Review of the Canada Mesa#2 2023 Annual Groundwater Report: Content Satisfactory
1. Please update copies of well permits obtained from NMOSE for installation of additional well MW-12
2. Continue to recover LNAPL during quarterly site visits where present and readily removable.
3. Continue groundwater monitoring on a semi-annual basis for BTEX by EPA method 8260, and conduct site-wide sampling biennial in the the 2nd quarter of 2024.
4. Submit next groundwater annual report by April 1, 2025.

# 2023 ANNUAL GROUNDWATER REPORT

**Canada Mesa #2**
**Incident Number: nAUTOfAB000065**
**Meter Code: 87640**
**T24N, R6W, Sec 24, Unit I**

**REVIEWED**
**By Mike Buchanan at 3:57 pm, May 02, 2024**

## SITE DETAILS

**Site Location:** Latitude: 36.296081 N, Longitude: -107.414109 W
**Land Type:** Federal
**Former Operator:** Merrion Oil & Gas (well P&A'd)

## SITE BACKGROUND

Environmental remediation activities at Canada Mesa #2 (Site) are managed pursuant to the procedures set forth in the document entitled, "*Remediation Plan for Groundwater Encountered During Pit Closure Activities*" (Remediation Plan, El Paso Natural Gas Company / El Paso Field Services Company, 1995). The Remediation Plan was conditionally approved by the New Mexico Oil Conservation Division (NMOCD) in correspondence dated November 30, 1995; and the NMOCD approval conditions were adopted into El Paso CGP's (EPCGP's) program methods. Formerly, the Site was operated by Merrion Oil & Gas Company and is no longer active.

Canada Mesa #2 is located on Federal land. An initial site assessment was completed in July 1994, and an excavation to approximately 12 feet below ground surface (bgs) was completed in August 1994. Various site investigations have occurred since 1994. Monitoring wells were installed in 1995 (MW-1) and 2000 (MW-2 and MW-3). Monitoring wells MW-2 and MW-3 were abandoned in May 2016, ahead of Merrion Oil and Gas Company's reclamation activities. Monitoring wells MW2R, MW-3R, and MW-4 through MW-7 were installed in 2018 and monitoring wells MW-8 and MW-9 were installed in 2019. In 2022, monitoring wells MW-10 and MW-11 were installed. In July 2023, monitoring well MW-12 and test well TW-1 were installed. A detailed Site history is presented in Appendix A.

The location of the Site is depicted on Figure 1. A Site Plan map depicting the locations of monitoring wells and current and historical site features is provided as Figure 2. Historically, light non-aqueous phase liquid (LNAPL) has periodically been encountered and recovered from MW-1, MW-2R, MW-4, and MW-9. Mobile dual-phase extraction (MDPE) events to enhance LNAPL recovery from MW-1 and MW-4 were conducted in 2018, and from MW-9 in August 2023. Quarterly manual LNAPL recovery began in the second quarter of 2020 and has continued through 2023. Groundwater sampling is being conducted on a semi-annual basis.

## MONITORING AND TEST WELL INSTALLATION ACTIVITIES

The planned monitoring well locations for MW-12 and TW-1 were staked for permitting and utility locating purposes prior to completing public 811 locating activities. The monitoring well advancement and installation activities were completed in accordance with the July 17, 2023 *Well Installation and Remedial Feasibility Testing Work Plan* (Work Plan), subsequently approved by the NMOCD. The NMOCD was notified of the start of the monitoring well installation activities on July 20, 2023 (Appendix B). Permits for installing the monitoring and test well were obtained from the New Mexico Office of the State Engineer (NMOSE) prior to drilling activities, and are included in Appendix C. One soil boring, labeled SB-6, was advanced at the Site in anticipation of installing well TW-1 but was plugged and abandoned pursuant to the approved NMOSE plan of plugging as field -apparent hydrocarbons requiring remediation were not readily evident at this location. A copy of the NMOSE well abandonment form for SB-6 is included in Appendix D.

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One monitoring well, MW-12, was advanced and installed in July 2023, to further characterize the extent of hydrocarbons around monitoring well MW-9. Installation of Air Sparge (AS) test well TW-1, and soil boring SB-6 occurred near MW-12 to facilitate testing of future remediation efforts, as described in the Work Plan. Ground surface and casing elevations of the new and modified monitoring wells were subsequently surveyed to tie-in to the existing monitoring well network. Monitoring well MW-12 and test well TW-1 were constructed of 2-inch-diameter, Schedule 40 polyvinyl chloride (PVC), with 0.010-inch, continuous, factory-slotted PVC screen. MW-12 was installed with 20 feet of screen, set from 31.5 to 51.5 feet below ground surface (bgs). Test well TW-1 was installed with 2 feet of well screen, set from 38 to 40 feet bgs.

The wells were installed at depths that bisected the field-observed or expected water tables. A 3-foot seal of bentonite chips was placed above the sandpack and hydrated, and the remaining annular space was filled with bentonite grout. Each new well was completed as a stick-up with locking protective casing and a concrete surface completion. Four protective bollards were installed around the new monitoring well and test well. Copies of the NMOSE Well Completion Forms for MW-12 and TW-1 are provided in Appendix E. The soil boring logs and well construction diagrams for MW-12 and TW-1 are provided in Appendix F.

During advancement of the monitoring well, two soil samples were retained from above the field-interpreted water table for laboratory analysis. During advancement of the test well, one soil sample was retained from above the field-interpreted water table, in the same manner. Two soil samples were retained during advancement of SB-6. Retained sample jars were placed in laboratory-provided 4-ounce jars, sealed, labeled, packed on ice and shipped under standard chain-of-custody protocols to Eurofins Environment Testing Southeast, LLC, (Eurofins) in Pensacola, Florida. The soil samples were analyzed for the presence of benzene, toluene, ethylbenzene, and total xylenes (BTEX) according to United States Environmental Protection Agency (EPA) Method SW846 8021B, gasoline range organics, diesel range organics, and motor oil range organics using EPA Method 8015B; and chloride according to EPA Method 325.2.

Monitoring well development was performed using a down-hole pump until visibly clear groundwater was observed. Development and decontamination water were containerized and transported to Envirotech, Inc. (Envirotech) in Bloomfield, NM for disposal. A copy of the wastewater disposal documentation is included as Appendix G. Soil cuttings were drummed and staged on site for later removal and disposal at Envirotech. Documentation of soil drum disposal at Envirotech is contained in Appendix G.

## GROUNDWATER SAMPLING ACTIVITIES

Pursuant to the Remediation Plan, Stantec provided field work notifications via electronic mail (e-mail) to NMOCD on May 12, 2023, and November 2, 2023, prior to initiating groundwater sampling activities at the Site. Copies of the 2023 NMOCD notifications are provided in Appendix B. On May 20, 2023, groundwater samples were collected from MW-2R, MW-3R, MW-5, MW-8, and MW-11. On November 12, 2023, groundwater samples were collected from MW-2R, MW-3R, MW-5 through MW-8, and MW-10 through MW-12.

Groundwater samples were collected using HydraSleeve™ (HydraSleeve) no-purge groundwater sampling devices. The HydraSleeves were set during the previous sampling event using a suspension

tether and stainless-steel weights. The HydraSleeves were positioned to collect a sample from the screened interval by setting the bottom of the sleeve approximately 0.5 foot above the bottom of the screened interval.

Groundwater samples were placed into laboratory-supplied sample containers, packed on ice, and shipped under standard chain-of-custody protocols to Eurofins where they were analyzed for BTEX using EPA Method 8260. One laboratory-supplied trip blank and one blind field duplicate were also collected during each groundwater sampling event.

The unused sample water was placed in a waste container and transported to Envirotech for disposal. Wastewater disposal documentation for Envirotech is included as Appendix G.

## LNAPL RECOVERY

As documented in EPCGP's letter dated January 5, 2021, EPCGP initiated quarterly LNAPL recovery activities beginning in the second calendar quarter of 2020. Documentation of NMOCD notification of site LNAPL recovery activities in 2023 is provided in Appendix B. LNAPL was observed in monitoring wells MW-4, and MW-9 during the March, May, August, and November LNAPL recovery site visits. Trace LNAPL was observed in MW-1 during the August and November site visit.

During the groundwater sampling site visits in May and November, the recovered LNAPL was disposed of with wastewater generated during the monitoring well sampling activities. Recovered LNAPL from the March and August site visits was disposed at Envirotech (Appendix G).

Pursuant to the July 17, 2023 *Well Installation and Remedial Testing Feasibility Work Plan*, an MDPE event was completed in August 2023 by AcuVac Remediation, LLC, of Houston, Texas (AcuVac). NMOCD was notified of the start of these activities via email on August 16, 2023. A copy of this notification is included in Appendix B.

The purpose of the MDPE event is to enhance free product recovery from monitoring well MW-9. MDPE is a process combining soil vapor extraction (SVE) with groundwater depression to enhance the removal of liquid and vapor phase hydrocarbons. A submersible pump is used to simultaneously remove the groundwater, inducing a hydraulic gradient toward the extraction well, and creating groundwater depression to expose the hydrocarbon smear zone to SVE. Recovered liquids were transferred to a portable storage tank for off-site disposal. Recovered vapors were used as fuel and burned in the MDPE internal combustion engine (ICE), resulting in little to no emissions. Power generated by the ICE is used to create the induced vacuum for SVE.

On August 27, 2023, an MDPE event was completed using MW-9 as an extraction well. Measurable LNAPL as detected in MW-1, MW-4, and MW-9 prior to the August 2023 MDPE event. Measurable LNAPL of less than one foot was detected in MW-1 (0.16 foot), MW-4 (0.06 foot), and MW-9 (0.16 foot) prior to the August 27, 2023, MDPE event. Based on field data collected by AcuVac, approximately 30.5 gallons of hydrocarbons were recovered from MW-9 in 2023. AcuVac's report summarizing the 2023 MDPE event is presented as Appendix H. Recovered fluids from the MDPE events were transported to Envirotech for disposal. Waste documentation is included in Appendix G.

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## AIR SPARGE FEASIBILITY TESTING

An air sparge (AS) feasibility test was conducted on August 26, 2023 in accordance with July 17, 2023 *Well Installation and Remedial Testing Feasibility Work Plan*. Pursuant to the Work Plan, Stantec provided field work notification via electronic mail (email) to the NMOCD August 16, 2023, prior to initiating the feasibility test, and a copy is provided in Appendix B.

AcuVac conducted the AS test on air sparge test wells TW-1. The AS test location was selected to evaluate areas where remediation of hydrocarbons may be required. The purpose of the AS feasibility tests was to evaluate effectiveness of AS for use as a remedial technology. The intent of AS remedial method is to reduce concentrations of volatile organic compounds (VOCs) within the saturated zone through oxygenation and volatilization.

The tests were conducted using AcuVac's SVE/AS I-6 System. The air sparge portion of the AcuVac system is an engine driven air compressor, which directed air through an oil/moisture separator and then a knockout tank. The air then flowed through three aftercoolers (heat exchangers) and then a metering system, prior to injection into the AS test well. During the test, air flow was incrementally applied to the test well up to a maximum pressure. Pressure data and groundwater elevation data was recorded from a primary monitoring well and from the test well. Nearby monitoring wells were also used to observe pressure/vacuum influence at various distances from the test well. Overall, the AS test indicated air can be injected into the formation at a low rate (less than four cubic feet per minute). AS testing indicated a limited radius of influence (less than 12 feet) from TW-1.

AcuVac's report documenting the feasibility testing is presented as Appendix I.

## SVE FEASIBILITY TESTING

SVE feasibility step testing was conducted on monitoring wells MW-1 and MW-12 in accordance with the July 17, 2023 *Well Installation and Remedial Testing Feasibility Work Plan*. An SVE step test was also completed on monitoring well MW-9 prior to beginning of the MDPE event on that well. Pursuant to the Work Plan, Stantec provided field work notification via email to the NMOCD August 16, 2023, prior to initiating the feasibility step tests (Appendix B). AcuVac Remediation, LLC, of Houston, Texas (AcuVac) was the selected contractor for the SVE feasibility testing.

AcuVac conducted the SVE feasibility testing on August 26, 2023. The SVE tests were conducted using the AcuVac I-6 System; the vacuum extraction portion of the AcuVac system consists of a vacuum pump powered by an internal combustion engine (ICE). The vacuum pump was connected to the extraction well via hose and induced a vacuum on each tested well. Any recovered vapors from the SVE blower were combusted using AcuVac's ICE system.

SVE quick tests were conducted to evaluate pressures and flow rate response from monitoring wells MW-1, MW-9 and MW-12. During the tests, various vacuum pressure rates were induced at the well and flow rate, water level, carbon dioxide, oxygen, carbon monoxide, hydrogen sulfide, and hydrocarbon concentration data was collected to evaluate performance. Pressure/vacuum influence was also monitored at select monitoring wells of varying distances from the test well to provide data for evaluating a radius of influence.

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AcuVac's report summarizing the SVE feasibility testing activities at the Site is presented as Appendix J. Based on the data obtained during testing activities, SVE appears feasible at the MW-1 based on hydrocarbon concentrations and flow rates, and marginally effective at the MW-9 and MW-12 locations. In each case, a radius of influence of less than 23 feet should be expected. No wastes were generated during the SVE feasibility testing activities that required off-site disposal.

## SUMMARY TABLES

Historic groundwater analytical and water level data are summarized in Table 2 and Table 3. LNAPL recovery data is summarized on Table 1. Soil analytical data is summarized in Table 4.

## SITE MAPS

Groundwater analytical maps (Figures 3 and 5) and groundwater elevation contour maps (Figures 4 and 6) summarize results of the 2023 groundwater sampling and gauging events. Figure 7 summarizes soil sample analytical results.

## ANALYTICAL LAB REPORTS

The groundwater analytical lab reports are included as Appendix K. The soil analytical lab report is included in Appendix L.

## GROUNDWATER RESULTS

- The groundwater elevations indicate the flow direction at the Site was generally to the northeast during 2023 (see Figures 4 and 6).
- LNAPL was observed in MW-4, and MW-9 during the May 2023 event and in MW-1, MW-4, and MW-9 during the November 2023 groundwater event; therefore, no groundwater samples were collected at these locations.
- Concentrations of benzene were either below the NMWQCC standard (10 micrograms per liter [µg/L]) or were not detected in each of the Site monitoring wells sampled in 2023.
- Concentrations of toluene were either below the NMWQCC standard (750 µg/L) or were not detected in each of the Site monitoring wells sampled in 2023.
- Concentrations of ethylbenzene were either below the NMWQCC standard (750 µg/L) or were not detected in each of the Site monitoring wells sampled in 2023.
- Concentrations of total xylenes were either below the NMWQCC standard (620 µg/L) or were not detected in each of the Site monitoring wells sampled in 2023.
- A field duplicate was collected from monitoring well MW-5 during both 2023 sampling events. There were no significant differences between the primary and duplicate samples in 2023.
- Detectable concentrations of BTEX constituents were not reported in the trip blanks collected and analyzed as part of the 2023 groundwater monitoring events.

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## SOIL RESULTS

- Soil samples were collected during advancement of monitoring well MW-12, test well TW-1, and soil boring SB-6. Results are shown in tabular format in Table 4 and graphically in Figure 7.

- Concentrations of benzene were not detected above laboratory reporting limits in soil samples collected during advancement of MW-12, TW-1, and SB-6.

- Concentrations of total BTEX were not detected above laboratory reporting limits in soil samples collected during advancement of MW-12, TW-1, and SB-6.

- Concentrations of TPH were present at concentrations below the applicable NMOCD soil closure criteria (100 milligrams per kilogram [mg/kg]) in the soil sample collected from 35 to 36 feet bgs. Detectable concentrations were not reporting in the remaining soil samples analyzed.

- Concentrations of chloride were detected in the soil samples collected from SB-6 (15-26') and MW-12 (22-23 and 35-36) at 28, 100, and 100 mg/kg, respectively, less than the applicable NMOCD soil closure criteria (600 mg/kg). Chloride concentrations above laboratory reporting limits were not detected in the remaining soil samples collected.

## PLANNED FUTURE ACTIVITIES

Quarterly site visits will continue at the Site in 2024 to facilitate removal of measurable LNAPL where it is present.

Groundwater monitoring events will also continue on a semi-annual basis in 2024. Groundwater samples will be collected from key monitoring wells not containing LNAPL on a semi-annual basis and analyzed for BTEX constituents using EPA Method 8260. A field duplicate and trip blank will also be collected during each groundwater sampling event. Sampling of all Site monitoring wells is conducted on a biennial basis, with the next site-wide sampling event to be conducted in the second calendar quarter of 2024.

The activities completed in 2024 and their results will be summarized in the 2024 Annual Report, to be submitted by April 1, 2025.

# TABLES

## TABLE 1 - LIGHT NON-AQUEOUS PHASE LIQUID RECOVERY SUMMARY

| Canada Mesa #2 | | | | | | |
|---|---|---|---|---|---|---|
| Well ID - MW-1 | Depth to LNAPL (Feet) | Depth to Water (Feet) | Measured Thickness (Feet) | LNAPL Recovered (gal) | Water Recovered (gal) | Recovery Type |
| Date | | | | | | |
| 4/14/2016 | 34.74 | 35.17 | 0.43 | 0.61 | 0.00 | manual |
| 5/23/2016 | ND | 34.77 | 0.00 | 0.00 | 0.00 | manual |
| 6/17/2016 | NM | NM | 0.22 | 0.08 | 0.01 | manual |
| 7/17/2016 | NM | NM | 0.11 | 0.05 | 0.00 | manual |
| 8/19/2016 | NM | NM | 0.11 | 0.08 | 0.01 | manual |
| 9/24/2016 | NM | NM | 0.06 | <0.01 | <0.01 | manual |
| 10/13/2016 | 35.32 | 35.41 | 0.09 | 0.01 | 0.00 | manual |
| 11/15/2016 | 36.49 | 36.50 | 0.01 | <0.01 | <0.01 | manual |
| 12/14/2016 | 36.37 | 36.40 | 0.03 | <0.01 | <0.01 | manual |
| 11/14/2017 | 35.41 | 35.50 | 0.09 | Trace | <0.01 | manual |
| 5/15/2018 | 35.04 | 35.72 | 0.68 | <0.01 | <0.01 | manual |
| 7/16/2018 | 35.39 | 36.16 | 0.77 | -- | -- | Mobile DPE |
| 10/18/2018 | 36.78 | 37.15 | 0.37 | 4.3 | 646 | Mobile DPE* |
| 10/19/2018 | 36.93 | 37.02 | 0.09 | 7.0 | 994 | Mobile DPE* |
| 10/27/2018 | 35.67 | 35.68 | 0.01 | <0.01 | <0.01 | manual |
| 5/21/2019 | 35.46 | 35.46 | <0.01 | <0.01 | <0.01 | manual |
| 11/10/2019 | 35.87 | 35.96 | 0.09 | 0.05 | 0.37 | manual |
| 5/11/2020 | 35.83 | 36.04 | 0.21 | 0.16 | 0.24 | manual |
| 11/12/2020 | 36.13 | 36.17 | 0.04 | 0.03 | 0.05 | manual |
| 3/18/2021 | 36.21 | 36.22 | 0.01 | 0.04 | 0.45 | manual |
| 5/19/2021 | 36.17 | 36.30 | 0.13 | 0.02 | 0.06 | manual |
| 9/18/2021 | 36.36 | 36.68 | 0.32 | 2.20 | 0.06 | manual |
| 11/11/2021 | 36.38 | 36.48 | 0.10 | 0.02 | 0.29 | manual |
| 3/21/2022 | 36.33 | 36.35 | 0.02 | <0.01 | 0.11 | manual |
| 5/22/2022 | 36.35 | 36.45 | 0.10 | 0.03 | 0.12 | manual |
| 8/1/2022 | 36.49 | 36.50 | 0.01 | <0.01 | 0.09 | manual |
| 8/27/2023 | 36.26 | 36.28 | 0.02 | <0.01 | 0.87 | manual |
| 11/12/2023 | 36.28 | 36.30 | 0.02 | 0.02 | 0.28 | manual |
| | | | **Total:** | 14.7 | 1643 | |
| **Well ID - MW-2R** | | | | | | |
| 5/11/2020 | 36.29 | 36.30 | 0.01 | Trace | Trace | manual |
| 8/19/2020 | 36.50 | 36.50 | <0.01 | Trace | 0.13 | manual |
| 3/18/2021 | 36.65 | 36.65 | <0.01 | <0.01 | 0.23 | manual |
| 3/21/2022 | 36.74 | 36.75 | 0.01 | <0.01 | 0.15 | manual |
| 8/1/2022 | 36.98 | 36.99 | 0.01 | <0.01 | <0.01 | manual |
| | | | **Total:** | Trace | 0.51 | |
| **Well ID - MW-4** | | | | | | |
| 5/15/2018 | 39.16 | 39.16 | <0.01 | Trace | 0.26 | manual |
| 7/16/2018 | 39.44 | 40.60 | 1.16 | 2.7 | 817 | Mobile DPE* |
| 10/18/2018 | 39.63 | 40.82 | 1.19 | 1.1 | 470 | Mobile DPE* |
| 10/19/2018 | 40.00 | 40.18 | 0.18 | 3.4 | 1379 | Mobile DPE* |
| 5/21/2019 | 39.60 | 39.60 | <0.01 | <0.01 | 0 | manual |

| Canada Mesa #2 | | | | | | |
|---|---|---|---|---|---|---|
| Well ID - MW-4 | Depth to LNAPL (Feet) | Depth to Water (Feet) | Measured Thickness (Feet) | LNAPL Recovered (gal) | Water Recovered (gal) | Recovery Type |
| Date | | | | | | |
| 11/10/2019 | 39.92 | 40.62 | 0.70 | 0.13 | 0.37 | manual |
| 5/11/2020 | 39.91 | 40.40 | 0.49 | 0.21 | 0.48 | manual |
| 8/19/2020 | 40.16 | 40.36 | 0.20 | 0.42 | 0.11 | manual |
| 11/12/2020 | 40.10 | 41.13 | 1.03 | 0.28 | 0.09 | manual |
| 3/18/2021 | 39.42 | 40.17 | 0.75 | 0.40 | 0.40 | manual |
| 5/19/2021 | 40.13 | 41.11 | 0.98 | 0.38 | 0.16 | manual |
| 9/18/2021 | 40.29 | 41.43 | 1.14 | 0.25 | 3.01 | manual |
| 11/11/2021 | 40.32 | 41.44 | 1.12 | 0.41 | 0.5 | manual |
| 3/21/2022 | 40.24 | 41.22 | 0.98 | 0.35 | 0.28 | manual |
| 5/22/2022 | 38.29 | 39.30 | 1.01 | 0.43 | 0.23 | manual |
| 8/1/2022 | 38.48 | 39.55 | 1.07 | 0.44 | 0.53 | manual |
| 11/6/2022 | 38.28 | 39.16 | 0.88 | 0.65 | 0.33 | manual |
| 3/29/2023 | 38.03 | 38.29 | 0.26 | 0.06 | 0.82 | manual |
| 5/20/2023 | 37.98 | 38.01 | 0.03 | <0.01 | 0.17 | manual |
| 8/27/2023 | 38.35 | 38.60 | 0.25 | 0.03 | 0.81 | manual |
| 11/12/2023 | 38.39 | 38.58 | 0.19 | 0.04 | 0.15 | manual |
| | | | **Total:** | 11.7 | 2675 | |
| **Well ID - MW-9** | | | | | | |
| 11/10/2019 | 36.72 | 37.45 | 0.73 | 0.18 | 0.26 | manual |
| 5/11/2020 | 36.66 | 37.30 | 0.64 | 2.5 | 0.18 | manual |
| 8/19/2020 | 36.87 | 37.57 | 0.70 | 2.14 | 0.17 | manual |
| 11/12/2020 | 36.98 | 37.67 | 0.69 | 2.17 | 0.44 | manual |
| 3/18/2021 | 37.07 | 37.49 | 0.42 | 0.49 | 0.22 | manual |
| 5/19/2021 | 37.04 | 37.46 | 0.42 | 0.05 | 0.08 | manual |
| 9/18/2021 | 37.21 | 37.75 | 0.54 | 0.08 | 5.00 | manual |
| 11/11/2021 | 37.21 | 37.75 | 0.54 | 0.74 | 0.54 | manual |
| 3/21/2022 | 37.18 | 37.47 | 0.29 | 0.32 | 0.20 | manual |
| 5/22/2022 | 35.20 | 35.56 | 0.36 | 0.27 | 0.10 | manual |
| 8/1/2022 | 35.35 | 35.70 | 0.35 | 0.32 | 0.66 | manual |
| 11/6/2022 | 35.19 | 35.39 | 0.20 | 0.43 | 0.02 | manual |
| 3/29/2023 | 34.80 | 34.89 | 0.09 | 0.04 | 0.45 | manual |
| 5/20/2023 | 34.73 | 34.79 | 0.06 | 0.07 | 0.42 | manual |
| 8/27/2023 | 35.60 | 35.95 | 0.35 | 0.04 | 0.46 | manual |
| 11/12/2023 | 35.16 | 35.21 | 0.05 | 0.01 | 0.21 | manual |
| | | | **Total:** | 9.85 | 9.41 | |

**Notes:**

gal = gallons.

NM - Not Measured. Measured thickness was obtained by measuring the thickness within a bailer.

ND = Not Detected.

* = Mobile Dual Phase Extraction (DPE) includes calculated recovered hydrocarbon vapors.

LNAPL = Light non-aqueous phase liquid

LNAPL recovery data for 2015 and previous years documented in previously-submitted reports.

# TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

| Canada Mesa #2 | | | | | |
|---|---|---|---|---|---|
| Location | Date | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) |
| NMWQCC Standards: | | 10 | 750 | 750 | 620 |
| MW-1 | 11/04/96 | 5520 | 8880 | 469 | 3920 |
| MW-1 | 02/05/97 | 3450 | 5200 | 214 | 1770 |
| MW-1 | 05/07/97 | 4650 | 8440 | 317 | 2580 |
| MW-1 | 01/09/00 | NS | NS | NS | NS |
| MW-1 | 01/26/00 | NS | NS | NS | NS |
| MW-1 | 02/15/00 | NS | NS | NS | NS |
| MW-1 | 10/06/00 | NS | NS | NS | NS |
| MW-1 | 11/14/00 | NS | NS | NS | NS |
| MW-1 | 01/03/01 | NS | NS | NS | NS |
| MW-1 | 01/15/01 | NS | NS | NS | NS |
| MW-1 | 01/22/01 | NS | NS | NS | NS |
| MW-1 | 01/30/01 | NS | NS | NS | NS |
| MW-1 | 02/13/01 | NS | NS | NS | NS |
| MW-1 | 02/20/01 | NS | NS | NS | NS |
| MW-1 | 02/28/01 | NS | NS | NS | NS |
| MW-1 | 06/04/01 | NS | NS | NS | NS |
| MW-1 | 07/03/01 | NS | NS | NS | NS |
| MW-1 | 08/06/01 | NS | NS | NS | NS |
| MW-1 | 08/20/01 | NS | NS | NS | NS |
| MW-1 | 08/31/01 | NS | NS | NS | NS |
| MW-1 | 09/14/01 | NS | NS | NS | NS |
| MW-1 | 09/26/01 | NS | NS | NS | NS |
| MW-1 | 10/02/01 | NS | NS | NS | NS |
| MW-1 | 10/10/01 | NS | NS | NS | NS |
| MW-1 | 12/05/01 | NS | NS | NS | NS |
| MW-1 | 12/14/01 | NS | NS | NS | NS |
| MW-1 | 12/21/01 | NS | NS | NS | NS |
| MW-1 | 12/28/01 | NS | NS | NS | NS |
| MW-1 | 01/02/02 | NS | NS | NS | NS |
| MW-1 | 01/07/02 | NS | NS | NS | NS |
| MW-1 | 01/23/02 | NS | NS | NS | NS |
| MW-1 | 01/30/02 | NS | NS | NS | NS |
| MW-1 | 02/07/02 | NS | NS | NS | NS |
| MW-1 | 02/14/02 | NS | NS | NS | NS |
| MW-1 | 02/20/02 | NS | NS | NS | NS |
| MW-1 | 02/26/02 | NS | NS | NS | NS |
| MW-1 | 03/07/02 | NS | NS | NS | NS |
| MW-1 | 03/12/02 | NS | NS | NS | NS |
| MW-1 | 03/28/02 | NS | NS | NS | NS |
| MW-1 | 04/03/02 | NS | NS | NS | NS |
| MW-1 | 04/25/02 | NS | NS | NS | NS |

# TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

| Canada Mesa #2 | | | | | |
|---|---|---|---|---|---|
| Location | Date | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) |
| NMWQCC Standards: | | 10 | 750 | 750 | 620 |
| MW-1 | 05/21/02 | NS | NS | NS | NS |
| MW-1 | 06/10/02 | NS | NS | NS | NS |
| MW-1 | 09/23/02 | NS | NS | NS | NS |
| MW-1 | 03/25/03 | NS | NS | NS | NS |
| MW-1 | 06/22/03 | NS | NS | NS | NS |
| MW-1 | 09/15/03 | NS | NS | NS | NS |
| MW-1 | 12/15/03 | NS | NS | NS | NS |
| MW-1 | 03/17/04 | NS | NS | NS | NS |
| MW-1 | 03/22/04 | NS | NS | NS | NS |
| MW-1 | 06/03/04 | NS | NS | NS | NS |
| MW-1 | 06/04/04 | NS | NS | NS | NS |
| MW-1 | 09/13/04 | NS | NS | NS | NS |
| MW-1 | 09/14/04 | NS | NS | NS | NS |
| MW-1 | 12/15/04 | NS | NS | NS | NS |
| MW-1 | 03/22/05 | NS | NS | NS | NS |
| MW-1 | 06/24/05 | NS | NS | NS | NS |
| MW-1 | 09/14/05 | NS | NS | NS | NS |
| MW-1 | 12/14/05 | NS | NS | NS | NS |
| MW-1 | 03/28/06 | NS | NS | NS | NS |
| MW-1 | 06/07/06 | NS | NS | NS | NS |
| MW-1 | 09/29/06 | NS | NS | NS | NS |
| MW-1 | 12/26/06 | NS | NS | NS | NS |
| MW-1 | 03/26/07 | NS | NS | NS | NS |
| MW-1 | 06/13/07 | NS | NS | NS | NS |
| MW-1 | 09/28/07 | NS | NS | NS | NS |
| MW-1 | 12/18/07 | NS | NS | NS | NS |
| MW-1 | 03/05/08 | NS | NS | NS | NS |
| MW-1 | 06/16/08 | NS | NS | NS | NS |
| MW-1 | 09/10/08 | NS | NS | NS | NS |
| MW-1 | 12/10/08 | NS | NS | NS | NS |
| MW-1 | 03/02/09 | NS | NS | NS | NS |
| MW-1 | 06/10/09 | NS | NS | NS | NS |
| MW-1 | 08/25/09 | NS | NS | NS | NS |
| MW-1 | 11/03/09 | 1970 | 6020 | 359 | 6110 |
| MW-1 | 02/16/10 | NS | NS | NS | NS |
| MW-1 | 06/02/10 | NS | NS | NS | NS |
| MW-1 | 09/27/10 | NS | NS | NS | NS |
| MW-1 | 11/08/10 | 571 | 9070 | 1370 | 27200 |
| MW-1 | 02/01/11 | NS | NS | NS | NS |
| MW-1 | 05/02/11 | NS | NS | NS | NS |
| MW-1 | 09/23/11 | NS | NS | NS | NS |

# TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

| Canada Mesa #2 | | | | | |
|---|---|---|---|---|---|
| Location | Date | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) |
| NMWQCC Standards: | | 10 | 750 | 750 | 620 |
| MW-1 | 11/10/11 | 1340 | 9510 | 1260 | 20800 |
| MW-1 | 02/22/12 | NS | NS | NS | NS |
| MW-1 | 05/15/12 | NS | NS | NS | NS |
| MW-1 | 06/05/13 | 720 | 2200 | 92 | 4000 |
| MW-1 | 09/10/13 | 570 | 1700 | 63 | 2900 |
| MW-1 | 12/10/13 | 190 | 740 | 40 | 1000 |
| MW-1 | 04/04/14 | NS | NS | NS | NS |
| MW-1 | 10/22/14 | NS | NS | NS | NS |
| MW-1 | 05/28/15 | NS | NS | NS | NS |
| MW-1 | 11/21/15 | NS | NS | NS | NS |
| MW-1 | 04/14/16 | NS | NS | NS | NS |
| MW-1 | 12/14/16 | NS | NS | NS | NS |
| MW-1 | 06/07/17 | 1400 | 5900 | 470 | 21000 |
| MW-1 | 11/14/17 | NS | NS | NS | NS |
| MW-1 | 05/15/18 | NS | NS | NS | NS |
| MW-1 | 10/27/18 | NS | NS | NS | NS |
| MW-1 | 05/21/19 | NS | NS | NS | NS |
| MW-1 | 11/10/19 | NS | NS | NS | NS |
| MW-1 | 05/11/20 | NS | NS | NS | NS |
| MW-1 | 03/18/21 | NS | NS | NS | NS |
| MW-1 | 05/19/21 | NS | NS | NS | NS |
| MW-1 | 09/18/21 | NS | NS | NS | NS |
| MW-1 | 11/11/21 | NS | NS | NS | NS |
| MW-1 | 05/22/22 | NS | NS | NS | NS |
| MW-1 | 08/01/22 | NS | NS | NS | NS |
| MW-1 | 11/06/22 | 45 | 180 | 120 | 730 |
| MW-1 | 05/20/23 | NS | NS | NS | NS |
| MW-1 | 11/12/23 | NS | NS | NS | NS |
| | | | | | |
| MW-2 | 11/16/00 | 3200 | 330 | 1200 | 1100 |
| MW-2 | 06/04/01 | NS | NS | NS | NS |
| MW-2 | 07/03/01 | NS | NS | NS | NS |
| MW-2 | 08/06/01 | NS | NS | NS | NS |
| MW-2 | 08/31/01 | NS | NS | NS | NS |
| MW-2 | 09/14/01 | NS | NS | NS | NS |
| MW-2 | 03/19/02 | 22 | <5 | 150 | 14 |
| MW-2 | 12/24/02 | 12.1 | 2.1 | 129 | 16.4 |
| MW-2 | 03/25/03 | NS | NS | NS | NS |
| MW-2 | 06/22/03 | NS | NS | NS | NS |
| MW-2 | 09/15/03 | NS | NS | NS | NS |
| MW-2 | 12/15/03 | 10 | 11.7 | 55.3 | 29.7 |

# TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

| Canada Mesa #2 | | | | | |
|---|---|---|---|---|---|
| Location | Date | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) |
| NMWQCC Standards: | | 10 | 750 | 750 | 620 |
| MW-2 | 03/22/04 | NS | NS | NS | NS |
| MW-2 | 06/04/04 | NS | NS | NS | NS |
| MW-2 | 09/14/04 | NS | NS | NS | NS |
| MW-2 | 12/15/04 | 6.3 | 3.8 | 8 | 5.9 |
| MW-2 | 03/22/05 | NS | NS | NS | NS |
| MW-2 | 06/24/05 | NS | NS | NS | NS |
| MW-2 | 09/14/05 | NS | NS | NS | NS |
| MW-2 | 12/14/05 | NS | NS | NS | NS |
| MW-2 | 12/15/05 | 12.1 | 30.9 | 5.6 | 61.9 |
| MW-2 | 03/28/06 | NS | NS | NS | NS |
| MW-2 | 06/07/06 | NS | NS | NS | NS |
| MW-2 | 09/29/06 | NS | NS | NS | NS |
| MW-2 | 12/26/06 | 5.3 | 5 | 1.8 | 7.1 |
| MW-2 | 03/26/07 | NS | NS | NS | NS |
| MW-2 | 06/13/07 | NS | NS | NS | NS |
| MW-2 | 09/28/07 | NS | NS | NS | NS |
| MW-2 | 12/18/07 | <2 | <2 | <2 | <6 |
| MW-2 | 03/05/08 | NS | NS | NS | NS |
| MW-2 | 06/16/08 | NS | NS | NS | NS |
| MW-2 | 09/10/08 | NS | NS | NS | NS |
| MW-2 | 12/10/08 | 1.2 | 2.7 | 1.7 | 4.9 |
| MW-2 | 03/02/09 | NS | NS | NS | NS |
| MW-2 | 06/10/09 | NS | NS | NS | NS |
| MW-2 | 08/25/09 | NS | NS | NS | NS |
| MW-2 | 11/03/09 | 0.68 J | <1 | <1 | 1.5 J |
| MW-2 | 02/16/10 | NS | NS | NS | NS |
| MW-2 | 06/02/10 | NS | NS | NS | NS |
| MW-2 | 09/27/10 | NS | NS | NS | NS |
| MW-2 | 11/08/10 | <2 | <2 | <2 | <6 |
| MW-2 | 02/01/11 | NS | NS | NS | NS |
| MW-2 | 09/23/11 | NS | NS | NS | NS |
| MW-2 | 11/10/11 | 1.1 | <1 | <1 | 1.4 J |
| MW-2 | 02/22/12 | NS | NS | NS | NS |
| MW-2 | 05/15/12 | NS | NS | NS | NS |
| MW-2 | 06/05/13 | <0.140 | <0.30 | <0.20 | <0.23 |
| MW-2 | 09/10/13 | 0.22 | <0.30 | <0.020 | <0.23 |
| MW-2 | 12/10/13 | 0.24 J | <0.38 | <0.20 | <0.65 |
| MW-2 | 04/04/14 | 0.46 J | <0.38 | <0.20 | <0.65 |
| MW-2 | 10/22/14 | <0.38 | <0.70 | <0.50 | <1.6 |
| MW-2 | 05/28/15 | 0.57 J | <5.0 | <1.0 | <5.0 |

# TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

| Canada Mesa #2 | | | | | |
|---|---|---|---|---|---|
| Location | Date | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) |
| NMWQCC Standards: | | 10 | 750 | 750 | 620 |
| MW-2 | 11/21/15 | <1.0 | <1.0 | <1.0 | <3.0 |
| MW-2 | 04/14/16 | NS | NS | NS | NS |
| MW-2 abandoned on May 22, 2016 | | | | | |
| | | | | | |
| MW-2R | 05/15/18 | <10 | <10 | 300 | 1800 |
| MW-2R | 10/27/18 | <1.0 | <1.0 | 7.8 | 59 |
| MW-2R | 05/21/19 | <1.0 | <1.0 | <1.0 | <10 |
| MW-2R | 11/10/19 | <1.0 | <1.0 | <1.0 | <10 |
| DUP-1(MW-2R)* | 11/10/19 | <1.0 | <1.0 | <1.0 | 18 |
| MW-2R | 05/11/20 | NS | NS | NS | NS |
| MW-2R | 03/18/21 | NS | NS | NS | NS |
| MW-2R | 05/19/21 | <1.0 | <1.0 | <1.0 | <10 |
| MW-2R | 09/18/21 | NS | NS | NS | NS |
| MW-2R | 11/11/21 | <1.0 | <1.0 | <1.0 | <10 |
| MW-2R | 05/22/22 | <1.0 | <1.0 | <1.0 | 34 |
| MW-2R | 08/01/22 | NS | NS | NS | NS |
| MW-2R | 11/06/22 | <1.0 | <1.0 | <1.0 | <10 |
| MW-2R | 05/20/23 | <1.0 | <1.0 | <1.0 | <10 |
| MW-2R | 11/12/23 | <1.0 | <1.0 | <1.0 | <10 |
| | | | | | |
| MW-3 | 11/16/00 | 880 | 1300 | 420 | 3700 |
| MW-3 | 06/04/01 | NS | NS | NS | NS |
| MW-3 | 07/03/01 | NS | NS | NS | NS |
| MW-3 | 08/06/01 | NS | NS | NS | NS |
| MW-3 | 08/31/01 | NS | NS | NS | NS |
| MW-3 | 09/14/01 | NS | NS | NS | NS |
| MW-3 | 03/19/02 | 1100 | 29 | 360 | 3700 |
| MW-3 | 06/10/02 | NS | NS | NS | NS |
| MW-3 | 09/23/02 | NS | NS | NS | NS |
| MW-3 | 12/24/02 | 1430 | 95 | 483 | 2359 |
| MW-3 | 03/25/03 | NS | NS | NS | NS |
| MW-3 | 06/22/03 | NS | NS | NS | NS |
| MW-3 | 09/15/03 | NS | NS | NS | NS |
| MW-3 | 12/15/03 | 503 | 79.7 | 148 | 891 |
| MW-3 | 03/22/04 | NS | NS | NS | NS |
| MW-3 | 06/04/04 | NS | NS | NS | NS |
| MW-3 | 09/14/04 | NS | NS | NS | NS |
| MW-3 | 12/15/04 | 410 | 54.9 | 88.7 | 420 |
| MW-3 | 03/22/05 | NS | NS | NS | NS |
| MW-3 | 06/24/05 | NS | NS | NS | NS |
| MW-3 | 09/14/05 | NS | NS | NS | NS |
| MW-3 | 12/15/05 | 482 | 32.7 | 74.1 | 399 |

# TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

| Canada Mesa #2 | | | | | |
|---|---|---|---|---|---|
| Location | Date | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) |
| NMWQCC Standards: | | 10 | 750 | 750 | 620 |
| MW-3 | 03/28/06 | NS | NS | NS | NS |
| MW-3 | 06/07/06 | NS | NS | NS | NS |
| MW-3 | 09/29/06 | NS | NS | NS | NS |
| MW-3 | 12/26/06 | 679 | 78.9 | 106 | 565 |
| MW-3 | 03/26/07 | NS | NS | NS | NS |
| MW-3 | 06/13/07 | NS | NS | NS | NS |
| MW-3 | 09/28/07 | NS | NS | NS | NS |
| MW-3 | 12/18/07 | 412 | 39.4 | 31.5 | 207 |
| MW-3 | 03/05/08 | NS | NS | NS | NS |
| MW-3 | 06/16/08 | NS | NS | NS | NS |
| MW-3 | 09/10/08 | NS | NS | NS | NS |
| MW-3 | 12/10/08 | 653 | 63.2 | 55.5 | 253 |
| MW-3 | 03/02/09 | NS | NS | NS | NS |
| MW-3 | 06/10/09 | NS | NS | NS | NS |
| MW-3 | 08/25/09 | NS | NS | NS | NS |
| MW-3 | 11/03/09 | 715 | 220 | 80 | 570 |
| MW-3 | 02/16/10 | NS | NS | NS | NS |
| MW-3 | 06/02/10 | NS | NS | NS | NS |
| MW-3 | 09/27/10 | NS | NS | NS | NS |
| MW-3 | 11/08/10 | 426 | 15 | 22.1 | 85.1 |
| MW-3 | 02/01/11 | NS | NS | NS | NS |
| MW-3 | 09/23/11 | NS | NS | NS | NS |
| MW-3 | 11/10/11 | 167 | 5.3 | 16.5 | 54.3 |
| MW-3 | 02/22/12 | NS | NS | NS | NS |
| MW-3 | 05/15/12 | NS | NS | NS | NS |
| MW-3 | 06/05/13 | 340 | 1.3 | 31 | 47 |
| MW-3 | 09/10/13 | 340 | 0.9 | 12 | 4.2 |
| MW-3 | 12/10/13 | 220 | 13 | 6.3 | 2.6 |
| MW-3 | 04/04/14 | 320 | 5.4 J | <0.80 | <2.6 |
| MW-3 | 10/22/14 | 240 | <0.70 | 0.52 J | <1.6 |
| MW-3 | 05/28/15 | 390 | <25 | <5.0 | 26 |
| MW-3 | 11/21/15 | 380 | 1.5 | 1.3 | 8.8 |
| MW-3 | 04/14/16 | 370 | <25 | <5.0 | <25 |
| MW-3 abandoned on May 22, 2016 | | | | | |
| | | | | | |
| MW-3R | 05/15/18 | 3.6 | 1.4 | 2.3 | 16 |
| DP-01(MW-3R)* | 05/15/18 | 3.6 | 1.2 | 1.9 | 12 |
| MW-3R | 10/27/18 | <1.0 | <1.0 | <1.0 | <10 |
| MW-3R | 05/21/19 | <1.0 | <1.0 | <1.0 | <10 |
| MW-3R | 11/10/19 | <1.0 | <1.0 | <1.0 | <10 |
| MW-3R | 05/11/20 | <1.0 | <1.0 | <1.0 | <10 |

# TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

| Canada Mesa #2 | | | | | |
|---|---|---|---|---|---|
| Location | Date | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) |
| NMWQCC Standards: | | 10 | 750 | 750 | 620 |
| MW-3R | 11/12/20 | <1.0 | <1.0 | <1.0 | <10 |
| MW-3R | 05/19/21 | <1.0 | <1.0 | <1.0 | <10 |
| MW-3R | 11/11/21 | <1.0 | <1.0 | <1.0 | <10 |
| MW-3R | 05/22/22 | <1.0 | <1.0 | <1.0 | <10 |
| MW-3R | 11/06/22 | <1.0 | <1.0 | <1.0 | <10 |
| MW-3R | 05/20/23 | <1.0 | <1.0 | <1.0 | <10 |
| MW-3R | 11/12/23 | <1.0 | <1.0 | <1.0 | <10 |
| | | | | | |
| MW-4 | 05/15/18 | NS | NS | NS | NS |
| MW-4 | 10/27/18 | 25 | 2500 | 740 | 12000 |
| MW-4 | 05/21/19 | NS | NS | NS | NS |
| MW-4 | 11/10/19 | NS | NS | NS | NS |
| MW-4 | 08/19/20 | NS | NS | NS | NS |
| MW-4 | 03/18/21 | NS | NS | NS | NS |
| MW-4 | 05/19/21 | NS | NS | NS | NS |
| MW-4 | 09/18/21 | NS | NS | NS | NS |
| MW-4 | 11/11/21 | NS | NS | NS | NS |
| MW-4 | 05/22/22 | NS | NS | NS | NS |
| MW-4 | 08/01/22 | NS | NS | NS | NS |
| MW-4 | 11/06/22 | NS | NS | NS | NS |
| MW-4 | 05/20/23 | NS | NS | NS | NS |
| MW-4 | 11/12/23 | NS | NS | NS | NS |
| | | | | | |
| MW-5 | 05/15/18 | <1.0 | <1.0 | <1.0 | <10 |
| MW-5 | 10/27/18 | <1.0 | <1.0 | 1.9 | <10 |
| MW-5 | 05/21/19 | <1.0 | <1.0 | <1.0 | <10 |
| MW-5 | 11/10/19 | <1.0 | <1.0 | <1.0 | <10 |
| MW-5 | 05/11/20 | <1.0 | <1.0 | <1.0 | <10 |
| MW-5 | 11/12/20 | <1.0 | <1.0 | <1.0 | <10 |
| MW-5 | 05/19/21 | <1.0 | <1.0 | <1.0 | <10 |
| MW-5 | 09/18/21 | NS | NS | NS | NS |
| MW-5 | 11/11/21 | <1.0 | <1.0 | <1.0 | <10 |
| MW-5 | 05/22/22 | <1.0 | <1.0 | <1.0 | <10 |
| MW-5 | 11/06/22 | <1.0 | <1.0 | <1.0 | <10 |
| MW-5 | 05/20/23 | <1.0 | <1.0 | <1.0 | <10 |
| DUP-01 (MW-5)* | 05/20/23 | <1.0 | <1.0 | <1.0 | <10 |
| MW-5 | 11/12/23 | <1.0 | <1.0 | <1.0 | <10 |
| DUP-01 (MW-5)* | 11/12/23 | <1.0 | <1.0 | <1.0 | <10 |
| | | | | | |
| MW-6 | 05/15/18 | <2.0 | 26 | 7.1 | 450 |
| MW-6 | 10/27/18 | <1.0 | <1.0 | <1.0 | <10 |
| DUP-01(MW-6)* | 10/27/18 | <1.0 | <1.0 | <1.0 | <10 |

# TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

| Canada Mesa #2 | | | | | |
|---|---|---|---|---|---|
| Location | Date | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) |
| NMWQCC Standards: | | 10 | 750 | 750 | 620 |
| MW-6 | 05/21/19 | <1.0 | <1.0 | <1.0 | <10 |
| MW-6 | 11/10/19 | <1.0 | <1.0 | <1.0 | <10 |
| MW-6 | 05/11/20 | NS | NS | NS | NS |
| MW-6 | 11/12/20 | NS | NS | NS | NS |
| MW-6 | 05/19/21 | NS | NS | NS | NS |
| MW-6 | 09/18/21 | NS | NS | NS | NS |
| MW-6 | 11/11/21 | <1.0 | <1.0 | <1.0 | <10 |
| MW-6 | 05/22/22 | NS | NS | NS | NS |
| MW-6 | 11/06/22 | NS | NS | NS | NS |
| MW-6 | 05/20/23 | NS | NS | NS | NS |
| MW-6 | 11/12/23 | <1.0 | <1.0 | <1.0 | <10 |
| | | | | | |
| MW-7 | 05/15/18 | <1.0 | <1.0 | <1.0 | <10 |
| MW-7 | 10/27/18 | <1.0 | <1.0 | <1.0 | <10 |
| MW-7 | 05/21/19 | <1.0 | <1.0 | <1.0 | <10 |
| MW-7 | 11/10/19 | <1.0 | <1.0 | <1.0 | <10 |
| MW-7 | 05/11/20 | NS | NS | NS | NS |
| MW-7 | 11/12/20 | NS | NS | NS | NS |
| MW-7 | 05/19/21 | NS | NS | NS | NS |
| MW-7 | 09/18/21 | NS | NS | NS | NS |
| MW-7 | 11/11/21 | <1.0 | <1.0 | <1.0 | <10 |
| MW-7 | 05/22/22 | NS | NS | NS | NS |
| MW-7 | 11/06/22 | NS | NS | NS | NS |
| MW-7 | 05/20/23 | NS | NS | NS | NS |
| MW-7 | 11/12/23 | <1.0 | <1.0 | <1.0 | <10 |
| | | | | | |
| MW-8 | 11/10/19 | 110 | <20 | 910 | 8100 |
| MW-8 | 05/11/20 | 100 | <20 | 630 | 3900 |
| DUP-01 (MW-8)* | 05/11/20 | 60 | <20 | 440 | 2400 |
| MW-8 | 11/12/20 | 30 | <20 | 1500 | 13000 |
| DUP-01 (MW-8)* | 11/12/20 | <20 | <20 | 1200 | 9800 |
| MW-8 | 05/19/21 | 10 | 3.2 | 390 | 1200 |
| DUP-01 (MW-8)* | 05/19/21 | 1.3 | <1.0 | 15 | 45 |
| MW-8 | 09/18/21 | NS | NS | NS | NS |
| MW-8 | 11/11/21 | 5.7 | <1.0 | 1.4 | <10 |
| DUP-01 (MW-8)* | 11/11/21 | 5.8 | <1.0 | 1.6 | <10 |
| MW-8 | 05/22/22 | 1.7 | <1.0 | 1.8 | <10 |
| DUP-01 (MW-8)* | 05/22/22 | 2.0 | <1.0 | 1.7 | <10 |
| MW-8 | 11/06/22 | 2.2 | <1.0 | 2.3 | <10 |
| MW-8 | 05/20/23 | 2.2 | <1.0 | 38 | 16 |
| MW-8 | 11/12/23 | <1.0 | <1.0 | 4.3 | 14 |

# TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

| Canada Mesa #2 | | | | | |
|---|---|---|---|---|---|
| Location | Date | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) |
| NMWQCC Standards: | | 10 | 750 | 750 | 620 |
| MW-9 | 11/10/19 | NS | NS | NS | NS |
| MW-9 | 05/11/20 | NS | NS | NS | NS |
| MW-9 | 03/18/21 | NS | NS | NS | NS |
| MW-9 | 05/19/21 | NS | NS | NS | NS |
| MW-9 | 09/18/21 | NS | NS | NS | NS |
| MW-9 | 11/11/21 | NS | NS | NS | NS |
| MW-9 | 03/21/22 | NS | NS | NS | NS |
| MW-9 | 05/22/22 | NS | NS | NS | NS |
| MW-9 | 08/01/22 | NS | NS | NS | NS |
| MW-9 | 11/06/22 | NS | NS | NS | NS |
| MW-9 | 05/20/23 | NS | NS | NS | NS |
| MW-9 | 11/12/23 | NS | NS | NS | NS |
| | | | | | |
| MW-10 | 05/22/22 | <1.0 | <1.0 | <1.0 | <10 |
| MW-10 | 11/06/22 | <1.0 | <1.0 | <1.0 | <10 |
| MW-10 | 05/20/23 | NS | NS | NS | NS |
| MW-10 | 11/12/23 | <1.0 | <1.0 | <1.0 | <10 |
| | | | | | |
| MW-11 | 05/22/22 | <1.0 | <1.0 | <1.0 | <10 |
| MW-11 | 11/06/22 | <1.0 | <1.0 | <1.0 | <10 |
| MW-11 | 05/20/23 | <1.0 | <1.0 | <1.0 | <10 |
| MW-11 | 11/12/23 | <1.0 | <1.0 | <1.0 | <10 |
| | | | | | |
| MW-12 | 11/12/23 | <1.0 | <1.0 | 1.0 | <10 |

Notes:
NS = Not sampled
µg/L = micrograms per liter
Results highlighted yellow exceed their respective New Mexico Water Quality Control Commission (NMWQCC) standards.
"J" = Result is less than the reporting limit but greater than or equal to the method detection limit and the result in an approximate value.
"<" = analyte was not detected at the indicated reporting limit (some historic data were reported at the detection limit).
*Field Duplicate results presented immediately below primary sample result

# TABLE 3- GROUNDWATER ELEVATION RESULTS

| Canada Mesa #2 | | | | | | |
|---|---|---|---|---|---|---|
| Location | Date | TOC | Depth to LNAPL (ft.) | Depth to Water (ft.) | LNAPL Thickness (ft.) | GW Elevation (ft.) |
| MW-1 | 11/04/96 | 6503.37 | 33.67 | 34.42 | 0.75 | 6469.51 |
| MW-1 | 02/05/97 | 6503.37 | 33.64 | 34.35 | 0.71 | 6469.55 |
| MW-1 | 05/07/97 | 6503.37 | 33.61 | 34.24 | 0.63 | 6469.60 |
| MW-1 | 01/09/00 | 6503.37 | 33.79 | 33.93 | 0.14 | 6469.54 |
| MW-1 | 01/26/00 | 6503.37 | 35.03 | 35.22 | 0.19 | 6468.29 |
| MW-1 | 02/15/00 | 6503.37 | 34.93 | 35.11 | 0.18 | 6468.39 |
| MW-1 | 10/06/00 | 6503.37 | 33.82 | 34.11 | 0.29 | 6469.47 |
| MW-1 | 11/14/00 | 6503.37 | 33.81 | 33.98 | 0.17 | 6469.51 |
| MW-1 | 01/03/01 | 6503.37 | 33.83 | 33.96 | 0.13 | 6469.50 |
| MW-1 | 01/15/01 | 6503.37 | 33.78 | 33.93 | 0.15 | 6469.55 |
| MW-1 | 01/22/01 | 6503.37 | NR | 33.81 | | 6469.56 |
| MW-1 | 01/30/01 | 6503.37 | 33.82 | 33.83 | 0.01 | 6469.54 |
| MW-1 | 02/13/01 | 6503.37 | NR | 33.80 | | 6469.57 |
| MW-1 | 02/20/01 | 6503.37 | NR | 33.81 | | 6469.56 |
| MW-1 | 02/28/01 | 6503.37 | NR | 33.81 | | 6469.56 |
| MW-1 | 06/04/01 | 6503.37 | 33.81 | 34.13 | 0.32 | 6469.48 |
| MW-1 | 07/03/01 | 6503.37 | 33.96 | 34.09 | 0.13 | 6469.37 |
| MW-1 | 08/06/01 | 6503.37 | 34.07 | 34.08 | 0.01 | 6469.29 |
| MW-1 | 08/20/01 | 6503.37 | 34.09 | 34.10 | 0.01 | 6469.27 |
| MW-1 | 08/31/01 | 6503.37 | NR | 34.17 | | 6469.20 |
| MW-1 | 09/14/01 | 6503.37 | 34.13 | 34.14 | 0.01 | 6469.23 |
| MW-1 | 09/26/01 | 6503.37 | 34.14 | 34.15 | 0.01 | 6469.22 |
| MW-1 | 10/02/01 | 6503.37 | 34.15 | 34.17 | 0.02 | 6469.21 |
| MW-1 | 10/10/01 | 6503.37 | 34.16 | 34.18 | 0.02 | 6469.20 |
| MW-1 | 12/05/01 | 6503.37 | 34.25 | 34.26 | 0.01 | 6469.11 |
| MW-1 | 12/14/01 | 6503.37 | NR | 34.27 | | 6469.10 |
| MW-1 | 12/21/01 | 6503.37 | NR | 34.24 | | 6469.13 |
| MW-1 | 12/28/01 | 6503.37 | NR | 34.22 | | 6469.15 |
| MW-1 | 01/02/02 | 6503.37 | NR | 34.23 | | 6469.14 |
| MW-1 | 01/07/02 | 6503.37 | 34.23 | 34.25 | 0.02 | 6469.13 |
| MW-1 | 01/23/02 | 6503.37 | 34.37 | 34.42 | 0.05 | 6468.98 |
| MW-1 | 01/30/02 | 6503.37 | 34.50 | 34.51 | 0.01 | 6468.86 |
| MW-1 | 02/07/02 | 6503.37 | 34.49 | 34.50 | 0.01 | 6468.87 |
| MW-1 | 02/14/02 | 6503.37 | 34.41 | 34.42 | 0.01 | 6468.95 |
| MW-1 | 02/20/02 | 6503.37 | 34.99 | 35.00 | 0.01 | 6468.37 |
| MW-1 | 02/26/02 | 6503.37 | NR | 34.25 | | 6469.12 |
| MW-1 | 03/07/02 | 6503.37 | 34.24 | 34.25 | 0.01 | 6469.12 |
| MW-1 | 03/12/02 | 6503.37 | 34.24 | 34.25 | 0.01 | 6469.12 |

# TABLE 3- GROUNDWATER ELEVATION RESULTS

| Canada Mesa #2 | | | | | | |
|---|---|---|---|---|---|---|
| Location | Date | TOC | Depth to LNAPL (ft.) | Depth to Water (ft.) | LNAPL Thickness (ft.) | GW Elevation (ft.) |
| MW-1 | 03/28/02 | 6503.37 | NR | 34.27 | | 6469.10 |
| MW-1 | 04/03/02 | 6503.37 | NR | 34.26 | | 6469.11 |
| MW-1 | 04/25/02 | 6503.37 | NR | 34.45 | | 6468.92 |
| MW-1 | 05/21/02 | 6503.37 | NR | 34.30 | | 6469.07 |
| MW-1 | 06/10/02 | 6503.37 | NR | 34.32 | | 6469.05 |
| MW-1 | 09/23/02 | 6503.37 | NR | 34.50 | | 6468.87 |
| MW-1 | 03/25/03 | 6503.37 | ND | 34.50 | | 6468.87 |
| MW-1 | 06/22/03 | 6503.37 | 34.48 | 34.55 | 0.07 | 6468.87 |
| MW-1 | 09/15/03 | 6503.37 | 34.65 | 34.97 | 0.32 | 6468.64 |
| MW-1 | 12/15/03 | 6503.37 | 34.41 | 34.98 | 0.57 | 6468.81 |
| MW-1 | 03/17/04 | 6503.37 | 34.24 | 34.80 | 0.56 | 6468.99 |
| MW-1 | 03/22/04 | 6503.37 | 34.29 | 34.49 | 0.20 | 6469.03 |
| MW-1 | 06/03/04 | 6503.37 | 34.30 | 34.44 | 0.14 | 6469.03 |
| MW-1 | 06/04/04 | 6503.37 | 34.20 | 34.30 | 0.10 | 6469.14 |
| MW-1 | 09/13/04 | 6503.37 | 34.64 | 35.30 | 0.66 | 6468.56 |
| MW-1 | 09/14/04 | 6503.37 | 34.65 | 34.95 | 0.30 | 6468.64 |
| MW-1 | 12/15/04 | 6503.37 | 34.74 | 35.32 | 0.58 | 6468.48 |
| MW-1 | 03/22/05 | 6503.37 | 34.36 | 35.01 | 0.65 | 6468.84 |
| MW-1 | 06/24/05 | 6503.37 | 34.39 | 34.97 | 0.58 | 6468.83 |
| MW-1 | 09/14/05 | 6503.37 | 34.60 | 35.65 | 1.05 | 6468.50 |
| MW-1 | 12/14/05 | 6503.37 | 34.74 | 35.05 | 0.31 | 6468.55 |
| MW-1 | 03/28/06 | 6503.37 | 34.59 | 35.14 | 0.55 | 6468.64 |
| MW-1 | 06/07/06 | 6503.37 | 34.52 | 35.11 | 0.59 | 6468.70 |
| MW-1 | 09/29/06 | 6503.37 | 34.85 | 35.14 | 0.29 | 6468.44 |
| MW-1 | 12/26/06 | 6503.37 | 34.44 | 34.85 | 0.41 | 6468.82 |
| MW-1 | 03/26/07 | 6503.37 | 34.35 | 34.60 | 0.25 | 6468.95 |
| MW-1 | 06/13/07 | 6503.37 | 34.20 | 35.39 | 1.19 | 6468.87 |
| MW-1 | 09/28/07 | 6503.37 | 34.86 | 35.12 | 0.26 | 6468.44 |
| MW-1 | 12/18/07 | 6503.37 | 34.18 | 34.34 | 0.16 | 6469.15 |
| MW-1 | 03/05/08 | 6503.37 | 34.15 | 34.17 | 0.02 | 6469.21 |
| MW-1 | 06/16/08 | 6503.37 | ND | 34.17 | | 6469.20 |
| MW-1 | 09/10/08 | 6503.37 | ND | 34.35 | | 6469.02 |
| MW-1 | 12/10/08 | 6503.37 | ND | 34.30 | | 6469.07 |
| MW-1 | 03/02/09 | 6503.37 | ND | 34.22 | | 6469.15 |
| MW-1 | 06/10/09 | 6503.37 | ND | 35.14 | | 6468.23 |
| MW-1 | 08/25/09 | 6503.37 | ND | 34.50 | | 6468.87 |
| MW-1 | 11/03/09 | 6503.37 | ND | 34.57 | | 6468.80 |

# TABLE 3- GROUNDWATER ELEVATION RESULTS

| Canada Mesa #2 | | | | | | |
|---|---|---|---|---|---|---|
| Location | Date | TOC | Depth to LNAPL (ft.) | Depth to Water (ft.) | LNAPL Thickness (ft.) | GW Elevation (ft.) |
| MW-1 | 02/16/10 | 6503.37 | 34.54 | 34.57 | 0.03 | 6468.82 |
| MW-1 | 06/02/10 | 6503.37 | 34.34 | 34.58 | 0.24 | 6468.97 |
| MW-1 | 09/27/10 | 6503.37 | 34.71 | 35.26 | 0.55 | 6468.52 |
| MW-1 | 11/08/10 | 6503.37 | 34.73 | 34.98 | 0.25 | 6468.57 |
| MW-1 | 02/01/11 | 6503.37 | 34.63 | 34.97 | 0.34 | 6468.65 |
| MW-1 | 05/02/11 | 6503.37 | ND | 35.52 | | 6467.85 |
| MW-1 | 09/23/11 | 6503.37 | 34.93 | 35.40 | 0.47 | 6468.32 |
| MW-1 | 11/10/11 | 6503.37 | 34.95 | 35.21 | 0.26 | 6468.35 |
| MW-1 | 02/22/12 | 6503.37 | ND | 34.98 | | 6468.39 |
| MW-1 | 05/15/12 | 6503.37 | ND | 35.04 | | 6468.33 |
| MW-1 | 06/05/13 | 6503.37 | ND | 39.13 | | 6464.24 |
| MW-1 | 09/10/13 | 6503.37 | ND | 36.50 | | 6466.87 |
| MW-1 | 12/10/13 | 6503.37 | 35.35 | 35.45 | 0.10 | 6467.99 |
| MW-1 | 04/04/14 | 6503.37 | 35.00 | 35.78 | 0.78 | 6468.17 |
| MW-1 | 10/22/14 | 6503.37 | 35.37 | 36.25 | 0.88 | 6467.78 |
| MW-1 | 05/28/15 | 6503.37 | 34.80 | 35.42 | 0.62 | 6468.41 |
| MW-1 | 11/21/15 | 6503.37 | 35.01 | 35.55 | 0.54 | 6468.22 |
| MW-1 | 04/14/16 | 6503.37 | 34.74 | 35.17 | 0.43 | 6468.52 |
| MW-1 | 05/23/16 | 6503.37 | 34.77 | 34.77 | | 6468.60 |
| MW-1 | 06/17/16 | 6503.37 | NM | NM | | NM |
| MW-1 | 07/17/16 | 6503.37 | NM | NM | | NM |
| MW-1 | 08/19/16 | 6503.37 | NM | NM | | NM |
| MW-1 | 09/24/16 | 6503.37 | NM | NM | | NM |
| MW-1 | 10/13/16 | 6503.37 | 35.32 | 35.41 | 0.09 | 6468.02 |
| MW-1 | 11/15/16 | 6503.37 | 36.49 | 36.50 | 0.01 | 6466.87 |
| MW-1 | 12/14/16 | 6503.37 | 36.37 | 36.40 | 0.03 | 6466.99 |
| MW-1 | 06/07/17 | 6503.37 | ND | 34.90 | | 6468.47 |
| MW-1 | 11/14/17 | 6503.37 | 35.41 | 35.50 | 0.09 | 6467.93 |
| MW-1 | 05/15/18 | 6503.37 | 35.04 | 35.72 | 0.68 | 6468.16 |
| MW-1 | 07/16/18 | 6503.37 | 35.39 | 36.16 | 0.77 | 6467.78 |
| MW-1 | 10/18/18 | 6503.37 | 36.78 | 37.15 | 0.37 | 6466.49 |
| MW-1 | 10/27/18 | 6503.37 | 35.67 | 35.68 | 0.01 | 6467.69 |
| MW-1 | 05/21/19 | 6503.37 | 35.46 | 35.46 | <0.01 | 6467.91 |
| MW-1 | 11/10/19 | 6503.37 | 35.87 | 35.96 | 0.09 | 6467.41 |
| MW-1 | 05/11/20 | 6503.37 | 35.83 | 36.04 | 0.21 | 6467.48 |
| MW-1 | 08/19/20 | 6503.37 | ND | 35.96 | | 6467.41 |
| MW-1 | 11/12/20 | 6503.37 | 36.13 | 36.17 | 0.04 | 6467.23 |

# TABLE 3- GROUNDWATER ELEVATION RESULTS

| Canada Mesa #2 | | | | | | |
|---|---|---|---|---|---|---|
| Location | Date | TOC | Depth to LNAPL (ft.) | Depth to Water (ft.) | LNAPL Thickness (ft.) | GW Elevation (ft.) |
| MW-1 | 03/18/21 | 6503.37 | 36.21 | 36.22 | 0.01 | 6467.15 |
| MW-1 | 05/19/21 | 6503.37 | 36.17 | 36.30 | 0.13 | 6467.16 |
| MW-1 | 09/18/21 | 6503.37 | 36.36 | 36.68 | 0.32 | 6466.93 |
| MW-1 | 11/11/21 | 6503.37 | 36.38 | 36.48 | 0.10 | 6466.96 |
| MW-1 | 03/21/22 | 6503.37 | 36.33 | 36.35 | 0.02 | 6467.03 |
| MW-1 | 05/22/22 | 6503.37 | 36.35 | 36.45 | 0.10 | 6466.99 |
| MW-1 | 08/01/22 | 6503.37 | 36.49 | 36.50 | 0.01 | 6466.87 |
| MW-1 | 11/06/22 | 6503.37 | ND | 36.34 | | 6467.03 |
| MW-1 | 03/29/23 | 6503.37 | ND | 35.94 | | 6467.43 |
| MW-1 | 05/20/23 | 6503.37 | ND | 35.87 | | 6467.50 |
| MW-1 | 08/27/23 | 6503.37 | 36.26 | 36.28 | 0.02 | 6467.10 |
| MW-1 | 11/12/23 | 6503.37 | 36.28 | 36.30 | 0.02 | 6467.08 |
| | | | | | | |
| MW-2 | 11/16/00 | 6504.34 | NR | 34.90 | | 6469.44 |
| MW-2 | 06/04/01 | 6504.34 | NR | 34.97 | | 6469.37 |
| MW-2 | 07/03/01 | 6504.34 | NR | 35.07 | | 6469.27 |
| MW-2 | 08/06/01 | 6504.34 | NR | 35.14 | | 6469.20 |
| MW-2 | 08/31/01 | 6504.34 | NR | 35.19 | | 6469.15 |
| MW-2 | 09/14/01 | 6504.34 | NR | 35.21 | | 6469.13 |
| MW-2 | 03/19/02 | 6504.34 | NR | 35.36 | | 6468.98 |
| MW-2 | 12/24/02 | 6504.34 | NR | 35.52 | | 6468.82 |
| MW-2 | 03/25/03 | 6504.34 | ND | 35.54 | | 6468.80 |
| MW-2 | 06/22/03 | 6504.34 | ND | 35.60 | | 6468.74 |
| MW-2 | 09/15/03 | 6504.34 | ND | 35.60 | | 6468.74 |
| MW-2 | 12/15/03 | 6504.34 | ND | 35.63 | | 6468.71 |
| MW-2 | 03/22/04 | 6504.34 | ND | 35.41 | | 6468.93 |
| MW-2 | 06/04/04 | 6504.34 | ND | 35.31 | | 6469.03 |
| MW-2 | 09/14/04 | 6504.34 | ND | 35.80 | | 6468.54 |
| MW-2 | 12/15/04 | 6504.34 | ND | 35.79 | | 6468.55 |
| MW-2 | 03/22/05 | 6504.34 | ND | 35.63 | | 6468.71 |
| MW-2 | 06/24/05 | 6504.34 | ND | 35.60 | | 6468.74 |
| MW-2 | 09/14/05 | 6504.34 | ND | 35.92 | | 6468.42 |
| MW-2 | 12/14/05 | 6504.34 | ND | 35.85 | | 6468.49 |
| MW-2 | 12/15/05 | 6504.34 | ND | 35.85 | | 6468.49 |
| MW-2 | 03/28/06 | 6504.34 | ND | 35.73 | | 6468.61 |
| MW-2 | 06/07/06 | 6504.34 | ND | 35.73 | | 6468.61 |
| MW-2 | 09/29/06 | 6504.34 | ND | 35.91 | | 6468.43 |
| MW-2 | 12/26/06 | 6504.34 | ND | 35.63 | | 6468.71 |
| MW-2 | 03/26/07 | 6504.34 | ND | 35.41 | | 6468.93 |
| MW-2 | 06/13/07 | 6504.34 | ND | 35.32 | | 6469.02 |
| MW-2 | 09/28/07 | 6504.34 | ND | 35.93 | | 6468.41 |
| MW-2 | 12/18/07 | 6504.34 | ND | 35.32 | | 6469.02 |

# TABLE 3- GROUNDWATER ELEVATION RESULTS

| Canada Mesa #2 | | | | | | |
|---|---|---|---|---|---|---|
| Location | Date | TOC | Depth to LNAPL (ft.) | Depth to Water (ft.) | LNAPL Thickness (ft.) | GW Elevation (ft.) |
| MW-2 | 03/05/08 | 6504.34 | ND | 35.22 | | 6469.12 |
| MW-2 | 06/16/08 | 6504.34 | ND | 35.15 | | 6469.19 |
| MW-2 | 09/10/08 | 6504.34 | ND | 35.45 | | 6468.89 |
| MW-2 | 12/10/08 | 6504.34 | ND | 35.37 | | 6468.97 |
| MW-2 | 03/02/09 | 6504.34 | ND | 35.27 | | 6469.07 |
| MW-2 | 06/10/09 | 6504.34 | ND | 35.23 | | 6469.11 |
| MW-2 | 08/25/09 | 6504.34 | ND | 35.58 | | 6468.76 |
| MW-2 | 11/03/09 | 6504.34 | ND | 35.65 | | 6468.69 |
| MW-2 | 02/16/10 | 6504.34 | ND | 35.65 | | 6468.69 |
| MW-2 | 06/02/10 | 6504.34 | ND | 35.48 | | 6468.86 |
| MW-2 | 09/27/10 | 6504.34 | ND | 35.85 | | 6468.49 |
| MW-2 | 11/08/10 | 6504.34 | ND | 35.85 | | 6468.49 |
| MW-2 | 02/01/11 | 6504.34 | ND | 35.75 | | 6468.59 |
| MW-2 | 09/23/11 | 6504.34 | ND | 36.07 | | 6468.27 |
| MW-2 | 11/10/11 | 6504.34 | ND | 36.08 | | 6468.26 |
| MW-2 | 02/22/12 | 6504.34 | ND | 36.97 | | 6467.37 |
| MW-2 | 05/15/12 | 6504.34 | ND | 36.10 | | 6468.24 |
| MW-2 | 06/05/13 | 6504.34 | ND | 36.18 | | 6468.16 |
| MW-2 | 09/10/13 | 6504.34 | ND | 36.58 | | 6467.76 |
| MW-2 | 12/10/13 | 6504.34 | ND | 36.44 | | 6467.90 |
| MW-2 | 04/04/14 | 6504.34 | ND | 35.25 | | 6469.09 |
| MW-2 | 10/22/14 | 6504.34 | ND | 36.65 | | 6467.69 |
| MW-2 | 05/28/15 | 6504.34 | ND | 36.02 | | 6468.32 |
| MW-2 | 11/21/15 | 6504.34 | ND | 36.20 | | 6468.14 |
| MW-2 | 04/14/16 | 6504.34 | ND | 35.91 | | 6468.43 |
| MW-2 abandoned on May 22, 2016 | | | | | | |
| | | | | | | |
| MW-2R | 05/15/18 | 6503.35 | ND | 35.60 | | 6467.75 |
| MW-2R | 10/27/18 | 6503.35 | ND | 36.18 | | 6467.17 |
| MW-2R | 05/21/19 | 6503.35 | ND | 35.92 | | 6467.43 |
| MW-2R | 11/10/19 | 6503.35 | ND | 36.36 | | 6466.99 |
| MW-2R | 05/11/20 | 6503.35 | 36.29 | 36.30 | 0.01 | 6467.05 |
| MW-2R | 08/19/20 | 6503.35 | 36.50 | 36.50 | <0.01 | 6466.85 |
| MW-2R | 11/12/20 | 6503.35 | ND | 36.62 | | 6466.73 |
| MW-2R | 03/18/21 | 6503.35 | 36.65 | 36.65 | <0.01 | 6466.70 |
| MW-2R | 05/19/21 | 6503.35 | ND | 36.63 | | 6466.72 |
| MW-2R | 09/18/21 | 6503.35 | ND | 36.84 | | 6466.51 |
| MW-2R | 11/11/21 | 6503.35 | ND | 36.85 | | 6466.50 |
| MW-2R | 03/21/22 | 6503.35 | 36.34 | 36.35 | 0.01 | 6467.00 |
| MW-2R | 05/22/22 | 6503.35 | ND | 36.82 | | 6466.53 |
| MW-2R | 08/01/22 | 6503.35 | 36.98 | 36.99 | 0.01 | 6466.36 |

# TABLE 3- GROUNDWATER ELEVATION RESULTS

| Canada Mesa #2 | | | | | | |
|---|---|---|---|---|---|---|
| Location | Date | TOC | Depth to LNAPL (ft.) | Depth to Water (ft.) | LNAPL Thickness (ft.) | GW Elevation (ft.) |
| MW-2R | 05/20/23 | 6503.35 | ND | 36.29 | | 6467.06 |
| MW-2R | 11/12/23 | 6503.35 | ND | 36.71 | | 6466.64 |
| | | | | | | |
| MW-3 | 11/16/00 | 6503.67 | NR | 34.46 | | 6469.21 |
| MW-3 | 06/04/01 | 6503.67 | NR | 34.64 | | 6469.03 |
| MW-3 | 07/03/01 | 6503.67 | NR | 34.66 | | 6469.01 |
| MW-3 | 08/06/01 | 6503.67 | NR | 34.74 | | 6468.93 |
| MW-3 | 08/31/01 | 6503.67 | NR | 34.79 | | 6468.88 |
| MW-3 | 09/14/01 | 6503.67 | NR | 34.81 | | 6468.86 |
| MW-3 | 03/19/02 | 6503.67 | NR | 34.92 | | 6468.75 |
| MW-3 | 06/10/02 | 6503.67 | NR | 34.98 | | 6468.69 |
| MW-3 | 09/23/02 | 6503.67 | NR | 35.11 | | 6468.56 |
| MW-3 | 12/24/02 | 6503.67 | NR | 35.15 | | 6468.52 |
| MW-3 | 03/25/03 | 6503.67 | ND | 35.12 | | 6468.55 |
| MW-3 | 06/22/03 | 6503.67 | ND | 35.17 | | 6468.50 |
| MW-3 | 09/15/03 | 6503.67 | ND | 35.41 | | 6468.26 |
| MW-3 | 12/15/03 | 6503.67 | ND | 35.17 | | 6468.50 |
| MW-3 | 03/22/04 | 6503.67 | ND | 34.95 | | 6468.72 |
| MW-3 | 06/04/04 | 6503.67 | ND | 34.88 | | 6468.79 |
| MW-3 | 09/14/04 | 6503.67 | ND | 35.39 | | 6468.28 |
| MW-3 | 12/15/04 | 6503.67 | ND | 35.17 | | 6468.50 |
| MW-3 | 03/22/05 | 6503.67 | ND | 35.17 | | 6468.50 |
| MW-3 | 06/24/05 | 6503.67 | ND | 35.21 | | 6468.46 |
| MW-3 | 09/14/05 | 6503.67 | ND | 35.51 | | 6468.16 |
| MW-3 | 12/15/05 | 6503.67 | ND | 35.40 | | 6468.27 |
| MW-3 | 03/28/06 | 6503.67 | ND | 35.27 | | 6468.40 |
| MW-3 | 06/07/06 | 6503.67 | ND | 35.32 | | 6468.35 |
| MW-3 | 09/29/06 | 6503.67 | ND | 35.47 | | 6468.20 |
| MW-3 | 12/26/06 | 6503.67 | ND | 35.16 | | 6468.51 |
| MW-3 | 03/26/07 | 6503.67 | ND | 34.96 | | 6468.71 |
| MW-3 | 06/13/07 | 6503.67 | ND | 34.88 | | 6468.79 |
| MW-3 | 09/28/07 | 6503.67 | ND | 35.51 | | 6468.16 |
| MW-3 | 12/18/07 | 6503.67 | ND | 34.88 | | 6468.79 |
| MW-3 | 03/05/08 | 6503.67 | ND | 34.79 | | 6468.88 |
| MW-3 | 06/16/08 | 6503.67 | ND | 34.75 | | 6468.92 |
| MW-3 | 09/10/08 | 6503.67 | ND | 35.13 | | 6468.54 |
| MW-3 | 12/10/08 | 6503.67 | ND | 34.95 | | 6468.72 |
| MW-3 | 03/02/09 | 6503.67 | ND | 34.83 | | 6468.84 |
| MW-3 | 06/10/09 | 6503.67 | ND | 34.83 | | 6468.84 |
| MW-3 | 08/25/09 | 6503.67 | ND | 35.18 | | 6468.49 |
| MW-3 | 11/03/09 | 6503.67 | ND | 35.23 | | 6468.44 |
| MW-3 | 02/16/10 | 6503.67 | ND | 35.23 | | 6468.44 |
| MW-3 | 06/02/10 | 6503.67 | ND | 35.05 | | 6468.62 |

# TABLE 3- GROUNDWATER ELEVATION RESULTS

| Canada Mesa #2 | | | | | | |
|---|---|---|---|---|---|---|
| Location | Date | TOC | Depth to LNAPL (ft.) | Depth to Water (ft.) | LNAPL Thickness (ft.) | GW Elevation (ft.) |
| MW-3 | 09/27/10 | 6503.67 | ND | 35.43 | | 6468.24 |
| MW-3 | 11/08/10 | 6503.67 | ND | 35.43 | | 6468.24 |
| MW-3 | 02/01/11 | 6503.67 | ND | 35.31 | | 6468.36 |
| MW-3 | 09/23/11 | 6503.67 | ND | 35.70 | | 6467.97 |
| MW-3 | 11/10/11 | 6503.67 | ND | 35.66 | | 6468.01 |
| MW-3 | 02/22/12 | 6503.67 | ND | 35.60 | | 6468.07 |
| MW-3 | 05/15/12 | 6503.67 | ND | 35.67 | | 6468.00 |
| MW-3 | 06/05/13 | 6503.67 | ND | 35.79 | | 6467.88 |
| MW-3 | 09/10/13 | 6503.67 | ND | 36.20 | | 6467.47 |
| MW-3 | 12/10/13 | 6503.67 | ND | 36.00 | | 6467.67 |
| MW-3 | 04/04/14 | 6503.67 | ND | 35.81 | | 6467.86 |
| MW-3 | 10/22/14 | 6503.67 | ND | 36.20 | | 6467.47 |
| MW-3 | 05/28/15 | 6503.67 | ND | 35.55 | | 6468.12 |
| MW-3 | 11/21/15 | 6503.67 | ND | 35.74 | | 6467.93 |
| MW-3 | 04/14/16 | 6503.67 | ND | 35.46 | | 6468.21 |
| MW-3 abandoned on May 22, 2016 | | | | | | |
| | | | | | | |
| MW-3R | 05/15/18 | 6498.85 | ND | 31.28 | | 6467.57 |
| MW-3R | 10/27/18 | 6498.85 | ND | 31.84 | | 6467.01 |
| MW-3R | 05/21/19 | 6498.85 | ND | 31.60 | | 6467.25 |
| MW-3R | 11/10/19 | 6498.85 | ND | 32.02 | | 6466.83 |
| MW-3R | 05/11/20 | 6498.85 | ND | 31.99 | | 6466.86 |
| MW-3R | 11/12/20 | 6498.85 | ND | 32.29 | | 6466.56 |
| MW-3R | 05/19/21 | 6498.85 | ND | 32.32 | | 6466.53 |
| MW-3R | 09/18/21 | 6498.85 | ND | 33.52 | | 6465.33 |
| MW-3R | 11/11/21 | 6498.85 | ND | 32.52 | | 6466.33 |
| MW-3R | 05/22/22 | 6498.85 | ND | 32.50 | | 6466.35 |
| MW-3R | 11/06/22 | 6498.85 | ND | 32.45 | | 6466.40 |
| MW-3R | 05/20/23 | 6498.85 | ND | 31.95 | | 6466.90 |
| MW-3R | 11/12/23 | 6498.85 | ND | 32.38 | | 6466.47 |
| | | | | | | |
| MW-4 | 05/15/18 | 6507.17 | 39.16 | 39.16 | <0.01 | 6468.01 |
| MW-4 | 07/16/18 | 6507.17 | 39.44 | 40.60 | 1.16 | 6467.44 |
| MW-4 | 10/18/18 | 6507.17 | 39.63 | 40.82 | 1.19 | 6467.24 |
| MW-4 | 10/27/18 | 6507.17 | ND | 39.92 | | 6467.25 |
| MW-4 | 05/21/19 | 6507.17 | 39.60 | 39.60 | <0.01 | 6467.57 |
| MW-4 | 11/10/19 | 6507.17 | 39.92 | 40.62 | <0.02 | 6468.57 |
| MW-4 | 08/19/20 | 6507.17 | 40.16 | 40.36 | 0.20 | 6466.96 |
| MW-4 | 05/11/20 | 6507.17 | 39.91 | 40.40 | 0.49 | 6467.14 |
| MW-4 | 11/12/20 | 6507.17 | 40.10 | 41.13 | 1.03 | 6466.81 |
| MW-4 | 03/18/21 | 6507.17 | 39.42 | 40.17 | 0.75 | 6467.56 |
| MW-4 | 05/19/21 | 6507.17 | 40.13 | 41.11 | 0.98 | 6466.80 |
| MW-4 | 09/18/21 | 6507.17 | 40.29 | 41.43 | 1.14 | 6466.60 |

# TABLE 3- GROUNDWATER ELEVATION RESULTS

| Canada Mesa #2 | | | | | | |
|---|---|---|---|---|---|---|
| Location | Date | TOC | Depth to LNAPL (ft.) | Depth to Water (ft.) | LNAPL Thickness (ft.) | GW Elevation (ft.) |
| MW-4 | 11/11/21 | 6507.17 | 40.32 | 41.44 | 1.12 | 6466.57 |
| MW-4 | 03/21/22 | 6507.17 | 40.24 | 41.22 | 0.98 | 6466.69 |
| MW-4 | 05/22/22 | 6505.17 | 38.29 | 39.30 | 1.01 | 6466.63 |
| MW-4 | 08/01/22 | 6505.17 | 38.40 | 39.55 | 1.15 | 6466.48 |
| MW-4 | 11/06/22 | 6505.17 | 38.28 | 39.16 | 0.88 | 6466.67 |
| MW-4 | 03/29/23 | 6505.17 | 38.03 | 38.29 | 0.26 | 6467.08 |
| MW-4 | 05/20/23 | 6505.17 | 37.98 | 38.01 | 0.03 | 6467.18 |
| MW-4 | 08/27/23 | 6505.17 | 38.35 | 38.60 | 0.25 | 6466.76 |
| MW-4 | 11/12/23 | 6505.17 | 38.39 | 38.58 | 0.19 | 6466.73 |
| | | | | | | |
| MW-5 | 05/15/18 | 6503.72 | ND | 35.89 | | 6467.83 |
| MW-5 | 10/27/18 | 6503.72 | ND | 36.45 | | 6467.27 |
| MW-5 | 05/21/19 | 6503.72 | ND | 36.20 | | 6467.52 |
| MW-5 | 11/10/19 | 6503.72 | ND | 36.60 | | 6467.12 |
| MW-5 | 05/11/20 | 6503.72 | ND | 36.58 | | 6467.14 |
| MW-5 | 11/12/20 | 6503.72 | ND | 36.90 | | 6466.82 |
| MW-5 | 05/19/21 | 6503.72 | ND | 36.92 | | 6466.80 |
| MW-5 | 09/18/21 | 6503.72 | ND | 37.12 | | 6466.60 |
| MW-5 | 11/11/21 | 6503.72 | ND | 37.12 | | 6466.60 |
| MW-5 | 05/22/22 | 6503.72 | ND | 37.09 | | 6466.63 |
| MW-5 | 11/06/22 | 6503.72 | ND | 37.06 | | 6466.66 |
| MW-5 | 05/20/23 | 6503.72 | ND | 36.55 | | 6467.17 |
| MW-5 | 11/12/23 | 6503.72 | ND | 37.00 | | 6466.72 |
| | | | | | | |
| MW-6 | 05/15/18 | 6504.29 | ND | 36.41 | | 6467.88 |
| MW-6 | 10/27/18 | 6504.29 | ND | 36.98 | | 6467.31 |
| MW-6 | 05/21/19 | 6504.29 | ND | 36.74 | | 6467.55 |
| MW-6 | 11/10/19 | 6504.29 | ND | 37.11 | | 6467.18 |
| MW-6 | 05/11/20 | 6504.29 | ND | 37.10 | | 6467.19 |
| MW-6 | 11/12/20 | 6504.29 | ND | 37.42 | | 6466.87 |
| MW-6 | 05/19/21 | 6504.29 | ND | 37.42 | | 6466.87 |
| MW-6 | 09/18/21 | 6504.29 | ND | 37.64 | | 6466.65 |
| MW-6 | 11/11/21 | 6504.29 | ND | 37.65 | | 6466.64 |
| MW-6 | 05/22/22 | 6504.29 | ND | 37.61 | | 6466.68 |
| MW-6 | 11/06/22 | 6504.29 | ND | 37.58 | | 6466.71 |
| MW-6 | 05/20/23 | 6504.29 | ND | 37.08 | | 6467.21 |
| MW-6 | 11/12/23 | 6504.29 | ND | 37.52 | | 6466.77 |
| | | | | | | |
| MW-7 | 05/15/18 | 6504.59 | ND | 36.71 | | 6467.88 |
| MW-7 | 10/27/18 | 6504.59 | ND | 37.28 | | 6467.31 |
| MW-7 | 05/21/19 | 6504.59 | ND | 37.03 | | 6467.56 |
| MW-7 | 11/10/19 | 6504.59 | ND | 37.43 | | 6467.16 |
| MW-7 | 05/11/20 | 6504.59 | ND | 37.40 | | 6467.19 |

# TABLE 3- GROUNDWATER ELEVATION RESULTS

| Canada Mesa #2 | | | | | | |
|---|---|---|---|---|---|---|
| Location | Date | TOC | Depth to LNAPL (ft.) | Depth to Water (ft.) | LNAPL Thickness (ft.) | GW Elevation (ft.) |
| MW-7 | 11/12/20 | 6504.59 | ND | 37.71 | | 6466.88 |
| MW-7 | 05/19/21 | 6504.59 | ND | 37.73 | | 6466.86 |
| MW-7 | 09/18/21 | 6504.59 | ND | 37.94 | | 6466.65 |
| MW-7 | 11/11/21 | 6504.59 | ND | 37.95 | | 6466.64 |
| MW-7 | 05/22/22 | 6504.59 | ND | 37.91 | | 6466.68 |
| MW-7 | 11/06/22 | 6504.59 | ND | 37.88 | | 6466.71 |
| MW-7 | 05/20/23 | 6504.59 | ND | 37.40 | | 6467.19 |
| MW-7 | 11/12/23 | 6504.59 | ND | 37.82 | | 6466.77 |
| | | | | | | |
| MW-8 | 11/10/19 | 6508.27 | ND | 41.21 | | 6467.06 |
| MW-8 | 05/11/20 | 6508.27 | ND | 41.17 | | 6467.10 |
| MW-8 | 11/12/20 | 6508.27 | ND | 41.46 | | 6466.81 |
| MW-8 | 05/19/21 | 6508.27 | ND | 41.48 | | 6466.79 |
| MW-8 | 09/18/21 | 6508.27 | ND | 41.67 | | 6466.60 |
| MW-8 | 11/11/21 | 6508.27 | ND | 41.70 | | 6466.57 |
| MW-8 | 05/22/22 | 6508.27 | ND | 41.65 | | 6466.62 |
| MW-8 | 11/06/22 | 6508.27 | ND | 41.60 | | 6466.67 |
| MW-8 | 05/20/23 | 6508.27 | ND | 41.14 | | 6467.13 |
| MW-8 | 11/12/23 | 6508.27 | ND | 41.55 | | 6466.72 |
| | | | | | | |
| MW-9 | 11/10/19 | 6503.86 | 36.72 | 37.45 | 0.73 | 6466.96 |
| MW-9 | 05/11/20 | 6503.86 | 36.66 | 37.30 | 0.64 | 6467.04 |
| MW-9 | 08/19/20 | 6503.86 | 36.87 | 37.57 | 0.70 | 6466.81 |
| MW-9 | 11/12/20 | 6503.86 | 36.98 | 37.67 | 0.69 | 6466.71 |
| MW-9 | 03/18/21 | 6503.86 | 37.07 | 37.49 | 0.42 | 6466.68 |
| MW-9 | 05/19/21 | 6503.86 | 37.04 | 37.46 | 0.42 | 6466.71 |
| MW-9 | 09/18/21 | 6503.86 | 37.21 | 37.75 | 0.54 | 6466.51 |
| MW-9 | 11/11/21 | 6503.86 | 37.24 | 37.74 | 0.50 | 6466.49 |
| MW-9 | 03/21/22 | 6503.86 | 37.18 | 37.47 | 0.29 | 6466.61 |
| MW-9 | 05/22/22 | 6501.81 | 35.20 | 35.56 | 0.36 | 6466.52 |
| MW-9 | 08/01/22 | 6501.81 | 35.35 | 35.70 | 0.35 | 6466.37 |
| MW-9 | 11/06/22 | 6501.81 | 35.19 | 35.39 | 0.20 | 6466.57 |
| MW-9 | 03/29/23 | 6501.81 | 34.80 | 34.89 | 0.09 | 6466.99 |
| MW-9 | 05/20/23 | 6501.81 | 34.73 | 34.79 | 0.06 | 6467.07 |
| MW-9 | 08/27/23 | 6501.81 | 35.60 | 35.95 | 0.35 | 6466.12 |
| MW-9 | 11/12/23 | 6501.81 | 35.16 | 35.21 | 0.05 | 6466.64 |
| | | | | | | |
| MW-10 | 05/22/22 | 6506.23 | ND | 39.68 | | 6466.55 |
| MW-10 | 11/06/22 | 6506.23 | ND | 39.63 | | 6466.60 |
| MW-10 | 05/20/23 | 6506.23 | ND | 39.15 | | 6467.08 |
| MW-10 | 11/12/23 | 6506.23 | ND | 39.57 | | 6466.66 |
| MW-11 | 05/22/22 | 6503.08 | ND | 36.82 | | 6466.26 |
| MW-11 | 11/06/22 | 6503.08 | ND | 36.75 | | 6466.33 |

# TABLE 3- GROUNDWATER ELEVATION RESULTS

| Canada Mesa #2 | | | | | | |
|---|---|---|---|---|---|---|
| Location | Date | TOC | Depth to LNAPL (ft.) | Depth to Water (ft.) | LNAPL Thickness (ft.) | GW Elevation (ft.) |
| MW-11 | 05/20/23 | 6503.08 | ND | 36.20 | | 6466.88 |
| MW-11 | 11/12/23 | 6503.08 | ND | 36.68 | | 6466.40 |
| | | | | | | |
| MW-12 | 11/12/23 | 6503.08 | ND | 37.56 | | 6465.52 |

Notes:
"ft" = feet
"TOC" = Top of casing
"LNAPL" = Light non-aqueous phase liquid
"ND" = LNAPL not detected
"NR" = LNAPL not recorded
"NM" = Not Measured(Free Product thickness determined from bailer thickness)
Groundwater elevation = Top of Casing elevation (TOC, ft) - Depth to Water [ft] + (LPH thickness [ft] x 0.75). A specific gravity of 0.75 is within the range of gas condensate (https://www.sciencedirect.com/topics/earth-and-planetary-sciences/gas-condensate)

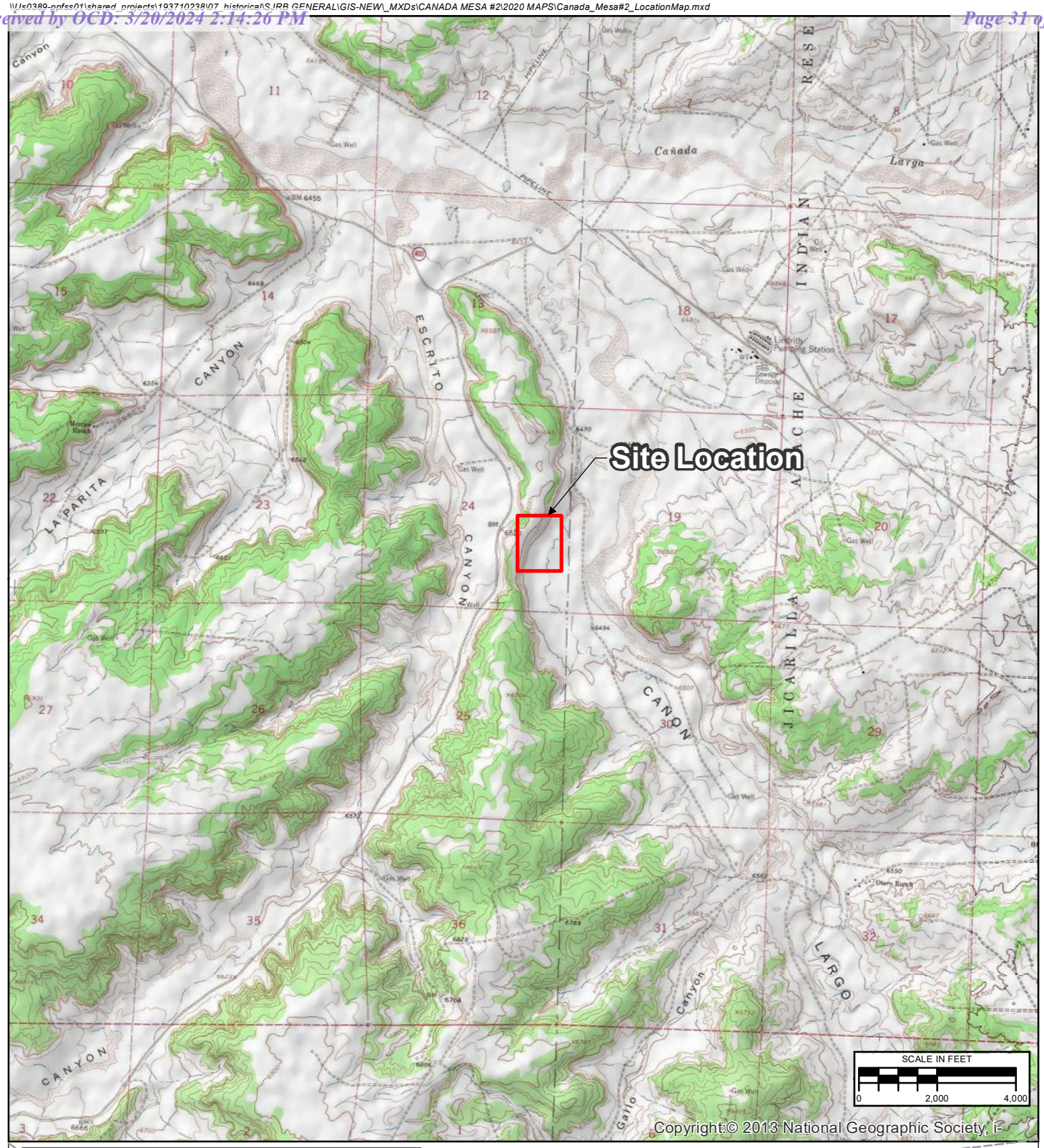
## TABLE 4 - SOIL ANALYTICAL RESULTS

| Canada Mesa #2 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Location (depth in feet bgs)** | **Date (mm/dd/yy)** | **Benzene (mg/kg)** | **Toluene (mg/kg)** | **Ethylbenzene (mg/kg)** | **Total Xylenes (mg/kg)** | **BTEX Total (mg/kg)** | **GRO C6-10 (mg/kg)** | **DRO C10-28 (mg/kg)** | **MRO C28-35 (mg/kg)** | **TPH (mg/kg)** | **Chloride (mg/kg)** |
| | NMOCD Criteria: | 10 | NE | NE | NE | 50 | NE | NE | NE | 100 | 600 |
| MW-2R (32-33) | 04/05/18 | 0.38 | 8.1 | 31 | 240 | **280** | 2200 | 400 | 6.1 | **2606** | 170 |
| MW-3R (12-12.7) | 04/04/18 | <0.0057 | 6.3 | 21 | 480 | **507** | 5500 | 5100 | 11 | **10611** | **740** |
| MW-3R (25-26) | 04/04/18 | <0.0057 | <0.0057 | <0.0057 | <0.011 | <0.0281 | <5.4 | 23 | <5.2 | 23 | 430 |
| MW-4 (35-36) | 04/04/18 | <0.0057 | 0.77 | 2.0 | 13 | 16 | 280 | 9.4 | <5.2 | **289** | **1400** |
| MW-5 (30.2-31.2) | 04/05/18 | <0.0057 | <0.0057 | <0.0057 | <0.011 | <0.0281 | <5.4 | <5.2 | <5.2 | <15.8 | 56 |
| MW-6 (32-33) | 04/03/18 | <0.0057 | <0.0057 | 0.78 | 2.8 | 3.6 | 180 | 76 | <5.2 | **256** | 250 |
| MW-7 (32-33) | 04/03/18 | <0.0057 | <0.0057 | 0.08 | <0.011 | 0.1 | 16 | 6.6 | <5.2 | 23 | 260 |
| MW-8 (36-37) | 07/18/19 | <0.0057 | <0.0057 | <0.0057 | <0.011 | <0.0281 | <5.4 | <5.2 | <5.2 | <15.8 | <21 |
| MW-9 (33-34) | 07/19/19 | <0.0057 | <0.0057 | <0.0057 | <0.011 | <0.0281 | <5.4 | <5.2 | <5.2 | <15.8 | <21 |
| MW-10 (38-39) | 04/12/22 | <0.0057 | <0.0057 | <0.0057 | <0.011 | <0.0281 | <5.4 | <5.2 | <5.2 | <15.8 | <21 |
| MW-11 (17-18) | 04/13/22 | <0.0057 | <0.0057 | <0.0057 | <0.011 | <0.0281 | <5.4 | <5.2 | <5.2 | <15.8 | 160 |
| MW-12 (22-23) | 07/25/23 | <0.0057 | <0.0057 | <0.0057 | <0.011 | <0.0281 | <5.4 | <5.2 | <5.2 | <15.8 | 100 |
| MW-12 (35-36) | 07/25/23 | <0.0057 | <0.0057 | <0.0057 | <0.011 | <0.0281 | 31 | 12 | <5.2 | 43 | 100 |
| SB-1 (17.3-18.3) | 04/05/18 | <0.0057 | <0.0057 | <0.0057 | <0.011 | <0.0281 | <5.4 | <5.2 | <5.2 | <15.8 | 97 |
| SB-1 (22-23) | 04/05/18 | <0.0057 | <0.0057 | 0.072 | 1.1 | 1.2 | 34 | 31 | <5.2 | 65 | 240 |
| SB-1 (29-30) | 04/05/18 | 0.37 | 4.9 | 2.3 | 65 | **72.6** | 620 | 49 | <5.2 | **669** | **710** |
| SB-2 (37-38) | 07/17/19 | <0.0057 | <0.0057 | <0.0057 | <0.011 | <0.0281 | <5.4 | <5.2 | <5.2 | <15.8 | <21 |
| SB-3 (31-32) | 07/17/19 | <0.0057 | <0.0057 | <0.0057 | <0.011 | <0.0281 | <5.4 | <5.2 | <5.2 | <15.8 | <21 |
| SB-4 (10-11) | 07/17/19 | <0.0057 | 160 | 54 | 760 | **974** | 6600 | 1400 | 6.9 | **8007** | 160 |
| SB-5 (24-25) | 07/18/19 | <0.0057 | <0.0057 | 0.39 | 7.9 | 8.3 | 1500 | 870 | <5.2 | **2370** | <21 |
| SB-5 (28-29) | 07/18/19 | <0.0057 | 21 | 18 | 190 | **229** | 3100 | 1200 | <5.2 | **4300** | <21 |
| SB-6 (15-26) | 07/25/23 | <0.0057 | <0.0057 | <0.0057 | <0.011 | <0.0281 | <5.4 | <5.2 | <5.2 | <15.8 | 28 |
| SB-6 (35-36) | 07/25/23 | <0.0057 | <0.0057 | <0.0057 | <0.011 | <0.0281 | <5.4 | <5.2 | <5.2 | <15.8 | <21 |
| TW-1 (33-34) | 07/25/23 | <0.0057 | <0.0057 | <0.0057 | <0.011 | <0.0281 | <5.4 | <5.2 | <5.2 | <15.8 | <21 |

Notes:

| | |
|---|---|
| mg/kg | Milligrams per kilogram |
| NE | New Mexico Oil Conservation Division (NMOCD) Standard Not Established |
| BTEX | Benzene, toluene, ethylbenzene, xylenes |
| GRO | Gasoline range organics |
| DRO | Diesel range organics |
| MRO | Motor oil range organics |
| Total BTEX | Sum of the detectable concentrations of individual BTEX constituents |
| TPH | Total Petroleum Hydrocarbon concentration is calculated by adding the detectable concentrations of GRO, DRO, and MRO and rounded to the nearest mg/kg. |
| NMOCD Criteria | New Mexico Oil Conservation Division closure criteria for groundwater ≤50 feet below bottom of pit to groundwater less than 10,000 mg/L TDS |
| | **Results bolded and highlighted yellow exceed their respective NMOCD Standards** |

# FIGURES





| REVISION | DATE | DESIGN BY | DRAWN BY | REVIEWED BY |
|---|---|---|---|---|
| | 2/15/2021 | SAH | SAH | SRV |

TITLE

**SITE LOCATION**

Stantec

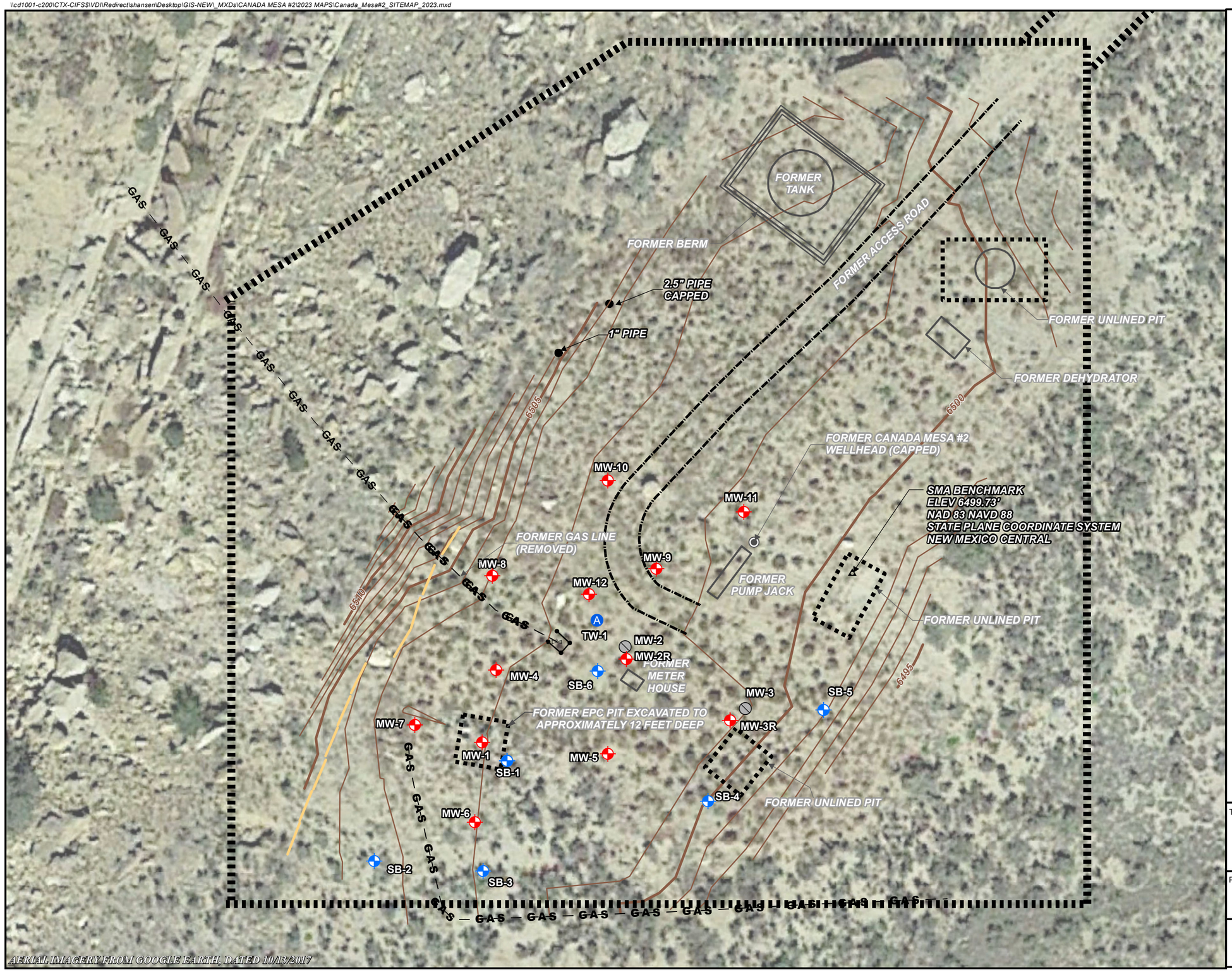
PROJECT

**CANADA MESA #2**
**SAN JUAN RIVER BASIN**
**RIO ARRIBA COUNTY, NEW MEXICO**

FIGURE

**1**

\\cd1001-c200\CTX-CIFSS\VDI\Redirect\shansen\Desktop\GIS-NEW_MXDs\CANADA MESA #2\2023 MAPS\Canada_Mesa#2_SITEMAP_2023.mxd




AERIAL IMAGERY FROM GOOGLE EARTH, DATED 10/13/2017

## LEGEND:

- 6503 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- BARRICADE
- GAS — NATURAL GAS LINE
- MONITORING WELL
- TEST WELL
- SOIL BORING
- ABANDONED MONITORING WELL
- SMA BENCHMARK
- PIPE
- FENCING
- FORMER WELLHEAD
- FORMER UNLINED PIT
- FORMER FEATURES
- RIGHT OF WAY BOUNDARY

N

SCALE IN FEET

0 30 60

| REVISION | DATE | DESIGN BY | DRAWN BY | REVIEWED BY |
|---|---|---|---|---|
| A | 2024-02-19 | SLG | SLG | SRV |

TITLE:

**SITE PLAN**

PROJECT:

**CANADA MESA #2**
**SAN JUAN RIVER BASIN**
**RIO ARRIBA COUNTY, NEW MEXICO**

Stantec

Figure No.: 2

\\cd1001-c200\CTX-CIFSS\VDI\Redirect\shansen\Desktop\GIS-NEW_MXDs\CANADA MESA #2\2023 MAPS\Canada_Mesa#2_GARM_1SA_2023.mxd


## LEGEND:

- 6503 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- BARRICADE
- GAS — NATURAL GAS LINE
- MONITORING WELL
- MONITORING WELL WITH MEASURABLE LNAPL
- ABANDONED MONITORING WELL
- SMA BENCHMARK
- PIPE
- FENCING
- FORMER WELLHEAD
- FORMER UNLINED PIT
- FORMER FEATURES

**EXPLANATION OF ANALYTES AND APPLICABLE STANDARDS:**

RESULTS IN **BOLDFACE/RED** TYPE INDICATE CONCENTRATION IN EXCESS OF THE STANDARD FOR THAT ANALYTE.
NS = NOT SAMPLED
µg/L = MICROGRAMS PER LITER
<1 = BELOW METHOD DETECTION LIMIT
LNAPL = LIGHT NON-AQUEOUS PHASE LIQUID

| ANALYTE | NMWQCC STANDARDS |
|---|---|
| B = Benzene | 10 µg/L |
| T = Toluene | 750 µg/L |
| E = Ethylbenzene | 750 µg/L |
| X = Total Xylenes | 620 µg/L |

N

SCALE IN FEET
0 30 60

| REVISION | DATE | DESIGN BY | DRAWN BY | REVIEWED BY |
|---|---|---|---|---|
| A | 2024-02-19 | SAH | SAH | SRV |

TITLE:

**GROUNDWATER ANALYTICAL RESULTS**
**MAY 20, 2023**

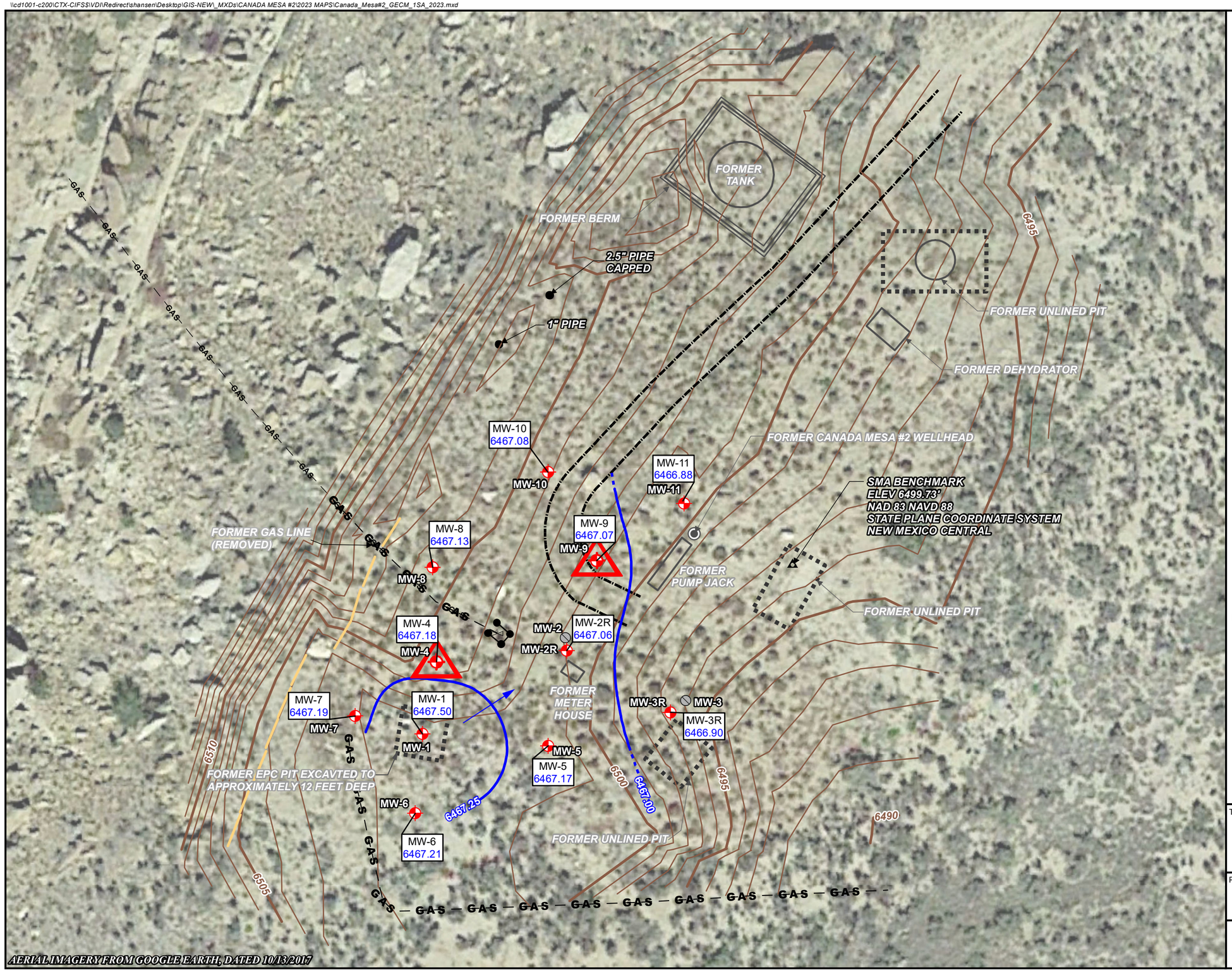
PROJECT:

**CANADA MESA #2**
**SAN JUAN RIVER BASIN**
**RIO ARRIBA COUNTY, NEW MEXICO**

Stantec

Figure No.: **3**

\\cd1001-c200\CTX-CIFSS\VDI\Redirect\shansen\Desktop\GIS-NEW_MXDs\CANADA MESA #2\2023 MAPS\Canada_Mesa#2_GECM_1SA_2023.mxd




## LEGEND:

- 6503 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- BARRICADE
- GAS — NATURAL GAS LINE
- MONITORING WELL
- MONITORING WELL WITH MEASURABLE LNAPL
- ABANDONED MONITORING WELL
- SMA BENCHMARK
- PIPE
- FENCING
- FORMER WELLHEAD
- FORMER UNLINED PIT
- FORMER FEATURES

**NOTES:**

6457.50 — CORRECTED WATER LEVEL ELEVATION CONTOUR DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL)

DIRECTION OF GROUNDWATER FLOW

LNAPL = LIGHT NON-AQUEOUS PHASE LIQUID

N

SCALE IN FEET

0 30 60

| REVISION | DATE | DESIGN BY | DRAWN BY | REVIEWED BY |
|---|---|---|---|---|
| | 2024-02-19 | SAH | SAH | SRV |

TITLE:

**GROUNDWATER ELEVATION MAP**
**MAY 20, 2023**

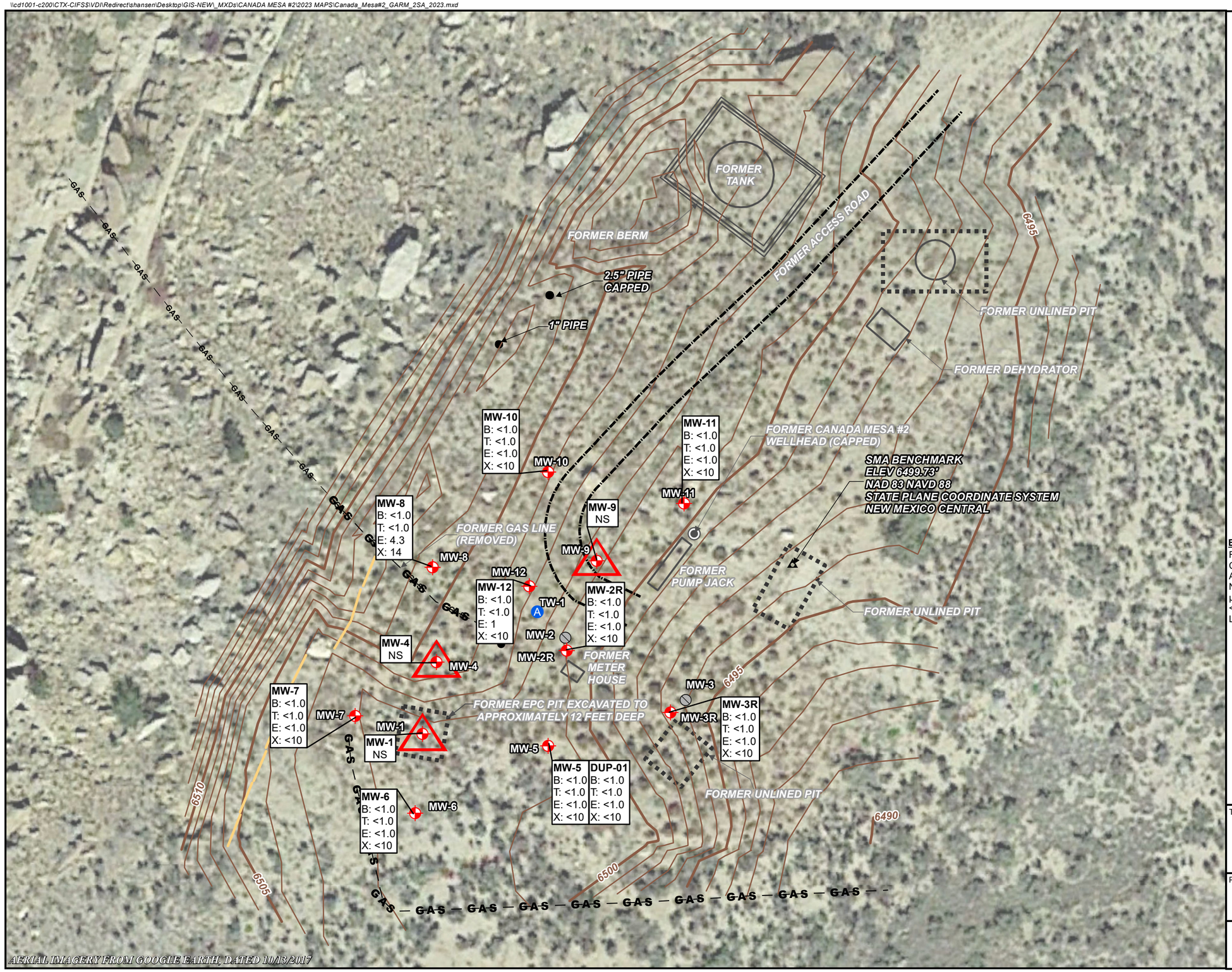
PROJECT:

**CANADA MESA #2**
**SAN JUAN RIVER BASIN**
**RIO ARRIBA COUNTY, NEW MEXICO**

Stantec

Figure No.: **4**

\\cd1001-c200\CTX-CIFSS\VDI\Redirect\shansen\Desktop\GIS-NEW_MXDs\CANADA MESA #2\2023 MAPS\Canada_Mesa#2_GARM_2SA_2023.mxd




## LEGEND:

- 6503 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- BARRICADE
- GAS — NATURAL GAS LINE
- MONITORING WELL
- MONITORING WELL WITH MEASURABLE LNAPL
- TEST WELL
- ABANDONED MONITORING WELL
- SMA BENCHMARK
- PIPE
- FENCING
- FORMER WELLHEAD
- FORMER UNLINED PIT
- FORMER FEATURES

**EXPLANATION OF ANALYTES AND APPLICABLE STANDARDS:**

RESULTS IN **BOLDFACE/RED** TYPE INDICATE CONCENTRATION IN EXCESS OF THE STANDARD FOR THAT ANALYTE.
NS = NOT SAMPLED
µg/L = MICROGRAMS PER LITER
<1 = BELOW METHOD DETECTION LIMIT
LNAPL = LIGHT NON-AQUEOUS PHASE LIQUID

| ANALYTE | NMWQCC STANDARDS |
|---|---|
| B = Benzene | 10 µg/L |
| T = Toluene | 750 µg/L |
| E = Ethylbenzene | 750 µg/L |
| X = Total Xylenes | 620 µg/L |

N

SCALE IN FEET
0 30 60

| REVISION | DATE | DESIGN BY | DRAWN BY | REVIEWED BY |
|---|---|---|---|---|
| A | 2024-02-21 | SAH | SAH | SRV |

TITLE:

**GROUNDWATER ANALYTICAL RESULTS**
**NOVEMBER 12, 2023**

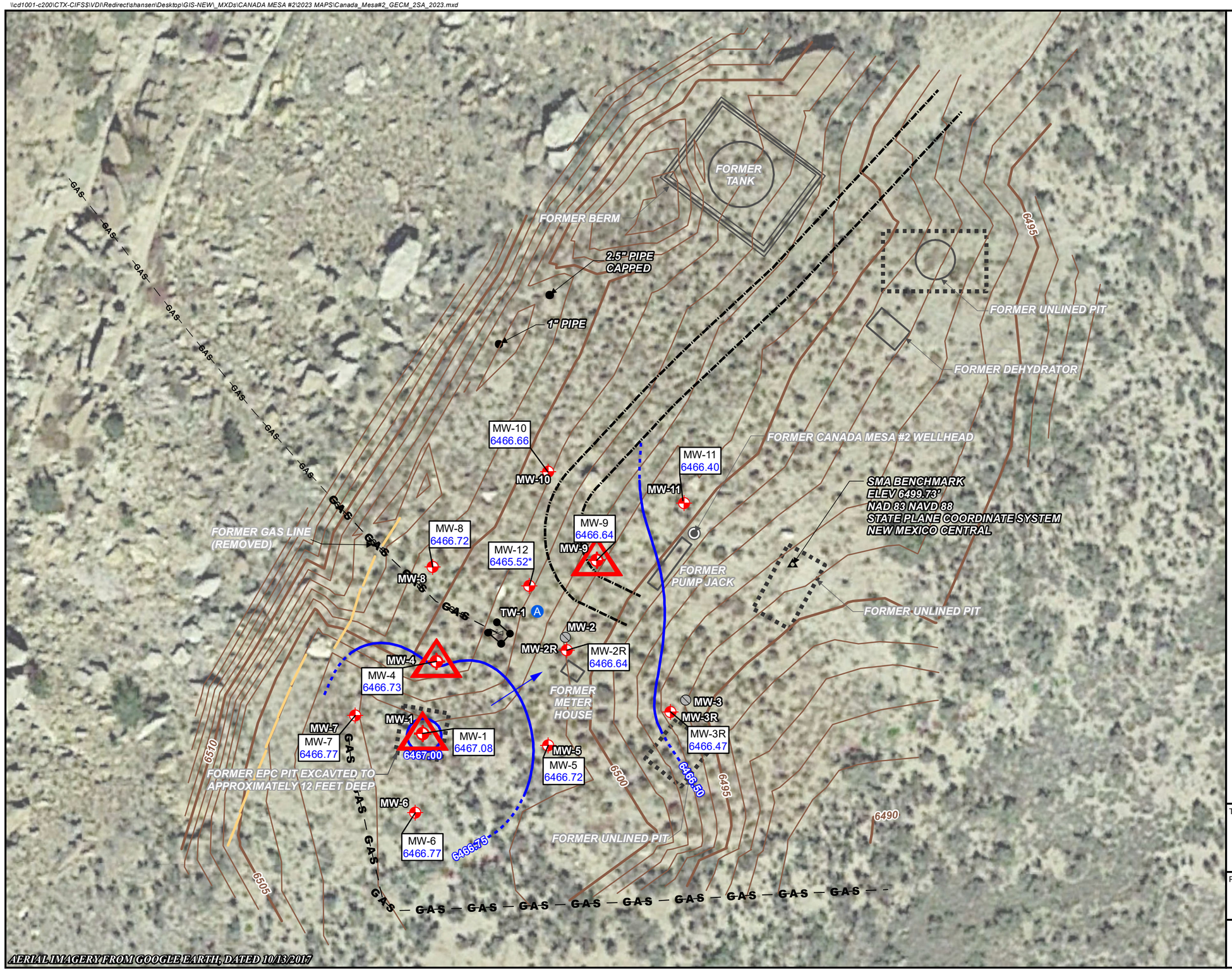
PROJECT:

**CANADA MESA #2**
**SAN JUAN RIVER BASIN**
**RIO ARRIBA COUNTY, NEW MEXICO**

Stantec

Figure No.: **5**

\\cd1001-c200\CTX-CIFSS\VDI\Redirect\shansen\Desktop\GIS-NEW_MXDs\CANADA MESA #2\2023 MAPS\Canada_Mesa#2_GECM_2SA_2023.mxd




## LEGEND:

- 6503 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- BARRICADE
- GAS — NATURAL GAS LINE
- MONITORING WELL
- MONITORING WELL WITH MEASURABLE LNAPL
- TEST WELL
- ABANDONED MONITORING WELL
- SMA BENCHMARK
- PIPE
- FENCING
- FORMER WELLHEAD
- FORMER UNLINED PIT
- FORMER FEATURES

**NOTES:**

6466.88 — GROUNDWATER ELEVATION CORRECTED FOR LNAPL THICKNESS WHERE PRESENT (FEET ABOVE MEAN SEA LEVEL).

6466.50 — CORRECTED WATER LEVEL ELEVATION CONTOUR DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL)

DIRECTION OF GROUNDWATER FLOW

* GROUNDWATER ELEVATION APPEARS ANOMALOUS AND WAS NOT USED TO PREPARE CONTOURING GROUNDWATER ELEVATION.

LNAPL = LIGHT NON-AQUEOUS PHASE LIQUID

N

SCALE IN FEET

0 30 60

| REVISION | DATE | DESIGN BY | DRAWN BY | REVIEWED BY |
|---|---|---|---|---|
| | 2024-02-21 | SAH | SAH | SRV |

TITLE:

**GROUNDWATER ELEVATION MAP**
**NOVEMBER 12, 2023**

PROJECT:

**CANADA MESA #2**
**SAN JUAN RIVER BASIN**
**RIO ARRIBA COUNTY, NEW MEXICO**

Stantec

Figure No.: **6**

\\cd1001-c200\CTX-CIFSS\VDI\Redirect\shansen\Desktop\GIS-NEW_MXDs\CANADA MESA #2\2023 MAPS\Canada_Mesa#2_SARM_2023.mxd

**MW-12**
**22-23 ft. bgs**
B: BRL
BTEX: BRL
TPH: BRL
Cl: 100
---
**35-36 ft. bgs**
B: BRL
BTEX: BRL
TPH: 43
Cl: 100

**MW-10**
**38-39 ft. bgs**
B: BRL
BTEX: BRL
TPH: BRL
Cl: BRL

**MW-9**
**33-34 ft. bgs**
B: BRL
BTEX: BRL
TPH: BRL
Cl: BRL

**MW-11**
**17-18 ft. bgs**
B: BRL
BTEX: BRL
TPH: BRL
Cl: 160

**MW-8**
**36-37 ft. bgs**
B: BRL
BTEX: BRL
TPH: BRL
Cl: BRL

**MW-2R**
**32-33 ft. bgs**
B: 0.38
BTEX: **280**
TPH: **2606**
Cl: 170

**MW-4**
**35-36 ft. bgs**
B: BRL
BTEX: 16
TPH: **289**
Cl: **1400**

**MW-7**
**32-33 ft. bgs**
B: BRL
BTEX: 0.08
TPH: 22.6
Cl: 260

**SB-1**
**17.3-18.3 ft. bgs**
B: BRL
BTEX: BRL
TPH: BRL
Cl: 97
---
**22-23 ft. bgs**
B: BRL
BTEX: 1.2
TPH: 65
Cl: 240
---
**29-30 ft. bgs**
B: 0.37
BTEX: **72.6**
TPH: **669**
Cl: **710**

**SB-2**
**37-38 ft. bgs**
B: BRL
BTEX: BRL
TPH: BRL
Cl: BRL

**MW-6**
**32-33 ft. bgs**
B: BRL
BTEX: 3.6
TPH: **256**
Cl: 250

**SB-3**
**31-32 ft. bgs**
B: BRL
BTEX: BRL
TPH: BRL
Cl: BRL

**MW-5**
**30.2-31.2 ft. bgs**
B: BRL
BTEX: BRL
TPH: BRL
Cl: 56

**SB-4**
**10-11 ft. bgs**
B: BRL
BTEX: **974**
TPH: **8007**
Cl: 160

**SB-6**
**15-16 ft. bgs**
B: BRL
BTEX: BRL
TPH: BRL
Cl: 28
---
**35-36 ft. bgs**
B: BRL
BTEX: BRL
TPH: BRL
Cl: BRL

**MW-3R**
**12-12.7 ft. bgs**
B: BRL
BTEX: **507**
TPH: **10611**
Cl: **740**
---
**25-26 ft. bgs**
B: BRL
BTEX: BRL
TPH: 23
Cl: 430

**TW-1**
**33-34 ft. bgs**
B: BRL
BTEX: BRL
TPH: BRL
Cl: BRL

**SB-5**
**24-25 ft. bgs**
B: BRL
BTEX: 8.29
TPH: **2370**
Cl: BRL
---
**28-29 ft. bgs**
B: BRL
BTEX: **229**
TPH: **4300**
Cl: BRL

FORMER TANK
FORMER BERM
FORMER ACCESS ROAD
2.5" PIPE CAPPED
1" PIPE
FORMER LINE PIT
FORMER DEHYDRATOR
FORMER CANADA MESA #2 WELLHEAD (CAPPED)
SMA BENCHMARK
ELEV 6499.73'
NAD 83 NAVD 88
STATE PLANE COORDINATE SYSTEM
NEW MEXICO CENTRAL
FORMER GAS LINE (REMOVED)
FORMER PUMP JACK
FORMER UNLINED PIT
FORMER METER HOUSE
FORMER EPC PIT EXCAVATED TO APPROXIMATELY 12 FEET DEEP
FORMER UNLINED PIT
6510
6505
6500
6495
6490
GAS

AERIAL IMAGERY FROM GOOGLE EARTH, DATED 10/13/2017

## LEGEND:

- 6503 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- RIGHT OF WAY BOUNDARY
- BARRICADE
- GAS — NATURAL GAS LINE
- FORMER UNLINED PIT
- FORMER FEATURES
- MONITORING WELL
- SOIL BORING
- TEST WELL
- ABANDONED MONITORING WELL
- SMA BENCHMARK
- 2" PIPE
- T-POST
- GAS RISER
- FORMER WELLHEAD

**NOTES:**
MW-6 AND MW-7 SAMPLES COLLECTED ON 4/3/2018; MW-3R AND MW-4 4/4/2018; MW-2R, MW-5 AND SB-1 4/5/2018; SB-2, SB-3 AND SB-4 7/17/2019; SB-5 AND MW-8 7/18/2019; MW-9 7/19/2019.

UTILITY LOCATIONS ARE APPROXIMATE.

ft. bgs = FEET BELOW GROUND SURFACE
NS = NOT SAMPLED

**EXPLANATION OF ANALYTES AND APPLICABLE STANDARDS:**
RESULTS IN **BOLDFACE**/RED TYPE INDICATE CONCENTRATION IN EXCESS OF APPLICABLE NEW MEXICO OIL CONSERVATION DIVISION SOIL CRITERIA FOR THAT ANALYTE.
mg/kg = MILLIGRAM/KILOGRAM
BRL = BELOW REPORTING LIMITS

| ANALYTE | NMOCD STANDARDS |
|---|---|
| B = Benzene | 10 mg/kg |
| BTEX = Benzene, toluene, ethylbenzene, xylenes | 50 mg/kg |
| TPH = Total Petroleum Hydrocarbons | 100 mg/kg |
| Cl = Chloride | 600 mg/kg |

N

SCALE IN FEET
0 30 60

| REVISION | DATE | DESIGN BY | DRAWN BY | REVIEWED BY |
|---|---|---|---|---|
| A | 2024-02-21 | SLG | SLG | SRV |

TITLE:

***SOIL ANALYTICAL RESULTS***

PROJECT:
***CANADA MESA #2***
***SAN JUAN RIVER BASIN***
***RIO ARRIBA COUNTY, NEW MEXICO***

Stantec

Figure No.: 7

**APPENDICES**

# APPENDIX A

Site History

**Canada Mesa #2**
**Site History**
**San Juan River Basin, New Mexico**

| *Date* | *Source (Regulatory File #)* | *Event/Action* | *Description/Comments* |
|---|---|---|---|
| 10/2/1972 | API # 30-039-20571 | Application for Permit to Drill | Operator shown as Merrion and Bayless. |
| 12/13/1972 | API # 30-039-20571 | Well Completion Report and Log | Date spudded 11/11/1972, first production 11/27/1972, date completed 11/28/1972. |
| 6/9/1994 | API # 30-039-20571 | Pit Remediation and Closure Report | Remediation of 2 pits - the "Old BS&W Pit" and the "Old Earthen Pit". New fiberglass pit with liner was installed. |
| 9/16/1995 | Unknown | EPFS Remediation Plan for Groundwater Encountered During Pit Closure Activities to NMOCD | Outlines approach to investigating and remediating soil and groundwater at closed pit sites. |
| 11/29/1995 | Unknown | EPFS Addendum to the Remediation Plan for Groundwater Encountered During Pit Closure Activities to NMOCD | Amends work plan for include installation of additional wells for delienation, define groundwater sampling parameters, and release closure following four consecutive quarters of results below NMWQCC standards. |
| 11/30/1995 | Unknown | NMOCD approval of the Remediation Plan with conditions | Approval of Remediation Plan and Addendum. |
| 6/2/1997 | nAUTOfAB000065 (Case # 3RP-155) | Semi-annual EPFS Pit Projects Groundwater Report | Lists pits where groundwater was encountered. |
| 8/6/1997 | nAUTOfAB000065 (Case # 3RP-155) | NMOCD review letter | Approves modifying reporting schedule from semi-annual to annual basis |
| 2/27/1998 | nAUTOfAB000065 (Case # 3RP-155) | Philip Services Corp 1997 Annual Report (for EPFS) | Pit closure and installation of MW-1, quarterly groundwater monitoring and Passive LNAPL recovery from MW-1. |
| 7/8/1998 | nAUTOfAB000065 (Case # 3RP-155) | NMOCD review letter for 1997 Annual Groundwater Report (EPFS) | NMOCD requested EPFS work cooperatively with operator to investigate and remediate site. |
| 3/31/1999 | nAUTOfAB000065 (Case # 3RP-155) | Philip Services Corp 1998 Annual Report (for EPFS) | LNAPL recovery activities at MW-1. |

**Canada Mesa #2**
**Site History**
**San Juan River Basin, New Mexico**

| | | | |
|---|---|---|---|
| 3/24/2000 | nAUTOfAB000065 (Case # 3RP-155) | Philip Services Corp 1999 Annual Report (for EPFS) | LNAPL recovery activities and quarterly groundwater monitoring. |
| 2/26/2001 | nAUTOfAB000065 (Case # 3RP-155) | Philip Services Corp 2000 Annual Report (for EPFS) | Two additional monitoring wells (MW-2 and MW-3) installed and LNAPL recovery activiities at MW-1 |
| 7/18/2001 | nAUTOfAB000065 (Case # 3RP-155) | NMOCD review letter for 2000 Annual Groundwater Report (EPFS) | NMOCD requests EPFS work cooperatively with operator to investigate and remediate site. |
| 2/28/2002 | nAUTOfAB000065 (Case # 3RP-155) | MWH 2001 Annual Report (for EPFS) | LNAPL recovery activities at MW-1. |
| 2/28/2003 | nAUTOfAB000065 (Case # 3RP-155) | MWH 2002 Annual Report (for EPFS) | Annual groundwater monitoring. LNAPL recovery activities at MW-1. |
| 2/26/2004 | nAUTOfAB000065 (Case # 3RP-155) | MWH 2003 Annual Report (for EPFS) | Annual groundwater monitoring. LNAPL recovery activities at MW-1. |
| 2/21/2005 | nAUTOfAB000065 (Case # 3RP-155) | MWH 2004 Annual Report (for EPFS) | Quarterly LNAPL recovery at MW-1. Annual groundwater monitoring activities. |
| 3/16/2006 | nAUTOfAB000065 (Case # 3RP-155) | MWH 2005 Annual Report (for EPFS) | Annual groundwater monitoring. LNAPL recovery activities at MW-1. |
| 3/2/2007 | nAUTOfAB000065 (Case # 3RP-155) | MWH Final 2006 Annual Report (for EPTPC) | Annual groundwater monitoring. LNAPL recovery activities at MW-1. |
| 4/2/2008 | nAUTOfAB000065 (Case # 3RP-155) | MWH 2007 Annual Report (for EPTPC) | Annual groundwater monitoring. Passive skimmer installed for LNAPL recovery at MW-1. |
| 2/28/2009 | nAUTOfAB000065 (Case # 3RP-155) | MWH 2008 Annual Groundwater Report (for EPTPC) | Quarterly LNAPL recovery at MW-1. Annual groundwater monitoring activities. |
| 4/16/2010 | nAUTOfAB000065 (Case # 3RP-155) | MWH Final 2009 Annual Report (for EPTPC) | Quarterly LNAPL recovery at MW-1. Annual groundwater monitoring activities. |
| 3/2/2011 | nAUTOfAB000065 (Case # 3RP-155) | MWH Final 2010 Annual Report (for EPTPC) | Quarterly LNAPL recovery at MW-1. Annual groundwater monitoring activities. |
| 8/16/2012 | nAUTOfAB000065 (Case # 3RP-155) | MWH 2011 Annual Report (for EPCGP) | Quarterly LNAPL recovery at MW-1. Annual groundwater monitoring activities. |

**Canada Mesa #2**
**Site History**
**San Juan River Basin, New Mexico**

| | | | |
|---|---|---|---|
| 2/8/2014 | nAUTOfAB000065 (Case # 3RP-155) | MWH 2013 Annual Report (for EPCGP) | Annual groundwater monitoring. LNAPL recovery activities at MW-1. |
| 2/2/2015 | nAUTOfAB000065 (Case # 3RP-155) | MWH 2014 Annual Report (for EPCGP) | Annual groundwater monitoring. LNAPL recovery activities at MW-1. |
| 2/11/2016 | nAUTOfAB000065 (Case # 3RP-155) | Stantec 2015 Annual Report (for EPCGP) | Annual groundwater monitoring. LNAPL recovery activities at MW-1. |
| 3/20/2017 | nAUTOfAB000065 (Case # 3RP-155) | Stantec 2016 Annual Report (for EPCGP) | Annual groundwater monitoring activities. LNAPL recovery at MW-1. Monitoring wells MW-2 and MW-3 abandoned in May 2016, ahead of Merrion Oil and Gas Company's reclamation activities. |
| 6/2/2017 | nAUTOfAB000065 (Case # 3RP-155) | NMOCD review letter for 2016 Annual Report | Requested remediation plan. |
| 7/19/2017 | nAUTOfAB000065 (Case # 3RP-155) | Response letter from EPCGP to NMOCD | Site was reclaimed in late 2016 by former operator, and delineation around monitoring well MW-1 is planned for 2018. Work plan will be submitted to NMOCD prior to that activity. |
| 3/2/2018 | nAUTOfAB000065 (Case # 3RP-155) | Stantec 2017 Annual Report (for EPCGP) | Annual groundwater monitoring activities. |
| 3/20/2018 | nAUTOfAB000065 (Case # 3RP-155) | NMOCD letter approving Stantec Groundwater Monitoring and Air Sparge/Soil Vapor Extraction Work Plan | Per the Work Plan, six additional monitoring wells would be installed. |
| 3/28/2019 | Not in NMOCD files | Stantec 2018 Annual Report (for EPCGP) | Six new monitoring wells installed and one soil boring advanced. Semi-annual groundwater monitoring activies. Two MDPE events conducted for LNAPL recovery. |
| 6/28/2019 | Not in NMOCD files | Stantec 2019 Monitoring Well Installation Work Plan (for EPCGP) | Two additional monitoring wells and four soil borings are proposed for further delineation of contamination. |
| 4/1/2020 | Not in NMOCD files | Stantec 2019 Annual Report (for EPCGP) | Two additional monitoring wells installed and four soil borings advanced. Semi-annual groundwater monitoring activities. LNAPL recovery activities. |

**Canada Mesa #2**
**Site History**
**San Juan River Basin, New Mexico**

| | | | |
|---|---|---|---|
| 4/8/2021 | nAUTOfAB000065 | Stantec 2020 Annual Report (for EPCGP) | Semi-annual groundwater monitoring activities. Quartelry LNAPL recovery activities. |
| 8/23/2021 | nAUTOfAB000065 | Stantec Work Plan for LNAPL Recovery Activities | Work Plan for LNAPL recovery using MDPE. |
| 3/22/2022 | nAUTOfAB000065 | Stantec Monitoring Well Installation Activities Work Plan | Work plan proposed installation of two monitoring wells, MW-10 and MW-11. |
| 3/29/2022 | nAUTOfAB000065 | Stantec 2021 Annual Report (for EPCGP) | Quarterly LNAPL recovery by manual methods. Semi-annual groundwater monitoring activities. |
| 3/22/2023 | nAUTOfAB000065 | Stantec 2022 Annual Report (for EPCGP) | Two additional monitoring wells installed. Semi-annual groundwater monitoring. Quarterly LNAPL recovery activities. |
| 7/17/2023 | nAUTOfAB000065 | Stantec Well Installation and Remedial Testing Feasibility Work Plan (for EPCGP) | Work Plan proposed installation of one monitoring well (MW-12) and one air sparge (AS) test well (TW-1). Work Plan also proposed AS and soil vapor extraction (SVE) feasibility testing. MDPE event was proposed to recover LNAPL. |

# APPENDIX B

NMOCD Notification of Site Activities

**From:** Varsa, Steve
**To:** nelson.valez@state.nm.us
**Cc:** Bratcher, Mike, EMNRD; Wiley, Joe
**Bcc:** Varsa, Steve
**Subject:** El Paso CGP Company - Notice of upcoming product recovery activities
**Date:** Wednesday, August 16, 2023 1:56:00 PM

---

Hi Nelson -

This correspondence is to provide notice to the NMOCD of upcoming quarterly product recovery activities at the following EPCGP project sites:

| Site Name | Incident Number | Sample Date |
|---|---|---|
| Canada Mesa #2 | nAUTOfAB000065 | 8/27/2023 |
| Fields A#7A | nAUTOfAB000176 | 8/30/2023 |
| Fogelson 4-1 | nAUTOfAB000192 | 8/31/2023 |
| Gallegos Canyon Unit #124E | nAUTOfAB000205 | 8/31/2023 |
| James F. Bell #1E | nAUTOfAB000291 | 8/25/2023 |
| Johnston Fed #4 | nAUTOfAB000305 | 8/30/2023 |
| K27 LDO72 | nAUTOfAB000316 | 8/31/2023 |
| State Gas Com N #1 | nAUTOfAB000668 | 8/29/2023 |

Please feel free to contact Joe Wiley, Project Manager at EPCGP, or me, if you need further information.

Thank you,
Steve

**Stephen Varsa, P.G., R.G.**
Principal Hydrogeologist
Stantec Environmental Services
11311 Aurora Avenue
Des Moines, Iowa 50322
Direct: (515) 251-1020
Cell: (515) 710-7523
Office: (515) 253-0830
steve.varsa@stantec.com

**From:** Varsa, Steve
**To:** nelson.valez@state.nm.us
**Cc:** Bratcher, Mike, EMNRD; Wiley, Joe
**Bcc:** Varsa, Steve
**Subject:** Canada Mesa #2 site (nAUTOfAB000065) - notice of upcoming activities
**Date:** Wednesday, August 16, 2023 1:35:00 PM

---

Hi Nelson – on behalf of El Paso CGP Company, Stantec is planning to complete soil vapor extraction testing, air sparge testing, and free product recovery activities using mobile dual-phase extraction methods at the subject site on August 26 and 27, 2023. A work plan with additional details regarding these activities has been submitted in the e-permitting portal.

Please feel free to contact Joe Wiley, Project Manager at EPCGP, or me, if you need further information.

Thank you,
Steve

**Stephen Varsa, P.G.**
Senior Hydrogeologist
Stantec Environmental Services
11311 Aurora Avenue
Des Moines, Iowa 50322
Direct: (515) 251-1020
Cell: (515) 710-7523
Office: (515) 253-0830
steve.varsa@stantec.com

**From:** Varsa, Steve
**To:** nelson.valez@state.nm.us
**Subject:** FW: El Paso CGP Company - Notice of upcoming product recovery activities
**Date:** Wednesday, March 22, 2023 9:51:09 PM

---

**From:** Varsa, Steve <steve.varsa@stantec.com>
**Sent:** Wednesday, March 22, 2023 9:33 PM
**To:** nelson.valez@state.nm
**Cc:** Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Wiley, Joe <joe_wiley@kindermorgan.com>
**Subject:** El Paso CGP Company - Notice of upcoming product recovery activities

Hi Nelson -

This correspondence is to provide notice to the NMOCD of upcoming quarterly product recovery activities at the following EPCGP project sites:

| Site Name | Incident Number | Sample Date |
|---|---|---|
| Canada Mesa #2 | nAUTOfAB000065 | 3/28/2023 |
| Fields A#7A | nAUTOfAB000176 | 3/29/2023 |
| Fogelson 4-1 | nAUTOfAB000192 | 3/29/2023 |
| Gallegos Canyon Unit #124E | nAUTOfAB000205 | 3/28/2023 |
| James F. Bell #1E | nAUTOfAB000291 | 3/29/2023 |
| Johnston Fed #4 | nAUTOfAB000305 | 3/30/2023 |
| K27 LDO72 | nAUTOfAB000316 | 3/28/2023 |
| Lateral L-40 | nAUTOfAB000335 | 3/29/2023 |
| State Gas Com N #1 | nAUTOfAB000668 | 3/29/2023 |

Please feel free to contact Joe Wiley, Project Manager at EPCGP, or me, if you need further information.

Thank you,
Steve

**Stephen Varsa, P.G., R.G.**
Principal Hydrogeologist
Stantec Environmental Services
11311 Aurora Avenue
Des Moines, Iowa 50322
Direct: (515) 251-1020
Cell: (515) 710-7523
Office: (515) 253-0830
steve.varsa@stantec.com

**From:** Varsa, Steve
**To:** nelson.valez@state.nm.us
**Cc:** Bratcher, Mike, EMNRD; Wiley, Joe
**Subject:** El Paso CGP Company - Notice of upcoming groundwater sampling activities
**Date:** Friday, May 12, 2023 9:54:16 PM

---

Hi Nelson -

This correspondence is to provide notice to the NMOCD of upcoming semi-annual groundwater sampling and monitoring activities at the following EPCGP project sites:

| Site Name | Incident Number | Sample Date |
|---|---|---|
| Canada Mesa #2 | nAUTOfAB000065 | 5/20/2023 |
| Fields A#7A | nAUTOfAB000176 | 5/21/2023 |
| Fogelson 4-1 | nAUTOfAB000192 | 5/18/2023 |
| Gallegos Canyon Unit #124E | nAUTOfAB000205 | 5/17/2023 |
| GCU Com A #142E | nAUTOfAB000219 | 5/21/2023 |
| James F. Bell #1E | nAUTOfAB000291 | 5/18/2023 |
| Johnston Fed #4 | nAUTOfAB000305 | 5/19/2023 |
| Johnston Fed #6A | nAUTOfAB000309 | 5/19/2023 |
| K27 LDO72 | nAUTOfAB000316 | 5/20/2023 |
| Knight #1 | nAUTOfAB000324 | 5/17/2023 |
| Lateral L 40 Line Drip | nAUTOfAB000335 | 5/21/2023 |
| Sandoval GC A #1A | nAUTOfAB000635 | 5/19/2023 |
| Standard Oil Com #1 | nAUTOfAB000666 | 5/20/2023 |
| State Gas Com N #1 | nAUTOfAB000668 | 5/22/2023 |

We also plan to conduct quarterly operation and maintenance activities on the Knight #1 air sparge/soil vapor extraction system (Incident number nAUTOAB000324) on Wednesday, May 17, 2023.

Please feel free to contact Joe Wiley, Project Manager at EPCGP, or me, if you need further information.

Thank you,
Steve

**Stephen Varsa, P.G., R.G.**
Principal Hydrogeologist
Stantec Environmental Services
11311 Aurora Avenue
Des Moines, Iowa 50322
Direct: (515) 251-1020
Cell: (515) 710-7523
Office: (515) 253-0830
steve.varsa@stantec.com

**From:** Varsa, Steve
**To:** nelson.valez@state.nm.us
**Cc:** Bratcher, Mike, EMNRD; Wiley, Joe
**Subject:** Canada Mesa #2 (Incident Number nAUTOfAB000065) - Notice of upcoming site activities
**Date:** Thursday, July 20, 2023 8:59:52 PM

---

Hi Nelson, on behalf of El Paso CGP Company (EPCGP), Stantec is conducting well installation activities at the subject site beginning on July 25, 2023, and expected to go through July 27, 2023. A work plan for these activities has been submitted in the e-permitting portal.

Please feel free to contact me Joe Wiley, with EPCGP, if you have need anything further.

Thank you,
Steve

**Stephen Varsa, P.G., R.G.**
Principal Hydrogeologist
Stantec Environmental Services
11311 Aurora Avenue
Des Moines, Iowa 50322
Direct: (515) 251-1020
Cell: (515) 710-7523
Office: (515) 253-0830
steve.varsa@stantec.com

**From:** Varsa, Steve
**To:** nelson.valez@state.nm.us
**Cc:** Bratcher, Mike, EMNRD; Wiley, Joe
**Subject:** El Paso CGP Company - Notice of upcoming groundwater sampling activities
**Date:** Thursday, November 2, 2023 6:17:33 AM

---

Hi Nelson -

This correspondence is to provide notice to the NMOCD of upcoming semi-annual groundwater sampling and monitoring activities at the following EPCGP project sites:

| Site Name | Incident Number | Sample Date |
|---|---|---|
| Canada Mesa #2 | nAUTOfAB000065 | 11/12/2023 |
| Fields A#7A | nAUTOfAB000176 | 11/15/2023 |
| Fogelson 4-1 | nAUTOfAB000192 | 11/8/2023 |
| Gallegos Canyon Unit #124E | nAUTOfAB000205 | 11/9/2023 |
| GCU Com A #142E | nAUTOfAB000219 | 11/9/2023 |
| James F. Bell #1E | nAUTOfAB000291 | 11/15/2023 |
| Johnston Fed #4 | nAUTOfAB000305 | 11/11/2023 |
| Johnston Fed #6A | nAUTOfAB000309 | 11/11/2023 |
| K27 LDO72 | nAUTOfAB000316 | 11/12/2023 |
| Knight #1 | nAUTOfAB000324 | 11/7/2023 |
| Lateral L 40 Line Drip | nAUTOfAB000335 | 11/16/2023 |
| Sandoval GC A #1A | nAUTOfAB000635 | 11/11/2023 |
| Standard Oil Com #1 | nAUTOfAB000666 | 11/12/2023 |
| State Gas Com N #1 | nAUTOfAB000668 | 11/10/2023 |

We also plan to conduct quarterly operation and maintenance activities on the Knight #1 air sparge/soil vapor extraction system (Incident number nAUTOAB000324) on Tuesday, November 7, 2023.

Please feel free to contact Joe Wiley, Project Manager at EPCGP, or me, if you need further information.

Thank you,
Steve

**Stephen Varsa, P.G., R.G.**
Principal Hydrogeologist
Stantec Environmental Services
11311 Aurora Avenue
Des Moines, Iowa 50322
Direct: (515) 251-1020
Cell: (515) 710-7523
Office: (515) 253-0830
steve.varsa@stantec.com

# APPENDIX C

NMOCD Well Permits

# STATE OF NEW MEXICO
## *OFFICE OF THE STATE ENGINEER*
### *AZTEC*

Mike A. Hamman, P.E.
State Engineer

100 Gossett Drive, Suite A
Aztec, New Mexico 87410

July 11, 2023

El Paso CGP Company, LLC
Attn: Joseph Wiley
1001 Lousiana Street, Room 1445B
Houston, Texas 77002

**RE: Permit for Use of Four Wells for Temporary Pollution Recovery, SJ-4279 PODs 1, 10, 13 & 14, El Paso CGP Company, LLC, Canada Mesa #2 Site Investigation**

Dear Mr. Wiley:

On June 14, 2023, the New Mexico Office of the State Engineer received an application for a permit for the temporary use of an existing water well for pollution recovery purposes at the above referenced location. Enclosed is a copy of the above numbered permit that has been approved subject to the conditions set forth on the approval page and in the attached Conditions of Approval. Also enclosed is a receipt for the fees paid.

Please be aware that there are time and extraction volume limitations for this pollution recovery permit (Condition 3 of the Condition of Approval). Also, quarterly reporting of the volumes of water extracted is required in accordance with Condition 4 of the Conditions of Approval.

If you have any questions regarding this permitting action, please call (505) 383-4571.

Sincerely,

Miles Juett
Watermaster
Water Rights Division – District V Office

Enclosures

cc: Aztec Reading (w/o enclosures)
SJ-4279 File
WATERS

# OFFICE OF THE STATE ENGINEER/INTERSTATE STREAM COMMISSION – AZTEC OFFICE

OFFICIAL RECEIPT NUMBER: 5 - 7277 DATE: 6-14-2023 FILE NO.: SJ-4111, SJ-4131 SJ-4215 SJ-4221 and SJ-4203

TOTAL: 75.00 RECEIVED: Seventy-five DOLLARS | CASH: | CHECK NO.: 1210

PAYOR: Stephen Varsa ADDRESS: 63179 270th St.

CITY: Newton STATE: IA ZIP: 50201 RECEIVED BY: MJ

INSTRUCTIONS: Indicate the number of actions to the left of the appropriate type of filing. Complete the receipt information. **Original** to payor; **pink** copy to Program Support/ASD; **yellow** copy remains in district office; and **goldenrod** copy to accompany application being filed. If a mistake is made, void the original and all copies and submit to Program Support/ASD as part of the daily deposit.

## A. Ground Water Filing Fees

| | | |
|---|---|---|
| ___ | 1. Change of Ownership of Water Right | $ 2.00 |
| ___ | 2. Application to Appropriate or Supplement Domestic 72-12-1 Well | $ 125.00 |
| ___ | 3. Application to Repair or Deepen 72-12-1 Well | $ 75.00 |
| ___ | 4. Application for Replacement 72-12-1 Well | $ 75.00 |
| ___ | 5. Application to Change Purpose of Use 72-12-1 Well | $ 75.00 |
| ___ | 6. Application for Stock Well/Temp. Use | $ 5.00 |
| ___ | 7. Application to Appropriate Irrigation, Municipal, or Commercial Use | $ 25.00 |
| ___ | 8. Declaration of Water Right | $ 1.00 |
| ___ | 9. Application for Supplemental Non 72-12-1 Well | $ 25.00 |
| ___ | 10. Application to Change Place or Purpose of Use Non 72-12-1 Well | $ 25.00 |
| ___ | 11. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Ground Water | $ 50.00 |
| ___ | 12. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Ground Water | $ 50.00 |
| ___ | 13. Application to Change Point of Diversion of Non 72-12-1 Well | $ 25.00 |
| ___ | 14. Application to Repair or Deepen Non 72-12-1 Well | $ 5.00 |
| 15 | 15. Application for Test, Expl. Observ. Well | ~~$ 5.00~~ |
| ___ | 16. Application for Extension of Time | $ 25.00 |
| ___ | 17. Proof of Application to Beneficial Use | $ 25.00 |
| ___ | 18. Notice of Intent to Appropriate | $ 25.00 |

## B. Surface Water Filing Fees

| | | |
|---|---|---|
| ___ | 1. Change of Ownership of a Water Right | $ 5.00 |
| ___ | 2. Declaration of Water Right | $ 10.00 |
| ___ | 3. Amended Declaration | $ 25.00 |
| ___ | 4. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Surface Water | $ 200.00 |
| ___ | 5. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Surface Water | $ 200.00 |
| ___ | 6. Application to Change Point of Diversion | $ 100.00 |
| ___ | 7. Application to Change Place and/or Purpose of Use | $ 100.00 |
| ___ | 8. Application to Appropriate | $ 25.00 |
| ___ | 9. Notice of Intent to Appropriate | $ 25.00 |
| ___ | 10. Application for Extension of Time | $ 50.00 |
| ___ | 11. Supplemental Well to a Surface Right | $ 100.00 |
| ___ | 12. Return Flow Credit | $ 100.00 |
| ___ | 13. Proof of Completion of Works | $ 25.00 |
| ___ | 14. Proof of Application of Water to Beneficial Use | $ 25.00 |
| ___ | 15. Water Development Plan | $ 100.00 |
| ___ | 16. Declaration of Livestock Water Impoundment | $ 10.00 |
| ___ | 17. Application for Livestock Water Impoundment | $ 10.00 |

**All fees are non-refundable.**

## C. Well Driller Fees

| | | |
|---|---|---|
| ___ | 1. Application for Well Driller's License | $ 50.00 |
| ___ | 2. Application for Renewal of Well Driller's License | $ 50.00 |

## D. Reproduction of Documents

___ @ 25¢/copy $_____

___ Map(s) $_____

**E. Certification** $_____

**F. *Credit Card Convenience Fee** $_____

**G. Other**_____ $_____

**Comments:**

_____

_____

_____

_____

_____

_____

_____

_____

_____

File No. SJ-4279 PODs 1, 10, 13 & 14

# NEW MEXICO OFFICE OF THE STATE ENGINEER

## *WR-07 APPLICATION FOR PERMIT TO DRILL*

## *A WELL WITH NO WATER RIGHT*

(check applicable box):

For fees, see State Engineer website: http://www.ose.state.nm.us/

| | | |
|---|---|---|
| Purpose: | ☒ Pollution Control And/Or Recovery | ☐ Ground Source Heat Pump |
| ☐ Exploratory Well*(Pump test) | ☐ Construction Site/Public Works Dewatering | ☐ Other(Describe): |
| ☒ Monitoring Well | ☐ Mine Dewatering | |

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

*New Mexico Environment Department-Drinking Water Bureau (NMED-DWB) will be notified if a proposed exploratory well is used for public water supply.

| | |
|---|---|
| ☒ Temporary Request - Requested Start Date: July 24, 2023 | Requested End Date: TBD. For pollution control, 09/30/2023. |
| Plugging Plan of Operations Submitted? ☐ Yes ☒ No | |

### 1. APPLICANT(S)

| | |
|---|---|
| Name: El Paso CGP Company, LLC | Name: |
| Contact or Agent: check here if Agent ☐ Joseph Wiley | Contact or Agent: check here if Agent ☐ |
| Mailing Address: 1001 Louisiana Street, Room 1445B | Mailing Address: |
| City: Houston | City: |
| State: Texas Zip Code: 77002 | State: Zip Code: |
| Phone: ☐ Home ☐ Cell Phone (Work): (713) 420-3475 | Phone: ☐ Home ☐ Cell Phone (Work): |
| E-mail (optional): joe_wiley@kindermorgan.com | E-mail (optional): |

STATE ENGINEER OFFICE AZTEC, NEW MEXICO 2023 JUN 14 AM 10 19

FOR OSE INTERNAL USE — Application for Permit, Form WR-07, Rev 07/12/22

| | | |
|---|---|---|
| File No.: ~~SJ-4279 PODs 1,~~ 10, 13 & 14 | Trn. No.: | Receipt No.: 5-7277 |
| Trans Description (optional): | | |
| Sub-Basin: | PCW/LOG Due Date: 7-11-2024 | |

2 **WELL(S)** Describe the well(s) applicable to this application.

**Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).**
**District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.**

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

☒ Lat/Long (WGS84) (to the nearest 1/10th of second)

| Well Number (if known): | X or Easting or Longitude: | Y or Northing or Latitude: | Provide if known: -Public Land Survey System (PLSS) (*Quarters or Halves , Section, Township, Range*) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name |
|---|---|---|---|
| (SJ-4279 POD13) MW-12 | -107.414082 | 36.295987 | NE/4 SE/4, Sec. 24, T24N, R6W, Rio Arriba County, NM |
| (POD14) TW-1 | -107.414065 | 36.295967 | NE/4 SE/4, Sec. 24, T24N, R6W, Rio Arriba County, NM |
| MW-1 (SJ-4279 POD 1) | -107.41419 | 36.29585 | NE/4 SE/4, Sec. 24, T24N, R6W, Rio Arriba County, NM |
| MW-9 (SJ-4279 POD 10) | -107.41418 | 36.29601 | NE/4 SE/4, Sec. 24, T24N, R6W, Rio Arriba County, NM |
| | | | |

**NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)**
**Additional well descriptions are attached:** ☐ **Yes** ☒ **No** **If yes, how many**_____

Other description relating well to common landmarks, streets, or other:

Permit SJ-4279. Canada Mesa #2 site.

Well is on land owned by: Bureau of Land Management (BLM)

**Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached?** ☐ **Yes** ☒ **No**
If yes, how many_____

| | |
|---|---|
| Approximate depth of well (feet): 50 (MW-12), 55 (TW-1) | Outside diameter of well casing (inches): 2 |
| Driller Name: Cascade Environmental Drilling | Driller License Number: WD-1664 |

**3. ADDITIONAL STATEMENTS OR EXPLANATIONS**

New wells MW-12 and TW-1 are being installed to better characterize the extent of LNAPL at the site and facilitate feasibility testing of air sparge remedies. Soil vapor extraction (SVE) feasibility testing will be completed on monitoring well MW-12, therefore a pollution recovery permit is necessary. Additionally, pollution recovery permitting for PODs 1 and 10 (existing wells MW-1 and MW-9, respectively) is requested. SVE testing will be conducted at MW-1 and a mobile dual phase extraction (MDPE) event will be conducted at MW-9. All monitoring wells will be abandoned once a No Further Action determination has been granted by the New Mexico Oil Conservation Division (NMOCD) for the release.



FOR OSE INTERNAL USE — Application for Permit, Form WR-07 Version 07/12/22

| File No. SJ-4279 PODs 1, 10, 13 & 14 | Trn No. |
|---|---|

4. **SPECIFIC REQUIREMENTS:** The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

| **Exploratory:** | **Pollution Control and/or Recovery:** | **Construction De-Watering:** | **Mine De-Watering:** |
|---|---|---|---|
| Is proposed well a future public water supply well?<br>☐ Yes ☐ NO<br>If Yes, an application must be filed with NMED-DWB, concurrently.<br>☐ Include a description of the requested pump test if applicable. | ☐ Include a plan for pollution control/recovery, that includes the following:<br>☐ A description of the need for the pollution control or recovery operation.<br>☐ The estimated maximum period of time for completion of the operation.<br>☐ The annual diversion amount.<br>☐ The annual consumptive use amount.<br>☐ The maximum amount of water to be diverted and injected for the duration of the operation.<br>☐ The method and place of discharge.<br>☐ The method of measurement of water produced and discharged.<br>☐ The source of water to be injected.<br>☐ The method of measurement of water injected.<br>☐ The characteristics of the aquifer.<br>☐ The method of determining the resulting annual consumptive use of water and depletion from any related stream system.<br>☐ Proof of any permit required from the New Mexico Environment Department.<br>☐ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located. | ☐ Include a description of the proposed dewatering operation,<br>☐ The estimated duration of the operation,<br>☐ The maximum amount of water to be diverted,<br>☐ A description of the need for the dewatering operation, and,<br>☐ A description of how the diverted water will be disposed of. | ☐ Include a plan for pollution control/recovery, that includes the following:<br>☐ A description of the need for mine dewatering.<br>☐ The estimated maximum period of time for completion of the operation.<br>☐ The source(s) of the water to be diverted.<br>☐ The geohydrologic characteristics of the aquifer(s).<br>☐ The maximum amount of water to be diverted per annum.<br>☐ The maximum amount of water to be diverted for the duration of the operation.<br>☐ The quality of the water.<br>☐ The method of measurement of water diverted.<br>☐ The recharge of water to the aquifer.<br>☐ Description of the estimated area of hydrologic effect of the project.<br>☐ The method and place of discharge.<br>☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project.<br>☐ A description of the methods employed to estimate effects on surface water rights and underground water rights.<br>☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect. |
| **Monitoring**<br>☒ The reason and duration of the monitoring is required. | | **Ground Source Heat Pump:**<br>☐ Include a description of the geothermal heat exchange project,<br>☐ The number of boreholes for the completed project and required depths.<br>☐ The time frame for constructing the geothermal heat exchange project, and,<br>☐ The duration of the project.<br>☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request. | |

**ACKNOWLEDGEMENT**

I, We (name of applicant(s)), Joseph Wiley
Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Joseph Wiley
Applicant Signature

Applicant Signature

**ACTION OF THE STATE ENGINEER**

This application is:

☒ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 11 day of July 20 23, for the State Engineer,

Mike A. Hamman, P.E., State Engineer

By: Miles Juett
Signature Print

Title: Watermaster
Print

2023 JUN 14 AM 10:19

STATE ENGINEER AZTEC, NEW MEXICO

FOR OSE INTERNAL USE Application for Permit, Form WR-07 Version 07/12/22

| File No.: SJ-4279 PODs 1, 10, 13 & 14 | Trn No.: |
|---|---|

# NMOSE Permit for Temporary Use of Groundwater for Contaminant Remediation
## Conditions of Approval
## SJ-4279 PODs 1, 10, 13 & 14

Upon review of the proposed pollution recovery plan, the New Mexico Office of the State Engineer (NMOSE) has determined that existing water rights will not be permanently impaired by this activity. This application is approved without publication provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state. This application is further subject to the following conditions of approval.

1. This application is approved as follows:

| | |
|---|---|
| Permittee(s): | El Paso CGP Company, LLC<br>via Steve Varsa, Stantec Consulting Services, as Agent<br>1001 Louisiana St, Room 1445B<br>Houston, TX 77002 |
| Permit Number: | SJ-4279 |
| Application File Date: | June 14, 2023 |
| Priority: | N/A |
| Source: | Groundwater |
| Point(s) of Diversion: | Four points of diversion (PODs), SJ-4279 PODs 1, 10, 13 & 14 , are proposed for use in pollution control or recovery activities. Two PODs (Table 1) are existing monitoring wells, and two PODs (Table 2) are newly proposed monitoring wells, which are all proposed for temporary use for pollution recovery and ongoing groundwater monitoring. The wells are located at the applicant's Canada Mesa #2 site on land owned by the U.S. Department of Interior Bureau of Land Management in rural Rio Arriba County, New Mexico. The PODs are located within the NE¼ SE¼ of Section 24, Township 24 North, Range 6 West, NMPM, at the following approximate point locations (Long/Lat, WGS84). |

Table 1: Existing Monitoring Wells with temporary Pollution Recovery Use

| POD Number and Owner's Well Name | Casing: Diameter (inches) and Depth (feet) | | Longitude (DD) | Latitude (DD) |
|---|---|---|---|---|
| SJ-4279 POD1 (MW-1) | 2 | On file | -107.41419 | 36.29585 |
| SJ-4279 POD10 (MW-9) | 2 | On file | -107.41418 | 36.29601 |

Table 2: New Monitoring Wells with temporary Pollution Recovery Use

| POD Number and Owner's Well Name | Casing: Diameter (inches) and Depth (feet) | | Longitude (DD) | Latitude (DD) |
|---|---|---|---|---|
| SJ-4279 POD13 (MW-12) | 2 | 50 | -107.414082 | 36.295987 |
| SJ-4279 POD14 (TW-1) | 2 | 55 | -107.414065 | 36.295967 |

| | |
|---|---|
| Purpose of Use: | Groundwater monitoring and dual phase pollution recovery |
| Place of Use: | N/A |
| Amount of Water: | The permittee my produce up to a total volume of **one acre-foot (325,851 gallons)**, including light non-aqueous phase liquid (LNAPL). This is the total maximum annual volume allowed to be pumped from all water wells at the facility. |

2. No extraction of water which is inconsistent with the purpose, date, and volume limitation amounts authorized by this permit shall occur from the wells identified herein.

3. Only *de minimis* amounts of water generated as a result of pollution remediation activities are permitted to be removed from the approved PODs. The application states that contaminants and entrained water will be removed from the wells during multiple dual phase extraction events conducted between July 24, 2023, and September 30, 2023. **Approval under this permit to use wells SJ-4279 PODs 1, 10, 13 & 14 for the purpose of pollution extraction/recovery shall expire September 30, 2023, or once the total volume extracted from all approved PODs is equal to one acre-foot, whichever occurs first.**

4. The total volume of water extracted shall be determined quarterly using a totalizing flow meter(s) and submitted to the NMOSE District V office in Aztec based on the following schedule. The quarterly reports shall include the beginning and ending meter readings with units of measurement, meter information, and total volume extracted for the quarterly period. Should no extraction occur during a quarterly measurement period a statement indicating such shall be included in the quarterly report(s). Meter reporting forms are available at: http://www.ose.state.nm.us/Meter/index.php.

   Total volumes extracted shall be determined for the following quarters and submitted as follows:
   - January 1st through March 31st - due by May 1st
   - April 1st through June 30th - due by August 1st
   - July 1st through September 30th - due by November 1st
   - October 1st through December 31st - due by February 1st

5. The well(s) may continue to be used indefinitely for groundwater sampling or monitoring purposes, as required for the current site investigation and any associated remediation, so long as they are required for such activities and remain in good repair. **A new application shall be submitted and a permit obtained from the NMOSE prior to replacing a well(s) or for any change in use as approved herein.**

6. Water well drilling and well drilling activities, including well plugging, are regulated under NMOSE Regulations 19.27.4 NMAC. These regulations apply, and provide both general and specific direction regarding the drilling of wells in New Mexico. Note that the construction of any well that allows groundwater to flow uncontrolled to the land surface or to move appreciably between geologic units is prohibited.

7. In accordance with Subsection A of 19.27.4.29 NMAC, on-site supervision of well drilling/plugging is required by the holder of a New Mexico Well Driller License or a NMOSE-registered Drill Rig Supervisor. The New Mexico licensed Well Driller shall ensure that well

drilling activities are completed in accordance with 19.27.4.29, 19.27.4.30 and 19.27.4.31 NMAC. However, pursuant to 72-12-12 NMSA 1978 and 19.27.4.8 NMAC, a driller's license is not required for the construction of a driven well with an outside casing diameter of 2⅜ inches or less and that does not require the use of a drill rig (e.g., auger) for installation. This exemption is not applicable to well plugging.

8. When the permittee receives approval or direction to permanently abandon the well(s), the District V Office of NMOSE shall be notified and provided with a plugging plan for review, modification as necessary, and approval. Approval of a plugging plan is required *prior* to initiation of *any* well plugging activities. The well(s) shall be plugged in accordance with Subsection C of 19.27.4.30 NMAC.

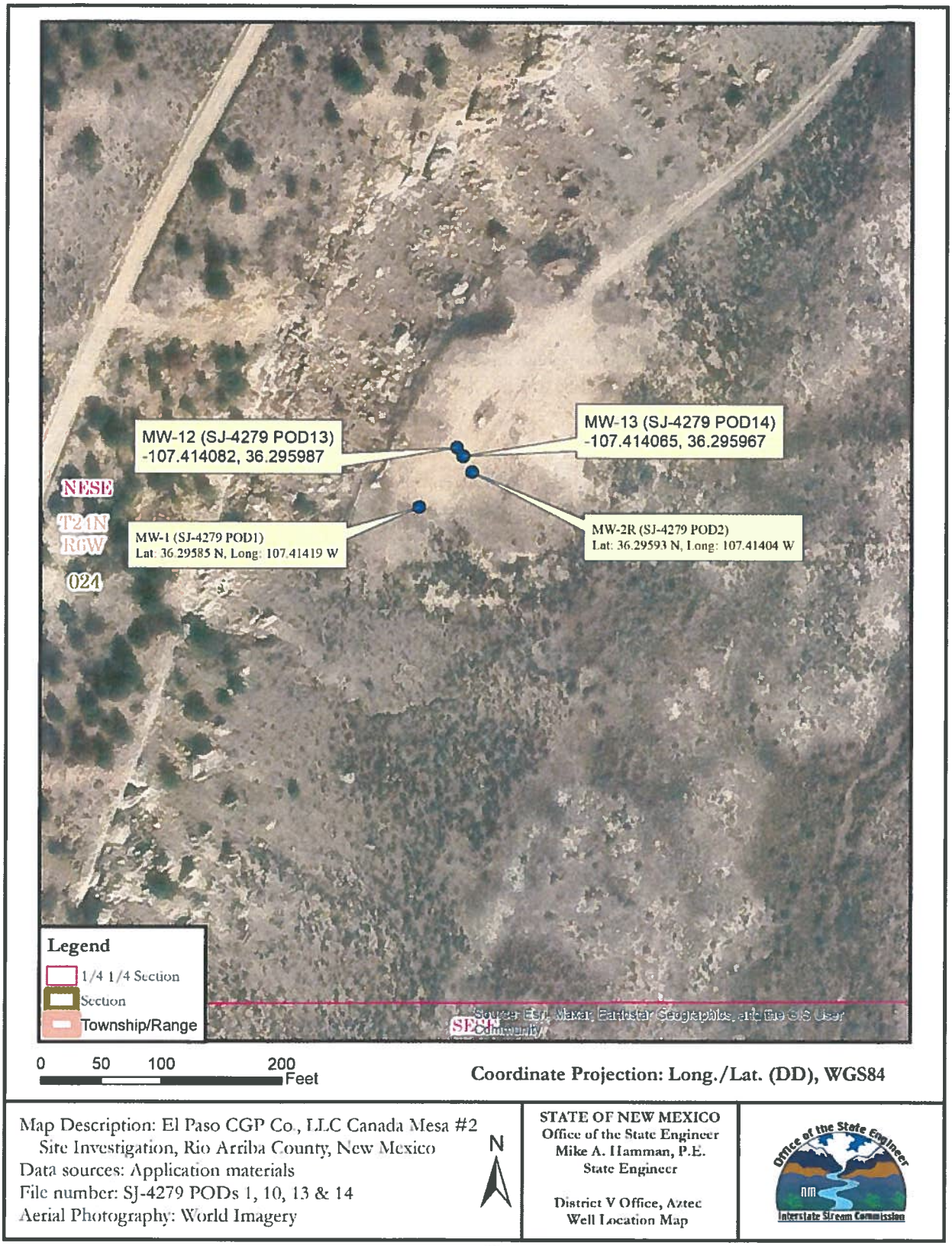
9. Should another regulatory agency sharing jurisdiction of the project authorize, or by regulation require, more stringent requirements than stated herein, the more stringent procedure should be followed. These, among others, may include provisions regarding pre-authorization to proceed, type of methods and materials used, inspection, or prohibition of free discharge of any fluid or other material to or from the well that is related to the drilling and/or monitoring process.

10. The State Engineer retains jurisdiction of this permit.

The application for temporary use of non-consumptive use well(s) SJ-4279 PODs 1, 10, 13 & 14 for pollution recovery purposes, submitted on June 14, 2023, is hereby approved with the aforesaid conditions applied, when signed by an authorized designee of the State Engineer:

Witness my hand and seal this 11th day of July, A.D. 2023.
Mike A. Hamman, P.E., State Engineer

By: _____
Miles Juett, Watermaster
Water Rights Division District V



# APPENDIX D

NMOCD Plugging Forms

Draft 11-25-1104
SB-6

# PLUGGING RECORD

**NOTE:** A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

## I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: SB-6

Well owner: El Paso CGP Company,LLC Attn: Joseph Wiley Phone No.: 713-420-3475

Mailing address: 1001 Louisiana Street, Room 1445B

City: Houston State: Texas Zip code: 77002

## II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Cascade Drilling L.P

2) New Mexico Well Driller License No.: 1664 Expiration Date: _____

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): _____
Shawn Cain

4) Date well plugging began: 7-26-2023 Date well plugging concluded: 7-26-2023

5) GPS Well Location: Latitude: 36° deg, 17 min, 45.4812 sec
Longitude: -107 deg, 24 min, 50.6340 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 40 ft below ground level (bgl),
by the following manner: Soil boring that did not make water. Backfill with native soil

7) Static water level measured at initiation of plugging: 0 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: _____

9) Were all plugging activities consistent with an approved plugging plan? _____ If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

Drilled Soil Boring to 40' BGS and boring did not make water so client decided to abandon boring.

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

**For each interval plugged, describe within the following columns:**

| Depth (ft bgl) | Plugging Material Used (include any additives used) | Volume of Material Placed (gallons) | Theoretical Volume of Borehole/ Casing (gallons) | Placement Method (tremie pipe, other) | Comments ("casing perforated first", "open annular space also plugged", etc.) |
|---|---|---|---|---|---|
| | 0-40' No well just soil boring backfilled with native soil. | | | | |

| MULTIPLY | | BY | | AND OBTAIN |
|---|---|---|---|---|
| cubic feet | x | 7.4805 | = | gallons |
| cubic yards | x | 201.97 | = | gallons |

**III. SIGNATURE:**

I, Shawn Cain, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller — Date: 8-11-23

# APPENDIX E

NMOCD Well Construction Forms

Stantec 11-23-1605

# WELL RECORD & LOG

## OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

MW-12

### 1. GENERAL AND WELL LOCATION

| OSE POD NO. (WELL NO.) | WELL TAG ID NO. | OSE FILE NO(S). |
|---|---|---|
| POD-13 MW-12 | | SJ-4279 |

| WELL OWNER NAME(S) | PHONE (OPTIONAL) |
|---|---|
| Joseph Wiley | 713-420-3475 |

| WELL OWNER MAILING ADDRESS | CITY | STATE | ZIP |
|---|---|---|---|
| 1001 Louisiana Street, Room 1445B | Houston | Texas | 77002 |

| WELL LOCATION (FROM GPS) | | DEGREES | MINUTES | SECONDS | |
|---|---|---|---|---|---|
| | LATITUDE | 36° | 17 | 45.5532 | N |
| | LONGITUDE | -107° | 24 | 50.6952 | W |

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

NE/4 SE/4, Sec. 24, T24N,R6W, Rio Arriba county, NM

### 2. DRILLING & CASING INFORMATION

| LICENSE NO. | NAME OF LICENSED DRILLER | NAME OF WELL DRILLING COMPANY |
|---|---|---|
| 1664 | Shawn Cain | Cascade Drilling L.P |

| DRILLING STARTED | DRILLING ENDED | DEPTH OF COMPLETED WELL (FT) | BORE HOLE DEPTH (FT) | DEPTH WATER FIRST ENCOUNTERED (FT) |
|---|---|---|---|---|
| 7-25-2023 | 7-26-2023 | 50 | 51 | 30 |

COMPLETED WELL IS: ☐ ARTESIAN *add Centralizer info below ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 30

DATE STATIC MEASURED: 7/28/2023

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Sonic

CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☐

| DEPTH (feet bgl) FROM | DEPTH (feet bgl) TO | BORE HOLE DIAM (inches) | CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen) | CASING CONNECTION TYPE (add coupling diameter) | CASING INSIDE DIAM. (inches) | CASING WALL THICKNESS (inches) | SLOT SIZE (inches) |
|---|---|---|---|---|---|---|---|
| 0 | 30 | 6 | 2" sch 40 PVC | Flush Thread | 2.067 | .154 | |
| 30 | 50 | 6 | 2" sch 40 PVC Screen | Flush Thread | 2.067 | .154 | .010 |
| | | | | | | | |
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### 3. ANNULAR MATERIAL

| DEPTH (feet bgl) FROM | DEPTH (feet bgl) TO | BORE HOLE DIAM. (inches) | LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL *(if using Centralizers for Artesian wells- indicate the spacing below) | AMOUNT (cubic feet) | METHOD OF PLACEMENT |
|---|---|---|---|---|---|
| 0 | 2 | 6 | Concrete | .5 | Hand pour |
| 2 | 23.5 | 6 | Portland | 3.85 | Tremie |
| 23.5 | 27.5 | 6 | 3/8 Chips | 1.32 | Hand pour |
| 27.5 | 51 | 6 | 10/20 Sand | 4.21 | Hand pour |
| | | | | | |
| | | | | | |
| | | | | | |

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

| FILE NO. | POD NO. | TRN NO. |
|---|---|---|
| LOCATION | WELL TAG ID NO. | PAGE 1 OF 2 |

## 4. HYDROGEOLOGIC LOG OF WELL

| DEPTH (feet bgl) FROM | DEPTH (feet bgl) TO | THICKNESS (feet) | COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units) | WATER BEARING? (YES / NO) | ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm) |
|---|---|---|---|---|---|
| 0 | 5 | | Sand | Y N | |
| 5 | 51 | | Sandstone | ✔ Y N | 1.00 |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☑ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 1

## 5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Brett Gresham

## 6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Shawn Cain — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

8-11-23 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 09/22/2022)

| FILE NO. | POD NO. | TRN NO. |
|---|---|---|
| LOCATION | WELL TAG ID NO. | PAGE 2 OF 2 |

Stantec 113-23-1104

TW-1

# WELL RECORD & LOG

## OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

### 1. GENERAL AND WELL LOCATION

| OSE POD NO. (WELL NO.) | WELL TAG ID NO. | OSE FILE NO(S). |
|---|---|---|
| POD-14 TW-1 | | SJ-4279 |

| WELL OWNER NAME(S) | PHONE (OPTIONAL) |
|---|---|
| Joseph Wiley | 713-420-3475 |

| WELL OWNER MAILING ADDRESS | CITY | STATE | ZIP |
|---|---|---|---|
| 1001 Louisiana Street, Room 1445B | Houston | Texas | 77002 |

| WELL LOCATION (FROM GPS) | | DEGREES | MINUTES | SECONDS | |
|---|---|---|---|---|---|
| | LATITUDE | 36° | 17 | 45.4812 | N |
| | LONGITUDE | -107° | 24 | 50.6340 | W |

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

NE/4 SE/4, Sec. 24, T24N,R6W, Rio Arriba county, NM

### 2. DRILLING & CASING INFORMATION

| LICENSE NO. | NAME OF LICENSED DRILLER | NAME OF WELL DRILLING COMPANY |
|---|---|---|
| 1664 | Shawn Cain | Cascade Drilling L.P |

| DRILLING STARTED | DRILLING ENDED | DEPTH OF COMPLETED WELL (FT) | BORE HOLE DEPTH (FT) | DEPTH WATER FIRST ENCOUNTERED (FT) |
|---|---|---|---|---|
| 7-27-2023 | 7-27-2023 | 38 | 41 | 30 |

COMPLETED WELL IS: ☐ ARTESIAN *add Centralizer info below ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 30

DATE STATIC MEASURED: 7/28/2023

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Sonic

CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☐

| DEPTH (feet bgl) FROM | DEPTH (feet bgl) TO | BORE HOLE DIAM (inches) | CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen) | CASING CONNECTION TYPE (add coupling diameter) | CASING INSIDE DIAM. (inches) | CASING WALL THICKNESS (inches) | SLOT SIZE (inches) |
|---|---|---|---|---|---|---|---|
| 0 | 36 | 6 | 2" sch 40 PVC | Flush Thread | 2.067 | .154 | |
| 36 | 38 | 6 | 2" sch 40 PVC Screen | Flush Thread | 2.067 | .154 | .010 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |

### 3. ANNULAR MATERIAL

| DEPTH (feet bgl) FROM | DEPTH (feet bgl) TO | BORE HOLE DIAM. (inches) | LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL *(if using Centralizers for Artesian wells- indicate the spacing below) | AMOUNT (cubic feet) | METHOD OF PLACEMENT |
|---|---|---|---|---|---|
| 0 | 2 | 6 | Concrete | .5 | Hand pour |
| 2 | 30 | 6 | Portland | 5.12 | Tremie |
| 30 | 35.5 | 6 | 3/8 Chips | 1 | Hand pour |
| 35.5 | 41 | 6 | 10/20 Sand | 1 | Hand pour |
| | | | | | |
| | | | | | |
| | | | | | |

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

| FILE NO. | POD NO. | TRN NO. | |
|---|---|---|---|
| LOCATION | | WELL TAG ID NO. | PAGE 1 OF 2 |

**4. HYDROGEOLOGIC LOG OF WELL**

| DEPTH (feet bgl) FROM | DEPTH (feet bgl) TO | THICKNESS (feet) | COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units) | WATER BEARING? (YES / NO) | ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm) |
|---|---|---|---|---|---|
| 0 | 5 | | Sand | Y N | |
| 5 | 41 | | Sandstone | ✔ Y N | 0.89 |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
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| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☑ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): .89

**5. TEST; RIG SUPERVISION**

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Brett Gresham

**6. SIGNATURE**

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Shawn Cain — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

8-11-23 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 09/22/2022)

| FILE NO. | POD NO. | TRN NO. |
|---|---|---|
| LOCATION | WELL TAG ID NO. | PAGE 2 OF 2 |

# APPENDIX F

Boring Logs and Well Construction Diagrams

# Drilling Log

Stantec

Monitoring Well **MW-12**

Page: 1 of 2

Project *Canada Mesa #2* Owner *El Paso CGP Company, LLC*

Location *Rio Arriba County, New Mexico* Project Number *193709649*

Surface Elev. *6502.80 ft* North *1929069.728* East *1297385.749*

Top of Casing *6505.25 ft* Water Level Initial ▽ *6466.3* 07/25/23 00:00 Static ▼ *6466.72* 08/26/23 00:00

Hole Depth *51.5ft* Screen: Diameter *2 in* Length *20.0 ft* Type/Size *Schedule 40/0.01 in*

Hole Diameter *8.25 in* Casing: Diameter *2 in* Length *31.5 ft* Type *Schedule 40*

Drill Co. *Cascade* Drilling Method *Sonic* Sand Pack *10/20*

Driller *Greg Smith* Driller Reg. # *WD-1210* Log By *Rob Malcomson*

Start Date *7/25/2023* Completion Date *7/26/2023* Checked By *S. Varsa*

COMMENTS
*0-8' hydro-excavated*

Bentonite Grout | Bentonite Granuals | Grout | Portland Cement | Sand Pack | Sand Pack

| Depth (ft) | PID (ppm) | % Recovery | Blow Count Recovery | Graphic Log | USCS | Description (Color, Moisture, Texture, Structure, Odor) Geologic Descriptions are Based on the USCS. | Well Completion |
|---|---|---|---|---|---|---|---|
| 0 | | | | | | | |
| | | | | | SM | Sand, silty, tan, loose. | |
| 5 | | | | | | | |
| | | 100% | | | | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| 10 | 0.0 | | | | SM | Sand, silty, tan/gray, loose, dry, fine-grained. | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| 15 | 0.0 | | | | | | |
| | 12.6 | | | | SM | Sand, silty, clayey with depth, tan to brown, loose, dry, fine-grained. | |
| | 43.2 | | | | | | |
| | 37.9 | 100% | | | | Sand, silty, clayey, tan to gray-brown, minor orange, loose to weakly cemented, dry, fine-grained, no odor. | |
| | 89.3 | | | | | | |
| 20 | 25.9 | | | | | | |
| | 92.9 | | | | SM | | |
| | 365 | | | | | *MW-12 @ 22' | |
| | 8.6 | | | | | | |
| | 4.6 | | | | | | |
| | 1.7 | | | | | | |
| 25 | 1.6 | | | | SM | Sand, silty, gray, loose, dry, | |
| | 0.7 | | | | | Sand, silty, clayey, gray, orange, dry, weakly cemented, fine-grained, fractured, no odor. | |
| | 1.7 | 100% * | | | | | |
| | 5.3 | | | | SM | | |
| | 0.0 | 100% | | | | | |
| 30 | | | | | | *Continued Next Page* | |

Drilling Log CANADA MESA #2 LOGS.GPJ MWH IA.GDT 10/18/23

# Drilling Log

Stantec

Monitoring Well **MW-12**

Page: 2 of 2

Project *Canada Mesa #2* Owner *El Paso CGP Company, LLC*

Location *Rio Arriba County, New Mexico* Project Number *193709649*

| Depth (ft) | PID (ppm) | % Recovery | Blow Count Recovery | Graphic Log | USCS | Description (Color, Moisture, Texture, Structure, Odor) Geologic Descriptions are Based on the USCS. | Well Completion |
|---|---|---|---|---|---|---|---|
| | | | | | | *Continued* | |
| 30 | 2.2 | | | | CL | Clay, sandy, gray, medium stiff, dry. | |
| | 0.7 | | | | | | |
| | 14.2 | | | | CL SC | Clay and clayey sand with depth, thinly interbedded, gray and dark orange, olive, dry, loose sand. | |
| | 3.2 | * | | | | | |
| | 56.1 | | | | SM | Sand, silty, black, loose, dry, weakly cemented, fine-grained. | |
| 35 | 0.6 | | | | SM | Sand, silty, orange-brown, medium dense, moist. *MW-12 @ 35' | |
| | 0.3 | | | | CL | Clay, sandy, orange-brown-gray, stiff. | |
| | 0.5 | 100% | | | SC | Sand, clayey, silty, orange-tan, loose to medium dense, moist, fine-grained. | |
| | 0.3 | | | | CL | Clay, gray to brown-gray, stiff, non-fractured. | |
| 40 | 0.8 | | | | | | |
| | 1.4 | | | | SM | Sand, silty, clayey, orange-brown, dense, moist to wet, fine-grained, minor sandstone cobbles and coarse gravel. | |
| | 0.5 | | | | | | |
| | 1.1 | | | | | | |
| | 0.5 | | | | | | |
| 45 | 0.0 | | | | SM | Sand, silty, clayey, dark orange-brown-tan, loose to medium dense, wet, fine to medium-grained. | |
| | 0.0 | | | | | | |
| | 0.0 | 100% | | | | | |
| | 0.0 | | | | | | |
| | 0.0 | | | | | | |
| 50 | 0.0 | | | | | (Not logged) | |
| | | 100% | | | | | |
| | | | | | | End of boring = 51.5' Set well at 51.5'. | |
| 55 | | | | | | | |
| 60 | | | | | | | |
| 65 | | | | | | | |
| 70 | | | | | | | |

Drilling Log CANADA MESA #2 LOGS.GPJ MWH IA.GDT 10/18/23

# Drilling Log

Stantec

## Soil Boring SB-6



Project *Canada Mesa #2* Owner *El Paso CGP Company, LLC*

Location *Rio Arriba County, New Mexico* Project Number *193709649*

Surface Elev. *6501.00 ft* North *1929046* East *1297389.671*

Top of Casing *NA* Water Level Initial ▽ Static ▼

Hole Depth *40.0 ft* Screen: Diameter *NA* Length *NA* Type/Size *NA*

Hole Diameter *8.25 in* Casing: Diameter *NA* Length *NA* Type *NA*

Drill Co. *Cascade* Drilling Method *Sonic* Sand Pack *NA*

Driller *Greg Smith* Driller Reg. # *WD-1210* Log By *Rob Malcomson*

Start Date *7/26/2023* Completion Date *7/26/2023* Checked By *S. Varsa*

COMMENTS
*0-5' hand-augered.*

Bentonite Chips | Bentonite Granules | Grout | Bentonite Pellets | Sand Pack | PP Sand Pack

| Depth (ft) | PID (ppm) | % Recovery | Blow Count Recovery | Graphic Log | USCS | Description (Color, Moisture, Texture, Structure, Odor) Geologic Descriptions are Based on the USCS. |
|---|---|---|---|---|---|---|
| 0 | 0.0 | | | | | |
| | 0.0 | | | | | |
| | 0.0 | 100% | | | | Sand, silty, brown, tan, loose to medium dense, dry, fine to medium-grained. |
| | 0.0 | | | | SM | |
| | 0.0 | | | | | |
| 5 | 0.2 | | | | | |
| | 0.1 | | | | | |
| | 0.1 | | | | | Sand, silty, tan/gray, dry, weakly cemented becoming stronger with depth, fine to very-fine-grained with depth. |
| | 0.4 | | | | | |
| | 0.1 | | | | | |
| 10 | 0.1 | 100% | | | SM | |
| | 0.1 | | | | | |
| | 0.1 | | | | | |
| | 0.5 | | | | | |
| | 3.6 | * | | | | |
| 15 | 0.4 | | | | | Sand, silty, tan to gray, some dark orange, loose with depth, dry, weakly cemented, fine-grained, some caliche 17-17.5'. *SB-6 @ 15' |
| | 0.3 | | | | | |
| | 0.3 | | | | SM | |
| | 0.2 | | | | | |
| | 0.3 | | | | | |
| 20 | 0.4 | 100% | | | | Sand, silty, thin gray and olive clayey zones at 22' and 24.5', tan-gray, dry, weakly to moderately cemented. |
| | 0.2 | | | | | |
| | 0.4 | | | | SM | |
| | 0.1 | | | | | |
| | 0.3 | | | | | |
| 25 | | | | | | |

*Continued Next Page*

Drilling Log CANADA MESA #2 LOGS.GPJ MWH IA.GDT 10/16/23

# Drilling Log

Stantec

Soil Boring **SB-6**



Project *Canada Mesa #2* Owner *El Paso CGP Company, LLC*

Location *Rio Arriba County, New Mexico* Project Number *193709649*

| Depth (ft) | PID (ppm) | % Recovery | Blow Count Recovery | Graphic Log | USCS | Description (Color, Moisture, Texture, Structure, Odor) Geologic Descriptions are Based on the USCS. |
|---|---|---|---|---|---|---|
| | | | | | | *Continued* |
| 25 | 0.2 | | | | CL SC | Clay, sandy, to clayey sand, olive-gray, minor orange, medium stiff, dry. |
| | 0.3 | | | | | |
| | 0.1 | | | | | |
| | 0.1 | | | | | |
| | 0.6 | | | | | |
| 30 | 0.0 | 100% | | | SC | Sand, clayey, orange-brown to yellow-brown, dry, loose to medium dense, fine-grained, minor sandstone fragments. |
| | 0.0 | | | | | |
| | 0.0 | | | | | |
| | 0.0 | | | | | |
| | 0.8 | * | | | | |
| 35 | 0.6 | | | | SC | Sand, clayey, gray-brown, moist, medium dense, fine to medium-grained. *SB-6 @ 35' |
| | 1.6 | | | | | |
| | 0.1 | 100% | | | | |
| | 0.1 | | | | CL CH | Clay, sandy, brown-gray, moist, stiff, non-fractured, moderate plasticity. |
| | 0.1 | | | | | |
| 40 | | | | | | End of boring = 40'. |
| 45 | | | | | | |
| 50 | | | | | | |
| 55 | | | | | | |

Drilling Log CANADA MESA #2 LOGS.GPJ MWH IA.GDT 10/16/23

# Drilling Log

Stantec

Monitoring Well **TW-1**

Page: 1 of 2

Project *Canada Mesa #2* Owner *El Paso CGP Company, LLC*

Location *Rio Arriba County, New Mexico* Project Number *193709649*

Surface Elev. *6502.50 ft* North *1929062.387* East *1297390.671*

Top of Casing *6505.01 ft* Water Level Initial ▽ *6466.78* 07/27/23 00:00 Static ▼ *6466.72* 08/26/23 00:00

Hole Depth *40.0ft* Screen: Diameter *2 in* Length *2.0 ft* Type/Size *Schedule 40/0.01 in*

Hole Diameter *8.25 in* Casing: Diameter *2 in* Length *38.0 ft* Type *Schedule 40*

Drill Co. *Cascade* Drilling Method *Sonic* Sand Pack *10/20*

Driller *Greg Smith* Driller Reg. # *WD-1210* Log By *Rob Malcomson*

Start Date *7/27/2023* Completion Date *7/27/2023* Checked By *S. Varsa*

COMMENTS
*0-8' hydro-excavated*

Bentonite Grout | Bentonite Granuals | Grout | Portland Cement | Sand Pack | Sand Pack

| Depth (ft) | PID (ppm) | % Recovery | Blow Count Recovery | Graphic Log | USCS | Description (Color, Moisture, Texture, Structure, Odor) Geologic Descriptions are Based on the USCS. | Well Completion |
|---|---|---|---|---|---|---|---|
| 0 | | | | | | | |
| | | | | | SM | Sand, silty, tan, brown, loose to dense, dry. | |
| 5 | | | | | | | |
| | | 100% | | | | | |
| | 0.7 | | | | | Sand, silty, gray-brown, loose/weakly cemented, dry, fine-grained. | |
| 10 | 1.4 | | | | SM | | |
| | 0.8 | | | | | | |
| | 0.8 | | | | | | |
| | 1.2 | | | | | | |
| | 1.1 | | | | | | |
| | 2.4 | | | | | Weathered sandstone, orange/yellow-brown, gray, moderately cemented, dry, fine to medium-grained. | |
| 15 | 0.9 | | | | | | |
| | 1.2 | | | | SW | | |
| | 1.8 | 100% | | | | | |
| | 1.2 | | | | | | |
| | 2.0 | | | | | | |
| 20 | 1.0 | | | | CL | Clay, sandy, gray, dry. | |
| | 4.3 | | | | SM | Sand, silty, gray and orange-brown, loose/weakly cemented, dry, fine-grained. | |
| | 3.2 | | | | | Sand, clayey, gray and orange to gray with depth, weakly cemented, dry. | |
| | 0.7 | | | | SC | | |
| | 1.6 | | | | | | |
| 25 | | 100% | | | | | |

*Continued Next Page*

Drilling Log CANADA MESA #2 LOGS.GPJ MWH IA.GDT 10/18/23

# Drilling Log

Stantec

Monitoring Well **TW-1**

Page: 2 of 2

Project *Canada Mesa #2* Owner *El Paso CGP Company, LLC*

Location *Rio Arriba County, New Mexico* Project Number *193709649*

| Depth (ft) | PID (ppm) | % Recovery | Blow Count Recovery | Graphic Log | USCS | Description (Color, Moisture, Texture, Structure, Odor) Geologic Descriptions are Based on the USCS. | Well Completion |
|---|---|---|---|---|---|---|---|
| | | | | | | *Continued* | |
| 25 | 0.8 | | | | | Sand, silty, clayey, orange-brown and gray-brown, loose, dry, fine to medium-grained. | |
| | 0.7 | | | | SC | | |
| | 0.7 | 100% | | | SM | | |
| | 0.7 | | | | | | |
| | 0.7 | | | | CL | Clay, gray to dark gray, medium stiff to stiff, dry, | |
| 30 | 4.0 | | | | | Sand, silty, tan, thin light tan/white layers, loose, dry, fine-grained. | |
| | 3.1 | | | | SM | | |
| | 8.2 | | | | | Sand, silty, clayey to sandy clay, orange/yellow-brown, loose, dry | |
| | 3.1 | | | | SC SM | *TW-1 @ 33' | |
| | 1.6 | | | | | | |
| 35 | 830 | | | | SM | Sand, silty, gray, loose to medium dense, wet, fine to medium-grained, odor and staining. | |
| | 8.1 | | | | SC SM | Sand, silty, clayey, yellow-brown, medium dense, moist to wet, fine to medium-grained, no odor. | |
| | 2.9 | 100% * | | | | Clay, gray and brown, minor orange mottling, stiff, dry, wet from 38-38.5', | |
| | 1.0 | | | | CL | no odor, some iron nodules. | |
| | 4.1 | 100% | | | | | |
| 40 | | | | | | End of boring = 40'. Well set at 40' | |
| 45 | | | | | | | |
| 50 | | | | | | | |
| 55 | | | | | | | |

Drilling Log CANADA MESA #2 LOGS.GPJ MWH IA.GDT 10/18/23

# APPENDIX G

Waste Disposal Documentation

envirotech

# Bill of Lading

MANIFEST # 78476
GENERATOR Kinder morgan
POINT OF ORIGIN ELPaso pit sites
TRANSPORTER Envirotech
DATE 03/31/23 JOB # 14073-0073

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

| LOAD NO. | COMPLETE DESCRIPTION OF SHIPMENT | | | | | | TRANSPORTING COMPANY | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DESTINATION | MATERIAL | GRID | YDS | BBLS | DRUMS | TKT# | TRK# | TIME | DRIVER SIGNATURE |
| 1 | BF | Tankbottoms | | | 1 | | | 991 | 1130 | byGayR |
| | | | | | 1 | | | | | |
| | | | | | | | | | | |
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| RESULTS | | | LANDFARM EMPLOYEE | NOTES |
|---|---|---|---|---|
| -251 | CHLORIDE TEST | 1 | Cary Robinson | |
| | CHLORIDE TEST | | ☐ Soil w/ Debris ☐ After Hours/Weekend Receival ☐ Scrape Out ☐ Wash Out | |
| | CHLORIDE TEST | | **By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load. Landfarm employee signature is certification of the above material being received and placed accordingly.** | |
| Pass | PAINT FILTER TEST | 1 | | |

Generator Onsite Contact _____ Phone _____

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SAN JUAN PRINTING 2021 407-3

envirotech

BOL# 78476

# CHLORIDE TESTING / PAINT FILTER TESTING

DATE 03/31/23 TIME 1130

Attach test strip here

CUSTOMER Kinder Morgan

SITE ELPASO Pit Sites

DRIVER by Gary Robinson

SAMPLE Soil Straight _____ With Dirt X

**CHLORIDE TEST** -281 mg/Kg

ACCEPTED YES X NO _____

**PAINT FILTER TEST** Time started 1130 Time completed 1142

PASS YES X NO _____

SAMPLER/ANALYST Cory Robinson

5796 US Hwy 64, Farmington, NM 87401 || Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 || info@envirotech-inc.com envirotech-inc.com

# envirotech

# Bill of Lading

MANIFEST # 79427
GENERATOR Kinder Morgan (picked up from)
POINT OF ORIGIN Bio Vista Comp Station *
TRANSPORTER Envirotech
DATE 5/22/2023 JOB # 14073-0073

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

| LOAD NO. | COMPLETE DESCRIPTION OF SHIPMENT | | | | | | TRANSPORTING COMPANY | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DESTINATION | MATERIAL | GRID | YDS | BBLS | DRUMS | TKT# | TRK# | TIME | DRIVER SIGNATURE |
| 1 | BF | Contaminated Water | | | | 1 | | 992/705 | 1550 | |
| | | | | | | 1 | | | | |
| | | | | | | | | | | |
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| | | | | | | | | | SCANNED | |

| RESULTS | | |
|---|---|---|
| -251 | CHLORIDE TEST | 1 |
| | CHLORIDE TEST | |
| | CHLORIDE TEST | |
| Pass | PAINT FILTER TEST | 1 |

LANDFARM EMPLOYEE

☐ Soil w/ Debris ☑ After Hours/Weekend Receival ☐ Scrape Out ☐ Wash Out

NOTES
* From San Juan River Plant, Blanco N. Flare, and numerous pit sites.

**By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load. Landfarm employee signature is certification of the above material being received and placed accordingly.**

Generator Onsite Contact Sean Cleary Phone (515) 557-0109

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envirotech BOL# 79427

# CHLORIDE TESTING / PAINT FILTER TESTING

DATE 5/22/2023 TIME 1550

CUSTOMER Kinder Morgan

SITE Rio Vista Comp Station SJ River Plant Blanco N Flare Aluminosis Pits sites

DRIVER [redacted]

SAMPLE Soil Straight _____ With Dirt ✓

**CHLORIDE TEST** -281 mg/Kg

ACCEPTED YES ✓ NO _____

**PAINT FILTER TEST** Time started 1550 Time completed 1600

PASS YES ✓ NO _____

SAMPLER/ANALYST [redacted]

Attach test strip here

5796 US Hwy 64, Farmington, NM 87401 | Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 | info@envirotech-inc.com envirotech-inc.com

# envirotech

# Bill of Lading

MANIFEST # 80398
GENERATOR El Paso
POINT OF ORIGIN Canada Mesa #2
TRANSPORTER Riley
DATE 07/25/23 JOB # 14073-0078

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

| LOAD NO. | COMPLETE DESCRIPTION OF SHIPMENT | | | | | | TRANSPORTING COMPANY | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DESTINATION | MATERIAL | GRID | YDS | BBLS | DRUMS | TKT# | TRK# | TIME | DRIVER SIGNATURE |
| 1 | BF2 | Hydro roc Con't Soil | | | 25 | | | 17012 | 1230 | |
| — | BF | washout by Riley | | | 5 | | | 17012 | 1230 | |
| | | | | | 30 | | | | | |
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| RESULTS | | |
|---|---|---|
| -281 | CHLORIDE TEST | 1 |
| | CHLORIDE TEST | |
| | CHLORIDE TEST | |
| Pass | PAINT FILTER TEST | 1 |

LANDFARM EMPLOYEE Cory Palmer

☐ Soil w/ Debris ☐ After Hours/Weekend Receival ☐ Scrape Out ☐ Wash Out

NOTES

**By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load. Landfarm employee signature is certification of the above material being received and placed accordingly.**

Generator Onsite Contact _____ Phone _____

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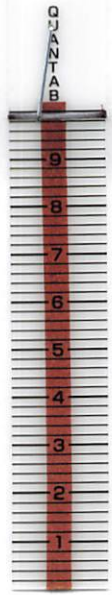
BOL# 80398

# CHLORIDE TESTING / PAINT FILTER TESTING

DATE 07/25/23 TIME 1230

Attach test strip here




CUSTOMER El Paso

SITE Canada mesa #2

DRIVER Tim

SAMPLE Soil Straight _____ With Dirt X

**CHLORIDE TEST** 281 mg/Kg

ACCEPTED YES X NO _____

**PAINT FILTER TEST** Time started 1230 Time completed 1442

PASS YES X NO _____

SAMPLER/ANALYST Cory Robinson

5796 US Hwy 64, Farmington, NM 87401 | Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 | info@envirotech-inc.com envirotech-inc.com

# envirotech

# Bill of Lading

MANIFEST # 80485
GENERATOR ~~Harvest~~ El Paso
POINT OF ORIGIN Canada mesa #2
TRANSPORTER Envirotech
DATE 07/28/23 JOB # 14073-0031

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

| LOAD NO. | COMPLETE DESCRIPTION OF SHIPMENT | | | | | | TRANSPORTING COMPANY | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DESTINATION | MATERIAL | GRID | YDS | BBLS | DRUMS | TKT# | TRK# | TIME | DRIVER SIGNATURE |
| 1 | LF2-5 | Cont Soil | E-38 | 4 | — | — | — | 978 | 0950 | |
| 2 | BF | Cont Liquid | — | — | — | 1 | — | 978 | 0950 | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | 4 | | 1 | | | | |
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| RESULTS | | |
|---|---|---|
| 272 | CHLORIDE TEST | 1 |
| 272 | CHLORIDE TEST | 1 |
| | CHLORIDE TEST | |
| Pass | PAINT FILTER TEST | 2 |

LANDFARM EMPLOYEE

☐ Soil w/ Debris ☐ After Hours/Weekend Receival ☐ Scrape Out ☐ Wash Out

NOTES 4yds 2 soil boxes
1 ~~BBL~~ Drum Liquid

**By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load. Landfarm employee signature is certification of the above material being received and placed accordingly.**

Generator Onsite Contact _____ Phone _____

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BOL# 804185

# CHLORIDE TESTING / PAINT FILTER TESTING

DATE 07/28/23 TIME 0950

CUSTOMER El Paso

SITE Canada mesa #2

DRIVER Patrick Mesa

SAMPLE (Soil) Straight ✓ With Dirt _____

**CHLORIDE TEST** 272 mg/Kg

ACCEPTED YES ✓ NO _____

**PAINT FILTER TEST** Time started 0950 Time completed 1000

PASS YES ✓ NO _____

SAMPLER/ANALYST _____

Attach test strip here


5796 US Hwy 64, Farmington, NM 87401 | Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 | info@envirotech-inc.com envirotech-inc.com

envirotech

BOL# 80485

# CHLORIDE TESTING / PAINT FILTER TESTING

DATE 07/28/22 TIME 0950

CUSTOMER ~~Harvest~~ ELPaso

SITE Canada mesa #2

DRIVER Patricia Mesa

SAMPLE Soil Straight _____ With Dirt ✓

**CHLORIDE TEST** 272 mg/Kg

ACCEPTED YES ✓ NO _____

**PAINT FILTER TEST** Time started 0950 Time completed 1000

PASS YES ✓ NO _____

SAMPLER/ANALYST _____

Attach test strip here


5796 US Hwy 64, Farmington, NM 87401 Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 info@envirotech-inc.com envirotech-inc.com

envirotech

# Bill of Lading

MANIFEST # 80964
GENERATOR El Paso
POINT OF ORIGIN James F Bell #1E
TRANSPORTER Envirotech
DATE 8/26/2023 JOB # 14073-0080

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

| LOAD NO. | COMPLETE DESCRIPTION OF SHIPMENT | | | | | | TRANSPORTING COMPANY | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DESTINATION | MATERIAL | GRID | YDS | BBLS | DRUMS | TKT# | TRK# | TIME | DRIVER SIGNATURE |
| 1 | BF | Contaminated Water | | - | 2 | | | 992 | 0750 | |
| | | | | | /2 | | | | | |
| | | | | | | | | | | |
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| | | | | | | | Bill 2 hrs | callout | | |

| RESULTS | | |
|---|---|---|
| -272 | CHLORIDE TEST | 1 |
| | CHLORIDE TEST | |
| | CHLORIDE TEST | |
| Pass | PAINT FILTER TEST | 1 |

LANDFARM EMPLOYEE

☐ Soil w/ Debris ☒ After Hours/Weekend Receival ☐ Scrape Out ☐ Wash Out

NOTES
Dave & Out @ 0900

**By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load. Landfarm employee signature is certification of the above material being received and placed accordingly.**

Generator Onsite Contact _____ Phone _____

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envirotech

BOL# 80964

# CHLORIDE TESTING / PAINT FILTER TESTING

DATE 8/26/2023 TIME 0750

CUSTOMER El Paso

SITE James F Bell #1E

DRIVER Colton John

SAMPLE Soil Straight ✓ With Dirt _____

**CHLORIDE TEST** -272 mg/Kg

ACCEPTED YES ✓ NO _____

**PAINT FILTER TEST** Time started 0750 Time completed 0800

PASS YES ✓ NO _____

SAMPLER/ANALYST _____

Attach test strip here

5796 US Hwy 64, Farmington, NM 87401 Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 info@envirotech-inc.com envirotech-inc.com

envirotech

# Bill of Lading

MANIFEST # 80981
GENERATOR ELPaso
POINT OF ORIGIN Canada Mesa #2
TRANSPORTER Envirotech
DATE 08/28/23 JOB # 14073-0078

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

| LOAD NO. | COMPLETE DESCRIPTION OF SHIPMENT | | | | | | TRANSPORTING COMPANY | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DESTINATION | MATERIAL | GRID | YDS | BBLS | DRUMS | TKT# | TRK# | TIME | DRIVER SIGNATURE |
| 1 | BF | Tankbottoms | | | 9 | - | - | 958 | 1130 | Austin Ingle |
| | | | | | 9 | | | | | |
| | | | | | | | | | | |
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| RESULTS | | | LANDFARM EMPLOYEE | NOTES |
|---|---|---|---|---|
| -272 | CHLORIDE TEST | 1 | Cory Robinson | |
| | CHLORIDE TEST | | ☐ Soil w/ Debris ☐ After Hours/Weekend Receival ☐ Scrape Out ☐ Wash Out | |
| | CHLORIDE TEST | | | |
| Pass | PAINT FILTER TEST | 1 | | |

**By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load. Landfarm employee signature is certification of the above material being received and placed accordingly.**

Generator Onsite Contact _____ Phone _____

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envirotech

BOL# 80981

# CHLORIDE TESTING / PAINT FILTER TESTING

DATE 8/28/23 TIME 1130

Attach test strip here


CUSTOMER Kinder-Morgan EL PASO

SITE Canada Mesa #2

DRIVER [signature]

SAMPLE Soil Straight _____ With Dirt X

**CHLORIDE TEST** 272 mg/Kg

ACCEPTED YES X NO _____

**PAINT FILTER TEST** Time started 1130 Time completed 1140

PASS YES X NO _____

SAMPLER/ANALYST [signature]

5796 US Hwy 64, Farmington, NM 87401 | Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 | info@envirotech-inc.com envirotech-inc.com

envirotech

# Bill of Lading

MANIFEST # 82577
GENERATOR El Paso
POINT OF ORIGIN See the C-138 for list of sites
TRANSPORTER Envirotech
DATE 11/16/23 JOB # 14073-0081

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

| LOAD NO. | COMPLETE DESCRIPTION OF SHIPMENT | | | | | | TRANSPORTING COMPANY | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DESTINATION | MATERIAL | GRID | YDS | BBLS | DRUMS | TKT# | TRK# | TIME | DRIVER SIGNATURE |
| 1 | B'F | Tank bottoms | | | 1 | — | — | 725 | 1430 | |
| | | | | | 1 | | | | | |
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| | | | | | | | | | | |

| RESULTS | | | LANDFARM EMPLOYEE | NOTES |
|---|---|---|---|---|
| -272 | CHLORIDE TEST | 1 | | |
| | CHLORIDE TEST | | ☐ Soil w/ Debris ☐ After Hours/Weekend Receival ☐ Scrape Out ☐ Wash Out | |
| | CHLORIDE TEST | | **By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load. Landfarm employee signature is certification of the above material being received and placed accordingly.** | |
| Pass | PAINT FILTER TEST | 1 | | |

Generator Onsite Contact _____ Phone _____

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envirotech

BOL# 82577

# CHLORIDE TESTING / PAINT FILTER TESTING

DATE 11/16/23 TIME 1430

CUSTOMER El Paso

SITE See Bol 82577

DRIVER Stoven by Gomez

SAMPLE Soil Straight _____ With Dirt X

**CHLORIDE TEST** 272 mg/Kg

ACCEPTED YES X NO _____

**PAINT FILTER TEST** Time started 1430 Time completed 1441

PASS YES X NO _____

SAMPLER/ANALYST _____

Attach test strip here


5796 US Hwy 64, Farmington, NM 87401 Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 info@envirotech-inc.com envirotech-inc.com

# APPENDIX H

AcuVac MDPE Report

AcuVac Remediation

December 20, 2023

Mr. Stephen Varsa
Supervising Hydrogeologist
Stantec Consulting Services, Inc.
11311 Aurora Avenue
Des Moines, IA 50322

Dear Steve:

Re: Canada Mesa, Rio Arriba County, NM (Event #3)

At your request, AcuVac Remediation, LLC (AcuVac) performed one 8.0-hour combined Soil Vapor Extraction (SVE)/Mobile Dual Phase Extraction (MDPE) event on well MW-9 at the above referenced site (Site). SVE was performed through event hour 1.5, at which point MDPE was started. The following is the report and a copy of the operating data collected during Event #3. Additionally, the attached Table #1 contains the Summary Well Data, and Table #2 contains the Summary Recovery Data.

The purpose of the MDPE event was to enhance recovery of petroleum hydrocarbon impacts present at the Site through the removal of both Phase Separated Hydrocarbons (PSH) and vapor phase petroleum hydrocarbons. PSH is referred to as Light Non-Aqueous Phase Liquids (LNAPL). The source of the petroleum hydrocarbon impacts is a historical release of natural gas condensate.

All wells utilized in Event #3 and their related data are outlined in the table below.

| Wells Utilized for SVE / MDPE Event #3 | | | | | |
|---|---|---|---|---|---|
| **Well Number** | **Diameter (in)** | **Total Depth (ft)** | **Screen Interval (ft bgs)** | **Distance from Extraction Well (ft)** | **Influence Recorded** |
| **Extraction Well** | | | | | |
| MW-9 | 2.0 | 45.00 | 25.00 - 45.00 | - | Hydraulic & Vacuum |
| **Monitoring Points** | | | | | |
| MW-12 | 2.0 | 51.50 | 31.50 - 51.50 | 23.0 | Vacuum |
| TW-1 | 2.0 | 40.00 | 38.00 - 40.00 | 24.6 | Vacuum |
| MW-2R | 2.0 | 45.40 | 25.40- 45.40 | 29.9 | Vacuum |
| MW-11 | 2.0 | 47.00 | 27.00- 47.00 | 32.0 | Vacuum |
| MW-10 | 2.0 | 57.00 | 37.00- 57.00 | 32.2 | Vacuum |

## OBJECTIVES

The objectives of the MDPE event were to:

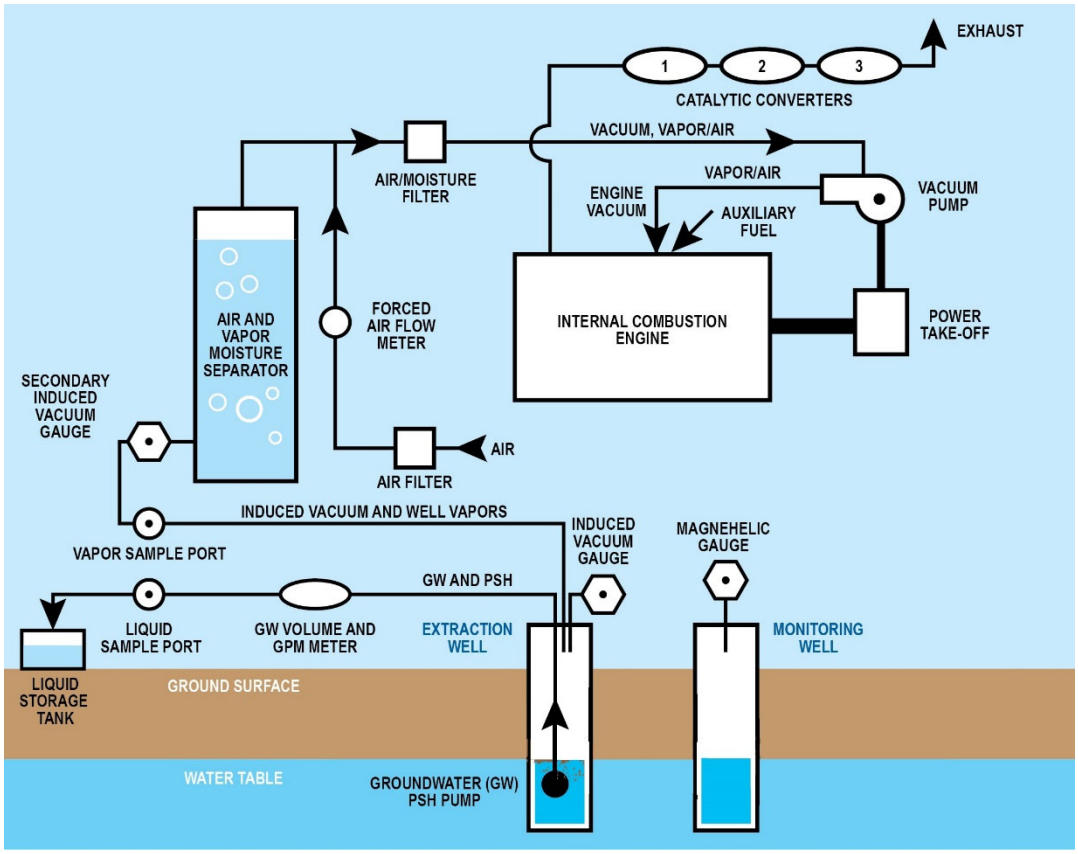
- Maximize the removal of liquid and vapor phase petroleum hydrocarbons from the groundwater and soils in the subsurface formations within the influence of the extraction well.
- Expose the capillary fringe area to an induced vacuum.
- Increase the liquid and vapor phase petroleum hydrocarbon specific yields with high induced vacuums.
- Create an induced hydraulic gradient to gain hydraulic control of the area surrounding the extraction well during the event period.

## METHODS AND EQUIPMENT

AcuVac owns and maintains an inventory of equipment to perform SVE/MDPE testing. No third-party equipment was utilized. The testing at the Site was conducted using the AcuVac I-6 System (System) with a Roots RAI-33 blower, used as a vacuum pump, and a Roots RAI-22 positive displacement blower. The following table lists equipment and instrumentation employed during the testing and the data element captured by each.

| Equipment and Instrumentation Employed by AcuVac | |
|---|---|
| **Measurement Equipment** | **Data Element** |
| **Extraction Well Induced Vacuum and Flow** | |
| Dwyer Magnehelic Gauges | Extraction Well Vacuum |
| Dwyer Averaging Pitot Tubes / Magnehelic Gauges | Extractions Well Vapor Flow |
| **Observation Wells** | |
| Dwyer Digital Manometer | Vacuum / Pressure Influence |
| **Extraction Well Vapor Monitoring** | |
| V-1 Vacuum Box | Extraction Well Non-Diluted Vapor Sample Collection |
| HORIBA® Analyzer | Extraction Well Vapor TPH Concentration |
| RKI 1200 $O_2$ Monitor | Extraction Well Vapor Oxygen Content |
| **NAPL Thickness (if present)** | |
| Solinst Interface Probe Model 122 | Depth to NAPL and Depth to Groundwater |
| **Liquid Recovery** | |
| Totalizer Flow Meter | Liquid Flow and Total Volume |
| Grundfos Red-Flo 2 Total Fluids Pump | In-Well Pumping |
| Grundfos Variable Frequency Drive | Pump Speed and Other Diagnostics |
| **Groundwater Depression / Upwelling** | |
| In-Situ Level Troll 700 Data Logger | Liquid Column in Extraction and Observation Wells |
| In-Situ Vented Cable with Chamber | Equalize Well Vacuum/Pressure |
| In-Situ Rugged Reader Data Logger Interface | Capture Readings from Data Logger Trolls |
| **Atmospheric Conditions** | |
| Testo Model 511 | Relative and Absolute Barometric Pressure |

## ACUVAC MOBILE DUAL PHASE SYSTEM




The vacuum extraction portion of the System consists of a vacuum pump driven by an internal combustion engine (IC engine). The vacuum pump connects to the extraction well, and the vacuum created on the extraction well causes light hydrocarbons in the soil and on the groundwater to volatilize and flow through a moisture knockout tank to the vacuum pump and the IC engine where they burn as part of the normal combustion process. Auxiliary propane powers the engine if the well vapors do not provide the required energy.

The IC engine provides the power necessary to achieve and maintain high induced vacuums and/or high well vapor flows needed to maximize the vacuum radius of influence.

Emissions from the engine pass through three catalytic converters to maximize destruction of effluent hydrocarbon vapors. The engine's fuel-to-air ratio is adjusted to maintain efficient combustion. Because the engine powers all equipment, the System stops when the engine stops preventing an uncontrolled release of hydrocarbons. Since the System operates entirely under vacuum, any leaks in the seals or connections leak into the System and not the atmosphere. Vacuum loss, low oil pressure, over-speed, or overheating automatically shut down the engine.

Groundwater extraction was provided by an in-well, Redi-Flo 2 total fluids pump that discharged through a total flow meter. The discharge line from the volume meter was then connected to the stand-by tank. A data logger (pressure transducer) was used to monitor the groundwater level relative to the in-well pump inlet. This enabled the AcuVac team to upwell the groundwater and then pump the well nearly dry to maximize the groundwater recovery. The electrical power for the groundwater pump was supplied from a 120v Honda generator. The groundwater flow rate was adjusted to maintain a target level. An interface meter was used to collect depth to groundwater and depth to LNAPL measurements. Groundwater samples were taken periodically in a graduated cylinder to determine the average LNAPL percentage being recovered.

The design of the AcuVac System enables independent control of both the induced well vacuum and the groundwater pumping functions such that the AcuVac team controls the induced hydraulic gradient to increase exposure of the formation to soil vapor extraction (SVE). The ability to separate the vapor and liquid flows within the extraction well improve the LNAPL recovery rates and enabled the AcuVac team to record data specific to each media.

## RECOVERY SUMMARY FOR MDPE EVENT #3

The Recovery Summary Table below lists the total liquid and LNAPL recovery data for Event #3.

| Petroleum Hydrocarbon Recovery Summary Event #3 | | |
|---|---|---|
| **Event Number** | | **Event #3** |
| **Event Date** | | **08/27/2023** |
| **Event Hours** | **Units** | **8.0** |
| **Total Liquid Recovery** | gals | 435 |
| **Petroleum Hydrocarbon Recovery** | | |
| **Liquid** | gals | 30.5 |
| **Vapor** | gals | 0.5 |
| **Total** | gals | 30.9 |
| **Gallons/Hour** | | **3.87** |

## DISCUSSION OF RESULTS OF MDPE EVENT #3

- At the start of the event, SVE only was performed to determine the extent, if any, the vacuum would mound the liquid level in the well. The induced vacuum was on an increasing trend making it difficult to determine the mounding. However, the well vapor flow continued to increase with the vacuum, indication that the well screen was not being occluded by any liquid mounding in the well.
- Total influent vapor hydrocarbons burned as IC engine fuel in the Petroleum Hydrocarbon Recovery Summary Table above is based on the HORIBA® data recorded in the Influent Vapor Data Table below. Influent vapor samples were obtained 30 minutes after the start of the event and every hour thereafter until the conclusion the event. All samples were tested on-site by AcuVac.

| Influent Vapor Data Extraction Well MW-9 | | |
|---|---|---|
| **Event Number** | | **Event #3** |
| **Event Date** | | **08/27/2023** |
| **Event Hours** | **Units** | **8.0** |
| **Data Element** | | |
| **TPH- Maximum** | ppmv | 1,680 |
| **TPH- Average** | ppmv | 1,403 |
| **TPH- Minimum** | ppmv | 1,122 |
| **TPH- Initial** | ppmv | 1,126 |
| **TPH- Ending** | ppmv | 1,600 |
| **$CO_2$** | % | 4.28 |
| **$O_2$** | % | 15.24 |
| **$H_2S$** | ppm | 0 |

- The extraction well induced vacuum and well vapor flow for Event #3 are presented in the table below.

| Well Vacuum and Well Vapor Flow Extraction Well MW-9 | | |
|---|---|---|
| **Event Number** | | **Event #3** |
| **Event Date** | | **08/27/2023** |
| **Event Hours** | **Units** | **8.0** |
| **Data Element** | | |
| **Well Vacuum- Maximum** | "$H_2O$ | 15.00 |
| **Well Vacuum- Average** | "$H_2O$ | 13.88 |
| **Well Vacuum- Minimum** | "$H_2O$ | 5.00 |
| **Well Vapor Flow- Maximum** | scfm | 21.55 |
| **Well Vapor Flow- Average** | scfm | 20.02 |
| **Well Vapor Flow- Minimum** | scfm | 7.90 |

- The groundwater pump inlet was initially set at approximately 41.00 ft BTOC. The average groundwater pump rate was 0.85 gpm, and the maximum groundwater pump rate was 1.53 gpm.

| Total Liquids Pump Data Extraction Well MW-9 | | |
|---|---|---|
| **Event Number** | | **Event #3** |
| **Event Date** | | **08/27/2023** |
| **Event Hours** | **Units** | **8.0** |
| **Data Element** | | |
| **Maximum GW Pump Rate** | gpm | 1.53 |
| **Average GW Pump Rate** | gpm | 0.85 |

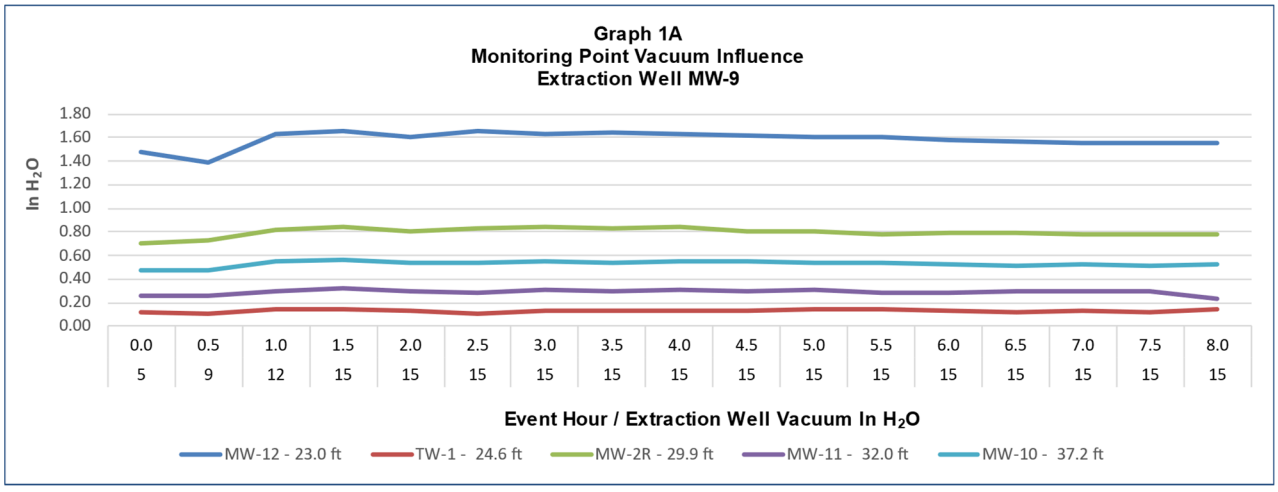
- Depth to groundwater, depth to LNAPL, and LNAPL thickness at the start and end of Event #3 are presented in the table below.

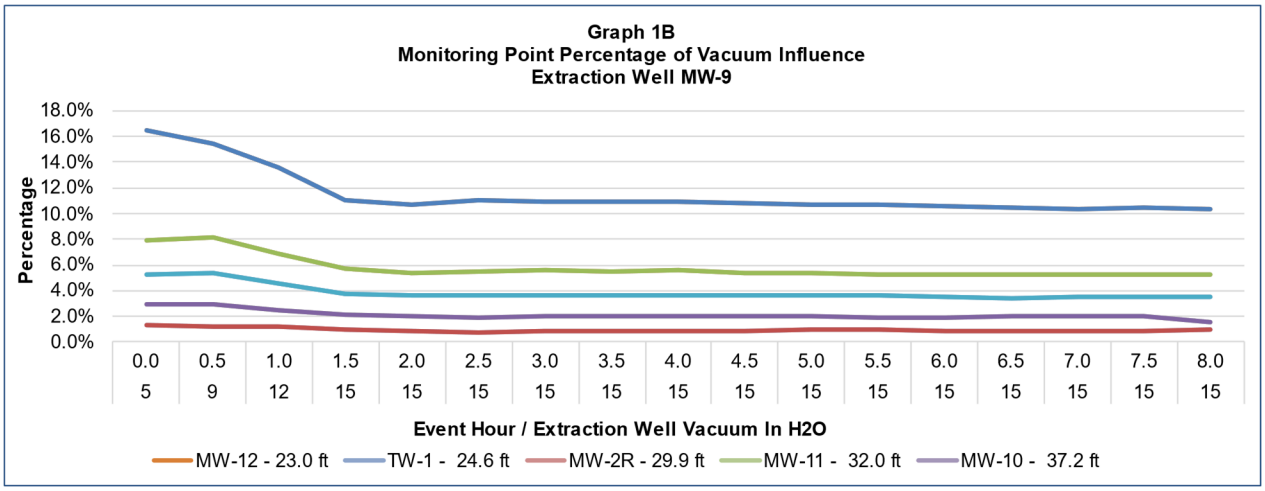
| LNAPL Thickness Data Well MW-9 | | |
|---|---|---|
| **Event Number** | | **Event #3** |
| **Event Date** | | **08/27/2023** |
| **Event Hours** | **Units** | **8.0** |
| **Event Start** | | |
| **Depth to Groundwater** | Ft BTOC | 35.30 |
| **Depth to LNAPL** | Ft BTOC | 35.14 |
| **LNAPL Thickness** | ft | 0.16 |
| **Hydro Equivalent** | Ft BTOC | 35.18 |
| **Event Conclusion** | | |
| **Depth to Groundwater** | Ft BTOC | 35.95 |
| **Depth to LNAPL** | Ft BTOC | 35.60 |
| **LNAPL Thickness** | ft | 0.35 |
| **Hydro Equivalent** | Ft BTOC | 35.69 |

## VACUUM INFLUENCE ON MONITORING POINTS- EVENT #3

Graph 1A: Monitoring Point Vacuum Influence and Graph 1B: Percentage of Vacuum Influence represents the influence of the induced vacuum on well MW-9 on the monitoring points during Event #3. During the event, the vacuum influence on the monitoring points was recorded every 30 minutes.

The graphical representations of Event #3 are shown below and on the following page.






## METHOD OF CALIBRATION AND CALCULATIONS

The HORIBA® Analytical instrument is calibrated with hexane, carbon monoxide and carbon dioxide. The formula used to calculate the emission rate is:

$$ER = TPH\ (ppmv) \times MW\ (hexane) \times Flow\ Rate\ (scfm) \times 1.58E^{-7} \frac{(min)(lb\ mole)}{(hr)(ppmv)(ft^3)} = lbs/hr$$

## INFORMATION INCLUDED WITH REPORT

- Table #1A Summary Well Data- Well MW-9
- Table #1B Summary Recovery Data- Well MW-9
- Recorded Data

After you have reviewed the report and if you have any questions, please contact me. We appreciate you selecting AcuVac to provide this service.

Sincerely,
ACUVAC REMEDIATION, LLC

Paul D. Faucher
President

## Summary Well Data
## Table #1

| Event | | 3 |
|---|---|---|
| **EXTRACTION WELL ID** | | **MW-9** |
| Event Date | | 08/27/2023 |
| Current Event Hours | | 8.0 |
| Total Event Hours | | 8.0 |
| Total Depth | ft BGS | 45.00 |
| Well Screen | ft BGS | 25.0 - 50.0 |
| Well Diameter | in | 2.0 |
| **Extraction Well Data** | | |
| Depth To Groundwater - Static - Start Event | ft BTOC | 35.30 |
| Depth To LNAPL - Static - Start Event | ft BTOC | 35.14 |
| LNAPL | ft | 0.16 |
| Hydro-Equivalent- Beginning | ft BTOC | 35.18 |
| Depth To Groundwater - End Event | ft BTOC | 35.95 |
| Depth To LNAPL - End Event | ft BTOC | 35.60 |
| LNAPL | ft | 0.35 |
| Hydro-Equivalent- Ending | ft BTOC | 35.69 |
| **Extraction Well Data** | | |
| Maximum Extraction Well Vacuum | $InH_2O$ | 15.00 |
| Average Extraction Well Vacuum | $InH_2O$ | 13.88 |
| Minimum Extraction Well Vacuum | $InH_2O$ | 5.00 |
| Maximum Extraction Well Vapor Flow | scfm | 21.55 |
| Average Extraction Well Vapor Flow | scfm | 20.02 |
| Minimum Extraction Well Vapor Flow | scfm | 7.90 |
| Maximum GW / LNAPL Pump Rate | gpm | 1.53 |
| Average GW / LNAPL Pump Rate | gpm | 0.85 |
| **Influent Data** | | |
| Maximum TPH | ppmv | 1,680 |
| Average TPH | ppmv | 1,403 |
| Minimum TPH | ppmv | 1,122 |
| Initial TPH | ppmv | 1,126 |
| Final TPH | ppmv | 1,600 |
| Average $CO_2$ | % | 4.28 |
| Average $O_2$ | % | 15.24 |
| Average $H_2S$ | ppm | 0 |

## Summary Recovery Data
## Table #2

| Event | | 3 |
|---|---|---|
| **WELL NO.** | | **MW-9** |
| **Recovery Data- Current Event** | | |
| Total Liquid Volume Recovered | gals | 435 |
| Total Liquid LNAPL Recovered | gals | 30.5 |
| Total Liquid LNAPL Recovered / Total Liquid | % | 7.0 |
| Total Liquid LNAPL Recovered / Total LNAPL | % | 98.4 |
| Total Vapor LNAPL Recovered | gals | 0.5 |
| Total Vapor LNAPL Recovered / Total LNAPL | % | 1.6 |
| Total Vapor and Liquid LNAPL Recovered | gals | 40.0 |
| Average LNAPL Recovery | gals/hr | 3.87 |
| Total LNAPL Recovered | lbs | 217 |
| Total Volume of Well Vapors | cu. ft | 9,610 |
| **Recovery Data- Cumulative** | | |
| Total Liquid Volume Recovered | gals | 435 |
| Total Liquid LNAPL Recovered | gals | 30.5 |
| Total Vapor LNAPL Recovered | gals | 0.5 |
| Total Vapor and Liquid LNAPL Recovered | gals | 30.9 |
| Average LNAPL Recovery | gals/hr | 3.87 |
| Total LNAPL Recovered | lbs | 217 |
| Total Volume of Well Vapors | cu. ft | 9,610 |

AcuVac Remediation

OPERATING DATA – EVENT # 3 PAGE # 1 ACUVAC MDP SYSTEM

Location: Canada Mesa, Rio Arriba County, NM Project Managers: Hendley / George

Well # MW-9

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Date | | | | | | |
| | | Time | 0745 | 0815 | 0845 | 0915 | 0945 | 1015 |
| | | Hr Meter | | | | | | |
| ENGINE / BLOWER | Engine Speed | RPM | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| | Oil Pressure | psi | 50 | 50 | 50 | 50 | 50 | 50 |
| | Water Temp | °F | 130 | 140 | 140 | 140 | 140 | 150 |
| | Alternator | Volts | 13 | 13 | 13 | 13 | 13 | 13 |
| | Intake Vacuum | "Hg | 16 | 16 | 16 | 16 | 16 | 16 |
| | Gas Flow Fuel/Propane | cfh | 120 | 120 | 120 | 120 | 120 | 120 |
| ATMOSPHERE VACUUM / AIR | Extraction Well Vac. | "$H_2O$ | 5 | 9 | 12 | 15 | 15 | 15 |
| | Extraction Well Flow | scfm | 7.90 | 13.95 | 18.19 | 21.55 | 21.51 | 21.51 |
| | Well Flow Ref Number | | 9 | 16 | 21 | 25 | 25 | 25 |
| | Dilution Air | cfh | 0 | 0 | 0 | 0 | 0 | 0 |
| | Influent Vapor Temp. | °F | 64 | 64 | 66 | 66 | 68 | 68 |
| | Groundwater Temp | °F | — | — | — | — | — | — |
| | Air Temp | °F | 70 | 72 | 74 | 75 | 78 | 79 |
| | Barometric Pressure | "Hg | 29.68 | 29.68 | 29.68 | 29.70 | 29.71 | 29.72 |
| | Absolute Pressure | "Hg | 23.96 | 23.96 | 23.96 | 23.96 | 24.00 | 24.00 |
| VAPOR / INFLUENT | TPH | ppmv | — | 1126 | — | 1122 | — | 1332 |
| | $CO_2$ | % | — | 5.36 | — | 4.78 | — | 4.32 |
| | $O_2$ | % | — | 13.7 | — | 14.5 | — | 15.2 |
| | $H_2S$ | ppm | — | — | — | — | — | — |
| NOTES | Arrive site. Tailgate Safety meeting. Event start @ 0745. SVE Step until 0915. Shut pump @ 0915. | | | | | | | |
| RECOVERY | Totalizer 18100 | gals | 18100 | 18100 | 18100 | 18100 | 18124 | 18146 |
| | Pump Rate | gals/min | 0 | 0 | 0 | 0.80 | 0.73 | .03 |
| | Total Volume | gals | — | — | — | — | 24 | 46 |
| | NAPL | % Vol | | | | | 7% | 7% |
| | NAPL | Gals | | | | | 1.68 | 1.54 |
| EW | Data Logger Head | ft | — | — | — | — | — | — |
| | GW Depression | ft | — | — | — | — | — | — |
| | Extraction Well | DTNAPL | | | | | | |
| | Extraction Well | DTGW | | | | | | |

AcuVac Remediation

OPERATING DATA – EVENT # 3 PAGE # 2 ACUVAC MDP SYSTEM

**Location:** Canada Mesa, Rio Arriba County, NM **Project Managers:** Hendley / George

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Well #** MW-9 | Date | | 8-27-23 | | | | | |
| | Time | | 1045 | 1115 | 1145 | 1215 | 1245 | 1315 |
| | Hr Meter | | | | | | | |
| ENGINE / BLOWER | Engine Speed | RPM | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| | Oil Pressure | psi | 50 | 50 | 50 | 1800 | 1800 | 1800 |
| | Water Temp | °F | 150 | 150 | 160 | 160 | 160 | 160 |
| | Alternator | Volts | 13 | 13 | 13 | 13 | 13 | 13 |
| | Intake Vacuum | "Hg | 16 | 16 | 16 | 16 | 16 | 16 |
| | Gas Flow Fuel/Propane | cfh | 120 | 120 | 120 | 110 | 110 | 110 |
| ATMOSPHERE VACUUM / AIR | Extraction Well Vac. | "$H_2O$ | 15 | 15 | 15 | 15 | 15 | 15 |
| | Extraction Well Flow | scfm | 21.47 | 21.47 | 21.47 | 21.45 | 21.45 | 21.43 |
| | Well Flow Ref Number | | 25 | 25 | 25 | 25 | 25 | 25 |
| | Dilution Air | cfh | 0 | 0 | 0 | 0 | 0 | 0 |
| | Influent Vapor Temp. | °F | 70 | 70 | 70 | 71 | 71 | 72 |
| | Groundwater Temp | °F | — | — | — | — | — | — |
| | Air Temp | °F | 77 | 78 | 78 | 80 | 81 | 82 |
| | Barometric Pressure | "Hg | 29.68 | 29.65 | 29.64 | 29.63 | 29.62 | 29.61 |
| | Absolute Pressure | "Hg | 23.96 | 23.93 | 23.92 | 23.92 | 23.91 | 23.90 |
| VAPOR / INFLUENT | TPH | ppmv | — | 1252 | — | 1667 | — | 1680 |
| | $CO_2$ | % | — | 4.06 | — | 4.09 | — | 3.98 |
| | $O_2$ | % | — | 15.4 | — | 15.5 | — | 15.6 |
| | $H_2S$ | ppm | — | — | — | — | — | — |
| NOTES | Appox. 1020 generator power lost, Compressor would not run and pumping stopped. Problem fixed and pumping restarted @ 1050 | | | | | | | |
| RECOVERY | Totalizer | gals | 18147 | 18184 | 18207 | 18231 | 18275 | 18319 |
| | Pump Rate | gals/min | 1.23 | 0.77 | .80 | 1.47 | 1.47 | 1.53 |
| | Total Volume | gals | 47 | 84 | 107 | 131 | 175 | 219 |
| | NAPL | % Vol | 7% | 7% | 7% | 7% | 7% | 7% |
| | NAPL | Gals | .07 | 2.59 | 1.61 | 1.68 | 3.08 | 3.08 |
| EW | Data Logger Head | ft | — | — | — | — | — | — |
| | GW Depression | ft | — | — | — | — | — | — |
| | Extraction Well | DTNAPL | | | | | | |
| | Extraction Well | DTGW | | | | | | |

AcuVac Remediation

OPERATING DATA – EVENT # 3 PAGE # 3 ACUVAC MDP SYSTEM

**Location:** Canada Mesa, Rio Arriba County, NM **Project Managers:** Hendley / George

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Well #** MW-9 | | Date | 8-27-23 | | | | | |
| | | Time | 1345 | 1415 | 1445 | 515 | 1545 | |
| | | Hr Meter | | | | | | |
| ENGINE / BLOWER | Engine Speed | RPM | 1800 | 1800 | 1800 | 1800 | 1800 | |
| | Oil Pressure | psi | 50 | 50 | 50 | 50 | 50 | |
| | Water Temp | °F | 160 | 160 | 160 | 160 | 160 | |
| | Alternator | Volts | 13 | 13 | 13 | 13 | 13 | |
| | Intake Vacuum | "Hg | 16 | 16 | 16 | 16 | 16 | |
| | Gas Flow Fuel/Propane | cfh | 110 | 110 | 110 | 110 | 110 | |
| ATMOSPHERE VACUUM / AIR | Extraction Well Vac. | "$H_2O$ | 15 | 15 | 15 | 15 | 15 | |
| | Extraction Well Flow | scfm | 21.43 | 21.41 | 21.41 | 21.38 | 21.39 | |
| | Well Flow Ref Number | | 25 | 25 | 25 | 25 | 25 | |
| | Dilution Air | cfh | 0 | 0 | 0 | 0 | 0 | |
| | Influent Vapor Temp. | °F | 72 | 73 | 73 | 74 | 74 | |
| | Groundwater Temp | °F | — | — | — | — | — | |
| | Air Temp | °F | 83 | 83 | 84 | 84 | 85 | |
| | Barometric Pressure | "Hg | 29.50 | 29.57 | 29.56 | 29.55 | 29.54 | |
| | Absolute Pressure | "Hg | 23.88 | 23.87 | 23.86 | 29.85 | 23.85 | |
| VAPOR / INFLUENT | TPH | ppmv | — | 1600 | — | 1450 | — | |
| | $CO_2$ | % | — | 3.86 | — | 3.76 | — | |
| | $O_2$ | % | — | 15.9 | — | 16.1 | — | |
| | $H_2S$ | ppm | — | — | — | — | — | |
| NOTES | Event end @ 1545. Measured totes to = 0% NAPL. | | | | | | | |
| RECOVERY | Totalizer | gals | 18365 | 18407 | 18453 | 18499 | 18535 | |
| | Pump Rate | gals/min | 1.4 | 1.53 | 1.53 | 1.20 | — | |
| | Total Volume | gals | 265 | 307 | 353 | 399 | 435 | |
| | NAPL | % Vol | 7% | 7% | 7% | 7% | 7% | |
| | NAPL | Gals | 3.22 | 2.94 | 3.22 | 3.22 | 2.52 | |
| EW | Data Logger Head | ft | — | — | — | — | — | |
| | GW Depression | ft | — | — | — | — | — | |
| | Extraction Well | DTNAPL | | | | | | |
| | Extraction Well | DTGW | | | | | | |

# APPENDIX I

AcuVac AS Test Report

AcuVac Remediation

December 29, 2023

Mr. Stephen Varsa
Supervising Hydrogeologist
Stantec Consulting Services, Inc.
11311 Aurora Avenue
Des Moines, IA 50322

Dear Steve:

Re: Canada Mesa #2, Rio Arriba County, NM (Air Sparge Test #1)

At your request, AcuVac Remediation (AcuVac) performed one 4.0-hour Air Sparge (AS) Test utilizing well TW-1 as the injection well and the monitoring points as contained in the table below. Following is the Report and a copy of the Operating Data collected during the Air Sparge Test. The contaminant is Light Non-Aqueous Phase Liquid (LNAPL).

**Table A**
**Wells Utilized for Air Sparge Test #1**

| Well Number | Diameter (in) | Total Depth (ft btoc) | Screen Interval (ft btoc) | Distance from Injection Well (ft btoc) | Influence Recorded |
|---|---|---|---|---|---|
| **Injection Well** | | | | | |
| TW-1 | 2.0 | 40.0 | 38.0 - 40.0 | - | Pressure |
| **Monitoring Points** | | | | | |
| MW-12 | 2.0 | 51.5 | 31.5 - 51.5 | 8.0 ft | Pressure |
| MR-2R | 2.0 | 45.4 | 25.4 - 45.4 | 15.8 ft | Pressure |
| MW-9 | 2.0 | 45.0 | 25.0 - 45.0 | 24.6 ft | Pressure |
| MW-4 | 2.0 | 50.0 | 30.0 - 50.0 | 35.7 ft | Pressure |
| MW-8 | 2.0 | 50.0 | 30.0 - 50.0 | 37.0 ft | Pressure |

## OBJECTIVES

The Objectives of the Air Sparge Test were to:

- Evaluate the potential for removing Light Non-Aqueous Phase Liquids (LNAPL) and dissolved phase LNAPL from the groundwater and soils in the subsurface formation (smear zone) by injecting clean ambient air below the static groundwater level.
- Provide data on the pressure and the resulting flow volume during the Test.
- Determine the AS radius of influence to remove dissolved phase LNAPL from the groundwater and soils.

The air injection well induced vacuum variable rate test defines the pressure/flow characteristics of sub-surface soils around the injection well and estimates potential conditions for an operational Air Sparge System. Starting a test with lower variable rates of pressure and flow allows the injection well and outer wells sufficient time to adjust and stabilize and minimizes the risk of developing preferential paths. This will also assist the development of newly installed extraction wells.

## METHODS AND EQUIPMENT

The tests were conducted using AcuVac's SVE/AS I-6 System, with Roots RAI-33 and RAI-22 blowers, Midland 16.5 cfm engine driven air compressor, various instrumentation, including the HORIBA® Analyzer, RKI 1200 $O_2$ Analyzer, Solinst Interface Probes, In-situ data loggers, magnehelic gauges, Dwyer digital manometer, flow and pressure gauges, a Test 511 absolute pressure and altitude meter to determine barometric pressure, and other special equipment.

The air sparge portion of the AcuVac system was an engine driven 16.5 Midland air compressor. The compressed air was directed through an oil/moisture separator with a filter to remove any oil contaminants from the compressed air. The air was then channeled through a second moisture knockout tank before it was metered into the AS well. The compressed air flowed through flexible stainless-steel tubing to aid in reducing the injected air temperature. The injected air metering system contained a pressure gauge and a flow gauge located on the air sparge manifold. The compressed air then flowed through a high-pressure hose to the air sparge well manifold.

An alternate positive displacement blower driven by the IC engine was available if higher injected air flow was required. The blower inlet would be connected to an oversized fresh air filter. Air from the discharge side of the blower would be directed through three after-coolers and then through a metering system which controlled the flow and pressure. After the metering control system, the air would be directed to the air sparge well through a flexible hose. During these tests, the engine was the power source for all equipment, and. the air compressor supplied 100% of the air sparge requirements.

## PROJECT SCOPE AND PROCEDURES

### Air Sparge

- Record the distances from the AS wells to the outer observation wells.
- Connect the AcuVac System to the air sparge well manifold.
- Gauge and record depth to groundwater/depth to LNAPL in the air sparge and selected outer observation wells.
- Install the well manifolds on the air sparge wells and seal the outer observation wells with expandable plugs with quick connects.
- Record the static well data, well size, total depth and screen intervals and connect the air sparge system to the air sparge well with a high-pressure hose.
- Record all required baseline data.
- Start the air sparge test. Record the initial pressure, air flow and elapsed time to achieve breakthrough and continue to record this data for the remainder of the test.
- Provides variable rates of air sparge pressure and flow over the test period.

- Comply with all safety regulations.
- Complete the air sparge test by providing a report consisting of operating and analytical data.

## CONDITIONS AFFECTING AIR SPARGE TESTS

- Generally, a decreasing barometric pressure results in increased well pressures (decreased vacuums) on those wells plugged and sealed at the top of casing, while an increasing barometric pressure results in increased well vacuums. There are many variables that can affect test data, but barometric pressure fluctuations have the most immediate and profound effect.
- To offset the induced vacuum/pressure as a result of groundwater depression or upwelling in the outer monitoring wells, the wells are vented periodically to atmosphere and then re-plugged prior to recording data at each 0.5-hour interval. The potential for increased vacuum or pressure as a result of in/decreasing groundwater levels will help to minimize the effect on the outer observation wells. A groundwater depression surrounding an outer observation well will result in an induced vacuum not associated with the induced vacuum created in the extraction well. Likewise, groundwater mounding will create the opposite effect on well pressures.

We appreciate the opportunity to have conducted this Pilot Test for Stantec. If you should have any questions or need to have explanations on any of the tests or test data, please contact us.

Sincerely,
ACUVAC REMEDIATION, LLC

Paul D. Faucher
President

# AS Test #1
# Well TW-1 (Sparge Well)

## Pre-Test Functions

Prior to starting this test, the Air Sparge (AS) system and equipment were checked for safe and normal operation. Each magnehelic gauge was checked and calibrated to zero. The static (baseline) data was recorded for all wells. This included well vacuums/pressures.

The AS well (TW-1) was fitted with a threaded connection to securely attach the AS manifold to safely inject high pressure air. The manifold was then connected to AcuVac AS controller via a high-pressure hose. All safety checks were again performed on the system. The AS injection system was mobilized for the start of the test.

## Discussion of Data

The Well TW-1 Data Table on the following page contains the injection pressure, resulting well flow and the influence on the outer observation wells listed.

The workplan was to start with a low injection pressure to prevent the creation of any preferential pathways. The initial injection pressure was 3 psi with a flowrate of 4.3 cfm. At test hour 1.0, the pressure was increased to 6 psi, to maintain the flow rate of 3.6 cfm. The injection pressure remained steady at 6.0 psi, and the flow rate remained steady at 3.3 cfm, until test hour 2.0.

At test hour 2.0, the injection pressure was increased to 8.0 psi, and the flow rate remained steady at 3.3 cfm. The injection pressure remained steady at 8.0 psi, and the flow rate remained steady at 3.33 cfm, until test hour 2.42.

At test hour 2.42, the injection pressure was increased to 10 psi, and the flow rate remained steady at 3.33 cfm. The injection pressure remained steady at 10.0 psi, and the flow rate remained steady at 3.33 cfm, until test hour 3.0.

At test hour 3.0, the injection pressure was increased to 12 psi, and the flow rate decreased to 3.00 cfm. At test hour 3.42, the flow rate increased to 3.17 cfm. At test hour 3.58, the injection pressure increased to 14.0 psi, and the flow rate remained steady at 3.17 cfm, until test hour 4.0.

The outer wells. MW-12 (8.0 ft), MW-2R (15.8 ft), MW-9 (24.6 ft), MW-4 (35.7 ft), and well MW-8 (37.0 ft) recorded little measurable influence from the injection well.

The summary data for AS Test #1 is presented in the table on the following page.

**ACUVAC REMEDIATION, LLC**
**CANADA MESA**
**AS TEST #1**
**WELL TW-1 DATA**

| Time | | 13:00 | 13:05 | 13:10 | 13:15 | 13:20 | 13:25 | 13:30 | 13:35 | 13:40 | 13:45 | 13:50 | 14:00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Event Hour | | 0.00 | 0.08 | 0.17 | 0.25 | 0.33 | 0.42 | 0.50 | 0.58 | 0.67 | 0.75 | 0.83 | 1.00 |
| AIR SPARGE WELL- TW-1 | | | | | | | | | | | | | |
| Air Sparge Well Pressure | psi | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 6.00 |
| Air Sparge Well Flow | cfm | 4.33 | 3.67 | 3.67 | 3.67 | 3.67 | 3.67 | 3.67 | 3.67 | 3.67 | 3.67 | 3.67 | 3.67 |
| Air Sparge Volume Injected | cf | 21.67 | 18.33 | 18.33 | 18.33 | 18.33 | 18.33 | 18.33 | 18.33 | 18.33 | 18.33 | 36.67 | 18.33 |
| OBSERVATION WELLS- PRESSURE / (VACUUM) INFLUENCE | | | | | | | | | | | | | |
| MW-12 - 8.0 ft | in $H_2O$ | 0.00 | NM | NM | 0.059 | NM | 0.058 | NM | NM | 0.059 | NM | NM | 0.059 |
| MW-2R - 15.8 ft | in $H_2O$ | 0.02 | NM | NM | 0.007 | NM | 0.006 | NM | NM | 0.007 | NM | NM | 0.006 |
| MW-9 - 24.6 ft | in $H_2O$ | 0.00 | NM | NM | 0.017 | NM | 0.017 | NM | NM | 0.017 | NM | NM | 0.017 |
| MW-4 - 35.7 ft | in $H_2O$ | 0.00 | NM | NM | 0.003 | NM | 0.002 | NM | NM | 0.002 | NM | NM | 0.002 |
| MW-8 - 37.0 ft | in $H_2O$ | 0.00 | NM | NM | 0.002 | NM | 0.002 | NM | NM | 0.002 | NM | NM | 0.002 |

| Time | | 14:05 | 14:10 | 14:15 | 14:20 | 14:25 | 14:30 | 14:35 | 14:40 | 14:45 | 14:50 | 14:55 | 15:00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Event Hour | | 1.08 | 1.17 | 1.25 | 1.33 | 1.42 | 1.50 | 1.58 | 1.67 | 1.75 | 1.83 | 1.92 | 2.00 |
| AIR SPARGE WELL- TW-1 | | | | | | | | | | | | | |
| Air Sparge Well Pressure | psi | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 |
| Air Sparge Well Flow | cfm | 3.67 | 3.67 | 3.67 | 3.67 | 3.67 | 3.67 | 3.67 | 3.67 | 3.67 | 3.67 | 3.67 | 3.33 |
| Air Sparge Volume Injected | cf | 18.33 | 18.33 | 18.33 | 18.33 | 18.33 | 18.33 | 18.33 | 18.33 | 18.33 | 18.33 | 18.33 | 16.67 |
| OBSERVATION WELLS- PRESSURE / (VACUUM) INFLUENCE | | | | | | | | | | | | | |
| MW-12 - 8.0 ft | in $H_2O$ | NM | NM | 0.059 | NM | NM | 0.059 | NM | NM | 0.058 | NM | NM | 0.059 |
| MW-2R - 15.8 ft | in $H_2O$ | NM | NM | 0.007 | NM | NM | 0.007 | NM | NM | 0.005 | NM | NM | 0.007 |
| MW-9 - 24.6 ft | in $H_2O$ | NM | NM | 0.017 | NM | NM | 0.017 | NM | NM | 0.016 | NM | NM | 0.017 |
| MW-4 - 35.7 ft | in $H_2O$ | NM | NM | 0.002 | NM | NM | 0.002 | NM | NM | 0.002 | NM | NM | 0.002 |
| MW-8 - 37.0 ft | in $H_2O$ | NM | NM | 0.002 | NM | NM | 0.002 | NM | NM | 0.003 | NM | NM | 0.003 |

| Time | | 15:05 | 15:10 | 15:15 | 15:20 | 15:25 | 15:30 | 15:35 | 15:40 | 15:45 | 15:50 | 15:55 | 16:00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Event Hour | | 2.08 | 2.17 | 2.25 | 2.33 | 2.42 | 2.50 | 2.58 | 2.67 | 2.75 | 2.83 | 2.92 | 3.00 |
| AIR SPARGE WELL- TW-1 | | | | | | | | | | | | | |
| Air Sparge Well Pressure | psi | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| Air Sparge Well Flow | cfm | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 | 3.33 |
| Air Sparge Volume Injected | cf | 16.67 | 16.67 | 16.67 | 16.67 | 16.67 | 16.67 | 16.67 | 16.67 | 16.67 | 16.67 | 16.67 | 16.67 |
| OBSERVATION WELLS- PRESSURE / (VACUUM) INFLUENCE | | | | | | | | | | | | | |
| MW-12 - 8.0 ft | in $H_2O$ | NM | NM | 0.057 | NM | NM | 0.058 | NM | NM | 0.058 | NM | NM | 0.057 |
| MW-2R - 15.8 ft | in $H_2O$ | NM | NM | 0.007 | NM | NM | 0.007 | NM | NM | 0.005 | NM | NM | 0.006 |
| MW-9 - 24.6 ft | in $H_2O$ | NM | NM | 0.016 | NM | NM | 0.016 | NM | NM | 0.016 | NM | NM | 0.015 |
| MW-4 - 35.7 ft | in $H_2O$ | NM | NM | 0.002 | NM | NM | 0.002 | NM | NM | 0.001 | NM | NM | 0.000 |
| MW-8 - 37.0 ft | in $H_2O$ | NM | NM | 0.001 | NM | NM | 0.001 | NM | NM | 0.001 | NM | NM | 0.001 |

| Time | | 16:05 | 16:10 | 16:15 | 16:20 | 16:25 | 16:30 | 16:35 | 16:40 | 16:45 | 16:50 | 16:55 | 17:00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Event Hour | | 3.08 | 3.17 | 3.25 | 3.33 | 3.42 | 3.50 | 3.58 | 3.67 | 3.75 | 3.83 | 3.92 | 4.00 |
| AIR SPARGE WELL- TW-1 | | | | | | | | | | | | | |
| Air Sparge Well Pressure | psi | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 |
| Air Sparge Well Flow | cfm | 3.00 | 3.00 | 3.00 | 3.00 | 3.17 | 3.17 | 3.17 | 3.17 | 3.17 | 3.17 | 3.17 | 3.17 |
| Air Sparge Volume Injected | cf | 15.00 | 15.00 | 15.00 | 15.00 | 15.83 | 15.83 | 15.83 | 15.83 | 15.83 | 15.83 | 15.83 | 15.83 |
| OBSERVATION WELLS- PRESSURE / (VACUUM) INFLUENCE | | | | | | | | | | | | | |
| MW-12 - 8.0 ft | in $H_2O$ | NM | NM | 0.057 | NM | NM | 0.057 | NM | NM | 0.057 | NM | NM | 0.053 |
| MW-2R - 15.8 ft | in $H_2O$ | NM | NM | 0.007 | NM | NM | 0.005 | NM | NM | 0.005 | NM | NM | 0.004 |
| MW-9 - 24.6 ft | in $H_2O$ | NM | NM | 0.016 | NM | NM | 0.016 | NM | NM | 0.016 | NM | NM | 0.013 |
| MW-4 - 35.7 ft | in $H_2O$ | NM | NM | 0.002 | NM | NM | 0.002 | NM | NM | 0.002 | NM | NM | 0.001 |
| MW-8 - 37.0 ft | in $H_2O$ | NM | NM | 0.002 | NM | NM | 0.002 | NM | NM | 0.002 | NM | NM | 0.002 |

# APPENDIX J

AcuVac SVE Test Report

Stantec

AcuVac Remediation

December 20, 2023

Mr. Stephen Varsa, P.G.
Senior Hydrogeologist
Stantec Environnemental Services
11311 Aurora Avenue
Des Moines, IA 50322

Re: Canada Mesa, Rio Arriba County, NM (Site) (Step Test #1)

Dear Steve:

At your request, AcuVac Remediation (AcuVac) performed three Soil Vapor Extraction (SVE) Step Tests on extraction wells MW-1, MW-9 and MW-12 at the above referenced site (Site) as outlined in Table A (page 2). Following is the Report and a copy of the Operating Data collected during the SVE Step Tests. Table B (page 6) contains the summary data for each of the SVE Quick Tests. The primary contaminant was natural gas condensate also referred to as Light Non-Aqueous Phase Liquids (LNAPL).

## SVE Quick Test Objectives

- Determine well vacuum and vapor flow of each well.
- Provide vapor phase total petroleum hydrocarbons (TPH) concentrations in the influent vapors.
- Provide background data on the soil vapor plume area.

## SVE Quick Test Description

A Step Test is a short SVE Test of up to 1.5 hours conducted from existing extraction wells or monitoring wells. In the case of Step Tests, outer monitoring wells are selected, and vacuum influence is recorded during each test. Each Step Test provides well vacuum and well vapor flow data. From a soil gas sample (influent vapor), the HORIBA® Analyzer can provide TPH in ppmv and the percent of $CO_2$. Additional instrumentation provides $O_2$ data. The depth to groundwater and depth to LNAPL are also recorded. This collective data helps assess whether the screened interval of one or more of the outer monitoring wells is within the vacuum radius of influence of the tested extraction well.

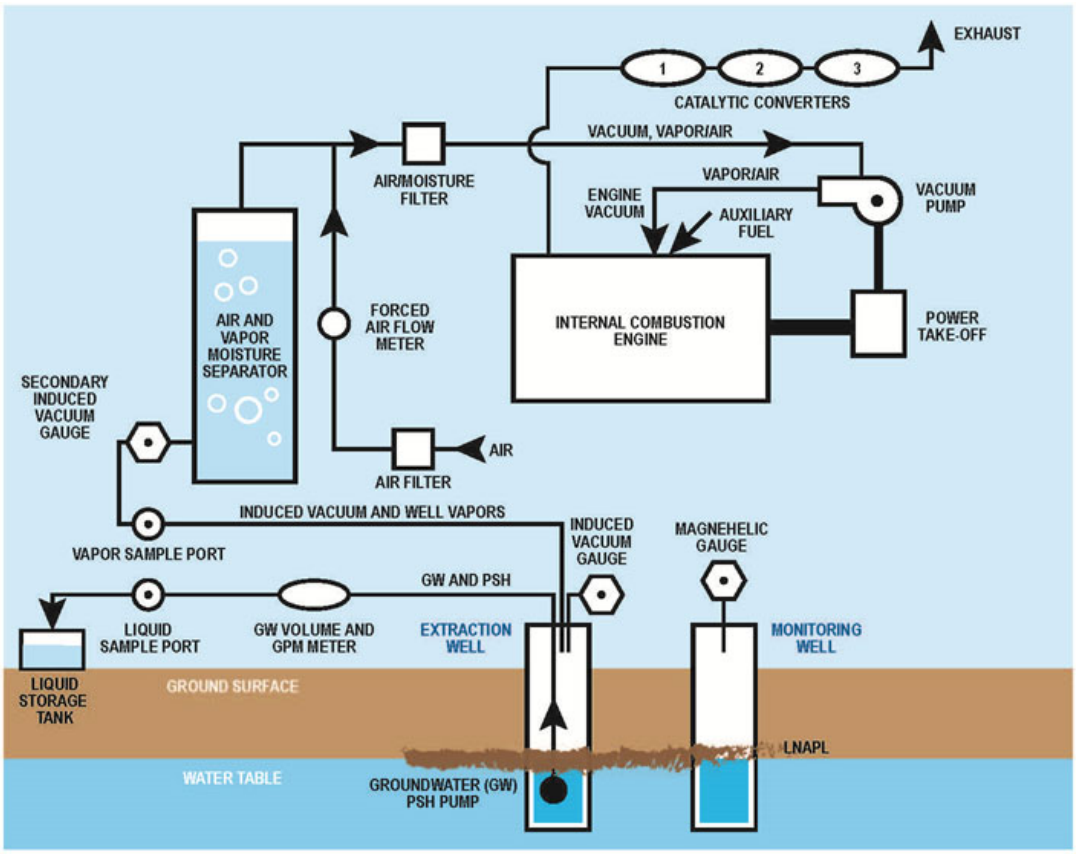
| Table A<br>Wells Tested | | | | | |
|---|---|---|---|---|---|
| **Well Number** | **Diameter (in)** | **Total Depth (ft BTOC)** | **Screen Interval (ft BGS)** | **Distance From Extraction Well** | **Influence Recorded** |
| **Quick Test #1 - Extraction Well** | | | | | |
| MW-1 | 4.0 | 43.00 | 28.0 - 43.0 | - | Vacuum |
| **Monitoring Wells** | | | | | |
| MW-4 | 2.0 | 50.0 | 30.0 - 50.0 | 23.2 | Vacuum |
| MW-5 | 2.0 | 45.4 | 20.0 - 45.4 | 39.6 | Vacuum |
| MW-2R | 2.0 | 45.4 | 25.4- 45.4 | 52.6 | Vacuum |
| TW-1 | 2.0 | 40.0 | 38.0 - 40.0 | 53.2 | Vacuum |
| MW-12 | 2.0 | 51.5 | 31.5 - 51.5 | 57.4 | Vacuum |
| **Quick Test #2 - Extraction Well** | | | | | |
| MW-12 | 2.0 | 51.5 | 31.5 - 51.5 | - | Vacuum |
| **Monitoring Wells** | | | | | |
| MW-9 | 2.0 | 45.0 | 25.0 - 45.0 | 23.2 | Vacuum |
| MW-2R | 2.0 | 45.5 | 25.5 - 45.5 | 23.7 | Vacuum |
| MW-8 | 2.0 | 50.0 | 30.0 - 50.0 | 30.6 | Vacuum |
| MW-4 | 2.0 | 50.0 | 30.0 - 50.0 | 37.6 | Vacuum |
| MW-1 | 4.0 | 43.00 | 28.0 - 43.0 | 57.4 | Vacuum |
| **Quick Test #3 - Extraction Well** | | | | | |
| MW-9 | 2.0 | 45.00 | 25.0 - 45.0 | - | Vacuum |
| **Monitoring Wells** | | | | | |
| MW-12 | 2.0 | 51.50 | 31.5 - 51.5 | 23.2 | Vacuum |
| TW-1 | 2.0 | 40.00 | 38.0 - 40.0 | 24.6 | Vacuum |
| MW-2R | 2.0 | 45.40 | 25.4- 45.4 | 29.9 | Vacuum |
| MW-11 | 2.0 | 47.00 | 27.0 - 47.0 | 32.0 | Vacuum |
| MW-10 | 2.0 | 57.00 | 37.0 - 57.0 | 32.2 | Vacuum |

## METHODS AND EQUIPMENT

AcuVac owns and maintains an inventory of equipment to perform SVE/MDPE testing. No third-party equipment was utilized. The testing at the Site was conducted using the AcuVac I-6 System (System) with a Roots RAI-33 blower, used as a vacuum pump, and a Roots RAI-22 positive displacement blower. The following table lists equipment and instrumentation employed during the testing and the data element captured by each.

| Equipment and Instrumentation Employed by AcuVac | |
|---|---|
| **Data Element** | **Measurement Equipment** |
| **Extraction Well Induced Vacuum and Flow** | |
| Extraction Well Vacuum | Dwyer Magnehelic Gauges |
| Extractions Well Vapor Flow | Dwyer Rotameter |
| **Monitoring Wells** | |
| Vacuum / Pressure Influence | Dwyer Digital Manometer |
| **Well Connections** | |
| Manifold to Seal the Well and Hold a Data Logger | Data Logger Manifold |
| Manifold to Seal the Well and Accept a Manometer | Monitoring Well Manifold/Plug |
| **Well Vapor Samples** | |
| Extraction Well Non-Diluted Vapor Samples | V-1 Vacuum Box |
| Extraction Well TPH Vapor Concentrations | HORIBA Analyzer |
| Extraction Well Vapor Oxygen, Carbon Dioxide Content | RKI GX 2012 $O_2$ Gas Meter |
| **NAPL Thickness (if present)** | |
| Depth to NAPL and Depth to Groundwater | Solinst Interface Probes Model 122 |
| **Groundwater Depression / Upwelling** | |
| Liquid Column in Extraction and Monitoring Wells | In-Situ Level Troll 700 Data Logger (Pressure Transducer) |
| Equalize Well Vacuum/Pressure | In-Situ Vented Cable with Chamber |
| Capture Readings from Data Logger Trolls | In-Situ Rugged Reader Data Logger Interface |
| **Atmospheric Conditions** | |
| Relative and Absolute Barometric Pressure | Testo Model 511 |

## THE ACUVAC SYSTEM




The vacuum extraction portion of the System consists of a vacuum pump driven by an internal combustion engine (IC engine). The vacuum pump connects to the extraction well, and the vacuum created on the extraction well causes light hydrocarbons in the soil and on the groundwater to volatilize and flow through a moisture knockout tank to the vacuum pump and the IC engine where they burn as part of the normal combustion process. Auxiliary propane powers the engine if the well vapors do not provide the required energy. he IC engine provides the power necessary to achieve and maintain high induced vacuums and/or high well vapor flows needed to maximize the vacuum radius of influence.

Emissions from the engine pass through three catalytic converters to maximize destruction of effluent hydrocarbon vapors. The engine's fuel-to-air ratio is adjusted to maintain efficient combustion. Because the engine powers all equipment, the System stops when the engine stops preventing an uncontrolled release of hydrocarbons. Since the System operates entirely under vacuum, any leaks in the seals or connections leak into the System and not the atmosphere. Vacuum loss, low oil pressure, over-speed, or overheating automatically shut down the engine.

## SVE QUICK TEST PROCEDURES

- Gauge the extraction well for depth to groundwater and record static data.
- Install the SVE manifold which supports the data logger and the vacuum hose.
- Connect the AcuVac System to the extraction well and then apply vacuum.
- Record the well vacuum and well vapor flow and all system data (including fuel flow of propane), ambient temperature, and barometric pressure.
- Collect non-diluted influent vapor (well gas) samples to provide on-site analytical data consisting of TPH ppmv, VOCs ppm, $CO_2$%, and $O_2$% every 15 minutes during the Quick Test. The vapor samples are processed with the HORIBA Analyzer, a PID and an RKI GX 2012.
- Provide variable rates of induced well vacuum and well vapor flow over the test period.

## INFORMATION INCLUDED WITH REPORT

- Table B - Summary Data for all wells
- Table #1 - Operating Data Step Test #1 – MW-1
  - Test #1- Extraction Well Data
  - Test #1 - Monitoring Well Data
- Table #2 - Operating Data Step Test #2 - MW-12
  - Test #2- Extraction Well Data
  - Test #2 - Monitoring Well Data
- Table #3 - Operating Data Step Test #3 - MW-9
  - Test #3- Extraction Well Data
  - Test #3 - Monitoring Well Data

After you have reviewed the report and if you have any questions, please contact me. We appreciate you selecting AcuVac to provide this service.

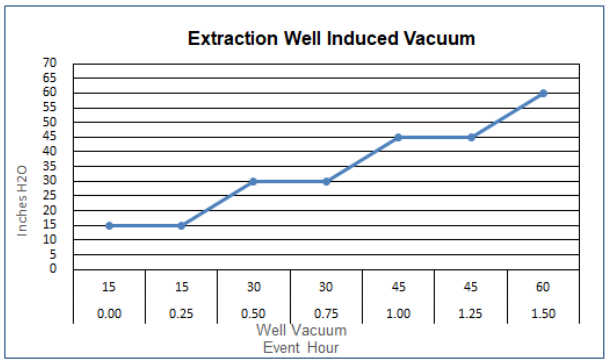
Sincerely,
ACUVAC REMEDIATION, LLC

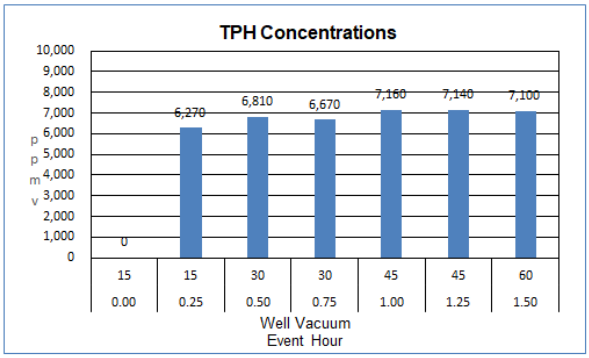
Paul D. Faucher
President

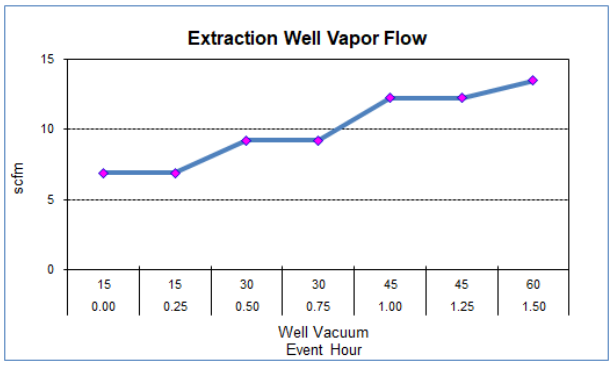
| TABLE B<br>SVE STEP TESTS<br>SUMMARY DATA | | | | |
|---|---|---|---|---|
| **SVE Step Test Number** | | **#1** | **#2** | **#3** |
| **Extraction Well ID** | | **MW-1** | **MW-12** | **MW-9** |
| **Test Duration** | **hours** | **1.50** | **1.50** | **1.50** |
| **Well Data** | | | | |
| TD | ft BGS | 43.00 | 51.50 | 45.00 |
| Well Size | inches | 4.0 | 2.0 | 2.0 |
| Screen Interval | ft BGS | 28.0 - 43.0 | 31.5 - 51.5 | 25.0 - 45.0 |
| Site Elevation | ft | 6,502 | 6,502 | 6,502 |
| **Well Vacuum and Well Vapor Flow** | | | | |
| Maximum Extraction Well Vacuum | In $H_2O$ | 60.00 | 60.00 | 15.00 |
| Average Extraction Well Vacuum | In $H_2O$ | 34.29 | 34.29 | 11.00 |
| Minimum Extraction Well Vacuum | In $H_2O$ | 15.00 | 15.00 | 5.00 |
| Maxium Extraction Well Vapor Flow | scfm | 13.48 | 9.49 | 23.04 |
| Average Extraction Well Vapor Flow | scfm | 10.55 | 6.57 | 16.31 |
| Minimum Extraction Well Vapor Flow | scfm | 6.88 | 3.43 | 7.91 |
| **Vapor Data** | | | | |
| Maximum TPH | ppmv | 7,160 | 2,490 | 1,126 |
| Average TPH | ppmv | 6,858 | 2,129 | 1,124 |
| Minimum TPH | ppmv | 6,270 | 1,850 | 1,122 |
| Average $CO_2$ | % | 9.79 | 6.19 | 5.07 |
| Average $O_2$ | % | 6.7 | 10.6 | 14.1 |

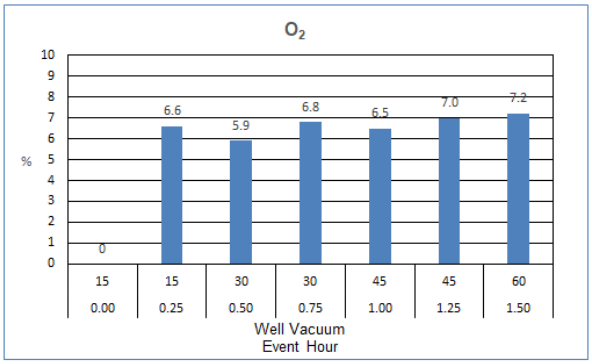
| TABLE #1<br>SVE STEP TEST #1<br>EXTRACTION WELL MW-1 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **TIME** | | **8:30** | **8:45** | **9:00** | **9:15** | **9:30** | **9:45** | **10:00** | | |
| **TEST HOUR** | | **0.00** | **0.25** | **0.50** | **0.75** | **1.00** | **1.25** | **1.50** | **AVG** | **MAX** |
| **EXTRACTION WELL MW-9** | | | | | | | | | | |
| Extraction Well Vacuum | In $H_2O$ | 15 | 15 | 30 | 30 | 45 | 45 | 60 | **34.29** | **60.00** |
| Well Vapor Flow | scfm | 6.88 | 6.88 | 9.23 | 9.22 | 12.25 | 12.23 | 13.48 | **10.55** | **13.48** |
| **VAPOR CONCENTRATIONS** | | | | | | | | | | |
| TPH | ppmv | NM | 6,270 | 6,810 | 6,670 | 7,160 | 7,140 | 7,100 | **6,858** | **7,160** |
| $CO_2$ | % | NM | 10.48 | 10.56 | 9.56 | 9.76 | 9.22 | 9.18 | **9.79** | **10.56** |
| $O_2$ | % | NM | 6.6 | 5.9 | 6.8 | 6.5 | 7.0 | 7.2 | **6.7** | **7.2** |
| **ATMOSPHERIC CONDITIONS** | | | | | | | | | | |
| Ambient Temperature | °F | 70 | 70 | 72 | 72 | 73 | 74 | 74 | **72** | **74** |
| Influent Temperature | °F | 68 | 68 | 68 | 69 | 69 | 70 | 70 | **69** | **70** |
| Barometric Pressure | In Hg | 29.69 | 29.69 | 29.69 | 29.69 | 29.69 | 29.69 | 29.68 | **29.69** | **29.69** |
| Absolute Pressure | In Hg | 23.96 | 23.96 | 23.96 | 23.96 | 23.86 | 23.86 | 23.85 | **23.92** | **23.96** |
| **MONITORING WELLS VACUUM / (PRESSURE)** | | | | | | | | | | |
| MW-4 23.3 ft | In $H_2O$ | 0.28 | 0.31 | 0.58 | 0.58 | 0.78 | 0.81 | 0.85 | **0.60** | **0.85** |
| MW-5 39.6 ft | In $H_2O$ | 0.00 | 0.03 | 0.05 | 0.04 | 0.04 | 0.05 | 0.06 | **0.04** | **0.06** |
| MW-2R 52.6 ft | In $H_2O$ | 0.00 | 0.03 | 0.02 | 0.02 | 0.03 | 0.01 | 0.03 | **0.02** | **0.03** |
| TW-1 53.2 ft | In $H_2O$ | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | **0.00** | **0.01** |
| MW-12 57.4 ft | In $H_2O$ | 0.00 | 0.01 | 0.03 | 0.01 | 0.03 | 0.02 | 0.02 | **0.02** | **0.03** |
| **MONITORING WELLS / (PRESSURE) INFLUENCE PERCENTAGE** | | | | | | | | | | |
| MW-4 23.3 ft | % | 0.93 | 1.03 | 1.93 | 1.93 | 1.73 | 1.80 | 1.89 | **1.72** | **1.93** |
| MW-5 39.6 ft | % | 0.00 | 0.10 | 0.17 | 0.13 | 0.09 | 0.11 | 0.10 | **0.12** | **0.17** |
| MW-2R 52.6 ft | % | 0.00 | 0.10 | 0.07 | 0.07 | 0.07 | 0.02 | 0.05 | **0.06** | **0.10** |
| TW-1 53.2 ft | % | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | **0.01** | **0.03** |
| MW-12 57.4 ft | % | 0.00 | 0.03 | 0.10 | 0.03 | 0.07 | 0.07 | 0.03 | **0.06** | **0.10** |

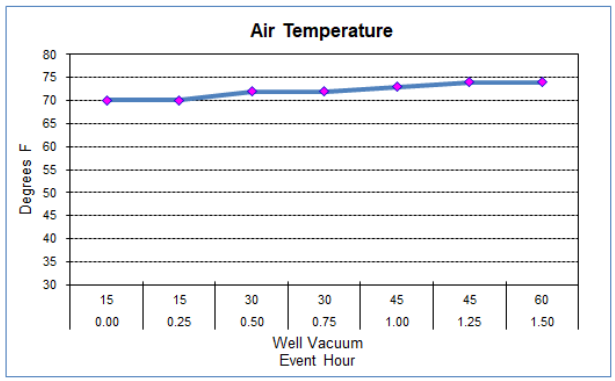
## Summary of SVE Step Test #1
## Monitoring Well Data
## Extraction Well MW-9

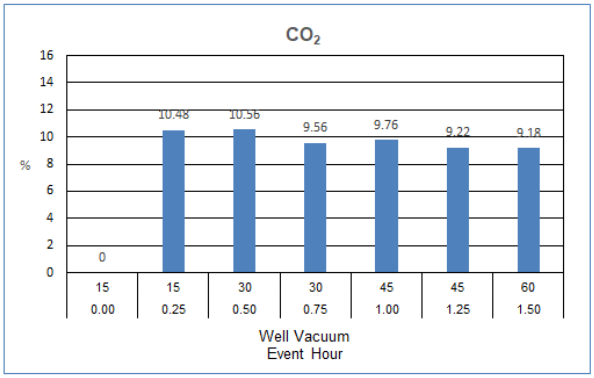


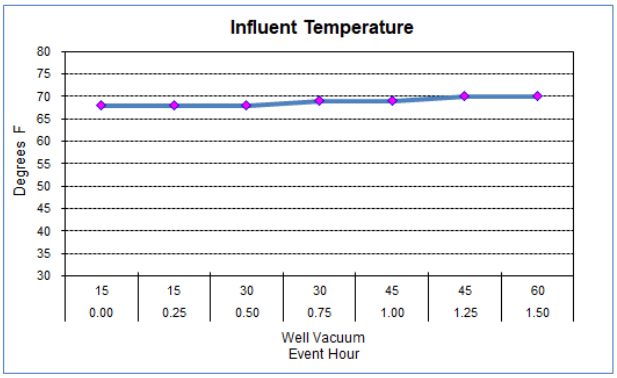



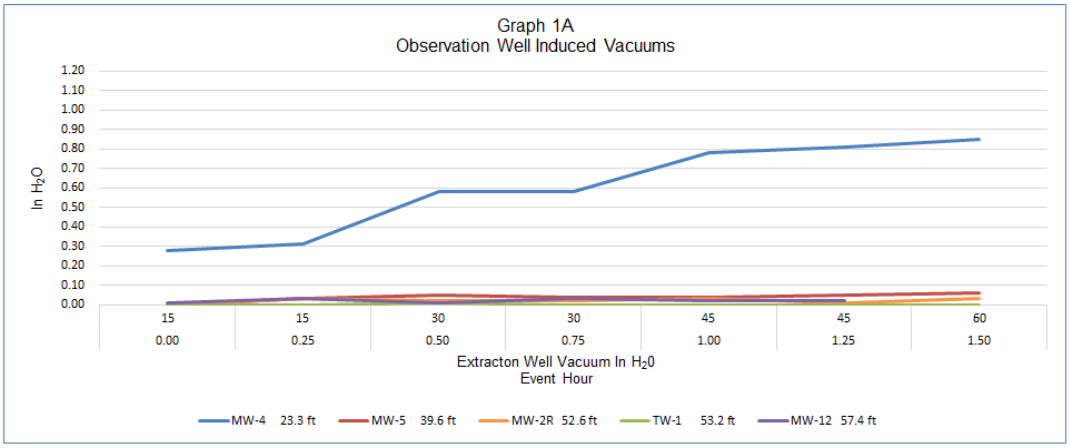



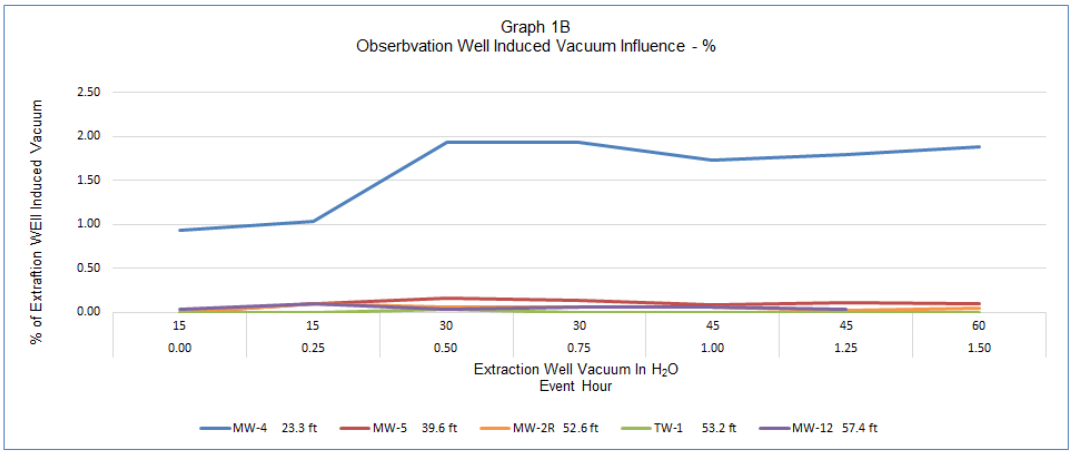



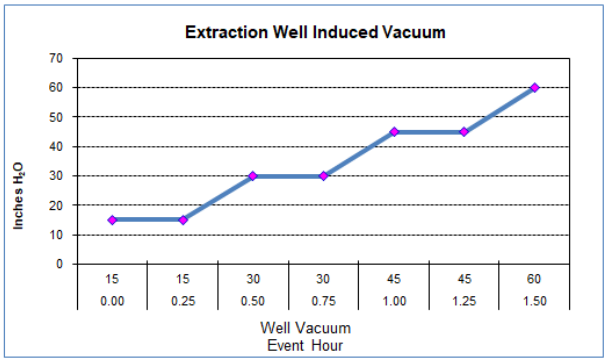
**Summary of SVE Step Test #1**
**Monitoring Well Data**
**Extraction Well MW-9**

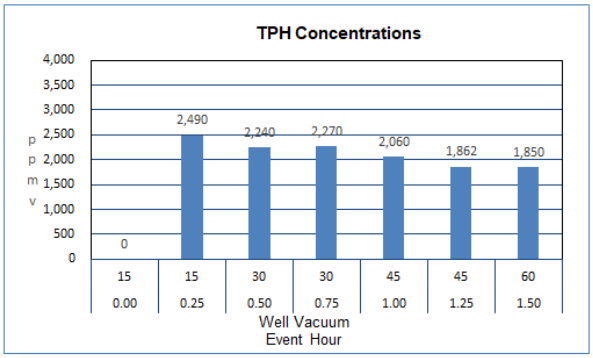


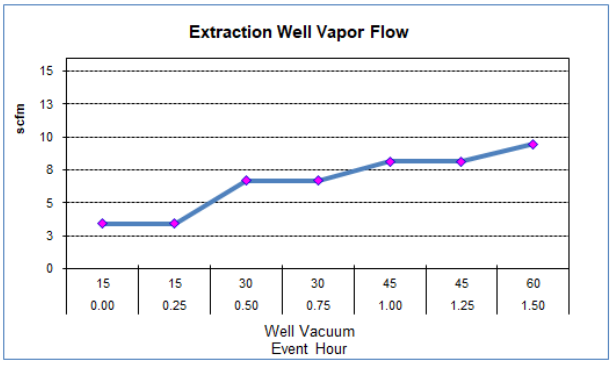



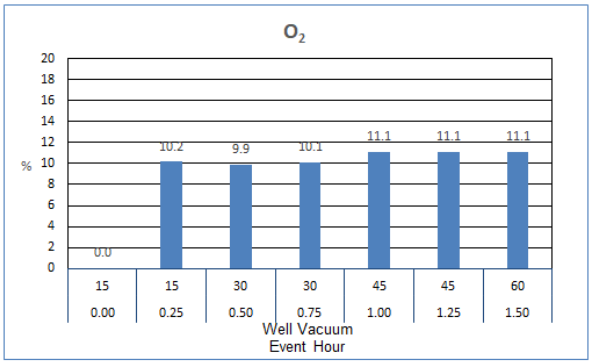
| TABLE #2<br>SVE STEP TEST #2<br>EXTRACTION WELL MW-12 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Time** | | **10:15** | **10:30** | **10:45** | **11:00** | **11:15** | **11:30** | **11:45** | | |
| **Test Hour** | | **0.00** | **0.25** | **0.50** | **0.75** | **1.00** | **1.25** | **1.50** | **AVG** | **MAX** |
| **EXTRACTION WELL MW-12** | | | | | | | | | | |
| Extraction Well Vacuum | In $H_2O$ | 15 | 15 | 30 | 30 | 45 | 45 | 60 | **34.29** | **60.00** |
| Well Flow SCFM | scfm | 3.43 | 3.43 | 6.69 | 6.68 | 8.13 | 8.13 | 9.49 | **6.57** | **9.49** |
| **VAPOR CONCENTRATIONS** | | | | | | | | | | |
| TPH | ppmv | NM | 2,490 | 2,240 | 2,270 | 2,060 | 1,862 | 1,850 | **2,129** | **2,490** |
| $CO_2$ | % | NM | 6.38 | 6.50 | 6.58 | 6.04 | 5.86 | 5.78 | **6.19** | **6.58** |
| $O_2$ | % | NM | 10.2 | 9.9 | 10.1 | 11.1 | 11.1 | 11.1 | **10.6** | **11.1** |
| **ATMOSPHERIC CONDITIONS** | | | | | | | | | | |
| Ambient Temperature | °F | 76 | 76 | 77 | 79 | 79 | 79 | 80 | **78** | **80** |
| Influent Temperature | °F | 72 | 72 | 72 | 73 | 73 | 73 | 73 | **73** | **73** |
| Baromteric Pressure | In Hg | 29.68 | 29.38 | 29.67 | 29.67 | 29.69 | 29.69 | 29.68 | **29.64** | **29.64** |
| **MONITORING WELLS VACUUM / (PRESSURE)** | | | | | | | | | | |
| MW-12 23.2 ft | In $H_2O$ | 0.15 | 0.15 | 0.17 | 0.48 | 0.47 | 0.52 | 0.58 | **0.36** | **0.58** |
| TW-1 23.7 ft | In $H_2O$ | 0.04 | 0.03 | 0.05 | 0.15 | 0.15 | 0.18 | 0.18 | **0.11** | **0.18** |
| MW-2R 30.6 ft | In $H_2O$ | 0.03 | 0.07 | 0.03 | 0.09 | 0.10 | 0.12 | 0.13 | **0.08** | **0.13** |
| MW-4 37.6 ft | In $H_2O$ | 0.05 | 0.50 | 0.05 | 0.11 | 0.10 | 0.12 | 0.12 | **0.15** | **0.50** |
| MW-9 57.4 ft | In $H_2O$ | 0.07 | 0.04 | 0.04 | 0.05 | 0.04 | 0.06 | 0.07 | **0.05** | **0.07** |
| **MONITORING WELLS VACUUM / (PRESSURE) INFLUENCE** | | | | | | | | | | |
| MW-12 23.2 ft | % | 1.00 | 1.00 | 0.57 | 1.60 | 1.04 | 1.16 | 0.97 | **1.05** | **1.60** |
| TW-1 23.7 ft | % | 0.27 | 0.20 | 0.17 | 0.50 | 0.33 | 0.40 | 0.30 | **0.31** | **0.50** |
| MW-2R 30.6 ft | % | 0.20 | 0.47 | 0.10 | 0.30 | 0.22 | 0.27 | 0.22 | **0.25** | **0.47** |
| MW-4 37.6 ft | % | 0.33 | 3.33 | 0.17 | 0.37 | 0.22 | 0.27 | 0.20 | **0.70** | **3.33** |
| MW-9 57.4 ft | % | 0.47 | 0.27 | 0.13 | 0.17 | 0.09 | 0.13 | 0.12 | **0.20** | **0.47** |

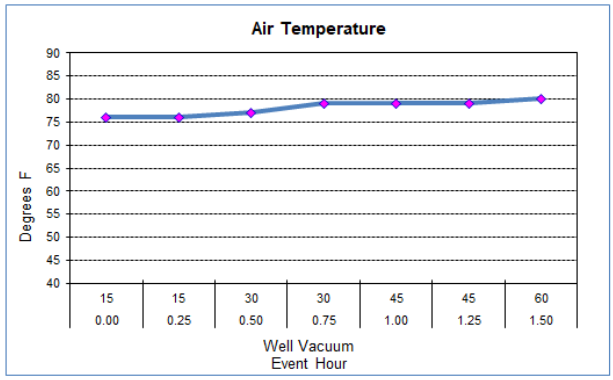
## Summary of SVE Step Test #2
## Monitoring Well Data
## Extraction Well MW-12

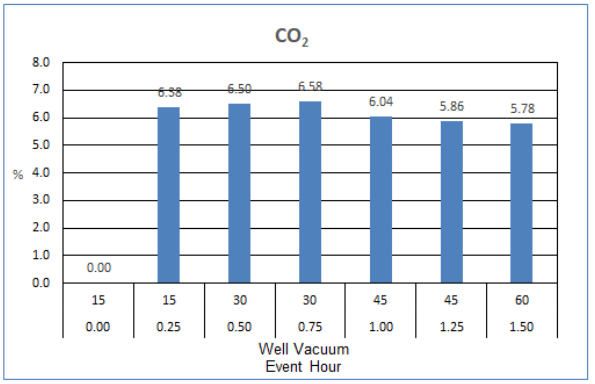


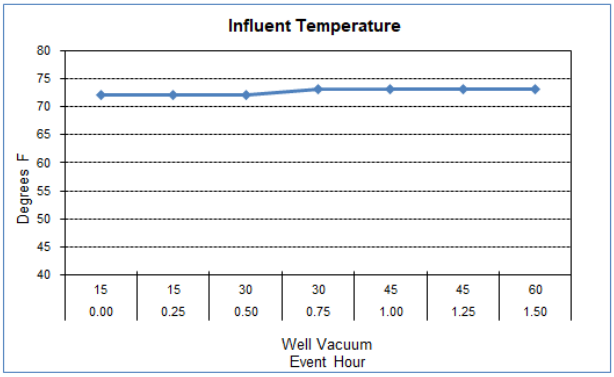



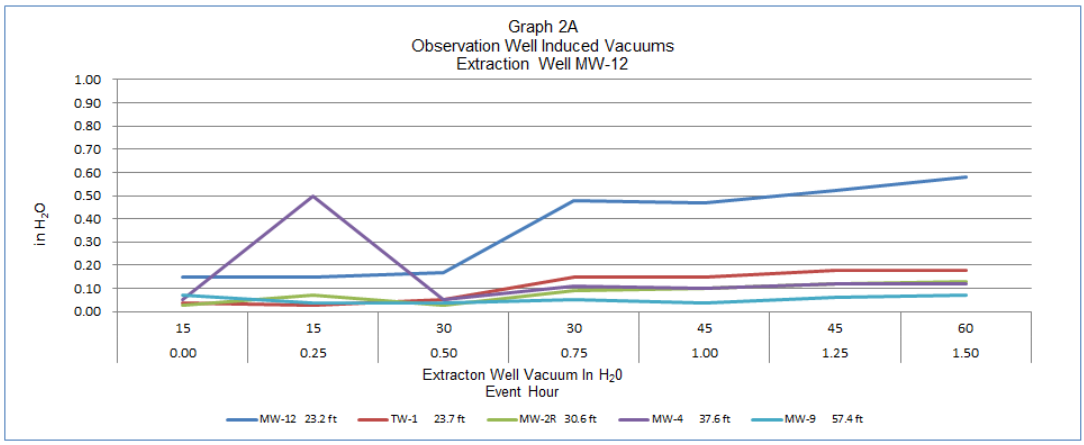



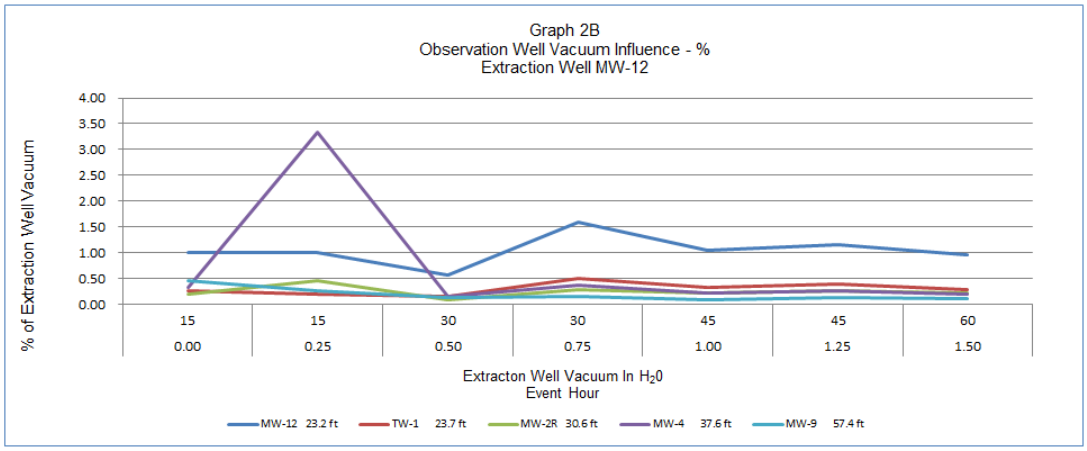



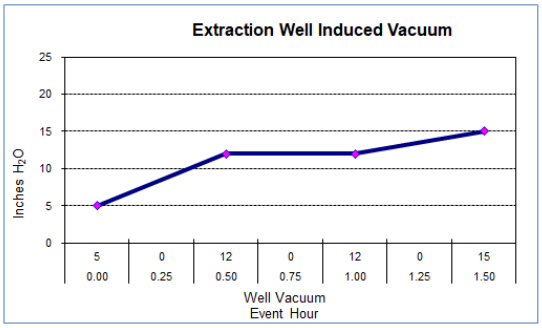
## Summary of SVE Step Test #2
## Monitoring Well Data
## Extraction Well MW-12

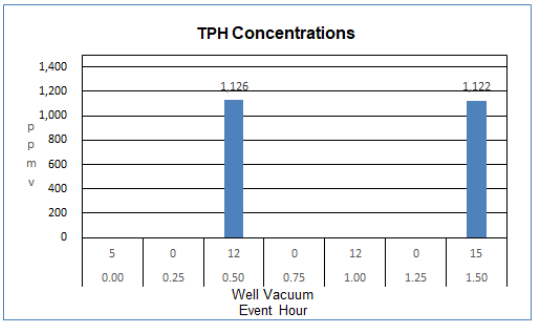


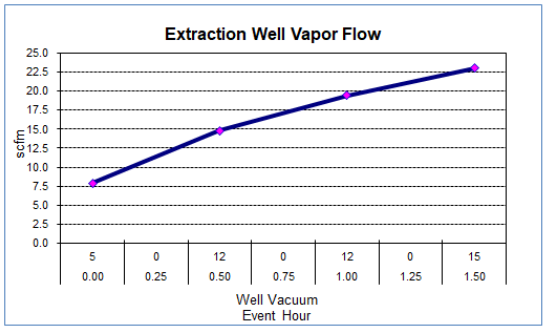



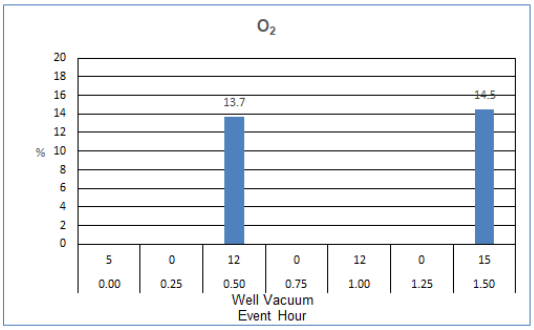
| TABLE #3<br>SVE STEP TEST #3<br>EXTRACTION WELL MW-9 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **TIME** | | **7:45** | **8:00** | **8:15** | **8:30** | **8:45** | **9:00** | **9:15** | | |
| **TEST HOUR** | | **0.00** | **0.25** | **0.50** | **0.75** | **1.00** | **1.25** | **1.50** | **AVG** | **MAX** |
| **EXTRACTION WELL MW-9** | | | | | | | | | | |
| Extraction Well Vacuum | In $H_2O$ | 5.00 | | 12.00 | | 12.00 | | 15.00 | **11.00** | **15.00** |
| Well Flow | scfm | 7.91 | | 14.82 | | 19.45 | | 23.04 | **16.31** | **23.04** |
| **VAPOR CONCENTRATIONS** | | | | | | | | | | |
| TPH | ppmv | | | 1,126 | | | | 1,122 | **1,124** | **1,126** |
| $CO_2$ | % | | | 5.36 | | | | 4.78 | **5.07** | **5.36** |
| $O_2$ | % | | | 13.7 | | | | 14.5 | **14.1** | **14.5** |
| **ATMOSPHERIC CONDITIONS** | | | | | | | | | | |
| Ambient Temperature | °F | 70 | | 64 | | 74 | | 75 | **71** | **75** |
| Influent Temperature | °F | 64 | | 72 | | 66 | | 66 | **67** | **72** |
| Baromteric Pressure | In Hg | 29.68 | | 29.68 | | 29..68 | | 29.70 | **29.69** | **29.69** |
| Absolute Pressure | In Hg | 23.98 | | 23.96 | | 23.96 | | 23.98 | **23.97** | **23.97** |
| **MONITORING WELLS VACUUM / (PRESSURE)** | | | | | | | | | | |
| MW-12 23.2 ft | In $H_2O$ | 1.48 | | 1.39 | | 1.63 | | 1.65 | **1.54** | **1.65** |
| TW-1 24.6 ft | In $H_2O$ | 0.12 | | 0.11 | | 0.14 | | 0.15 | **0.13** | **0.15** |
| MW-2R 29.9 ft | In $H_2O$ | 0.71 | | 0.73 | | 0.82 | | 0.85 | **0.78** | **0.85** |
| MW-11 32 ft | In $H_2O$ | 0.26 | | 0.26 | | 0.30 | | 0.32 | **0.29** | **0.32** |
| MW-10 32.2 ft | In $H_2O$ | 0.47 | | 0.48 | | 0.55 | | 0.57 | **0.52** | **0.57** |
| **MONITORING WELLS VACUUM / (PRESSURE) INFLUENCE** | | | | | | | | | | |
| MW-12 23.2 ft | % | 29.60 | | 11.58 | | 13.58 | | 11.00 | **16.44** | **29.60** |
| TW-1 24.6 ft | % | 2.40 | | 0.92 | | 1.17 | | 1.00 | **1.37** | **2.40** |
| MW-2R 29.9 ft | % | 14.20 | | 6.08 | | 6.83 | | 5.67 | **8.20** | **14.20** |
| MW-11 32 ft | % | 5.20 | | 2.17 | | 2.50 | | 2.13 | **3.00** | **5.20** |
| MW-10 32.2 ft | % | 9.40 | | 4.00 | | 4.58 | | 3.80 | **5.45** | **9.40** |

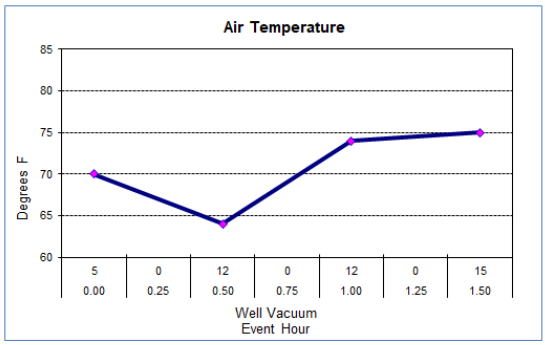
## Summary of SVE Step Test #3
## Monitoring Well Data
## Extraction Well MW-9

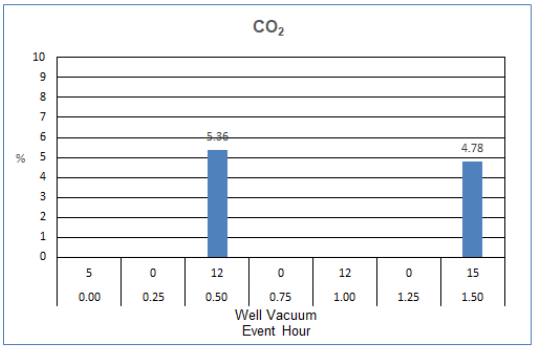


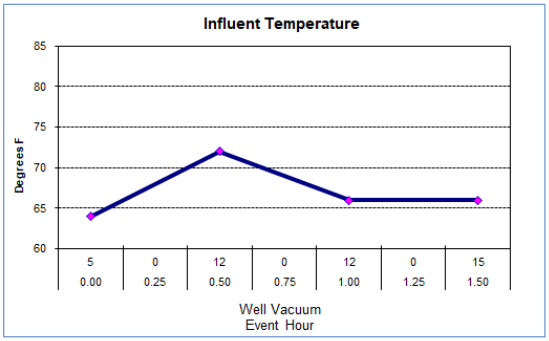



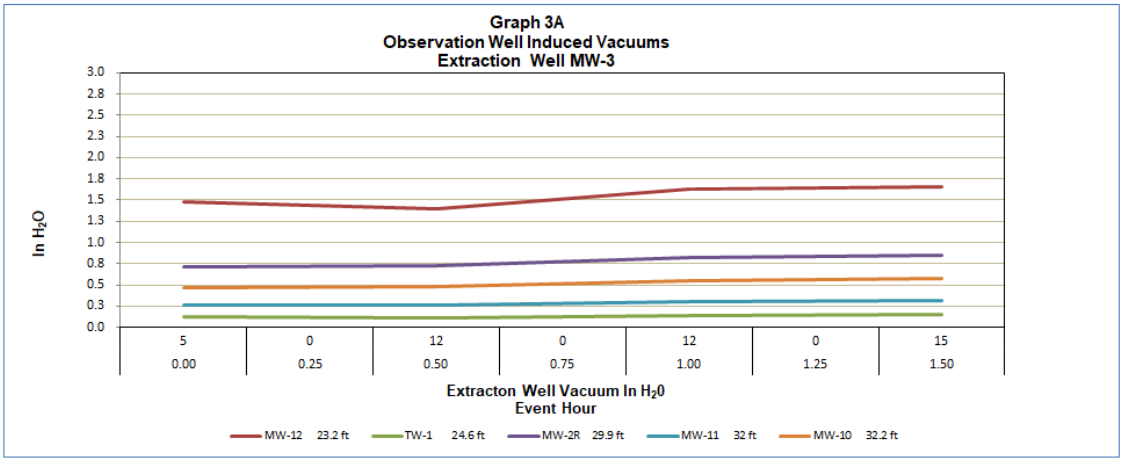



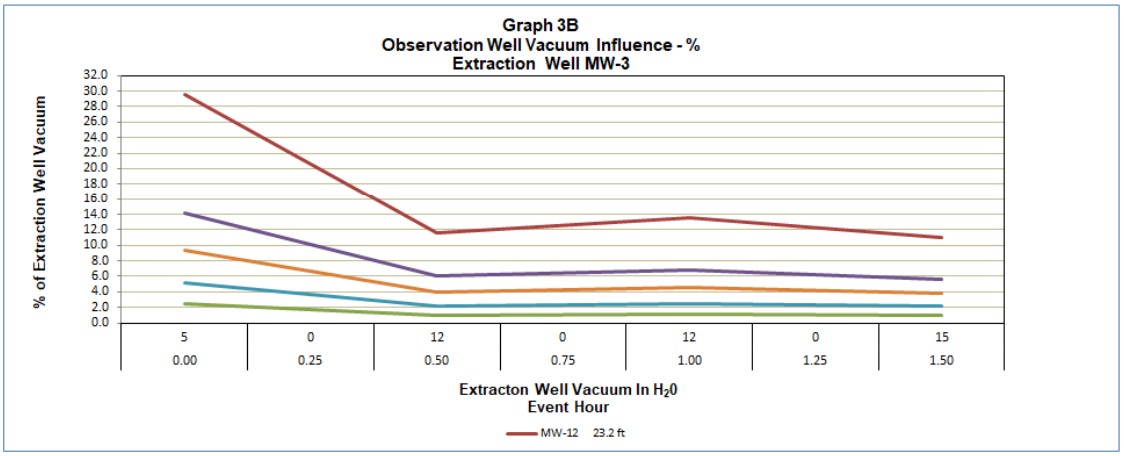



## Summary of SVE Step Test #3
## Monitoring Well Data
## Extraction Well MW-9



# APPENDIX K

Groundwater Analytical Lab Reports

Stantec

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Steve Varsa
Stantec Consulting Services Inc
11311 Aurora Avenue
Des Moines, Iowa 50322-7904

Generated 6/13/2023 5:55:14 PM

## JOB DESCRIPTION

Canada Mesa #2.00
SDG NUMBER Canada Mesa

## JOB NUMBER

400-238117-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.





my EOL

# Eurofins Pensacola

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

## Authorization

Generated
6/13/2023 5:55:14 PM

Authorized for release by
Isabel Enfinger, Project Manager I
isabel.enfinger@et.eurofinsus.com
Designee for
Cheyenne Whitmire, Project Manager II
Cheyenne.Whitmire@et.eurofinsus.com
(850)471-6222

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Laboratory Job ID: 400-238117-1
SDG: Canada Mesa

# Table of Contents

# Case Narrative

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Job ID: 400-238117-1

### Laboratory: Eurofins Pensacola

**Narrative**

**Job Narrative**
**400-238117-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 5/23/2023 9:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.8º C.

**GC/MS VOA**
Method 8260D: Surrogate recovery for the following samples were outside the upper control limit: TRIP BLANK (400-238117-1), DUP-01 (400-238117-2), MW-3R (400-238117-4), MW-5 (400-238117-5) and MW-11 (400-238117-7). These samples did not contain any target analytes above the method detection limit (MDL); therefore, re-extraction and/or re-analysis was not performed.

Method 8260D: The surrogate recovery for the blank associated with analytical batch 400-627498 was outside the upper control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**VOA Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Client Sample ID: TRIP BLANK — Lab Sample ID: 400-238117-1

No Detections.

## Client Sample ID: DUP-01 — Lab Sample ID: 400-238117-2

No Detections.

## Client Sample ID: MW-2R — Lab Sample ID: 400-238117-3

No Detections.

## Client Sample ID: MW-3R — Lab Sample ID: 400-238117-4

No Detections.

## Client Sample ID: MW-5 — Lab Sample ID: 400-238117-5

No Detections.

## Client Sample ID: MW-8 — Lab Sample ID: 400-238117-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 2.2 | | 1.0 | | ug/L | 1 | | 8260D | Total/NA |
| Ethylbenzene | 38 | | 1.0 | | ug/L | 1 | | 8260D | Total/NA |
| Xylenes, Total | 16 | | 10 | | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: MW-11 — Lab Sample ID: 400-238117-7

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Pensacola

# Method Summary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260D | Volatile Organic Compounds by GC/MS | SW846 | EET PEN |
| 5030C | Purge and Trap | SW846 | EET PEN |

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

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

# Sample Summary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 400-238117-1 | TRIP BLANK | Water | 05/20/23 07:50 | 05/23/23 09:10 |
| 400-238117-2 | DUP-01 | Water | 05/20/23 07:55 | 05/23/23 09:10 |
| 400-238117-3 | MW-2R | Water | 05/20/23 09:00 | 05/23/23 09:10 |
| 400-238117-4 | MW-3R | Water | 05/20/23 08:50 | 05/23/23 09:10 |
| 400-238117-5 | MW-5 | Water | 05/20/23 08:30 | 05/23/23 09:10 |
| 400-238117-6 | MW-8 | Water | 05/20/23 08:55 | 05/23/23 09:10 |
| 400-238117-7 | MW-11 | Water | 05/20/23 08:35 | 05/23/23 09:10 |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Client Sample ID: TRIP BLANK

**Date Collected: 05/20/23 07:50**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-1

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 17:10 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 17:10 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 17:10 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 06/02/23 17:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *95* | | *64 - 132* | | *06/02/23 17:10* | *1* |
| *Dibromofluoromethane* | *115* | | *75 - 126* | | *06/02/23 17:10* | *1* |
| *4-Bromofluorobenzene* | *96* | | *72 - 130* | | *06/02/23 17:10* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Client Sample ID: DUP-01

**Date Collected: 05/20/23 07:55**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-2

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 17:37 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 17:37 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 17:37 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 06/02/23 17:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *93* | | *64 - 132* | | *06/02/23 17:37* | *1* |
| *Dibromofluoromethane* | *117* | | *75 - 126* | | *06/02/23 17:37* | *1* |
| *4-Bromofluorobenzene* | *98* | | *72 - 130* | | *06/02/23 17:37* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Client Sample ID: MW-2R

**Date Collected: 05/20/23 09:00**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-3

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 05/26/23 13:49 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 05/26/23 13:49 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 05/26/23 13:49 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 05/26/23 13:49 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *96* | | *64 - 132* | | *05/26/23 13:49* | *1* |
| *Dibromofluoromethane* | *110* | | *75 - 126* | | *05/26/23 13:49* | *1* |
| *4-Bromofluorobenzene* | *90* | | *72 - 130* | | *05/26/23 13:49* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Client Sample ID: MW-3R

**Date Collected: 05/20/23 08:50**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-4

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 18:04 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 18:04 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 18:04 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 06/02/23 18:04 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *93* | | *64 - 132* | | *06/02/23 18:04* | *1* |
| *Dibromofluoromethane* | *116* | | *75 - 126* | | *06/02/23 18:04* | *1* |
| *4-Bromofluorobenzene* | *96* | | *72 - 130* | | *06/02/23 18:04* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Client Sample ID: MW-5

**Date Collected: 05/20/23 08:30**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-5

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 18:31 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 18:31 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 18:31 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 06/02/23 18:31 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *93* | | *64 - 132* | | *06/02/23 18:31* | *1* |
| *Dibromofluoromethane* | *117* | | *75 - 126* | | *06/02/23 18:31* | *1* |
| *4-Bromofluorobenzene* | *95* | | *72 - 130* | | *06/02/23 18:31* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Client Sample ID: MW-8

**Date Collected: 05/20/23 08:55**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-6

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Benzene** | **2.2** | | 1.0 | | ug/L | | | 06/03/23 16:06 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 06/03/23 16:06 | 1 |
| **Ethylbenzene** | **38** | | 1.0 | | ug/L | | | 06/03/23 16:06 | 1 |
| **Xylenes, Total** | **16** | | 10 | | ug/L | | | 06/03/23 16:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *97* | | *64 - 132* | | *06/03/23 16:06* | *1* |
| *Dibromofluoromethane* | *96* | | *75 - 126* | | *06/03/23 16:06* | *1* |
| *4-Bromofluorobenzene* | *96* | | *72 - 130* | | *06/03/23 16:06* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Client Sample ID: MW-11

**Date Collected: 05/20/23 08:35**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-7

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 19:24 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 19:24 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 19:24 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 06/02/23 19:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *93* | | *64 - 132* | | *06/02/23 19:24* | *1* |
| *Dibromofluoromethane* | *118* | | *75 - 126* | | *06/02/23 19:24* | *1* |
| *4-Bromofluorobenzene* | *94* | | *72 - 130* | | *06/02/23 19:24* | *1* |

# Definitions/Glossary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

# Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Client Sample ID: TRIP BLANK
**Date Collected: 05/20/23 07:50**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-1
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 627498 | 06/02/23 17:10 | BPO | EET PEN |

## Client Sample ID: DUP-01
**Date Collected: 05/20/23 07:55**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-2
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 627498 | 06/02/23 17:37 | BPO | EET PEN |

## Client Sample ID: MW-2R
**Date Collected: 05/20/23 09:00**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-3
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 626672 | 05/26/23 13:49 | CAR | EET PEN |

## Client Sample ID: MW-3R
**Date Collected: 05/20/23 08:50**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-4
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 627498 | 06/02/23 18:04 | BPO | EET PEN |

## Client Sample ID: MW-5
**Date Collected: 05/20/23 08:30**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-5
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 627498 | 06/02/23 18:31 | BPO | EET PEN |

## Client Sample ID: MW-8
**Date Collected: 05/20/23 08:55**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-6
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 627674 | 06/03/23 16:06 | WPD | EET PEN |

## Client Sample ID: MW-11
**Date Collected: 05/20/23 08:35**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-7
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 627498 | 06/02/23 19:24 | BPO | EET PEN |

# Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Client Sample ID: Method Blank
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: MB 400-626672/4
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 626672 | 05/26/23 12:50 | CAR | EET PEN |

## Client Sample ID: Method Blank
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: MB 400-627498/4
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 627498 | 06/02/23 10:55 | BPO | EET PEN |

## Client Sample ID: Method Blank
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: MB 400-627674/4
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 627674 | 06/03/23 07:47 | WPD | EET PEN |

## Client Sample ID: Lab Control Sample
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: LCS 400-626672/1002
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 626672 | 05/26/23 10:44 | CAR | EET PEN |

## Client Sample ID: Lab Control Sample
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: LCS 400-627498/1002
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 627498 | 06/02/23 09:53 | BPO | EET PEN |

## Client Sample ID: Lab Control Sample
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: LCS 400-627674/1002
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 627674 | 06/03/23 07:08 | WPD | EET PEN |

## Client Sample ID: MW-2R
**Date Collected: 05/20/23 09:00**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-3 MS
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 626672 | 05/26/23 14:16 | CAR | EET PEN |

# Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Client Sample ID: MW-2R
**Date Collected: 05/20/23 09:00**
**Date Received: 05/23/23 09:10**

## Lab Sample ID: 400-238117-3 MSD
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 626672 | 05/26/23 16:56 | CAR | EET PEN |

**Laboratory References:**

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

# QC Association Summary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## GC/MS VOA

### Analysis Batch: 626672

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-238117-3 | MW-2R | Total/NA | Water | 8260D | |
| MB 400-626672/4 | Method Blank | Total/NA | Water | 8260D | |
| LCS 400-626672/1002 | Lab Control Sample | Total/NA | Water | 8260D | |
| 400-238117-3 MS | MW-2R | Total/NA | Water | 8260D | |
| 400-238117-3 MSD | MW-2R | Total/NA | Water | 8260D | |

### Analysis Batch: 627498

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-238117-1 | TRIP BLANK | Total/NA | Water | 8260D | |
| 400-238117-2 | DUP-01 | Total/NA | Water | 8260D | |
| 400-238117-4 | MW-3R | Total/NA | Water | 8260D | |
| 400-238117-5 | MW-5 | Total/NA | Water | 8260D | |
| 400-238117-7 | MW-11 | Total/NA | Water | 8260D | |
| MB 400-627498/4 | Method Blank | Total/NA | Water | 8260D | |
| LCS 400-627498/1002 | Lab Control Sample | Total/NA | Water | 8260D | |

### Analysis Batch: 627674

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-238117-6 | MW-8 | Total/NA | Water | 8260D | |
| MB 400-627674/4 | Method Blank | Total/NA | Water | 8260D | |
| LCS 400-627674/1002 | Lab Control Sample | Total/NA | Water | 8260D | |

# QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Method: 8260D - Volatile Organic Compounds by GC/MS

### Lab Sample ID: MB 400-626672/4
### Matrix: Water
### Analysis Batch: 626672

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 05/26/23 12:50 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 05/26/23 12:50 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 05/26/23 12:50 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 05/26/23 12:50 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *97* | | *64 - 132* | | *05/26/23 12:50* | *1* |
| *Dibromofluoromethane* | *112* | | *75 - 126* | | *05/26/23 12:50* | *1* |
| *4-Bromofluorobenzene* | *94* | | *72 - 130* | | *05/26/23 12:50* | *1* |

### Lab Sample ID: LCS 400-626672/1002
### Matrix: Water
### Analysis Batch: 626672

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 50.0 | 42.2 | | ug/L | | 84 | 70 - 130 | | |
| Toluene | | | 50.0 | 42.3 | | ug/L | | 85 | 70 - 130 | | |
| Ethylbenzene | | | 50.0 | 46.2 | | ug/L | | 92 | 70 - 130 | | |
| Xylenes, Total | | | 100 | 95.0 | | ug/L | | 95 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Toluene-d8 (Surr)* | *96* | | *64 - 132* |
| *Dibromofluoromethane* | *104* | | *75 - 126* |
| *4-Bromofluorobenzene* | *92* | | *72 - 130* |

### Lab Sample ID: 400-238117-3 MS
### Matrix: Water
### Analysis Batch: 626672

Client Sample ID: MW-2R
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 50.0 | 40.8 | | ug/L | | 82 | 56 - 142 | | |
| Toluene | <1.0 | | 50.0 | 38.6 | | ug/L | | 77 | 65 - 130 | | |
| Ethylbenzene | <1.0 | | 50.0 | 42.3 | | ug/L | | 85 | 58 - 131 | | |
| Xylenes, Total | <10 | | 100 | 88.9 | | ug/L | | 89 | 59 - 130 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Toluene-d8 (Surr)* | *93* | | *64 - 132* |
| *Dibromofluoromethane* | *102* | | *75 - 126* |
| *4-Bromofluorobenzene* | *87* | | *72 - 130* |

### Lab Sample ID: 400-238117-3 MSD
### Matrix: Water
### Analysis Batch: 626672

Client Sample ID: MW-2R
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 50.0 | 42.9 | | ug/L | | 86 | 56 - 142 | 5 | 30 |
| Toluene | <1.0 | | 50.0 | 42.1 | | ug/L | | 84 | 65 - 130 | 9 | 30 |
| Ethylbenzene | <1.0 | | 50.0 | 44.4 | | ug/L | | 89 | 58 - 131 | 5 | 30 |

# QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: 400-238117-3 MSD**
**Matrix: Water**
**Analysis Batch: 626672**

**Client Sample ID: MW-2R**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Xylenes, Total | <10 | | 100 | 91.2 | | ug/L | | 91 | 59 - 130 | 3 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Toluene-d8 (Surr)* | *98* | | *64 - 132* |
| *Dibromofluoromethane* | *100* | | *75 - 126* |
| *4-Bromofluorobenzene* | *99* | | *72 - 130* |

**Lab Sample ID: MB 400-627498/4**
**Matrix: Water**
**Analysis Batch: 627498**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 10:55 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 10:55 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 06/02/23 10:55 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 06/02/23 10:55 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *94* | | *64 - 132* | | *06/02/23 10:55* | *1* |
| *Dibromofluoromethane* | *113* | | *75 - 126* | | *06/02/23 10:55* | *1* |
| *4-Bromofluorobenzene* | *98* | | *72 - 130* | | *06/02/23 10:55* | *1* |

**Lab Sample ID: LCS 400-627498/1002**
**Matrix: Water**
**Analysis Batch: 627498**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 50.0 | 43.0 | | ug/L | | 86 | 70 - 130 | | |
| Toluene | | | 50.0 | 41.3 | | ug/L | | 83 | 70 - 130 | | |
| Ethylbenzene | | | 50.0 | 46.4 | | ug/L | | 93 | 70 - 130 | | |
| Xylenes, Total | | | 100 | 93.7 | | ug/L | | 94 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Toluene-d8 (Surr)* | *97* | | *64 - 132* |
| *Dibromofluoromethane* | *102* | | *75 - 126* |
| *4-Bromofluorobenzene* | *99* | | *72 - 130* |

**Lab Sample ID: MB 400-627674/4**
**Matrix: Water**
**Analysis Batch: 627674**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 06/03/23 07:47 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 06/03/23 07:47 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 06/03/23 07:47 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 06/03/23 07:47 | 1 |

# QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 400-627674/4**
**Matrix: Water**
**Analysis Batch: 627674**

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

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| Toluene-d8 (Surr) | 99 | | 64 - 132 | | 06/03/23 07:47 | 1 |
| Dibromofluoromethane | 109 | | 75 - 126 | | 06/03/23 07:47 | 1 |
| 4-Bromofluorobenzene | 92 | | 72 - 130 | | 06/03/23 07:47 | 1 |

**Lab Sample ID: LCS 400-627674/1002**
**Matrix: Water**
**Analysis Batch: 627674**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 50.0 | 44.5 | | ug/L | | 89 | 70 - 130 |
| Toluene | 50.0 | 45.8 | | ug/L | | 92 | 70 - 130 |
| Ethylbenzene | 50.0 | 44.9 | | ug/L | | 90 | 70 - 130 |
| Xylenes, Total | 100 | 87.0 | | ug/L | | 87 | 70 - 130 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| Toluene-d8 (Surr) | 101 | | 64 - 132 |
| Dibromofluoromethane | 93 | | 75 - 126 |
| 4-Bromofluorobenzene | 95 | | 72 - 130 |

**Eurofins Pensacola**
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

# Chain of Custody Record

eurofins | Environment Testing

| Client Information | Sampler: Sarah Gardiner / Sean Ciary | Lab PM: Whitmire, Cheyenne R | Carrier Tracking No(s): | COC No: 400-120288-41339.1 |
|---|---|---|---|---|
| Client Contact: Steve Varsa | Phone: 303 291 2239 | E-Mail: Cheyenne.Whitmire@et.eurofinsus.com | State of Origin: | Page: Page 1 of 1 |
| Company: Stantec Consulting Services Inc | PWSID: | | | Job #: |
| Address: 11311 Aurora Avenue | Due Date Requested: Standard | | | |
| City: Des Moines | TAT Requested (days): Standard | | | |
| State, Zip: IA, 50322-7904 | Compliance Project: Δ Yes Δ No | | | |
| Phone: | PO #: WD1040036 | | | |
| Email: steve.varsa@stantec.com | WO #: Canada Mesa #2_ERG_ARF_04-26-2023 | | | |
| Project Name: Canada Mesa #2.00 | Project #: 40015823 | | | |
| Site: Canada Mesa | SSOW#: | | | |

**Analysis Requested**

400-238117 COC

**Preservation Codes:**
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 8260D - BTEX - 8260 | 8260D - BTEX - 8260 | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | A | N | | |
| Trip Blank | 5/20/23 | 750 | — | Water | — | | 2 | | 2 | Trip Blank |
| DUP-01 | 5/20/23 | 755 | G | Water | — | | 2 | | 2 | |
| MW-2R | 5/20/23 | 900 | G | Water | — | | | 2 | 2 | Unpreserved |
| MW-3R | 5/20/23 | 850 | G | Water | — | | 2 | | 2 | |
| MW-5 | 5/20/23 | 830 | G | Water | — | | 2 | | 2 | |
| MW-8 | 5/20/23 | 855 | G | Water | — | | 2 | | 2 | |
| MW-11 | 5/20/23 | 835 | G | Water | — | | 2 | | 2 | |
| | | | | Water | | | | | | |

**Possible Hazard Identification**
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| [signature] | 5/22/23 1200 | Stantec | [signature] | 5/23/23 910 | EETS |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.8°C IR8 |
|---|---|---|

Ver: 06/08/2021

# Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc

Job Number: 400-238117-1
SDG Number: Canada Mesa

**Login Number: 238117**
**List Number: 1**
**Creator: Perez, Trina M**

**List Source: Eurofins Pensacola**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 1.8°C IR-8 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Accreditation/Certification Summary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-238117-1
SDG: Canada Mesa

## Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Alabama | State | 40150 | 06-30-23 |
| ANAB | ISO/IEC 17025 | L2471 | 02-22-26 |
| Arkansas DEQ | State | 88-0689 | 09-01-23 |
| California | State | 2510 | 06-30-23 |
| Florida | NELAP | E81010 | 06-30-23 |
| Georgia | State | E81010(FL) | 06-30-23 |
| Illinois | NELAP | 200041 | 10-09-23 |
| Kansas | NELAP | E-10253 | 10-31-23 |
| Kentucky (UST) | State | 53 | 06-30-23 |
| Louisiana (All) | NELAP | 30976 | 06-30-23 |
| Louisiana (DW) | State | LA017 | 12-31-23 |
| Maryland | State | 233 | 09-30-23 |
| Michigan | State | 9912 | 06-30-23 |
| North Carolina (WW/SW) | State | 314 | 12-31-23 |
| Oklahoma | NELAP | 9810 | 08-31-23 |
| Pennsylvania | NELAP | 68-00467 | 01-31-24 |
| South Carolina | State | 96026 | 06-30-23 |
| Tennessee | State | TN02907 | 06-30-23 |
| Texas | NELAP | T104704286 | 09-30-23 |
| US Fish & Wildlife | US Federal Programs | A22340 | 06-30-23 |
| USDA | US Federal Programs | P330-21-00056 | 05-17-24 |
| USDA | US Federal Programs | FLGNV23001 | 01-08-26 |
| Virginia | NELAP | 460166 | 06-14-23 |
| West Virginia DEP | State | 136 | 03-31-24 |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Steve Varsa
Stantec Consulting Services Inc
11311 Aurora Avenue
Des Moines, Iowa 50322-7904

Generated 11/30/2023 2:43:20 PM

## JOB DESCRIPTION

Canada Mesa #2.00

## JOB NUMBER

400-246743-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

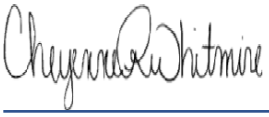
# Eurofins Pensacola

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

## Authorization



Generated
11/30/2023 2:43:20 PM

Authorized for release by
Cheyenne Whitmire, Project Manager II
Cheyenne.Whitmire@et.eurofinsus.com
(850)471-6222

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Laboratory Job ID: 400-246743-1

# Table of Contents

# Detection Summary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Client Sample ID: MW-2R — Lab Sample ID: 400-246743-1

No Detections.

## Client Sample ID: MW-3R — Lab Sample ID: 400-246743-2

No Detections.

## Client Sample ID: MW-7 — Lab Sample ID: 400-246743-3

No Detections.

## Client Sample ID: MW-5 — Lab Sample ID: 400-246743-4

No Detections.

## Client Sample ID: MW-6 — Lab Sample ID: 400-246743-5

No Detections.

## Client Sample ID: MW-8 — Lab Sample ID: 400-246743-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 4.3 | | 1.0 | | ug/L | 1 | | 8260D | Total/NA |
| Xylenes, Total | 14 | | 10 | | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: MW-10 — Lab Sample ID: 400-246743-7

No Detections.

## Client Sample ID: MW-11 — Lab Sample ID: 400-246743-8

No Detections.

## Client Sample ID: MW-12 — Lab Sample ID: 400-246743-9

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 1.0 | | 1.0 | | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: DUP-01 — Lab Sample ID: 400-246743-10

No Detections.

## Client Sample ID: TB-01 — Lab Sample ID: 400-246743-11

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Pensacola

# Method Summary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260D | Volatile Organic Compounds by GC/MS | SW846 | EET PEN |
| 5030C | Purge and Trap | SW846 | EET PEN |

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

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

# Sample Summary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 400-246743-1 | MW-2R | Water | 11/12/23 09:10 | 11/14/23 08:56 |
| 400-246743-2 | MW-3R | Water | 11/12/23 09:17 | 11/14/23 08:56 |
| 400-246743-3 | MW-7 | Water | 11/12/23 09:35 | 11/14/23 08:56 |
| 400-246743-4 | MW-5 | Water | 11/12/23 09:00 | 11/14/23 08:56 |
| 400-246743-5 | MW-6 | Water | 11/12/23 09:26 | 11/14/23 08:56 |
| 400-246743-6 | MW-8 | Water | 11/12/23 09:44 | 11/14/23 08:56 |
| 400-246743-7 | MW-10 | Water | 11/12/23 09:51 | 11/14/23 08:56 |
| 400-246743-8 | MW-11 | Water | 11/12/23 09:58 | 11/14/23 08:56 |
| 400-246743-9 | MW-12 | Water | 11/12/23 10:04 | 11/14/23 08:56 |
| 400-246743-10 | DUP-01 | Water | 11/12/23 12:00 | 11/14/23 08:56 |
| 400-246743-11 | TB-01 | Water | 11/12/23 08:30 | 11/14/23 08:56 |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Client Sample ID: MW-2R

**Date Collected: 11/12/23 09:10**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-1

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 11/17/23 17:50 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 11/17/23 17:50 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 11/17/23 17:50 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 11/17/23 17:50 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *110* | | *72 - 130* | | *11/17/23 17:50* | *1* |
| *Dibromofluoromethane* | *113* | | *75 - 126* | | *11/17/23 17:50* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *64 - 132* | | *11/17/23 17:50* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Client Sample ID: MW-3R
**Date Collected: 11/12/23 09:17**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-2
**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 19:27 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 19:27 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 19:27 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 11/21/23 19:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *111* | | *72 - 130* | | *11/21/23 19:27* | *1* |
| *Dibromofluoromethane* | *87* | | *75 - 126* | | *11/21/23 19:27* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *64 - 132* | | *11/21/23 19:27* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Client Sample ID: MW-7

**Date Collected: 11/12/23 09:35**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-3

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 22:47 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 22:47 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 22:47 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 11/21/23 22:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *109* | | *72 - 130* | | *11/21/23 22:47* | *1* |
| *Dibromofluoromethane* | *88* | | *75 - 126* | | *11/21/23 22:47* | *1* |
| *Toluene-d8 (Surr)* | *108* | | *64 - 132* | | *11/21/23 22:47* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Client Sample ID: MW-5

**Date Collected: 11/12/23 09:00**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-4

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 23:12 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 23:12 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 23:12 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 11/21/23 23:12 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *112* | | *72 - 130* | | *11/21/23 23:12* | *1* |
| *Dibromofluoromethane* | *89* | | *75 - 126* | | *11/21/23 23:12* | *1* |
| *Toluene-d8 (Surr)* | *107* | | *64 - 132* | | *11/21/23 23:12* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Client Sample ID: MW-6

**Date Collected: 11/12/23 09:26**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-5

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 23:37 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 23:37 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 23:37 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 11/21/23 23:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *108* | | *72 - 130* | | *11/21/23 23:37* | *1* |
| *Dibromofluoromethane* | *89* | | *75 - 126* | | *11/21/23 23:37* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *64 - 132* | | *11/21/23 23:37* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Client Sample ID: MW-8

**Date Collected: 11/12/23 09:44**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-6

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 11/22/23 00:03 | 1 |
| **Ethylbenzene** | **4.3** | | 1.0 | | ug/L | | | 11/22/23 00:03 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 11/22/23 00:03 | 1 |
| **Xylenes, Total** | **14** | | 10 | | ug/L | | | 11/22/23 00:03 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *115* | | *72 - 130* | | *11/22/23 00:03* | *1* |
| *Dibromofluoromethane* | *88* | | *75 - 126* | | *11/22/23 00:03* | *1* |
| *Toluene-d8 (Surr)* | *103* | | *64 - 132* | | *11/22/23 00:03* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Client Sample ID: MW-10

**Date Collected: 11/12/23 09:51**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-7

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 11/22/23 00:28 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 11/22/23 00:28 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 11/22/23 00:28 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 11/22/23 00:28 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *112* | | *72 - 130* | | *11/22/23 00:28* | *1* |
| *Dibromofluoromethane* | *89* | | *75 - 126* | | *11/22/23 00:28* | *1* |
| *Toluene-d8 (Surr)* | *105* | | *64 - 132* | | *11/22/23 00:28* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Client Sample ID: MW-11

**Date Collected: 11/12/23 09:58**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-8

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 11/22/23 00:53 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 11/22/23 00:53 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 11/22/23 00:53 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 11/22/23 00:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *109* | | *72 - 130* | | *11/22/23 00:53* | *1* |
| *Dibromofluoromethane* | *90* | | *75 - 126* | | *11/22/23 00:53* | *1* |
| *Toluene-d8 (Surr)* | *105* | | *64 - 132* | | *11/22/23 00:53* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Client Sample ID: MW-12

**Date Collected: 11/12/23 10:04**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-9

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 11/22/23 01:18 | 1 |
| **Ethylbenzene** | **1.0** | | 1.0 | | ug/L | | | 11/22/23 01:18 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 11/22/23 01:18 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 11/22/23 01:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *111* | | *72 - 130* | | *11/22/23 01:18* | *1* |
| *Dibromofluoromethane* | *89* | | *75 - 126* | | *11/22/23 01:18* | *1* |
| *Toluene-d8 (Surr)* | *103* | | *64 - 132* | | *11/22/23 01:18* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Client Sample ID: DUP-01

**Date Collected: 11/12/23 12:00**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-10

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 11/22/23 01:43 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 11/22/23 01:43 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 11/22/23 01:43 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 11/22/23 01:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *111* | | *72 - 130* | | *11/22/23 01:43* | *1* |
| *Dibromofluoromethane* | *91* | | *75 - 126* | | *11/22/23 01:43* | *1* |
| *Toluene-d8 (Surr)* | *105* | | *64 - 132* | | *11/22/23 01:43* | *1* |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Client Sample ID: TB-01

**Date Collected: 11/12/23 08:30**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-11

**Matrix: Water**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 22:22 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 22:22 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 22:22 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 11/21/23 22:22 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *108* | | *72 - 130* | | *11/21/23 22:22* | *1* |
| *Dibromofluoromethane* | *87* | | *75 - 126* | | *11/21/23 22:22* | *1* |
| *Toluene-d8 (Surr)* | *107* | | *64 - 132* | | *11/21/23 22:22* | *1* |

# Definitions/Glossary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

# Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Client Sample ID: MW-2R
**Date Collected: 11/12/23 09:10**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-1
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 650761 | 11/17/23 17:50 | WPD | EET PEN |

## Client Sample ID: MW-3R
**Date Collected: 11/12/23 09:17**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-2
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 651377 | 11/21/23 19:27 | BPO | EET PEN |

## Client Sample ID: MW-7
**Date Collected: 11/12/23 09:35**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-3
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 651377 | 11/21/23 22:47 | BPO | EET PEN |

## Client Sample ID: MW-5
**Date Collected: 11/12/23 09:00**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-4
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 651377 | 11/21/23 23:12 | BPO | EET PEN |

## Client Sample ID: MW-6
**Date Collected: 11/12/23 09:26**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-5
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 651377 | 11/21/23 23:37 | BPO | EET PEN |

## Client Sample ID: MW-8
**Date Collected: 11/12/23 09:44**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-6
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 651377 | 11/22/23 00:03 | BPO | EET PEN |

## Client Sample ID: MW-10
**Date Collected: 11/12/23 09:51**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-7
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 651377 | 11/22/23 00:28 | BPO | EET PEN |

# Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Client Sample ID: MW-11
**Date Collected: 11/12/23 09:58**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-8
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 651377 | 11/22/23 00:53 | BPO | EET PEN |

## Client Sample ID: MW-12
**Date Collected: 11/12/23 10:04**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-9
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 651377 | 11/22/23 01:18 | BPO | EET PEN |

## Client Sample ID: DUP-01
**Date Collected: 11/12/23 12:00**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-10
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 651377 | 11/22/23 01:43 | BPO | EET PEN |

## Client Sample ID: TB-01
**Date Collected: 11/12/23 08:30**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-11
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 651377 | 11/21/23 22:22 | BPO | EET PEN |

## Client Sample ID: Method Blank
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: MB 400-650761/3
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 650761 | 11/17/23 12:53 | WPD | EET PEN |

## Client Sample ID: Method Blank
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: MB 400-651377/3
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 651377 | 11/21/23 18:37 | BPO | EET PEN |

## Client Sample ID: Lab Control Sample
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: LCS 400-650761/1001
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 650761 | 11/17/23 11:23 | WPD | EET PEN |

# Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Client Sample ID: Lab Control Sample
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: LCS 400-651377/1001
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 651377 | 11/21/23 17:37 | BPO | EET PEN |

## Client Sample ID: MW-3R
**Date Collected: 11/12/23 09:17**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-2 MS
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 651377 | 11/21/23 20:42 | BPO | EET PEN |

## Client Sample ID: MW-3R
**Date Collected: 11/12/23 09:17**
**Date Received: 11/14/23 08:56**

## Lab Sample ID: 400-246743-2 MSD
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 651377 | 11/21/23 21:07 | BPO | EET PEN |

**Laboratory References:**
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

# QC Association Summary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## GC/MS VOA

### Analysis Batch: 650761

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-246743-1 | MW-2R | Total/NA | Water | 8260D | |
| MB 400-650761/3 | Method Blank | Total/NA | Water | 8260D | |
| LCS 400-650761/1001 | Lab Control Sample | Total/NA | Water | 8260D | |

### Analysis Batch: 651377

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-246743-2 | MW-3R | Total/NA | Water | 8260D | |
| 400-246743-3 | MW-7 | Total/NA | Water | 8260D | |
| 400-246743-4 | MW-5 | Total/NA | Water | 8260D | |
| 400-246743-5 | MW-6 | Total/NA | Water | 8260D | |
| 400-246743-6 | MW-8 | Total/NA | Water | 8260D | |
| 400-246743-7 | MW-10 | Total/NA | Water | 8260D | |
| 400-246743-8 | MW-11 | Total/NA | Water | 8260D | |
| 400-246743-9 | MW-12 | Total/NA | Water | 8260D | |
| 400-246743-10 | DUP-01 | Total/NA | Water | 8260D | |
| 400-246743-11 | TB-01 | Total/NA | Water | 8260D | |
| MB 400-651377/3 | Method Blank | Total/NA | Water | 8260D | |
| LCS 400-651377/1001 | Lab Control Sample | Total/NA | Water | 8260D | |
| 400-246743-2 MS | MW-3R | Total/NA | Water | 8260D | |
| 400-246743-2 MSD | MW-3R | Total/NA | Water | 8260D | |

# QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 400-650761/3**
**Matrix: Water**
**Analysis Batch: 650761**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 11/17/23 12:53 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 11/17/23 12:53 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 11/17/23 12:53 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 11/17/23 12:53 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *107* | | *72 - 130* | | *11/17/23 12:53* | *1* |
| *Dibromofluoromethane* | *110* | | *75 - 126* | | *11/17/23 12:53* | *1* |
| *Toluene-d8 (Surr)* | *103* | | *64 - 132* | | *11/17/23 12:53* | *1* |

**Lab Sample ID: LCS 400-650761/1001**
**Matrix: Water**
**Analysis Batch: 650761**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 50.0 | 53.7 | | ug/L | | 107 | 70 - 130 |
| m-Xylene & p-Xylene | 50.0 | 52.6 | | ug/L | | 105 | 70 - 130 |
| o-Xylene | 50.0 | 51.8 | | ug/L | | 104 | 70 - 130 |
| Ethylbenzene | 50.0 | 53.9 | | ug/L | | 108 | 70 - 130 |
| Toluene | 50.0 | 55.5 | | ug/L | | 111 | 70 - 130 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *105* | | *72 - 130* |
| *Dibromofluoromethane* | *106* | | *75 - 126* |
| *Toluene-d8 (Surr)* | *103* | | *64 - 132* |
| *1,2-Dichloroethane-d4 (Surr)* | *111* | | *67 - 134* |

**Lab Sample ID: MB 400-651377/3**
**Matrix: Water**
**Analysis Batch: 651377**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 18:37 | 1 |
| Ethylbenzene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 18:37 | 1 |
| Toluene | <1.0 | | 1.0 | | ug/L | | | 11/21/23 18:37 | 1 |
| Xylenes, Total | <10 | | 10 | | ug/L | | | 11/21/23 18:37 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *110* | | *72 - 130* | | *11/21/23 18:37* | *1* |
| *Dibromofluoromethane* | *95* | | *75 - 126* | | *11/21/23 18:37* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *64 - 132* | | *11/21/23 18:37* | *1* |

**Lab Sample ID: LCS 400-651377/1001**
**Matrix: Water**
**Analysis Batch: 651377**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 50.0 | 45.2 | | ug/L | | 90 | 70 - 130 |

# QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-246743-1

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 400-651377/1001**
**Matrix: Water**
**Analysis Batch: 651377**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| m-Xylene & p-Xylene | | | 50.0 | 52.1 | | ug/L | | 104 | 70 - 130 | | |
| o-Xylene | | | 50.0 | 48.9 | | ug/L | | 98 | 70 - 130 | | |
| Ethylbenzene | | | 50.0 | 49.9 | | ug/L | | 100 | 70 - 130 | | |
| Toluene | | | 50.0 | 48.5 | | ug/L | | 97 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *109* | | *72 - 130* |
| *Dibromofluoromethane* | *97* | | *75 - 126* |
| *Toluene-d8 (Surr)* | *105* | | *64 - 132* |
| *1,2-Dichloroethane-d4 (Surr)* | *124* | | *67 - 134* |

**Lab Sample ID: 400-246743-2 MS**
**Matrix: Water**
**Analysis Batch: 651377**

**Client Sample ID: MW-3R**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 50.0 | 47.7 | | ug/L | | 95 | 56 - 142 | | |
| m-Xylene & p-Xylene | <5.0 | | 50.0 | 46.8 | | ug/L | | 94 | 57 - 130 | | |
| o-Xylene | <5.0 | | 50.0 | 45.4 | | ug/L | | 91 | 61 - 130 | | |
| Ethylbenzene | <1.0 | | 50.0 | 44.7 | | ug/L | | 89 | 58 - 131 | | |
| Toluene | <1.0 | | 50.0 | 48.1 | | ug/L | | 96 | 65 - 130 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *108* | | *72 - 130* |
| *Dibromofluoromethane* | *80* | | *75 - 126* |
| *Toluene-d8 (Surr)* | *104* | | *64 - 132* |
| *1,2-Dichloroethane-d4 (Surr)* | *109* | | *67 - 134* |

**Lab Sample ID: 400-246743-2 MSD**
**Matrix: Water**
**Analysis Batch: 651377**

**Client Sample ID: MW-3R**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <1.0 | | 50.0 | 55.6 | | ug/L | | 111 | 56 - 142 | 15 | 30 |
| m-Xylene & p-Xylene | <5.0 | | 50.0 | 47.4 | | ug/L | | 95 | 57 - 130 | 1 | 30 |
| o-Xylene | <5.0 | | 50.0 | 47.1 | | ug/L | | 94 | 61 - 130 | 4 | 30 |
| Ethylbenzene | <1.0 | | 50.0 | 45.9 | | ug/L | | 92 | 58 - 131 | 3 | 30 |
| Toluene | <1.0 | | 50.0 | 52.7 | | ug/L | | 105 | 65 - 130 | 9 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *110* | | *72 - 130* |
| *Dibromofluoromethane* | *81* | | *75 - 126* |
| *Toluene-d8 (Surr)* | *104* | | *64 - 132* |
| *1,2-Dichloroethane-d4 (Surr)* | *111* | | *67 - 134* |

**Eurofins Pensacola**
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

# Chain of Custody Record

400-246743 COC

eurofins | Environment Testing

| Client Information | Sampler: SRC / ERB | Lab PM: Whitmire, Cheyenne R | COC No: 400-124044-41339.1 |
|---|---|---|---|
| Client Contact: Steve Varsa | Phone: 515-253-0830 | E-Mail: Cheyenne.Whitmire@et.eurofinsus.com | Page: Page 1 of 2 / 1 ERB |
| Company: Stantec Consulting Services Inc | PWSID: | | Job #: |
| Address: 11311 Aurora Avenue | Due Date Requested: STD | | |
| City: Des Moines | TAT Requested (days): | | |
| State, Zip: IA, 50322-7904 | Compliance Project: Δ Yes Δ No | | |
| Phone: | PO #: WD1040036 | | |
| Email: steve.varsa@stantec.com | WO #: Canada Mesa #2_ERG_ARF_10_24_2023 | | |
| Project Name: Canada Mesa #2.00 | Project #: 40015823 | | |
| Site: | SSOW#: | | |

**Analysis Requested**

**Preservation Codes:**

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 8260D - BTEX - 8260 | 8260D - BTEX - 8260 | ERB | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | A | N | | | |
| MW-2R | 11/12/2023 | 0910 | G | Water | N | N | | X | | | |
| MW-3R | 11/12/2023 | 0917 | G | Water | N | N | X | | | | |
| MW-7 | 11/12/2023 | 0935 | G | Water | N | N | X | | | | |
| MW-5 | 11/12/2023 | 0900 | G | Water | N | N | X | | | | |
| MW-6 | 11/12/2023 | 0926 | G | Water | N | N | X | | | | |
| MW-8 | 11/12/2023 | 0944 | G | Water | N | N | X | | | | |
| MW-10 | 11/12/2023 | 0951 | G | Water | N | N | X | | | | |
| MW-11 | 11/12/2023 | 0958 | G | Water | N | N | X | | | | |
| MW-12 | 11/12/2023 | 1004 | G | Water | N | N | X | | | | |
| DUP-01 | 11/12/2023 | — | G | Water | N | N | X | | | | |
| TB-01 | 11/12/2023 | 0830 | G | Water | N | N | X | | | | |

**Possible Hazard Identification**
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by: | Date/Time: | Company: | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|---|
| 1 | [signature] | 11/13/2023 1250 | STN | BP | 11/14/23 856 | |
| 2 | Relinquished by: | Date/Time: | Company: | Received by: | Date/Time: | Company: |
| 3 | Relinquished by: | Date/Time: | Company: | Received by: | Date/Time: | Company: |

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.0°C IR6

Ver: 06/08/2021

# Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc Job Number: 400-246743-1

**Login Number: 246743** **List Source: Eurofins Pensacola**
**List Number: 1**
**Creator: Roberts, Alexis J**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 0.0°C IR8 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Accreditation/Certification Summary

Client: Stantec Consulting Services Inc
Job ID: 400-246743-1
Project/Site: Canada Mesa #2.00

## Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Alabama | State | 40150 | 06-30-24 |
| ANAB | ISO/IEC 17025 | L2471 | 02-22-26 |
| Arkansas DEQ | State | 88-00689 | 08-01-24 |
| California | State | 2510 | 06-30-24 |
| Florida | NELAP | E81010 | 06-30-24 |
| Georgia | State | E81010(FL) | 06-30-24 |
| Illinois | NELAP | 200041 | 10-09-24 |
| Kansas | NELAP | E-10253 | 10-31-24 |
| Kentucky (UST) | State | 53 | 06-30-24 |
| Louisiana (All) | NELAP | 30976 | 06-30-24 |
| Louisiana (DW) | State | LA017 | 12-31-23 |
| North Carolina (WW/SW) | State | 314 | 12-31-23 |
| Oklahoma | NELAP | 9810 | 08-31-24 |
| Pennsylvania | NELAP | 68-00467 | 01-31-24 |
| South Carolina | State | 96026 | 06-30-24 |
| Tennessee | State | TN02907 | 06-30-24 |
| Texas | NELAP | T104704286 | 09-30-24 |
| US Fish & Wildlife | US Federal Programs | A22340 | 06-30-24 |
| USDA | US Federal Programs | P330-21-00056 | 05-17-24 |
| USDA | US Federal Programs | FLGNV23001 | 01-08-26 |
| Virginia | NELAP | 460166 | 06-14-24 |
| West Virginia DEP | State | 136 | 03-31-24 |
| West Virginia DEP | State | 136 | 03-31-24 |

# APPENDIX L

Soil Analytical Lab Reports

Stantec

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Steve Varsa
Stantec Consulting Services Inc
11311 Aurora Avenue
Des Moines, Iowa 50322-7904

Generated 8/15/2023 3:04:21 PM

## JOB DESCRIPTION

Canada Mesa #2.00

## JOB NUMBER

400-241285-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.





my EOL

# Eurofins Pensacola

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

## Authorization

Generated
8/15/2023 3:04:21 PM

Authorized for release by
Isabel Enfinger, Project Manager I
isabel.enfinger@et.eurofinsus.com
Designee for
Cheyenne Whitmire, Project Manager II
Cheyenne.Whitmire@et.eurofinsus.com
(850)471-6222

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Laboratory Job ID: 400-241285-1

# Table of Contents

# Case Narrative

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Job ID: 400-241285-1

### Laboratory: Eurofins Pensacola

**Narrative**

**Job Narrative**
**400-241285-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 8/1/2023 8:52 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.3º C.

**GC/MS VOA**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**HPLC/IC**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**GC VOA**
Method 8015C: The following samples were diluted because the base dilution for methanol preserved soil analysis is 1:50: MW12 (22FT) (400-241285-1), MW12 (35FT) (400-241285-2), SB6 (15FT) (400-241285-3), SB6 (35FT) (400-241285-4) and TW1 (33FT) (400-241285-5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**GC Semi VOA**
Method 8015C: Due to the high concentration of Diesel Range Organics (DRO), the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 400-635581 and analytical batch 400-635766 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**General Chemistry**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**Organic Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**VOA Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Client Sample ID: MW12 (22FT) — Lab Sample ID: 400-241285-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 100 | | 20 | | mg/Kg | 1 | ☼ | 300.0 | Soluble |

## Client Sample ID: MW12 (35FT) — Lab Sample ID: 400-241285-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) C6--C10 | 31 | | 5.7 | | mg/Kg | 50 | ☼ | 8015C | Total/NA |
| Diesel Range Organics (DRO) | 12 | | 5.2 | | mg/Kg | 1 | ☼ | 8015C | Total/NA |

## Client Sample ID: SB6 (15FT) — Lab Sample ID: 400-241285-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 28 | | 20 | | mg/Kg | 1 | ☼ | 300.0 | Soluble |

## Client Sample ID: SB6 (35FT) — Lab Sample ID: 400-241285-4

No Detections.

## Client Sample ID: TW1 (33FT) — Lab Sample ID: 400-241285-5

No Detections.

This Detection Summary does not include radiochemical test results.

# Method Summary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260D | Volatile Organic Compounds by GC/MS | SW846 | EET PEN |
| 8015C | Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics) | SW846 | EET PEN |
| 8015C | Diesel Range Organics (DRO) (GC) | EPA | EET PEN |
| 300.0 | Anions, Ion Chromatography | EPA | EET PEN |
| Moisture | Percent Moisture | EPA | EET PEN |
| 3546 | Microwave Extraction | SW846 | EET PEN |
| 5035 | Closed System Purge and Trap | SW846 | EET PEN |
| DI Leach | Deionized Water Leaching Procedure | ASTM | EET PEN |

**Protocol References:**

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

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

# Sample Summary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 400-241285-1 | MW12 (22FT) | Solid | 07/25/23 14:10 | 08/01/23 08:52 |
| 400-241285-2 | MW12 (35FT) | Solid | 07/25/23 15:15 | 08/01/23 08:52 |
| 400-241285-3 | SB6 (15FT) | Solid | 07/26/23 13:15 | 08/01/23 08:52 |
| 400-241285-4 | SB6 (35FT) | Solid | 07/26/23 14:45 | 08/01/23 08:52 |
| 400-241285-5 | TW1 (33FT) | Solid | 07/27/23 10:10 | 08/01/23 08:52 |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Client Sample ID: MW12 (22FT)

**Date Collected: 07/25/23 14:10**
**Date Received: 08/01/23 08:52**

## Lab Sample ID: 400-241285-1

**Matrix: Solid**
**Percent Solids: 95.5**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.0057 | | 0.0057 | | mg/Kg | ☼ | 08/04/23 09:59 | 08/04/23 19:26 | 1 |
| Ethylbenzene | <0.0057 | | 0.0057 | | mg/Kg | ☼ | 08/04/23 09:59 | 08/04/23 19:26 | 1 |
| Toluene | <0.0057 | | 0.0057 | | mg/Kg | ☼ | 08/04/23 09:59 | 08/04/23 19:26 | 1 |
| Xylenes, Total | <0.011 | | 0.011 | | mg/Kg | ☼ | 08/04/23 09:59 | 08/04/23 19:26 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *98* | | *67 - 130* | *08/04/23 09:59* | *08/04/23 19:26* | *1* |
| *Dibromofluoromethane* | *98* | | *77 - 127* | *08/04/23 09:59* | *08/04/23 19:26* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *76 - 127* | *08/04/23 09:59* | *08/04/23 19:26* | *1* |

### Method: SW846 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) C6--C10 | <5.4 | | 5.4 | | mg/Kg | ☼ | 08/07/23 11:03 | 08/07/23 13:42 | 50 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *a,a,a-Trifluorotoluene (fid)* | *94* | | *65 - 125* | *08/07/23 11:03* | *08/07/23 13:42* | *50* |

### Method: EPA 8015C - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | <5.2 | | 5.2 | | mg/Kg | ☼ | 08/02/23 13:15 | 08/03/23 21:44 | 1 |
| Oil Range Organics (ORO) | <5.2 | | 5.2 | | mg/Kg | ☼ | 08/02/23 13:15 | 08/03/23 21:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *o-Terphenyl* | *106* | | *27 - 150* | *08/02/23 13:15* | *08/03/23 21:44* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **100** | | 20 | | mg/Kg | ☼ | | 08/02/23 22:09 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Percent Solids (EPA Moisture)** | **95.5** | | 0.01 | | % | | | 08/04/23 11:14 | 1 |
| **Percent Moisture (EPA Moisture)** | **4.5** | | 0.01 | | % | | | 08/04/23 11:14 | 1 |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Client Sample ID: MW12 (35FT)

**Date Collected: 07/25/23 15:15**
**Date Received: 08/01/23 08:52**

## Lab Sample ID: 400-241285-2

**Matrix: Solid**
**Percent Solids: 94.4**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.0050 | | 0.0050 | | mg/Kg | ☼ | 08/04/23 09:59 | 08/04/23 19:47 | 1 |
| Ethylbenzene | <0.0050 | | 0.0050 | | mg/Kg | ☼ | 08/04/23 09:59 | 08/04/23 19:47 | 1 |
| Toluene | <0.0050 | | 0.0050 | | mg/Kg | ☼ | 08/04/23 09:59 | 08/04/23 19:47 | 1 |
| Xylenes, Total | <0.010 | | 0.010 | | mg/Kg | ☼ | 08/04/23 09:59 | 08/04/23 19:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *104* | | *67 - 130* | *08/04/23 09:59* | *08/04/23 19:47* | *1* |
| *Dibromofluoromethane* | *99* | | *77 - 127* | *08/04/23 09:59* | *08/04/23 19:47* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *76 - 127* | *08/04/23 09:59* | *08/04/23 19:47* | *1* |

### Method: SW846 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Gasoline Range Organics (GRO) C6--C10** | **31** | | 5.7 | | mg/Kg | ☼ | 08/07/23 11:03 | 08/07/23 14:09 | 50 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *a,a,a-Trifluorotoluene (fid)* | *97* | | *65 - 125* | *08/07/23 11:03* | *08/07/23 14:09* | *50* |

### Method: EPA 8015C - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Diesel Range Organics (DRO)** | **12** | | 5.2 | | mg/Kg | ☼ | 08/02/23 13:15 | 08/03/23 22:03 | 1 |
| Oil Range Organics (ORO) | <5.2 | | 5.2 | | mg/Kg | ☼ | 08/02/23 13:15 | 08/03/23 22:03 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *o-Terphenyl* | *96* | | *27 - 150* | *08/02/23 13:15* | *08/03/23 22:03* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <21 | | 21 | | mg/Kg | ☼ | | 08/02/23 22:29 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Percent Solids (EPA Moisture)** | **94.4** | | 0.01 | | % | | | 08/04/23 11:14 | 1 |
| **Percent Moisture (EPA Moisture)** | **5.6** | | 0.01 | | % | | | 08/04/23 11:14 | 1 |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Client Sample ID: SB6 (15FT)

**Date Collected: 07/26/23 13:15**
**Date Received: 08/01/23 08:52**

## Lab Sample ID: 400-241285-3

**Matrix: Solid**
**Percent Solids: 97.1**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.0050 | | 0.0050 | | mg/Kg | ☼ | 08/08/23 10:28 | 08/08/23 13:53 | 1 |
| Ethylbenzene | <0.0050 | | 0.0050 | | mg/Kg | ☼ | 08/08/23 10:28 | 08/08/23 13:53 | 1 |
| Toluene | <0.0050 | | 0.0050 | | mg/Kg | ☼ | 08/08/23 10:28 | 08/08/23 13:53 | 1 |
| Xylenes, Total | <0.010 | | 0.010 | | mg/Kg | ☼ | 08/08/23 10:28 | 08/08/23 13:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *101* | | *67 - 130* | *08/08/23 10:28* | *08/08/23 13:53* | *1* |
| *Dibromofluoromethane* | *99* | | *77 - 127* | *08/08/23 10:28* | *08/08/23 13:53* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *76 - 127* | *08/08/23 10:28* | *08/08/23 13:53* | *1* |

### Method: SW846 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) C6--C10 | <5.1 | | 5.1 | | mg/Kg | ☼ | 08/07/23 11:03 | 08/07/23 17:04 | 50 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *a,a,a-Trifluorotoluene (fid)* | *97* | | *65 - 125* | *08/07/23 11:03* | *08/07/23 17:04* | *50* |

### Method: EPA 8015C - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | <5.0 | | 5.0 | | mg/Kg | ☼ | 08/02/23 13:15 | 08/03/23 22:39 | 1 |
| Oil Range Organics (ORO) | <5.0 | | 5.0 | | mg/Kg | ☼ | 08/02/23 13:15 | 08/03/23 22:39 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *o-Terphenyl* | *94* | | *27 - 150* | *08/02/23 13:15* | *08/03/23 22:39* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **28** | | 20 | | mg/Kg | ☼ | | 08/02/23 22:49 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Percent Solids (EPA Moisture)** | **97.1** | | 0.01 | | % | | | 08/04/23 11:14 | 1 |
| **Percent Moisture (EPA Moisture)** | **2.9** | | 0.01 | | % | | | 08/04/23 11:14 | 1 |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Client Sample ID: SB6 (35FT)

**Date Collected: 07/26/23 14:45**
**Date Received: 08/01/23 08:52**

## Lab Sample ID: 400-241285-4

**Matrix: Solid**
**Percent Solids: 89.5**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.0054 | | 0.0054 | | mg/Kg | ☼ | 08/07/23 11:43 | 08/07/23 22:45 | 1 |
| Ethylbenzene | <0.0054 | | 0.0054 | | mg/Kg | ☼ | 08/07/23 11:43 | 08/07/23 22:45 | 1 |
| Toluene | <0.0054 | | 0.0054 | | mg/Kg | ☼ | 08/07/23 11:43 | 08/07/23 22:45 | 1 |
| Xylenes, Total | <0.011 | | 0.011 | | mg/Kg | ☼ | 08/07/23 11:43 | 08/07/23 22:45 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *98* | | *67 - 130* | *08/07/23 11:43* | *08/07/23 22:45* | *1* |
| *Dibromofluoromethane* | *99* | | *77 - 127* | *08/07/23 11:43* | *08/07/23 22:45* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *76 - 127* | *08/07/23 11:43* | *08/07/23 22:45* | *1* |

### Method: SW846 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) C6--C10 | <5.7 | | 5.7 | | mg/Kg | ☼ | 08/07/23 11:03 | 08/07/23 17:58 | 50 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *a,a,a-Trifluorotoluene (fid)* | *98* | | *65 - 125* | *08/07/23 11:03* | *08/07/23 17:58* | *50* |

### Method: EPA 8015C - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | <5.6 | | 5.6 | | mg/Kg | ☼ | 08/02/23 13:15 | 08/03/23 22:57 | 1 |
| Oil Range Organics (ORO) | <5.6 | | 5.6 | | mg/Kg | ☼ | 08/02/23 13:15 | 08/03/23 22:57 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *o-Terphenyl* | *111* | | *27 - 150* | *08/02/23 13:15* | *08/03/23 22:57* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <22 | | 22 | | mg/Kg | ☼ | | 08/02/23 23:09 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Percent Solids (EPA Moisture)** | **89.5** | | 0.01 | | % | | | 08/04/23 11:14 | 1 |
| **Percent Moisture (EPA Moisture)** | **10.5** | | 0.01 | | % | | | 08/04/23 11:14 | 1 |

# Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Client Sample ID: TW1 (33FT)

**Date Collected: 07/27/23 10:10**
**Date Received: 08/01/23 08:52**

## Lab Sample ID: 400-241285-5

**Matrix: Solid**
**Percent Solids: 89.4**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.0054 | | 0.0054 | | mg/Kg | ☼ | 08/07/23 11:43 | 08/07/23 23:11 | 1 |
| Ethylbenzene | <0.0054 | | 0.0054 | | mg/Kg | ☼ | 08/07/23 11:43 | 08/07/23 23:11 | 1 |
| Toluene | <0.0054 | | 0.0054 | | mg/Kg | ☼ | 08/07/23 11:43 | 08/07/23 23:11 | 1 |
| Xylenes, Total | <0.011 | | 0.011 | | mg/Kg | ☼ | 08/07/23 11:43 | 08/07/23 23:11 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *98* | | *67 - 130* | *08/07/23 11:43* | *08/07/23 23:11* | *1* |
| *Dibromofluoromethane* | *103* | | *77 - 127* | *08/07/23 11:43* | *08/07/23 23:11* | *1* |
| *Toluene-d8 (Surr)* | *102* | | *76 - 127* | *08/07/23 11:43* | *08/07/23 23:11* | *1* |

### Method: SW846 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) C6--C10 | <5.9 | | 5.9 | | mg/Kg | ☼ | 08/07/23 11:03 | 08/07/23 17:31 | 50 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *a,a,a-Trifluorotoluene (fid)* | *96* | | *65 - 125* | *08/07/23 11:03* | *08/07/23 17:31* | *50* |

### Method: EPA 8015C - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | <5.6 | | 5.6 | | mg/Kg | ☼ | 08/02/23 13:15 | 08/03/23 23:15 | 1 |
| Oil Range Organics (ORO) | <5.6 | | 5.6 | | mg/Kg | ☼ | 08/02/23 13:15 | 08/03/23 23:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *o-Terphenyl* | *110* | | *27 - 150* | *08/02/23 13:15* | *08/03/23 23:15* | *1* |

### Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <22 | | 22 | | mg/Kg | ☼ | | 08/02/23 23:28 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Percent Solids (EPA Moisture)** | **89.4** | | 0.01 | | % | | | 08/04/23 12:18 | 1 |
| **Percent Moisture (EPA Moisture)** | **10.6** | | 0.01 | | % | | | 08/04/23 12:18 | 1 |

# Definitions/Glossary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

# Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Client Sample ID: MW12 (22FT)
**Date Collected: 07/25/23 14:10**
**Date Received: 08/01/23 08:52**

**Lab Sample ID: 400-241285-1**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | Moisture | | 1 | | | 635894 | 08/04/23 11:14 | MP | EET PEN |

## Client Sample ID: MW12 (22FT)
**Date Collected: 07/25/23 14:10**
**Date Received: 08/01/23 08:52**

**Lab Sample ID: 400-241285-1**
**Matrix: Solid**
**Percent Solids: 95.5**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.60 g | 5.00 g | 635909 | 08/04/23 09:59 | CAR | EET PEN |
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 635863 | 08/04/23 19:26 | CAR | EET PEN |
| Total/NA | Prep | 5035 | | | 5.06 g | 5.00 g | 636273 | 08/07/23 11:03 | BJ | EET PEN |
| Total/NA | Analysis | 8015C | | 50 | 5 mL | 5 mL | 636063 | 08/07/23 13:42 | PD | EET PEN |
| Total/NA | Prep | 3546 | | | 15.19 g | 1 mL | 635581 | 08/02/23 13:15 | KR | EET PEN |
| Total/NA | Analysis | 8015C | | 1 | 1 mL | 1 mL | 635766 | 08/03/23 21:44 | MP | EET PEN |
| Soluble | Leach | DI Leach | | | 2.591 g | 50 mL | 635533 | 08/02/23 10:34 | RS | EET PEN |
| Soluble | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 635617 | 08/02/23 22:09 | RS | EET PEN |

## Client Sample ID: MW12 (35FT)
**Date Collected: 07/25/23 15:15**
**Date Received: 08/01/23 08:52**

**Lab Sample ID: 400-241285-2**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | Moisture | | 1 | | | 635894 | 08/04/23 11:14 | MP | EET PEN |

## Client Sample ID: MW12 (35FT)
**Date Collected: 07/25/23 15:15**
**Date Received: 08/01/23 08:52**

**Lab Sample ID: 400-241285-2**
**Matrix: Solid**
**Percent Solids: 94.4**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.28 g | 5.00 g | 635909 | 08/04/23 09:59 | CAR | EET PEN |
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 635863 | 08/04/23 19:47 | CAR | EET PEN |
| Total/NA | Prep | 5035 | | | 4.94 g | 5.00 g | 636273 | 08/07/23 11:03 | BJ | EET PEN |
| Total/NA | Analysis | 8015C | | 50 | 5 mL | 5 mL | 636063 | 08/07/23 14:09 | PD | EET PEN |
| Total/NA | Prep | 3546 | | | 15.33 g | 1 mL | 635581 | 08/02/23 13:15 | KR | EET PEN |
| Total/NA | Analysis | 8015C | | 1 | 1 mL | 1 mL | 635766 | 08/03/23 22:03 | MP | EET PEN |
| Soluble | Leach | DI Leach | | | 2.528 g | 50 mL | 635533 | 08/02/23 10:34 | RS | EET PEN |
| Soluble | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 635617 | 08/02/23 22:29 | RS | EET PEN |

## Client Sample ID: SB6 (15FT)
**Date Collected: 07/26/23 13:15**
**Date Received: 08/01/23 08:52**

**Lab Sample ID: 400-241285-3**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | Moisture | | 1 | | | 635894 | 08/04/23 11:14 | MP | EET PEN |

# Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Client Sample ID: SB6 (15FT)

**Lab Sample ID: 400-241285-3**
**Date Collected: 07/26/23 13:15**
**Matrix: Solid**
**Date Received: 08/01/23 08:52**
**Percent Solids: 97.1**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.13 g | 5.00 g | 636269 | 08/08/23 10:28 | CAR | EET PEN |
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 636225 | 08/08/23 13:53 | S1K | EET PEN |
| Total/NA | Prep | 5035 | | | 5.19 g | 5.00 g | 636273 | 08/07/23 11:03 | BJ | EET PEN |
| Total/NA | Analysis | 8015C | | 50 | 5 mL | 5 mL | 636063 | 08/07/23 17:04 | PD | EET PEN |
| Total/NA | Prep | 3546 | | | 15.45 g | 1 mL | 635581 | 08/02/23 13:15 | KR | EET PEN |
| Total/NA | Analysis | 8015C | | 1 | 1 mL | 1 mL | 635766 | 08/03/23 22:39 | MP | EET PEN |
| Soluble | Leach | DI Leach | | | 2.598 g | 50 mL | 635533 | 08/02/23 10:34 | RS | EET PEN |
| Soluble | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 635617 | 08/02/23 22:49 | RS | EET PEN |

## Client Sample ID: SB6 (35FT)

**Lab Sample ID: 400-241285-4**
**Date Collected: 07/26/23 14:45**
**Matrix: Solid**
**Date Received: 08/01/23 08:52**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | Moisture | | 1 | | | 635894 | 08/04/23 11:14 | MP | EET PEN |

## Client Sample ID: SB6 (35FT)

**Lab Sample ID: 400-241285-4**
**Date Collected: 07/26/23 14:45**
**Matrix: Solid**
**Date Received: 08/01/23 08:52**
**Percent Solids: 89.5**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.20 g | 5.00 g | 636136 | 08/07/23 11:43 | BPO | EET PEN |
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 636035 | 08/07/23 22:45 | BPO | EET PEN |
| Total/NA | Prep | 5035 | | | 5.44 g | 5.00 g | 636273 | 08/07/23 11:03 | BJ | EET PEN |
| Total/NA | Analysis | 8015C | | 50 | 5 mL | 5 mL | 636063 | 08/07/23 17:58 | PD | EET PEN |
| Total/NA | Prep | 3546 | | | 15.05 g | 1 mL | 635581 | 08/02/23 13:15 | KR | EET PEN |
| Total/NA | Analysis | 8015C | | 1 | 1 mL | 1 mL | 635766 | 08/03/23 22:57 | MP | EET PEN |
| Soluble | Leach | DI Leach | | | 2.513 g | 50 mL | 635533 | 08/02/23 10:34 | RS | EET PEN |
| Soluble | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 635617 | 08/02/23 23:09 | RS | EET PEN |

## Client Sample ID: TW1 (33FT)

**Lab Sample ID: 400-241285-5**
**Date Collected: 07/27/23 10:10**
**Matrix: Solid**
**Date Received: 08/01/23 08:52**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | Moisture | | 1 | | | 635894 | 08/04/23 12:18 | MP | EET PEN |

## Client Sample ID: TW1 (33FT)

**Lab Sample ID: 400-241285-5**
**Date Collected: 07/27/23 10:10**
**Matrix: Solid**
**Date Received: 08/01/23 08:52**
**Percent Solids: 89.4**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.19 g | 5 g | 636136 | 08/07/23 11:43 | BPO | EET PEN |
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 636035 | 08/07/23 23:11 | BPO | EET PEN |
| Total/NA | Prep | 5035 | | | 5.23 g | 5.00 g | 636273 | 08/07/23 11:03 | BJ | EET PEN |
| Total/NA | Analysis | 8015C | | 50 | 5 mL | 5 mL | 636063 | 08/07/23 17:31 | PD | EET PEN |

# Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Client Sample ID: TW1 (33FT)
**Date Collected: 07/27/23 10:10**
**Date Received: 08/01/23 08:52**

## Lab Sample ID: 400-241285-5
**Matrix: Solid**
**Percent Solids: 89.4**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3546 | | | 15.04 g | 1 mL | 635581 | 08/02/23 13:15 | KR | EET PEN |
| Total/NA | Analysis | 8015C | | 1 | 1 mL | 1 mL | 635766 | 08/03/23 23:15 | MP | EET PEN |
| Soluble | Leach | DI Leach | | | 2.588 g | 50 mL | 635533 | 08/02/23 10:34 | RS | EET PEN |
| Soluble | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 635617 | 08/02/23 23:28 | RS | EET PEN |

## Client Sample ID: Method Blank
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: MB 400-635533/1-A
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Soluble | Leach | DI Leach | | | 2.527 g | 50 mL | 635533 | 08/02/23 10:34 | RS | EET PEN |
| Soluble | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 635617 | 08/02/23 16:31 | RS | EET PEN |

## Client Sample ID: Method Blank
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: MB 400-635581/1-A
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3546 | | | 15.00 g | 1 mL | 635581 | 08/02/23 13:15 | KR | EET PEN |
| Total/NA | Analysis | 8015C | | 1 | 1 mL | 1 mL | 635766 | 08/03/23 19:02 | MP | EET PEN |

## Client Sample ID: Method Blank
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: MB 400-635909/1-A
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.00 g | 5.00 g | 635909 | 08/04/23 09:59 | CAR | EET PEN |
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 635863 | 08/04/23 11:58 | CAR | EET PEN |

## Client Sample ID: Method Blank
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: MB 400-636136/2-A
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.00 g | 5.00 g | 636136 | 08/07/23 11:43 | BPO | EET PEN |
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 636035 | 08/07/23 15:38 | BPO | EET PEN |

## Client Sample ID: Method Blank
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: MB 400-636269/1-A
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.00 g | 5.00 g | 636269 | 08/08/23 10:28 | CAR | EET PEN |
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 636225 | 08/08/23 13:09 | S1K | EET PEN |

# Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Client Sample ID: Method Blank — Lab Sample ID: MB 400-636273/2-A

**Date Collected: N/A** — **Matrix: Solid**
**Date Received: N/A**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.00 g | 5.00 g | 636273 | 08/07/23 11:03 | BJ | EET PEN |
| Total/NA | Analysis | 8015C | | 1 | 5 mL | 5 mL | 636063 | 08/07/23 13:15 | PD | EET PEN |

## Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 400-635533/2-A

**Date Collected: N/A** — **Matrix: Solid**
**Date Received: N/A**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Soluble | Leach | DI Leach | | | 2.590 g | 50.75 mL | 635533 | 08/02/23 10:34 | RS | EET PEN |
| Soluble | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 635617 | 08/02/23 16:51 | RS | EET PEN |

## Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 400-635581/2-A

**Date Collected: N/A** — **Matrix: Solid**
**Date Received: N/A**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3546 | | | 15.00 g | 1 mL | 635581 | 08/02/23 13:15 | KR | EET PEN |
| Total/NA | Analysis | 8015C | | 1 | 1 mL | 1 mL | 635766 | 08/03/23 19:38 | MP | EET PEN |

## Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 400-635909/2-A

**Date Collected: N/A** — **Matrix: Solid**
**Date Received: N/A**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.00 g | 5.00 g | 635909 | 08/04/23 09:59 | CAR | EET PEN |
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 635863 | 08/04/23 10:52 | CAR | EET PEN |

## Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 400-636136/1-A

**Date Collected: N/A** — **Matrix: Solid**
**Date Received: N/A**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.00 g | 5.00 g | 636136 | 08/07/23 11:43 | BPO | EET PEN |
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 636035 | 08/07/23 14:29 | BPO | EET PEN |

## Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 400-636269/2-A

**Date Collected: N/A** — **Matrix: Solid**
**Date Received: N/A**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.00 g | 5.00 g | 636269 | 08/08/23 10:28 | CAR | EET PEN |
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 636225 | 08/08/23 12:07 | S1K | EET PEN |

# Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Client Sample ID: Lab Control Sample
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: LCS 400-636273/1-A
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.00 g | 5.00 g | 636273 | 08/07/23 11:03 | BJ | EET PEN |
| Total/NA | Analysis | 8015C | | 1 | 5 mL | 5 mL | 636063 | 08/07/23 11:45 | PD | EET PEN |

## Client Sample ID: Lab Control Sample Dup
**Date Collected: N/A**
**Date Received: N/A**

## Lab Sample ID: LCSD 400-635533/3-A
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Soluble | Leach | DI Leach | | | 2.512 g | 50.75 mL | 635533 | 08/02/23 10:34 | RS | EET PEN |
| Soluble | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 635617 | 08/02/23 17:11 | RS | EET PEN |

## Client Sample ID: MW12 (22FT)
**Date Collected: 07/25/23 14:10**
**Date Received: 08/01/23 08:52**

## Lab Sample ID: 400-241285-1 MS
**Matrix: Solid**
**Percent Solids: 95.5**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.06 g | 5.00 g | 636273 | 08/07/23 11:03 | BJ | EET PEN |
| Total/NA | Analysis | 8015C | | 50 | 5 mL | 5 mL | 636063 | 08/07/23 16:10 | PD | EET PEN |

## Client Sample ID: MW12 (22FT)
**Date Collected: 07/25/23 14:10**
**Date Received: 08/01/23 08:52**

## Lab Sample ID: 400-241285-1 MSD
**Matrix: Solid**
**Percent Solids: 95.5**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.06 g | 5.00 g | 636273 | 08/07/23 11:03 | BJ | EET PEN |
| Total/NA | Analysis | 8015C | | 50 | 5 mL | 5 mL | 636063 | 08/07/23 16:37 | PD | EET PEN |

## Client Sample ID: SB6 (15FT)
**Date Collected: 07/26/23 13:15**
**Date Received: 08/01/23 08:52**

## Lab Sample ID: 400-241285-3 MS
**Matrix: Solid**
**Percent Solids: 97.1**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.23 g | 5.00 g | 636269 | 08/08/23 10:28 | CAR | EET PEN |
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 636225 | 08/08/23 14:35 | S1K | EET PEN |

## Client Sample ID: SB6 (15FT)
**Date Collected: 07/26/23 13:15**
**Date Received: 08/01/23 08:52**

## Lab Sample ID: 400-241285-3 MSD
**Matrix: Solid**
**Percent Solids: 97.1**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.15 g | 5.00 g | 636269 | 08/08/23 10:28 | CAR | EET PEN |
| Total/NA | Analysis | 8260D | | 1 | 5 mL | 5 mL | 636225 | 08/08/23 14:56 | S1K | EET PEN |

# Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Client Sample ID: TW1 (33FT)
**Date Collected: 07/27/23 10:10**
**Date Received: 08/01/23 08:52**

## Lab Sample ID: 400-241285-5 DU
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | Moisture | | 1 | | | 635894 | 08/04/23 12:18 | MP | EET PEN |

**Laboratory References:**

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

# QC Association Summary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## GC/MS VOA

### Analysis Batch: 635863

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-241285-1 | MW12 (22FT) | Total/NA | Solid | 8260D | 635909 |
| 400-241285-2 | MW12 (35FT) | Total/NA | Solid | 8260D | 635909 |
| MB 400-635909/1-A | Method Blank | Total/NA | Solid | 8260D | 635909 |
| LCS 400-635909/2-A | Lab Control Sample | Total/NA | Solid | 8260D | 635909 |

### Prep Batch: 635909

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-241285-1 | MW12 (22FT) | Total/NA | Solid | 5035 | |
| 400-241285-2 | MW12 (35FT) | Total/NA | Solid | 5035 | |
| MB 400-635909/1-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 400-635909/2-A | Lab Control Sample | Total/NA | Solid | 5035 | |

### Analysis Batch: 636035

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-241285-4 | SB6 (35FT) | Total/NA | Solid | 8260D | 636136 |
| 400-241285-5 | TW1 (33FT) | Total/NA | Solid | 8260D | 636136 |
| MB 400-636136/2-A | Method Blank | Total/NA | Solid | 8260D | 636136 |
| LCS 400-636136/1-A | Lab Control Sample | Total/NA | Solid | 8260D | 636136 |

### Prep Batch: 636136

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-241285-4 | SB6 (35FT) | Total/NA | Solid | 5035 | |
| 400-241285-5 | TW1 (33FT) | Total/NA | Solid | 5035 | |
| MB 400-636136/2-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 400-636136/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |

### Analysis Batch: 636225

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-241285-3 | SB6 (15FT) | Total/NA | Solid | 8260D | 636269 |
| MB 400-636269/1-A | Method Blank | Total/NA | Solid | 8260D | 636269 |
| LCS 400-636269/2-A | Lab Control Sample | Total/NA | Solid | 8260D | 636269 |
| 400-241285-3 MS | SB6 (15FT) | Total/NA | Solid | 8260D | 636269 |
| 400-241285-3 MSD | SB6 (15FT) | Total/NA | Solid | 8260D | 636269 |

### Prep Batch: 636269

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-241285-3 | SB6 (15FT) | Total/NA | Solid | 5035 | |
| MB 400-636269/1-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 400-636269/2-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| 400-241285-3 MS | SB6 (15FT) | Total/NA | Solid | 5035 | |
| 400-241285-3 MSD | SB6 (15FT) | Total/NA | Solid | 5035 | |

## GC VOA

### Analysis Batch: 636063

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-241285-1 | MW12 (22FT) | Total/NA | Solid | 8015C | 636273 |
| 400-241285-2 | MW12 (35FT) | Total/NA | Solid | 8015C | 636273 |
| 400-241285-3 | SB6 (15FT) | Total/NA | Solid | 8015C | 636273 |
| 400-241285-4 | SB6 (35FT) | Total/NA | Solid | 8015C | 636273 |
| 400-241285-5 | TW1 (33FT) | Total/NA | Solid | 8015C | 636273 |

# QC Association Summary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## GC VOA (Continued)

### Analysis Batch: 636063 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 400-636273/2-A | Method Blank | Total/NA | Solid | 8015C | 636273 |
| LCS 400-636273/1-A | Lab Control Sample | Total/NA | Solid | 8015C | 636273 |
| 400-241285-1 MS | MW12 (22FT) | Total/NA | Solid | 8015C | 636273 |
| 400-241285-1 MSD | MW12 (22FT) | Total/NA | Solid | 8015C | 636273 |

### Prep Batch: 636273

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-241285-1 | MW12 (22FT) | Total/NA | Solid | 5035 | |
| 400-241285-2 | MW12 (35FT) | Total/NA | Solid | 5035 | |
| 400-241285-3 | SB6 (15FT) | Total/NA | Solid | 5035 | |
| 400-241285-4 | SB6 (35FT) | Total/NA | Solid | 5035 | |
| 400-241285-5 | TW1 (33FT) | Total/NA | Solid | 5035 | |
| MB 400-636273/2-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 400-636273/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| 400-241285-1 MS | MW12 (22FT) | Total/NA | Solid | 5035 | |
| 400-241285-1 MSD | MW12 (22FT) | Total/NA | Solid | 5035 | |

## GC Semi VOA

### Prep Batch: 635581

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-241285-1 | MW12 (22FT) | Total/NA | Solid | 3546 | |
| 400-241285-2 | MW12 (35FT) | Total/NA | Solid | 3546 | |
| 400-241285-3 | SB6 (15FT) | Total/NA | Solid | 3546 | |
| 400-241285-4 | SB6 (35FT) | Total/NA | Solid | 3546 | |
| 400-241285-5 | TW1 (33FT) | Total/NA | Solid | 3546 | |
| MB 400-635581/1-A | Method Blank | Total/NA | Solid | 3546 | |
| LCS 400-635581/2-A | Lab Control Sample | Total/NA | Solid | 3546 | |

### Analysis Batch: 635766

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-241285-1 | MW12 (22FT) | Total/NA | Solid | 8015C | 635581 |
| 400-241285-2 | MW12 (35FT) | Total/NA | Solid | 8015C | 635581 |
| 400-241285-3 | SB6 (15FT) | Total/NA | Solid | 8015C | 635581 |
| 400-241285-4 | SB6 (35FT) | Total/NA | Solid | 8015C | 635581 |
| 400-241285-5 | TW1 (33FT) | Total/NA | Solid | 8015C | 635581 |
| MB 400-635581/1-A | Method Blank | Total/NA | Solid | 8015C | 635581 |
| LCS 400-635581/2-A | Lab Control Sample | Total/NA | Solid | 8015C | 635581 |

## HPLC/IC

### Leach Batch: 635533

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-241285-1 | MW12 (22FT) | Soluble | Solid | DI Leach | |
| 400-241285-2 | MW12 (35FT) | Soluble | Solid | DI Leach | |
| 400-241285-3 | SB6 (15FT) | Soluble | Solid | DI Leach | |
| 400-241285-4 | SB6 (35FT) | Soluble | Solid | DI Leach | |
| 400-241285-5 | TW1 (33FT) | Soluble | Solid | DI Leach | |
| MB 400-635533/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 400-635533/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 400-635533/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |

# QC Association Summary

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## HPLC/IC

### Analysis Batch: 635617

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-241285-1 | MW12 (22FT) | Soluble | Solid | 300.0 | 635533 |
| 400-241285-2 | MW12 (35FT) | Soluble | Solid | 300.0 | 635533 |
| 400-241285-3 | SB6 (15FT) | Soluble | Solid | 300.0 | 635533 |
| 400-241285-4 | SB6 (35FT) | Soluble | Solid | 300.0 | 635533 |
| 400-241285-5 | TW1 (33FT) | Soluble | Solid | 300.0 | 635533 |
| MB 400-635533/1-A | Method Blank | Soluble | Solid | 300.0 | 635533 |
| LCS 400-635533/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 635533 |
| LCSD 400-635533/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 635533 |

## General Chemistry

### Analysis Batch: 635894

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-241285-1 | MW12 (22FT) | Total/NA | Solid | Moisture | |
| 400-241285-2 | MW12 (35FT) | Total/NA | Solid | Moisture | |
| 400-241285-3 | SB6 (15FT) | Total/NA | Solid | Moisture | |
| 400-241285-4 | SB6 (35FT) | Total/NA | Solid | Moisture | |
| 400-241285-5 | TW1 (33FT) | Total/NA | Solid | Moisture | |
| 400-241285-5 DU | TW1 (33FT) | Total/NA | Solid | Moisture | |

# QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 400-635909/1-A**
**Matrix: Solid**
**Analysis Batch: 635863**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 635909**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.0050 | | 0.0050 | | mg/Kg | | 08/04/23 09:59 | 08/04/23 11:58 | 1 |
| Ethylbenzene | <0.0050 | | 0.0050 | | mg/Kg | | 08/04/23 09:59 | 08/04/23 11:58 | 1 |
| Toluene | <0.0050 | | 0.0050 | | mg/Kg | | 08/04/23 09:59 | 08/04/23 11:58 | 1 |
| Xylenes, Total | <0.010 | | 0.010 | | mg/Kg | | 08/04/23 09:59 | 08/04/23 11:58 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *101* | | *67 - 130* | *08/04/23 09:59* | *08/04/23 11:58* | *1* |
| *Dibromofluoromethane* | *97* | | *77 - 127* | *08/04/23 09:59* | *08/04/23 11:58* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *76 - 127* | *08/04/23 09:59* | *08/04/23 11:58* | *1* |

**Lab Sample ID: LCS 400-635909/2-A**
**Matrix: Solid**
**Analysis Batch: 635863**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 635909**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 0.0500 | 0.0435 | | mg/Kg | | 87 | 65 - 130 |
| Ethylbenzene | 0.0500 | 0.0452 | | mg/Kg | | 90 | 70 - 130 |
| Toluene | 0.0500 | 0.0406 | | mg/Kg | | 81 | 70 - 130 |
| Xylenes, Total | 0.100 | 0.0869 | | mg/Kg | | 87 | 70 - 130 |
| m-Xylene & p-Xylene | 0.0500 | 0.0436 | | mg/Kg | | 87 | 70 - 130 |
| o-Xylene | 0.0500 | 0.0433 | | mg/Kg | | 87 | 70 - 130 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *102* | | *67 - 130* |
| *Dibromofluoromethane* | *102* | | *77 - 127* |
| *Toluene-d8 (Surr)* | *89* | | *76 - 127* |

**Lab Sample ID: MB 400-636136/2-A**
**Matrix: Solid**
**Analysis Batch: 636035**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 636136**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.0050 | | 0.0050 | | mg/Kg | | 08/07/23 11:43 | 08/07/23 15:38 | 1 |
| Ethylbenzene | <0.0050 | | 0.0050 | | mg/Kg | | 08/07/23 11:43 | 08/07/23 15:38 | 1 |
| Toluene | <0.0050 | | 0.0050 | | mg/Kg | | 08/07/23 11:43 | 08/07/23 15:38 | 1 |
| Xylenes, Total | <0.010 | | 0.010 | | mg/Kg | | 08/07/23 11:43 | 08/07/23 15:38 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *104* | | *67 - 130* | *08/07/23 11:43* | *08/07/23 15:38* | *1* |
| *Dibromofluoromethane* | *100* | | *77 - 127* | *08/07/23 11:43* | *08/07/23 15:38* | *1* |
| *Toluene-d8 (Surr)* | *105* | | *76 - 127* | *08/07/23 11:43* | *08/07/23 15:38* | *1* |

**Lab Sample ID: LCS 400-636136/1-A**
**Matrix: Solid**
**Analysis Batch: 636035**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 636136**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 0.0500 | 0.0496 | | mg/Kg | | 99 | 65 - 130 |

# QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 400-636136/1-A**
**Matrix: Solid**
**Analysis Batch: 636035**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 636136**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | | | 0.0500 | 0.0516 | | mg/Kg | | 103 | 70 - 130 | | |
| Toluene | | | 0.0500 | 0.0484 | | mg/Kg | | 97 | 70 - 130 | | |
| Xylenes, Total | | | 0.100 | 0.100 | | mg/Kg | | 100 | 70 - 130 | | |
| m-Xylene & p-Xylene | | | 0.0500 | 0.0509 | | mg/Kg | | 102 | 70 - 130 | | |
| o-Xylene | | | 0.0500 | 0.0492 | | mg/Kg | | 98 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *103* | | *67 - 130* |
| *Dibromofluoromethane* | *99* | | *77 - 127* |
| *Toluene-d8 (Surr)* | *101* | | *76 - 127* |

**Lab Sample ID: MB 400-636269/1-A**
**Matrix: Solid**
**Analysis Batch: 636225**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 636269**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.0050 | | 0.0050 | | mg/Kg | | 08/08/23 10:28 | 08/08/23 13:09 | 1 |
| Ethylbenzene | <0.0050 | | 0.0050 | | mg/Kg | | 08/08/23 10:28 | 08/08/23 13:09 | 1 |
| Toluene | <0.0050 | | 0.0050 | | mg/Kg | | 08/08/23 10:28 | 08/08/23 13:09 | 1 |
| Xylenes, Total | <0.010 | | 0.010 | | mg/Kg | | 08/08/23 10:28 | 08/08/23 13:09 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *99* | | *67 - 130* | *08/08/23 10:28* | *08/08/23 13:09* | *1* |
| *Dibromofluoromethane* | *95* | | *77 - 127* | *08/08/23 10:28* | *08/08/23 13:09* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *76 - 127* | *08/08/23 10:28* | *08/08/23 13:09* | *1* |

**Lab Sample ID: LCS 400-636269/2-A**
**Matrix: Solid**
**Analysis Batch: 636225**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 636269**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.0500 | 0.0451 | | mg/Kg | | 90 | 65 - 130 | | |
| Ethylbenzene | | | 0.0500 | 0.0483 | | mg/Kg | | 97 | 70 - 130 | | |
| Toluene | | | 0.0500 | 0.0503 | | mg/Kg | | 101 | 70 - 130 | | |
| Xylenes, Total | | | 0.100 | 0.0945 | | mg/Kg | | 94 | 70 - 130 | | |
| m-Xylene & p-Xylene | | | 0.0500 | 0.0474 | | mg/Kg | | 95 | 70 - 130 | | |
| o-Xylene | | | 0.0500 | 0.0470 | | mg/Kg | | 94 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *101* | | *67 - 130* |
| *Dibromofluoromethane* | *97* | | *77 - 127* |
| *Toluene-d8 (Surr)* | *87* | | *76 - 127* |

# QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: 400-241285-3 MS**
**Matrix: Solid**
**Analysis Batch: 636225**

**Client Sample ID: SB6 (15FT)**
**Prep Type: Total/NA**
**Prep Batch: 636269**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.0050 | | 0.0492 | 0.0410 | | mg/Kg | ☼ | 83 | 38 - 131 |
| Ethylbenzene | <0.0050 | | 0.0492 | 0.0377 | | mg/Kg | ☼ | 77 | 35 - 130 |
| Toluene | <0.0050 | | 0.0492 | 0.0355 | | mg/Kg | ☼ | 72 | 42 - 130 |
| Xylenes, Total | <0.010 | | 0.0984 | 0.0731 | | mg/Kg | ☼ | 74 | 35 - 130 |
| m-Xylene & p-Xylene | <0.0050 | | 0.0492 | 0.0365 | | mg/Kg | ☼ | 74 | 35 - 130 |
| o-Xylene | <0.0050 | | 0.0492 | 0.0367 | | mg/Kg | ☼ | 75 | 35 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *99* | | *67 - 130* |
| *Dibromofluoromethane* | *94* | | *77 - 127* |
| *Toluene-d8 (Surr)* | *88* | | *76 - 127* |

**Lab Sample ID: 400-241285-3 MSD**
**Matrix: Solid**
**Analysis Batch: 636225**

**Client Sample ID: SB6 (15FT)**
**Prep Type: Total/NA**
**Prep Batch: 636269**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.0050 | | 0.0500 | 0.0397 | | mg/Kg | ☼ | 79 | 38 - 131 | 3 | 30 |
| Ethylbenzene | <0.0050 | | 0.0500 | 0.0349 | | mg/Kg | ☼ | 70 | 35 - 130 | 8 | 30 |
| Toluene | <0.0050 | | 0.0500 | 0.0348 | | mg/Kg | ☼ | 70 | 42 - 130 | 2 | 30 |
| Xylenes, Total | <0.010 | | 0.100 | 0.0672 | | mg/Kg | ☼ | 67 | 35 - 130 | 8 | 30 |
| m-Xylene & p-Xylene | <0.0050 | | 0.0500 | 0.0335 | | mg/Kg | ☼ | 67 | 35 - 130 | 9 | 30 |
| o-Xylene | <0.0050 | | 0.0500 | 0.0338 | | mg/Kg | ☼ | 68 | 35 - 130 | 8 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *98* | | *67 - 130* |
| *Dibromofluoromethane* | *95* | | *77 - 127* |
| *Toluene-d8 (Surr)* | *91* | | *76 - 127* |

## Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

**Lab Sample ID: MB 400-636273/2-A**
**Matrix: Solid**
**Analysis Batch: 636063**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 636273**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) C6--C10 | <0.10 | | 0.10 | | mg/Kg | | 08/07/23 11:03 | 08/07/23 13:15 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *a,a,a-Trifluorotoluene (fid)* | *96* | | *65 - 125* | *08/07/23 11:03* | *08/07/23 13:15* | *1* |

# QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics) (Continued)

**Lab Sample ID: LCS 400-636273/1-A**
**Matrix: Solid**
**Analysis Batch: 636063**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 636273**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) C6--C10 | | | 1.00 | 1.09 | | mg/Kg | | 109 | 62 - 141 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *a,a,a-Trifluorotoluene (fid)* | *98* | | *65 - 125* |

**Lab Sample ID: 400-241285-1 MS**
**Matrix: Solid**
**Analysis Batch: 636063**

**Client Sample ID: MW12 (22FT)**
**Prep Type: Total/NA**
**Prep Batch: 636273**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) C6--C10 | <5.4 | | 54.1 | 62.1 | | mg/Kg | ☼ | 109 | 10 - 150 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *a,a,a-Trifluorotoluene (fid)* | *97* | | *65 - 125* |

**Lab Sample ID: 400-241285-1 MSD**
**Matrix: Solid**
**Analysis Batch: 636063**

**Client Sample ID: MW12 (22FT)**
**Prep Type: Total/NA**
**Prep Batch: 636273**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) C6--C10 | <5.4 | | 54.1 | 60.0 | | mg/Kg | ☼ | 105 | 10 - 150 | 3 | 32 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *a,a,a-Trifluorotoluene (fid)* | *97* | | *65 - 125* |

## Method: 8015C - Diesel Range Organics (DRO) (GC)

**Lab Sample ID: MB 400-635581/1-A**
**Matrix: Solid**
**Analysis Batch: 635766**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 635581**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | <5.0 | | 5.0 | | mg/Kg | | 08/02/23 13:15 | 08/03/23 19:02 | 1 |
| Oil Range Organics (ORO) | <5.0 | | 5.0 | | mg/Kg | | 08/02/23 13:15 | 08/03/23 19:02 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *o-Terphenyl* | *110* | | *27 - 150* | *08/02/23 13:15* | *08/03/23 19:02* | *1* |

**Lab Sample ID: LCS 400-635581/2-A**
**Matrix: Solid**
**Analysis Batch: 635766**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 635581**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | | | 268 | 228 | | mg/Kg | | 85 | 38 - 116 | | |

# QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Canada Mesa #2.00

Job ID: 400-241285-1

## Method: 8015C - Diesel Range Organics (DRO) (GC) (Continued)

**Lab Sample ID: LCS 400-635581/2-A**
**Matrix: Solid**
**Analysis Batch: 635766**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 635581**

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *o-Terphenyl* | *113* | | *27 - 150* |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-635533/1-A**
**Matrix: Solid**
**Analysis Batch: 635617**

**Client Sample ID: Method Blank**
**Prep Type: Soluble**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <20 | | 20 | | mg/Kg | | | 08/02/23 16:31 | 1 |

**Lab Sample ID: LCS 400-635533/2-A**
**Matrix: Solid**
**Analysis Batch: 635617**

**Client Sample ID: Lab Control Sample**
**Prep Type: Soluble**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 96.5 | 106 | | mg/Kg | | 110 | 80 - 120 | | |

**Lab Sample ID: LCSD 400-635533/3-A**
**Matrix: Solid**
**Analysis Batch: 635617**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Soluble**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 99.5 | 110 | | mg/Kg | | 110 | 80 - 120 | 4 | 15 |

## Method: Moisture - Percent Moisture

**Lab Sample ID: 400-241285-5 DU**
**Matrix: Solid**
**Analysis Batch: 635894**

**Client Sample ID: TW1 (33FT)**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Percent Solids | 89.4 | | | 90.4 | | % | | | | 1 | 10 |
| Percent Moisture | 10.6 | | | 9.6 | | % | | | | 9 | |

**Eurofins Pensacola**
3355 McLemore Drive
Pensacola, FL 32514
Phone 850-474-1001 Fax: 850-478-2671

# Chain of Custody Record

eurofins | Environment Testing

| Client Information | Sampler: Rob Malcomson | Lab PM: Whitmire, Cheyenne | 400-241285 COC | Carrier Tracking No(s): 6339 6593 6131 | COC No: 400-121828-41778 1 |
|---|---|---|---|---|---|
| Client Contact: Steve Varsa | Phone: 515 710 9815 | E-Mail: Cheyenne.Whitmire@et.eurofinsus.com | | State of Origin: NM | Page: Page 1 of 1 |
| Company: Stantec Consulting Services Inc | PWSID: | | | | Job #: 193709649 |
| Address: 11311 Aurora Avenue | Due Date Requested: | | | | |
| City: Des Moines | TAT Requested (days): Standard | | | | |
| State, Zip: IA, 50322-7904 | Compliance Project: Δ Yes Δ No | | | | |
| Phone: | PO #: WD1040036 | | | | |
| Email: steve varsa@stantec.com | WO #: Canada Mesa_ERG_ARF_20230710 | | | | |
| Project Name: Canada Mesa #2 | Project #: 40015823 | | | | |
| Site: | SSOW#: | | | | |

**Analysis Requested**

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 8015C_DRO - DRO C10-C28/ ORO C28-C35 | 300_ORGFM_28D - Chloride | 8015C_GRO - GRO | 8260D - BTEX 8260 | Moisture - Moisture | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | N | N | N | N | N | | |
| MW12 (22 ft.) | 7/25/23 | 1410 | G | Solid | | | X | X | X | X | X | | |
| MW12 (35 ft.) | 7/25/23 | 1515 | G | Solid | | | X | X | X | X | X | | |
| SB6 (15 ft.) | 7/26/23 | 1315 | G | Solid | | | X | X | X | X | X | | |
| SB6 (35 ft.) | 7/26/23 | 1445 | G | Solid | | | X | X | X | X | X | | |
| TW1 (33 ft.) | 7/27/23 | 1010 | G | | | | X | X | X | X | X | | |

*Possible Hazard Identification*
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

*Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by | Date/Time | Company | Received by | Date/Time | Company |
|---|---|---|---|---|---|---|
| 1 | | 7/31/23 1420 | Stantec | FedEx | 7/31/23 1420 | |
| 2 | | | | | 8-1-23 857 | |
| 3 | | | | | | |

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.3°C / IR8

Ver: 06/08/2021

# Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc Job Number: 400-241285-1

**Login Number: 241285** **List Source: Eurofins Pensacola**
**List Number: 1**
**Creator: Roberts, Alexis J**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 2.3°C IR8 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Accreditation/Certification Summary

Client: Stantec Consulting Services Inc
Job ID: 400-241285-1
Project/Site: Canada Mesa #2.00

## Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Alabama | State | 40150 | 06-30-24 |
| ANAB | ISO/IEC 17025 | L2471 | 02-22-26 |
| Arkansas DEQ | State | 88-00689 | 09-01-23 |
| California | State | 2510 | 06-30-24 |
| Florida | NELAP | E81010 | 06-30-24 |
| Georgia | State | E81010(FL) | 06-30-24 |
| Illinois | NELAP | 200041 | 10-09-23 |
| Kansas | NELAP | E-10253 | 10-31-23 |
| Kentucky (UST) | State | 53 | 06-30-24 |
| Louisiana (All) | NELAP | 30976 | 06-30-24 |
| Louisiana (DW) | State | LA017 | 12-31-23 |
| Maryland | State | 233 | 09-30-23 |
| North Carolina (WW/SW) | State | 314 | 12-31-23 |
| Oklahoma | NELAP | 9810 | 08-31-23 |
| Pennsylvania | NELAP | 68-00467 | 01-31-24 |
| South Carolina | State | 96026 | 06-30-24 |
| Tennessee | State | TN02907 | 06-30-24 |
| Texas | NELAP | T104704286 | 09-30-23 |
| US Fish & Wildlife | US Federal Programs | A22340 | 06-30-24 |
| USDA | US Federal Programs | P330-21-00056 | 05-17-24 |
| USDA | US Federal Programs | FLGNV23001 | 01-08-26 |
| Virginia | NELAP | 460166 | 06-14-24 |
| West Virginia DEP | State | 136 | 03-31-24 |

**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 325216

## CONDITIONS

| Operator: | OGRID: |
|---|---|
| El Paso Natural Gas Company, L.L.C<br>1001 Louisiana Street<br>Houston, TX 77002 | 7046 |
| | Action Number:<br>325216 |
| | Action Type:<br>[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| michael.buchanan | Review of the Canada Mesa#2 2023 Annual Groundwater Report: Content Satisfactory 1. Please update copies of well permits obtained from NMOSE for installation of additional well MW-12 2. Continue to recover LNAPL during quarterly site visits where present and readily removable. 3. Continue groundwater monitoring on a semi-annual basis for BTEX by EPA method 8260, and conduct site-wide sampling biennial in the the 2nd quarter of 2024. 4. Submit next groundwater annual report by April 1, 2025. | 5/2/2024 |