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APPROVED
By Nelson Velez at 10:10 am, Dec 28, 2021

Review of 2020 Groundwater Sampling Report: Content satisfactory

1. Continued semi-annual groundwater monitoring and PSH recovery system operation
2. Submit the Annual Monitoring Report to the OCD no later than March 31, 2022

TETRA TECH

January 25, 2021

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: 2020 Groundwater Sampling Report**
**Occidental Permian, Ltd.**
**E.C. Hill Abandoned Tank Battery (ATB) at Well #24**
**Section 34, Township 23 South, Range 37 East**
**Lea County, New Mexico**
**NMOCD (AP-087)**

Mr. Rose-Coss,

This report summarizes the results of the 2020 semiannual groundwater sampling events performed at the OXY USA, Inc. (OXY) E. C. Hill Abandoned Tank Battery (ATB) at Well #24 (site). The site is located approximately 12 miles south of Eunice, Lea County, New Mexico. The facility was acquired by OXY in March 2008. Prior to OXY acquiring the property, the facility was operated by Plains Exploration and Production (PXP), Pogo Producing Company (Pogo), and Latigo Petroleum, Inc. (Latigo). The site location is shown on **Figures 1** and **2**.

## FACILITY BACKGROUND

As part of a due diligence assessment for Pogo, this site was inspected by Highlander Environmental Corp. Highlander supervised the installation of auger holes and soil borings at the site to assess areas that appeared to be impacted from historic releases.

As part of the investigation, two impacted areas were investigated east of the abandoned facility. A total of eight (8) auger holes were installed in an area measuring 75' x 25'. One auger hole was placed in the second impacted area measuring 12' x 12'. Chloride impact was not observed in any of the analyzed auger samples. Total Petroleum Hydrocarbon (TPH) concentrations were detected below the New Mexico Oil Conservation Division (OCD) Recommended Remedial Action Level (RRAL) in six of the nine auger holes. One borehole was installed near auger hole AH-2. Borehole BH-1 exhibited TPH concentrations above the RRAL to a depth of 60'-62' below ground surface (bgs). The sample from 70'-72' bgs was below the RRAL.

Based on the analytical results, borehole (BH-1) was converted to a temporary 2-inch monitor well. Groundwater was encountered at approximately 82 feet below top of

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casing (TOC). On September 22 and 29, 2006 and October 4, 2006, Highlander purged and sampled the well per OCD guidelines for analysis of chlorides, TPH and Benzene, Toluene, Ethylene and Xylenes (BTEX). Chloride concentrations did not exceed New Mexico Water Quality Control Commission (NMWQCC) standards, while hydrocarbon constituents (BTEX) were below the NMWQCC action levels and total TPH was 73.3 milligrams per liter (mg/L). The well was scheduled to be sampled on May 16, 2007; however, 2.68' of Phase Separated Hydrocarbons (PSH) was measured in the well. At that time, the well was completed as a permanent well. On July 25, 2007, the Director of the OCD, Environmental Bureau was notified in writing of groundwater impact at the above-referenced site in accordance with NM Rule 116. To complete delineation at the site, three additional monitor wells were installed at the site in September 2007. The monitor well locations are shown on **Figure 3**.

On July 8, 2008, a Stage 1 Abatement Plan was submitted by OXY to the OCD addressing the groundwater and soil impacts at the site. In the abatement plan, a recovery well was proposed in the vicinity of monitor well MW-1. On January 21, 2011, Tetra Tech personnel supervised the installation of the 4-inch recovery well, RW-1, to a depth of 100 feet bgs. Recovery well RW-1 was installed approximately 10 feet from MW-1 with 4-inch PVC casing and 20 feet of 0.020-inch slot screen at the bottom of the well.

According to the Abatement Plan, OXY proposed to excavate the hydrocarbon impacted soils in the southern end of the facility to a depth of 4.0' bgs and place an impermeable infiltration barrier to prevent further vertical migration of hydrocarbons within the soil.

Between December 2 and December 9, 2015, approximately 400 cubic yards of impacted soil was excavated to a depth of approximately 4 feet bgs. Following excavation and prior to backfilling, a 40-mil liner was placed in the excavation. Following placement of the liner, the excavation was backfilled with clean soils and the site was graded in a manner to prevent rainwater infiltration. The excavated soil was transported to Sundance Services in Eunice, New Mexico.

## RECOVERY SYSTEM OPERATIONS AND MAINTENANCE

In 2016 a solar powered NAPL recovery system (SolarNAPL, TR 52600) was installed in recovery well RW-1 which operated through the reporting period. Approximately 33.5 gallons of product was recovered in 2020. The system is solar powered to charge an absorbed glass matt (AGM) deep cycle battery which powers a compressor inside the control panel with an external 7.5-gallon air pressure tank which provides the air power for a pneumatic skimmer pump. The system has a high level shut-off switch installed in a 1,000-gallon poly tank to shut the system down when the tank is full. System schematics are included in **Appendix A**.

## GAUGING AND MONITOR WELL SAMPLING

All monitor wells were gauged in the first and third quarters of 2020 with an electronic interface probe that measures to the nearest 0.01 foot. The casing of monitor well MW-1 was noted to be damaged in 2016 and it has not been gauged since that time. The gauging data is summarized in **Table 1**.

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PSH was detected in recovery well RW-1 and was not detected in any other monitor wells at the site during 2020. The PSH thickness in recovery well RW-1 fluctuated between 0.27 to 0.88 feet during 2020. Groundwater gradient maps were generated for the first and third quarter sampling events in 2020. During the 2020 gauging events, monitor well MW-4 was dry. Because the three wells from which depth to groundwater measurements were obtained (MW-2, RW-1, and MW-3) during the 2020 groundwater gauging events are aligned in such a way that triangulation of the three points would have limited accuracy, a groundwater gradient was not able to be constructed for this year. However, a general assumption can be made that the groundwater gradient appears to be to the south-southeast, based on the gauging measurements. Groundwater gradient maps for the first and third quarters of 2020 are included as **Figures 4** and **5**, respectively.

During each groundwater sampling event, the wells not containing PSH 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.

No BTEX concentrations above the method detection limits were detected in 2020, which is consistent with previous results.

Chloride analytical results for monitor well MW-3 were below the NMWQCC standard of 250 mg/L during both 2020 sampling events. Chloride analytical results for monitor well MW-2 (duplicate sample) during the third quarter indicated a concentration of 268 mg/L which was slightly above the NMWQCC standard. The chloride concentration indicated in monitor well MW-2 during the first quarter of 2020 was 241 mg/L which is below the NMWQCC standard. Monitor well MW-1 was not sampled in 2020 as it was inaccessible due to casing damage. Monitor well MW-4 was not sampled during 2020 as it was dry. Recovery well RW-1 was not sampled in 2020 due to the presence of PSH.

Graphs of chloride concentrations versus groundwater elevations for monitor wells MW-2 and MW-3 are included in **Appendix B**. These graphs indicate generally stable chloride concentrations in monitor well MW-3. Monitoring well MW-2, the only monitoring well with chloride concentrations exceeding the NMWQCC standard in 2020, had a third quarter concentration of 268 mg/l, lower than the historic maximum concentration of 364 mg/L reported during the first quarter of 2015. The 268 mg/L concentration is only slightly above the NMWQCC of 250 mg/L.

Chloride concentration maps for the two 2020 sampling events are included as **Figures 6** and **7.** The groundwater analytical data is summarized in **Table 2**. Copies of the laboratory analytical reports are included in **Appendix C.**

## CONCLUSIONS

1. No BTEX concentrations above the method detection limits were detected in 2020, which is consistent with previous results.
2. Monitor well MW-1 was not sampled in 2020 as it was inaccessible due to casing damage. Monitor well MW-4 was not sampled during 2020, as it was dry. Recovery well RW-1 was not sampled in 2020 due to the presence of PSH.

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3. Chloride analytical results for monitor well MW-3 were below the NMWQCC standard of 250 mg/L during both 2020 sampling events with concentrations over time exhibiting a generally stable trend.
4. Monitoring well MW-2, the only monitoring well with chloride concentrations exceeding the NMWQCC standard in 2020, had a third quarter concentration of 268 mg/l, lower than the historic maximum concentration of 364 mg/L reported during the first quarter of 2015. The 268 mg/L concentration is only slightly above the NMWQCC of 250 mg/L.
5. PSH was detected in recovery well RW-1 and was not detected in any other monitor wells at the site during 2020. The PSH thickness in recovery well RW-1 fluctuated between 0.27 and 0.88 feet during 2020.
6. In 2016 a solar powered NAPL recovery system (Solar NAPL, TR 52600) was installed in recovery well RW-1 which operated through the reporting period. The system is solar powered to charge an absorbed glass matt (AGM) deep cycle battery which powers a compressor inside the control panel with an external 7.5-gallon air pressure tank which provides the air power for a pneumatic skimmer pump. Approximately 33.5 gallons of product was recovered in 2020.

## PROPOSED 2021 GROUNDWATER MONITORING PROGRAM

Continued semi-annual groundwater monitoring and PSH recovery system operation are proposed for 2021.

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.

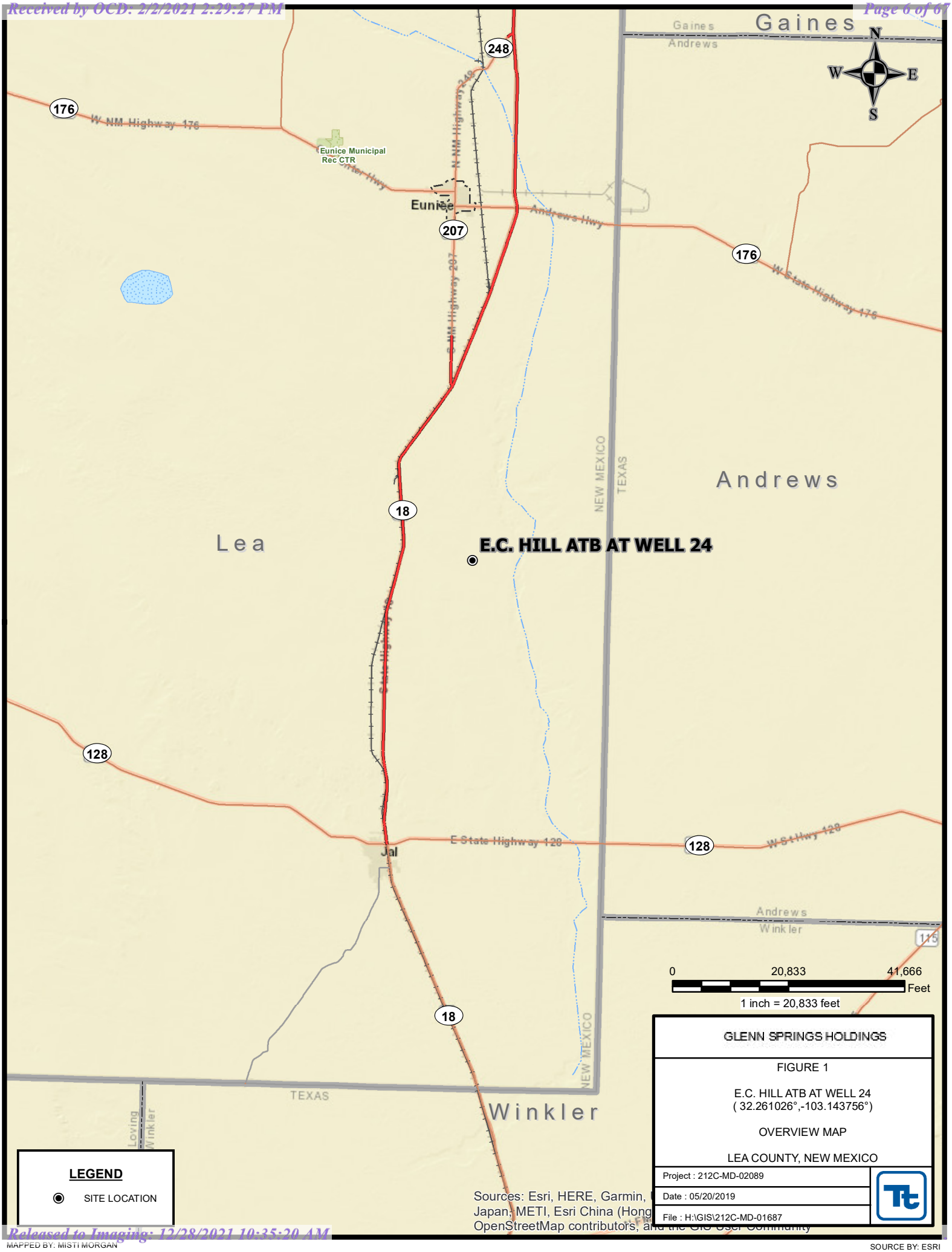
Ray Cheatham, PG
Principal Geologist

Greg W. Pope
Principal Geologist

**Attachments:**
Figures
Tables
Appendix A – NAPL Recovery System Schematic
Appendix B – Graphs of Chloride Concentrations Versus Groundwater Elevations
Appendix C – Laboratory Reports

**cc**: Dusty Wilson – Glenn Springs Holdings, Inc.

# Figures




GLENN SPRINGS HOLDINGS

FIGURE 1

E.C. HILL ATB AT WELL 24
( 32.261026°,-103.143756°)

OVERVIEW MAP

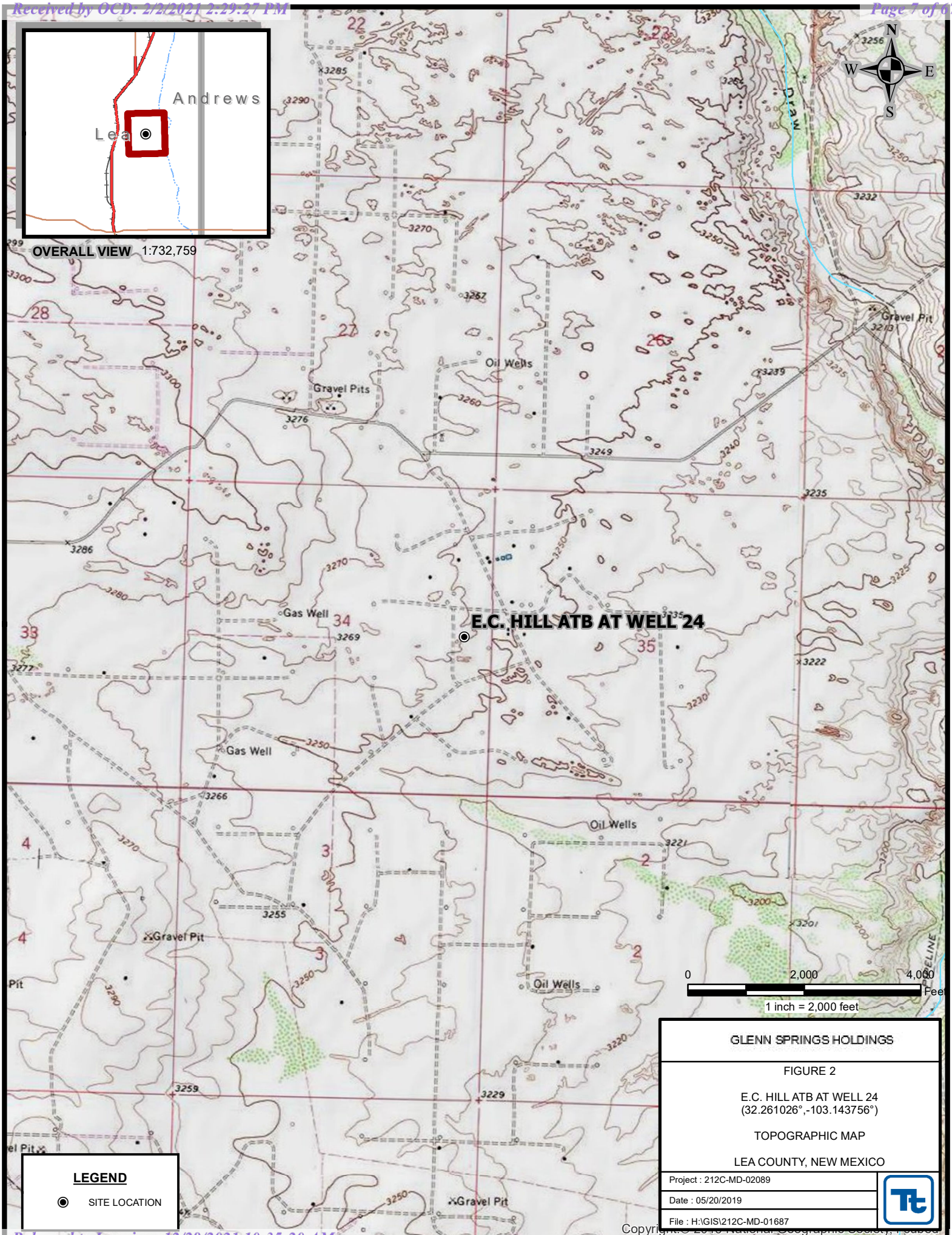
LEA COUNTY, NEW MEXICO

| | |
|---|---|
| Project : 212C-MD-02089 | |
| Date : 05/20/2019 | |
| File : H:\GIS\212C-MD-01687 | |



MAPPED BY: MISTI MORGAN

SOURCE BY: ESRI

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LEGEND

= MONITOR WELL LOCATIONS

= RECOVERY WELL LOCATIONS

**NOTES:**

1. ALL ELEVATIONS IN FEET AMSL

*SOURCE:* "NEW MEXICO" 32°15'39.69"N, 103° 8'37.52"W. **GOOGLE EARTH.** FEBRUARY 20,2019. MAY 07, 2020

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

GLENN SPRINGS HOLDINGS

NORTH

0 20 50ft

FIGURE 3

SITE MAP

E.C. HILL ATB @ WELL #24
LEA COUNTY, NEW MEXICO

Project: 212C-MD-02089 REV.

Date: 6/11/20

File: H:\Acad Data\GLENN SPRINGS\2019\D1687(02089)

MW-2
3178.11'

MW-1
N.G.

** RW-1
3177.39'

CONCRETE PAD

CONCRETE PAD

LEASE RD.

E.C. HILL B FED. #24
WELL PAD

MW-4
DRY

MW-3
3176.95'

## LEGEND

= MONITOR WELL LOCATIONS

= RECOVERY WELL LOCATIONS

3180.00 = CONTOUR INTERVALS .50 FT.

= APPARENT GROUND WATER GRADIENT DIRECTIONAL

## NOTES:

1. ALL ELEVATIONS IN FEET AMSL
2. N.G. = NOT GAUGED
3. ** = NOT USED IN CONTOURING

*SOURCE:* "NEW MEXCIO" 32°15'39.69"N, 103° 8'37.52"W. **GOOGLE EARTH.**
FEBRUARY 20,2019, MAY 07, 2020

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

GLENN SPRINGS HOLDINGS

NORTH

0 20 50ft

FIGURE 4

GROUND WATER GRADIENT MAP
FEBRUARY 20, 2020
E.C. HILL ATB @ WELL #24
LEA COUNTY, NEW MEXICO

| Project: 212C-MD-02089 | REV. |
|---|---|
| Date: 11/03/20 | |

File: M:\Acad Data\GLENN SPRINGS\2020\212C-MD-02089 E.C.HILL ATB @ WELL 24

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MW-2
3178.05'

MW-1
N.G.

** RW-1
3176.32'

CONCRETE PAD

CONCRETE PAD

E.C. HILL B FED. #24
WELL PAD

LEASE RD.

MW-4
DRY

MW-3
3176.91'

## LEGEND

- = MONITOR WELL LOCATIONS
- = RECOVERY WELL LOCATIONS
- 3180.00 = CONTOUR INTERVALS .50 FT.
- = APPARENT GROUND WATER GRADIENT DIRECTIONAL

## NOTES:

1. ALL ELEVATIONS IN FEET AMSL
2. N.G. = NOT GAUGED
3. ** = NOT USED IN CONTOURING

*SOURCE:* "NEW MEXCIO" 32°15'39.69"N, 103° 8'37.52"W. **GOOGLE EARTH.** FEBRUARY 20,2019, MAY 07, 2020

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

GLENN SPRINGS HOLDINGS

NORTH

0 20 50ft

FIGURE 5

GROUND WATER GRADIENT MAP
AUGUST 12, 2020
E.C. HILL ATB @ WELL #24
LEA COUNTY, NEW MEXICO

| Project: 212C-MD-02089 | REV. |
|---|---|
| Date: 6/11/20 | |

File: M:\Acad Data\GLENN SPRINGS\2020\212C-MD-02089 E.C.HILL ATB @ WELL 24

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LEGEND

MONITOR WELL LOCATIONS

**NOTES:**

1. NS - Not Sampled

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GLENN SPRINGS HOLDINGS

NORTH

0 20 50ft

FIGURE 6

BTEX & Chloride Concentration Map
February 20, 2020
E.C. HILL ATB @ WELL #24
LEA COUNTY, NEW MEXICO

| | |
|---|---|
| Project: 212C-MD-02089 | REV. |
| Date: 5/20/2019 | |
| File: H:\Acad Data\GLENN SPRINGS\2019\01687 | |

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LEGEND

MONITOR WELL LOCATIONS

**NOTES:**

1. NS - Not Sampled

TETRA TECH
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(432) 682-4559

GLENN SPRINGS HOLDINGS

NORTH

0 20 50ft

FIGURE 7

BTEX & Chloride Concentration Map
August 12, 2020
E.C. HILL ATB @ WELL #24
LEA COUNTY, NEW MEXICO

| | |
|---|---|
| Project: 212C-MD-01087 | REV. |
| Date: 5/20/2019 | |
| File: H:\Acad Data\GLENN SPRINGS\2019\01687 | |

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# Tables

**TABLE 1**
**Glenn Springs Holdings, Inc.**
**E.C. Hill 'B' ATB at Well #24**
**Summary of Groundwater Elevations and PSH Thickness**
**Lea County, New Mexico**

| Well/ Borehole ID | Date Measurement | Top of Casing Elevation (feet AMSL) | Total Well Depth (in ft) | Product (ft) (TOC) | Water level (ft) (TOC) | PSH Thickness (ft) | Groundwater Elevation (ft) |
|---|---|---|---|---|---|---|---|
| **MW-1** | 10/23/08 | 3,260.03 | 98.00 | 82.00 | 85.03 | 3.03 | 3,177.27 |
| | 12/12/08 | 3,260.03 | 98.00 | 81.98 | 84.97 | 2.99 | 3,177.30 |
| | 03/12/09 | 3,260.03 | 98.00 | 81.98 | 85.02 | 3.04 | 3,177.29 |
| | 06/22/09 | 3,260.03 | 98.00 | 81.99 | 85.05 | 3.06 | 3,177.28 |
| | 09/16/09 | 3,260.03 | 98.00 | 82.03 | 85.13 | 3.10 | 3,177.23 |
| | 12/10/09 | 3,260.03 | 98.00 | 82.07 | 85.13 | 3.06 | 3,177.20 |
| | 03/10/10 | 3,260.03 | 98.00 | 82.02 | 85.08 | 3.06 | 3,177.25 |
| | 06/08/10 | 3,260.03 | 98.00 | 82.08 | 85.30 | 3.22 | 3,177.15 |
| | 09/13/10 | 3,260.03 | 98.00 | 82.08 | 85.03 | 2.95 | 3,177.21 |
| | 12/14/10 | 3,260.03 | 98.00 | 82.04 | 85.10 | 3.06 | 3,177.23 |
| | 03/10/11 | 3,260.03 | 98.00 | 82.13 | 85.07 | 2.94 | 3,177.17 |
| | 06/13/11 | 3,260.03 | 98.00 | 82.18 | 85.13 | 2.95 | 3,177.11 |
| | 09/20/11 | 3,260.03 | 98.00 | 82.36 | 85.01 | 2.65 | 3,177.01 |
| | 12/12/11 | 3,260.03 | 98.00 | 83.32 | 84.92 | 1.60 | 3,176.31 |
| | 04/05/12 | 3,260.03 | 98.00 | 82.32 | 84.70 | 2.38 | 3,177.12 |
| | 06/20/12 | 3,260.03 | 98.00 | 82.35 | 84.71 | 2.36 | 3,177.09 |
| | 09/25/12 | 3,260.03 | 98.00 | 82.37 | 85.11 | 2.74 | 3,176.98 |
| | 12/14/12 | 3,260.03 | 98.00 | 82.57 | 83.96 | 1.39 | 3,177.11 |
| | 03/27/13 | 3,260.03 | 98.00 | 82.71 | 83.09 | 0.38 | 3,177.23 |
| | 06/07/13 | 3,260.03 | 98.00 | 81.78 | 83.82 | 2.04 | 3,177.74 |
| | 06/24/13 | 3,260.03 | 98.00 | 82.68 | 83.96 | 1.28 | 3,177.03 |
| | 07/08/13 | 3,260.03 | 98.00 | 82.80 | 83.31 | 0.51 | 3,177.10 |
| | 07/23/13 | 3,260.03 | 98.00 | 82.80 | 83.20 | 0.40 | 3,177.13 |
| | 08/06/13 | 3,260.03 | 98.00 | 82.77 | 83.37 | 0.60 | 3,177.11 |
| | 09/19/13 | 3,260.03 | 98.00 | NG | - | - | - |
| | 11/07/13 | 3,260.03 | 98.00 | 82.67 | 83.82 | 1.15 | 3,177.07 |
| | 12/26/13 | 3,260.03 | 98.00 | 82.75 | 83.30 | 0.55 | 3,177.14 |
| | 03/26/14 | 3,260.03 | 97.85 | 82.73 | 83.44 | 0.71 | 3,177.12 |
| | 06/17/14 | 3,260.03 | 97.85 | 82.72 | 83.64 | 0.92 | 3,177.08 |
| | 09/26/14 | 3,260.03 | 97.85 | 82.74 | 83.67 | 0.93 | 3,177.06 |
| | 12/15/14 | 3,260.03 | 97.85 | 82.80 | 83.34 | 0.54 | 3,177.10 |
| | 01/29/15 | 3,260.03 | 97.85 | 82.89 | 83.52 | 0.63 | 3,176.98 |
| | 02/04/15 | 3,260.03 | 97.85 | 82.81 | 83.13 | 0.32 | 3,177.14 |
| | 03/24/15 | 3,260.03 | 97.85 | 82.85 | 82.91 | 0.06 | 3,177.17 |
| | 06/17/15 | 3,260.03 | 97.85 | 82.87 | 82.96 | 0.09 | 3,177.14 |
| | 07/30/15 | 3,260.03 | 97.85 | 82.77 | 82.85 | 0.08 | 3,177.24 |
| | 08/06/15 | 3,260.03 | 97.85 | 82.79 | 82.83 | 0.04 | 3,177.23 |
| | 08/12/15 | 3,260.03 | 97.85 | 82.74 | 82.77 | 0.03 | 3,177.28 |
| | 08/18/15 | 3,260.03 | 97.85 | 82.71 | 82.74 | 0.03 | 3,177.31 |
| | 09/08/15 | 3,260.03 | - | 82.74 | 82.77 | 0.03 | 3,177.28 |
| | 12/18/15 | 3,260.06 | - | 82.85 | 82.95 | 0.10 | 3,177.19 |
| | 03/14/16 | 3,260.06 | - | 82.67 | 82.71 | 0.04 | 3,177.38 |
| | 06/28/16 | 3,260.06 | - | | | NG | |
| | 09/07/16 | 3,260.06 | - | | | NG | |
| | 12/06/16 | 3,260.06 | - | | | NG | |

**TABLE 1**
**Glenn Springs Holdings, Inc.**
**E.C. Hill 'B' ATB at Well #24**
**Summary of Groundwater Elevations and PSH Thickness**
**Lea County, New Mexico**

| Well/ Borehole ID | Date Measurement | Top of Casing Elevation (feet AMSL) | Total Well Depth (in ft) | Product (ft) (TOC) | Water level (ft) (TOC) | PSH Thickness (ft) | Groundwater Elevation (ft) |
|---|---|---|---|---|---|---|---|
| **MW-1 Cont.** | 03/01/17 | 3,260.06 | - | | | NG | |
| | 08/29/17 | 3,260.06 | - | | | NG | |
| | 02/20/18 | 3,260.06 | - | | | NG | |
| | 08/23/18 | 3,260.06 | - | | | NG | |
| | 02/08/19 | 3,260.06 | - | | | NG | |
| | 08/09/19 | 3,260.06 | - | | | NG | |
| | 02/20/20 | 3,260.06 | - | | | NG | |
| | 08/12/20 | 3,260.06 | - | | | NG | |
| **MW-2** | 10/23/08 | 3,265.85 | 95.00 | - | 87.69 | - | 3,178.16 |
| | 12/12/08 | 3,265.85 | 95.00 | - | 87.62 | - | 3,178.23 |
| | 03/12/09 | 3,265.85 | 95.00 | - | 87.63 | - | 3,178.22 |
| | 06/22/09 | 3,265.85 | 95.00 | - | 87.60 | - | 3,178.25 |
| | 09/16/09 | 3,265.85 | 95.00 | - | 87.69 | - | 3,178.16 |
| | 12/10/09 | 3,265.85 | 95.00 | - | 87.68 | - | 3,178.17 |
| | 03/10/10 | 3,265.85 | 95.00 | - | 87.61 | - | 3,178.24 |
| | 06/08/10 | 3,265.85 | 95.00 | - | 87.64 | - | 3,178.21 |
| | 09/13/10 | 3,265.85 | 95.00 | - | 87.64 | - | 3,178.21 |
| | 12/14/10 | 3,265.85 | 95.00 | - | 88.57 | - | 3,177.28 |
| | 03/10/11 | 3,265.85 | 95.00 | - | 87.78 | - | 3,178.07 |
| | 06/13/11 | 3,265.85 | 95.00 | - | 87.79 | - | 3,178.06 |
| | 09/20/11 | 3,265.85 | 95.00 | - | 87.85 | - | 3,178.00 |
| | 12/12/11 | 3,265.85 | 95.00 | - | 87.98 | - | 3,177.87 |
| | 04/05/12 | 3,265.85 | 95.00 | - | 87.83 | - | 3,178.02 |
| | 06/20/12 | 3,265.85 | 95.00 | - | 87.99 | - | 3,177.86 |
| | 09/25/12 | 3,265.85 | 95.00 | - | 87.84 | - | 3,178.01 |
| | 12/14/12 | 3,265.85 | 95.00 | - | 87.94 | - | 3,177.91 |
| | 03/27/13 | 3,265.85 | 95.00 | - | 87.92 | - | 3,177.93 |
| | 06/07/13 | 3,265.85 | 95.00 | - | 88.00 | - | 3,177.85 |
| | 09/19/13 | 3,265.85 | 95.00 | - | 87.98 | - | 3,177.87 |
| | 11/07/13 | 3,265.85 | 95.00 | - | 88.10 | - | 3,177.75 |
| | 12/26/13 | 3,265.85 | 95.00 | - | 88.03 | - | 3,177.82 |
| | 03/26/14 | 3,265.85 | 92.50 | - | 88.02 | - | 3,177.83 |
| | 06/17/14 | 3,265.85 | 92.50 | - | 87.95 | - | 3,177.90 |
| | 09/26/14 | 3,265.85 | 92.50 | - | 88.05 | - | 3,177.80 |
| | 12/15/14 | 3,265.85 | 92.50 | - | 88.12 | - | 3,177.73 |
| | 03/24/15 | 3,265.85 | 92.50 | - | 88.05 | - | 3,177.80 |
| | 06/17/15 | 3,265.85 | 92.50 | - | 88.01 | - | 3,177.84 |
| | 08/06/15 | 3,265.85 | - | - | 88.04 | - | 3,177.81 |
| | 09/08/15 | 3,265.85 | 92.50 | - | 87.98 | - | 3,177.87 |
| | 12/18/15 | 3,265.86 | 92.08 | - | 88.02 | - | 3,177.84 |
| | 03/14/16 | 3,265.86 | - | - | 87.88 | - | 3,177.98 |
| | 06/28/16 | 3,265.86 | 92.50 | - | 87.94 | - | 3,177.92 |
| | 09/07/16 | 3,265.86 | - | - | 87.90 | - | 3,177.96 |
| | 12/06/16 | 3,265.86 | - | - | 87.87 | - | 3,177.99 |
| | 03/01/17 | 3,265.86 | 92.50 | - | 87.98 | - | 3,177.88 |

**TABLE 1**
**Glenn Springs Holdings, Inc.**
**E.C. Hill 'B' ATB at Well #24**
**Summary of Groundwater Elevations and PSH Thickness**
**Lea County, New Mexico**

| Well/ Borehole ID | Date Measurement | Top of Casing Elevation (feet AMSL) | Total Well Depth (in ft) | Product (ft) (TOC) | Water level (ft) (TOC) | PSH Thickness (ft) | Groundwater Elevation (ft) |
|---|---|---|---|---|---|---|---|
| **MW-2 Cont.** | 08/29/17 | 3,265.86 | 92.50 | - | 87.90 | - | 3,177.96 |
| | 02/20/18 | 3,265.86 | 92.44 | - | 87.50 | - | 3,178.36 |
| | 08/23/18 | 3,265.86 | - | - | 88.01 | - | 3,177.85 |
| | 02/08/19 | 3,265.86 | 91.92 | - | 87.78 | - | 3,178.08 |
| | 08/09/19 | 3,265.86 | 92.30 | - | 87.50 | - | 3,178.36 |
| | 02/20/20 | 3,265.86 | 92.30 | - | 87.75 | - | 3,178.11 |
| | 08/12/20 | 3,265.86 | 91.91 | - | 87.81 | - | 3,178.05 |
| **MW-3** | 10/23/08 | 3,257.76 | 93.00 | - | 80.72 | - | 3,177.04 |
| | 12/12/08 | 3,257.76 | 93.00 | - | 80.67 | - | 3,177.09 |
| | 03/12/09 | 3,257.76 | 93.00 | - | 80.68 | - | 3,177.08 |
| | 06/22/09 | 3,257.76 | 93.00 | - | 79.65 | - | 3,178.11 |
| | 09/16/09 | 3,257.76 | 93.00 | - | 80.74 | - | 3,177.02 |
| | 12/10/09 | 3,257.76 | 93.00 | - | 80.73 | - | 3,177.03 |
| | 03/10/10 | 3,257.76 | 93.00 | - | 80.69 | - | 3,177.07 |
| | 06/08/10 | 3,257.76 | 93.00 | - | 80.72 | - | 3,177.04 |
| | 09/13/10 | 3,257.76 | 93.00 | - | 80.70 | - | 3,177.06 |
| | 12/14/10 | 3,257.76 | 93.00 | - | 81.61 | - | 3,176.15 |
| | 03/10/11 | 3,257.76 | 93.00 | - | 80.80 | - | 3,176.96 |
| | 06/13/11 | 3,257.76 | 93.00 | - | 80.86 | - | 3,176.90 |
| | 09/20/11 | 3,257.76 | 93.00 | - | 80.93 | - | 3,176.83 |
| | 12/12/11 | 3,257.76 | 93.00 | - | 81.05 | - | 3,176.71 |
| | 04/05/12 | 3,257.76 | 93.00 | - | 80.92 | - | 3,176.84 |
| | 06/20/12 | 3,257.76 | 93.00 | - | 80.96 | - | 3,176.80 |
| | 09/25/12 | 3,257.76 | 93.00 | - | 80.97 | - | 3,176.79 |
| | 12/14/12 | 3,257.76 | 93.00 | - | 81.02 | - | 3,176.74 |
| | 03/27/13 | 3,257.76 | 93.00 | - | 81.00 | - | 3,176.76 |
| | 06/07/13 | 3,257.76 | 93.00 | - | 81.05 | - | 3,176.71 |
| | 09/19/13 | 3,257.76 | 93.00 | - | 81.02 | - | 3,176.74 |
| | 11/07/13 | 3,257.76 | 93.00 | - | 81.15 | - | 3,176.61 |
| | 12/26/13 | 3,257.76 | 85.97 | - | 81.09 | - | 3,176.67 |
| | 03/26/14 | 3,257.76 | 84.23 | - | 81.09 | - | 3,176.67 |
| | 06/17/14 | 3,257.76 | 84.23 | - | 81.07 | - | 3,176.69 |
| | 09/26/14 | 3,257.76 | 84.23 | - | 81.11 | - | 3,176.65 |
| | 12/15/14 | 3,257.76 | 84.10 | - | 81.17 | - | 3,176.59 |
| | 03/24/15 | 3,257.76 | 84.10 | - | 81.09 | - | 3,176.67 |
| | 06/17/15 | 3,257.76 | 84.09 | - | 81.08 | - | 3,176.68 |
| | 08/06/15 | 3,257.76 | - | - | 81.03 | - | 3,176.73 |
| | 09/08/15 | 3,257.76 | 84.09 | - | 80.98 | - | 3,176.78 |
| | 12/18/15 | 3,257.76 | 83.95 | - | 81.05 | - | 3,176.71 |
| | 03/14/16 | 3,257.76 | 83.95 | - | 80.97 | - | 3,176.79 |
| | 06/28/16 | 3,257.76 | 84.09 | - | 81.01 | - | 3,176.75 |
| | 09/07/16 | 3,257.76 | - | - | 80.95 | - | 3,176.81 |
| | 12/06/16 | 3,257.76 | - | - | 81.05 | - | 3,176.71 |
| | 03/01/17 | 3,257.76 | - | - | 81.00 | - | 3,176.76 |
| | 08/29/17 | 3,257.76 | - | - | 81.92 | - | 3,175.84 |

**TABLE 1**
**Glenn Springs Holdings, Inc.**
**E.C. Hill 'B' ATB at Well #24**
**Summary of Groundwater Elevations and PSH Thickness**
**Lea County, New Mexico**

| Well/ Borehole ID | Date Measurement | Top of Casing Elevation (feet AMSL) | Total Well Depth (in ft) | Product (ft) (TOC) | Water level (ft) (TOC) | PSH Thickness (ft) | Groundwater Elevation (ft) |
|---|---|---|---|---|---|---|---|
| **MW-3 Cont.** | 02/20/18 | 3,257.76 | 84.09 | - | 80.90 | - | 3,176.86 |
| | 08/23/18 | 3,257.76 | - | - | 81.04 | - | 3,176.72 |
| | 02/08/19 | 3,257.76 | 84.05 | - | 80.82 | - | 3,176.94 |
| | 08/09/19 | 3,257.76 | 84.21 | - | 81.00 | - | 3,176.76 |
| | 02/20/20 | 3,257.76 | 84.21 | - | 80.81 | - | 3,176.95 |
| | 08/12/20 | 3,257.76 | 83.90 | - | 80.85 | - | 3,176.91 |
| **MW-4** | 10/23/08 | 3,260.41 | 93.00 | - | 82.90 | - | 3,177.51 |
| | 12/12/08 | 3,260.41 | 93.00 | - | 82.87 | - | 3,177.54 |
| | 03/12/09 | 3,260.41 | 93.00 | - | 82.88 | - | 3,177.53 |
| | 06/22/09 | 3,260.41 | 93.00 | - | 82.82 | - | 3,177.59 |
| | 09/16/09 | 3,260.41 | 93.00 | - | 82.91 | - | 3,177.50 |
| | 12/10/09 | 3,260.41 | 93.00 | - | 82.91 | - | 3,177.50 |
| | 03/10/10 | 3,260.41 | 93.00 | - | 82.83 | - | 3,177.58 |
| | 06/08/10 | 3,260.41 | 93.00 | - | 82.83 | - | 3,177.58 |
| | 09/13/10 | 3,260.41 | 93.00 | - | 82.88 | - | 3,177.53 |
| | 12/14/10 | 3,260.41 | 93.00 | - | 83.79 | - | 3,176.62 |
| | 03/10/11 | 3,260.41 | 93.00 | - | 82.99 | - | 3,177.42 |
| | 06/13/11 | 3,260.41 | 93.00 | - | 83.02 | - | 3,177.39 |
| | 09/20/11 | 3,260.41 | 93.00 | - | 83.06 | - | 3,177.35 |
| | 12/12/11 | 3,260.41 | 93.00 | - | 83.19 | - | 3,177.22 |
| | 04/05/12 | 3,260.41 | 93.00 | - | 83.06 | - | 3,177.35 |
| | 06/20/12 | 3,260.41 | 93.00 | - | 83.07 | - | 3,177.34 |
| | 09/25/12 | 3,260.41 | 93.00 | - | 83.05 | - | 3,177.36 |
| | 12/14/12 | 3,260.41 | 93.00 | - | 83.15 | - | 3,177.26 |
| | 03/27/13 | 3,260.41 | 93.00 | - | 83.19 | - | 3,177.22 |
| | 06/07/13 | 3,260.41 | 93.00 | - | 83.28 | - | 3,177.13 |
| | 09/19/13 | 3,260.41 | 93.00 | - | 83.15 | - | 3,177.26 |
| | 11/07/13 | 3,260.41 | 93.00 | - | 83.31 | - | 3,177.10 |
| | 12/26/13 | 3,260.41 | 93.00 | - | 83.24 | - | 3,177.17 |
| | 03/26/14 | 3,260.41 | 86.25 | - | 83.22 | - | 3,177.19 |
| | 06/17/14 | 3,260.41 | 86.25 | - | 83.18 | - | 3,177.23 |
| | 09/26/14 | 3,260.41 | 86.25 | - | 83.27 | - | 3,177.14 |
| | 12/15/14 | 3,260.41 | 86.05 | - | 83.34 | - | 3,177.07 |
| | 03/24/15 | 3,260.41 | 86.05 | - | 83.24 | - | 3,177.17 |
| | 06/17/15 | 3,260.41 | 86.07 | - | 83.29 | - | 3,177.12 |
| | 08/06/15 | 3,260.41 | - | - | 83.25 | - | 3,177.16 |
| | 09/08/15 | 3,260.41 | 86.07 | - | 83.16 | - | 3,177.25 |
| | 12/18/15 | 3,260.40 | 85.96 | - | 83.22 | - | 3,177.18 |
| | 03/14/16 | 3,260.40 | - | - | 83.10 | - | 3,177.30 |
| | 06/28/16 | 3,260.40 | 86.07 | - | 83.17 | - | 3,177.23 |
| | 09/07/16 | 3,260.40 | - | - | 83.12 | - | 3,177.28 |
| | 12/06/16 | 3,260.40 | - | - | 83.12 | - | 3,177.28 |
| | 03/01/17 | 3,260.40 | 87.55 | - | 83.20 | - | 3,177.20 |
| | 08/29/17 | 3,260.40 | 87.55 | - | 83.09 | - | 3,177.31 |
| | 02/20/18 | 3,260.40 | 85.90 | - | 83.06 | - | 3,177.34 |

**TABLE 1**
**Glenn Springs Holdings, Inc.**
**E.C. Hill 'B' ATB at Well #24**
**Summary of Groundwater Elevations and PSH Thickness**
**Lea County, New Mexico**

| Well/ Borehole ID | Date Measurement | Top of Casing Elevation (feet AMSL) | Total Well Depth (in ft) | Product (ft) (TOC) | Water level (ft) (TOC) | PSH Thickness (ft) | Groundwater Elevation (ft) |
|---|---|---|---|---|---|---|---|
| **MW-4 Cont.** | 08/23/18 | 3,260.40 | - | - | 83.13 | - | 3,177.27 |
| | 02/08/19 | 3,260.40 | 83.08 | - | 82.94 | - | 3,177.46 |
| | 08/09/19 | 3,260.40 | 83.10 | - | Dry | - | - |
| | 02/20/20 | 3,260.40 | 83.10 | - | Dry | - | - |
| | 08/12/20 | 3,260.40 | 83.10 | - | Dry | - | - |
| **RW-1** | 06/13/11 | 3,260.81 | | - | 83.36 | - | 3,177.45 |
| | 09/20/11 | 3,260.81 | | - | 83.48 | - | 3,177.33 |
| | 12/12/11 | 3,260.81 | | - | 83.51 | - | 3,177.30 |
| | 04/05/12 | 3,260.81 | | - | 84.70 | - | 3,176.11 |
| | 06/20/12 | 3,260.81 | | - | 83.43 | - | 3,177.38 |
| | 09/25/12 | 3,260.81 | | - | 83.42 | - | 3,177.39 |
| | 12/14/12 | 3,260.81 | | - | 83.53 | - | 3,177.28 |
| | 03/27/13 | 3,260.81 | | - | 83.53 | - | 3,177.28 |
| | 06/07/13 | 3,260.81 | | - | 83.49 | - | 3,177.32 |
| | 09/19/13 | 3,260.81 | | - | NG | - | - |
| | 11/07/13 | 3,260.81 | | - | 83.60 | - | 3,177.21 |
| | 12/26/13 | 3,260.81 | | - | 83.58 | - | 3,177.23 |
| | 03/26/14 | 3,260.81 | 103.10 | - | 83.58 | - | 3,177.23 |
| | 06/17/14 | 3,260.81 | 103.10 | - | 83.60 | - | 3,177.21 |
| | 09/26/14 | 3,260.81 | 103.10 | - | 83.59 | - | 3,177.22 |
| | 12/15/14 | 3,260.81 | 103.01 | - | 83.61 | - | 3,177.20 |
| | 03/24/15 | 3,260.81 | 102.99 | - | 83.61 | - | 3,177.20 |
| | 06/18/15 | 3,260.81 | 102.93 | - | 83.65 | - | 3,177.16 |
| | 08/06/15 | 3,260.81 | - | - | 83.54 | - | 3,177.27 |
| | 08/12/15 | 3,260.81 | - | - | 83.51 | - | 3,177.30 |
| | 08/18/15 | 3,260.81 | - | 83.48 | 83.51 | 0.03 | 3,177.32 |
| | 09/08/15 | 3,260.81 | - | 83.90 | 83.94 | 0.04 | 3,176.90 |
| | 12/18/15 | 3,260.81 | 102.93 | 83.60 | 83.70 | 0.10 | 3,177.19 |
| | 03/14/16 | 3,260.81 | - | 83.40 | 83.41 | 0.01 | 3,177.41 |
| | 06/28/16 | 3,260.81 | - | 83.48 | 83.49 | 0.01 | 3,177.33 |
| | 09/07/16 | 3,260.81 | - | 83.46 | 83.60 | 0.14 | 3,177.32 |
| | 12/06/16 | 3,260.81 | - | 83.45 | 83.59 | 0.14 | 3,177.33 |
| | 03/01/17 | 3,260.81 | - | 83.45 | 83.70 | 0.25 | 3,177.30 |
| | 08/29/17 | 3,260.81 | - | 83.44 | 83.88 | 0.44 | 3,177.26 |
| | 02/20/18 | 3,260.81 | - | 83.34 | 83.91 | 0.57 | 3,177.33 |
| | 08/23/18 | 3,260.81 | - | 83.32 | 84.02 | 0.70 | 3,177.32 |
| | 02/08/19 | 3,260.81 | 107.50 | 83.82 | 84.04 | 0.22 | 3,176.94 |
| | 08/09/19 | 3,260.81 | - | 83.30 | 84.15 | 0.85 | 3,177.30 |
| | 10/10/19 | 3,260.81 | - | 83.41 | 83.81 | 0.40 | 3,177.30 |
| | 02/20/20 | 3,260.81 | - | 83.35 | 83.62 | 0.27 | 3,177.39 |
| | 08/21/20 | 3,260.81 | - | 84.27 | 85.15 | 0.88 | 3,176.32 |

( - ) No data (TOC) Top of casing
(MW-1) Groundwater elevation corrected using 0.75 specific gravity
AMSL - Above Mean Sea Level
NG - Not Gauged, instrument malfunction

**TABLE 1**
**Glenn Springs Holdings, Inc.**
**E.C. Hill 'B' ATB at Well #24**
**Summary of Groundwater Elevations and PSH Thickness**
**Lea County, New Mexico**

| Well/ Borehole ID | Date Measurement | Top of Casing Elevation (feet AMSL) | Total Well Depth (in ft) | Product (ft) (TOC) | Water level (ft) (TOC) | PSH Thickness (ft) | Groundwater Elevation (ft) |
|---|---|---|---|---|---|---|---|

NA - Not Available, Top of Casing elevation not available for RW-1
TOC Elevations resurveyed by John West Survey Company on October 29, 2015
NA - Not Available, MW-1 Depth to product and water measurements not available due to casing obstruction

**TABLE 2**
**Glenn Springs Holdings, Inc.**
**E.C. Hill 'B' ATB at Well #24**
**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) | TPH 8015M | | | Chloride (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | GRO (mg/L) | DRO (mg/L) | Total (mg/L) | |
| **New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration** | | | **0.005 mg/L** | **1.0 mg/L** | **0.7 mg/L** | **0.62 mg/L** | | | | | **250.0 mg/L*** |
| **MW-1** | 09/22/06 | - | <0.001 | <0.001 | **0.031** | **0.0669** | **0.0979** | **-** | **-** | - | **138** |
| | 09/29/06 | - | **0.0012** | <0.001 | **0.0143** | **0.0386** | **0.0541** | - | - | - | **111** |
| | 10/04/06 | - | <0.001 | <0.001 | **0.0175** | **0.097** | **0.1145** | **12.0** | **61.7** | **73.7** | **119** |
| | 11/14/07 | 2.68 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 10/23/08 | 3.03 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 12/12/08 | 2.99 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 03/12/09 | 3.04 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 06/22/09 | 3.06 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 09/16/09 | 3.10 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 12/10/09 | 3.06 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 03/10/10 | 3.06 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 06/08/10 | 3.22 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 09/13/10 | 2.95 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 12/14/10 | 3.06 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 03/10/11 | 2.94 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 06/13/11 | 2.95 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 09/20/11 | 2.65 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 12/12/11 | 1.60 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 04/06/12 | 2.38 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 06/20/12 | 2.36 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 09/25/12 | 2.74 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 12/14/12 | 1.39 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 03/27/13 | 0.38 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 06/07/13 | 2.04 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 09/19/13 | NA | Well contains measurable PSH and not sampled | | | | | | | | |
| | 12/26/13 | 0.55 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 03/27/14 | 0.71 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 06/19/14 | 0.92 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 09/26/14 | 0.93 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 12/15/14 | 0.54 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 03/24/15 | 0.06 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 06/17/15 | 0.09 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 09/08/15 | 0.09 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 12/18/15 | 0.10 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 03/16/16 | 0.04 | Well contains measurable PSH and not sampled | | | | | | | | |
| | 06/29/16 | | Casing damaged and not able to be sampled | | | | | | | | |
| | 09/08/16 | | Casing damaged and not able to be sampled | | | | | | | | |
| | 12/06/16 | | Casing damaged and not able to be sampled | | | | | | | | |
| | 03/02/17 | | Casing damaged and not able to be sampled | | | | | | | | |
| | 08/29/17 | | Casing damaged and not able to be sampled | | | | | | | | |
| | 02/20/18 | | Casing damaged and not able to be sampled | | | | | | | | |
| | 08/23/18 | | Casing damaged and not able to be sampled | | | | | | | | |
| | 02/08/19 | | Casing damaged and not able to be sampled | | | | | | | | |
| | 08/08/19 | | Casing damaged and not able to be sampled | | | | | | | | |
| | 02/20/20 | | Casing damaged and not able to be sampled | | | | | | | | |
| | 08/12/20 | | Casing damaged and not able to be sampled | | | | | | | | |

**TABLE 2**
**Glenn Springs Holdings, Inc.**
**E.C. Hill 'B' ATB at Well #24**
**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) | TPH 8015M | | | Chloride (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | GRO (mg/L) | DRO (mg/L) | Total (mg/L) | |
| **New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration** | | | **0.005 mg/L** | **1.0 mg/L** | **0.7 mg/L** | **0.62 mg/L** | | | | | **250.0 mg/L*** |
| **MW-2** | 10/23/08 | - | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | - | - | - | **267** |
| | 12/12/08 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **270** |
| | 03/12/09 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **315** |
| | 06/22/09 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **254** |
| | 09/16/09 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **232** |
| | 12/10/09 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **207** |
| | 03/10/10 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **206** |
| | 06/08/10 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **162** |
| | 09/13/10 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **230** |
| | 12/14/10 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **206** |
| | 03/10/11 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **217** |
| | 06/13/11 | - | <0.00014 | <0.00030 | <0.00020 | <0.00023 | <0.00030 | - | - | - | **240** |
| | 09/20/11 | - | <0.00014 | <0.00030 | <0.00020 | <0.00023 | <0.00030 | - | - | - | **260** |
| | 12/12/11 | - | <0.00014 | <0.00030 | <0.00020 | <0.00023 | <0.00030 | - | - | - | **160** |
| | 04/06/12 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **90.1** |
| | 06/20/12 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **305** |
| | 09/25/12 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **299** |
| | 12/14/12 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **222** |
| | 03/27/13 | | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **339** |
| | 06/07/13 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **126** |
| | 09/19/13 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **319** |
| | 12/27/13 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **236** |
| | 03/27/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **245** |
| | 06/19/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **270** |
| | 09/30/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **317** |
| | 12/15/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **317** |
| | 03/24/15 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **364** |
| | 06/17/15 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **337** |
| | 09/08/15 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **271** |
| | 12/18/15 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **286** |
| | 03/16/16 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **283** |
| | 06/29/16 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **270** |
| **Dup** | 06/29/16 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **252** |
| | 09/08/16 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **255** |
| | 12/06/16 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **283** |
| | 03/02/17 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **282** |
| **Dup** | 03/02/17 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **300** |
| | 08/31/17 | - | <0.005 | 0.64J | <0.005 | <0.005 | 0.64J | - | - | - | **241** |
| **Dup** | 08/31/17 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **246** |
| | 02/22/18 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **254** |
| | 08/23/18 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **216** |
| **Dup** | 08/23/18 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **259** |
| | 02/08/19 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **254** |
| | 08/08/19 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **231** |
| **Dup** | 08/08/19 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **228** |
| | 02/20/20 | - | <0.006 | <0.005 | <0.005 | <0.005 | <0.006 | - | - | - | **241** |
| | 08/12/20 | - | <0.006 | <0.005 | <0.005 | <0.005 | <0.006 | - | - | - | **268** |

**TABLE 2**
**Glenn Springs Holdings, Inc.**
**E.C. Hill 'B' ATB at Well #24**
**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) | TPH 8015M | | | Chloride (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | GRO (mg/L) | DRO (mg/L) | Total (mg/L) | |
| **New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration** | | | **0.005 mg/L** | **1.0 mg/L** | **0.7 mg/L** | **0.62 mg/L** | | | | | **250.0 mg/L*** |
| **MW-3** | 10/23/08 | - | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | - | - | - | **119** |
| | 12/12/08 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **120** |
| | 03/12/09 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **120** |
| | 06/22/09 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **115** |
| | 09/16/09 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **128** |
| | 12/10/09 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **110** |
| | 03/10/10 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **114** |
| | 06/08/10 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **108** |
| | 09/13/10 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **117** |
| | 12/14/10 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **119** |
| | 03/10/11 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **126** |
| | 06/13/11 | - | <0.00014 | <0.00030 | <0.00020 | <0.00023 | <0.00030 | - | - | - | **150** |
| | 09/20/11 | - | <0.00014 | <0.00030 | <0.00020 | <0.00023 | <0.00030 | - | - | - | **140** |
| | 12/12/11 | - | <0.00014 | <0.00030 | <0.00020 | <0.00023 | <0.00030 | - | - | - | **150** |
| | 04/06/12 | - | **0.0016 J** | <0.005 | <0.005 | <0.015 | **0.0016 J** | - | - | - | **613** |
| | 06/20/12 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **151** |
| | 09/25/12 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **152** |
| | 12/14/12 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **135** |
| | 03/27/13 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **136** |
| | 06/07/13 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **69.5** |
| | 09/19/13 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **165** |
| | 12/27/13 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **157** |
| | 03/27/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **175** |
| | 06/19/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **207** |
| | 09/30/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **166** |
| | 12/15/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **169** |
| | 03/24/15 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **163** |
| | 06/17/15 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **156** |
| | 09/08/15 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **152** |
| | 12/18/15 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | | | | **152** |
| | 03/16/16 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **156** |
| **Dup** | 03/16/16 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **155** |
| | 06/29/16 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **153** |
| | 09/08/16 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **143** |
| **Dup** | 09/08/16 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **136** |
| | 12/06/16 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **178** |
| | 03/02/17 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **131** |
| | 08/31/17 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **132** |
| | 02/22/18 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **158** |
| | 08/23/18 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **145** |
| | 02/08/19 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **152** |
| **Dup** | 02/08/19 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **149** |
| | 08/08/19 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **182** |
| | 02/20/20 | - | <0.006 | <0.005 | <0.005 | <0.005 | <0.006 | - | - | - | **150** |
| **Dup** | 02/20/20 | - | <0.006 | <0.005 | <0.005 | <0.005 | <0.006 | - | - | - | **147** |
| | 08/12/20 | - | <0.006 | <0.005 | <0.005 | <0.005 | <0.006 | - | - | - | **164** |
| **Dup** | 08/12/20 | - | <0.006 | <0.005 | <0.005 | <0.005 | <0.006 | - | - | - | **158** |

**TABLE 2**
**Glenn Springs Holdings, Inc.**
**E.C. Hill 'B' ATB at Well #24**
**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) | TPH 8015M | | | Chloride (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | GRO (mg/L) | DRO (mg/L) | Total (mg/L) | |
| **New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration** | | | **0.005 mg/L** | **1.0 mg/L** | **0.7 mg/L** | **0.62 mg/L** | | | | | **250.0 mg/L*** |
| **MW-4** | 10/23/08 | - | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | - | - | - | **109** |
| | 12/12/08 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **108** |
| | 03/12/09 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **111** |
| | 06/22/09 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **110** |
| | 09/16/09 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **102** |
| | 12/10/09 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **120** |
| | 03/10/10 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **105** |
| | 06/08/10 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **118** |
| | 09/13/10 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **109** |
| | 12/14/10 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **107** |
| | 03/10/11 | - | <0.001 | <0.001 | <0.001 | <0.003 | <0.003 | - | - | - | **109** |
| | 06/13/11 | - | <0.00014 | <0.00030 | <0.00020 | <0.00023 | <0.00030 | - | - | - | **120** |
| | 09/20/11 | - | <0.00014 | <0.00030 | <0.00020 | <0.00023 | <0.00030 | - | - | - | **110** |
| | 12/12/11 | - | <0.00014 | <0.00030 | <0.00020 | <0.00023 | <0.00030 | - | - | - | **110** |
| | 04/06/12 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **86.2** |
| | 06/20/12 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **116** |
| | 09/25/12 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **121** |
| | 12/14/12 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **105** |
| | 03/27/13 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **115** |
| | 06/07/13 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **121** |
| | 09/19/13 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **132** |
| | 12/27/13 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **115** |
| | 03/27/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **113** |
| | 06/19/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **140** |
| | 09/30/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **122** |
| | 12/15/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **118** |
| | 03/24/15 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **119** |
| | 06/17/15 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **117** |
| | 09/08/15 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **108** |
| | 12/18/15 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **111** |
| | 03/16/16 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **118** |
| | 06/29/16 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **131** |
| | 09/08/16 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **114** |
| | 12/06/16 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **143** |
| **Dup** | 12/06/16 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **146** |
| | 03/02/17 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **115** |
| | 08/31/17 | - | <0.005 | 0.62J | <0.005 | <0.005 | 0.62J | - | - | - | **113** |
| | 02/22/18 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **120** |
| **Dup** | 02/22/18 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **118** |
| | 08/23/18 | - | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | - | - | - | **151** |
| | 02/08/19 | - | Dry Not Sampled | | | | | | | | |
| | 08/09/19 | | Dry Not Sampled | | | | | | | | |
| | 02/20/20 | | Dry Not Sampled | | | | | | | | |
| | 08/12/20 | - | Dry Not Sampled | | | | | | | | |

**TABLE 2**
**Glenn Springs Holdings, Inc.**
**E.C. Hill 'B' ATB at Well #24**
**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) | TPH 8015M | | | Chloride (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | GRO (mg/L) | DRO (mg/L) | Total (mg/L) | |
| **New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration** | | | **0.005 mg/L** | **1.0 mg/L** | **0.7 mg/L** | **0.62 mg/L** | | | | | **250.0 mg/L*** |
| **RW-1** | 04/06/12 | - | - | - | - | - | - | - | - | - | - |
| | 06/20/12 | - | - | - | - | - | - | - | - | - | - |
| | 09/25/12 | - | - | - | - | - | - | - | - | - | - |
| | 12/14/12 | - | - | - | - | - | - | - | - | - | - |
| | 03/27/13 | - | - | - | - | - | - | - | - | - | - |
| | 06/07/13 | - | - | - | - | - | - | - | - | - | - |
| | 09/19/13 | NA | - | - | - | - | - | - | - | - | - |
| | 12/27/13 | - | - | - | - | - | - | - | - | - | - |
| | 03/27/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **97.7** |
| | 06/19/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **111** |
| | 09/30/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **104** |
| | 12/15/14 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **98.6** |
| | 03/24/15 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **102** |
| | 06/17/15 | - | <0.005 | <0.005 | <0.005 | <0.015 | <0.015 | - | - | - | **99.5** |
| | 09/08/15 | 0.04 | - | - | - | - | - | - | - | - | - |
| | 12/18/15 | 0.10 | - | - | - | - | - | - | - | - | - |
| | 03/16/16 | 0.01 | - | - | - | - | - | - | - | - | - |
| | 06/29/16 | 0.01 | - | - | - | - | - | - | - | - | - |
| | 09/08/16 | 0.14 | - | - | - | - | - | - | - | - | - |
| | 12/06/16 | 0.14 | - | - | - | - | - | - | - | - | - |
| | 03/01/17 | 0.25 | - | - | - | - | - | - | - | - | - |
| | 08/29/17 | 0.44 | - | - | - | - | - | - | - | - | - |
| | 02/20/18 | 0.57 | - | - | - | - | - | - | - | - | - |
| | 08/23/18 | 0.70 | - | - | - | - | - | - | - | - | - |
| | 02/08/19 | 0.22 | - | - | - | - | - | - | - | - | - |
| | 08/09/19 | 0.88 | - | - | - | - | - | - | - | - | - |
| | 02/20/20 | 0.27 | - | - | - | - | - | - | - | - | - |
| | 08/21/20 | 0.88 | - | - | - | - | - | - | - | - | - |

( - ) not analyzed
( * ) Other Standard for Domestic Water Supply
NA - Not Gauged, Instrument Malfunction

# Appendix A – NAPL Recovery System Schematic

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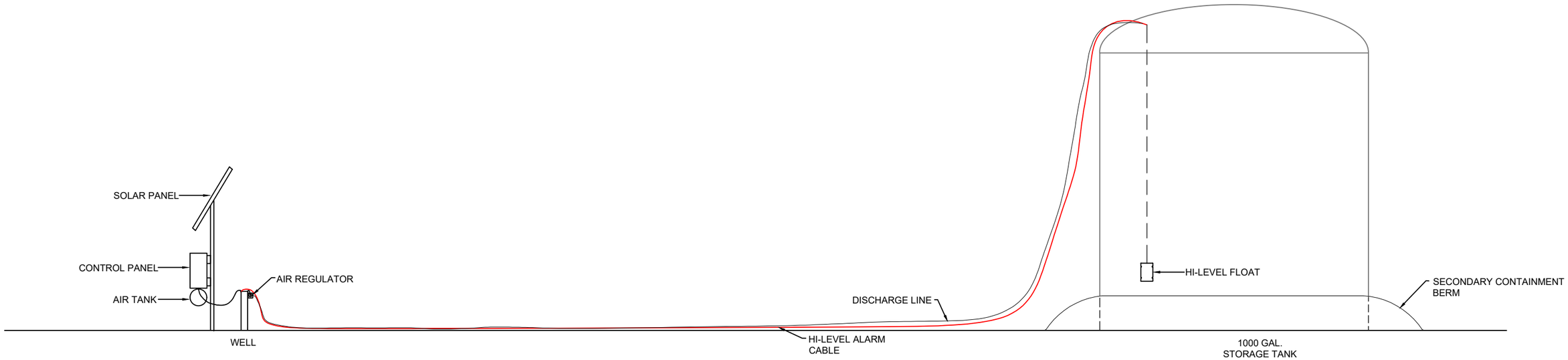



NOT TO SCALE

LEGEND

NOTES:

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

GLENN SPRINGS HOLDINGS

DETAIL SHEET

PSH RECOVERY SYSTEM
E.C. HILL ATB @ WELL #24
LEA COUNTY, NEW MEXICO

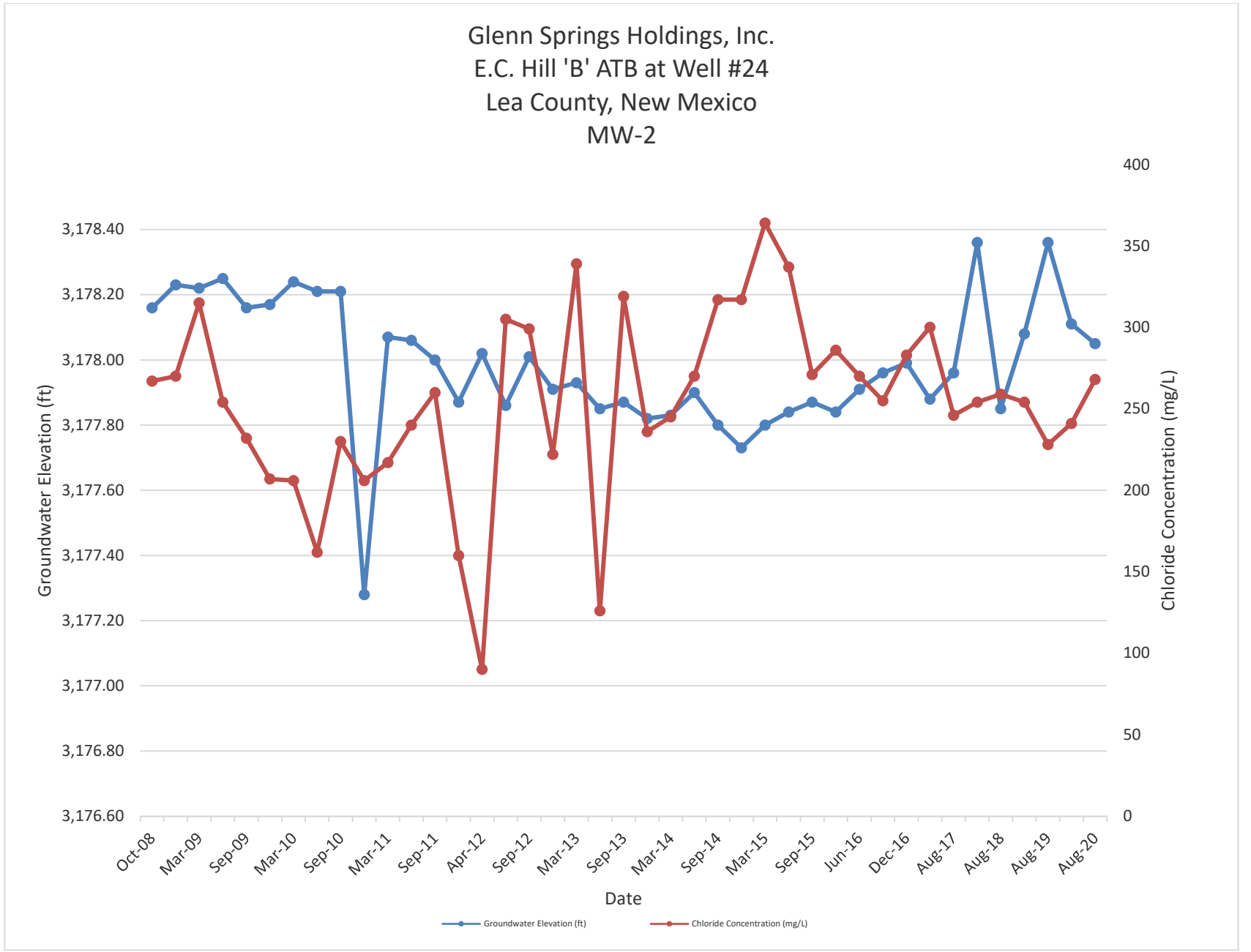
| | |
|---|---|
| Project: 212C-MD-01687 | REV. |
| Date: 10/8/2019 | |
| File: H:\Acad Data\GLENN SPRINGS\2019\MISC. 2019 DETAILS\PSH RECOVERY SYSTEM | |

Received by OCD: 2/2/2021 2:29:27 PM

Released to Imaging: 12/28/2021 10:35:20 AM

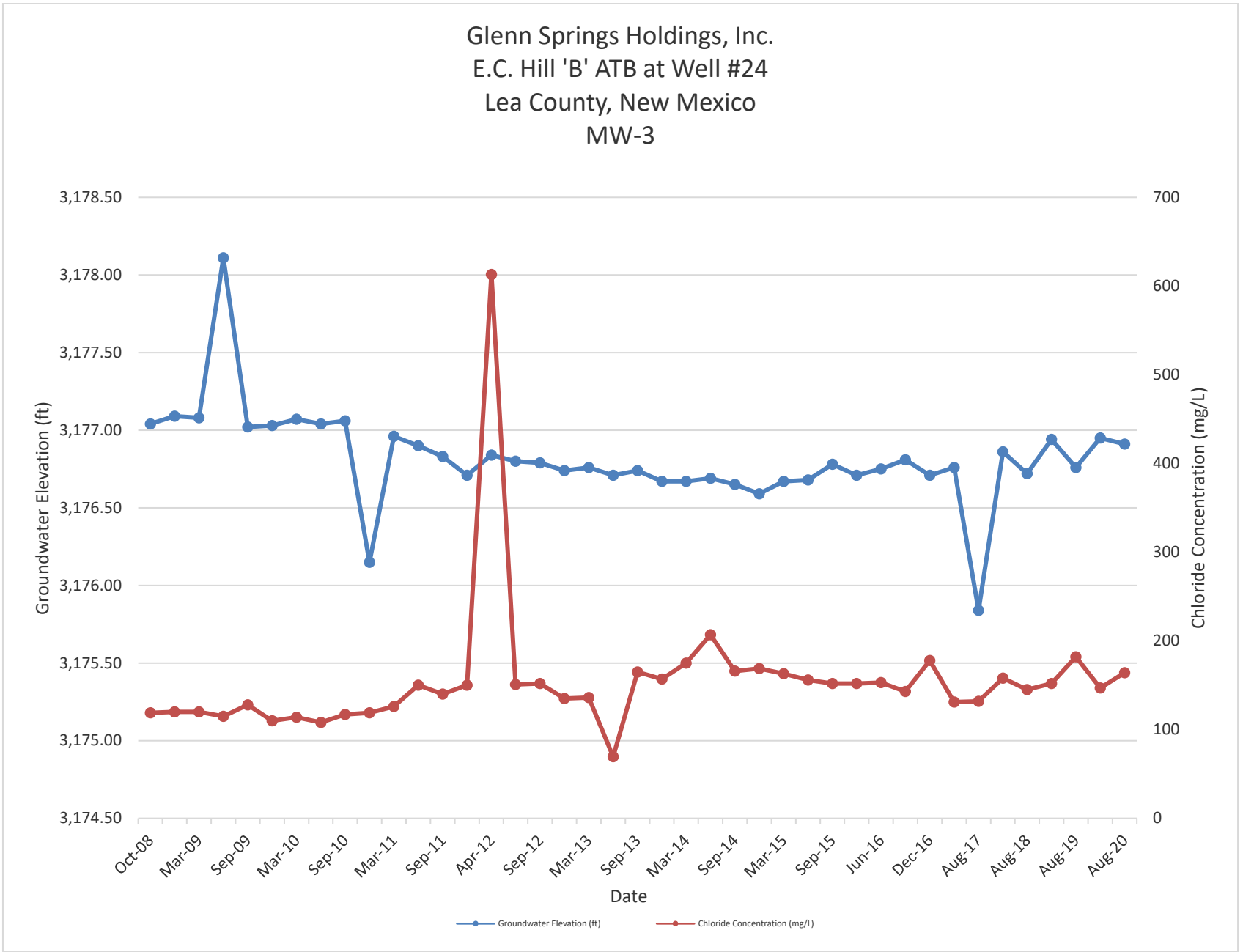
# Appendix B – Graphs

Released to Imaging: 12/28/2021 10:35:20 AM
Received by OCD: 2/2/2021 2:29:27 PM



Released to Imaging: 12/28/2021 10:35:20 AM

Received by OCD: 2/2/2021 2:29:27 PM



# Appendix C – Laboratory Reports

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
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February 29, 2020

James Abston
Glenn Springs Holdings, Inc.
PO Box 2148
Houston, TX 77252-2148

Work Order: **HS20020924**

Laboratory Results for: **55625DM GSHI PXP Hill EC B ATB at Well 24**

Dear James,

ALS Environmental received 4 sample(s) on Feb 21, 2020 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: JUMOKE.LAWAL**
Dane J. Wacasey



Released to Imaging: 12/28/2021 10:35:20 AM

**ALS Houston, US** Date: 29-Feb-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**Work Order:** HS20020924

**SAMPLE SUMMARY**

| Lab Samp ID | Client Sample ID | Matrix | TagNo | Collection Date | Date Received | Hold |
|---|---|---|---|---|---|---|
| HS20020924-01 | MW-2 | Groundwater | | 20-Feb-2020 11:35 | 21-Feb-2020 08:35 | ☐ |
| HS20020924-02 | MW-3 | Groundwater | | 20-Feb-2020 12:20 | 21-Feb-2020 08:35 | ☐ |
| HS20020924-03 | DUP | Groundwater | | 20-Feb-2020 00:00 | 21-Feb-2020 08:35 | ☐ |
| HS20020924-04 | Trip Blank | Water | CG 011520 -374 | 20-Feb-2020 00:00 | 21-Feb-2020 08:35 | ☐ |



RIGHT SOLUTIONS | RIGHT PARTNER

**ALS Houston, US** Date: 29-Feb-20

**Client:** Glenn Springs Holdings, Inc. **CASE NARRATIVE**
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**Work Order:** HS20020924

## GCMS Volatiles by Method SW8260

### Batch ID: R356810

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

## WetChemistry by Method E300

### Batch ID: R357301

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

### Batch ID: R357256

**Sample ID: HS20021195-05MS**

- MS and MSD are for an unrelated sample (Chloride)

**Sample ID: HS20021199-01MS**

- MS and MSD are for an unrelated sample (Chloride)



RIGHT SOLUTIONS | RIGHT PARTNER

**ALS Houston, US** Date: 29-Feb-20

Client: Glenn Springs Holdings, Inc.
Project: 55625DM GSHI PXP Hill EC B ATB at Well 24
Sample ID: MW-2
Collection Date: 20-Feb-2020 11:35

**ANALYTICAL REPORT**
WorkOrder:HS20020924
Lab ID:HS20020924-01
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 | 22-Feb-2020 12:01 |
| Ethylbenzene | | U | 0.50 | 5.0 | ug/L | 1 | 22-Feb-2020 12:01 |
| Toluene | | U | 0.50 | 5.0 | ug/L | 1 | 22-Feb-2020 12:01 |
| Xylenes, Total | | U | 0.50 | 5.0 | ug/L | 1 | 22-Feb-2020 12:01 |
| *Surr: 1,2-Dichloroethane-d4* | *108* | | | *70-126* | *%REC* | *1* | *22-Feb-2020 12:01* |
| *Surr: 4-Bromofluorobenzene* | *94.8* | | | *82-124* | *%REC* | *1* | *22-Feb-2020 12:01* |
| *Surr: Dibromofluoromethane* | *104* | | | *77-123* | *%REC* | *1* | *22-Feb-2020 12:01* |
| *Surr: Toluene-d8* | *99.5* | | | *82-127* | *%REC* | *1* | *22-Feb-2020 12:01* |
| **ANIONS BY E300.0** | | **Method:E300** | | | | | Analyst: KMU |
| **Chloride** | **241** | | **2.00** | **5.00** | **mg/L** | 10 | 28-Feb-2020 12:50 |

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



RIGHT SOLUTIONS | RIGHT PARTNER

**ALS Houston, US** Date: 29-Feb-20

Client: Glenn Springs Holdings, Inc.
Project: 55625DM GSHI PXP Hill EC B ATB at Well 24
Sample ID: MW-3
Collection Date: 20-Feb-2020 12:20

**ANALYTICAL REPORT**
WorkOrder:HS20020924
Lab ID:HS20020924-02
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 | 22-Feb-2020 12:26 |
| Ethylbenzene | | U | 0.50 | 5.0 | ug/L | 1 | 22-Feb-2020 12:26 |
| Toluene | | U | 0.50 | 5.0 | ug/L | 1 | 22-Feb-2020 12:26 |
| Xylenes, Total | | U | 0.50 | 5.0 | ug/L | 1 | 22-Feb-2020 12:26 |
| *Surr: 1,2-Dichloroethane-d4* | *111* | | | *70-126* | *%REC* | *1* | *22-Feb-2020 12:26* |
| *Surr: 4-Bromofluorobenzene* | *96.5* | | | *82-124* | *%REC* | *1* | *22-Feb-2020 12:26* |
| *Surr: Dibromofluoromethane* | *104* | | | *77-123* | *%REC* | *1* | *22-Feb-2020 12:26* |
| *Surr: Toluene-d8* | *99.8* | | | *82-127* | *%REC* | *1* | *22-Feb-2020 12:26* |
| **ANIONS BY E300.0** | | **Method:E300** | | | | | Analyst: KMU |
| **Chloride** | **150** | | **2.00** | **5.00** | **mg/L** | 10 | 28-Feb-2020 13:08 |

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



RIGHT SOLUTIONS | RIGHT PARTNER

**ALS Houston, US** Date: 29-Feb-20

Client: Glenn Springs Holdings, Inc.
Project: 55625DM GSHI PXP Hill EC B ATB at Well 24
Sample ID: DUP
Collection Date: 20-Feb-2020 00:00

**ANALYTICAL REPORT**
WorkOrder:HS20020924
Lab ID:HS20020924-03
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 | 22-Feb-2020 12:50 |
| Ethylbenzene | | U | 0.50 | 5.0 | ug/L | 1 | 22-Feb-2020 12:50 |
| Toluene | | U | 0.50 | 5.0 | ug/L | 1 | 22-Feb-2020 12:50 |
| Xylenes, Total | | U | 0.50 | 5.0 | ug/L | 1 | 22-Feb-2020 12:50 |
| *Surr: 1,2-Dichloroethane-d4* | *108* | | | *70-126* | *%REC* | *1* | *22-Feb-2020 12:50* |
| *Surr: 4-Bromofluorobenzene* | *95.9* | | | *82-124* | *%REC* | *1* | *22-Feb-2020 12:50* |
| *Surr: Dibromofluoromethane* | *103* | | | *77-123* | *%REC* | *1* | *22-Feb-2020 12:50* |
| *Surr: Toluene-d8* | *99.9* | | | *82-127* | *%REC* | *1* | *22-Feb-2020 12:50* |
| **ANIONS BY E300.0** | | **Method:E300** | | | | | Analyst: KVL |
| **Chloride** | **147** | | **2.00** | **5.00** | **mg/L** | 10 | 28-Feb-2020 14:56 |

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



RIGHT SOLUTIONS | RIGHT PARTNER

**ALS Houston, US** Date: 29-Feb-20

Client: Glenn Springs Holdings, Inc.
Project: 55625DM GSHI PXP Hill EC B ATB at Well 24
Sample ID: Trip Blank
Collection Date: 20-Feb-2020 00:00

**ANALYTICAL REPORT**
WorkOrder:HS20020924
Lab ID:HS20020924-04
Matrix:Water

| ANALYSES | RESULT | QUAL | MDL | REPORT LIMIT | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|---|
| **VOLATILES - SW8260C** | | **Method:SW8260** | | | | | Analyst: PC |
| Benzene | | U | 0.60 | 5.0 | ug/L | 1 | 22-Feb-2020 09:36 |
| Ethylbenzene | | U | 0.50 | 5.0 | ug/L | 1 | 22-Feb-2020 09:36 |
| Toluene | | U | 0.50 | 5.0 | ug/L | 1 | 22-Feb-2020 09:36 |
| Xylenes, Total | | U | 0.50 | 5.0 | ug/L | 1 | 22-Feb-2020 09:36 |
| *Surr: 1,2-Dichloroethane-d4* | *110* | | | *70-126* | *%REC* | *1* | *22-Feb-2020 09:36* |
| *Surr: 4-Bromofluorobenzene* | *98.4* | | | *82-124* | *%REC* | *1* | *22-Feb-2020 09:36* |
| *Surr: Dibromofluoromethane* | *105* | | | *77-123* | *%REC* | *1* | *22-Feb-2020 09:36* |
| *Surr: Toluene-d8* | *104* | | | *82-127* | *%REC* | *1* | *22-Feb-2020 09:36* |

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



RIGHT SOLUTIONS | RIGHT PARTNER

**ALS Houston, US** Date: 29-Feb-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**WorkOrder:** HS20020924

**DATES REPORT**

| Sample ID | Client Samp ID | Collection Date | Leachate Date | Prep Date | Analysis Date | DF |
|---|---|---|---|---|---|---|
| **Batch ID:** R356810 ( 0 ) | **Test Name :** VOLATILES - SW8260C | | | | **Matrix:** Water | |
| HS20020924-04 | Trip Blank | 20 Feb 2020 00:00 | | | 22 Feb 2020 09:36 | 1 |
| **Batch ID:** R356810 ( 0 ) | **Test Name :** VOLATILES - SW8260C | | | | **Matrix:** Groundwater | |
| HS20020924-01 | MW-2 | 20 Feb 2020 11:35 | | | 22 Feb 2020 12:01 | 1 |
| HS20020924-02 | MW-3 | 20 Feb 2020 12:20 | | | 22 Feb 2020 12:26 | 1 |
| HS20020924-03 | DUP | 20 Feb 2020 00:00 | | | 22 Feb 2020 12:50 | 1 |
| **Batch ID:** R357256 ( 0 ) | **Test Name :** ANIONS BY E300.0 | | | | **Matrix:** Groundwater | |
| HS20020924-01 | MW-2 | 20 Feb 2020 11:35 | | | 28 Feb 2020 12:50 | 10 |
| HS20020924-02 | MW-3 | 20 Feb 2020 12:20 | | | 28 Feb 2020 13:08 | 10 |
| **Batch ID:** R357301 ( 0 ) | **Test Name :** ANIONS BY E300.0 | | | | **Matrix:** Groundwater | |
| HS20020924-03 | DUP | 20 Feb 2020 00:00 | | | 28 Feb 2020 14:56 | 10 |



RIGHT SOLUTIONS | RIGHT PARTNER

**ALS Houston, US** Date: 29-Feb-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**WorkOrder:** HS20020924

**QC BATCH REPORT**

**Batch ID: R356810 ( 0 )** **Instrument: VOA9** **Method: VOLATILES - SW8260C**

**MBLK** Sample ID: **VBLKW-200221** Units: **ug/L** Analysis Date: **22-Feb-2020 04:19**
Client ID: Run ID: **VOA9_356810** SeqNo: **5483479** 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* | *49.33* | *0* | *50* | *0* | *98.7* | *70 - 130* | | | | |
| *Surr: 4-Bromofluorobenzene* | *47.33* | *0* | *50* | *0* | *94.7* | *82 - 115* | | | | |
| *Surr: Dibromofluoromethane* | *49.88* | *0* | *50* | *0* | *99.8* | *73 - 126* | | | | |
| *Surr: Toluene-d8* | *49.61* | *0* | *50* | *0* | *99.2* | *81 - 120* | | | | |

**LCS** Sample ID: **VLCSW-200221** Units: **ug/L** Analysis Date: **22-Feb-2020 03:31**
Client ID: Run ID: **VOA9_356810** SeqNo: **5483478** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 18.44 | 5.0 | 20 | 0 | 92.2 | 74 - 120 | | | | |
| Ethylbenzene | 18.43 | 5.0 | 20 | 0 | 92.2 | 77 - 117 | | | | |
| Toluene | 18.61 | 5.0 | 20 | 0 | 93.0 | 77 - 118 | | | | |
| Xylenes, Total | 58.3 | 5.0 | 60 | 0 | 97.2 | 75 - 122 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *48.03* | *0* | *50* | *0* | *96.1* | *70 - 130* | | | | |
| *Surr: 4-Bromofluorobenzene* | *50.15* | *0* | *50* | *0* | *100* | *82 - 115* | | | | |
| *Surr: Dibromofluoromethane* | *49.82* | *0* | *50* | *0* | *99.6* | *73 - 126* | | | | |
| *Surr: Toluene-d8* | *49.79* | *0* | *50* | *0* | *99.6* | *81 - 120* | | | | |

**MS** Sample ID: **HS20020842-01MS** Units: **ug/L** Analysis Date: **22-Feb-2020 05:08**
Client ID: Run ID: **VOA9_356810** SeqNo: **5483481** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 19.91 | 5.0 | 20 | 0 | 99.6 | 70 - 127 | | | | |
| Ethylbenzene | 20.83 | 5.0 | 20 | 0 | 104 | 70 - 124 | | | | |
| Toluene | 20.35 | 5.0 | 20 | 0 | 102 | 70 - 123 | | | | |
| Xylenes, Total | 63.93 | 5.0 | 60 | 0 | 107 | 70 - 130 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *47.63* | *0* | *50* | *0* | *95.3* | *70 - 126* | | | | |
| *Surr: 4-Bromofluorobenzene* | *50.47* | *0* | *50* | *0* | *101* | *82 - 124* | | | | |
| *Surr: Dibromofluoromethane* | *49.69* | *0* | *50* | *0* | *99.4* | *77 - 123* | | | | |
| *Surr: Toluene-d8* | *49.85* | *0* | *50* | *0* | *99.7* | *82 - 127* | | | | |



RIGHT SOLUTIONS | RIGHT PARTNER

**ALS Houston, US** Date: 29-Feb-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**WorkOrder:** HS20020924

**QC BATCH REPORT**

**Batch ID: R356810 ( 0 )** **Instrument: VOA9** **Method: VOLATILES - SW8260C**

**MSD** Sample ID: **HS20020842-01MSD** Units: **ug/L** Analysis Date: **22-Feb-2020 05:32**
Client ID: Run ID: **VOA9_356810** SeqNo: **5483482** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 18.81 | 5.0 | 20 | 0 | 94.0 | 70 - 127 | 19.91 | 5.72 | 20 | |
| Ethylbenzene | 19.51 | 5.0 | 20 | 0 | 97.5 | 70 - 124 | 20.83 | 6.56 | 20 | |
| Toluene | 18.88 | 5.0 | 20 | 0 | 94.4 | 70 - 123 | 20.35 | 7.5 | 20 | |
| Xylenes, Total | 59.69 | 5.0 | 60 | 0 | 99.5 | 70 - 130 | 63.93 | 6.87 | 20 | |
| *Surr: 1,2-Dichloroethane-d4* | *47.77* | *0* | *50* | *0* | *95.5* | *70 - 126* | *47.63* | *0.297* | *20* | |
| *Surr: 4-Bromofluorobenzene* | *50.53* | *0* | *50* | *0* | *101* | *82 - 124* | *50.47* | *0.118* | *20* | |
| *Surr: Dibromofluoromethane* | *48.82* | *0* | *50* | *0* | *97.6* | *77 - 123* | *49.69* | *1.77* | *20* | |
| *Surr: Toluene-d8* | *50.22* | *0* | *50* | *0* | *100* | *82 - 127* | *49.85* | *0.737* | *20* | |

**The following samples were analyzed in this batch:** HS20020924-01 HS20020924-02 HS20020924-03 HS20020924-04



RIGHT SOLUTIONS | RIGHT PARTNER

**ALS Houston, US** Date: 29-Feb-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**WorkOrder:** HS20020924

**QC BATCH REPORT**

**Batch ID: R357256 ( 0 )** **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0**

**MBLK** Sample ID: **WBLKW2-022720** Units: **mg/L** Analysis Date: **28-Feb-2020 01:03**
Client ID: Run ID: **ICS-Integrion_357256** SeqNo: **5492855** 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: **WLCSW2-022720** Units: **mg/L** Analysis Date: **28-Feb-2020 01:21**
Client ID: Run ID: **ICS-Integrion_357256** SeqNo: **5492856** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 19.88 | 0.500 | 20 | 0 | 99.4 | 90 - 110 | | | | |

**LCSD** Sample ID: **WLCSDW2-022720** Units: **mg/L** Analysis Date: **28-Feb-2020 01:39**
Client ID: Run ID: **ICS-Integrion_357256** SeqNo: **5492857** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 19.92 | 0.500 | 20 | 0 | 99.6 | 90 - 110 | 19.88 | 0.211 | 20 | |

**MS** Sample ID: **HS20021199-01MS** Units: **mg/L** Analysis Date: **28-Feb-2020 08:54**
Client ID: Run ID: **ICS-Integrion_357256** SeqNo: **5492881** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 243.6 | 0.500 | 10 | 237.6 | 60.5 | 80 - 120 | | | | SEO |

**MS** Sample ID: **HS20021195-05MS** Units: **mg/L** Analysis Date: **28-Feb-2020 02:34**
Client ID: Run ID: **ICS-Integrion_357256** SeqNo: **5492860** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 98.71 | 0.500 | 10 | 91.11 | 76.0 | 80 - 120 | | | | SO |

**MSD** Sample ID: **HS20021199-01MSD** Units: **mg/L** Analysis Date: **28-Feb-2020 09:12**
Client ID: Run ID: **ICS-Integrion_357256** SeqNo: **5492882** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 242.6 | 0.500 | 10 | 237.6 | 49.9 | 80 - 120 | 243.6 | 0.435 | 20 | SEO |



RIGHT SOLUTIONS | RIGHT PARTNER

**ALS Houston, US** Date: 29-Feb-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**WorkOrder:** HS20020924

**QC BATCH REPORT**

**Batch ID: R357256 ( 0 )** **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0**

**MSD** Sample ID: **HS20021195-05MSD** Units: **mg/L** Analysis Date: **28-Feb-2020 02:52**
Client ID: Run ID: **ICS-Integrion_357256** SeqNo: **5492861** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 99.23 | 0.500 | 10 | 91.11 | 81.2 | 80 - 120 | 98.71 | 0.526 | 20 | O |

**The following samples were analyzed in this batch:** HS20020924-01 HS20020924-02



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**ALS Houston, US** Date: 29-Feb-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**WorkOrder:** HS20020924

**QC BATCH REPORT**

**Batch ID: R357301 ( 0 )** **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0**

**MBLK** Sample ID: **WBLKW1-022820** Units: **mg/L** Analysis Date: **28-Feb-2020 14:02**
Client ID: Run ID: **ICS-Integrion_357301** SeqNo: **5493884** 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: **WLCSW1-022820** Units: **mg/L** Analysis Date: **28-Feb-2020 14:20**
Client ID: Run ID: **ICS-Integrion_357301** SeqNo: **5493885** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 20.01 | 0.500 | 20 | 0 | 100 | 90 - 110 | | | | |

**LCSD** Sample ID: **WLCSDW1-022820** Units: **mg/L** Analysis Date: **28-Feb-2020 14:38**
Client ID: Run ID: **ICS-Integrion_357301** SeqNo: **5493886** 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 | 20.01 | 0.637 | 20 | |

**MS** Sample ID: **HS20020929-05MS** Units: **mg/L** Analysis Date: **28-Feb-2020 17:58**
Client ID: Run ID: **ICS-Integrion_357301** SeqNo: **5493897** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 60.31 | 0.500 | 10 | 51.28 | 90.3 | 80 - 120 | | | | O |

**MSD** Sample ID: **HS20020929-05MSD** Units: **mg/L** Analysis Date: **28-Feb-2020 18:16**
Client ID: Run ID: **ICS-Integrion_357301** SeqNo: **5493900** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 60.23 | 0.500 | 10 | 51.28 | 89.5 | 80 - 120 | 60.31 | 0.131 | 20 | O |

**The following samples were analyzed in this batch:** HS20020924-03



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**ALS Houston, US** Date: 29-Feb-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**WorkOrder:** **HS20020924**

**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 Quantitaion 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 |



RIGHT SOLUTIONS | RIGHT PARTNER

**ALS Houston, US** Date: 29-Feb-20

## CERTIFICATIONS,ACCREDITATIONS & LICENSES

| Agency | Number | Expire Date |
|---|---|---|
| Arkansas | 19-028-0 | 27-Mar-2020 |
| California | 2919, 2019-2020 | 30-Apr-2020 |
| Dept of Defense | ANAB L2231 V009 | 22-Dec-2021 |
| Florida | E87611-28 | 30-Jun-2020 |
| Illinois | 2000322019-2 | 09-May-2020 |
| Kansas | E-10352 2019-2020 | 31-Jul-2020 |
| Kentucky | 123043, 2019-2020 | 30-Apr-2020 |
| Louisiana | 03087, 2019-2020 | 30-Jun-2020 |
| Maryland | 343, 2019-2020 | 30-Jun-2020 |
| North Carolina | 624-2020 | 31-Dec-2020 |
| North Dakota | R-193 2019-2020 | 30-Apr-2020 |
| Oklahoma | 2019-067 | 31-Aug-2020 |
| Texas | T104704231-19-25 | 30-Apr-2020 |



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**ALS Houston, US** Date: 29-Feb-20

## Sample Receipt Checklist

Client Name: Glen Springs/CRA Date/Time Received: **21-Feb-2020 08:35**

Work Order: HS20020924 Received by: **AC**

Checklist completed by: *Jared R. Makan* 21-Feb-2020 (eSignature / Date) Reviewed by: *Dane J. Wacasey* 25-Feb-2020 (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 ☑ |
| VOA/TX1005/TX1006 Solids in hermetically sealed vials? | Yes ☐ | No ☐ | Not Present ☑ |
| Chain of custody present? | Yes ☑ | No ☐ | 1 Page(s) |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | COC IDs:215027 |
| Samplers name present on COC? | 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): | 1.7°C/1.7°C UC/C | IR25 | |
| Cooler(s)/Kit(s): | 44955 | | |
| Date/Time sample(s) sent to storage: | 02/21/2020 13:45 | | |
| 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:



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

# Chain of Custody Form

Page 1 of 1

COC ID: 215027

HS20020924

Glenn Springs Holdings, Inc.
55625DM GSHI PXP Hill EC B ATB at Well 24



| Customer Information | | Project Information | | ALS Project Manager: | |
|---|---|---|---|---|---|
| Purchase Order | 4502201559 ENV 749-402-D02-110 | Project Name | GSHI PXP Hill EC B ATB at Well 24 | A | 8260_W (BTEX) |
| Work Order | | Project Number | 55625DM (ENV749A007) | 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 | Mike Carmona | 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 | Mike.Carmona@tetratech.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 | 2-20-20 | 1135 | Groundwa | 1,8 | 4 | X | X | | | | | | | | | |
| 3 | MW-3 | 2-20-20 | 1220 | Groundwa | 1,8 | 4 | X | X | | | | | | | | | |
| ~~4~~ | ~~MW-4~~ | | | ~~Groundwa~~ | ~~1,8~~ | ~~4~~ | X | X | | | | | | | | | |
| ~~5~~ | ~~RW-1~~ | | | ~~Groundwa~~ | ~~1,8~~ | ~~4~~ | X | X | | | | | | | | | |
| 6 | DUP | 2-20-20 | — | Groundwa | 1,8 | 4 | X | X | | | | | | | | | |
| 7 | Trip Blank | — | — | Water | 1 | 2 | | | X | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | |

Sampler(s) Please Print & Sign: Preston Poitevint

Shipment Method: FedEx

Required Turnaround Time: (Check Box) [X] STD 10 Wk Days [ ] 5 Wk Days [ ] 2 Wk Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by: Date: 2-20-20 Time: 1630 Received by:

Relinquished by: Date: 2/21/2020 Time: 08:35 Received by (Laboratory): AC

Logged by (Laboratory): Date: Time: Checked by (Laboratory):

Notes: [GSHI PXP Hill EC B ATB at 24]

| Cooler ID | Cooler Temp. |
|---|---|
| 44955 | 0/C 1.7 |
| | IR #35 |
| | 5.6 C |

QC Package: (Check One Box Below)
[X] Level II Std QC
[ ] Level III Std QC/Raw Data
[ ] Level IV SW846/CLP
[ ] Other
[ ] TRRP Checklist
[ ] TRRP Level IV

Preservative Key: 1-HCl 2-$HNO_3$ 3-$H_2SO_4$ 4-NaOH 5-$Na_2S_2O_3$ 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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ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

44955

**CUSTODY SEAL**

Date: 2-20-20 Time: 1630
Name: Martha Martinez
Company: Tetra Tech

Seal Broken By: MM
Date: 02/21/20

44955 FEB 2 1 2020

Must Deliver Next Business Day
Time and Tempature Sensitive!

44955

ORIGIN ID:SGRA (432) 682-4559
MIKE CARMONA
GSHI-TETRA TECH
901 WEST WALL STREET
SUITE 100
MIDLAND, TX 79701
UNITED STATES US

SHIP DATE: 14FEB20
ACTWGT: 1.00 LB MAN
CAD: 300130/CAFE3211
DIMS: 19x16x13 IN

TO CLIENT SERVICES
ALS LABORATORY GROUP
10450 STANCLIFF ROAD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: PXP HILL-DW

RMA:

FedEx Express

FedEx
TRK# 0221 1251 0294 5540

FRI - 21 FEB 10:30A
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US IAH

20 56BJ2/049E/FE4A

Part # 159469-43A RITE EXP 10/20

JD01/36P4/2355

EXP 10/20





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

August 24, 2020

James Abston
Glenn Springs Holdings, Inc.
PO Box 2148
Houston, TX 77252-2148

Work Order: **HS20080597**

Laboratory Results for: **55625DM GSHI PXP Hill EC B ATB at Well 24**

Dear James Abston ,

ALS Environmental received 4 sample(s) on Aug 13, 2020 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



Released to Imaging: 12/28/2021 10:35:20 AM

**ALS Houston, US** Date: 24-Aug-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**Work Order:** HS20080597

**SAMPLE SUMMARY**

| Lab Samp ID | Client Sample ID | Matrix | TagNo | Collection Date | Date Received | Hold |
|---|---|---|---|---|---|---|
| HS20080597-01 | MW-2 | Groundwater | | 12-Aug-2020 13:15 | 13-Aug-2020 09:15 | ☐ |
| HS20080597-02 | MW-3 | Groundwater | | 12-Aug-2020 14:20 | 13-Aug-2020 09:15 | ☐ |
| HS20080597-03 | DUP | Groundwater | | 12-Aug-2020 00:00 | 13-Aug-2020 09:15 | ☐ |
| HS20080597-04 | Trip Blank | Water | CG-070820-175 | 12-Aug-2020 00:00 | 13-Aug-2020 09:15 | ☐ |



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Released to Imaging: 12/28/2021 10:35:20 AM

**ALS Houston, US** Date: 24-Aug-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**Work Order:** HS20080597

**CASE NARRATIVE**

## GCMS Volatiles by Method SW8260

### Batch ID: R366845,R366924

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

## WetChemistry by Method E300

### Batch ID: R367311

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



RIGHT SOLUTIONS | RIGHT PARTNER

**ALS Houston, US** Date: 24-Aug-20

Client: Glenn Springs Holdings, Inc.
Project: 55625DM GSHI PXP Hill EC B ATB at Well 24
Sample ID: MW-2
Collection Date: 12-Aug-2020 13:15

**ANALYTICAL REPORT**
WorkOrder:HS20080597
Lab ID:HS20080597-01
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 | 14-Aug-2020 21:55 |
| Ethylbenzene | | U | 0.50 | 5.0 | ug/L | 1 | 14-Aug-2020 21:55 |
| Toluene | | U | 0.50 | 5.0 | ug/L | 1 | 14-Aug-2020 21:55 |
| Xylenes, Total | | U | 0.50 | 5.0 | ug/L | 1 | 14-Aug-2020 21:55 |
| *Surr: 1,2-Dichloroethane-d4* | *105* | | | *70-126* | *%REC* | *1* | *14-Aug-2020 21:55* |
| *Surr: 4-Bromofluorobenzene* | *94.2* | | | *82-124* | *%REC* | *1* | *14-Aug-2020 21:55* |
| *Surr: Dibromofluoromethane* | *102* | | | *77-123* | *%REC* | *1* | *14-Aug-2020 21:55* |
| *Surr: Toluene-d8* | *101* | | | *82-127* | *%REC* | *1* | *14-Aug-2020 21:55* |
| **ANIONS BY E300.0** | | **Method:E300** | | | | | Analyst: YP |
| **Chloride** | **268** | | **4.00** | **10.0** | **mg/L** | 20 | 22-Aug-2020 09:19 |

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



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**ALS Houston, US** Date: 24-Aug-20

Client: Glenn Springs Holdings, Inc.
Project: 55625DM GSHI PXP Hill EC B ATB at Well 24
Sample ID: MW-3
Collection Date: 12-Aug-2020 14:20

**ANALYTICAL REPORT**
WorkOrder:HS20080597
Lab ID:HS20080597-02
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 | 14-Aug-2020 22:20 |
| Ethylbenzene | | U | 0.50 | 5.0 | ug/L | 1 | 14-Aug-2020 22:20 |
| Toluene | | U | 0.50 | 5.0 | ug/L | 1 | 14-Aug-2020 22:20 |
| Xylenes, Total | | U | 0.50 | 5.0 | ug/L | 1 | 14-Aug-2020 22:20 |
| *Surr: 1,2-Dichloroethane-d4* | *108* | | | *70-126* | *%REC* | *1* | *14-Aug-2020 22:20* |
| *Surr: 4-Bromofluorobenzene* | *95.0* | | | *82-124* | *%REC* | *1* | *14-Aug-2020 22:20* |
| *Surr: Dibromofluoromethane* | *107* | | | *77-123* | *%REC* | *1* | *14-Aug-2020 22:20* |
| *Surr: Toluene-d8* | *99.6* | | | *82-127* | *%REC* | *1* | *14-Aug-2020 22:20* |
| **ANIONS BY E300.0** | | **Method:E300** | | | | | Analyst: YP |
| **Chloride** | **164** | | **4.00** | **10.0** | **mg/L** | 20 | 22-Aug-2020 09:37 |

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



RIGHT SOLUTIONS | RIGHT PARTNER

**ALS Houston, US** Date: 24-Aug-20

Client: Glenn Springs Holdings, Inc.
Project: 55625DM GSHI PXP Hill EC B ATB at Well 24
Sample ID: DUP
Collection Date: 12-Aug-2020 00:00

**ANALYTICAL REPORT**
WorkOrder:HS20080597
Lab ID:HS20080597-03
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 | 14-Aug-2020 22:44 |
| Ethylbenzene | | U | 0.50 | 5.0 | ug/L | 1 | 14-Aug-2020 22:44 |
| Toluene | | U | 0.50 | 5.0 | ug/L | 1 | 14-Aug-2020 22:44 |
| Xylenes, Total | | U | 0.50 | 5.0 | ug/L | 1 | 14-Aug-2020 22:44 |
| *Surr: 1,2-Dichloroethane-d4* | *105* | | | *70-126* | *%REC* | *1* | *14-Aug-2020 22:44* |
| *Surr: 4-Bromofluorobenzene* | *94.6* | | | *82-124* | *%REC* | *1* | *14-Aug-2020 22:44* |
| *Surr: Dibromofluoromethane* | *105* | | | *77-123* | *%REC* | *1* | *14-Aug-2020 22:44* |
| *Surr: Toluene-d8* | *100* | | | *82-127* | *%REC* | *1* | *14-Aug-2020 22:44* |
| **ANIONS BY E300.0** | | **Method:E300** | | | | | Analyst: YP |
| **Chloride** | **158** | | **4.00** | **10.0** | **mg/L** | 20 | 22-Aug-2020 09:55 |

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



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**ALS Houston, US** Date: 24-Aug-20

Client: Glenn Springs Holdings, Inc.
Project: 55625DM GSHI PXP Hill EC B ATB at Well 24
Sample ID: Trip Blank
Collection Date: 12-Aug-2020 00:00

**ANALYTICAL REPORT**
WorkOrder:HS20080597
Lab ID:HS20080597-04
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 | 17-Aug-2020 16:50 |
| Ethylbenzene | | U | 0.50 | 5.0 | ug/L | 1 | 17-Aug-2020 16:50 |
| Toluene | | U | 0.50 | 5.0 | ug/L | 1 | 17-Aug-2020 16:50 |
| Xylenes, Total | | U | 0.50 | 5.0 | ug/L | 1 | 17-Aug-2020 16:50 |
| *Surr: 1,2-Dichloroethane-d4* | *101* | | | *70-126* | *%REC* | *1* | *17-Aug-2020 16:50* |
| *Surr: 4-Bromofluorobenzene* | *95.2* | | | *82-124* | *%REC* | *1* | *17-Aug-2020 16:50* |
| *Surr: Dibromofluoromethane* | *105* | | | *77-123* | *%REC* | *1* | *17-Aug-2020 16:50* |
| *Surr: Toluene-d8* | *98.1* | | | *82-127* | *%REC* | *1* | *17-Aug-2020 16:50* |

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



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**ALS Houston, US** Date: 24-Aug-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**WorkOrder:** HS20080597

**DATES REPORT**

| Sample ID | Client Samp ID | Collection Date | Leachate Date | Prep Date | Analysis Date | DF |
|---|---|---|---|---|---|---|
| **Batch ID:** R366845 ( 0 ) | **Test Name :** VOLATILES - SW8260C | | | | **Matrix:** Groundwater | |
| HS20080597-01 | MW-2 | 12 Aug 2020 13:15 | | | 14 Aug 2020 21:55 | 1 |
| HS20080597-02 | MW-3 | 12 Aug 2020 14:20 | | | 14 Aug 2020 22:20 | 1 |
| HS20080597-03 | DUP | 12 Aug 2020 00:00 | | | 14 Aug 2020 22:44 | 1 |
| **Batch ID:** R366924 ( 0 ) | **Test Name :** VOLATILES - SW8260C | | | | **Matrix:** Water | |
| HS20080597-04 | Trip Blank | 12 Aug 2020 00:00 | | | 17 Aug 2020 16:50 | 1 |
| **Batch ID:** R367311 ( 0 ) | **Test Name :** ANIONS BY E300.0 | | | | **Matrix:** Groundwater | |
| HS20080597-01 | MW-2 | 12 Aug 2020 13:15 | | | 22 Aug 2020 09:19 | 20 |
| HS20080597-02 | MW-3 | 12 Aug 2020 14:20 | | | 22 Aug 2020 09:37 | 20 |
| HS20080597-03 | DUP | 12 Aug 2020 00:00 | | | 22 Aug 2020 09:55 | 20 |



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**ALS Houston, US** Date: 24-Aug-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**WorkOrder:** HS20080597

**QC BATCH REPORT**

**Batch ID: R366845 ( 0 )** **Instrument: VOA9** **Method: VOLATILES - SW8260C**

**MBLK** Sample ID: **VBLKW-200814** Units: **ug/L** Analysis Date: **14-Aug-2020 13:19**
Client ID: Run ID: **VOA9_366845** SeqNo: **5702327** 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* | *51.66* | *0* | *50* | *0* | *103* | *70 - 130* | | | | |
| *Surr: 4-Bromofluorobenzene* | *47.65* | *0* | *50* | *0* | *95.3* | *82 - 115* | | | | |
| *Surr: Dibromofluoromethane* | *51.93* | *0* | *50* | *0* | *104* | *73 - 126* | | | | |
| *Surr: Toluene-d8* | *49.25* | *0* | *50* | *0* | *98.5* | *81 - 120* | | | | |

**LCS** Sample ID: **VLCSW-200814** Units: **ug/L** Analysis Date: **14-Aug-2020 12:30**
Client ID: Run ID: **VOA9_366845** SeqNo: **5702326** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 19.17 | 5.0 | 20 | 0 | 95.8 | 74 - 120 | | | | |
| Ethylbenzene | 18.32 | 5.0 | 20 | 0 | 91.6 | 77 - 117 | | | | |
| Toluene | 18.56 | 5.0 | 20 | 0 | 92.8 | 77 - 118 | | | | |
| Xylenes, Total | 57.3 | 5.0 | 60 | 0 | 95.5 | 75 - 122 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *48.17* | *0* | *50* | *0* | *96.3* | *70 - 130* | | | | |
| *Surr: 4-Bromofluorobenzene* | *49.58* | *0* | *50* | *0* | *99.2* | *82 - 115* | | | | |
| *Surr: Dibromofluoromethane* | *50.24* | *0* | *50* | *0* | *100* | *73 - 126* | | | | |
| *Surr: Toluene-d8* | *49.9* | *0* | *50* | *0* | *99.8* | *81 - 120* | | | | |

**MS** Sample ID: **HS20080562-01MS** Units: **ug/L** Analysis Date: **14-Aug-2020 14:33**
Client ID: Run ID: **VOA9_366845** SeqNo: **5702330** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 22.08 | 5.0 | 20 | 0 | 110 | 70 - 127 | | | | |
| Ethylbenzene | 21.96 | 5.0 | 20 | 0 | 110 | 70 - 124 | | | | |
| Toluene | 21.85 | 5.0 | 20 | 0 | 109 | 70 - 123 | | | | |
| Xylenes, Total | 67.41 | 5.0 | 60 | 0 | 112 | 70 - 130 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *50.54* | *0* | *50* | *0* | *101* | *70 - 126* | | | | |
| *Surr: 4-Bromofluorobenzene* | *50.16* | *0* | *50* | *0* | *100* | *82 - 124* | | | | |
| *Surr: Dibromofluoromethane* | *51.58* | *0* | *50* | *0* | *103* | *77 - 123* | | | | |
| *Surr: Toluene-d8* | *50.27* | *0* | *50* | *0* | *101* | *82 - 127* | | | | |



RIGHT SOLUTIONS | RIGHT PARTNER

**ALS Houston, US** Date: 24-Aug-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**WorkOrder:** HS20080597

**QC BATCH REPORT**

**Batch ID: R366845 ( 0 )** **Instrument: VOA9** **Method: VOLATILES - SW8260C**

**MSD** Sample ID: **HS20080562-01MSD** Units: **ug/L** Analysis Date: **14-Aug-2020 14:57**
Client ID: Run ID: **VOA9_366845** SeqNo: **5702331** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 21.92 | 5.0 | 20 | 0 | 110 | 70 - 127 | 22.08 | 0.724 | 20 | |
| Ethylbenzene | 21.96 | 5.0 | 20 | 0 | 110 | 70 - 124 | 21.96 | 0.0326 | 20 | |
| Toluene | 21.66 | 5.0 | 20 | 0 | 108 | 70 - 123 | 21.85 | 0.862 | 20 | |
| Xylenes, Total | 66.97 | 5.0 | 60 | 0 | 112 | 70 - 130 | 67.41 | 0.651 | 20 | |
| *Surr: 1,2-Dichloroethane-d4* | *50.45* | *0* | *50* | *0* | *101* | *70 - 126* | *50.54* | *0.176* | *20* | |
| *Surr: 4-Bromofluorobenzene* | *50.51* | *0* | *50* | *0* | *101* | *82 - 124* | *50.16* | *0.701* | *20* | |
| *Surr: Dibromofluoromethane* | *51.31* | *0* | *50* | *0* | *103* | *77 - 123* | *51.58* | *0.522* | *20* | |
| *Surr: Toluene-d8* | *50.55* | *0* | *50* | *0* | *101* | *82 - 127* | *50.27* | *0.56* | *20* | |

**The following samples were analyzed in this batch:** HS20080597-01 HS20080597-02 HS20080597-03



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**ALS Houston, US** Date: 24-Aug-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**WorkOrder:** HS20080597

**QC BATCH REPORT**

**Batch ID: R366924 ( 0 )** **Instrument: VOA9** **Method: VOLATILES - SW8260C**

**MBLK** Sample ID: **VBLKW-200817** Units: **ug/L** Analysis Date: **17-Aug-2020 15:12**
Client ID: Run ID: **VOA9_366924** SeqNo: **5703865** 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* | *49.41* | *0* | *50* | *0* | *98.8* | *70 - 130* | | | | |
| *Surr: 4-Bromofluorobenzene* | *46.84* | *0* | *50* | *0* | *93.7* | *82 - 115* | | | | |
| *Surr: Dibromofluoromethane* | *51.49* | *0* | *50* | *0* | *103* | *73 - 126* | | | | |
| *Surr: Toluene-d8* | *50.27* | *0* | *50* | *0* | *101* | *81 - 120* | | | | |

**LCS** Sample ID: **VLCSW-200817** Units: **ug/L** Analysis Date: **17-Aug-2020 14:23**
Client ID: Run ID: **VOA9_366924** SeqNo: **5703864** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 19.7 | 5.0 | 20 | 0 | 98.5 | 74 - 120 | | | | |
| Ethylbenzene | 18.93 | 5.0 | 20 | 0 | 94.7 | 77 - 117 | | | | |
| Toluene | 19 | 5.0 | 20 | 0 | 95.0 | 77 - 118 | | | | |
| Xylenes, Total | 58.92 | 5.0 | 60 | 0 | 98.2 | 75 - 122 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *47.67* | *0* | *50* | *0* | *95.3* | *70 - 130* | | | | |
| *Surr: 4-Bromofluorobenzene* | *49.43* | *0* | *50* | *0* | *98.9* | *82 - 115* | | | | |
| *Surr: Dibromofluoromethane* | *50.07* | *0* | *50* | *0* | *100* | *73 - 126* | | | | |
| *Surr: Toluene-d8* | *49.73* | *0* | *50* | *0* | *99.5* | *81 - 120* | | | | |

**MS** Sample ID: **HS20080611-01MS** Units: **ug/L** Analysis Date: **17-Aug-2020 16:01**
Client ID: Run ID: **VOA9_366924** SeqNo: **5703867** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 21.92 | 5.0 | 20 | 0 | 110 | 70 - 127 | | | | |
| Ethylbenzene | 21.83 | 5.0 | 20 | 0 | 109 | 70 - 124 | | | | |
| Toluene | 21.42 | 5.0 | 20 | 0 | 107 | 70 - 123 | | | | |
| Xylenes, Total | 66.44 | 5.0 | 60 | 0 | 111 | 70 - 130 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *49.95* | *0* | *50* | *0* | *99.9* | *70 - 126* | | | | |
| *Surr: 4-Bromofluorobenzene* | *50.91* | *0* | *50* | *0* | *102* | *82 - 124* | | | | |
| *Surr: Dibromofluoromethane* | *51.08* | *0* | *50* | *0* | *102* | *77 - 123* | | | | |
| *Surr: Toluene-d8* | *50.9* | *0* | *50* | *0* | *102* | *82 - 127* | | | | |



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**ALS Houston, US** Date: 24-Aug-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**WorkOrder:** HS20080597

**QC BATCH REPORT**

**Batch ID: R366924 ( 0 )** **Instrument: VOA9** **Method: VOLATILES - SW8260C**

**MSD** Sample ID: **HS20080611-01MSD** Units: **ug/L** Analysis Date: **17-Aug-2020 16:25**
Client ID: Run ID: **VOA9_366924** SeqNo: **5703868** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 21.86 | 5.0 | 20 | 0 | 109 | 70 - 127 | 21.92 | 0.307 | 20 | |
| Ethylbenzene | 21.92 | 5.0 | 20 | 0 | 110 | 70 - 124 | 21.83 | 0.412 | 20 | |
| Toluene | 21.59 | 5.0 | 20 | 0 | 108 | 70 - 123 | 21.42 | 0.776 | 20 | |
| Xylenes, Total | 66.79 | 5.0 | 60 | 0 | 111 | 70 - 130 | 66.44 | 0.52 | 20 | |
| *Surr: 1,2-Dichloroethane-d4* | *49.28* | *0* | *50* | *0* | *98.6* | *70 - 126* | *49.95* | *1.35* | *20* | |
| *Surr: 4-Bromofluorobenzene* | *49.61* | *0* | *50* | *0* | *99.2* | *82 - 124* | *50.91* | *2.58* | *20* | |
| *Surr: Dibromofluoromethane* | *51.29* | *0* | *50* | *0* | *103* | *77 - 123* | *51.08* | *0.414* | *20* | |
| *Surr: Toluene-d8* | *50.45* | *0* | *50* | *0* | *101* | *82 - 127* | *50.9* | *0.896* | *20* | |

**The following samples were analyzed in this batch:** HS20080597-04



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**ALS Houston, US** Date: 24-Aug-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**WorkOrder:** HS20080597

**QC BATCH REPORT**

**Batch ID: R367311 ( 0 )** **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0**

**MBLK** Sample ID: **MBLK-082120** Units: **mg/L** Analysis Date: **22-Aug-2020 20:08**
Client ID: Run ID: **ICS-Integrion_367311** SeqNo: **5712004** 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: **LCS-082120** Units: **mg/L** Analysis Date: **24-Aug-2020 10:47**
Client ID: Run ID: **ICS-Integrion_367311** SeqNo: **5712034** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 19.38 | 0.500 | 20 | 0 | 96.9 | 90 - 110 | | | | |

**MS** Sample ID: **HS20080723-07MS** Units: **mg/L** Analysis Date: **22-Aug-2020 23:27**
Client ID: Run ID: **ICS-Integrion_367311** SeqNo: **5712014** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 41.53 | 0.500 | 10 | 31.17 | 104 | 80 - 120 | | | | |

**MS** Sample ID: **HS20080614-02MS** Units: **mg/L** Analysis Date: **23-Aug-2020 09:21**
Client ID: Run ID: **ICS-Integrion_367311** SeqNo: **5712027** PrepDate: DF: **10**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 227.2 | 5.00 | 100 | 127.8 | 99.4 | 80 - 120 | | | | |

**MSD** Sample ID: **HS20080723-07MSD** Units: **mg/L** Analysis Date: **22-Aug-2020 23:45**
Client ID: Run ID: **ICS-Integrion_367311** SeqNo: **5712015** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40.59 | 0.500 | 10 | 31.17 | 94.3 | 80 - 120 | 41.53 | 2.27 | 20 | |

**MSD** Sample ID: **HS20080614-02MSD** Units: **mg/L** Analysis Date: **23-Aug-2020 09:39**
Client ID: Run ID: **ICS-Integrion_367311** SeqNo: **5712028** PrepDate: DF: **10**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 222.7 | 5.00 | 100 | 127.8 | 94.9 | 80 - 120 | 227.2 | 2.01 | 20 | |

**The following samples were analyzed in this batch:** HS20080597-01 HS20080597-02 HS20080597-03



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**ALS Houston, US** Date: 24-Aug-20

**Client:** Glenn Springs Holdings, Inc.
**Project:** 55625DM GSHI PXP Hill EC B ATB at Well 24
**WorkOrder:** **HS20080597**

**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 Quantitaion 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 |



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**ALS Houston, US** Date: 24-Aug-20

## CERTIFICATIONS,ACCREDITATIONS & LICENSES

| Agency | Number | Expire Date |
|---|---|---|
| Arkansas | 20-030-0 | 26-Mar-2021 |
| California | 2919, 2020-2021 | 30-Apr-2021 |
| Dept of Defense | ANAB L2231 V010 | 22-Dec-2021 |
| Florida | E87611-30-07/01/2020 | 30-Jun-2021 |
| Illinois | 2000322020-4 | 09-May-2021 |
| Kentucky | 123043, 2020-2021 | 30-Apr-2021 |
| Louisiana | 03087, 2020-2021 | 30-Jun-2021 |
| Maryland | 343, 2019-2020 | 30-Sep-2020 |
| North Carolina | 624-2020 | 31-Dec-2020 |
| North Dakota | R-193 2020-2021 | 30-Apr-2021 |
| Oklahoma | 2019-141 | 31-Aug-2020 |
| Texas | T104704231-20-26 | 30-Apr-2021 |



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**ALS Houston, US** Date: 24-Aug-20

## Sample Receipt Checklist

**Work Order ID:** HS20080597 **Date/Time Received:** 13-Aug-2020 09:15

**Client Name:** Glen Springs/CRA **Received by:** Paresh M. Giga

**Completed By:** /S/ Nilesh D. Ranchod 14-Aug-2020 13:16 **Reviewed by:** /S/ Corey Grandits 18-Aug-2020 13:14

eSignature Date/Time eSignature Date/Time

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 ☑ |
| VOA/TX1005/TX1006 Solids in hermetically sealed vials? | Yes ☐ | No ☐ | Not Present ☑ |
| Chain of custody present? | Yes ☑ | No ☐ | 1 Page(s) |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | COC IDs:225065 |
| Samplers name present on COC? | Yes ☑ | No ☐ | |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |
| All samples received within holding time? | Yes ☑ | No ☐ | |
| Container/Temp Blank temperature in compliance? | Yes ☑ | No ☐ | |
| Temperature(s)/Thermometer(s): | 0.5C UC/C | | IR # 31 |
| Cooler(s)/Kit(s): | 25774 | | |
| Date/Time sample(s) sent to storage: | 08/13/2020 18:00 | | |
| Water - VOA vials have zero headspace? | Yes ☑ | No ☐ | No VOA vials submitted ☐ |
| Water - pH acceptable upon receipt? | Yes ☑ | No ☐ | N/A ☐ |
| pH adjusted? | Yes ☐ | No ☑ | N/A ☐ |
| pH adjusted by: | | | |

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:



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

# Chain of Custody Form

Page 1 of 1

COC ID: 225065

**HS20080597**

WV

Glenn Springs Holdings, Inc.
55625DM GSHI PXP Hill EC B ATB at Well 24

| Customer Information | | Project Information | | ALS Project Manager: | |
|---|---|---|---|---|---|
| Purchase Order | 4502201559 ENV 749-402-D02-110 | Project Name | GSHI PXP Hill EC B ATB at Well 24 | A | 8260_W (BTEX) |
| Work Order | | Project Number | 55625DM (ENV749A007) | 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 | Mike Carmona | 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 | Mike.Carmona@tetratech.com | e-Mail Address | Chem_GSH@oxy.com | 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 | 8-12-20 | 1315 | Groundwa | 1,8 | 4 | X | X | | | | | | | | | |
| 3 | MW-3 | 8-12-20 | 1420 | Groundwa | 1,8 | 4 | X | X | | | | | | | | | |
| 4 | ~~MW-4~~ | | | ~~Groundwa~~ | ~~1,8~~ | ~~4~~ | ~~X~~ | ~~X~~ | | | | | | | | | |
| 5 | ~~RW-1~~ | | | ~~Groundwa~~ | ~~1,8~~ | ~~4~~ | ~~X~~ | ~~X~~ | | | | | | | | | |
| 6 | DUP | 8-12-20 | — | Groundwa | 1,8 | 4 | X | X | | | | | | | | | |
| 7 | Trip Blank | — | — | Water | 1 | 2 | | | X | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | |

Sampler(s) Please Print & Sign: Preston Pojezdal

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☐ Other ____ ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

| Relinquished by: | Date: | Time: | Received by: |
|---|---|---|---|
| | 8-12-20 | 1630 | |
| Relinquished by: | Date: | Time: | Received by (Laboratory): |
| | | | 8/13/2020 09:15 |
| Logged by (Laboratory): | Date: | Time: | Checked by (Laboratory): |

Notes: [GSHI PXP Hill EC B ATB at 24]

| Cooler ID | Cooler Temp. |
|---|---|
| 25714 | VC<br>0.5°C<br>-A31<br>CIF on |

QC Package: (Check One Box Below)

- ☒ Level II Std QC
- ☐ Level III Std QC/Raw Data
- ☐ Level IV SW846/CLP
- ☐ Other
- ☐ TRRP Checklist
- ☐ TRRP Level IV

Preservative Key: 1-HCl 2-$HNO_3$ 3-$H_2SO_4$ 4-NaOH 5-$Na_2S_2O_3$ 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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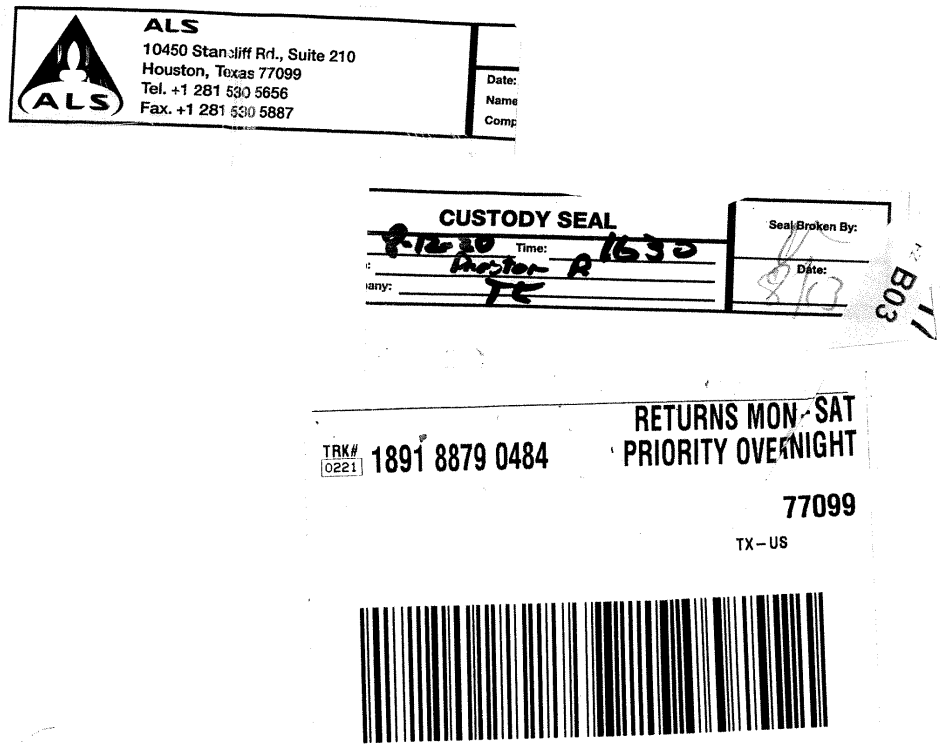

ALS
10450 Stanolliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Date:
Name
Comp

CUSTODY SEAL
Time:
Seal Broken By:
Date:

TRK# 0221 1891 8879 0484

RETURNS MON - SAT
PRIORITY OVERNIGHT

77099
TX – US





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**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 16683

## CONDITIONS

| | |
|---|---|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696 |
| | Action Number:<br>16683 |
| | Action Type:<br>[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| nvelez | Review of 2020 Groundwater Sampling Report: Content satisfactory 1. Continued semi-annual groundwater monitoring and PSH recovery system operation 2. Submit the Annual Monitoring Report to the OCD no later than March 31, 2022 | 12/28/2021 |