul-2018
Illinois	003872	09-May-2017
Kansas	E-10352 2016-2017	31-Jul-2017
Kentucky	96 2016-2017	30-Apr-2017
Louisiana	03087 2016-2017	30-Jun-2017
North Carolina	624 - 2016	31-Dec-2016
North Dakota	R193 2016-2017	30-Apr-2017
Oklahoma	2016-122	31-Aug-2017
Texas	TX104704231-16-17	30-Apr-2017

ALS Group USA, Corp

Date: 19-Dec-16

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS16120477

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS16120477-01	MW-2	Login	12/9/2016 12:23:50 PM	CL	14A
HS16120477-01	MW-2	Login	12/9/2016 12:23:50 PM	CL	VW-3
HS16120477-02	MW-4	Login	12/9/2016 12:23:50 PM	CL	14A
HS16120477-02	MW-4	Login	12/9/2016 12:23:50 PM	CL	VW-3
HS16120477-03	MW-5	Login	12/9/2016 12:23:50 PM	CL	14A
HS16120477-03	MW-5	Login	12/9/2016 12:23:50 PM	CL	VW-3
HS16120477-05	DUP	Login	12/9/2016 12:23:50 PM	CL	14A
HS16120477-05	DUP	Login	12/9/2016 12:23:50 PM	CL	VW-3
HS16120477-06	Trip Blank	Login	12/9/2016 12:23:50 PM	CL	VW-3

ALS Group USA, Corp

Date: 19-Dec-16

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **08-Dec-2016 09:00**

Work Order: HS16120477

Received by: **RPG**

Checklist completed by:	<u>Cesar A. Lira</u>	9-Dec-2016	Reviewed by:	<u>Dane J. Wacasey</u>	12-Dec-2016
	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 ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☒
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/1.0c uc/c	11
--------------------------------	----------------	----

Cooler(s)/Kit(s):	42551
-------------------	-------

Date/Time sample(s) sent to storage:	12/09/2016 12:30pm
--------------------------------------	--------------------

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:

Regarding:

Comments:

Corrective Action:



Cincinnati, OH
+1 513 733 5336

Fort Collins, CO
+1 970 490 1511

Everett, WA
+1 425 356 2600

Holland, MI
+1 616 399 6070

Chain of Custody Form

Page _____ of _____

COC ID: 152534

Houston, TX
+1 281 530 5656

Spring City, PA
+1 610 948 4903

South Charleston, WV
+1 304 356 3168

Middletown, PA
+1 717 944 5541

Salt Lake City, UT
+1 801 266 7700

York, PA
+1 717 505 5280

Customer Information				Project Information			ALS Work Order #:												
Purchase Order	4502201559 ENV 749-4			Project Name	55628DM GSHI PXP Hill E.C. ABC TB			Parameter/Method Request for Analysis											
Work Order				Project Number	ENV749A10			A	8260_W (BTEX)										
Company Name	Glenn Springs Holdings, Inc.			Bill To Company	Glenn Springs Holdings, Inc.			B	300_W (Chloride)										
Send Report To	Angela Bown			Invoice Attn	Jen Devonshire			C	8260_W (BTEX-Trip Blank)										
Address	PO Box 2148			Address	PO Box 2148			D											
								E											
City/State/Zip	Houston, TX 77252-2148			City/State/Zip	Houston, TX 77252-2148			F											
Phone				Phone				G											
Fax				Fax				H											
e-Mail Address				e-Mail Address				I											
								J											
HS16120477 Glenn Springs Holdings, Inc. 55628DM GSHI PXP Hill E.C. ABC TB 																			
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	MW-1	—	—	Water		4	X	X											
2	MW-2	12-7-16	1120	Water	1+8	4	X	X											
3	MW-3	—	—	Water	1+8	4	X	X											
4	MW-4	12-7-16	1100	Water	1+8	4	X	X											
5	MW-5	12-7-16	1135	Water	1+8	4	X	X											
6	MW-6	12-7-16	1040	Water	1+8	4	X	X											
7	TMW-7	—	—	Water	1+8	4	X	X											
8	DUP	12-7-16		Water	1+8	4	X	X											
9	Trip Blank			Water		2			X										
10																			
Sampler(s) Please Print & Sign <i>Matthew McDaniel</i>				Shipment Method <i>FedEx</i>		Required Turnaround Time: (Check Box) TAT <u>10 days</u> Other: _____				Results Due Date: _____									
Relinquished by: <i>Matthew McDaniel</i>		Date: <i>12-7-16</i>	Time: <i>1700</i>	Received by: <i>R.G.</i>			Notes: [GSHI PXP Hill EC ABC TB]												
Relinquished by:		Date:	Time:	Received by (Laboratory): <i>R.G. 12-8-16 09:00</i>			Cooler ID <i>42551</i>	Cooler Temp. <i>0.70</i>	QC Package: (Check One Box Below)										
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):					QC Level STD										
									Other: _____										
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.

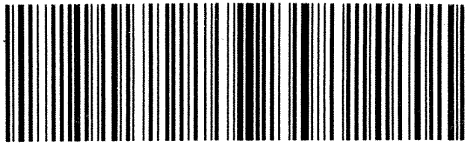
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Page 19 of 20

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 ALS Environmental 10450 Stanciliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887 <i>42551</i>	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>12-7-16</i>	Time: <i>12:00</i>	Date: <i>12/08/16</i>
	Name: <i>Matthew M...</i>	Company: <i>ICHA Tech</i>	

42551

FedEx TRK# 0221	6786 7202 1707	THU - 08 DEC 10:30A PRIORITY OVERNIGHT
AB SGRA	<i>42551</i>	77099 TX-US IAH
		

EXP 09/17 **

2017



10450 Stancliff Rd. Suite 210
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F: +1 281 530 5887
www.alsglobal.com

March 15, 2017

Angela Bown
Glenn Springs Holdings, Inc.
PO Box 2148

Houston, TX 77252-2148

Work Order: **HS17030342**

Laboratory Results for: **55628DM GSHI PXP Hill E.C. ABC TB**

Dear Angela,

ALS Environmental received 6 sample(s) on Mar 07, 2017 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: Jumoke.Lawal
Dane J. Wacasey

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS17030342

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS17030342-01	MW-2	Water		03-Mar-2017 15:50	07-Mar-2017 09:10	☐
HS17030342-02	MW-4	Water		03-Mar-2017 14:50	07-Mar-2017 09:10	☐
HS17030342-03	MW-5	Water		03-Mar-2017 15:45	07-Mar-2017 09:10	☐
HS17030342-04	MW-6	Water		03-Mar-2017 14:55	07-Mar-2017 09:10	☐
HS17030342-05	DUP	Water		03-Mar-2017 00:00	07-Mar-2017 09:10	☐
HS17030342-06	Trip Blank	Water	TB-021417-58	03-Mar-2017 00:00	07-Mar-2017 09:10	☐

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS17030342

CASE NARRATIVE

GCMS Volatiles by Method SW8260

Batch ID: R290775

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

WetChemistry by Method E300

Batch ID: R291110,R291114

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

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-2
 Collection Date: 03-Mar-2017 15:50

ANALYTICAL REPORT

WorkOrder:HS17030342
 Lab ID:HS17030342-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	09-Mar-2017 11:56
Ethylbenzene	U		0.00050	0.0050	mg/L	1	09-Mar-2017 11:56
Toluene	U		0.00050	0.0050	mg/L	1	09-Mar-2017 11:56
Xylenes, Total	U		0.00050	0.0050	mg/L	1	09-Mar-2017 11:56
Surr: 1,2-Dichloroethane-d4	85.8			70-125	%REC	1	09-Mar-2017 11:56
Surr: 4-Bromofluorobenzene	91.0			72-125	%REC	1	09-Mar-2017 11:56
Surr: Dibromofluoromethane	93.6			71-125	%REC	1	09-Mar-2017 11:56
Surr: Toluene-d8	91.0			75-125	%REC	1	09-Mar-2017 11:56
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	86.7		1.00	2.50	mg/L	5	14-Mar-2017 19:26

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

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-4
 Collection Date: 03-Mar-2017 14:50

ANALYTICAL REPORT

WorkOrder:HS17030342
 Lab ID:HS17030342-02
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	09-Mar-2017 14:50
Ethylbenzene	U		0.00050	0.0050	mg/L	1	09-Mar-2017 14:50
Toluene	U		0.00050	0.0050	mg/L	1	09-Mar-2017 14:50
Xylenes, Total	U		0.00050	0.0050	mg/L	1	09-Mar-2017 14:50
Surr: 1,2-Dichloroethane-d4	88.8			70-125	%REC	1	09-Mar-2017 14:50
Surr: 4-Bromofluorobenzene	91.4			72-125	%REC	1	09-Mar-2017 14:50
Surr: Dibromofluoromethane	92.8			71-125	%REC	1	09-Mar-2017 14:50
Surr: Toluene-d8	92.8			75-125	%REC	1	09-Mar-2017 14:50
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	487		4.00	10.0	mg/L	20	14-Mar-2017 19:41

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

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-5
 Collection Date: 03-Mar-2017 15:45

ANALYTICAL REPORT

WorkOrder:HS17030342
 Lab ID:HS17030342-03
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	09-Mar-2017 15:15
Ethylbenzene	U		0.00050	0.0050	mg/L	1	09-Mar-2017 15:15
Toluene	U		0.00050	0.0050	mg/L	1	09-Mar-2017 15:15
Xylenes, Total	U		0.00050	0.0050	mg/L	1	09-Mar-2017 15:15
Surr: 1,2-Dichloroethane-d4	84.9			70-125	%REC	1	09-Mar-2017 15:15
Surr: 4-Bromofluorobenzene	91.1			72-125	%REC	1	09-Mar-2017 15:15
Surr: Dibromofluoromethane	91.9			71-125	%REC	1	09-Mar-2017 15:15
Surr: Toluene-d8	92.4			75-125	%REC	1	09-Mar-2017 15:15
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	75.0		1.00	2.50	mg/L	5	14-Mar-2017 19:55

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

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-6
 Collection Date: 03-Mar-2017 14:55

ANALYTICAL REPORT

WorkOrder:HS17030342
 Lab ID:HS17030342-04
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	09-Mar-2017 15:40
Ethylbenzene	U		0.00050	0.0050	mg/L	1	09-Mar-2017 15:40
Toluene	U		0.00050	0.0050	mg/L	1	09-Mar-2017 15:40
Xylenes, Total	U		0.00050	0.0050	mg/L	1	09-Mar-2017 15:40
Surr: 1,2-Dichloroethane-d4	87.1			70-125	%REC	1	09-Mar-2017 15:40
Surr: 4-Bromofluorobenzene	89.8			72-125	%REC	1	09-Mar-2017 15:40
Surr: Dibromofluoromethane	90.2			71-125	%REC	1	09-Mar-2017 15:40
Surr: Toluene-d8	90.5			75-125	%REC	1	09-Mar-2017 15:40
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	485		4.00	10.0	mg/L	20	14-Mar-2017 21:22

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

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: DUP
 Collection Date: 03-Mar-2017 00:00

ANALYTICAL REPORT

WorkOrder:HS17030342
 Lab ID:HS17030342-05
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	09-Mar-2017 16:04
Ethylbenzene	U		0.00050	0.0050	mg/L	1	09-Mar-2017 16:04
Toluene	U		0.00050	0.0050	mg/L	1	09-Mar-2017 16:04
Xylenes, Total	U		0.00050	0.0050	mg/L	1	09-Mar-2017 16:04
Surr: 1,2-Dichloroethane-d4	87.8			70-125	%REC	1	09-Mar-2017 16:04
Surr: 4-Bromofluorobenzene	91.2			72-125	%REC	1	09-Mar-2017 16:04
Surr: Dibromofluoromethane	92.5			71-125	%REC	1	09-Mar-2017 16:04
Surr: Toluene-d8	92.3			75-125	%REC	1	09-Mar-2017 16:04
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	41.5		1.00	2.50	mg/L	5	14-Mar-2017 21:37

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

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: Trip Blank
 Collection Date: 03-Mar-2017 00:00

ANALYTICAL REPORT

WorkOrder:HS17030342
 Lab ID:HS17030342-06
 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	09-Mar-2017 14:25
Ethylbenzene	U		0.50	5.0	ug/L	1	09-Mar-2017 14:25
Toluene	U		0.50	5.0	ug/L	1	09-Mar-2017 14:25
Xylenes, Total	U		0.50	5.0	ug/L	1	09-Mar-2017 14:25
Surr: 1,2-Dichloroethane-d4	87.3			70-125	%REC	1	09-Mar-2017 14:25
Surr: 4-Bromofluorobenzene	90.5			72-125	%REC	1	09-Mar-2017 14:25
Surr: Dibromofluoromethane	93.0			71-125	%REC	1	09-Mar-2017 14:25
Surr: Toluene-d8	89.1			75-125	%REC	1	09-Mar-2017 14:25

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

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS17030342

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R290775	Test Name : VOLATILES - SW8260C			Matrix: Water		
HS17030342-01	MW-2	03 Mar 2017 15:50			09 Mar 2017 11:56	1
HS17030342-02	MW-4	03 Mar 2017 14:50			09 Mar 2017 14:50	1
HS17030342-03	MW-5	03 Mar 2017 15:45			09 Mar 2017 15:15	1
HS17030342-04	MW-6	03 Mar 2017 14:55			09 Mar 2017 15:40	1
HS17030342-05	DUP	03 Mar 2017 00:00			09 Mar 2017 16:04	1
HS17030342-06	Trip Blank	03 Mar 2017 00:00			09 Mar 2017 14:25	1
Batch ID R291110	Test Name : ANIONS BY E300.0			Matrix: Water		
HS17030342-01	MW-2	03 Mar 2017 15:50			14 Mar 2017 19:26	5
HS17030342-02	MW-4	03 Mar 2017 14:50			14 Mar 2017 19:41	20
HS17030342-03	MW-5	03 Mar 2017 15:45			14 Mar 2017 19:55	5
Batch ID R291114	Test Name : ANIONS BY E300.0			Matrix: Water		
HS17030342-04	MW-6	03 Mar 2017 14:55			14 Mar 2017 21:22	20
HS17030342-05	DUP	03 Mar 2017 00:00			14 Mar 2017 21:37	5

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS17030342

QC BATCH REPORT

Batch ID: R290775		Instrument: VOA6		Method: SW8260						
MBLK	Sample ID: VBLKW-170309	Units: ug/L			Analysis Date: 09-Mar-2017 11:31					
Client ID:	Run ID: VOA6_290775	SeqNo: 4011330		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	5.0								
Surr: 1,2-Dichloroethane-d4	43.28	0	50	0	86.6	70 - 125				
Surr: 4-Bromofluorobenzene	46.64	0	50	0	93.3	72 - 125				
Surr: Dibromofluoromethane	46.54	0	50	0	93.1	71 - 125				
Surr: Toluene-d8	44.94	0	50	0	89.9	75 - 125				

LCS	Sample ID: VLCSW-170309	Units: ug/L			Analysis Date: 09-Mar-2017 10:41					
Client ID:	Run ID: VOA6_290775	SeqNo: 4011329		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Benzene	51.53	5.0	50	0	103	73 - 121				
Ethylbenzene	48.5	5.0	50	0	97.0	80 - 120				
Toluene	48.23	5.0	50	0	96.5	80 - 120				
Xylenes, Total	146.4	5.0	150	0	97.6	80 - 120				
Surr: 1,2-Dichloroethane-d4	43.94	0	50	0	87.9	70 - 125				
Surr: 4-Bromofluorobenzene	47.68	0	50	0	95.4	72 - 125				
Surr: Dibromofluoromethane	46.86	0	50	0	93.7	71 - 125				
Surr: Toluene-d8	46.43	0	50	0	92.9	75 - 125				

MS										
Sample ID: HS17030342-01MS		Units: ug/L			Analysis Date: 09-Mar-2017 12:45					
Client ID: MW-2		Run ID: VOA6_290775		SeqNo: 4011332		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Benzene	51.55	5.0	50	0	103	73 - 121				
Ethylbenzene	47.87	5.0	50	0	95.7	80 - 120				
Toluene	47.9	5.0	50	0	95.8	80 - 120				
Xylenes, Total	144.8	5.0	150	0	96.5	80 - 120				
Surr: 1,2-Dichloroethane-d4	42.78	0	50	0	85.6	70 - 125				
Surr: 4-Bromofluorobenzene	47.33	0	50	0	94.7	72 - 125				
Surr: Dibromofluoromethane	46.85	0	50	0	93.7	71 - 125				
Surr: Toluene-d8	46.01	0	50	0	92.0	75 - 125				

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

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 WorkOrder: HS17030342

QC BATCH REPORT

Batch ID: R290775		Instrument: VOA6		Method: SW8260						
MSD	Sample ID: HS17030342-01MSD	Units: ug/L			Analysis Date: 09-Mar-2017 13:10					
Client ID: MW-2	Run ID: VOA6_290775	SeqNo: 4011333		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Benzene	50.92	5.0	50	0	102	73 - 121	51.55	1.23	20	
Ethylbenzene	48.11	5.0	50	0	96.2	80 - 120	47.87	0.511	20	
Toluene	48.29	5.0	50	0	96.6	80 - 120	47.9	0.811	20	
Xylenes, Total	146.4	5.0	150	0	97.6	78 - 121	144.8	1.12	20	
Surr: 1,2-Dichloroethane-d4	42.9	0	50	0	85.8	70 - 125	42.78	0.294	20	
Surr: 4-Bromofluorobenzene	47.65	0	50	0	95.3	72 - 125	47.33	0.682	20	
Surr: Dibromofluoromethane	47.18	0	50	0	94.4	71 - 125	46.85	0.712	20	
Surr: Toluene-d8	46.28	0	50	0	92.6	75 - 125	46.01	0.58	20	
The following samples were analyzed in this batch:		HS17030342-01 HS17030342-05		HS17030342-02 HS17030342-06		HS17030342-03		HS17030342-04		

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

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS17030342

QC BATCH REPORT

Batch ID: R291110		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW2-031417	Units: mg/L		Analysis Date: 14-Mar-2017 12:25						
Client ID:	Run ID: ICS2100_291110	SeqNo: 4018462		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: WLCSW2-031417	Units: mg/L		Analysis Date: 14-Mar-2017 12:40						
Client ID:	Run ID: ICS2100_291110	SeqNo: 4018463		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				
LCSD	Sample ID: WLCSDW2-031417	Units: mg/L		Analysis Date: 14-Mar-2017 12:54						
Client ID:	Run ID: ICS2100_291110	SeqNo: 4018464		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.57	0.500	20	0	103	90 - 110	20.75	0.871	20	
MS	Sample ID: HS17030339-01MS	Units: mg/L		Analysis Date: 14-Mar-2017 16:17						
Client ID:	Run ID: ICS2100_291110	SeqNo: 4018477		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	248	5.00	100	147.7	100	80 - 120				
MS	Sample ID: HS17030338-02MS	Units: mg/L		Analysis Date: 14-Mar-2017 14:06						
Client ID:	Run ID: ICS2100_291110	SeqNo: 4018468		PrepDate:		DF: 5				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	106.6	2.50	50	53.22	107	80 - 120				
MSD	Sample ID: HS17030339-01MSD	Units: mg/L		Analysis Date: 14-Mar-2017 16:31						
Client ID:	Run ID: ICS2100_291110	SeqNo: 4018478		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	252.6	5.00	100	147.7	105	80 - 120	248	1.85	20	

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

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS17030342

QC BATCH REPORT

Batch ID: R291110		Instrument: ICS2100		Method: E300	
MSD	Sample ID: HS17030338-02MSD	Units: mg/L		Analysis Date: 14-Mar-2017 14:20	
Client ID:	Run ID: ICS2100_291110	SeqNo: 4018469		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	104	2.50	50	53.22 102	80 - 120 106.6 2.48 20
The following samples were analyzed in this batch:					
HS17030342-01 HS17030342-02 HS17030342-03					

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

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS17030342

QC BATCH REPORT

Batch ID: R291114		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW3-031417	Units: mg/L		Analysis Date: 14-Mar-2017 20:10						
Client ID:	Run ID: ICS2100_291114	SeqNo: 4018556		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: WLCSW3-031417	Units: mg/L		Analysis Date: 14-Mar-2017 20:24						
Client ID:	Run ID: ICS2100_291114	SeqNo: 4018557		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.76	0.500	20	0	98.8	90 - 110				
LCSD	Sample ID: WLCSDW3-031417	Units: mg/L		Analysis Date: 14-Mar-2017 20:39						
Client ID:	Run ID: ICS2100_291114	SeqNo: 4018558		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.2	0.500	20	0	101	90 - 110	19.76	2.23	20	
MS	Sample ID: HS17030396-01MS	Units: mg/L		Analysis Date: 14-Mar-2017 22:06						
Client ID:	Run ID: ICS2100_291114	SeqNo: 4018564		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	381.8	5.00	100	281.5	100	80 - 120				
MSD	Sample ID: HS17030396-01MSD	Units: mg/L		Analysis Date: 14-Mar-2017 22:21						
Client ID:	Run ID: ICS2100_291114	SeqNo: 4018565		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	383.5	5.00	100	281.5	102	80 - 120	381.8	0.447	20	
The following samples were analyzed in this batch: HS17030342-04 HS17030342-05										

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

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS17030342

**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

ALS Group USA, Corp

Date: 15-Mar-17

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	16-022-1	27-Mar-2017
California	2919 2016-2018	31-Jul-2018
Illinois	003872	09-May-2017
Kansas	E-10352 2016-2017	31-Jul-2017
Kentucky	96 2016-2017	30-Apr-2017
Louisiana	03087 2016-2017	30-Jun-2017
North Carolina	624-2017	31-Dec-2017
North Dakota	R193 2016-2017	30-Apr-2017
Oklahoma	2016-122	31-Aug-2017
Texas	TX104704231-16-17	30-Apr-2017

ALS Group USA, Corp

Date: 15-Mar-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS17030342

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS17030342-01	MW-2	Login	3/8/2017 9:56:43 AM	CL	GCU025
HS17030342-01	MW-2	Login	3/8/2017 9:56:43 AM	CL	VOA009
HS17030342-02	MW-4	Login	3/8/2017 9:56:43 AM	CL	GCU025
HS17030342-02	MW-4	Login	3/8/2017 9:56:43 AM	CL	VOA009
HS17030342-03	MW-5	Login	3/8/2017 9:56:43 AM	CL	GCU025
HS17030342-03	MW-5	Login	3/8/2017 9:56:43 AM	CL	VOA009
HS17030342-04	MW-6	Login	3/8/2017 9:56:43 AM	CL	GCU025
HS17030342-04	MW-6	Login	3/8/2017 9:56:43 AM	CL	VOA009
HS17030342-05	DUP	Login	3/8/2017 9:56:43 AM	CL	GCU025
HS17030342-05	DUP	Login	3/8/2017 9:56:43 AM	CL	VOA009
HS17030342-06	Trip Blank	Login	3/8/2017 9:56:43 AM	CL	VOA009

ALS Group USA, Corp

Date: 15-Mar-17

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **07-Mar-2017 09:10**

Work Order: HS17030342

Received by: **JRM**

Checklist completed by:	<u>Cesar A. Lira</u>	<u>7-Mar-2017</u>	Reviewed by:	<u>Dane J. Wacasey</u>	<u>9-Mar-2017</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 ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☒
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):	3.8c/4.3c uc/c	IR#11
Cooler(s)/Kit(s):	Med. Blue	
Date/Time sample(s) sent to storage:	3/8/2017 10:00am	

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:

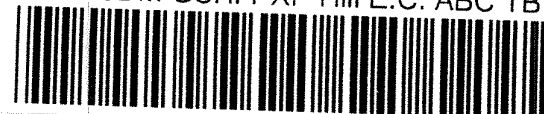
Cincinnati, OH
+1 513 733 5336Fort Collins, CO
+1 970 490 1511Everett, WA
+1 425 356 2600Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 161438

HS17030342

Glenn Springs Holdings, Inc.
55628DM GSHI PXP Hill E.C. ABC TBHouston, WV
168

280

Customer Information		Project Information		ALS Project Manager:	
Purchase Order	4502201559 ENV 749-4	Project Name	55628DM GSHI PXP Hill E.C. ABC TB	A	8260_W (BTEX)
Work Order		Project Number	ENV749A10	B	300_W (Chloride)
Company Name	Glenn Springs Holdings, Inc.	Bill To Company	Glenn Springs Holdings, Inc.	C	8260_W (BTEX-Trip Blank)
Send Report To	Angela Bown	Invoice Attn	Jen Devonshire	D	
Address	PO Box 2148	Address	PO Box 2148	E	
City/State/Zip	Houston, TX 77252-2148	City/State/Zip	Houston, TX 77252-2148	F	
Phone		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			Water		4	X	X									
2	MW-2	03-03-17	15:50	Water		4	X	X									
3	MW-3			Water		4	X	X									
4	MW-4	03-03-17	1450	Water		4	X	X									
5	MW-5	03-03-17	1545	Water		4	X	X									
6	MW-6	03-03-17	1455	Water		4	X	X									
7	TMW-7			Water		4	X	X									
8	RW-1			Water		4	X	X									
9	RW-2			Water		4	X	X									
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box) TAT <u>10 days</u> Other: _____		Results Due Date: _____	
Relinquished by: <u>Chad A. Smith</u>	Date: <u>3.3.17</u>	Time: _____	Received by: _____	Notes: [GSHI PXP Hill EC ABC TB]			
Relinquished by: _____	Date: _____	Time: _____	Received by (Laboratory): _____	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
Logged by (Laboratory): _____	Date: _____	Time: _____	Checked by (Laboratory): _____	<u>M. Blue</u>	<u>3.8</u>	QC Level <u>STD</u>	
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				<u>10 min</u>	<u>11</u>	Other: _____	

- ote: 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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+1 970 490 1511Everett, WA
+1 425 356 2600Holland, MI
+1 616 399 6070

Chain of Custody Form

Page ____ of ____

COC ID: 161437

HS17030342

wv

Glenn Springs Holdings, Inc.

55628DM GSHI PXP Hill E.C. ABC TB



Customer Information		Project Information		ALS Project Manager:	
Purchase Order	4502201559 ENV 749-4	Project Name	55628DM GSHI PXP Hill E.C. ABC TB	A	8260_W (BTEX)
Work Order		Project Number	ENV749A10	B	300_W (Chloride)
Company Name	Glenn Springs Holdings, Inc.	Bill To Company	Glenn Springs Holdings, Inc.	C	8260_W (BTEX-Trip Blank)
Send Report To	Angela Bown	Invoice Attn	Jen Devonshire	D	
Address	PO Box 2148	Address	PO Box 2148	E	
				F	
				G	
City/State/Zip	Houston, TX 77252-2148	City/State/Zip	Houston, TX 77252-2148	H	
Phone		Phone		I	
Fax		Fax		J	
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	DUP	03-03-17		Water		4	X	X									
2	Trip Blank			Water		2			X								
3																	
4																	
5																	
6																	
7																	
8																	
9																	
0																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box) TAT <u>10 days</u> Other: _____		Results Due Date: _____	
Relinquished by: <u>Chad Moritt</u>	Date: <u>3.3.17</u>	Time: _____	Received by: _____		Notes: [GSHI PXP Hill EC ABC TB]		
Relinquished by: _____	Date: _____	Time: _____	Received by (Laboratory): _____		Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)
Logged by (Laboratory): _____	Date: _____	Time: _____	Checked by (Laboratory): _____		<u>M. Blue</u>	<u>3.8</u>	QC Level <u>STD</u>
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				<u>KE</u>		<u>11</u>	Other: _____

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.

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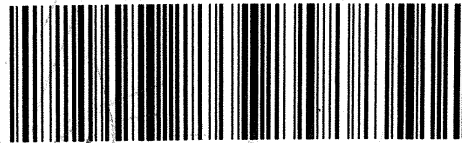
 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: <u>3.6.17</u>	Time: <u>18:30</u>	<u>SM</u>
	Name: <u>Chris [Signature]</u>		Date:
	Company: <u>Zachry Co</u>		<u>03/07/17</u>

M. Blue MAR 07 2017

FedEx
TRK# 6786 7203 7360
0221

TUE - 07 MAR 10:30A
PRIORITY OVERNIGHT

AB SGRA M. Blue 77099
TX-US IAH





10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

September 08, 2017

Angela Bown
Glenn Springs Holdings, Inc.
PO Box 2148

Houston, TX 77252-2148

Work Order: **HS17090053**

Laboratory Results for: **55628DM GSHI PXP Hill E.C. ABC TB**

Dear Angela,

ALS Environmental received 6 sample(s) on Sep 01, 2017 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,

Generated By: Dayna.Fisher
Dane J. Wacasey

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS17090053

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS17090053-01	MW-2	Groundwater		31-Aug-2017 12:58	01-Sep-2017 15:20	☐
HS17090053-02	MW-4	Groundwater		31-Aug-2017 12:25	01-Sep-2017 15:20	☐
HS17090053-03	MW-5	Groundwater		31-Aug-2017 12:40	01-Sep-2017 15:20	☐
HS17090053-04	MW-6	Groundwater		31-Aug-2017 13:20	01-Sep-2017 15:20	☐
HS17090053-05	DUP	Groundwater		31-Aug-2017 00:00	01-Sep-2017 15:20	☐
HS17090053-06	Trip Blank	Water		31-Aug-2017 00:00	01-Sep-2017 15:20	☐

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS17090053

CASE NARRATIVE

GCMS Volatiles by Method SW8260

Batch ID: R301082,R301129

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

WetChemistry by Method E300

Batch ID: R301105

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

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-2
 Collection Date: 31-Aug-2017 12:58

ANALYTICAL REPORT

WorkOrder:HS17090053
 Lab ID:HS17090053-01
 Matrix:Groundwater

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-Sep-2017 09:12
Ethylbenzene	U		0.50	5.0	ug/L	1	06-Sep-2017 09:12
Toluene	U		0.50	5.0	ug/L	1	06-Sep-2017 09:12
Xylenes, Total	U		0.50	5.0	ug/L	1	06-Sep-2017 09:12
Surr: 1,2-Dichloroethane-d4	96.6			70-126	%REC	1	06-Sep-2017 09:12
Surr: 4-Bromofluorobenzene	99.6			81-113	%REC	1	06-Sep-2017 09:12
Surr: Dibromofluoromethane	98.1			77-123	%REC	1	06-Sep-2017 09:12
Surr: Toluene-d8	109			82-127	%REC	1	06-Sep-2017 09:12
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	85.5		1.00	2.50	mg/L	5	06-Sep-2017 01:10

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

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-4
 Collection Date: 31-Aug-2017 12:25

ANALYTICAL REPORT

WorkOrder:HS17090053
 Lab ID:HS17090053-02
 Matrix:Groundwater

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-Sep-2017 09:39
Ethylbenzene	U		0.50	5.0	ug/L	1	06-Sep-2017 09:39
Toluene	U		0.50	5.0	ug/L	1	06-Sep-2017 09:39
Xylenes, Total	U		0.50	5.0	ug/L	1	06-Sep-2017 09:39
Surr: 1,2-Dichloroethane-d4	96.2			70-126	%REC	1	06-Sep-2017 09:39
Surr: 4-Bromofluorobenzene	99.1			81-113	%REC	1	06-Sep-2017 09:39
Surr: Dibromofluoromethane	96.4			77-123	%REC	1	06-Sep-2017 09:39
Surr: Toluene-d8	98.2			82-127	%REC	1	06-Sep-2017 09:39
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	517		4.00	10.0	mg/L	20	06-Sep-2017 02:15

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

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-5
 Collection Date: 31-Aug-2017 12:40

ANALYTICAL REPORT

WorkOrder:HS17090053
 Lab ID:HS17090053-03
 Matrix:Groundwater

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-Sep-2017 11:53
Ethylbenzene	U		0.50	5.0	ug/L	1	06-Sep-2017 11:53
Toluene	U		0.50	5.0	ug/L	1	06-Sep-2017 11:53
Xylenes, Total	U		0.50	5.0	ug/L	1	06-Sep-2017 11:53
Surr: 1,2-Dichloroethane-d4	94.0			70-126	%REC	1	06-Sep-2017 11:53
Surr: 4-Bromofluorobenzene	94.5			81-113	%REC	1	06-Sep-2017 11:53
Surr: Dibromofluoromethane	99.6			77-123	%REC	1	06-Sep-2017 11:53
Surr: Toluene-d8	97.2			82-127	%REC	1	06-Sep-2017 11:53
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	75.9		1.00	2.50	mg/L	5	06-Sep-2017 02:37

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

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-6
 Collection Date: 31-Aug-2017 13:20

ANALYTICAL REPORT

WorkOrder:HS17090053
 Lab ID:HS17090053-04
 Matrix:Groundwater

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-Sep-2017 15:57
Ethylbenzene	U		0.50	5.0	ug/L	1	06-Sep-2017 15:57
Toluene	U		0.50	5.0	ug/L	1	06-Sep-2017 15:57
Xylenes, Total	U		0.50	5.0	ug/L	1	06-Sep-2017 15:57
Surr: 1,2-Dichloroethane-d4	96.3			70-126	%REC	1	06-Sep-2017 15:57
Surr: 4-Bromofluorobenzene	96.1			81-113	%REC	1	06-Sep-2017 15:57
Surr: Dibromofluoromethane	104			77-123	%REC	1	06-Sep-2017 15:57
Surr: Toluene-d8	95.8			82-127	%REC	1	06-Sep-2017 15:57
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	914		4.00	10.0	mg/L	20	06-Sep-2017 02:59

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

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: DUP
 Collection Date: 31-Aug-2017 00:00

ANALYTICAL REPORT

WorkOrder:HS17090053
 Lab ID:HS17090053-05
 Matrix:Groundwater

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-Sep-2017 00:26
Ethylbenzene	U		0.50	5.0	ug/L	1	07-Sep-2017 00:26
Toluene	U		0.50	5.0	ug/L	1	07-Sep-2017 00:26
Xylenes, Total	U		0.50	5.0	ug/L	1	07-Sep-2017 00:26
Surr: 1,2-Dichloroethane-d4	94.4			70-126	%REC	1	07-Sep-2017 00:26
Surr: 4-Bromofluorobenzene	95.5			81-113	%REC	1	07-Sep-2017 00:26
Surr: Dibromofluoromethane	98.8			77-123	%REC	1	07-Sep-2017 00:26
Surr: Toluene-d8	101			82-127	%REC	1	07-Sep-2017 00:26
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	953		4.00	10.0	mg/L	20	06-Sep-2017 03:20

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

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: Trip Blank
 Collection Date: 31-Aug-2017 00:00

ANALYTICAL REPORT

WorkOrder:HS17090053
 Lab ID:HS17090053-06
 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-Sep-2017 00:53
Ethylbenzene	U		0.50	5.0	ug/L	1	07-Sep-2017 00:53
Toluene	U		0.50	5.0	ug/L	1	07-Sep-2017 00:53
Xylenes, Total	U		0.50	5.0	ug/L	1	07-Sep-2017 00:53
Surr: 1,2-Dichloroethane-d4	95.5			70-126	%REC	1	07-Sep-2017 00:53
Surr: 4-Bromofluorobenzene	106			81-113	%REC	1	07-Sep-2017 00:53
Surr: Dibromofluoromethane	99.0			77-123	%REC	1	07-Sep-2017 00:53
Surr: Toluene-d8	102			82-127	%REC	1	07-Sep-2017 00:53

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

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS17090053

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R301082	Test Name : VOLATILES - SW8260C		Matrix: Groundwater			
HS17090053-01	MW-2	31 Aug 2017 12:58			06 Sep 2017 09:12	1
HS17090053-02	MW-4	31 Aug 2017 12:25			06 Sep 2017 09:39	1
HS17090053-03	MW-5	31 Aug 2017 12:40			06 Sep 2017 11:53	1
Batch ID R301105	Test Name : ANIONS BY E300.0		Matrix: Groundwater			
HS17090053-01	MW-2	31 Aug 2017 12:58			06 Sep 2017 01:10	5
HS17090053-02	MW-4	31 Aug 2017 12:25			06 Sep 2017 02:15	20
HS17090053-03	MW-5	31 Aug 2017 12:40			06 Sep 2017 02:37	5
HS17090053-04	MW-6	31 Aug 2017 13:20			06 Sep 2017 02:59	20
HS17090053-05	DUP	31 Aug 2017 00:00			06 Sep 2017 03:20	20
Batch ID R301129	Test Name : VOLATILES - SW8260C		Matrix: Water			
HS17090053-06	Trip Blank	31 Aug 2017 00:00			07 Sep 2017 00:53	1
Batch ID R301129	Test Name : VOLATILES - SW8260C		Matrix: Groundwater			
HS17090053-04	MW-6	31 Aug 2017 13:20			06 Sep 2017 15:57	1
HS17090053-05	DUP	31 Aug 2017 00:00			07 Sep 2017 00:26	1

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS17090053

QC BATCH REPORT

Batch ID: R301082		Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-170905	Units: ug/L		Analysis Date: 06-Sep-2017 02:31					
Client ID:	Run ID: VOA1_301082		SeqNo: 4218326		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	5.0							
Surr: 1,2-Dichloroethane-d4	46.72	0	50	0	93.4	70 - 123			
Surr: 4-Bromofluorobenzene	49.86	0	50	0	99.7	82 - 115			
Surr: Dibromofluoromethane	48.45	0	50	0	96.9	73 - 126			
Surr: Toluene-d8	50.23	0	50	0	100	81 - 119			

LCS	Sample ID: VLCSW-170905	Units: ug/L		Analysis Date: 06-Sep-2017 01:38					
Client ID:	Run ID: VOA1_301082		SeqNo: 4218325		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	48.46	5.0	50	0	96.9	74 - 120			
Ethylbenzene	46.32	5.0	50	0	92.6	77 - 117			
Toluene	49.63	5.0	50	0	99.3	77 - 118			
Xylenes, Total	147.2	5.0	150	0	98.1	75 - 122			
Surr: 1,2-Dichloroethane-d4	49.69	0	50	0	99.4	70 - 130			
Surr: 4-Bromofluorobenzene	47.66	0	50	0	95.3	82 - 115			
Surr: Dibromofluoromethane	47.39	0	50	0	94.8	73 - 126			
Surr: Toluene-d8	46.84	0	50	0	93.7	81 - 119			

MS	Sample ID: HS17081451-01MS	Units: ug/L		Analysis Date: 06-Sep-2017 03:25					
Client ID:	Run ID: VOA1_301082		SeqNo: 4218328		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	43.55	5.0	50	0	87.1	70 - 127			
Ethylbenzene	44.45	5.0	50	0	88.9	70 - 124			
Toluene	47.98	5.0	50	0	96.0	70 - 123			
Xylenes, Total	131.8	5.0	150	0	87.9	70 - 130			
Surr: 1,2-Dichloroethane-d4	44.59	0	50	0	89.2	70 - 126			
Surr: 4-Bromofluorobenzene	48.28	0	50	0	96.6	81 - 113			
Surr: Dibromofluoromethane	48.26	0	50	0	96.5	77 - 123			
Surr: Toluene-d8	47.05	0	50	0	94.1	82 - 127			

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

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 WorkOrder: HS17090053

QC BATCH REPORT

Batch ID: R301082		Instrument: VOA1		Method: SW8260						
MSD		Sample ID: HS17081451-01MSD		Units: ug/L		Analysis Date: 06-Sep-2017 03:51				
Client ID:		Run ID: VOA1_301082		SeqNo: 4218329		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	41.19	5.0	50	0	82.4	70 - 127	43.55	5.58	20	
Ethylbenzene	42.87	5.0	50	0	85.7	70 - 124	44.45	3.61	20	
Toluene	47.22	5.0	50	0	94.4	70 - 123	47.98	1.58	20	
Xylenes, Total	138.5	5.0	150	0	92.3	70 - 130	131.8	4.93	20	
Surr: 1,2-Dichloroethane-d4	47.04	0	50	0	94.1	70 - 126	44.59	5.33	20	
Surr: 4-Bromofluorobenzene	49.44	0	50	0	98.9	81 - 113	48.28	2.37	20	
Surr: Dibromofluoromethane	47.93	0	50	0	95.9	77 - 123	48.26	0.686	20	
Surr: Toluene-d8	48.85	0	50	0	97.7	82 - 127	47.05	3.74	20	
The following samples were analyzed in this batch:		HS17090053-01		HS17090053-02		HS17090053-03				

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

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS17090053

QC BATCH REPORT

Batch ID: R301129		Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-170906	Units: ug/L		Analysis Date: 06-Sep-2017 15:30					
Client ID:	Run ID: VOA1_301129	SeqNo: 4219172		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Benzene	U	5.0							
Ethylbenzene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	5.0							
Surr: 1,2-Dichloroethane-d4	47.72	0	50	0	95.4	70 - 123			
Surr: 4-Bromofluorobenzene	49.43	0	50	0	98.9	82 - 115			
Surr: Dibromofluoromethane	48.88	0	50	0	97.8	73 - 126			
Surr: Toluene-d8	51.92	0	50	0	104	81 - 119			

LCS	Sample ID: VLCSW-170906	Units: ug/L		Analysis Date: 06-Sep-2017 14:37					
Client ID:	Run ID: VOA1_301129	SeqNo: 4219171		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Benzene	49.81	5.0	50	0	99.6	74 - 120			
Ethylbenzene	48.8	5.0	50	0	97.6	77 - 117			
Toluene	53.41	5.0	50	0	107	77 - 118			
Xylenes, Total	149.5	5.0	150	0	99.6	75 - 122			
Surr: 1,2-Dichloroethane-d4	48.7	0	50	0	97.4	70 - 130			
Surr: 4-Bromofluorobenzene	48.2	0	50	0	96.4	82 - 115			
Surr: Dibromofluoromethane	48.65	0	50	0	97.3	73 - 126			
Surr: Toluene-d8	49.32	0	50	0	98.6	81 - 119			

MS	Sample ID: HS17090053-04MS	Units: ug/L		Analysis Date: 06-Sep-2017 16:23					
Client ID: MW-6	Run ID: VOA1_301129	SeqNo: 4219174		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Benzene	42.88	5.0	50	0	85.8	70 - 127			
Ethylbenzene	41.6	5.0	50	0	83.2	70 - 124			
Toluene	47.11	5.0	50	0	94.2	70 - 123			
Xylenes, Total	127.6	5.0	150	0	85.0	70 - 130			
Surr: 1,2-Dichloroethane-d4	51.12	0	50	0	102	70 - 126			
Surr: 4-Bromofluorobenzene	49.4	0	50	0	98.8	81 - 113			
Surr: Dibromofluoromethane	49.69	0	50	0	99.4	77 - 123			
Surr: Toluene-d8	47.57	0	50	0	95.1	82 - 127			

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

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 WorkOrder: HS17090053

QC BATCH REPORT

Batch ID: R301129		Instrument: VOA1		Method: SW8260						
MSD		Sample ID: HS17090053-04MSD	Units: ug/L		Analysis Date: 06-Sep-2017 16:50					
Client ID: MW-6	Run ID: VOA1_301129		SeqNo: 4219175		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	47.19	5.0	50	0	94.4	70 - 127	42.88	9.57	20	
Ethylbenzene	45.15	5.0	50	0	90.3	70 - 124	41.6	8.17	20	
Toluene	46.01	5.0	50	0	92.0	70 - 123	47.11	2.37	20	
Xylenes, Total	137.8	5.0	150	0	91.9	70 - 130	127.6	7.74	20	
Surr: 1,2-Dichloroethane-d4	47.38	0	50	0	94.8	70 - 126	51.12	7.58	20	
Surr: 4-Bromofluorobenzene	51.37	0	50	0	103	81 - 113	49.4	3.91	20	
Surr: Dibromofluoromethane	48	0	50	0	96.0	77 - 123	49.69	3.46	20	
Surr: Toluene-d8	48.74	0	50	0	97.5	82 - 127	47.57	2.43	20	
The following samples were analyzed in this batch:		HS17090053-04		HS17090053-05		HS17090053-06				

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

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS17090053

QC BATCH REPORT

Batch ID: R301105		Instrument: ICS3K2		Method: E300						
MBLK	Sample ID: WBLKW2-090517	Units: mg/L		Analysis Date: 06-Sep-2017 03:42						
Client ID:	Run ID: ICS3K2_301105	SeqNo: 4218725		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: WLCSW2-090517	Units: mg/L		Analysis Date: 06-Sep-2017 04:04						
Client ID:	Run ID: ICS3K2_301105	SeqNo: 4218726		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.56	0.500	20	0	97.8	90 - 110				
LCSD	Sample ID: WLCSDW2-090517	Units: mg/L		Analysis Date: 06-Sep-2017 04:25						
Client ID:	Run ID: ICS3K2_301105	SeqNo: 4218727		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.44	0.500	20	0	97.2	90 - 110	19.56	0.621	20	
MS	Sample ID: HS17090053-01MS	Units: mg/L		Analysis Date: 06-Sep-2017 01:32						
Client ID: MW-2	Run ID: ICS3K2_301105	SeqNo: 4218719		PrepDate:		DF: 5				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	137.2	2.50	50	85.51	103	80 - 120				
MS	Sample ID: HS17090049-01MS	Units: mg/L		Analysis Date: 06-Sep-2017 05:52						
Client ID:	Run ID: ICS3K2_301105	SeqNo: 4218731		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	479.5	5.00	100	383.4	96.1	80 - 120				
MSD	Sample ID: HS17090053-01MSD	Units: mg/L		Analysis Date: 06-Sep-2017 01:54						
Client ID: MW-2	Run ID: ICS3K2_301105	SeqNo: 4218720		PrepDate:		DF: 5				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	136.5	2.50	50	85.51	102	80 - 120	137.2	0.547	20	

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

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS17090053

QC BATCH REPORT

Batch ID: R301105		Instrument: ICS3K2		Method: E300	
MSD	Sample ID: HS17090049-01MSD	Units: mg/L		Analysis Date: 06-Sep-2017 06:14	
Client ID:	Run ID: ICS3K2_301105	SeqNo: 4218732		PrepDate:	DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	483.1	5.00	100	383.4 99.8	80 - 120 479.5 0.755 20

The following samples were analyzed in this batch:

HS17090053-01	HS17090053-02	HS17090053-03	HS17090053-04
HS17090053-05			

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

ALS Group USA, Corp

Date: 08-Sep-17

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS17090053

**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

ALS Group USA, Corp

Date: 08-Sep-17

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	17-027-0	27-Mar-2018
California	2919 2016-2018	31-Jul-2018
Illinois	004112	09-May-2018
Kentucky	123043	30-Apr-2018
Louisiana	03087 2017-2017	30-Jun-2018
North Carolina	624-2017	31-Dec-2017
North Dakota	R193 2017-2017	30-Apr-2018
Texas	T104704231-17-19	30-Apr-2018

ALS Group USA, Corp

Date: 08-Sep-17

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **01-Sep-2017 15:20**

Work Order: HS17090053

Received by: **JRM**

Checklist completed by: Nilesh D. Ranchod 1-Sep-2017
 eSignature Date

Reviewed by: Dane J. Wacasey 7-Sep-2017
 eSignature Date

Matrices: **WATER**Carrier name: **FedEx Priority Overnight**

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 ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☒
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): 2.2C / 2.7C UC/C IR# 15

Cooler(s)/Kit(s): 43218

Date/Time sample(s) sent to storage: 09/01/2017 8:30pm

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:

Regarding:

Comments:

Corrective Action:

Cincinnati, OH
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+1 970 490 1511Everett, WA
+1 425 356 2600Holland, MI
+1 616 399 6070

Chain of Custody Form

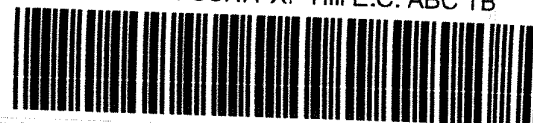
Page ____ of ____

COC ID: 166115

HS17090053

Glenn Springs Holdings, Inc.
55628DM GSHI PXP Hill E.C. ABC TB

WV



Customer Information				Project Information				ALS Project Manager:												
Purchase Order	4502201559 ENV 749-4			Project Name	55628DM GSHI PXP Hill E.C. ABC TB			A	8260_W(BTEX)											
Work Order				Project Number	ENV749A10			B	300_W(Chloride)											
Company Name	Glenn Springs Holdings, Inc.			Bill To Company	Glenn Springs Holdings, Inc.			C	8260_W(BTEX-Trip Blank)											
Send Report To	Angela Bown			Invoice Attn	Accounts Payable			D												
Address	PO Box 2148			Address	PO Box 2148			E												
City/State/Zip	Houston, TX 77252-2148			City/State/Zip	Houston TX 77252-2148			F												
Phone				Phone				G												
Fax				Fax				H												
e-Mail Address	Angela.Bown@ghd.com			e-Mail Address				I												
No.	Sample Description			Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold	
1	MW-1					Groundwa	1,8	4	X	X										
2	MW-2			8/31/17	1258	Groundwa	1,8	4	X	X										
3	MW-3					Groundwa	1,8	4	X	X										
4	MW-4			8/31/17	1225	Groundwa	1,8	4	X	X										
5	MW-5			8/31/17	1240	Groundwa	1,8	4	X	X										
6	MW-6			8/31/17	1320	Groundwa	1,8	4	X	X										
7	TMW-7					Groundwa	1,8	4	X	X										
8	RW-1					Groundwa	1,8	4	X	X										
9	RW-2					Groundwa	1,8	4	X	X										
10	DUP			8/31/17		Groundwa	1,8	4	X	X										

Sampler(s) Please Print & Sign				Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:	
				FedEx		☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour					
Relinquished by:		Date:	Time:	Received by:		Notes:					
<i>Angela Bown</i>		8/31/17	1600	<i>JM</i>		[GSHI PXP Hill EC ABC TB]					
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID		Cooler Temp.		QC Package: (Check One Box Below)	
				<i>JM</i>		43218		22		☒ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other	
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):						☐ TRRP Checklist ☐ TRRP Level IV	

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

- Notes: 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.

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+1 616 399 6070

Chain of Custody Form

Page ____ of ____

COC ID: 166114

HS17090053

Glenn Springs Holdings, Inc.
55628DM GSHI PXP Hill E.C. ABC TB

Customer Information				ALS Project Manager:																
Project Information																				
Purchase Order	4502201559 ENV 749-4			Project Name	55628DM GSHI PXP Hill E.C. ABC TB															
Work Order				Project Number	ENV749A10															
Company Name	Glenn Springs Holdings, Inc.			Bill To Company	Glenn Springs Holdings, Inc.															
Send Report To	Angela Bown			Invoice Attn	Accounts Payable															
Address	PO Box 2148			Address	PO Box 2148															
City/State/Zip	Houston, TX 77252-2148			City/State/Zip	Houston TX 77252-2148															
Phone				Phone																
Fax				Fax																
e-Mail Address	Angela.Bown@ghd.com			e-Mail Address																

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

Sampler(s) Please Print & Sign				Shipment Method FedEx		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: [GSHI PXP Hill EC ABC TB]							
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)					
Relinquished by:	Date:	Time:	Checked by (Laboratory):	43218	22	☒ Level II Std QC ☐ TRRP Checklist ☐ Level III Std QC/Raw Date ☐ TRRP Level IV ☐ Level IV SW648/CLP ☐ Other					
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											

- ote: 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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	ALS	CUSTODY SEAL		Seal Broken By: <u>SM</u>
	10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	Date: <u>8/31/17</u>	Time: <u>1600</u>	Date: <u>09/01/17</u>
	43218	Name: <u>Stirling Broadie</u>	Company: <u>Terra Tech</u>	

43218 SEP 01 2017

FedEx.	FRI - 01 SEP 10:30A
TRK# 7376 9748 0298	PRIORITY OVERNIGHT
0221	43218 77099
AB SGRA	TX-US
	IAH
	
FID 638561 31AUG17 MAFA 546C1/FF19/0C8A	

2018



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

March 09, 2018

James Abston
Glenn Springs Holdings, Inc.
PO Box 2148

Houston, TX 77252-2148

Work Order: **HS18021252**

Laboratory Results for: **55628DM GSHI PXP Hill E.C. ABC TB**

Dear James,

ALS Environmental received 6 sample(s) on Feb 24, 2018 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,

Generated By: Jumokey.Lawal
Dane J. Wacasey

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS18021252

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS18021252-01	MW-2	Groundwater		21-Feb-2018 14:15	24-Feb-2018 09:15	☐
HS18021252-02	MW-4	Groundwater		21-Feb-2018 14:50	24-Feb-2018 09:15	☐
HS18021252-03	MW-5	Groundwater		21-Feb-2018 14:30	24-Feb-2018 09:15	☐
HS18021252-04	MW-6	Groundwater		21-Feb-2018 15:10	24-Feb-2018 09:15	☐
HS18021252-05	DUP	Groundwater		21-Feb-2018 00:00	24-Feb-2018 09:15	☐
HS18021252-06	Trip Blank	Water	ALS 020218-17	21-Feb-2018 14:15	24-Feb-2018 09:15	☐

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS18021252

CASE NARRATIVE**GCMS Volatiles by Method SW8260****Batch ID: R311583,R311585**

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

WetChemistry by Method E300**Batch ID: R312266****Sample ID: DUP (HS18021252-05MS)**

- The MS and/or MSD recovery was outside of the control limits; however, the result in the parent sample is greater than 4x the spike amount. (Chloride)

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-2
 Collection Date: 21-Feb-2018 14:15

ANALYTICAL REPORT

WorkOrder:HS18021252
 Lab ID:HS18021252-01
 Matrix:Groundwater

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	27-Feb-2018 07:50
Ethylbenzene	U		0.50	5.0	ug/L	1	27-Feb-2018 07:50
Toluene	U		0.50	5.0	ug/L	1	27-Feb-2018 07:50
Xylenes, Total	U		0.50	5.0	ug/L	1	27-Feb-2018 07:50
Surr: 1,2-Dichloroethane-d4	89.4			70-126	%REC	1	27-Feb-2018 07:50
Surr: 4-Bromofluorobenzene	104			82-124	%REC	1	27-Feb-2018 07:50
Surr: Dibromofluoromethane	90.7			77-123	%REC	1	27-Feb-2018 07:50
Surr: Toluene-d8	98.9			82-127	%REC	1	27-Feb-2018 07:50
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	90.7		2.00	5.00	mg/L	10	08-Mar-2018 18:06

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

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-4
 Collection Date: 21-Feb-2018 14:50

ANALYTICAL REPORT

WorkOrder:HS18021252
 Lab ID:HS18021252-02
 Matrix:Groundwater

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	27-Feb-2018 08:17
Ethylbenzene	U		0.50	5.0	ug/L	1	27-Feb-2018 08:17
Toluene	U		0.50	5.0	ug/L	1	27-Feb-2018 08:17
Xylenes, Total	U		0.50	5.0	ug/L	1	27-Feb-2018 08:17
Surr: 1,2-Dichloroethane-d4	93.5			70-126	%REC	1	27-Feb-2018 08:17
Surr: 4-Bromofluorobenzene	91.5			82-124	%REC	1	27-Feb-2018 08:17
Surr: Dibromofluoromethane	91.3			77-123	%REC	1	27-Feb-2018 08:17
Surr: Toluene-d8	103			82-127	%REC	1	27-Feb-2018 08:17
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	501		2.00	5.00	mg/L	10	08-Mar-2018 18:20

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

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-5
 Collection Date: 21-Feb-2018 14:30

ANALYTICAL REPORT

WorkOrder:HS18021252
 Lab ID:HS18021252-03
 Matrix:Groundwater

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	27-Feb-2018 08:43
Ethylbenzene	U		0.50	5.0	ug/L	1	27-Feb-2018 08:43
Toluene	U		0.50	5.0	ug/L	1	27-Feb-2018 08:43
Xylenes, Total	U		0.50	5.0	ug/L	1	27-Feb-2018 08:43
Surr: 1,2-Dichloroethane-d4	88.7			70-126	%REC	1	27-Feb-2018 08:43
Surr: 4-Bromofluorobenzene	92.6			82-124	%REC	1	27-Feb-2018 08:43
Surr: Dibromofluoromethane	94.3			77-123	%REC	1	27-Feb-2018 08:43
Surr: Toluene-d8	98.8			82-127	%REC	1	27-Feb-2018 08:43
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	117		2.00	5.00	mg/L	10	08-Mar-2018 18:35

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

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-6
 Collection Date: 21-Feb-2018 15:10

ANALYTICAL REPORT

WorkOrder:HS18021252
 Lab ID:HS18021252-04
 Matrix:Groundwater

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	27-Feb-2018 09:10
Ethylbenzene	U		0.50	5.0	ug/L	1	27-Feb-2018 09:10
Toluene	U		0.50	5.0	ug/L	1	27-Feb-2018 09:10
Xylenes, Total	U		0.50	5.0	ug/L	1	27-Feb-2018 09:10
Surr: 1,2-Dichloroethane-d4	91.6			70-126	%REC	1	27-Feb-2018 09:10
Surr: 4-Bromofluorobenzene	95.3			82-124	%REC	1	27-Feb-2018 09:10
Surr: Dibromofluoromethane	96.8			77-123	%REC	1	27-Feb-2018 09:10
Surr: Toluene-d8	99.8			82-127	%REC	1	27-Feb-2018 09:10
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	1,030		2.00	5.00	mg/L	10	08-Mar-2018 19:04

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

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: DUP
 Collection Date: 21-Feb-2018 00:00

ANALYTICAL REPORT

WorkOrder:HS18021252
 Lab ID:HS18021252-05
 Matrix:Groundwater

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	27-Feb-2018 14:11
Ethylbenzene	U		0.50	5.0	ug/L	1	27-Feb-2018 14:11
Toluene	U		0.50	5.0	ug/L	1	27-Feb-2018 14:11
Xylenes, Total	U		0.50	5.0	ug/L	1	27-Feb-2018 14:11
Surr: 1,2-Dichloroethane-d4	90.6			70-126	%REC	1	27-Feb-2018 14:11
Surr: 4-Bromofluorobenzene	90.3			82-124	%REC	1	27-Feb-2018 14:11
Surr: Dibromofluoromethane	94.4			77-123	%REC	1	27-Feb-2018 14:11
Surr: Toluene-d8	101			82-127	%REC	1	27-Feb-2018 14:11
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	482		2.00	5.00	mg/L	10	08-Mar-2018 19:25

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

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: Trip Blank
 Collection Date: 21-Feb-2018 14:15

ANALYTICAL REPORT

WorkOrder:HS18021252
 Lab ID:HS18021252-06
 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	27-Feb-2018 07:23
Ethylbenzene	U		0.50	5.0	ug/L	1	27-Feb-2018 07:23
Toluene	U		0.50	5.0	ug/L	1	27-Feb-2018 07:23
Xylenes, Total	U		0.50	5.0	ug/L	1	27-Feb-2018 07:23
Surr: 1,2-Dichloroethane-d4	95.3			70-126	%REC	1	27-Feb-2018 07:23
Surr: 4-Bromofluorobenzene	96.2			82-124	%REC	1	27-Feb-2018 07:23
Surr: Dibromofluoromethane	99.3			77-123	%REC	1	27-Feb-2018 07:23
Surr: Toluene-d8	98.1			82-127	%REC	1	27-Feb-2018 07:23

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

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS18021252

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R311583		Test Name : VOLATILES - SW8260C		Matrix: Water		
HS18021252-06	Trip Blank	21 Feb 2018 14:15			27 Feb 2018 07:23	1
Batch ID R311583		Test Name : VOLATILES - SW8260C		Matrix: Groundwater		
HS18021252-01	MW-2	21 Feb 2018 14:15			27 Feb 2018 07:50	1
HS18021252-02	MW-4	21 Feb 2018 14:50			27 Feb 2018 08:17	1
HS18021252-03	MW-5	21 Feb 2018 14:30			27 Feb 2018 08:43	1
HS18021252-04	MW-6	21 Feb 2018 15:10			27 Feb 2018 09:10	1
Batch ID R311585		Test Name : VOLATILES - SW8260C		Matrix: Groundwater		
HS18021252-05	DUP	21 Feb 2018 00:00			27 Feb 2018 14:11	1
Batch ID R312266		Test Name : ANIONS BY E300.0		Matrix: Groundwater		
HS18021252-01	MW-2	21 Feb 2018 14:15			08 Mar 2018 18:06	10
HS18021252-02	MW-4	21 Feb 2018 14:50			08 Mar 2018 18:20	10
HS18021252-03	MW-5	21 Feb 2018 14:30			08 Mar 2018 18:35	10
HS18021252-04	MW-6	21 Feb 2018 15:10			08 Mar 2018 19:04	10
HS18021252-05	DUP	21 Feb 2018 00:00			08 Mar 2018 19:25	10

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS18021252

QC BATCH REPORT

Batch ID: R311583		Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-180226	Units: ug/L		Analysis Date: 27-Feb-2018 01:07					
Client ID:	Run ID: VOA1_311583		SeqNo: 4453290		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	5.0							
Surr: 1,2-Dichloroethane-d4	43.05	0	50	0	86.1	70 - 123			
Surr: 4-Bromofluorobenzene	48.02	0	50	0	96.0	83 - 122			
Surr: Dibromofluoromethane	46.52	0	50	0	93.0	73 - 126			
Surr: Toluene-d8	54.2	0	50	0	108	81 - 119			

LCS	Sample ID: VLCSW-180226	Units: ug/L		Analysis Date: 27-Feb-2018 00:13					
Client ID:	Run ID: VOA1_311583		SeqNo: 4453289		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	46.75	5.0	50	0	93.5	74 - 120			
Ethylbenzene	44.05	5.0	50	0	88.1	77 - 117			
Toluene	42.9	5.0	50	0	85.8	77 - 118			
Xylenes, Total	129.4	5.0	150	0	86.3	75 - 122			
Surr: 1,2-Dichloroethane-d4	46.87	0	50	0	93.7	70 - 130			
Surr: 4-Bromofluorobenzene	52.23	0	50	0	104	83 - 122			
Surr: Dibromofluoromethane	49.08	0	50	0	98.2	73 - 126			
Surr: Toluene-d8	47.9	0	50	0	95.8	81 - 119			

MS	Sample ID: HS18020937-04MS	Units: ug/L		Analysis Date: 27-Feb-2018 02:27					
Client ID:	Run ID: VOA1_311583		SeqNo: 4453292		PrepDate:		DF: 25		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	1364	120	1250	137.9	98.1	70 - 127			
Ethylbenzene	1298	120	1250	138.7	92.7	70 - 124			
Toluene	1166	120	1250	27.62	91.1	70 - 123			
Xylenes, Total	4393	120	3750	1535	76.2	70 - 130			
Surr: 1,2-Dichloroethane-d4	1203	0	1250	0	96.2	70 - 126			
Surr: 4-Bromofluorobenzene	1217	0	1250	0	97.3	82 - 124			
Surr: Dibromofluoromethane	1178	0	1250	0	94.3	77 - 123			
Surr: Toluene-d8	1205	0	1250	0	96.4	82 - 127			

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

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS18021252

QC BATCH REPORT

Batch ID: R311583		Instrument: VOA1		Method: SW8260					
MSD	Sample ID: HS18020937-04MSD	Units: ug/L		Analysis Date: 27-Feb-2018 02:54					
Client ID:	Run ID: VOA1_311583		SeqNo: 4453293		PrepDate:		DF: 25		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	1239	120	1250	137.9	88.1	70 - 127	1364	9.59	20
Ethylbenzene	1279	120	1250	138.7	91.2	70 - 124	1298	1.49	20
Toluene	1117	120	1250	27.62	87.2	70 - 123	1166	4.29	20
Xylenes, Total	5035	120	3750	1535	93.3	70 - 130	4393	13.6	20
Surr: 1,2-Dichloroethane-d4	1209	0	1250	0	96.7	70 - 126	1203	0.5	20
Surr: 4-Bromofluorobenzene	1304	0	1250	0	104	82 - 124	1217	6.92	20
Surr: Dibromofluoromethane	1202	0	1250	0	96.2	77 - 123	1178	2.02	20
Surr: Toluene-d8	1137	0	1250	0	90.9	82 - 127	1205	5.83	20
The following samples were analyzed in this batch:									
HS18021252-01 HS18021252-02 HS18021252-03 HS18021252-04 HS18021252-06									

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

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS18021252

QC BATCH REPORT

Batch ID: R311585		Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-180227	Units: ug/L		Analysis Date: 27-Feb-2018 13:17					
Client ID:	Run ID: VOA1_311585	SeqNo: 4454035		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	5.0							
Surr: 1,2-Dichloroethane-d4	49.86	0	50	0	99.7	70 - 123			
Surr: 4-Bromofluorobenzene	49.58	0	50	0	99.2	83 - 122			
Surr: Dibromofluoromethane	49.54	0	50	0	99.1	73 - 126			
Surr: Toluene-d8	48.42	0	50	0	96.8	81 - 119			

LCS	Sample ID: VLCSW-180227	Units: ug/L		Analysis Date: 27-Feb-2018 12:23					
Client ID:	Run ID: VOA1_311585	SeqNo: 4454034		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	41.56	5.0	50	0	83.1	74 - 120			
Ethylbenzene	42.44	5.0	50	0	84.9	77 - 117			
Toluene	40.69	5.0	50	0	81.4	77 - 118			
Xylenes, Total	135.7	5.0	150	0	90.4	75 - 122			
Surr: 1,2-Dichloroethane-d4	49.37	0	50	0	98.7	70 - 130			
Surr: 4-Bromofluorobenzene	48.01	0	50	0	96.0	83 - 122			
Surr: Dibromofluoromethane	49.97	0	50	0	99.9	73 - 126			
Surr: Toluene-d8	46.71	0	50	0	93.4	81 - 119			

MS	Sample ID: HS18021252-05MS	Units: ug/L		Analysis Date: 27-Feb-2018 15:31					
Client ID: DUP	Run ID: VOA1_311585	SeqNo: 4454401		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	48.81	5.0	50	0	97.6	70 - 127			
Ethylbenzene	47.42	5.0	50	0	94.8	70 - 124			
Toluene	46.65	5.0	50	0	93.3	70 - 123			
Xylenes, Total	138.3	5.0	150	0	92.2	70 - 130			
Surr: 1,2-Dichloroethane-d4	47.7	0	50	0	95.4	70 - 126			
Surr: 4-Bromofluorobenzene	51.09	0	50	0	102	82 - 124			
Surr: Dibromofluoromethane	46.41	0	50	0	92.8	77 - 123			
Surr: Toluene-d8	49.42	0	50	0	98.8	82 - 127			

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

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 WorkOrder: HS18021252

QC BATCH REPORT

Batch ID: R311585		Instrument: VOA1		Method: SW8260						
MSD		Sample ID: HS18021252-05MSD		Units: ug/L		Analysis Date: 27-Feb-2018 15:58				
Client ID: DUP		Run ID: VOA1_311585		SeqNo: 4454402		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	47.06	5.0	50	0	94.1	70 - 127	48.81	3.65	20	
Ethylbenzene	44.43	5.0	50	0	88.9	70 - 124	47.42	6.5	20	
Toluene	43.79	5.0	50	0	87.6	70 - 123	46.65	6.31	20	
Xylenes, Total	136.2	5.0	150	0	90.8	70 - 130	138.3	1.56	20	
Surr: 1,2-Dichloroethane-d4	51.37	0	50	0	103	70 - 126	47.7	7.42	20	
Surr: 4-Bromofluorobenzene	47.72	0	50	0	95.4	82 - 124	51.09	6.82	20	
Surr: Dibromofluoromethane	46.61	0	50	0	93.2	77 - 123	46.41	0.434	20	
Surr: Toluene-d8	48.64	0	50	0	97.3	82 - 127	49.42	1.61	20	

The following samples were analyzed in this batch: HS18021252-05

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

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS18021252

QC BATCH REPORT

Batch ID: R312266		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW2-030718	Units: mg/L		Analysis Date: 08-Mar-2018 15:55						
Client ID:	Run ID: ICS2100_312266	SeqNo: 4468067		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: WLCSW2-030718	Units: mg/L		Analysis Date: 08-Mar-2018 16:10						
Client ID:	Run ID: ICS2100_312266	SeqNo: 4468068		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.6	0.500	20	0	103	90 - 110				
LCSD	Sample ID: WLCSDW2-030718	Units: mg/L		Analysis Date: 08-Mar-2018 16:24						
Client ID:	Run ID: ICS2100_312266	SeqNo: 4468069		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.42	0.500	20	0	102	90 - 110	20.6	0.897	20	
MS	Sample ID: HS18030283-11MS	Units: mg/L		Analysis Date: 08-Mar-2018 16:53						
Client ID:	Run ID: ICS2100_312266	SeqNo: 4468071		PrepDate:		DF: 20				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1253	10.0	200	1054	99.3	80 - 120				O
MS	Sample ID: HS18021252-05MS	Units: mg/L		Analysis Date: 08-Mar-2018 19:40						
Client ID: DUP	Run ID: ICS2100_312266	SeqNo: 4468080		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	556	5.00	100	482.1	74.0	80 - 120				SO
MSD	Sample ID: HS18030283-11MSD	Units: mg/L		Analysis Date: 08-Mar-2018 17:08						
Client ID:	Run ID: ICS2100_312266	SeqNo: 4468072		PrepDate:		DF: 20				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1279	10.0	200	1054	112	80 - 120	1253	2.08	20	O

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

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS18021252

QC BATCH REPORT

Batch ID: R312266		Instrument: ICS2100		Method: E300	
MSD	Sample ID: HS18021252-05MSD	Units: mg/L		Analysis Date: 08-Mar-2018 19:54	
Client ID: DUP	Run ID: ICS2100_312266		SeqNo: 4468081	PrepDate:	DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	604.7	5.00	100	482.1 123	80 - 120 556 8.38 20 SO
The following samples were analyzed in this batch:					
HS18021252-01 HS18021252-02 HS18021252-03 HS18021252-04 HS18021252-05					

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

ALS Group USA, Corp

Date: 09-Mar-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS18021252

**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

ALS Group USA, Corp

Date: 09-Mar-18

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	17-027-0	27-Mar-2018
California	2919 2016-2018	31-Jul-2018
Illinois	004112	09-May-2018
Kentucky	123043	30-Apr-2018
Louisiana	03087 2017-2017	30-Jun-2018
North Dakota	R193 2017-2017	30-Apr-2018
Oklahoma	2017-088	31-Aug-2018
Texas	T104704231-17-19	30-Apr-2018
North Carolina	624-2018	31-Dec-2018

ALS Group USA, Corp

Date: 09-Mar-18

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **24-Feb-2018 09:15**

Work Order: HS18021252

Received by: **JRM**

Checklist completed by:	<u>Jared R. Makan</u>	<u>24-Feb-2018</u>	Reviewed by:	<u>Dane J. Wacasey</u>	<u>25-Feb-2018</u>
	eSignature	Date		eSignature	Date

Matrices: **Water**Carrier name: **FedEx Priority Overnight**

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 ☒	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☒
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):	2.0c/2.4c UC/C	IR30
--------------------------------	----------------	------

Cooler(s)/Kit(s):	24211
-------------------	-------

Date/Time sample(s) sent to storage:	02/24/2018 14:35
--------------------------------------	------------------

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:	Sample MW-2: One vial for 8260 BTEX received broken. Sufficient volume remains for analysis.
--------------	--

Client Contacted:	Date Contacted:	Person Contacted:
-------------------	-----------------	-------------------

Contacted By:	Regarding:
---------------	------------

Comments:	
-----------	--

Corrective Action:	
--------------------	--

Chain of Custody Form



Page ____ of ____

COC ID: 174478

Customer Information		Project Information		Parameter/Method Request for Analysis													
Purchase Order	4502201559 ENV 749-4	Project Name	GSHI PXP Hill E.C. ABC TB	A	8260_W (BTEX)												
Work Order		Project Number	55628DM (ENV749A10)	B	300_W (Chloride)												
Company Name	Glenn Springs Holdings, Inc.	Bill To Company	Glenn Springs Holdings, Inc.	C	8260_W (BTEX) Trip Blank												
Send Report To	Angela Bown	Invoice Attn	Accounts Payable	D	HS18021252 Glenn Springs Holdings, Inc. 55628DM GSHI PXP Hill E.C. ABC TB 												
Address	PO Box 2148	Address	PO Box 2148	E													
				F													
City/State/Zip	Houston, TX 77252-2148	City/State/Zip	Houston TX 77252-2148	G													
Phone		Phone		H													
Fax		Fax		I													
e-Mail Address	Angela.Bown@ghd.com	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			Groundwa	1,8	4	X	X									
2	MW-2	2-21-18	1415	Groundwa	1,8	4	X	X									
3	MW-3			Groundwa	1,8	4	X	X									
4	MW-4	2-21-18	1450	Groundwa	1,8	4	X	X									
5	MW-5	2-21-18	1430	Groundwa	1,8	4	X	X									
6	MW-6	2-21-18	1510	Groundwa	1,8	4	X	X									
7	MW-7			Groundwa	1,8	4	X	X									
8	RW-1			Groundwa	1,8	4	X	X									
9	RW-2			Groundwa	1,8	4	X	X									
10	DUP	2-21-18		Groundwa	1,8	4	X	X									
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:									
		FedEx		☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour													
Relinquished by:		Date:	Time:	Received by:		Notes: [GSHI PXP Hill EC ABC TB]											
Relinquished by:		Date:	Time:	Received by (Laboratory):													
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)									
						24211	2.0	☒ Level II Std QC	☐ TRRP Checklist								
							1420	☐ Level III Std QC/Raw Data	☐ TRRP Level IV								
							CF0.9	☐ Level IV SW848/CLP									
								☐ Other									
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.
 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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Chain of Custody Form

Page ____ of ____

COC ID: 174477

Houston, TX
+1 281 530 5656
Middletown, PA
+1 717 944 5541

Spring City, PA
+1 610 948 4903
Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Customer Information				Project Information			ALS Project Manager:											ALS Work Order #:			
Parameter/Method Request for Analysis																					
Purchase Order	4502201559 ENV 749-4			Project Name	GSHI PXP Hill E.C. ABC TB			A	8260_W (BTEX)												
Work Order				Project Number	55628DM (ENV749A10)			B	300_W (Chloride)												
Company Name	Glenn Springs Holdings, Inc.			Bill To Company	Glenn Springs Holdings, Inc.			C	8260_W (BTEX) Trip Blank												
Send Report To	Angela Bown			Invoice Attn	Accounts Payable			D													
Address	PO Box 2148			Address	PO Box 2148			E	HS18021252 Glenn Springs Holdings, Inc. 55628DM GSHI PXP Hill E.C. ABC TB 												
								F													
City/State/Zip	Houston, TX 77252-2148			City/State/Zip	Houston TX 77252-2148			G													
Phone				Phone				H													
Fax				Fax				I													
e-Mail Address	Angela.Bown@ghd.com			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	1.8	2			X										
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
Sampler(s) Please Print & Sign				Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:											
				FedEx		☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour															
Relinquished by:		Date:	Time:	Received by:		Notes: [GSHI PXP Hill EC ABC TB]															
		2-23-18	11:20	Received by (Laboratory):																	
Relinquished by:		Date:	Time:	Checked by (Laboratory):																	
		2/24/18	09:15	Sun																	
Logged by (Laboratory):		Date:	Time:																		
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)									
										24211	2.6	☒ Level II Std QC ☐ TRRP Checklist									
											12.3	☐ Level III Std QC/Raw Date ☐ TRRP Level IV									
											CF0.4	☐ Level IV SW846/CLP									
												☐ Other									

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 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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T C	FedEx	SATURDAY 12:00P
TRK#	7376 9752 3320	PRIORITY OVERNIGHT
0221		
XO SGRA		77099
24211		TX-US IAH
		

ental	
7099	Date:
24211	Name:
501 530 5887	Compa

CUSTODY SEAL		Seal Broken By:
23-18	Time: 1120	Jm
Rita Tech		Date:
Tetra Tech		2/24/18



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

September 05, 2018

James Abston
Glenn Springs Holdings, Inc.
PO Box 2148

Houston, TX 77252-2148

Work Order: **HS18081359**

Laboratory Results for: **55628DM GSHI PXP Hill E.C. ABC TB**

Dear James,

ALS Environmental received 6 sample(s) on Aug 28, 2018 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,

Generated By: DAYNA.FISHER
Dane J. Wacasey

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS18081359

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS18081359-01	MW-2	Groundwater		23-Aug-2018 18:50	28-Aug-2018 08:50	☐
HS18081359-02	MW-4	Groundwater		23-Aug-2018 17:00	28-Aug-2018 08:50	☐
HS18081359-03	MW-5	Groundwater		23-Aug-2018 18:05	28-Aug-2018 08:50	☐
HS18081359-04	MW-6	Groundwater		23-Aug-2018 19:30	28-Aug-2018 08:50	☐
HS18081359-05	Trip Blank	Water	ALS-080918-17	23-Aug-2018 00:00	28-Aug-2018 08:50	☐
HS18081359-06	DUP	Groundwater		23-Aug-2018 00:00	28-Aug-2018 08:50	☐

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
Work Order: HS18081359

CASE NARRATIVE

GCMS Volatiles by Method SW8260

Batch ID: R322792

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

Batch ID: R322687

Sample ID: HS18081351-01MSD

- MSD is for an unrelated sample

WetChemistry by Method E300

Batch ID: R322848

Sample ID: MW-2 (HS18081359-01MS/MSD)

- The MS and/or MSD recovery was outside of the control limits; however, the result in the parent sample is greater than 4x the spike amount. (Chloride)
-

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-2
 Collection Date: 23-Aug-2018 18:50

ANALYTICAL REPORT

WorkOrder:HS18081359
 Lab ID:HS18081359-01
 Matrix:Groundwater

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-Aug-2018 14:57
Ethylbenzene	U		0.50	5.0	ug/L	1	31-Aug-2018 14:57
Toluene	U		0.50	5.0	ug/L	1	31-Aug-2018 14:57
Xylenes, Total	U		0.50	5.0	ug/L	1	31-Aug-2018 14:57
Surr: 1,2-Dichloroethane-d4	120			70-126	%REC	1	31-Aug-2018 14:57
Surr: 4-Bromofluorobenzene	110			82-124	%REC	1	31-Aug-2018 14:57
Surr: Dibromofluoromethane	99.1			77-123	%REC	1	31-Aug-2018 14:57
Surr: Toluene-d8	105			82-127	%REC	1	31-Aug-2018 14:57
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	88.6		0.200	0.500	mg/L	1	04-Sep-2018 18:41

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

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-4
 Collection Date: 23-Aug-2018 17:00

ANALYTICAL REPORT

WorkOrder:HS18081359
 Lab ID:HS18081359-02
 Matrix:Groundwater

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-Aug-2018 15:22
Ethylbenzene	U		0.50	5.0	ug/L	1	31-Aug-2018 15:22
Toluene	U		0.50	5.0	ug/L	1	31-Aug-2018 15:22
Xylenes, Total	U		0.50	5.0	ug/L	1	31-Aug-2018 15:22
Surr: 1,2-Dichloroethane-d4	118			70-126	%REC	1	31-Aug-2018 15:22
Surr: 4-Bromofluorobenzene	109			82-124	%REC	1	31-Aug-2018 15:22
Surr: Dibromofluoromethane	99.6			77-123	%REC	1	31-Aug-2018 15:22
Surr: Toluene-d8	105			82-127	%REC	1	31-Aug-2018 15:22
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	386		1.00	2.50	mg/L	5	04-Sep-2018 19:54

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

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-5
 Collection Date: 23-Aug-2018 18:05

ANALYTICAL REPORT

WorkOrder:HS18081359
 Lab ID:HS18081359-03
 Matrix:Groundwater

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-Aug-2018 15:47
Ethylbenzene	U		0.50	5.0	ug/L	1	31-Aug-2018 15:47
Toluene	U		0.50	5.0	ug/L	1	31-Aug-2018 15:47
Xylenes, Total	U		0.50	5.0	ug/L	1	31-Aug-2018 15:47
Surr: 1,2-Dichloroethane-d4	119			70-126	%REC	1	31-Aug-2018 15:47
Surr: 4-Bromofluorobenzene	110			82-124	%REC	1	31-Aug-2018 15:47
Surr: Dibromofluoromethane	100			77-123	%REC	1	31-Aug-2018 15:47
Surr: Toluene-d8	106			82-127	%REC	1	31-Aug-2018 15:47
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	103		1.00	2.50	mg/L	5	04-Sep-2018 20:23

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

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: MW-6
 Collection Date: 23-Aug-2018 19:30

ANALYTICAL REPORT

WorkOrder:HS18081359
 Lab ID:HS18081359-04
 Matrix:Groundwater

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-Sep-2018 01:18
Ethylbenzene	U		0.50	5.0	ug/L	1	01-Sep-2018 01:18
Toluene	U		0.50	5.0	ug/L	1	01-Sep-2018 01:18
Xylenes, Total	U		0.50	5.0	ug/L	1	01-Sep-2018 01:18
Surr: 1,2-Dichloroethane-d4	120			70-126	%REC	1	01-Sep-2018 01:18
Surr: 4-Bromofluorobenzene	110			82-124	%REC	1	01-Sep-2018 01:18
Surr: Dibromofluoromethane	98.7			77-123	%REC	1	01-Sep-2018 01:18
Surr: Toluene-d8	106			82-127	%REC	1	01-Sep-2018 01:18
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	1,110		10.0	25.0	mg/L	50	04-Sep-2018 20:37

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

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: Trip Blank
 Collection Date: 23-Aug-2018 00:00

ANALYTICAL REPORT

WorkOrder:HS18081359
 Lab ID:HS18081359-05
 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	31-Aug-2018 16:37
Ethylbenzene	U		0.50	5.0	ug/L	1	31-Aug-2018 16:37
Toluene	U		0.50	5.0	ug/L	1	31-Aug-2018 16:37
Xylenes, Total	U		0.50	5.0	ug/L	1	31-Aug-2018 16:37
Surr: 1,2-Dichloroethane-d4	120			70-126	%REC	1	31-Aug-2018 16:37
Surr: 4-Bromofluorobenzene	109			82-124	%REC	1	31-Aug-2018 16:37
Surr: Dibromofluoromethane	101			77-123	%REC	1	31-Aug-2018 16:37
Surr: Toluene-d8	106			82-127	%REC	1	31-Aug-2018 16:37

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

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 Sample ID: DUP
 Collection Date: 23-Aug-2018 00:00

ANALYTICAL REPORT

WorkOrder:HS18081359
 Lab ID:HS18081359-06
 Matrix:Groundwater

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-Aug-2018 17:03
Ethylbenzene	U		0.50	5.0	ug/L	1	31-Aug-2018 17:03
Toluene	U		0.50	5.0	ug/L	1	31-Aug-2018 17:03
Xylenes, Total	U		0.50	5.0	ug/L	1	31-Aug-2018 17:03
Surr: 1,2-Dichloroethane-d4	120			70-126	%REC	1	31-Aug-2018 17:03
Surr: 4-Bromofluorobenzene	110			82-124	%REC	1	31-Aug-2018 17:03
Surr: Dibromofluoromethane	100			77-123	%REC	1	31-Aug-2018 17:03
Surr: Toluene-d8	106			82-127	%REC	1	31-Aug-2018 17:03
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	128		1.00	2.50	mg/L	5	04-Sep-2018 20:52

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

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS18081359

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R322687		Test Name : VOLATILES - SW8260C		Matrix: Water		
HS18081359-05	Trip Blank	23 Aug 2018 00:00			31 Aug 2018 16:37	1
Batch ID R322687		Test Name : VOLATILES - SW8260C		Matrix: Groundwater		
HS18081359-01	MW-2	23 Aug 2018 18:50			31 Aug 2018 14:57	1
HS18081359-02	MW-4	23 Aug 2018 17:00			31 Aug 2018 15:22	1
HS18081359-03	MW-5	23 Aug 2018 18:05			31 Aug 2018 15:47	1
HS18081359-06	DUP	23 Aug 2018 00:00			31 Aug 2018 17:03	1
Batch ID R322792		Test Name : VOLATILES - SW8260C		Matrix: Groundwater		
HS18081359-04	MW-6	23 Aug 2018 19:30			01 Sep 2018 01:18	1
Batch ID R322848		Test Name : ANIONS BY E300.0		Matrix: Groundwater		
HS18081359-01	MW-2	23 Aug 2018 18:50			04 Sep 2018 18:41	1
HS18081359-02	MW-4	23 Aug 2018 17:00			04 Sep 2018 19:54	5
HS18081359-03	MW-5	23 Aug 2018 18:05			04 Sep 2018 20:23	5
HS18081359-04	MW-6	23 Aug 2018 19:30			04 Sep 2018 20:37	50
HS18081359-06	DUP	23 Aug 2018 00:00			04 Sep 2018 20:52	5

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS18081359

QC BATCH REPORT

Batch ID: R322687		Instrument: VOA9		Method: SW8260					
MBLK	Sample ID: VBLKW-180830	Units: ug/L		Analysis Date: 31-Aug-2018 07:43					
Client ID:	Run ID: VOA9_322687	SeqNo: 4711925		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	5.0							
Surr: 1,2-Dichloroethane-d4	58.96	0	50	0	118	70 - 130			
Surr: 4-Bromofluorobenzene	55.11	0	50	0	110	82 - 115			
Surr: Dibromofluoromethane	50.13	0	50	0	100	73 - 126			
Surr: Toluene-d8	52.68	0	50	0	105	81 - 120			

LCS	Sample ID: VLCSW-180830	Units: ug/L		Analysis Date: 31-Aug-2018 06:53					
Client ID:	Run ID: VOA9_322687	SeqNo: 4711924		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	20.53	5.0	20	0	103	74 - 120			
Ethylbenzene	20.59	5.0	20	0	103	77 - 117			
Toluene	20.45	5.0	20	0	102	77 - 118			
Xylenes, Total	62.92	5.0	60	0	105	75 - 122			
Surr: 1,2-Dichloroethane-d4	58.15	0	50	0	116	70 - 130			
Surr: 4-Bromofluorobenzene	57.18	0	50	0	114	82 - 115			
Surr: Dibromofluoromethane	52.09	0	50	0	104	73 - 126			
Surr: Toluene-d8	51.54	0	50	0	103	81 - 120			

MS	Sample ID: HS18081351-01MS	Units: ug/L		Analysis Date: 31-Aug-2018 08:58					
Client ID:	Run ID: VOA9_322687	SeqNo: 4711928		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	23.02	5.0	20	0	115	70 - 127			
Ethylbenzene	23.86	5.0	20	0	119	70 - 124			
Toluene	23.62	5.0	20	0	118	70 - 123			
Xylenes, Total	71.26	5.0	60	0	119	70 - 130			
Surr: 1,2-Dichloroethane-d4	57.94	0	50	0	116	70 - 126			
Surr: 4-Bromofluorobenzene	57.34	0	50	0	115	82 - 124			
Surr: Dibromofluoromethane	52.05	0	50	0	104	77 - 123			
Surr: Toluene-d8	51.56	0	50	0	103	82 - 127			

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

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS18081359

QC BATCH REPORT

Batch ID: R322687		Instrument: VOA9		Method: SW8260						
MSD	Sample ID: HS18081351-01MSD	Units: ug/L			Analysis Date: 31-Aug-2018 12:01					
Client ID:	Run ID: VOA9_322687	SeqNo: 4712319		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Benzene	19	5.0	20	0	95.0	70 - 127	23.02	19.1	20	
Ethylbenzene	18.67	5.0	20	0	93.4	70 - 124	23.86	24.4	20	
Toluene	18.35	5.0	20	0	91.8	70 - 123	23.62	25.1	20	
Xylenes, Total	61.6	5.0	60	0	103	70 - 130	71.26	14.5	20	
Surr: 1,2-Dichloroethane-d4	58.4	0	50	0	117	70 - 126	57.94	0.784	20	
Surr: 4-Bromofluorobenzene	56.12	0	50	0	112	82 - 124	57.34	2.15	20	
Surr: Dibromofluoromethane	52.84	0	50	0	106	77 - 123	52.05	1.52	20	
Surr: Toluene-d8	51.34	0	50	0	103	82 - 127	51.56	0.417	20	
The following samples were analyzed in this batch:										
HS18081359-01 HS18081359-02 HS18081359-03 HS18081359-05 HS18081359-06										

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

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS18081359

QC BATCH REPORT

Batch ID: R322792		Instrument: VOA9		Method: SW8260					
MBLK	Sample ID: VBLKW-180831	Units: ug/L		Analysis Date: 31-Aug-2018 20:18					
Client ID:	Run ID: VOA9_322792	SeqNo: 4714128		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	5.0							
Surr: 1,2-Dichloroethane-d4	59.58	0	50	0	119	70 - 130			
Surr: 4-Bromofluorobenzene	55.13	0	50	0	110	82 - 115			
Surr: Dibromofluoromethane	49.67	0	50	0	99.3	73 - 126			
Surr: Toluene-d8	53.58	0	50	0	107	81 - 120			

LCS	Sample ID: VLCSW-180831	Units: ug/L		Analysis Date: 31-Aug-2018 19:28					
Client ID:	Run ID: VOA9_322792	SeqNo: 4714127		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	20.5	5.0	20	0	102	74 - 120			
Ethylbenzene	20.61	5.0	20	0	103	77 - 117			
Toluene	20.99	5.0	20	0	105	77 - 118			
Xylenes, Total	63.53	5.0	60	0	106	75 - 122			
Surr: 1,2-Dichloroethane-d4	58.58	0	50	0	117	70 - 130			
Surr: 4-Bromofluorobenzene	56.84	0	50	0	114	82 - 115			
Surr: Dibromofluoromethane	52.43	0	50	0	105	73 - 126			
Surr: Toluene-d8	52.1	0	50	0	104	81 - 120			

MS	Sample ID: HS18081351-03MS	Units: ug/L		Analysis Date: 31-Aug-2018 21:08					
Client ID:	Run ID: VOA9_322792	SeqNo: 4714130		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	22.76	5.0	20	0	114	70 - 127			
Ethylbenzene	23.38	5.0	20	0	117	70 - 124			
Toluene	22.73	5.0	20	0	114	70 - 123			
Xylenes, Total	70.59	5.0	60	0	118	70 - 130			
Surr: 1,2-Dichloroethane-d4	59.25	0	50	0	119	70 - 126			
Surr: 4-Bromofluorobenzene	56.72	0	50	0	113	82 - 124			
Surr: Dibromofluoromethane	53.22	0	50	0	106	77 - 123			
Surr: Toluene-d8	51.64	0	50	0	103	82 - 127			

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

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
 Project: 55628DM GSHI PXP Hill E.C. ABC TB
 WorkOrder: HS18081359

QC BATCH REPORT

Batch ID: R322792		Instrument: VOA9		Method: SW8260						
MSD	Sample ID: HS18081351-03MSD	Units: ug/L			Analysis Date: 31-Aug-2018 21:33					
Client ID:	Run ID: VOA9_322792	SeqNo: 4714131		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Benzene	21.81	5.0	20	0	109	70 - 127	22.76	4.24	20	
Ethylbenzene	22.59	5.0	20	0	113	70 - 124	23.38	3.44	20	
Toluene	22.18	5.0	20	0	111	70 - 123	22.73	2.42	20	
Xylenes, Total	68.16	5.0	60	0	114	70 - 130	70.59	3.5	20	
Surr: 1,2-Dichloroethane-d4	59.77	0	50	0	120	70 - 126	59.25	0.865	20	
Surr: 4-Bromofluorobenzene	57.16	0	50	0	114	82 - 124	56.72	0.781	20	
Surr: Dibromofluoromethane	52.64	0	50	0	105	77 - 123	53.22	1.09	20	
Surr: Toluene-d8	52.23	0	50	0	104	82 - 127	51.64	1.14	20	

The following samples were analyzed in this batch: HS18081359-04

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

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS18081359

QC BATCH REPORT

Batch ID: R322848		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW1-090418	Units: mg/L		Analysis Date: 04-Sep-2018 13:46						
Client ID:	Run ID: ICS2100_322848	SeqNo: 4715157		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: WLCSW1-090418	Units: mg/L		Analysis Date: 04-Sep-2018 14:01						
Client ID:	Run ID: ICS2100_322848	SeqNo: 4715158		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.52	0.500	20	0	103	90 - 110				
LCSD	Sample ID: WLCSDW1-090418	Units: mg/L		Analysis Date: 04-Sep-2018 14:15						
Client ID:	Run ID: ICS2100_322848	SeqNo: 4715159		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.52	0.500	20	0	103	90 - 110	20.52	0.0439	20	
MS	Sample ID: HS18081359-01MS	Units: mg/L		Analysis Date: 04-Sep-2018 18:55						
Client ID: MW-2	Run ID: ICS2100_322848	SeqNo: 4715647		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	96.47	0.500	10	88.55	79.2	80 - 120				SO
MS	Sample ID: HS18081355-03MS	Units: mg/L		Analysis Date: 04-Sep-2018 17:28						
Client ID:	Run ID: ICS2100_322848	SeqNo: 4715170		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	66.41	0.500	10	56.7	97.1	80 - 120				O
MSD	Sample ID: HS18081359-01MSD	Units: mg/L		Analysis Date: 04-Sep-2018 19:10						
Client ID: MW-2	Run ID: ICS2100_322848	SeqNo: 4715648		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	94.92	0.500	10	88.55	63.7	80 - 120	96.47	1.61	20	SO

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

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS18081359

QC BATCH REPORT

Batch ID: R322848		Instrument: ICS2100		Method: E300	
MSD	Sample ID: HS18081355-03MSD	Units: mg/L		Analysis Date: 04-Sep-2018 17:43	
Client ID:	Run ID: ICS2100_322848	SeqNo: 4715171		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	65.94	0.500	10	56.7 92.3	80 - 120 66.41 0.715 20 O
The following samples were analyzed in this batch:					
HS18081359-01 HS18081359-02 HS18081359-03 HS18081359-04 HS18081359-06					

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

ALS Group Houston, Corp

Date: 05-Sep-18

Client: Glenn Springs Holdings, Inc.
Project: 55628DM GSHI PXP Hill E.C. ABC TB
WorkOrder: HS18081359

**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

ALS Group Houston, Corp

Date: 05-Sep-18

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
North Carolina	624-2018	31-Dec-2018
Arkansas	88-0356	27-Mar-2019
Texas	T10470231-18-21	30-Apr-2019
North Dakota	R193 2018-2019	30-Apr-2019
Illinois	004438	29-Jun-2019
Louisiana	03087	30-Jun-2019
Dept of Defense	L2231 Rev 3-30-2018	22-Dec-2018
Kentucky	123043 - 2018	30-Apr-2019
Kansas	E-10352 2018-2019	31-Jul-2019
Oklahoma	2018-156	31-Aug-2019

Date: 05-Sep-18

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **28-Aug-2018 08:50**

Work Order: HS18081359

Received by: **RPG**

Checklist completed by:	<u>Nilesh D. Ranchod</u>	<u>28-Aug-2018</u>	Reviewed by:	<u>Dane J. Wacasey</u>	<u>30-Aug-2018</u>
	eSignature	Date		eSignature	Date

Matrices: **Water**Carrier name: **FedEx Priority Overnight**

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 ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☒
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):	2.5C / 2.2C UC/C	IR # 25	
Cooler(s)/Kit(s):	24416		
Date/Time sample(s) sent to storage:	08/28/2018 13:00pm		
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: MW-2: 1 vial broken by log in tech during labeling. Sufficient volume remains for analysis.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Cincinnati, OH
+1 513 733 5336Everett, WA
+1 425 356 2600Fort Collins, CO
+1 970 490 1511Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 190392

HS18081359

Glenn Springs Holdings, Inc.
55628DM GSHI PXP Hill E.C. ABC TB

Customer Information				Project Information				ALS Project Manager:												
Purchase Order	4502201559 ENV 749-4			Project Name	GSHI PXP Hill E.C. ABC TB			A	8260_W (BTEX)											
Work Order				Project Number	55628DM (ENV749A10)			B	300_W (Chloride)											
Company Name	Glenn Springs Holdings, Inc.			Bill To Company	Glenn Springs Holdings, Inc.			C	8260_W (BTEX-Trip Blank)											
Send Report To	Angela Bown			Invoice Attn	Accounts Payable			D												
Address	PO Box 2148			Address	PO Box 2148			E												
								F												
City/State/Zip	Houston, TX 77252-2148			City/State/Zip	Houston TX 77252-2148			G												
Phone				Phone				H												
Fax				Fax				I												
e-Mail Address	Angela.Bown@ghd.com			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	—	—	Groundwa	1,8	4	X	X									
2	MW-2	8/23/18	1850	Groundwa	1,8	4	X	X									
3	MW-3	—	—	Groundwa	1,8	4	X	X									
4	MW-4	8/23/18	1700	Groundwa	1,8	4	X	X									
5	MW-5	8/23/18	1805	Groundwa	1,8	4	X	X									
6	MW-6	8/23/18	1930	Groundwa	1,8	4	X	X									
7	TMW-7	—	—	Groundwa	1,8	4	X	X									
8	RW-1	—	—	Groundwa	1,8	4	X	X									
9	RW-2 Trip Blank			Water	1,8	4	X	X									
10	DUP	8/23/18	—	Groundwa	1,8	4	X	X									

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
 CONNER MOEHRING Conner Moehring		FedEx		☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour			
Relinquished by:	Date: 8/27/18	Time:	Received by:	Notes: [GSHI PXP Hill EC ABC TB]			
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
Relinquished by:	Date:	Time:	Received by (Laboratory): R. C. 8/29/18 08:50	24416	2.5c	☒ Level II Std QC ☐ TRRP Checklist	
Relinquished by:	Date:	Time:	Checked by (Laboratory):	VR 25		☐ Level III Std QC/Raw Data ☐ TRRP Level IV	
Relinquished by:	Date:	Time:	Checked by (Laboratory):	CF-0.3c		☐ Level IV SW846/CLP ☐ Other	

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
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- 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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24416 AUG 28 2018

5/4/93C/12945

TO
CLIENT SERVICES
ALS LABORATORY GROUP
10450 STANCLIFF ROAD
SUITE 210
HOUSTON TX 77099

24416

(281) 630-6866
REF: GSHI PXP-DW

FedEx
Express

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED DATE 07-13 BY 60321 JLT

FedEx
TRK#
0221 4380 531 8016

TUE - 28 AUG 10:30A
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US IAH

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED DATE 07-13 BY 60321 JLT

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 4937

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 4937
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bbillings	Report accepted as written.	9/20/2021