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REVIEWED
By Nelson Velez at 3:17 pm, Dec 09, 2022

Review of 2021 Annual GW Monitoring Report: **Content satisfactory**

1. Continue bi-annual groundwater monitoring
2. Continue bioventing units on wells MW-27, MW-28, and RW-2 in 2023
3. Submit the next Annual Monitoring Report to the OCD no later than March 31, 2023.

March 3, 2022

Mr. Bradford Billings
EMNRD/OCD
5200 Oakland , NE, Suite 100
Albuquerque, NM 87113

Re: Former Eunice South Gas Plant
2021 Annual Groundwater Monitoring Report
Eunice, Lea County, New Mexico

Dear Mr. Billings,

Please find enclosed the 2021 Annual Groundwater Monitoring Report, prepared for the Former Eunice South Gas Plant, in Eunice, New Mexico.

The Groundwater Monitoring Report was prepared by Arcadis U.S., Inc. (Arcadis) on behalf of Chevron Environmental Management Company (CEMC).

Please do not hesitate to call Sonja Zabienski with Arcadis at 720-344-3723 or myself at 832-854-5601, should you have any questions.

Sincerely,

Jason Michelson

Jason Michelson

cc Amy Barnhill, Chevron/MCBU

Chevron Environmental Management Company

2021 ANNUAL GROUNDWATER MONITORING REPORT

Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

03 March 2022

Steve Rice
Client Program Manager

Sonja Zabienski
Project Manager

2021 ANNUAL GROUNDWATER MONITORING REPORT

Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

Prepared for:
Chevron Environmental Management Company

Prepared by:
Arcadis U.S., Inc.
630 Plaza Drive
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Our Ref.:

30049612

Date:

March 3, 2022

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ACRONYMS AND ABBREVIATIONS

ac-ft	acre-foot
amsl	above mean sea level
Arcadis	Arcadis U.S., Inc.
BTEX	benzene, toluene, ethylbenzene, and xylenes
CV	coefficient of variation
DRO	diesel-range organics
ft^2/d	square foot per day
GRO	gasoline-range organics
HS	HydraSleeve™
LNAPL	light nonaqueous phase liquid
mg/L	milligram per liter
NMWQCC	New Mexico Water Quality Control Commission
report	2021 Annual Groundwater Monitoring Report
S	sum of trend
Site	former Eunice South Gas Plant, located in Eunice, Lea County, New Mexico
TDS	total dissolved solids
USEPA	United States Environmental Protection Agency

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1 INTRODUCTION

On behalf of Chevron Environmental Management Company, Arcadis U.S., Inc. (Arcadis) prepared this 2021 Annual Groundwater Monitoring Report (report) for the former Eunice South Gas Plant, located in Eunice, Lea County, New Mexico (Site). This report summarizes semiannual groundwater monitoring activities conducted in 2021 at the Site. Data presented in this report were collected during two semiannual groundwater monitoring events, conducted during March and September/October 2021.

The Site is located approximately 4.5 miles south of Eunice, New Mexico, in the northwest quarter of the southwest quarter of Section 27, Township 22 South, Range 37 East. The approximately 90-acre Site is bordered by State Highway 207 to the west and State Highway 18 to the east. The surrounding area is mostly flat, undeveloped grazing land with oil and gas production infrastructure. Current remedial infrastructure includes three bioventing units. The existing groundwater recovery system was decommissioned in April 2020. A Site Location Map is shown on **Figure 1**. A Well Location Map and Monitoring Plan is shown on **Figure 2** and provides additional site details. Additional site background information is provided in **Appendix A**.

The Site and surrounding area are underlain by the Ogallala Formation, which is bounded by claystones, sandstones, and siltstones from the Triassic Chinle Formation. The base of the aquifer contains 5 to 10 feet of gravel, sand, and clay overlain by red and yellow sandstones. Geological cross sections are provided in **Appendix B**.

2 GROUNDWATER MONITORING ACTIVITIES

Groundwater at the Site is monitored semiannually from a network of 66 wells (Arcadis 2020b). Spring monitoring events include sampling and gauging of all 66 wells and fall events include sampling and gauging a reduced set of 20 wells. Well locations and sampling frequency are shown on **Figure 2**; **Table 1** presents a summary of 2021 groundwater monitoring activities. Arcadis performed semiannual groundwater sampling events on March 15 through 19 and September 20 through 27 and October 6, 2021.

2.1 Groundwater Sampling Methodology

Representative groundwater samples were collected within the screened interval of each well under undisturbed conditions using the no-purge HydraSleeve™ (HS) method. After samples were collected, new HS samplers were deployed and remained in the wells until the next monitoring event.

Field parameters including temperature, pH, dissolved oxygen, oxidation-reduction potential, specific conductivity, and turbidity were recorded prior to sample collection using a downhole probe. Samples for dissolved metals and dissolved hexavalent chromium were filtered in the field using a 0.45-micron filter. Spring and Fall 2021 field parameter readings are presented in **Tables 2** and **3**, respectively.

2.2 Groundwater Gauging

During both semiannual monitoring events, depth to groundwater and to light nonaqueous phase liquid (LNAPL), where present, were gauged from the top of casing in all accessible wells using a water level meter or an oil-water interface probe, where LNAPL was anticipated. A potentiometric surface map of the Spring 2021 elevations is shown on **Figure 3**. During the spring event, 65 out of 66 wells were gauged; Arcadis was unable to gauge MW-18 due to an obstruction in the well. Groundwater elevation data for the sampling events are presented in **Table 4**, with historical elevation data provided in **Appendix C**.

Data collected during the semiannual monitoring events indicate the following:

- Groundwater elevations ranged from 3,279.36 feet above mean sea level (amsl) at MW-28 to 3,285.80 feet amsl at MW-24 during the spring 2021 semiannual gauging event and from 3275.19 feet amsl at MW-28 to 3285.45 feet amsl at MW-10 during the fall 2021 semiannual gauging event. Note that the low groundwater elevation of 3,277.47 ft amsl displayed at MW-32 during the spring event is believed to be an error in measurement or transcription due to the anomalous nature of the datapoint within the historical gauging data at this well.
- The groundwater elevations during the 2021 monitoring events appear to be consistent with historical levels, with groundwater flow to the south/southeast. Although the land topography across the Site is relatively flat, a consistent hydrologic low spot is indicated by the water elevation data at three wells (RW-4, RW-5, and MW-28) located in the western area of the Site, near the wells containing LNAPL in this area. Historical data indicate that these wells were part of a larger LNAPL recovery system in the western area of the Site and were pumped in 2004, 2005, and 2006.

- The calculated average gradient across the Site is approximately 0.003 foot per foot.
- LNAPL was detected in 16 wells with thicknesses ranging from 0.09 foot in RW-3 to 3.41 feet in MW-5 during the spring 2021 gauging event and in 12 wells with thickness ranging from 0.01 feet in MW-10 to 2.89 feet in MW-21 during fall 2021. Further LNAPL discussion is provided in Section 4.
- Groundwater and LNAPL elevation data for the sampling events are presented in **Table 4**, with historical elevation data provided in **Appendix C**. LNAPL thickness and distribution observed during the comprehensive spring 2021 event is shown on **Figure 4**. Groundwater elevations in wells containing LNAPL were corrected using an assumed LNAPL specific gravity ranging from 0.72 to 0.82 based on limited LNAPL characterization conducted during 2017.

2.3 Groundwater Analytical Results

In 2021, analytical groundwater samples were collected from 42 wells during the spring event and from 19 wells during the fall event. According to the Sampling and Analysis Plan (Arcadis 2020b), 58 wells are planned to be sampled during the spring event and 20 are planned to be sampled during the fall event. Additionally, four duplicate samples were collected during the spring event and two duplicate samples were collected during the fall event for quality control purposes. During the semiannual monitoring and sampling events at the wells included in the sampling plan (**Table 1**), 16 wells were not sampled in the spring and three were not sampled in the fall for the following reasons:

- *MW-1, MW-2, MW-10, MW-19, MW-21, MW-27, MW-28, RW-1, RW-2, RW-3, RW-4, and RW-5*. LNAPL was present in these wells during the spring event.
- *MW-24*. This well was not sampled during the spring event.
- *MWD-9*. The well screen collapsed late 2019 and was unable to be gauged or sampled during the spring or fall monitoring events.
- *MWD-15*. This well was not sampled during the spring monitoring event due to an obstruction in the well. The well was able to be gauged however, and depth to water was collected for the spring event.
- *TMW-2*. This well was not sampled or gauged during the spring 2021 monitoring event due to an obstruction in the well.

Samples were sent to Xenco Laboratories located in Midland, Texas for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX); diesel-range organics (DRO); gasoline-range organics (GRO); chloride; total dissolved solids (TDS); and dissolved metals. Analytical results were compared to the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards and are presented in **Tables 5** through **8**. Laboratory reports and data validation results are provided in **Appendix D**. Cumulative summary tables of groundwater analytical results through 2017, and 2017 through present are provided in **Appendices E** and **F**, respectively.

2.3.1 Benzene, Toluene, Ethylbenzene, Xylenes, and Total Petroleum Hydrocarbons

Groundwater samples collected from 42 well locations in spring 2021 and 19 well locations in fall 2021 were analyzed by United States Environmental Protection Agency (USEPA) Methods 8021B for BTEX and 8015B for DRO and GRO. During these events, benzene was detected at concentrations greater than the NMWQCC groundwater standard of 0.005 milligram per liter (mg/L) at 15 of 42 locations, with a maximum concentration of 6.02 D[1] mg/L (MWD-5) in spring 2021. The NMWQCC groundwater standard was exceeded at 10 of 19 locations, with a maximum concentration of 11.9 D[1] mg/L (MW-24) in fall 2021. Analytical results for the samples collected for ethylbenzene, toluene, and xylenes analyses were each less than their respective standards. There are no NMWQCC groundwater standards established for DRO or GRO. **Figures 5** and **6** show benzene isoconcentrations for the spring and fall 2021 monitoring events, respectively. The 2021 BTEX results are presented in **Tables 5** and **6**. Historical results are provided in **Appendices E** and **F**.

2.3.2 Chloride and Total Dissolved Solids

Groundwater samples collected from 42 well locations in spring 2021 and 19 well locations in fall 2021 were analyzed by USEPA Methods 300/300.1 and 2540C for chloride and TDS, respectively (**Table 1**). **Figures 7** and **8** show chloride isoconcentrations for the spring and fall 2021 monitoring events, respectively. Results are summarized as follows:

- *Chloride.* The NMWQCC groundwater standard of 250 mg/L was exceeded at 33 of 42 locations, with a maximum concentration of 16,300 mg/L (MWD-3) in spring 2021. The NMWQCC groundwater standard was exceeded at 12 of 19 locations, with a maximum concentration of 19,300 mg/L (MWD-3) in fall 2021.
- *TDS.* The NMWQCC groundwater standard of 1,000 mg/L was exceeded at 36 of 42 locations, with a maximum concentration of 31,500 mg/L (MWD-3) in spring 2021. The NMWQCC groundwater standard was exceeded at 17 of 19 locations with a maximum concentration of 34,300 mg/L (MWD-3) in fall 2021.

2021 chloride and TDS results are summarized in **Tables 7** and **8**. Historical results are included in **Appendices E** and **F**.

2.3.3 Dissolved Metals

Groundwater samples collected from 42 well locations in spring 2021 and 19 well locations in fall 2021 were analysed by USEPA Method 6020A for dissolved arsenic, dissolved total chromium, and dissolved barium; and USEPA Method 7196A for dissolved hexavalent chromium (**Table 1**). Results are summarized as follows:

- *Dissolved arsenic*. The NMWQCC groundwater standard of 0.01 mg/L was exceeded in 24 of 42 locations in spring 2021, with a maximum concentration of 0.0741 mg/L (TMW-6). The NMWQCC

[1] D qualifier indicated that the concentration is based on a diluted sample analysis.

groundwater standard was exceeded at 12 of 19 locations in fall 2021, with a maximum concentration of 0.0985 mg/L (MWD-3).

- *Dissolved total chromium*. The NMWQCC groundwater standard of 0.05 mg/L was exceeded in 1 of 42 locations, with a concentration of 0.102 mg/L (MW-16) in spring 2021. The NMWQCC groundwater standard was exceeded in 1 of 19 locations, with a concentration of 0.0909 mg/L (MW-16) during fall 2021.
- *Dissolved hexavalent chromium*. The NMWQCC groundwater standard of 0.05 mg/L was exceeded in 1 of 42 locations, with a concentration of 0.103 mg/L (MW-16) in spring 2021. The NMWQCC groundwater standard was exceeded in 1 of 19 locations, with a concentration of 0.0931 mg/L (MW-16) during fall 2021.
- *Dissolved barium*. The NMWQCC groundwater standard of 2 mg/L was exceeded at 8 of 42 locations, with a maximum concentration of 11.6 D mg/L (MW-9) in spring 2021. The NMWQCC groundwater standard was exceeded at 8 of 19 locations, with a maximum concentration of 7.72 mg/L (MW-29) in fall 2021.

The 2021 dissolved metals results are presented in **Tables 7** and **8**. Historical results are provided in **Appendices E** and **F**.

2.4 Benzene and Chloride Trend Analysis

2.4.1 Mann-Kendall Test Methodology

Mann-Kendall analysis was used to evaluate concentration trends at representative site wells. Wells were selected for trend analysis based on data completeness (i.e., at least five data points since the start of HS sampling in spring 2016) and locations within the benzene and chloride plumes to represent conditions within the respective plume areas. Trends are evaluated annually.

The Mann-Kendall trend test is a nonparametric test that determines trends based on ranked data. As such, it is relatively insensitive to outlier values and nondetect concentrations and does not require the data to fit a specific model. The basic Mann-Kendall trend test is performed by listing the concentrations of the constituent of interest in temporal order and computing the differences between a given measurement and earlier measurements (Gilbert 1987; USEPA 2009). Based on USEPA guidance, nondetect values are set to one value less than that of any detections (USEPA 2009). The Mann-Kendall test statistic (sum of trend [S]) is the difference between the number of strictly positive differences and the number of strictly negative differences. If S is positive, an increasing trend is indicated; if S is negative, a decreasing trend is indicated; and if S is near zero, no trend is apparent. Trends with positive or negative S-statistics were accepted as statistically significant for p-values less than or equal to 0.1 (90 percent confidence level). The coefficient of variation (CV) is a quantitative measure that can be used to evaluate if concentrations are stable in cases where a statistically significant trend is not apparent. The CV is calculated as the standard deviation divided by the mean (average) concentration. CV values near or greater than 1 indicate variability in concentrations through time, while lower values indicate stability. CV values less than 1 indicate a stable trend and CV values greater than or equal to 1 indicate no trend. Mann-Kendall analyses were performed on data collected after the sampling methodology change to HS that occurred site-wide in spring 2016.

2.4.2 Benzene Trend Analysis Results

A table summarizing Mann-Kendall analyses and individual trend charts are presented in **Appendix G**. Results from the Mann-Kendall analyses indicate the following:

- Northern plume fringe (onsite):
  - TMW-1 benzene concentrations were between nondetect at less than 0.000408 mg/L (September 2016) and 0.108 mg/L (September 2018), and do not indicate a statistically significant trend (**Appendix G**, **Figure G-1**). However, concentrations have been generally decreasing since reaching a maximum in September 2018. The most recent concentration of 0.00291mg/L (March 2021) does not exceed the benzene NMWQCC standard of 0.005 mg/L. The previous concentration in March 2020 did exceed the NMWQCC standard with a concentration of 0.0188 mg/L.
- Central plume (onsite):
  - MW-26 benzene concentrations range between 0.577 mg/L (April 2019) and 1.79 mg/L (September 2017) and indicate a statistically significant decreasing trend (**Appendix G**, **Figure G-2**). The most recent concentration of 0.766 mg/L (September 2021) exceeds the benzene NMWQCC groundwater standard.
- Eastern plume (onsite):
  - MWD-14 benzene concentrations range between 0.363 mg/L (March 2018) and 2.60 mg/L (September 2017), and indicate a non-significant but stable trend (**Appendix G**, **Figure G-3**). Concentrations have been stable to decreasing since reaching a maximum in September 2017. The most recent concentration of 0.701 mg/L exceeds the benzene NMWQCC groundwater standard.
  - MWD-17 benzene concentrations range between 0.012 mg/L (March 2021) and 0.957 mg/L (September 2016) and indicate a statistically significant decreasing trend (**Appendix G**, **Figure G-4**). All concentrations exceed the benzene NMWQCC groundwater standard.
- Southern plume fringe (onsite):
  - MW-32 benzene concentrations were between 0.344 mg/L (March 2021) and 14.7 mg/L (September 2017) during the analysis period. The time period analyzed at this location was adjusted to include data following the peak in concentrations (September 2017) to better represent more recent data trends. The results of this adjusted Mann-Kendall analysis indicate a statistically significant decreasing trend (**Appendix G**, **Figure G-5**). The most recent concentration of 0.638 mg/L (September 2021) exceeds the benzene NMWQCC groundwater standard.
  - MW-29 benzene concentrations were between 0.0584 mg/L (September 2021) and 1.60 mg/L (September 2017) during the analysis period. The time period analyzed at this location was adjusted to include data following the peak in concentrations (September 2017) to better represent more recent data trends. The results of this adjusted Mann-Kendall analysis indicate a statistically significant decreasing trend (**Appendix G**, **Figure G-6**). The most recent

concentration of 0.584 mg/L (September 2021) exceeds the benzene NMWQCC groundwater standard.

Significantly decreasing trends seen downgradient and a stable trend seen in the eastern plume area (MWD-14 and MWD-17) could indicate that the plume footprint and concentration is potentially naturally attenuating at the leading edges because active benzene treatment is not implemented at this time. A summary map of the benzene trend analyses is provided in **Appendix G**, **Figure G-**7.

2.4.3 Chloride Trend Analysis Results

A table summarizing Mann-Kendall analyses and individual trend charts are provided in **Appendix G**. Results from the Mann-Kendall analyses indicate the following:

- Western plume fringe (offsite):
  - MW-35 chloride concentrations were between 133 mg/L (September 2021) and 1,810 mg/L (April 2017; upon well installation) and indicate a statistically significant decreasing trend (**Appendix G**, **Figure G-8**). The most recently measured chloride concentration of 133 mg/L (September 2021) was less than the NMWQCC groundwater standard of 250 mg/L and concentrations have been below the NMWQCC groundwater standard since April 2019.
- Onsite western plume:
  - TMW-1 chloride concentrations were between 450 mg/L (April 2019) and 761 mg/L (April 2016) during the analysis period and indicate a statistically significant decreasing trend (**Appendix G**, **Figure G-9**). The most recent concentration of 533 mg/L (March 2021) exceeds the chloride NMWQCC groundwater standard.
  - MW-26 chloride concentrations were between 139 mg/L (March 2018) and 285 mg/L (April 2016) during the analysis period. Although not statistically significant at 90 percent confidence, visual analysis of concentrations through time indicate that chloride concentrations have decreased since April 2016 and stabilized to less than the NMWQCC groundwater standard (**Appendix G**, **Figure G-10**). The NMWQCC groundwater standard for chloride was only exceeded during the analysis period in April 2016.
- Onsite central plume:
  - MWD-14 chloride concentrations were between 426 mg/L (September 2020) and 8,000 mg/L (March 2018) during the analysis period and indicate a statistically significant decreasing trend (**Appendix G, Figure G-11**). The most recent concentration of 586 mg/L (September 2021) exceeds the chloride NMWQCC groundwater standard.
  - MW-32 chloride concentrations were between 435 mg/L (October 2019) and 1,120 mg/L (March 2016) and indicate a statistically significant decreasing trend (**Appendix G**, **Figure G-12**). The most recent chloride concentration of 613 mg/L (September 2021) exceeds the NMWQCC groundwater standard.
  - MW-29 chloride concentrations were between 101 mg/L (September 2016) and 352 mg/L (March 2021) during the analysis period and indicate a statistically significant increasing trend (**Appendix**

G, **Figure G-13**). Chloride concentrations exceeded the NMWQCC groundwater standard during the last four monitoring events.

- Eastern plume fringe (offsite):
  - MWD-7 chloride concentrations have remained stable between 3,870 mg/L (March 2021) and 7,210 mg/L (September 2016) (**Appendix G**, **Figure G-14**). The most recent concentration of 3,870 mg/L (March 2021) exceeds the NMWQCC groundwater standard for chloride.
  - MW-15 chloride concentrations have remained stable between 968 mg/L (March 2021) and 2,320 mg/L (September 2018) (**Appendix G**, **Figure G-15**). However, concentrations have been decreasing since September 2018. This is confirmed by Mann-Kendall trend analysis run on an abbreviated time period (September 2018 through September 2020), which indicates a statistically significant decreasing trend (Appendix G, Figure G-16). The most recent chloride concentration of 1,440 mg/L (September 2021) exceeds the NMWQCC groundwater standard.
- Southern plume fringe (offsite):
  - MW-38 chloride concentrations are not statistically significant but stable and range from 52.7 mg/L (September 2021) to 772 mg/L (March 2020) (**Appendix G**, **Figure G-17**). Concentrations dropped significantly between March 2021 (585 mg/L) and September 2021 (52.7 mg/L).
  - MW-36 chloride concentrations are statistically significant increasing, ranging from 391 mg/L (April 2017) to 453 mg/L (March 2020) (**Appendix G**, **Figure G-18**). All concentrations have exceeded the NMWQCC standard.
  - MW-37 chloride concentrations have remained stable between 314 mg/L (October 2019) and 357 mg/L (March 2021) (**Appendix G**, **Figure G-19**). All concentrations have exceeded the NMWQCC standard.

Decreasing chloride concentration trends seen across the upgradient portion of the plume (as represented by MW-35, TMW-1, MWD-14, and MW-32) could indicate natural plume attenuation or migration within the existing plume footprint. Stable concentrations seen at the easternmost edge of the plume in the area of MWD-7 also support the stability of the upgradient to crossgradient plume edges. An increasing trend seen in the area of MW-29 and MW-36 could indicate a natural concentration migration within the plume footprint toward the downgradient, leading edge of the chloride plume. A summary map of the chloride trend analyses is provided in **Appendix G**, **Figure G-20**.

3 LIGHT NONAQUEOUS PHASE LIQUID INVESTIGATION ACTIVITIES

LNAPL transmissivity tests were conducted at 10 well locations in September 2021 to assess relative LNAPL recoverability compared to previous years (2016 through 2020). LNAPL transmissivity tests included two of the three wells at which bioventing systems are operating (MW-27 and MW-28) to compare transmissivity values through time and with the influence of the bioventing application. The third bioventing well, RW-2, was not tested due to the absence of measured LNAPL in the well at the time of testing. Transmissivity testing procedures, results, and analysis are provided in **Appendix H**. The 2021 LNAPL transmissivity testing results, including the average results from 2016 through 2020 for comparison, are presented in **Table 9**. Notable results observed at bioventing wells include:

- Results for bioventing well MW-27 indicate an increase in LNAPL transmissivity from approximately 0.4 square feet per day (ft^2/d) in 2020 to approximately 0.9 ft^2/d in 2021.
- Results for bioventing well MW-28 indicate a decrease in LNAPL transmissivity from approximately 2.9 ft^2/d in 2020 to approximately 0.3 ft^2/d in 2021.
- An LNAPL transmissivity test was not conducted at bioventing well RW-2 in 2021. Transmissivity values from 2016 to 2020 range between 4.2 ft^2/d to 8.6 ft^2/d and appear relatively stable over multiple testing events.

4 OPERATION AND MAINTENANCE ACTIVITIES

This section discusses operation and maintenance of the bioventing units.

4.1 Bioventing

As part of the bioventing system, bioventing units operated at wells MW-27, MW-28, and RW-2 in 2021. Air emission samples were collected annually, in September 2021, and analyzed by Eurofins Air Toxics. Based on the bioventing air emissions data, reviewed and explained in **Appendix H**, bioventing is continuing to provide an observable positive impact on LNAPL degradation at the Site relative to ambient conditions, with approximately 3,672 gallons of LNAPL degraded during system operation through September 2021.

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5 SUMMARY

The 2021 monitoring and investigation activities indicated the following:

- Groundwater analytical results are consistent with historical trends observed and suggest an overall stable plume.
- Mann-Kendall results indicate that benzene concentrations are stable to decreasing across the Site. Chloride concentrations within the upgradient plume area appear to be stable to decreasing. Trend analysis of chloride concentrations at onsite and downgradient plume fringe monitoring locations MW-29 and MW-36, respectively, indicate increasing trends.
- LNAPL transmissivity testing results indicate that testing at bioventing wells should continue to be conducted annually, with testing at other LNAPL wells biennially.
- Air emissions and LNAPL transmissivity data indicate that the bioventing units should remain on wells MW-27, MW-28, and RW-2 in 2022.

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6 REFERENCES

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TABLES

Table 1
Summary of 2021 Groundwater Monitoring Activities
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

Monitoring Well ID	Groundwater Elevation	Field Water Quality Parameters	BTEX (8021B)	GRO (8015B)	DRO (8015B)	Dissolved Metals (6020A)	Hexavalent Chromium (7196A)	Chloride (300.0)	TDS (2540C)	Notes
MW-1	x/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	LNAPL
MW-2	x/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	LNAPL
MW-3	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MW-4	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MW-5	x/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	
MW-6	x/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	
MW-7	x/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	
MW-8	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MW-9	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MW-10	x/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	LNAPL
MW-11	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MW-12	x/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	
MW-13	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MW-14	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MW-15	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MW-16	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MW-17	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MW-18	(x)/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	obstruction in well.
MW-19	x/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	LNAPL
MW-20	x/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	LNAPL
MW-21	x/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	LNAPL
MW-22	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MW-23	x/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	
MW-24	x/x	(x)/x	(x)/x	(x)/x	(x)/x	(x)/x	(x)/x	(x)/x	(x)/x	Well dry (spring)
MW-25	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MW-26	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MW-27	x/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	LNAPL
MW-28	x/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	LNAPL
MW-29	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MW-30	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MW-31	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MW-32	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MW-34	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MW-35	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MW-36	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MW-37	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MW-38	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MWD-1	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MWD-2	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	

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Table 1
Summary of 2021 Groundwater Monitoring Activities
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

Monitoring Well ID	Groundwater Elevation	Field Water Quality Parameters	BTEX (8021B)	GRO (8015B)	DRO (8015B)	Dissolved Metals (6020A)	Hexavalent Chromium (7196A)	Chloride (300.0)	TDS (2540C)	Notes
MWD-3	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MWD-4	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MWD-5	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MWD-6	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MWD-7	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MWD-8	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MWD-9	x/x	(x)/(x)	(x)/(x)	(x)/(x)	(x)/(x)	(x)/(x)	(x)/(x)	(x)/(x)	(x)/(x)	Well damaged due to excess sand in well.
MWD-11	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
MWD-12	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MWD-13	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MWD-14	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
MWD-15	x/x	(x)/x	(x)/x	(x)/x	(x)/x	(x)/x	(x)/x	(x)/x	(x)/x	Obstruction in well (spring).
MWD-17	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
RW-1	x/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	LNAPL
RW-2	x/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	LNAPL
RW-3	x/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	LNAPL
RW-4	x/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	LNAPL
RW-5	x/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	LNAPL
RW-6	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	x/x	
RW-7	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
RW-8	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
TMW-1	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
TMW-2	x/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	(x)/--	Bailer in fluid in well. Unable to sample.
TMW-3	x/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	--/--	
TMW-6	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
WW-2	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	
WW-7	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	x/--	

Acronyms and Abbreviations:

BTEX = benzene, toluene, ethylbenzene, and xylenes

DRO = diesel-range organics

GRO = gasoline-range organics

ID = identification

LNAPL = light nonaqueous phase liquid

TDS = total dissolved solids

x / x = spring sampling event/fall sampling event

x = sample planned and collected

(x) = sample planned and not collected

-- = no sample planned during event

Table 2
Spring 2021 Field Parameters
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

Location ID	Date	Dissolved Oxygen	Oxidation-Reduction Potential	pH	Specific Conductivity	Temperature	Turbidity
		mg/L	mV	SU	µS/cm	°C	NTU
MW-3	3/17/2021	5.08	193	6.91	1,120	17.52	27.1
MW-4	3/18/2021	9.17	113	7.45	0	16.95	191
MW-8	3/17/2021	2.49	-111	6.93	3,290	13.96	0.0
MW-9	3/16/2021	4.20	23	12.82	727	21.03	2.9
MW-11	3/19/2021	1.70	-111	6.51	2,000	18.09	4.4
MW-13	3/16/2021	3.96	213	7.17	2,140	21.65	64.3
MW-14	3/16/2021	1.02	126	6.73	2,620	24.12	5.7
MW-15	3/16/2021	1.50	224	6.72	5,410	19.12	19.5
MW-16	3/16/2021	1.67	213	6.84	6,350	20.96	8.7
MW-17	3/18/2021	3.13	-26	6.80	3,700	15.33	0.6
MW-22	3/18/2021	2.48	-144	7.12	9,730	15.14	8.0
MW-25	3/19/2021	1.85	-108	6.70	9,080	16.01	10.4
MW-26	3/19/2021	8.73	-105	6.76	1,810	17.93	26.6
MW-29	3/16/2021	7.79	-132	6.76	2,440	22.61	3.7
MW-30	3/16/2021	1.84	-78	6.73	1,970	23.40	0.0
MW-31	3/16/2021	1.02	-94	6.81	2,600	23.32	5.7
MW-32	3/16/2021	1.38	-167	7.14	3,770	23.87	8.4
MW-34	3/16/2021	3.91	--	6.84	2,550	20.68	12.6
MW-35	3/17/2021	2.31	9	6.80	1,510	15.76	3.9
MW-36	3/16/2021	0.94	128	6.79	2,170	25.30	0.5
MW-37	3/16/2021	0.83	-98	6.92	1,920	25.47	12.2
MW-38	3/16/2021	1.10	-107	7.02	2,940	24.78	0.5
MWD-1	3/18/2021	3.53	145	6.92	3,110	16.47	0.0
MWD-2	3/18/2021	8.15	154	7.09	3,480	19.22	4.2
MWD-3	3/18/2021	1.77	-127	6.99	46,400	16.76	119
MWD-4	3/17/2021	8.96	170	6.72	1,310	16.59	18.1
MWD-5	3/16/2021	6.31	-131	6.69	3,290	26.05	185
MWD-6	3/16/2021	2.05	-75	6.80	1,810	22.68	14.4
MWD-7	3/17/2021	1.79	188	6.76	13,300	19.23	7.0
MWD-8	3/18/2021	7.61	182	7.36	1,250	18.33	5.8
MWD-11	3/17/2021	4.58	205	6.97	1,030	17.62	6.4
MWD-12	3/17/2021	8.98	-135	7.48	5,670	16.75	0.7
MWD-13	3/17/2021	8.77	135	7.09	6,920	16.49	0.0
MWD-14	3/19/2021	8.83	-134	7.40	5,380	16.63	3.0
MWD-17	3/18/2021	3.17	-154	7.09	13,800	17.22	3.1
RW-6	3/17/2021	7.88	-131	6.96	3,780	19.97	7.0
RW-7	3/19/2021	9.98	205	6.72	9,070	14.71	3.6
RW-8	3/18/2021	5.98	74	8.12	4,360	19.77	55.3
TMW-1	3/17/2021	2.18	-101	6.71	2,340	17.88	5.6
TMW-6	3/19/2021	1.75	-134	6.81	2,010	15.82	4.7
WW-2	3/16/2021	1.36	-188	7.62	7,110	23.10	74.2
WW-7	3/16/2021	7.79	-157	7.13	818	23.40	80.7

Acronyms and Abbreviations:
ID = identification
mg/L = milligrams per liter
mV = millivolts
NTU = nephelometric turbidity unit
SU = standard unit
µS/cm = microSiemens per centimeter
°C = degrees Celsius
-- = Not detected/ Not Measured

Table 3
Fall 2021 Field Parameters
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

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Location ID	Date	Dissolved Oxygen	Oxidation-Reduction Potential	pH	Specific Conductivity	Temperature	Turbidity
		mg/L	mV	SU	mS/cm	°C	NTU
MW-11	9/21/2021	1.22	-9.2	6.73	1.54	25.89	8.5
MW-15	9/23/2021	2.99	133.5	6.97	11.0	24.65	2.9
MW-16	9/23/2021	2.74	135	6.99	134	25.74	5.2
MW-17	9/23/2021	2.00	127.6	7.21	2.74	24.67	1.7
MW-24	9/24/2021	18.10	-74.9	6.65	1.66	20.93	5.7
MW-25	9/27/2021	18.20	-101.9	8.17	8.20	24.81	9.9
MW-26	9/27/2021	25.30	-83.4	8.03	1.64	23.68	10.4
MW-29	9/27/2021	29.00	-104.2	7.40	2.26	27.92	20.8
MW-30	9/27/2021	28.10	-60.8	7.58	1.93	27.88	3.0
MW-32	9/27/2021	19.00	-118.9	8.10	3.62	26.68	9.4
MW-34	9/27/2021	2.94	-73.1	6.57	2.04	21.30	4.3
MW-35	9/27/2021	2.59	-71.6	7.24	1.22	24.82	1.2
MW-38	9/27/2021	2.20	-47.6	7.67	2.82	26.07	7.1
MWD-12	9/22/2021	--	--	--	--	--	--
MWD-13	9/22/2021	2.75	120.9	7.29	9.66	25.97	4.3
MWD-14	9/22/2021	0.00	30	6.75	4.83	24.50	6.0
MWD-15	9/21/2021	2.99	133.5	6.97	4.01	24.65	2.9
MWD-3	9/22/2021	0.00	87.1	6.99	49.6	25.96	7.5
RW-6	9/21/2021	--	--	--	--	--	--

Acronyms and Abbreviations:

°C = degrees Celsius

ID = identification

mg/L = milligrams per liter

mV = millivolts

NTU = nephelometric turbidity unit

SU = standard unit

mS/cm = milliSiemens per centimeter

-- = Not detected/ Not Measured

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Table 4
2021 Groundwater Elevations
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

Location ID	Date	Top of Casing (feet amsl)	Depth To Groundwater (feet btoc)	Depth to LNAPL (feet btoc)	LNAPL Thickness (feet)	LNAPL Specific Gravity	Uncorrected Groundwater Elevation (feet amsl)	Corrected Groundwater Elevation (feet amsl)[1]
MW-1	3/15/2021	3335.09	54.68	53.22	1.46	0.74	3280.41	3281.49
MW-1	9/29/2021	3335.09	53.27	NM	NA	0.74	3281.82	3281.82
MW-2	3/18/2021	3335.70	53.05	51.40	1.65	0.74	3282.65	3283.87
MW-2	9/29/2021	3335.70	53.03	51.58	1.45	0.74	3282.67	3283.74
MW-3	3/17/2021	3339.65	55.25	NM	NA	NA	3284.40	3284.40
MW-3	9/20/2021	3339.65	55.26	NM	NA	NA	3284.39	3284.39
MW-4	3/18/2021	3333.25	49.49	NM	NA	NA	3283.76	3283.76
MW-4	9/20/2021	3333.25	49.43	NM	NA	NA	3283.82	3283.82
MW-5	3/15/2021	3333.85	53.84	50.43	3.41	0.82	3280.01	3282.81
MW-5	9/20/2021	3333.85	52.29	50.36	1.93	0.82	3281.56	3283.14
MW-6	3/15/2021	3332.33	49.46	NM	NA	NA	3282.87	3282.87
MW-6	9/20/2021	3332.33	49.38	NM	NA	NA	3282.95	3282.95
MW-7	3/15/2021	3330.43	48.90	NM	NA	NA	3281.53	3281.53
MW-7	9/20/2021	3330.43	47.81	NM	NA	NA	3282.62	3282.62
MW-8	3/17/2021	3330.59	48.71	NM	NA	NA	3281.88	3281.88
MW-8	9/29/2021	3330.59	48.56	NM	NA	NA	3282.03	3282.03
MW-9	3/16/2021	3334.73	52.81	NM	NA	NA	3281.92	3281.92
MW-9	9/20/2021	3334.73	52.75	NM	NA	NA	3281.98	3281.98
MW-10	3/15/2021	3336.38	52.67	50.87	1.80	0.74	3283.71	3285.04
MW-10	9/29/2021	3336.38	50.94	50.93	0.01	0.74	3285.44	3285.45
MW-11	3/19/2021	3334.86	51.36	NM	NA	0.72	3283.50	3283.50
MW-11	9/21/2021	3334.86	51.45	NM	NA	0.72	3283.41	3283.41
MW-12	3/15/2021	3333.88	51.33	50.23	1.10	0.72	3282.55	3283.34
MW-12	9/29/2021	3333.88	51.29	50.25	1.04	0.72	3282.59	3283.34
MW-13	3/16/2021	3336.15	55.56	NM	NA	NA	3280.59	3280.59
MW-13	9/20/2021	3336.15	55.56	NM	NA	NA	3280.59	3280.59
MW-14	3/16/2021	3333.04	51.94	NM	NA	NA	3281.10	3281.10
MW-14	9/20/2021	3333.04	51.88	NM	NA	NA	3281.16	3281.16
MW-15	3/16/2021	3328.98	46.97	NM	NA	NA	3282.01	3282.01
MW-15	9/20/2021	3328.98	46.97	NM	NA	NA	3282.01	3282.01
MW-16	3/16/2021	3330.20	47.76	NM	NA	NA	3282.44	3282.44
MW-16	9/20/2021	3330.20	47.68	NM	NA	NA	3282.52	3282.52
MW-17	3/18/2021	3334.32	50.75	NM	NA	NA	3283.57	3283.57
MW-17	9/20/2021	3334.32	50.67	NM	NA	NA	3283.65	3283.65
MW-18	3/16/2021	3336.10	NM	NM	NA	NA	NM	NM
MW-19	3/15/2021	3334.21	52.49	50.91	1.58	0.82	3281.72	3283.02
MW-19	9/20/2021	3334.21	52.26	50.69	1.57	0.82	3281.95	3283.24
MW-20	3/15/2021	3334.06	53.52	51.58	1.94	0.82	3280.54	3282.13
MW-20	10/6/2021	3334.06	52.94	50.40	2.54	0.82	3281.12	3283.20
MW-21	3/15/2021	3333.02	52.60	49.87	2.73	0.82	3280.42	3282.66
MW-21	9/20/2021	3333.02	52.58	49.69	2.89	0.82	3280.44	3282.81
MW-22	3/18/2021	3334.87	52.95	NM	NA	NA	3281.92	3281.92

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Table 4
2021 Groundwater Elevations
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

Location ID	Date	Top of Casing (feet amsl)	Depth To Groundwater (feet btoc)	Depth to LNAPL (feet btoc)	LNAPL Thickness (feet)	LNAPL Specific Gravity	Uncorrected Groundwater Elevation (feet amsl)	Corrected Groundwater Elevation (feet amsl)[1]
MW-22	9/20/2021	3334.87	51.83	NM	NA	NA	3283.04	3283.04
MW-23	3/15/2021	3334.45	51.17	NM	NA	NA	3283.28	3283.28
MW-23	9/20/2021	3334.45	51.09	NM	NA	NA	3283.36	3283.36
MW-24	3/15/2021	3336.97	NM	NM	NA	0.74	NM	NM
MW-24	9/24/2021	3336.97	53.27	NM	NA	NA	3283.70	3283.70
MW-25	3/19/2021	3336.31	51.05	NM	NA	NA	3285.26	3285.26
MW-25	9/27/2021	3336.31	50.88	NM	NA	NA	3285.43	3285.43
MW-26	3/19/2021	3334.93	51.96	NM	NA	0.72	3282.97	3282.97
MW-26	9/27/2021	3334.93	53.27	NM	NA	0.72	3281.66	3281.66
MW-27	3/15/2021	3334.96	53.62	52.19	1.43	0.72	3281.34	3282.37
MW-27	9/29/2021	3334.96	53.64	52.30	1.34	0.72	3281.32	3282.28
MW-28	3/15/2021	3333.04	54.90	53.20	1.70	0.72	3278.14	3279.36
MW-28	9/29/2021	3333.04	57.85	53.17	NA	NA	3275.19	3275.19
MW-29	3/16/2021	3334.01	51.94	NM	NA	NA	3282.07	3282.07
MW-29	9/27/2021	3334.01	51.81	NM	NA	NA	3282.20	3282.20
MW-30	3/16/2021	3336.49	54.59	NM	NA	NA	3281.90	3281.90
MW-30	9/27/2021	3336.49	54.51	NM	NA	NA	3281.98	3281.98
MW-31	3/16/2021	3334.52	53.09	NM	NA	NA	3281.43	3281.43
MW-31	9/20/2021	3334.52	53.05	NM	NA	NA	3281.47	3281.47
MW-32	3/16/2021	3333.01	55.54	NM	NA	NA	3277.47	3277.47
MW-32	9/27/2021	3333.01	50.39	NM	NA	NA	3282.62	3282.62
MW-34	3/16/2021	3335.77	52.81	NM	NA	NA	3282.96	3282.96
MW-34	9/27/2021	3335.77	52.66	NM	NA	NA	3283.11	3283.11
MW-35	3/17/2021	NM	56.44	NM	NA	NA	NM	NM
MW-35	9/27/2021	NM	56.42	NM	NA	NA	NM	NM
MW-36	3/16/2021	NM	60.20	NM	NA	NA	NM	NM
MW-36	9/20/2021	NM	60.20	NM	NA	NA	NM	NM
MW-37	3/16/2021	NM	55.81	NM	NA	NA	NM	NM
MW-37	9/20/2021	NM	55.83	NM	NA	NA	NM	NM
MW-38	3/16/2021	NM	50.23	NM	NA	NA	NM	NM
MW-38	9/27/2021	NM	50.18	NM	NA	NA	NM	NM
MWD-1	3/18/2021	3335.26	51.48	NM	NA	NA	3283.78	3283.78
MWD-2	3/18/2021	3336.32	52.36	NM	NA	NA	3283.96	3283.96
MWD-3	3/18/2021	3335.06	49.63	NM	NA	NA	3285.43	3285.43
MWD-3	3/19/2021	3335.06	52.19	NM	NA	NA	3282.87	3282.87
MWD-3	9/20/2021	3335.06	51.78	NM	NA	NA	3283.28	3283.28
MWD-4	3/17/2021	3330.86	48.36	NM	NA	NA	3282.50	3282.50
MWD-4	9/20/2021	3330.86	48.26	NM	NA	NA	3282.60	3282.60
MWD-5	3/16/2021	3334.01	51.44	NM	NA	NA	3282.57	3282.57
MWD-5	9/27/2021	3334.01	51.28	NM	NA	NA	3282.73	3282.73
MWD-6	3/16/2021	3335.08	52.76	NM	NA	NA	3282.32	3282.32
MWD-6	9/20/2021	3335.08	52.67	NM	NA	NA	3282.41	3282.41

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Table 4
2021 Groundwater Elevations
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

Location ID	Date	Top of Casing (feet amsl)	Depth To Groundwater (feet btoc)	Depth to LNAPL (feet btoc)	LNAPL Thickness (feet)	LNAPL Specific Gravity	Uncorrected Groundwater Elevation (feet amsl)	Corrected Groundwater Elevation (feet amsl)[1]
MWD-7	3/17/2021	3332.82	49.77	NM	NA	NA	3283.05	3283.05
MWD-8	3/18/2021	3335.97	51.99	NM	NA	NA	3283.98	3283.98
MWD-8	9/20/2021	3335.97	51.99	NM	NA	NA	3283.98	3283.98
MWD-9	3/15/2021	3333.45	50.51	NM	NA	NA	3282.94	3282.94
MWD-9	9/20/2021	3333.45	50.46	NM	NA	NA	3282.99	3282.99
MWD-11	3/17/2021	3338.24	54.27	NM	NA	NA	3283.97	3283.97
MWD-11	9/20/2021	3338.24	54.22	NM	NA	NA	3284.02	3284.02
MWD-12	3/17/2021	3334.08	51.80	NM	NA	NA	3282.28	3282.28
MWD-12	9/20/2021	3334.08	51.64	NM	NA	NA	3282.44	3282.44
MWD-13	3/17/2021	3332.11	49.63	NM	NA	NA	3282.48	3282.48
MWD-13	9/22/2021	3332.11	49.55	NM	NA	NA	3282.56	3282.56
MWD-14	3/19/2021	3333.76	50.78	NM	NA	NA	3282.98	3282.98
MWD-14	9/20/2021	3333.76	50.55	NM	NA	NA	3283.21	3283.21
MWD-15	3/18/2021	3335.35	51.85	NM	NA	NA	3283.50	3283.50
MWD-15	3/19/2021	3335.35	51.61	NM	NA	NA	3283.74	3283.74
MWD-15	9/20/2021	3335.35	51.56	NM	NA	NA	3283.79	3283.79
MWD-17	3/18/2021	3334.74	51.58	NM	NA	NA	3283.16	3283.16
MWD-17	9/20/2021	3334.74	51.42	NM	NA	NA	3283.32	3283.32
RW-1	3/15/2021	3335.19	52.81	51.12	1.69	0.74	3282.38	3283.63
RW-1	9/29/2021	3335.19	52.88	51.19	1.69	0.74	3282.31	3283.56
RW-2	3/15/2021	3337.84	56.51	55.04	1.47	0.74	3281.33	3282.42
RW-2	9/29/2021	3337.84	55.12	NM	NA	NA	3282.72	3282.72
RW-3	3/15/2021	3338.06	55.68	55.59	0.09	0.72	3282.38	3282.44
RW-3	9/29/2021	3338.06	55.49	NM	NA	NA	3282.57	3282.57
RW-4	3/15/2021	3334.14	55.58	53.80	1.78	0.72	3278.56	3279.84
RW-4	9/29/2021	3334.14	55.40	53.79	1.61	0.72	3278.74	3279.90
RW-5	3/15/2021	3334.20	55.28	54.67	0.61	0.72	3278.92	3279.36
RW-5	9/29/2021	3334.20	55.14	54.71	0.43	0.72	3279.06	3279.37
RW-6	3/17/2021	3332.37	49.55	NM	NA	NA	3282.82	3282.82
RW-6	9/20/2021	3332.37	49.48	NM	NA	NA	3282.89	3282.89
RW-7	3/19/2021	3331.23	50.81	NM	NA	NA	3280.42	3280.42
RW-7	9/20/2021	3331.23	50.75	NM	NA	NA	3280.48	3280.48
RW-8	3/18/2021	3333.39	52.37	NM	NA	NA	3281.02	3281.02
RW-8	9/20/2021	3333.39	52.30	NM	NA	NA	3281.09	3281.09
TMW-1	3/17/2021	3337.70	53.54	NM	NA	NA	3284.16	3284.16
TMW-1	9/29/2021	3337.70	53.43	NM	NA	NA	3284.27	3284.27
TMW-2	3/15/2021	3338.30	54.35	54.17	0.18	0.82	3283.95	3284.10
TMW-2	9/29/2021	3338.30	54.69	54.21	0.48	0.82	3283.61	3284.00
TMW-3	3/16/2021	3336.67	52.71	NM	NA	NA	3283.96	3283.96
TMW-3	9/29/2021	3336.67	52.61	NM	NA	NA	3284.06	3284.06
TMW-6	3/19/2021	3335.36	50.37	NM	NA	NA	3284.99	3284.99
TMW-6	9/29/2021	3335.36	51.25	NM	NA	NA	3284.11	3284.11
WW-2	3/16/2021	3331.46	49.22	NM	NA	NA	3282.24	3282.24

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Table 4
2021 Groundwater Elevations
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

Location ID	Date	Top of Casing (feet amsl)	Depth To Groundwater (feet btoc)	Depth to LNAPL (feet btoc)	LNAPL Thickness (feet)	LNAPL Specific Gravity	Uncorrected Groundwater Elevation (feet amsl)	Corrected Groundwater Elevation (feet amsl)[1]
WW-2	9/20/2021	3331.46	49.14	NM	NA	NA	3282.32	3282.32
WW-7	3/16/2021	3331.73	50.28	NM	NA	NA	3281.45	3281.45
WW-7	9/20/2021	3331.73	50.20	NM	NA	NA	3281.53	3281.53

Note:

1. Corrected groundwater elevations are corrected using an assumed LNAPL specific gravity of determined during LNAPL transmissivity testing. The formula used to correct groundwater elevation is as follows:

$$Corrected\ GW\ Elevation = TOC\ Elevation - (DTW - LNAPL\ Thickness * LNAPL\ Specific\ Gravity)$$

Acronyms and Abbreviations:

amsl = above mean sea level

btoc = below top of casing

DTW = depth to groundwater

GW = groundwater

ID = identification

LNAPL = light nonaqueous phase liquid

NA = not applicable

NM = not measured

TOC = top of casing

ARCADIS Design & Consultancy for natural and built assets

Table 5
Spring 2021 BTEX Analytical Data
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

Location ID	Date Sampled	Analyte	Benzene		Toluene		Ethylbenzene		Total Xylenes		DRO		GRO	
		Unit	mg/L											
		NMWQCC Standard	0.005		1		0.7		0.62		NA		NA	
MW-3	3/17/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.20	U	2.20	U
MW-4	3/18/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.26	U	**1.76**	**UB**
MW-8	3/17/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.25	U	2.25	U
MW-9	3/16/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.24	U	**2.49**	**UB**
MW-11	3/19/2021	REG	**2.62**	**D**	**0.00159**	**J**	**0.00415**		**0.0137**		2.18	U	**6.91**	**B**
MW-13	3/16/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.26	U	**1.69**	**B J**
MW-14	3/16/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.27	U	**1.76**	**B J**
MW-15	3/16/2021	REG	**0.00622**		**0.00303**		0.00200	U	**0.00439**		2.26	U	**1.83**	**B J**
MW-15	3/16/2021	FD	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.25	U	**1.46**	**B J**
MW-16	3/16/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.26	U	**1.80**	**B J**
MW-17	3/18/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.22	U	**1.70**	**B J**
MW-22	3/18/2021	REG	**0.151**	**J**	**0.00129**	**J**	0.00200	U	**0.00255**	**J**	2.27	U	**4.14**	**UB**
MW-25	3/19/2021	REG	**1.66**	**D**	**0.00156**	**J**	**0.0187**		**0.00866**		**2.09**	**J**	**5.05**	**B**
MW-25	3/19/2021	FD	**2.04**	**D**	**0.00160**	**J**	**0.0174**		**0.0148**		**1.34**	**J**	**4.51**	**B**
MW-26	3/19/2021	REG	**0.874**	**D**	**0.001000**	**J**	**0.0451**		**0.00474**		**9.74**		**4.07**	**UB**
MW-29	3/16/2021	REG	**0.0903**		0.00200	U	0.00200	U	0.00200	U	2.27	U	**4.59**	**UB**
MW-30	3/16/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.28	U	**2.55**	**UB**
MW-31	3/16/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.27	U	**1.74**	**B J**
MW-32	3/16/2021	REG	**0.344**		0.00200	U	0.00200	U	**0.00475**		2.24	U	**4.97**	**UB**
MW-34	3/16/2021	REG	**0.0204**	**J**	0.00200	U	0.00200	U	0.00200	U	**1.04**	**J**	**3.00**	**UB**
MW-34	3/16/2021	FD	**0.0295**	**J**	**0.00200**		0.00200	UJ	**0.00200**		**1.20**	**J**	**4.24**	**UB**
MW-35	3/17/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.27	U	2.27	U
MW-36	3/16/2021	REG	0.00200	U	**0.00241**		0.00200	U	**0.00165**	**J**	2.28	U	**1.43**	**B J**
MW-37	3/16/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.25	U	**1.69**	**B J**
MW-38	3/16/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.28	U	**1.55**	**B J**
MWD-1	3/18/2021	REG	0.00200	U	**0.00127**	**J**	0.00200	U	0.00200	U	2.26	U	**1.64**	**B J**
MWD-2	3/18/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.23	U	**1.74**	**UB**
MWD-3	3/18/2021	REG	**0.824**	**J**	**0.00127**	**J**	**0.000720**	**J**	**0.00578**	**J**	2.19	U	**3.80**	**UB**
MWD-4	3/17/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.27	U	2.27	U
MWD-5	3/16/2021	REG	**6.02**	**D**	0.00200	U	**0.00724**		**0.00601**		**2.07**	**J**	**12.80**	
MWD-6	3/16/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.21	U	**2.21**	**UB**
MWD-7	3/17/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.17	U	2.17	U
MWD-8	3/18/2021	REG	**0.000750**	**J**	**0.00330**		0.00200	U	**0.00389**		2.25	U	**1.80**	**B J**
MWD-11	3/17/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.24	U	2.24	U
MWD-12	3/17/2021	REG	**0.00160**	**J**	0.00200	U	**0.0301**		**0.00636**		**0.930**	**J**	2.23	U
MWD-13	3/17/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.22	U	2.22	U
MWD-14	3/19/2021	REG	**0.845**	**D**	**0.000820**	**J**	**0.00184**	**J**	**0.00646**		2.26	U	**4.70**	**UB**
MWD-17	3/18/2021	REG	**0.0120**		**0.000740**	**J**	**0.000970**	**J**	**0.00862**		2.27	U	**2.77**	**B**
RW-6	3/17/2021	REG	**0.0424**		**0.00122**	**J**	**0.001000**	**J**	**0.0143**		2.31	U	**2.36**	
RW-7	3/19/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.22	U	**1.82**	**UB**
RW-8	3/18/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.23	U	**2.08**	**UB**

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Table 5
Spring 2021 BTEX Analytical Data
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

Location ID	Date Sampled	Analyte	Benzene		Toluene		Ethylbenzene		Total Xylenes		DRO		GRO	
		Unit	mg/L											
		NMWQCC Standard	0.005		1		0.7		0.62		NA		NA	
TMW-1	3/17/2021	REG	**0.00291**		**0.000970**	**J**	**0.0117**		**0.00861**		2.24	U	2.24	U
TMW-1	3/17/2021	FD	**0.00292**		**0.000910**	**J**	**0.0104**		**0.00756**		2.26	U	2.26	U
TMW-6	3/19/2021	REG	**0.0367**		**0.000420**	**J**	**0.00446**		**0.00550**		**1.23**	**J**	**3.86**	**B**
WW-2	3/16/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.24	U	**2.04**	**UB**
WW-7	3/16/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00200	U	2.23	U	**2.10**	**UB**

Acronyms and Abbreviations:

bold = detected analytes
BTEX = benzene, toluene, ethylbenzene, and xylene
DRO = diesel-range organics
FD = field duplicate sample
GRO = gasoline-range organics
ID = identification
mg/L = milligrams per liter
NMWQCC = New Mexico Water Quality Control Commission
NA = Not applicable- no standard available
REG = regular field sample
shading = analytes exceeding the NMWQCC Standard

Qualifiers:

J = estimated value
U = nondetect
B = A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
UJ = The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
D = diluted sample

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Table 6
Fall 2021 BTEX Analytical Data
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

Location ID	Date Sampled	Analyte	Benzene		Toluene		Ethylbenzene		Total Xylenes		DRO		GRO	
		Unit	mg/L											
		NMWQCC Standard	0.005		1		0.7		0.62		NA		NA	
MW-11	9/21/2021	REG	**0.0189**		0.00200	U	0.00200	U	0.00400	U	4.57	U	**5.57**	**J**
MW-15	9/21/2021	REG	**0.000837**	**J**	0.00200	U	0.00200	U	0.00400	U	4.56	U	4.56	U
MW-15	9/21/2021	FD	0.00200	U	0.00200	U	0.00200	U	0.00400	U	4.44	U	4.44	U
MW-16	9/21/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00400	U	4.41	U	4.41	U
MW-17	9/21/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00400	U	4.52	U	4.52	U
MW-24	9/22/2021	REG	**11.9**	**D**	**0.00671**	**J**	**0.0541**	**J**	**0.0843**	**J**	**1.56**	**J**	**22.0**	**J**
MW-25	9/22/2021	REG	**1.60**	**D**	0.0200	U	**0.0579**	**J**	0.00400	U	**2.09**	**J**	**3.97**	**J**
MW-26	9/22/2021	REG	**0.766**		0.0200	U	0.0200	U	**0.0140**	**J**	**4.93**	**J**	**3.67**	**J**
MW-29	9/22/2021	REG	**0.0584**		0.0200	U	0.0200	U	0.0400	U	**1.14**	**J**	**3.90**	**J**
MW-30	9/22/2021	REG	**0.0400**	UJ	0.0400	UJ	**0.0400**	UJ	0.0800	UJ	4.40	UJ	4.40	UJ
MW-32	9/22/2021	REG	**0.638**		0.0400	U	0.0400	U	0.0800	U	4.41	U	4.41	U
MW-34	9/23/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00400	U	4.44	UJ	4.44	UJ
MW-34	9/23/2021	FD	0.00200	U	0.00200	U	0.00200	U	0.00400	U	4.48	U	4.48	U
MW-35	9/23/2021	REG	**0.00416**		**0.00611**		**0.000659**	**J**	**0.00415**		4.50	U	4.50	U
MW-38	9/23/2021	REG	**0.000632**	**J**	**0.00115**	**J**	0.00200	U	**0.000671**	**J**	4.42	U	4.42	U
MWD-3	9/22/2021	REG	**1.29**		0.0400	U	0.0400	U	0.0800	U	4.25	U	4.25	U
MWD-12	9/22/2021	REG	0.0400	U	0.0400	U	0.0952		0.0800	U	4.34	U	4.34	U
MWD-13	9/22/2021	REG	0.0200	U	0.0200	U	0.00657	U	0.0400	U	4.37	U	**0.869**	**J**
MWD-14	9/22/2021	REG	**0.701**		0.0400	U	**0.0365**	**J**	0.0800	U	4.53	U	4.53	U
MWD-15	9/22/2021	REG	**0.0138**	**J**	0.0400	U	0.0400	U	**0.0167**	**J**	4.46	U	4.46	U
RW-6	9/21/2021	REG	0.00200	U	0.00200	U	0.00200	U	0.00400	U	**1.38**	**J**	**1.83**	**J**

Acronyms and Abbreviations:

bold = detected analytes
BTEX = benzene, toluene, ethylbenzene, and xylenes
DRO = diesel-range organics
FD = field duplicate sample
GRO = gasoline-range organics
ID = identification
mg/L = milligrams per liter
NMWQCC = New Mexico Water Quality Control Commission
NA = Not applicable- no standard available
REG = regular field sample
shading = analytes exceeding the NMWQCC Standard

Qualifiers:

D = sample was diluted
J = The target analyte was positively identified below the quantitation limit and above the detection limit.
U = Analyte was not detected
UJ = The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

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Table 7
Spring 2021 Metals, Chloride, and Total Dissolved Solids Analytical Data
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

Location ID	Date	Analyte	Dissolved Arsenic		Dissolved Barium		Dissolved Total Chromium		Dissolved Hexavalent Chromium		TDS		Chloride	
		Unit	mg/L											
		NMWQCC Standard	0.01		2		0.05		0.05		1,000		250	
MW-3	3/17/2021	REG	0.0168		0.0500		0.000802	J	0.0100	U	717		101	
MW-4	3/18/2021	REG	0.00981		0.0608		0.00400	U	0.0100	U	4,160		1,250	J
MW-8	3/17/2021	REG	0.0338		0.0648		0.00400	U	0.0100	U	2,520		506	
MW-9	3/16/2021	REG	0.00631		11.6		0.00400	U	0.0100	U	1,430		241	
MW-11	3/19/2021	REG	0.0324		1.02		0.00400	U	0.0100	U	994		117	
MW-13	3/16/2021	REG	0.0158		0.0908		0.00400	U	0.0100	U	1,510		370	
MW-14	3/16/2021	REG	0.00760		0.0877		0.00400	U	0.0100	U	1,650		550	
MW-15	3/16/2021	REG	0.0115		0.0454		0.00400	U	0.0100	U	3,140		1,310	
MW-15	3/16/2021	FD	0.0113		0.0450		0.00400	U	0.0100	U	3,680		968	
MW-16	3/16/2021	REG	0.0130		0.0375		0.102		0.103		3,880		1,290	
MW-17	3/18/2021	REG	0.0138		0.224		0.00400	U	0.0100	U	2,260		811	
MW-22	3/18/2021	REG	0.0481		0.810		0.000688	J	0.0100	U	5,750		2,300	
MW-25	3/19/2021	REG	0.00308	J	1.55		0.00194	J	0.0100	U	4,470		1,330	
MW-25	3/19/2021	FD	0.00266	J	1.31		0.00172	J	0.0100	U	4,620		1,280	
MW-26	3/19/2021	REG	0.0559		5.09		0.00400	U	0.0100	U	1,360		158	X
MW-29	3/16/2021	REG	0.00288	J	8.40		0.00400	U	0.0100	U	1,360		352	
MW-30	3/16/2021	REG	0.00895		0.355		0.00400	U	0.0100	U	1,330		275	
MW-31	3/16/2021	REG	0.0411		0.414		0.00400	U	0.0100	U	1,160		482	
MW-32	3/16/2021	REG	0.0423		2.07		0.00400	U	0.0100	U	2,310		583	
MW-34	3/16/2021	REG	0.000866	J	5.00		0.00400	U	0.0100	U	1,900		282	J
MW-34	3/16/2021	FD	0.000884	J	4.96	D	0.00400	U	0.0100	U	2,150		298	
MW-35	3/17/2021	REG	0.00828		0.107		0.00400	U	0.0100	U	958		158	
MW-36	3/16/2021	REG	0.00856		0.115		0.00400	U	0.0100	U	1,370		439	X
MW-37	3/16/2021	REG	0.00840		0.465		0.00400	U	0.0100	U	1,060		357	
MW-38	3/16/2021	REG	0.00874		0.0736		0.00400	U	0.0100	U	2,040		585	
MWD-1	3/18/2021	REG	0.0431		0.0554		0.00330	J	0.0100	U	1,590		536	
MWD-2	3/18/2021	REG	0.0104		0.0437		0.00400	U	0.0100	U	2,600		711	J
MWD-3	3/18/2021	REG	0.0490		3.24	D	0.000579	J	0.0100	U	31,500		16,300	
MWD-4	3/17/2021	REG	0.00212	J	0.0742		0.00400	U	0.0100	U	1,020		44.3	
MWD-5	3/16/2021	REG	0.0154		8.10		0.00400	U	0.0100	U	2,140		502	
MWD-6	3/16/2021	REG	0.00623		0.838		0.00400	U	0.0100	U	1,100		160	
MWD-7	3/17/2021	REG	0.0153		0.0474		0.000562	J	0.0100	U	10,900		3,870	
MWD-8	3/18/2021	REG	0.0230		0.0435		0.00154	J	0.0100	U	683		363	
MWD-11	3/17/2021	REG	0.0214		0.0496		0.00145	J	0.0100	U	683		90.2	
MWD-12	3/17/2021	REG	0.0429		0.314		0.00400	U	0.0100	U	3,070		918	
MWD-13	3/17/2021	REG	0.0526		0.0877		0.00168	J	0.0100	U	5,450		1,120	
MWD-14	3/19/2021	REG	0.000648	J	0.982		0.00105	J	0.0100	U	3,450		430	
MWD-17	3/18/2021	REG	0.0447		0.422		0.000810	J	0.0100	U	11,900		3,350	
RW-6	3/17/2021	REG	0.00300	J	1.75		0.00400	U	0.0100	U	2,570		929	
RW-7	3/19/2021	REG	0.00892		0.104	D	0.000823	J	0.0100	U	8,590		1,620	
RW-8	3/18/2021	REG	0.0319		0.126		0.00400	U	0.0100	U	2,460		977	J
TMW-1	3/17/2021	REG	0.0228		1.22		0.00400	U	0.0100	U	1,370		533	

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Table 7
Spring 2021 Metals, Chloride, and Total Dissolved Solids Analytical Data
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

Location ID	Date	Analyte	Dissolved Arsenic		Dissolved Barium		Dissolved Total Chromium		Dissolved Hexavalent Chromium		TDS		Chloride	
		Unit	mg/L											
		NMWQCC Standard	0.01		2		0.05		0.05		1,000		250	
TMW-1	3/17/2021	FD	**0.0234**		**1.24**		0.00400	U	0.0100	U	**1,780**		**536**	
TMW-6	3/19/2021	REG	**0.0741**		**0.744**		**0.000700**	**J**	0.0100	U	**1,340**		**163**	
WW-2	3/16/2021	REG	**0.000734**	**J**	**2.05**		0.00400	U	0.0100	U	**3,340**		**2,460**	
WW-7	3/16/2021	REG	**0.000637**	**J**	**0.489**		0.00400	U	0.0100	U	**410**		**257**	

Acronyms and Abbreviations:

bold = detected analytes
FD = field duplicate sample
ID = identification
mg/L = milligrams per liter
NMWQCC = New Mexico Water Quality Control Commission
REG = regular field sample
TDS = total dissolved solids
shading = analytes exceeding the NMWQCC Standard

Qualifiers:

J = estimated value
U = nondetect
D =Concentration is based on a diluted sample analysis.

X = QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration.

ARCADIS

Table 8
Fall 2021 Metals, Chloride, and Total Dissolved Solids Analytical Data
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

Location ID	Date	Analyte	Dissolved Arsenic		Dissolved Barium		Dissolved Total Chromium		Dissolved Hexavalent Chromium		TDS		Chloride	
		Unit	mg/L											
		NMWQCC Standard	0.01		2		0.05		0.05		1,000		250	
MW-11	9/21/2021	REG	**0.0326**		**1.00**		0.00400	U	0.0100	U	**1,010**		**91.8**	
MW-15	9/21/2021	REG	**0.0113**		**0.0419**		**0.000686**	J	0.0100	U	**4,110**		**1,440**	
MW-15	9/21/2021	FD	**0.0120**		**0.0443**		0.00400	U	0.0100	U	**4,220**		**1,510**	
MW-16	9/21/2021	REG	**0.0135**		**0.0371**		**0.0909**		**0.0931**		**4,180**		**1,780**	
MW-17	9/21/2021	REG	**0.0105**		**0.180**		0.00400	U	0.0100	U	**2,400**		**1,050**	
MW-24	9/22/2021	REG	**0.0281**		**2.55**		**0.000670**	J	**0.00595**	J	**1,520**		**172**	
MW-25	9/22/2021	REG	**0.0148**		**1.44**		**0.00114**	J	0.0100	U	**6,350**		**2,160**	
MW-26	9/22/2021	REG	**0.0520**		**4.65**		0.00400	U	0.0100	U	**1,510**		**160**	
MW-29	9/22/2021	REG	**0.00284**	J	**7.72**		0.00400	U	0.0100	U	**1,370**		**317**	
MW-30	9/22/2021	REG	**0.00923**		**0.308**		0.00400	U	0.0100	U	**1,310**		**242**	
MW-32	9/22/2021	REG	**0.0393**		**2.07**		0.00400	U	**0.00322**	J	**3,240**		**613**	
MW-34	9/23/2021	REG	**0.000909**	J	**4.85**		0.00400	U	0.0500	U	**852**	J	**25.7**	
MW-34	9/23/2021	FD	**0.000958**	J	**4.72**		0.00400	U	0.0100	U	**1,710**	J	**25.6**	
MW-35	9/23/2021	REG	**0.0110**		**0.104**		0.00400	U	0.0100	U	**943**		**133**	
MW-38	9/23/2021	REG	**0.00852**		**0.0732**		0.00400	U	0.0100	U	**1,880**		**52.7**	
MWD-3	9/22/2021	REG	**0.0985**		**5.79**		**0.000533**	J	0.0100	U	**34,300**		**19,300**	
MWD-12	9/22/2021	REG	**0.0440**		**0.374**		0.00400	U	0.0100	U	**4,260**		**1,570**	
MWD-13	9/22/2021	REG	**0.0693**		**0.112**		**0.00216**	J	0.0100	U	**5,680**		**2,000**	
MWD-14	9/22/2021	REG	**0.000558**	J	**0.807**		**0.000690**	J	0.0100	U	**2,670**		**586**	
MWD-15	9/22/2021	REG	**0.00583**		**2.51**		0.00400	U	0.0500	U	**3,230**		**1,250**	
RW-6	9/21/2021	REG	**0.00358**	J	**1.58**		0.00400	U	0.0100	U	**2,450**		**872**	

Acronyms and Abbreviations:

bold = detected analytes

FD = field duplicate sample

D = sample was diluted

ID = identification

mg/L = milligrams per liter

NMWQCC = New Mexico Water Quality Control Commission

REG = regular field sample

TDS = total dissolved solids

** Hexavalent chromium concentration at this well is believed to be erroneous and this data has not been used for analysis

shading = analytes exceeding the NMWQCC Standard

X = MS/MSD recoveries found to be outside of lab control limits

Qualifiers:

J = The target analyte was positively identified below the quantitation limit and above the detection limit.

U = Analyte was not detected.

Table 9
LNAPL Transmissivity Test
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

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Well ID	Test Date	Time Cut (minutes)	Initial LNAPL Thickness (feet)	Test Duration (minutes)	Final LNAPL Thickness (feet)	Percent Recovery	LNAPL Transmissivity (ft^2/day)								
							Bouwer and Rice	Cooper and Jacob/Jacob and Lohman	Cooper, Bredehoeft, and Papadopoulos	Geometric Mean	*2020 Geometric Mean*	*2019 Geometric Mean*	*2018 Geometric Mean*	*2017 Geometric Mean*	*2016 Geometric Mean*
MW-1	---[a]	---	---	---	---	---	---	---	---	---	---	0.7	0.6 **1.8**	**1.8**	**2.9**
MW-2	9/28/2021	19	1.45	1,151	1.49	103%	**3.9**	**5.6**	**5.3**	**4.9**	---	**1.2**	**5.4** **3.4**	**1.6**	---
MW-5	9/24/2021	29	1.93	379	0.88	46%	0.2	0.2	0.1	0.2	---	---	0.3 0.2	0.2	0.3
MW-10	---[a]	---	---	---	---	---	---	---	---	---	---	0.03	---	---	---
MW-12	9/24/2021	12	1.04	107	0.72	69%	0.3	**1.8**	**1.8**	**1.0**	---	---	0.04 0.4	---	---
MW-19	9/23/2021	19	1.57	1,343	0.42	27%	0.2	0.2	0.3	0.2	---	0.2	0.01 **3.5**	0.01	---
MW-20	9/24/2021	24	2.54	109	1.23	48%	0.6	**1.0**	0.4	0.6	---	**2.5**	**2.9** **1.7**	**2.9**	**2.7**
MW-21	9/24/2021	38	2.89	288	0.78	27%	0.1	0.1	0.2	0.1	---	---	0.5 0.4	0.005	---
MW-27	9/24/2021	12	1.34	255	1.31	98%	**1.0**	**1.0**	**0.9**	**0.9**	0.4	**2.0**	0.6	**1.0**	---
MW-28	9/24/2021	32	4.68	441	1.58	34%	0.3	0.3	0.2	0.3	**2.9**	**1.6**	**6.2** **3.3**	**4.5**	**5.9**
RW-1	9/28/2021	39	1.69	1,403	1.66	98%	0.6	**1.7**	0.8	**0.9**	---	**1.2**	**1.7** **2.0**	**2.2**	**1.2**
RW-2	---[a]	---	---	---	---	---	---	---	---	---	**6.3**	**4.8**	**8.1** **8.6**	**5.3**	**4.7**
RW-4	9/23/2021	139	1.61	1,066	1.56	97%	---[b]	**1.8**	---[b]	**1.8**	---	**3.9**	**3.1** **1.6**	**3.1**	**2.4**

Notes:

[a]LNAPL baildown testing was not conducted in accordance with the work plan

Acronyms and Abbreviations:

bold = values greater than the Interstate Technology & Regulatory Commission (ITRC [2009]) recommended threshold for practical recoverability of LNAPL (0.8 ft ^{2}/day)

ft^2/day = square foot (feet) per day

LNAPL = light nonaqueous phase liquid

--- = data not available

% = percent

FIGURES

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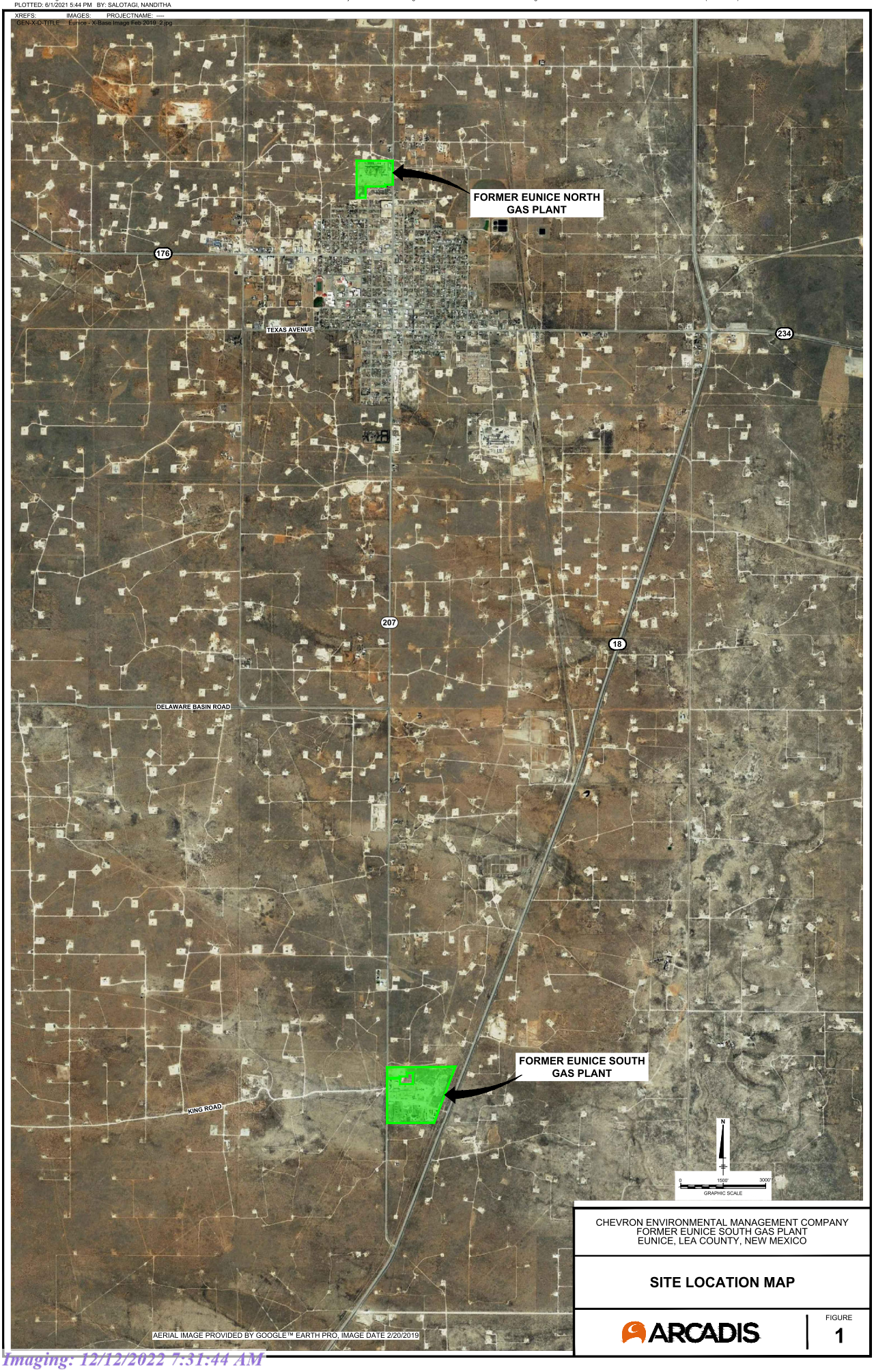

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER EUNICE SOUTH GAS PLANT
EUNICE, LEA COUNTY, NEW MEXICO

SITE LOCATION MAP

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FIGURE
1

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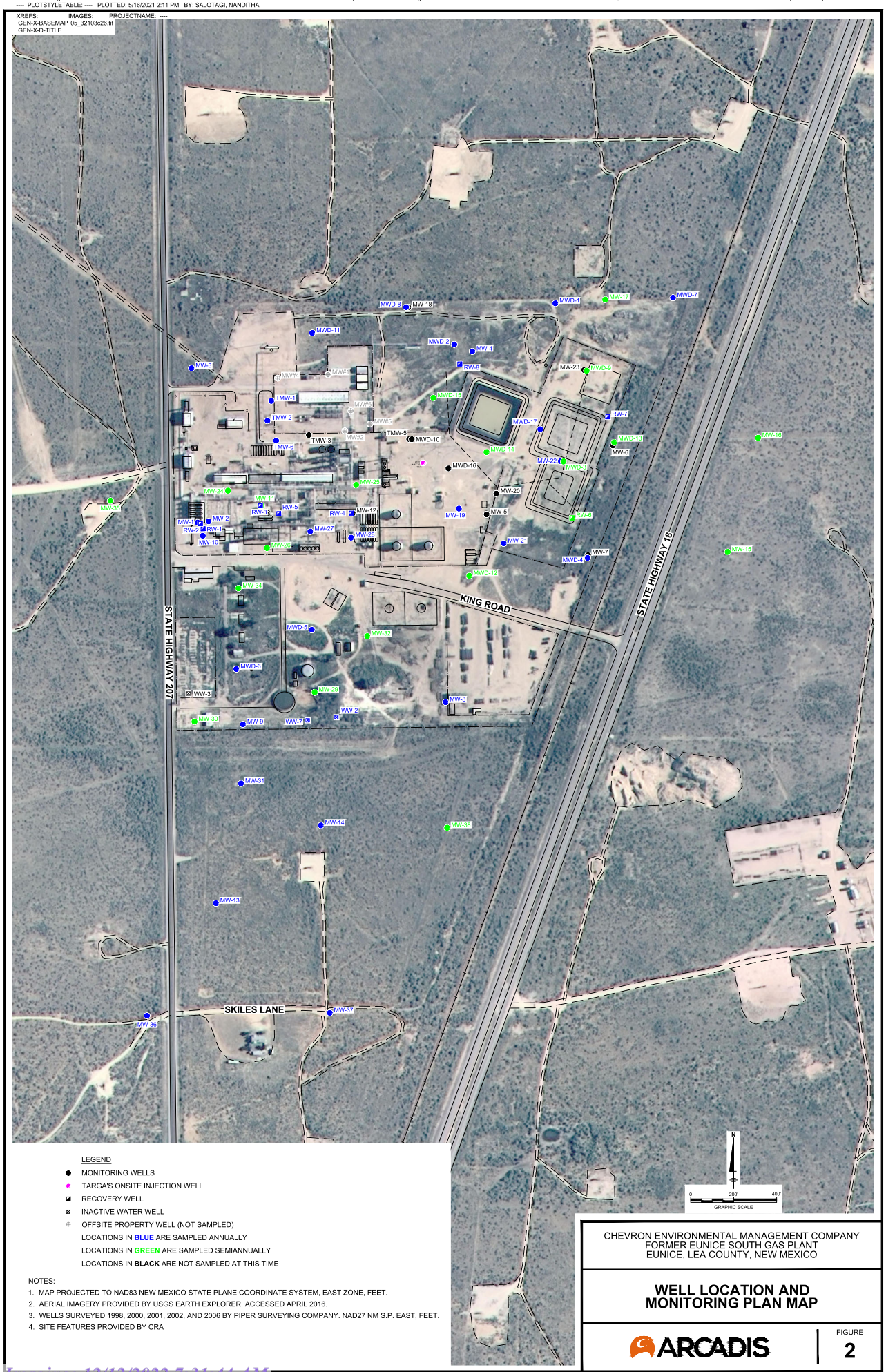

LEGEND

- ● MONITORING WELLS
- ● TARGA'S ONSITE INJECTION WELL
- RECOVERY WELL
- INACTIVE WATER WELL
- OFFSITE PROPERTY WELL (NOT SAMPLED)

LOCATIONS IN **BLUE** ARE SAMPLED ANNUALLY
LOCATIONS IN **GREEN** ARE SAMPLED SEMIANNUALLY
LOCATIONS IN **BLACK** ARE NOT SAMPLED AT THIS TIME

NOTES:

1. MAP PROJECTED TO NAD83 NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, FEET.
2. AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER, ACCESSED APRIL 2016.
3. WELLS SURVEYED 1998, 2000, 2001, 2002, AND 2006 BY PIPER SURVEYING COMPANY. NAD27 NM S.P. EAST, FEET.
4. SITE FEATURES PROVIDED BY CRA

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER EUNICE SOUTH GAS PLANT
EUNICE, LEA COUNTY, NEW MEXICO

WELL LOCATION AND MONITORING PLAN MAP

ARCADIS

FIGURE
2

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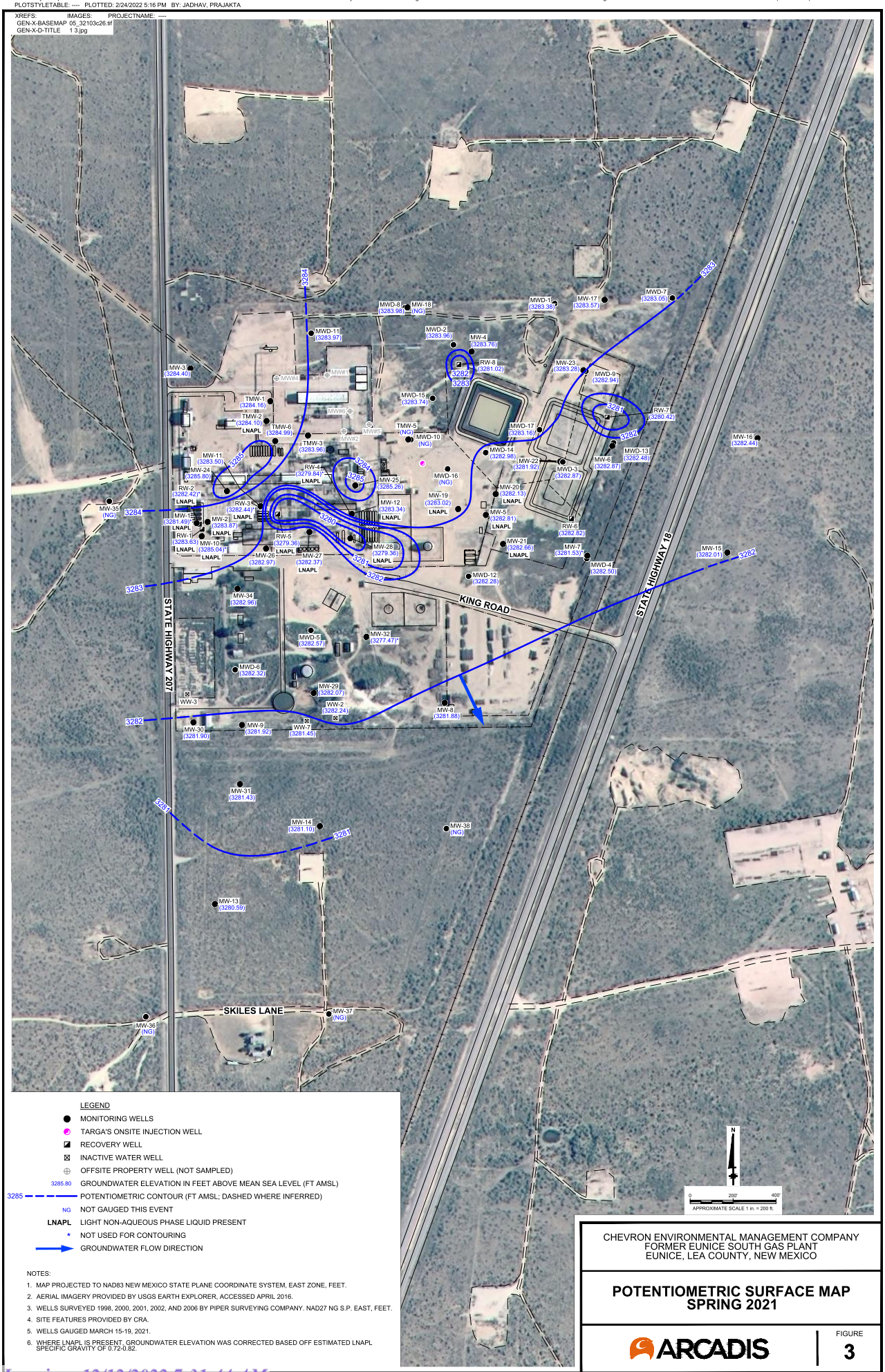

LEGEND

- MONITORING WELLS
- TARGA'S ONSITE INJECTION WELL
- RECOVERY WELL
- INACTIVE WATER WELL
- OFFSITE PROPERTY WELL (NOT SAMPLED)
- 3285.80 GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (FT AMSL)
- 3285 POTENTIOMETRIC CONTOUR (FT AMSL; DASHED WHERE INFERRED)
- NG NOT GAUGED THIS EVENT
- LNAPL LIGHT NON-AQUEOUS PHASE LIQUID PRESENT
- * NOT USED FOR CONTOURING
- GROUNDWATER FLOW DIRECTION

NOTES:

1. MAP PROJECTED TO NAD83 NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, FEET.
2. AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER, ACCESSED APRIL 2016.
3. WELLS SURVEYED 1998, 2000, 2001, 2002, AND 2006 BY PIPER SURVEYING COMPANY. NAD27 NG S.P. EAST, FEET.
4. SITE FEATURES PROVIDED BY CRA.
5. WELLS GAUGED MARCH 15-19, 2021.
6. WHERE LNAPL IS PRESENT, GROUNDWATER ELEVATION WAS CORRECTED BASED OFF ESTIMATED LNAPL SPECIFIC GRAVITY OF 0.72-0.82.

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER EUNICE SOUTH GAS PLANT
EUNICE, LEA COUNTY, NEW MEXICO

POTENTIOMETRIC SURFACE MAP
SPRING 2021

ARCADIS

FIGURE
3

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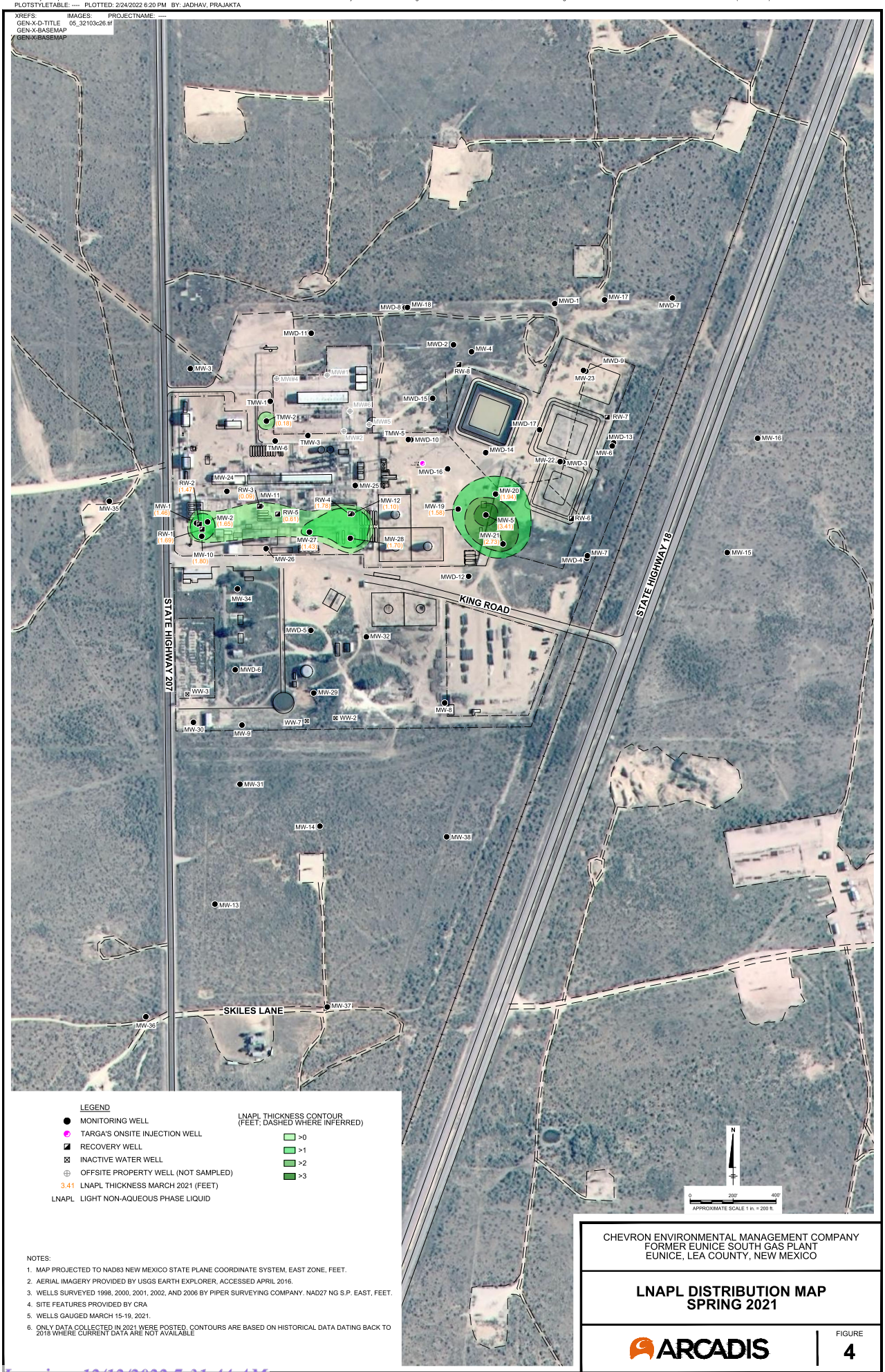

LEGEND

- MONITORING WELL
- TARGA'S ONSITE INJECTION WELL
- RECOVERY WELL
- INACTIVE WATER WELL
- OFFSITE PROPERTY WELL (NOT SAMPLED)
- 3.41 LNAPL THICKNESS MARCH 2021 (FEET)
- LNAPL LIGHT NON-AQUEOUS PHASE LIQUID

LNAPL THICKNESS CONTOUR (FEET; DASHED WHERE INFERRED)

- >0
- >1
- >2
- >3

NOTES:

1. MAP PROJECTED TO NAD83 NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, FEET.
2. AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER, ACCESSED APRIL 2016.
3. WELLS SURVEYED 1998, 2000, 2001, 2002, AND 2006 BY PIPER SURVEYING COMPANY. NAD27 NG S.P. EAST, FEET.
4. SITE FEATURES PROVIDED BY CRA
5. WELLS GAUGED MARCH 15-19, 2021.
6. ONLY DATA COLLECTED IN 2021 WERE POSTED. CONTOURS ARE BASED ON HISTORICAL DATA DATING BACK TO 2018 WHERE CURRENT DATA ARE NOT AVAILABLE

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER EUNICE SOUTH GAS PLANT
EUNICE, LEA COUNTY, NEW MEXICO

LNAPL DISTRIBUTION MAP
SPRING 2021

ARCADIS

FIGURE
4

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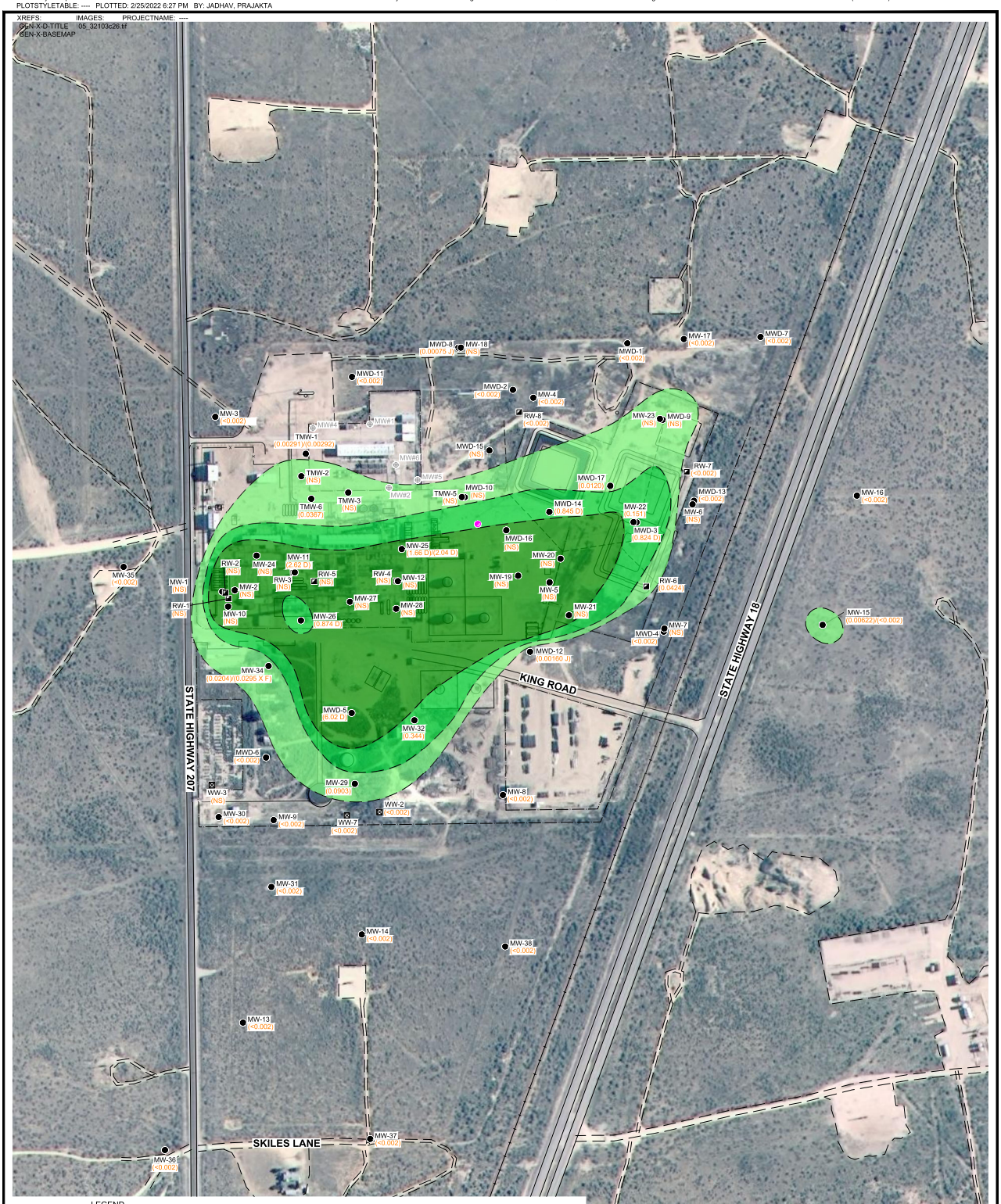

LEGEND

- MONITORING WELL
- TARGA'S ONSITE INJECTION WELL
- RECOVERY WELL
- INACTIVE WATER WELL
- OFFSITE PROPERTY WELL (NOT SAMPLED)
- (1.66 D)/(2.04 D) BENZENE CONCENTRATION/DUPLICATE RESULT IN MILLIGRAMS PER LITER (mg/L)
- (NS) NOT SAMPLED
- <0.002 NOT DETECTED ABOVE METHOD QUANTITATION LIMIT (MQL)
- J THE TARGET ANALYTE WAS POSITIVELY IDENTIFIED BELOW THE QUANTITATION LIMIT AND ABOVE THE DETECTION LIMIT
- D CONCENTRATION IS BASED ON A DILUTED SAMPLE ANALYSIS
- X QC DEFICIENCY WAS OBSERVED AND FLAGGED AS NOTED. MS/MSD RECOVERIES WERE FOUND TO BE OUTSIDE OF THE LABORATORY CONTROL LIMITS DUE TO POSSIBLE MATRIX /CHEMICAL INTERFERENCE, OR A CONCENTRATION OF TARGET ANALYTE HIGH ENOUGH TO AFFECT THE RECOVERY OF THE SPIKE CONCENTRATION
- F RPD EXCEEDED LAB CONTROL LIMITS

BENZENE ISOCONCENTRATION CONTOUR (mg/L; DASHED WHERE INFERRED)

- >0.005
- >0.1
- >1.0

NOTES:

1. MAP PROJECTED TO NAD83 NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, FEET.
2. AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER, ACCESSED APRIL 2016.
3. WELLS SURVEYED 1998, 2000, 2001, 2002, AND 2006 BY PIPER SURVEYING COMPANY. NAD27 NM S.P. EAST, FEET.
4. SITE FEATURES PROVIDED BY CRA
5. WELLS SAMPLED MARCH 16-19, 2021.
6. ONLY DATA COLLECTED IN 2021 WERE POSTED. CONTOURS ARE BASED ON HISTORICAL DATA DATING BACK TO 2018 WHERE CURRENT DATA ARE NOT AVAILABLE

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER EUNICE SOUTH GAS PLANT
EUNICE, LEA COUNTY, NEW MEXICO

BENZENE ISOCONCENTRATION MAP SPRING 2021

ARCADIS

FIGURE
5

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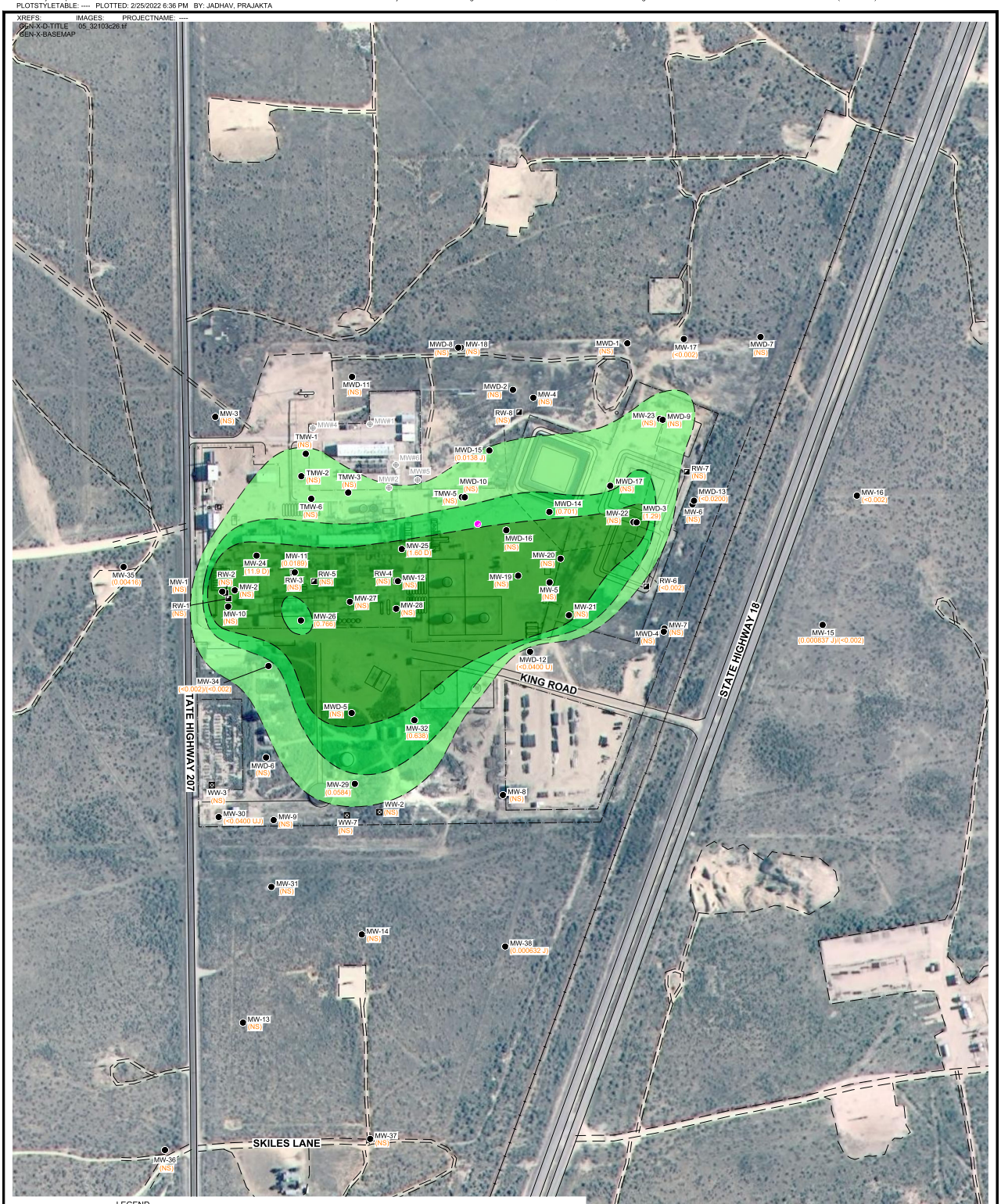

LEGEND

- MONITORING WELL
- TARGA'S ONSITE INJECTION WELL
- RECOVERY WELL
- INACTIVE WATER WELL
- OFFSITE PROPERTY WELL (NOT SAMPLED)

(0.000837 J)/(<0.002)	BENZENE CONCENTRATION/DUPLICATE RESULT IN MILLIGRAMS PER LITER (mg/L)
(NS)	NOT SAMPLED
J	THE TARGET ANALYTE WAS POSITIVELY IDENTIFIED BELOW THE QUANTITATION LIMIT AND ABOVE THE DETECTION LIMIT
D	CONCENTRATION IS BASED ON A DILUTED SAMPLE ANALYSIS
U	ANALYTE WAS NOT DETECTED
UJ	THE COMPOUND WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT. HOWEVER, THE REPORTED LIMIT IS APPROXIMATE AND MAY OR MAY NOT REPRESENT THE ACTUAL LIMIT OF QUANTITATION
<0.002	NOT DETECTED ABOVE METHOD QUANTITATION LIMIT (MQL)

BENZENE ISOCONCENTRATION CONTOUR (mg/L; DASHED WHERE INFERRED)

- >0.005
- >0.1
- >1.0

NOTES:

1. MAP PROJECTED TO NAD83 NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, FEET.
2. AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER, ACCESSED APRIL 2016.
3. WELLS SURVEYED 1998, 2000, 2001, 2002, AND 2006 BY PIPER SURVEYING COMPANY. NAD27 NM S.P. EAST, FEET.
4. SITE FEATURES PROVIDED BY CRA
5. WELLS SAMPLED SEPTEMBER 21-23, 2021.
6. ONLY DATA COLLECTED IN 2021 WERE POSTED. CONTOURS ARE BASED ON HISTORICAL DATA DATING BACK TO 2018 WHERE CURRENT DATA ARE NOT AVAILABLE

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER EUNICE SOUTH GAS PLANT
EUNICE, LEA COUNTY, NEW MEXICO

BENZENE ISOCONCENTRATION MAP
FALL 2021

ARCADIS

FIGURE
6

C:\Users\jadhavp8954\ACCDocs\Arcadis\AUS-CHEVRON-FORMER EUNICE SOUTH GAS PLANT-EUNICE New Mexico\Project Files\2022\01-In Progress\01-DWG\GWM-2021Q1-F09-CHLORIDE SPRING.dwg LAYOUT: 7 SAVED: 2/24/2022 7:25 PM ACADVER: 23.1S (LMS TECH) PAGESETUP: ----
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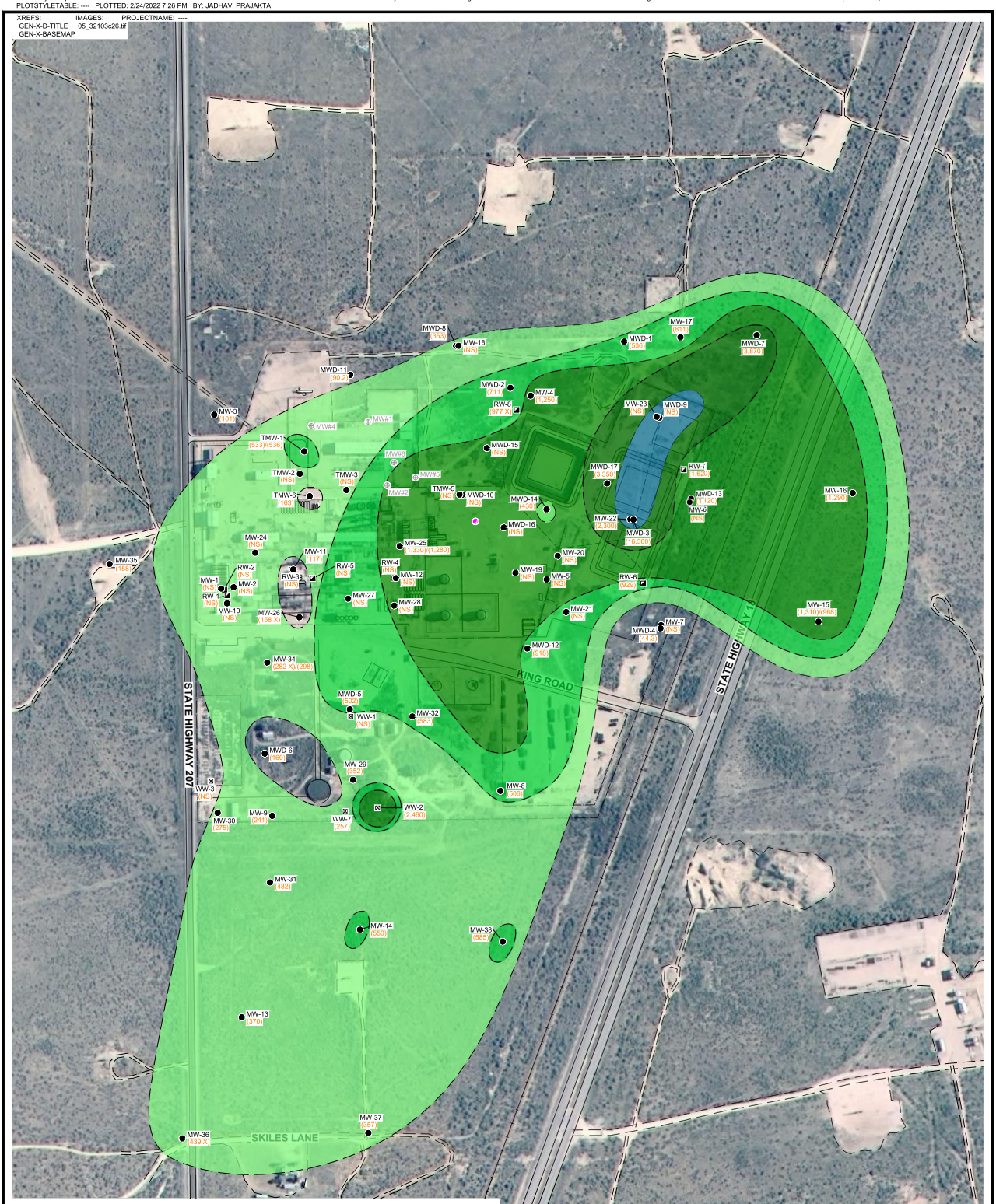

LEGEND

- MONITORING WELL
- TARGA'S ONSITE INJECTION WELL
- RECOVERY WELL
- INACTIVE WATER WELL
- OFFSITE PROPERTY WELL (NOT SAMPLED)
- (1,310)/(968) CHLORIDE CONCENTRATION/DUPLICATE RESULT IN MILLIGRAMS PER LITER (mg/L)
- NS NOT SAMPLED
- X QC DEFICIENCY WAS OBSERVED AND FLAGGED AS NOTED. MS/MSD RECOVERIES WERE FOUND TO BE OUTSIDE OF THE LABORATORY CONTROL LIMITS DUE TO POSSIBLE MATRIX /CHEMICAL INTERFERENCE, OR A CONCENTRATION OF TARGET ANALYTE HIGH ENOUGH TO AFFECT THE RECOVERY OF THE SPIKE CONCENTRATION

CHLORIDE ISOCONCENTRATION CONTOUR (mg/L; DASHED WHERE INFERRED)

- >250
- >500
- >1,000
- >3,000
- >10,000

NOTES:

1. MAP PROJECTED TO NAD83 NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, FEET.
2. AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER, ACCESSED APRIL 2016.
3. WELLS SURVEYED 1998, 2000, 2001, 2002, AND 2006 BY PIPER SURVEYING COMPANY. NAD27 NM S.P. EAST, FEET.
4. SITE FEATURES PROVIDED BY CRA.
5. WELLS SAMPLED MARCH 16-19, 2021
6. ONLY DATA COLLECTED IN 2021 WERE POSTED. CONTOURS ARE BASED ON HISTORICAL DATA DATING BACK TO 2018 WHERE CURRENT DATA ARE NOT AVAILABLE.

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER EUNICE SOUTH GAS PLANT
EUNICE, LEA COUNTY, NEW MEXICO

CHLORIDE ISOCONCENTRATION MAP SPRING 2021

ARCADIS

FIGURE 7

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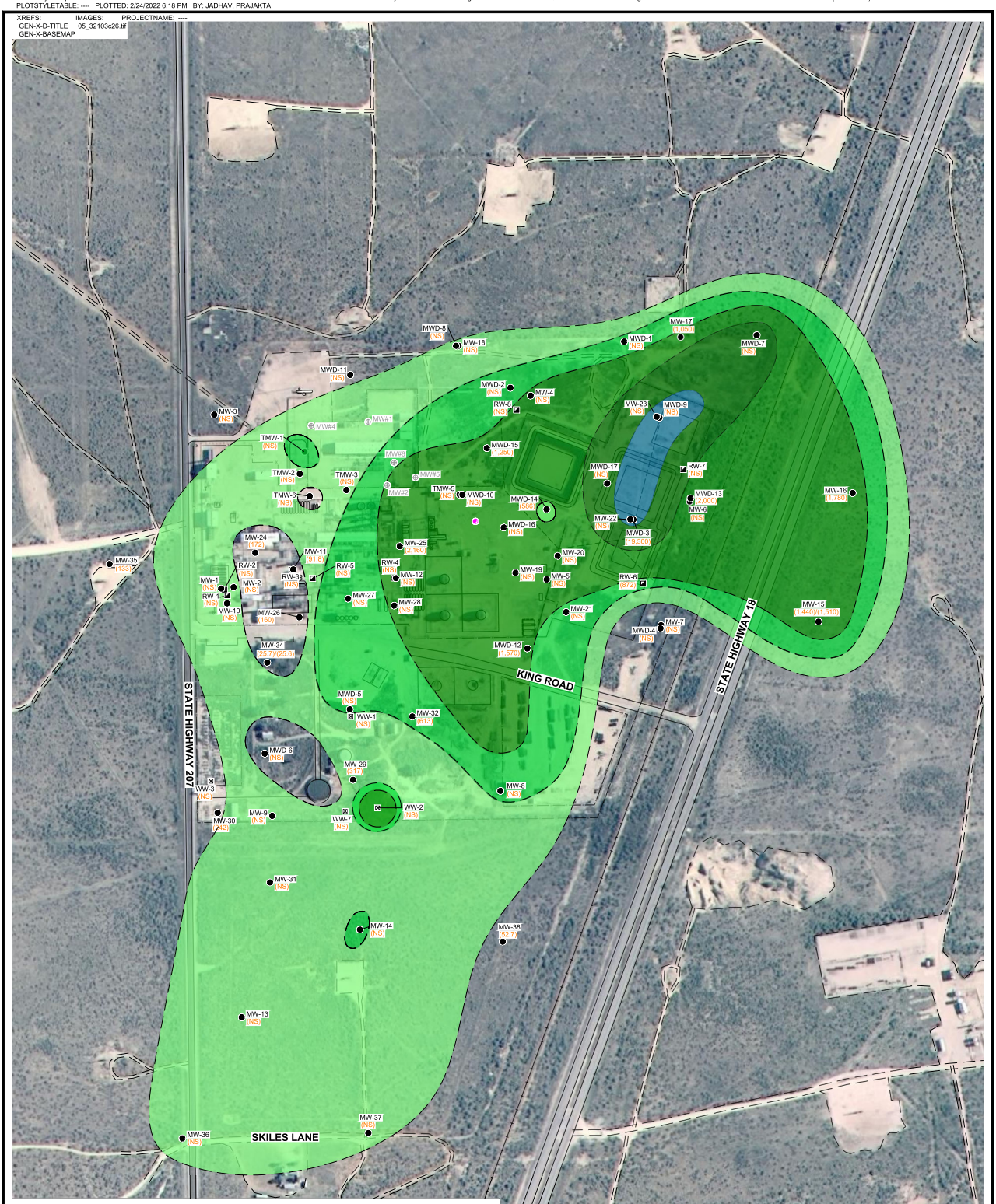


LEGEND

- MONITORING WELL
- TARGA'S ONSITE INJECTION WELL
- RECOVERY WELL
- INACTIVE WATER WELL
- OFFSITE PROPERTY WELL (NOT SAMPLED)
- (1,440)/(1,510) CHLORIDE CONCENTRATION/DUPLICATE RESULT IN MILLIGRAMS PER LITER (mg/L)
- NS NOT SAMPLED

CHLORIDE ISOCONCENTRATION CONTOUR (mg/L; DASHED WHERE INFERRED)

- >250
- >500
- >1,000
- >3,000
- >10,000

NOTES:

1. MAP PROJECTED TO NAD83 NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, FEET.
2. AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER, ACCESSED APRIL 2016.
3. WELLS SURVEYED 1998, 2000, 2001, 2002, AND 2006 BY PIPER SURVEYING COMPANY. NAD27 NM S.P. EAST, FEET.
4. SITE FEATURES PROVIDED BY CRA.
5. WELLS SAMPLED SEPTEMBER 21-23, 2021
6. ONLY DATA COLLECTED IN 2021 WERE POSTED. CONTOURS ARE BASED ON HISTORICAL DATA DATING BACK TO 2018 WHERE CURRENT DATA ARE NOT AVAILABLE.

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER EUNICE SOUTH GAS PLANT
EUNICE, LEA COUNTY, NEW MEXICO

CHLORIDE ISOCONCENTRATION MAP FALL 2021

ARCADIS

FIGURE 8

APPENDIX A

Site Background Information

SITE AND REGULATORY BACKGROUND INFORMATION

The Site was originally constructed in the 1940s by Skelly Oil Company and attained by Texaco Exploration and Production, Inc. (Texaco, a legacy Chevron company). It was operated as a turbo expander-type natural gas processing plant for the extraction of natural gas liquids until the 1980s when operations were halted. Various structures remain on site including two compressors, a compressor building, a cooling tower, former office buildings, aboveground storage tanks, sumps, and piping. On July 1, 1998, operations were transferred to Versado Gas Processors, LLC, a limited liability partnership originally between Chevron and Dynegy Midstream Services (Dynegy). Dynegy was subsequently purchased by Targa, and Chevron divested its interest to Targa in 2016. The plant is currently owned and operated solely by Targa. Current site infrastructure associated with plant activities includes one hydrogen sulfide gas injection well. Current remedial infrastructure includes a groundwater extraction system and three bioventing units.

In April 1980, the New Mexico Energy and Minerals Department, Oil Conservation Division (NMOCD) requested a discharge plan to cover all effluent discharges at the Site. The original discharge plan (GW-003; Attachment 1) was approved by the NMOCD in March 1981 for 5 years and has been continuously renewed every 5 years. The most recent application was approved by the NMOCD on January 11, 2012. CEMC submitted a renewal application to the NMOCD on November 11, 2015; however, approval has not yet been received.

In April 1996, the NMOCD requested a work plan from Texaco to address specific areas of concern. The response resulted in a modification of the existing discharge plan along with a comprehensive Site investigation work plan. After the comprehensive site investigation was completed in 1996 and 1997, several areas of concern were identified. Constituents of concern (COCs) were identified to include light nonaqueous phase liquid (LNAPL) on the west and east sides of the plant, dissolved-phase hydrocarbons (on site and off site), chloride (on site and off site), total dissolved solids (TDS) across the site, and dissolved-phase metals (on site and off site). Specifically, dissolved metals listed in the discharge plan include arsenic, barium, and chromium (total and hexavalent).

In 2004, the Site was approved by the New Mexico Office of the State Engineer (NMOSE) for the appropriation of 208 acre-feet (ac-ft) per year from five on-site recovery wells. Groundwater usage was granted on a per-well basis under the following NMOSE well permits:

- CP-009-S: MWD-9, 32 ac-ft
- CP-231-S: RW-7, 48 ac-ft
- CP-233-S: RW-6, 48 ac-ft
- CP-243-S: MWD-3, 32 ac-ft
- CP-244-S: RW-8, 48 ac-ft.

CEMC provides quarterly volume totals to the NMOSE for wells MWD-3 and MWD-9, which are the only wells currently operating.

SAMPLING METHODOLOGY

Prior to 2016, groundwater sampling at the Site was completed using low-flow methodology. In April 2016, CEMC submitted a request to change the method to no-purge sampling using a HydraSleeve™ (HS). This change was approved by the NMOCD via email on March 25, 2016.

Starting with the March 2016 monitoring event, HS samplers have been used at all wells sampled across the Site. A comparison of previous sampling method results (2014 and 2015) and HS results (2016 and 2017) was performed for the primary COCs at the Site (benzene and chloride) and is presented in Appendix G of the 2017 Annual Groundwater Monitoring Report (Arcadis 2018). The comparison showed results from HS sampling were comparable to low-flow results (within an acceptable range of +/- 30 percent) and the change in sample method would not negatively impact trend evaluation or system performance evaluation. One anomaly was observed as part of the sampling method comparison; HS results at well TMW-6 did not follow historical trends. Therefore, this well was vertically profiled at three discreet intervals (HS samples were taken from three different vertical locations to evaluate variability) during the spring 2018 event and the most conservative results for site COCs were used to determine the optimal HS sample interval going forward.

HISTORICAL HYDROCARBON AND CHLORIDE REMEDIATION

Historical project information indicates that four remediation systems have operated at the Site since December 2000 including:

- Soil Vapor Extraction (SVE) system - West Side (April 2004-October 2006).
- LNAPL recovery - West Side (2004-October 2006, 2011 interim, August 2012 to date).
- LNAPL recovery - East Side (May 2003-January 2011).
- Chloride and total dissolved solids (TDS) groundwater recovery system – East Side (2004- 2010, September 2012 through 2013).

The following sections below summarize the installations, operations and recovery of each of the four remediation systems.

Soil Extraction System (West Side)

A soil vapor extraction system (SVE) was installed on the west side of the Site in April 2004. The SVE consisted of a trailer-mounted thermal oxidizer which extracted hydrocarbon vapors from recovery wells RW-2, RW-3, MW-4, RW-5 and monitor well MW-28. In September 2005, seven additional wells (MW-1, MW-2, MW-10, MW-24, MW-25, MW-26 and MW-27) were connected to the SVE system. The operation of the SVE was suspended in mid-October 2006 due to Site demolition activities. Records indicate a total of 300,560 pounds of hydrocarbons were recovered and treated by the SVE system while in operation.

LNAPL Recovery (West Side)

LNAPL Recovery System 2004-2006

An LNAPL recovery system was installed in 2004 on the West Side of the Site. This LNAPL system consisted of five Xitech skimmer product recovery pumps installed in West Side wells RW-2, RW-3, RW-4, RW-5 and MW-28, solar panels, a nitrogen activation system, and storage tanks. The operation of the Xitech skimmer pumps was suspended in mid-October 2006 due to Site demolition activities. Records indicate a total of 5,327 gallons of hydrocarbons were recovered from the West Side wells while the system was in operation.

Manual Recovery 2011, 2012-15

In April 2011, GHD initiated manual recovery efforts near the former West Side jet skid area as an interim measure. Weekly LNAPL abatement activities were performed in five accessible wells (MW- 1, MW-2, MW-10, RW-1 and RW-2) from April 13th through September 27th, 2011. Manual recovery remediation efforts ceased temporarily in September 2011 due to installation on Site of Targa's gas injection well. A total of 324 gallons of LNAPL and 23 gallons of water were manually recovered from the West Side wells during the six month period in 2011.

Biweekly LNAPL abatement activities were performed in seven accessible wells (West Side wells MW-1, MW-2, MW-10, RW-1 and RW-2; East Side wells MW-5 and MW-20,) from August 2012 through October 2013. Manual bailing was temporarily suspended due to LNAPL storage tank replacement by Targa in late October 2013, and was resumed in December 2013. In order to observe the effectiveness of LNAPL recovery from additional West Side LNAPL wells, manual LNAPL recovery was initiated at eight additional wells on October 27, 2014 (MW-12, MW-19, MW- 27, MW-28, TMW-2, RW-3, RW-4, RW-5). Manual bailing of wells was suspended in August 2015 as mobile dual phase extraction (MDPE) methods were initiated. A total of 135 gallons of LNAPL were recovered using manual bailing methods from the West Side wells during 2015.

A pilot test was performed in April 2015 of MDPE recovery methods of LNAPL, associated vapors and hydrocarbon and chloride impacted groundwater at West Side wells RW-1, MW-27 and MW-28. Based on evaluation of the results of this pilot test additional MDPE events were performed in August, October and December 2015. During the four 2015 MDPE events at these three wells an approximate total of 1,185 gallons of LNAPL and associated vapors (liquid equivalent) was recovered, and a total of 22,874 gallons of hydrocarbon and chloride impacted groundwater was also recovered for off-site disposal. Continuation of LNAPL recovery using MDPE methods at these wells in 2016 is currently under consideration.

Records indicate a total of 7,554 gallons of LNAPL and 22,898 gallons of affected groundwater have been recovered using skimmer pump, manual bailing and MDPE methods from the West Side LNAPL wells since 2004.

LNAPL Recovery (East Side)

An LNAPL recovery system was installed in May 2003 on the East Side of the Site. This LNAPL system consisted of Ferret Separation Pumps in monitor wells MW-5 and MW-20. The operation of the Ferret pumps was suspended after December 2008. Records indicate a total of 5,054 gallons of LNAPL and 57,603 gallons of water were recovered while the Ferret pumps were operating.

In April 2009, LNAPL recovery efforts on the East Side of the Site were re-evaluated and product recovery continued using a Xitech product recovery pump in MW-20 and hand-bailing LNAPL from MW-5 in an effort to increase LNAPL recovery and decrease water production. These LNAPL recovery methods were continued through January 2011 when efforts were suspended due to Targa's onsite construction activities. A total of 79 gallons of LNAPL and 2 gallons of water were recovered in January 2011. Suspension continued through 2011 into 2012 due to Targa's installation of an acid gas injection well. The remainder of 2012 and 2013 were utilized to evaluate remediation efforts on Site. Manual bailing and recovery of LNAPL from the East Side wells was performed in 2014, recovering 141 gallons of LNAPL and 0.5 gallons of water. Manual bailing of wells was suspended in August 2015 as MDPE recovery methods were initiated. A total of 58.3 gallons of LNAPL were recovered using manual bailing methods from the East Side wells during 2015.

A pilot test was performed in April 2015 of MDPE recovery methods of LNAPL, associated vapors and hydrocarbon and chloride impacted groundwater at East Side well MW-5. Based on evaluation of the results of this pilot test additional MDPE events were performed in August, October and December 2015. During the four 2015 MDPE events at well MW-5 a total of 258.62 gallons of LNAPL and associated vapors (liquid equivalent) were recovered, and a total of 8,022 gallons of hydrocarbon and chloride impacted groundwater was recovered for off-site disposal. Continuation of LNAPL recovery using MDPE methods at these wells in 2016 is currently under consideration.

Records indicate a total of 5,587 gallons of LNAPL and 65,626 gallons of affected groundwater have been recovered using skimmer pump, manual bailing and MDPE methods from the East Side wells from 2003 through 2015.

Chloride and TDS Recovery System (East Side)

A chloride and TDS groundwater recovery system was installed in 2004 on the east side of the Site. This recovery system originally consisted of two recovery wells (MWD-3 and MWD-9). In 2006, the network of recovery wells was expanded to include wells RW-6, RW-7 and RW-8. A total of 1,044,619 barrels of groundwater were recovered from 2004 through 2010. The extracted groundwater was disposed of at an onsite deep injection well (injection well #5) operated by Targa. In February 2011, Chevron notified the NMOCD that they no longer had permission from Targa to use the injection well and the recovery system operations were temporarily suspended.

As part of the reevaluation and redesign of the current system and well components, limited groundwater recovery was performed at wells MWD-3 and MWD-9 from 2012 to October 2013. Installation of the redesigned groundwater recovery system began on October 28, 2013 but construction and prestart reviews were not completed until April 2014. Construction of the redesigned groundwater recovery system was completed on April 29, 2014 and groundwater recovery was resumed. A total of 76,125 barrels, or approximately 3,197,250 gallons, of chloride-impacted groundwater was recovered by this system from January through December 2015.

Groundwater pumping record reports for the five recovery wells (MWD-3, MWD-9, RW-6, RW-7 and RW-8) are submitted quarterly to the NMOSE in accordance with permit requirements.

ATTACHMENT 1

DISCHARGE PERMIT GW-003

1. GENERAL PROVISIONS:

A. PERMITTEE AND PERMITTED FACILITY: The Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department issues Discharge Permit GW-003 (Discharge Permit) to Chevron U.S.A., Inc. (Owner/Operator), located at 1400 Smith Street, Houston, Texas 77002 to abate ground water and vadose zone contamination at its Eunice South Gas Plant (Facility) located in the NW/4 of the SW/4 of Section 27, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico. The facility is located approximately 4.5 miles south of Eunice, New Mexico between State Highway 207 (Eunice-Hobbs Highway) and State Highway 18.

Versado L.L.P. (Versado) is a limited partnership between Chevron and Targa Midstream Services (Targa). Versado is the current landowner of record for the land parcel where the Eunice South Gas Plant is located. The Facility is inactive; however, Targa on behalf of Versado presently operates a compressor station and operates a UIC Class II injection well.

When its ground water recovery system is operational, Chevron discharges approximately 180,000 barrels (7,560,000 gallons) per year of contaminated ground water. Ground water that may be affected by a spill, leak, or accidental discharge occurs at a depth of approximately 49 - 54 feet below ground surface, with a total dissolved solids concentration of approximately 1,000 - 1,300 mg/L.

B. SCOPE OF PERMIT: OCD has been granted authority to administer the Water Quality Act (Chapter 74, Article 6 NMSA 1978) as it applies to gas processing plants by statute and by delegation from the Water Quality Control Commission pursuant to Section 74-6-4(E) NMSA 1978.

The Water Quality Act and the rules issued under that Act protect ground water and surface water of the State of New Mexico by providing that, unless otherwise allowed by rule, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless such discharge is pursuant to an approved discharge plan. See 20.6.2.3104 NMAC and 20.6.2.3106 NMAC.

This Discharge Permit does not authorize any treatment of, or on-site disposal of, any materials, product, by-product, or oil field waste, including, but not limited to, the on-site disposal of lube oil, glycol, antifreeze, filters, elemental sulfur, washdown water, contaminated soil, and cooling tower blowdown water.

This Discharge Permit does not convey any property rights of any sort nor any exclusive privilege, and does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of state, federal, or local laws, rules or regulations.

The Owner/Operator shall operate in accordance with the Discharge Permit conditions to comply with the Water Quality Act and the rules issued pursuant to that Act, so that neither a hazard to public health nor undue risk to property will result (see 20.6.2.3109C NMAC); so that no discharge will cause or may cause any stream standard to be violated (see 20.6.2.3109H(2) NMAC); so that no discharge of any water contaminant will result in a hazard to public health, (see 20.6.2.3109H(3) NMAC); and so that the numerical standards specified of 20.6.2.3103 NMAC are not exceeded.

The Owner/Operator shall not allow or cause water pollution, discharge, or release of any water contaminant that exceeds the Water Quality Control Commission (WQCC) standards specified at 20.6.2.3101 NMAC and 20.6.2.3103 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams).

C. DISCHARGE PERMIT CONDITIONS: By signing this Discharge Permit, the Owner/Operator agrees to the specific provisions set out in this document, and the commitments made in the approved Discharge Plan Application and the attachments to that application, which are incorporated into the Discharge Permit by reference.

If this Discharge Permit is a permit renewal, it replaces the permit being renewed. Replacement of a prior permit does not relieve the Owner/Operator of its responsibility to comply with the terms of that prior permit while that permit was in effect.

D. DEFINITIONS: Terms not specifically defined in this Discharge Permit shall have the same meanings as those in the Water Quality Act or the rules adopted pursuant to that Act, as the context requires.

E. FILING FEES AND PERMIT FEES: Pursuant to 20.6.2.3114 NMAC, every facility that submits a discharge permit application for initial approval or renewal shall pay the permit fees specified in Table 1 and the filing fee specified in Table 2 of 20.6.2.3114 NMAC. OCD has already received the required $100.00 filing fee for this application. The flat fee for "Abatement of Ground Water and Vadose Zone Contamination at Oil and Gas Sites" is $2,600.00. The Owner/Operator shall submit this amount along with the signed Discharge Permit. Checks should be payable to the **"New Mexico Water Quality Management Fund,"** not the Oil Conservation Division.

F. EFFECTIVE DATE, EXPIRATION, RENEWAL CONDITIONS, AND PENALTIES FOR OPERATING WITHOUT A DISCHARGE PERMIT: This Discharge Permit is effective when the Division's Environmental Bureau receives the signed Discharge Permit from the Owner/Operator and the $2,600.00 fee. This Discharge Permit will expire on March 16, 2016. The Owner/Operator shall submit an application for renewal no later than 120 calendar days before that expiration date, pursuant to 20.6.2.3106F NMAC. If an Owner/Operator submits a renewal application at least 120 calendar days before the Discharge Permit expires and is in compliance with the approved Discharge Permit, then the existing Discharge Permit will not expire until OCD has approved or disapproved the renewal application. Operating with an expired Discharge Permit may subject the Owner/Operator to

civil and/or criminal penalties. See Section 74-6-10.1 NMSA 1978 and Section 74-6-10.2 NMSA 1978.

G. MODIFICATIONS: The Owner/Operator shall notify the Division's Environmental Bureau of any facility expansion, production increase, or process modification that would result in any significant modification in the discharge of water contaminants. See 20.6.2.3107C NMAC. The Division's Environmental Bureau may require the Owner/Operator to submit a permit modification pursuant to 20.6.2.3109E NMAC and may modify or terminate a permit pursuant to Section 74-6-5(M) through (N) NMSA 1978.

H. TRANSFER OF DISCHARGE PERMIT: Prior to any transfer of ownership, control, or possession (whether by lease, conveyance or otherwise) of the Facility, the transferor shall notify the transferee in writing of the existence of the Discharge Permit, and shall deliver or send by certified mail to the Division's Environmental Bureau a copy of such written notification, together with a certification or other proof that such notification has been received by the transferee pursuant to 20.6.2.3111 NMAC. Upon receipt of such notification, the transferee shall inquire into all of the provisions and requirements contained in the Discharge Permit, and the transferee shall be charged with notice of all such provisions and requirements as they appear of record in the Division's file or files concerning the Discharge Permit. Upon assuming either ownership or possession of the Facility the transferee shall have the same rights and responsibilities under the Discharge Permit as were applicable to the transferor. See 20.6.2.3111 NMAC.

Transfer of the ownership, control, or possession of the Facility does not relieve the transferor of responsibility or liability for any act or omission which occurred while the transferor owned, controlled, or was in possession of the Facility. See 20.6.2.3111E NMAC.

I. CLOSURE PLAN AND FINANCIAL ASSURANCE: The Owner/Operator shall notify the Division's Environmental Bureau in writing when any operations of its Facility are to be discontinued for a period in excess of six months. Upon review of the Owner/Operator's notice, the Division's Environmental Bureau will determine whether to modify this permit pursuant to 20.6.2.3107 NMAC and 20.6.2.3109E NMAC or to require the Owner/Operator to submit a closure plan and/or post-closure plan, including financial assurance.

J. COMPLIANCE AND ENFORCEMENT: If the Owner/Operator violates or is violating a condition of this Discharge Permit, the Division's Environmental Bureau may issue a compliance order requiring compliance immediately or within a specified time period, suspending or terminating this Discharge Permit, and/or assessing a civil penalty. See Section 74-6-10 NMSA 1978. The Division's Environmental Bureau may also commence a civil action in district court for appropriate relief, including injunctive relief. See Section 74-6-10(A)(2) NMSA 1978 and Section 74-6-11 NMSA 1978. The Owner/Operator may be subject to criminal penalties for discharging a water contaminant without a discharge permit or in violation of a condition of a discharge permit; making any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or required to be maintained under the Water Quality Act; falsifying, tampering with

or rendering inaccurate any monitoring device, method or record required to be maintained under the Water Quality Act; or failing to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation. See Section 74-6-10.2 NMSA 1978.

2. GENERAL FACILITY OPERATIONS:

A. OPERATIONAL MONITORING: The Owner/Operator shall comply with its approved monitoring programs pursuant 20.6.2.3107 NMAC.

1. Ground Water Monitoring System: The Owner/Operator shall monitor and sample all ground water monitor wells in accordance with its approved ground water abatement program.

2. Disposal of Chloride Contaminated Ground Water:

a. The Owner/Operator shall monitor its ground water recovery wells in accordance with its approved ground water abatement program.

b. The Owner/Operator shall determine the monthly volume and Total Dissolved Solids concentration of the contaminated ground water that it disposes of in accordance with its approved ground water abatement program.

B. CONTINGENCY PLANS: The Owner/Operator shall implement its approved Contingency Plans to cope with failure of the discharge permit or system in accordance with Permit Condition 2.F.

C. CLOSURE PLAN: After completing abatement of all ground water and vadose contamination required under Permit Condition 2.G, the Owner/Operator shall perform the following closure measures:

1. Remove or plug all lines leading to and from ground water recovery or injection wells so that a discharge can no longer occur.

2. Remove all abatement system components from the site, if applicable.

3. After receiving notification from the Division's Environmental Bureau that post-closure monitoring may cease, the Owner/Operator shall plug and abandon its monitor well(s).

D. RECORD KEEPING: The Owner/Operator shall maintain records of all inspections required by this Discharge Permit at its local office located at 240 Avenue O, Eunice, NM 88231 for a minimum of five years and shall make those records available for inspection by the Division's Environmental Bureau.

E. RELEASE REPORTING: The Owner/Operator shall comply with the following permit conditions, pursuant to 20.6.2.1203 NMAC, if it determines that a release of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental

to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, has occurred. The Owner/Operator shall report unauthorized releases of water contaminants in accordance with any additional commitments made in its approved Contingency Plan. If the Owner/Operator determines that any constituent exceeds the standards specified at 20.6.2.3103 NMAC, then it shall report a release to the Division's Environmental Bureau.

1. **Oral Notification:** As soon as possible after learning of such a discharge, but in no event more than twenty-four (24) hours thereafter, the Owner/Operator shall orally notify the Division's Environmental Bureau. The Owner/Operator shall provide the following:

- the name, address, and telephone number of the person or persons in charge of the facility, as well as of the Owner/Operator of the facility;
- the name and location of the facility;
- the date, time, location, and duration of the discharge;
- the source and cause of discharge;
- a description of the discharge, including its chemical composition;
- the estimated volume of the discharge; and,
- any actions taken to mitigate immediate damage from the discharge.

2. **Written Notification:** Within one week after the Owner/Operator has learned of the discharge, the Owner/Operator shall send written notification to the Division's Environmental Bureau verifying the prior oral notification as to each of the foregoing items and providing any appropriate additions or corrections to the information contained in the prior oral notification.

F. ABATEMENT PLAN: Pursuant to 20.6.2.4105A(6) NMAC, an Owner/Operator is exempt from the requirement to obtain and implement an Abatement Plan, as required in 20.6.2.4104 NMAC. However, an Owner/Operator's Discharge Permit must address abatement of contaminated ground water and be consistent with the requirements and provisions of Sections 20.6.2.4101, 20.6.2.4103, Subsections C and E of Section 20.6.2.4106, Sections 20.6.2.4107 and 20.6.2.4112 NMAC.

1. **Purpose of Abatement Plan:** The Owner/Operator shall abate polluted ground water so as to either remediate or protect the ground water for use as domestic and agricultural water supply.

2. **Abatement Standards and Requirements:** The Owner/Operator shall abate the vadose zone so that water contaminants in the vadose zone shall not contaminate ground water or surface water, through leaching, percolation or as the water table elevation fluctuates. The Owner/Operator, where the Total Dissolved Solids concentration is 10,000 mg/L or less, shall abate contaminated ground water so that toxic pollutant(s), as defined in 20.6.2.7WW NMAC, shall not be present and so that the standards of 20.6.2.3103 NMAC shall be met.

3. **Ground Water Abatement:** The Owner/Operator shall implement its approved ground water abatement program until it has remediated the contaminated ground water to meet the standards and requirements set forth in 20.6.2.4103 NMAC.

4. **Completion and Termination:** Pursuant to 20.6.2.4112 NMAC, abatement shall be considered complete when the standards and requirements specified in 20.6.2.4103 NMAC are met. At that time, the Owner/Operator shall submit an abatement completion report, documenting compliance with the standards and requirements set forth in 20.6.2.4103 NMAC and this Discharge Permit, to Division's Environmental Bureau for approval. The abatement completion report also shall propose any changes to long term monitoring and site maintenance activities, if needed, to be performed after termination of the abatement plan.

G. OTHER REQUIREMENTS:

1. **Inspection and Entry:** Pursuant to 20.6.2.4107A NMAC, the Owner/Operator shall allow the Division's Environmental Bureau, upon the presentation of proper credentials, to:

- enter the facility at reasonable times;
- inspect and copy records required by this discharge permit;
- inspect any treatment works, monitoring, and analytical equipment;
- sample any wastes, ground water, surface water, stream sediment, plants, animals, or vadose-zone material including vadose-zone vapor;
- use the Owner/Operator's monitoring systems and wells in order to collect samples; and
- gain access to off-site property not owned or controlled by the Owner/Operator, but accessible to the Owner/Operator through a third-party access agreement, provided that it is allowed by the agreement.

2. **Advance Notice:** Pursuant to 20.6.2.4107B NMAC, The Owner/Operator shall provide the Division's Environmental Bureau with at least four (4) working days advance notice of any sampling to be performed pursuant to this Discharge Permit, or any well plugging, abandonment or destruction at the facility site.

3. **Plugging and Abandonment:** Pursuant to 20.6.2.4107C NMAC, the Owner/Operator shall request by certified mail, approval by the Division's Environmental Bureau to plug and abandon a monitor well, unless such approval is required from the State Engineer. The proposed action shall be designed to prevent water pollution that could result from water contaminants migrating through the well or borehole. The proposed action shall not take place without written approval from the Division's Environmental Bureau, unless written approval or disapproval is not received by the Owner/Operator within thirty (30) days of the date of receipt of the proposal.

H. ANNUAL REPORT: The Owner/Operator shall submit its annual report for each calendar year pursuant to 20.6.2.3107 NMAC to the Division's Environmental Bureau by March 15th of the following year . The annual report shall include the following:

1. Results of its ground water monitoring program; including:

- summary tables listing laboratory analytic results of all ground water and soil samples. Any WQCC constituent found to exceed the groundwater standard shall be highlighted and noted in the annual report. Copies of the most recent year's laboratory analytical data sheets shall also be submitted.
- annual water table potentiometric maps. A corrected water table elevation shall be determined for all wells containing non-aqueous phase liquids. These maps shall show well locations, pertinent site features, and the direction and magnitude of the hydraulic gradient.
- semi-annual isopleth maps for the following constituents: non-aqueous phase liquids; chlorides; and, BTEX.
- semi-annual geologic cross-sections (both dip and strike), using the geologic/lithologic logs from the monitor, recovery, and injection wells, depicting the concentrations for the following constituents: non-aqueous phase liquids; chlorides; and, BTEX.
- estimate or measure of the volume of contaminated ground water discharged during each quarter and the total volume discharged to date.

2. Summary of any releases and corrective actions taken in accordance with its approved Contingency Plan.

3. CLASS V WELLS: Pursuant to 20.6.2.5002B NMAC, leach fields and other wastewater disposal systems at Division-regulated facilities that inject non-hazardous fluid into or above an underground source of drinking water are UIC Class V injection wells. This Discharge Permit does not authorize the use of a Class V injection well for the disposal of industrial waste at the Facility. Pursuant to 20.6.2.5005 NMAC, the Owner/Operator shall close any Class V industrial waste injection wells at its Facility that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes (*e.g.*, septic systems, leach fields, dry wells, *etc.*) within 90 calendar days of the issuance of this Discharge Permit. The Owner/Operator shall document the closure of any Class V wells used for the disposal of non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes other than contaminated ground water in its Annual Report.

Other Class V wells, including wells used only for the injection of domestic wastes, must be permitted by the New Mexico Environment Department.

4. SCHEDULE OF COMPLIANCE:

A. PERMIT CERTIFICATION: The Owner/Operator shall sign and return this Permit to the Division's Environmental Bureau within 45 days of its receipt of this Permit.

B. SUBMISSION OF THE PERMIT FEES: As specified in Permit Condition 1.F, the Owner/Operator shall submit the fee of $2,600.00 along with the signed Discharge

Permit within 45 days of the receipt of the Discharge Permit. Checks should be payable to the **"New Mexico Water Quality Management Fund,"** not the Oil Conservation Division.

C. ANNUAL REPORT: As specified in Permit Condition 2.H, the Owner/Operator shall submit its annual report to the Division's Environmental Bureau by March 15th of the following year.

D. REQUIREMENT TO RESUME ABATEMENT PROGRAM: In February 2011, Chevron notified OCD that Targa would no longer allow Chevron to discharge contaminated ground water to its on-site UIC Class II injection well. Consequently, Chevron temporarily ceased operating its ground water abatement program. Chevron shall propose an alternate method of disposing the contaminated ground water to OCD no later than ninety (90) days after the issuance of this discharge permit.

5. CERTIFICATION: (OWNER/OPERATOR) by the officer whose signature appears below, acknowledges receipt of this Discharge Permit, and has reviewed its terms and conditions.

Chevron U.S.A. INC.
Company Name - print name

Robert A. Guldner
Company Representative - print name

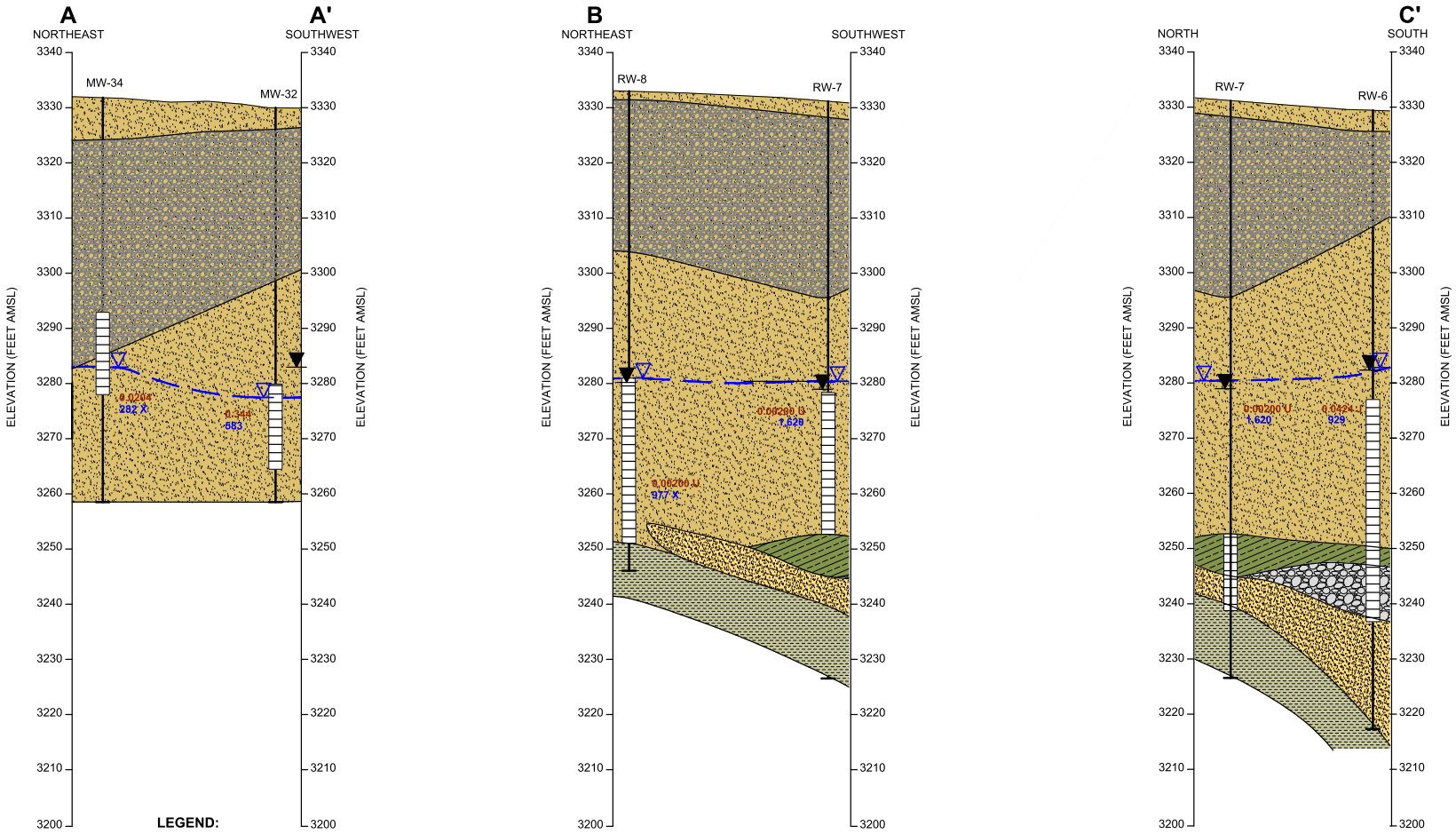
Company Representative - Signature

Title: Manager OE/HES

Date: 01/23/2012

APPENDIX B

Geologic Cross Sections



LEGEND:

MW063A WELL/BORING ID

APPROXIMATE GROUND SURFACE

LITHOLOGIC CONTACT

WATER LEVEL (SPRING 2021)

WATER LEVEL ENCOUNTERED AFTER DRILLING

WELL SCREEN

WELL/BORING BOTTOM

CLAY

SAND

SANDSTONE

SILT

GRAVEL

SAND WITH CALICHE

0.344 SPRING 2021 BENZENE CONCENTRATION (mg/L)

583 SPRING 2021 CHLORIDE CONCENTRATION (mg/L)

J ESTIMATED VALUE

U NON-DETECT

X QC DEFICIENCY WAS OBSERVED AND FLAGGED AS NOTED. MS/MSD RECOVERIES WERE FOUND TO BE OUTSIDE OF THE LABORATORY CONTROL LIMITS DUE TO POSSIBLE MATRIX /CHEMICAL INTERFERENCE, OR A CONCENTRATION OF TARGET ANALYTE HIGH ENOUGH TO AFFECT THE RECOVERY OF THE SPIKE CONCENTRATION

0 20' 40'

APPROXIMATE VERTICAL SCALE

0 600' 1,200'

APPROXIMATE HORIZONTAL SCALE

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER EUNICE SOUTH GAS PLANT
EUNICE, LEA COUNTY, NEW MEXICO

GEOLOGIC CROSS-SECTIONS

ARCADIS

FIGURE 2

CITY:(KNOXVILLE) DIV/GROUP:(ENV/GIS) DB:(B.ALTOM) LD:(C.SMITH) PIC:(M.FLEISCHNER) PM:(L.MINER) TM:(J.FRIZZELL)
C:\Users\jadhav\e8954\ACCDocs\Arcadis\AUS-CHEVRON-FORMER EUNICE SOUTH GAS PLANT-EUNICE New Mexico\Project Files\2022\01-In Progress\01-DWG\GEN-F02-GEOLOGIC CROSS SECTIONS.dwg LAYOUT: A-A' AND B-B' SAVED: 2/24/2022 7:03 PM ACADVER: 23.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 2/24/2022 7:35 PM BY: JADHAV, PRAJAKTA

APPENDIX C

Historical Groundwater Elevations

Appendix C
Historical Groundwater Elevations
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date	Top of Casing (feet amsl)	Depth To Groundwater (feet btoc)	Depth to LNAPL (feet btoc)	LNAPL Thickness (feet)	LNAPL Specific Gravity	Uncorrected Groundwater Elevation (feet amsl)	Corrected Groundwater Elevation (feet amsl)[1]
MW-1	2/18/2009	3335.09	54.27	51.96	2.31	0.74	3280.82	3282.53
MW-1	8/5/2009	3335.09	54.30	52.03	2.27	0.74	3280.79	3282.47
MW-1	2/2/2010	3335.09	54.65	52.10	2.55	0.74	3280.44	3282.33
MW-1	8/2/2010	3335.09	54.69	52.18	2.51	0.74	3280.40	3282.26
MW-1	4/4/2011	3335.09	54.50	51.97	2.53	0.74	3280.59	3282.46
MW-1	8/8/2011	3335.09	54.40	51.95	2.45	0.74	3280.69	3282.50
MW-1	2/6/2012	3335.09	54.73	52.18	2.55	0.74	3280.36	3282.25
MW-1	8/7/2012	3335.09	54.53	51.88	2.65	0.74	3280.56	3282.52
MW-1	2/5/2013	3335.09	54.39	52.01	2.38	0.74	3280.70	3282.46
MW-1	8/5/2013	3335.09	54.42	51.85	2.57	0.74	3280.67	3282.57
MW-1	2/3/2014	3335.09	54.35	51.85	2.5	0.74	3280.74	3282.59
MW-1	8/5/2014	3335.09	54.40	51.85	2.55	0.74	3280.69	3282.58
MW-1	2/2/2015	3335.09	53.38	51.62	1.76	0.74	3281.71	3283.01
MW-1	8/3/2015	3335.09	53.47	51.54	1.93	0.74	3281.62	3283.05
MW-1	3/29/2016	3335.09	NM	51.41	NA	0.74	NM	NM
MW-1	9/13/2016	3335.09	53.11	51.41	1.7	0.74	3281.98	3283.24
MW-1	4/3/2017	3335.09	52.96	51.31	1.65	0.74	3282.13	3283.35
MW-1	3/13/2018	3335.09	54.81	53.06	1.75	0.74	3280.28	3281.58
MW-1	9/24/2018	3335.09	NM	53.06	NA	0.74	NM	NM
MW-1	4/1/2019	3335.09	54.60	53.18	1.42	0.74	3280.49	3281.54
MW-1	10/1/2019	3335.09	54.74	53.29	1.45	0.74	3280.35	3281.42
MW-1	3/17/2020	3335.09	54.71	53.25	1.46	0.74	3280.38	3281.46
MW-1	3/15/2021	3335.09	54.68	53.22	1.46	0.74	3280.41	3281.49
MW-1	9/29/2021	3335.09	53.27	NM	NA	0.74	3281.82	3281.82
MW-2	2/18/2009	3335.7	56.44	53.85	2.59	0.74	3279.26	3281.18
MW-2	8/5/2009	3335.7	54.90	52.21	2.69	0.74	3280.80	3282.79
MW-2	2/2/2010	3335.7	54.93	52.25	2.68	0.74	3280.77	3282.75
MW-2	8/2/2010	3335.7	54.85	52.34	2.51	0.74	3280.85	3282.71
MW-2	4/4/2011	3335.7	54.90	52.15	2.75	0.74	3280.80	3282.84
MW-2	8/8/2011	3335.7	54.52	52.21	2.31	0.74	3281.18	3282.89
MW-2	2/6/2012	3335.7	54.97	52.22	2.75	0.74	3280.73	3282.77
MW-2	8/7/2012	3335.7	NM	52.09	NA	0.74	NM	NM
MW-2	2/5/2013	3335.7	54.61	52.06	2.55	0.74	3281.09	3282.98
MW-2	8/5/2013	3335.7	49.50	52.03	-2.53	0.74	3286.20	3284.33
MW-2	2/3/2014	3335.7	NM	52.07	NA	0.74	NM	NM
MW-2	8/5/2014	3335.7	NM	52.05	NA	0.74	NM	NM
MW-2	2/2/2015	3335.7	53.65	51.80	1.85	0.74	3282.05	3283.42
MW-2	8/3/2015	3335.7	53.81	51.80	2.01	0.74	3281.89	3283.38
MW-2	3/29/2016	3335.7	53.36	51.60	1.76	0.74	3282.34	3283.64
MW-2	9/13/2016	3335.7	53.41	51.61	1.8	0.74	3282.29	3283.62
MW-2	4/3/2017	3335.7	53.15	51.49	1.66	0.74	3282.55	3283.78
MW-2	3/13/2018	3335.7	53.00	51.48	1.52	0.74	3282.70	3283.82
MW-2	9/24/2018	3335.7	NM	51.48	NA	0.74	NM	NM
MW-2	4/1/2019	3335.7	52.96	51.48	1.48	0.74	3282.74	3283.84
MW-2	10/1/2019	3335.7	53.10	51.58	1.52	0.74	3282.60	3283.72
MW-2	3/17/2020	3335.7	53.57	51.55	2.02	0.74	3282.13	3283.62
MW-2	3/18/2021	3335.7	53.05	51.4	1.65	0.74	3282.65	3283.87
MW-2	9/29/2021	3335.7	53.03	51.58	1.45	0.74	3282.67	3283.74
MW-3	2/9/2009	3339.65	56.24	NM	NA	NA	3283.41	3283.41
MW-3	8/5/2009	3339.65	56.25	NM	NA	NA	3283.40	3283.40
MW-3	2/2/2010	3339.65	56.30	NM	NA	NA	3283.35	3283.35
MW-3	8/2/2010	3339.65	56.31	NM	NA	NA	3283.34	3283.34
MW-3	4/4/2011	3339.65	56.20	NM	NA	NA	3283.45	3283.45
MW-3	8/8/2011	3339.65	56.15	NM	NA	NA	3283.50	3283.50
MW-3	2/6/2012	3339.65	56.12	NM	NA	NA	3283.53	3283.53
MW-3	8/6/2012	3339.65	56.10	NM	NA	NA	3283.55	3283.55
MW-3	2/5/2013	3339.65	56.10	NM	NA	NA	3283.55	3283.55
MW-3	8/5/2013	3339.65	56.18	NM	NA	NA	3283.47	3283.47
MW-3	2/3/2014	3339.65	56.06	NM	NA	NA	3283.59	3283.59
MW-3	8/5/2014	3339.65	56.06	NM	NA	NA	3283.59	3283.59
MW-3	2/2/2015	3339.65	55.80	NM	NA	NA	3283.85	3283.85
MW-3	8/3/2015	3339.65	55.73	NM	NA	NA	3283.92	3283.92
MW-3	3/29/2016	3339.65	55.60	NM	NA	NA	3284.05	3284.05
MW-3	9/12/2016	3339.65	55.51	NM	NA	NA	3284.14	3284.14
MW-3	4/3/2017	3339.65	55.49	NM	NA	NA	3284.16	3284.16
MW-3	9/12/2017	3339.65	55.44	NM	NA	NA	3284.21	3284.21
MW-3	3/13/2018	3339.65	55.33	NM	NA	NA	3284.32	3284.32
MW-3	9/24/2018	3339.65	55.41	NM	NA	NA	3284.24	3284.24
MW-3	4/1/2019	3339.65	55.30	NM	NA	NA	3284.35	3284.35
MW-3	10/1/2019	3339.65	55.40	NM	NA	NA	3284.25	3284.25
MW-3	3/16/2020	3339.65	55.30	NM	NA	NA	3284.35	3284.35
MW-3	3/17/2021	3339.65	55.25	NM	NA	NA	3284.40	3284.40
MW-3	9/20/2021	3339.65	55.26	NM	NA	NA	3284.39	3284.39
MW-4	2/11/2009	3333.25	51.99	NM	NA	NA	3281.26	3281.26
MW-4	8/4/2009	3333.25	51.43	NM	NA	NA	3281.82	3281.82
MW-4	2/2/2010	3333.25	51.91	NM	NA	NA	3281.34	3281.34

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Eunice, Lea County, New Mexico

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date	Top of Casing (feet amsl)	Depth To Groundwater (feet btoc)	Depth to LNAPL (feet btoc)	LNAPL Thickness (feet)	LNAPL Specific Gravity	Uncorrected Groundwater Elevation (feet amsl)	Corrected Groundwater Elevation (feet amsl)[1]
MW-4	8/2/2010	3333.25	51.76	NM	NA	NA	3281.49	3281.49
MW-4	4/4/2011	3333.25	50.98	NM	NA	NA	3282.27	3282.27
MW-4	8/8/2011	3333.25	50.80	NM	NA	NA	3282.45	3282.45
MW-4	2/6/2012	3333.25	50.72	NM	NA	NA	3282.53	3282.53
MW-4	8/7/2012	3333.25	50.62	NM	NA	NA	3282.63	3282.63
MW-4	2/5/2013	3333.25	50.55	NM	NA	NA	3282.70	3282.70
MW-4	8/5/2013	3333.25	50.66	NM	NA	NA	3282.59	3282.59
MW-4	2/5/2014	3333.25	50.51	NM	NA	NA	3282.74	3282.74
MW-4	8/5/2014	3333.25	50.86	NM	NA	NA	3282.39	3282.39
MW-4	2/2/2015	3333.25	50.47	NM	NA	NA	3282.78	3282.78
MW-4	8/3/2015	3333.25	50.40	NM	NA	NA	3282.85	3282.85
MW-4	3/29/2016	3333.25	50.27	NM	NA	NA	3282.98	3282.98
MW-4	9/12/2016	3333.25	50.23	NM	NA	NA	3283.02	3283.02
MW-4	4/3/2017	3333.25	50.18	NM	NA	NA	3283.07	3283.07
MW-4	9/12/2017	3333.25	50.10	NM	NA	NA	3283.15	3283.15
MW-4	3/12/2018	3333.25	49.94	NM	NA	NA	3283.31	3283.31
MW-4	9/24/2018	3333.25	50.02	NM	NA	NA	3283.23	3283.23
MW-4	4/1/2019	3333.25	49.80	NM	NA	NA	3283.45	3283.45
MW-4	10/1/2019	3333.25	50.01	NM	NA	NA	3283.24	3283.24
MW-4	3/16/2020	3333.25	49.78	NM	NA	NA	3283.47	3283.47
MW-4	3/18/2021	3333.25	49.49	NM	NA	NA	3283.76	3283.76
MW-4	9/20/2021	3333.25	49.43	NM	NA	NA	3283.82	3283.82
MW-5	2/4/2009	3333.85	52.62	52.60	0.02	0.82	3281.23	3281.25
MW-5	3/18/2009	3333.85	52.93	52.56	0.37	0.82	3280.92	3281.22
MW-5	8/5/2009	3333.85	53.04	52.64	0.4	0.82	3280.81	3281.14
MW-5	2/2/2010	3333.85	53.80	52.86	0.94	0.82	3280.05	3280.82
MW-5	8/2/2010	3333.85	53.32	53.31	0.01	0.82	3280.53	3280.54
MW-5	4/4/2011	3333.85	NM	NM	NA	0.82	NM	NM
MW-5	8/8/2011	3333.85	58.07	55.20	2.87	0.82	3275.78	3278.13
MW-5	2/6/2012	3333.85	53.23	52.80	0.43	0.82	3280.62	3280.97
MW-5	8/7/2012	3333.85	55.10	51.66	3.44	0.82	3278.75	3281.57
MW-5	2/5/2013	3333.85	56.10	51.35	4.75	0.82	3277.75	3281.65
MW-5	8/5/2013	3333.85	56.15	51.43	4.72	0.82	3277.70	3281.57
MW-5	2/3/2014	3333.85	55.80	51.56	4.24	0.82	3278.05	3281.53
MW-5	8/5/2014	3333.85	56.19	51.60	4.59	0.82	3277.66	3281.42
MW-5	2/2/2015	3333.85	53.40	50.80	2.6	0.82	3280.45	3282.58
MW-5	8/3/2015	3333.85	54.33	50.86	3.47	0.82	3279.52	3282.37
MW-5	3/29/2016	3333.85	53.21	50.70	2.51	0.82	3280.64	3282.70
MW-5	9/13/2016	3333.85	53.21	50.66	2.55	0.82	3280.64	3282.73
MW-5	4/3/2017	3333.85	53.62	50.51	3.11	0.82	3280.23	3282.78
MW-5	3/15/2018	3333.85	53.30	50.47	2.83	0.82	3280.55	3282.87
MW-5	9/24/2018	3333.85	NM	50.47	NA	0.82	NM	NM
MW-5	3/17/2020	3333.85	54.43	50.61	3.82	0.82	3279.42	3282.55
MW-5	3/15/2021	3333.85	53.84	50.43	3.41	0.82	3280.01	3282.81
MW-5	9/20/2021	3333.85	52.29	50.36	1.93	0.82	3281.56	3283.14
MW-6	2/5/2009	3332.33	52.14	NM	NA	NA	3280.19	3280.19
MW-6	8/4/2009	3332.33	52.20	NM	NA	NA	3280.13	3280.13
MW-6	2/2/2010	3332.33	52.53	NM	NA	NA	3279.80	3279.80
MW-6	8/2/2010	3332.33	52.95	NM	NA	NA	3279.38	3279.38
MW-6	4/4/2011	3332.33	51.23	NM	NA	NA	3281.10	3281.10
MW-6	8/8/2011	3332.33	50.94	NM	NA	NA	3281.39	3281.39
MW-6	2/6/2012	3332.33	50.87	NM	NA	NA	3281.46	3281.46
MW-6	8/17/2012	3332.33	60.68	NM	NA	NA	3271.65	3271.65
MW-6	2/5/2013	3332.33	50.61	NM	NA	NA	3281.72	3281.72
MW-6	8/5/2013	3332.33	50.70	NM	NA	NA	3281.63	3281.63
MW-6	2/3/2014	3332.33	50.52	NM	NA	NA	3281.81	3281.81
MW-6	8/5/2014	3332.33	51.22	NM	NA	NA	3281.11	3281.11
MW-6	2/2/2015	3332.33	50.40	NM	NA	NA	3281.93	3281.93
MW-6	8/3/2015	3332.33	50.40	NM	NA	NA	3281.93	3281.93
MW-6	3/28/2016	3332.33	50.23	NM	NA	NA	3282.10	3282.10
MW-6	9/7/2016	3332.33	50.11	NM	NA	NA	3282.22	3282.22
MW-6	4/3/2017	3332.33	50.20	NM	NA	NA	3282.13	3282.13
MW-6	3/12/2018	3332.33	50.01	NM	NA	NA	3282.32	3282.32
MW-6	4/1/2019	3332.33	49.14	NM	NA	NA	3283.19	3283.19
MW-6	3/16/2020	3332.33	49.90	NM	NA	NA	3282.43	3282.43
MW-6	3/15/2021	3332.33	49.46	NM	NA	NA	3282.87	3282.87
MW-6	9/20/2021	3332.33	49.38	NM	NA	NA	3282.95	3282.95
MW-7	2/5/2009	3330.43	49.86	NM	NA	NA	3280.57	3280.57
MW-7	8/4/2009	3330.43	50.08	NM	NA	NA	3280.35	3280.35
MW-7	2/2/2010	3330.43	50.25	NM	NA	NA	3280.18	3280.18
MW-7	8/2/2010	3330.43	50.91	NM	NA	NA	3279.52	3279.52
MW-7	4/4/2011	3330.43	49.48	NM	NA	NA	3280.95	3280.95
MW-7	8/8/2011	3330.43	49.28	NM	NA	NA	3281.15	3281.15
MW-7	2/6/2012	3330.43	49.19	NM	NA	NA	3281.24	3281.24
MW-7	8/17/2012	3330.43	49.12	NM	NA	NA	3281.31	3281.31
MW-7	2/5/2013	3330.43	49.08	NM	NA	NA	3281.35	3281.35

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MW-7	8/5/2013	3330.43	49.15	NM	NA	NA	3281.28	3281.28
MW-7	2/3/2014	3330.43	49.00	NM	NA	NA	3281.43	3281.43
MW-7	8/5/2014	3330.43	49.30	NM	NA	NA	3281.13	3281.13
MW-7	2/2/2015	3330.43	47.80	NM	NA	NA	3282.63	3282.63
MW-7	8/3/2015	3330.43	48.05	NM	NA	NA	3282.38	3282.38
MW-7	3/28/2016	3330.43	47.79	NM	NA	NA	3282.64	3282.64
MW-7	9/9/2016	3330.43	47.79	NM	NA	NA	3282.64	3282.64
MW-7	4/3/2017	3330.43	47.78	NM	NA	NA	3282.65	3282.65
MW-7	3/12/2018	3330.43	47.88	NM	NA	NA	3282.55	3282.55
MW-7	9/24/2018	3330.43	NM	NM	NA	NA	NM	NM
MW-7	4/1/2019	3330.43	47.99	NM	NA	NA	3282.44	3282.44
MW-7	3/16/2020	3330.43	48.15	NM	NA	NA	3282.28	3282.28
MW-7	3/15/2021	3330.43	48.90	NM	NA	NA	3281.53	3281.53
MW-7	9/20/2021	3330.43	47.81	NM	NA	NA	3282.62	3282.62
MW-8	2/2/2009	3330.59	49.48	NM	NA	NA	3281.11	3281.11
MW-8	8/4/2009	3330.59	49.66	NM	NA	NA	3280.93	3280.93
MW-8	2/2/2010	3330.59	49.86	NM	NA	NA	3280.73	3280.73
MW-8	8/2/2010	3330.59	49.83	NM	NA	NA	3280.76	3280.76
MW-8	4/4/2011	3330.59	49.82	NM	NA	NA	3280.77	3280.77
MW-8	8/8/2011	3330.59	49.80	NM	NA	NA	3280.79	3280.79
MW-8	2/6/2012	3330.59	49.84	NM	NA	NA	3280.75	3280.75
MW-8	8/7/2012	3330.59	53.30	NM	NA	NA	3277.29	3277.29
MW-8	2/5/2013	3330.59	49.77	NM	NA	NA	3280.82	3280.82
MW-8	8/5/2013	3330.59	49.74	NM	NA	NA	3280.85	3280.85
MW-8	2/3/2014	3330.59	49.70	NM	NA	NA	3280.89	3280.89
MW-8	2/2/2015	3330.59	48.55	NM	NA	NA	3282.04	3282.04
MW-8	8/3/2015	3330.59	48.64	NM	NA	NA	3281.95	3281.95
MW-8	3/29/2016	3330.59	48.49	NM	NA	NA	3282.10	3282.10
MW-8	9/6/2016	3330.59	48.52	NM	NA	NA	3282.07	3282.07
MW-8	3/12/2018	3330.59	48.43	NM	NA	NA	3282.16	3282.16
MW-8	8/5/2014	3330.59	49.74	NM	NA	NA	3280.85	3280.85
MW-8	4/3/2017	3330.59	48.41	NM	NA	NA	3282.18	3282.18
MW-8	9/11/2017	3330.59	48.37	NM	NA	NA	3282.22	3282.22
MW-8	9/24/2018	3330.59	48.66	NM	NA	NA	3281.93	3281.93
MW-8	4/1/2019	3330.59	48.59	NM	NA	NA	3282.00	3282.00
MW-8	10/1/2019	3330.59	48.76	NM	NA	NA	3281.83	3281.83
MW-8	3/16/2020	3330.59	48.75	NM	NA	NA	3281.84	3281.84
MW-8	3/17/2021	3330.59	48.71	NM	NA	NA	3281.88	3281.88
MW-8	9/29/2021	3330.59	48.56	NM	NA	NA	3282.03	3282.03
MW-9	2/12/2009	3334.73	53.46	NM	NA	NA	3281.27	3281.27
MW-9	8/5/2009	3334.73	53.56	NM	NA	NA	3281.17	3281.17
MW-9	2/2/2010	3334.73	53.66	NM	NA	NA	3281.07	3281.07
MW-9	8/2/2010	3334.73	53.75	NM	NA	NA	3280.98	3280.98
MW-9	4/4/2011	3334.73	53.71	NM	NA	NA	3281.02	3281.02
MW-9	8/8/2011	3334.73	53.66	NM	NA	NA	3281.07	3281.07
MW-9	2/6/2012	3334.73	53.66	NM	NA	NA	3281.07	3281.07
MW-9	8/6/2012	3334.73	53.71	NM	NA	NA	3281.02	3281.02
MW-9	2/5/2013	3334.73	53.59	NM	NA	NA	3281.14	3281.14
MW-9	8/5/2013	3334.73	53.60	NM	NA	NA	3281.13	3281.13
MW-9	2/3/2014	3334.73	53.50	NM	NA	NA	3281.23	3281.23
MW-9	8/5/2014	3334.73	53.58	NM	NA	NA	3281.15	3281.15
MW-9	2/2/2015	3334.73	53.05	NM	NA	NA	3281.68	3281.68
MW-9	8/3/2015	3334.73	53.03	NM	NA	NA	3281.70	3281.70
MW-9	3/29/2016	3334.73	52.96	NM	NA	NA	3281.77	3281.77
MW-9	9/6/2016	3334.73	52.90	NM	NA	NA	3281.83	3281.83
MW-9	4/3/2017	3334.73	52.84	NM	NA	NA	3281.89	3281.89
MW-9	9/11/2017	3334.73	52.80	NM	NA	NA	3281.93	3281.93
MW-9	3/12/2018	3334.73	52.54	NM	NA	NA	3282.19	3282.19
MW-9	9/24/2018	3334.73	52.84	NM	NA	NA	3281.89	3281.89
MW-9	4/1/2019	3334.73	52.78	NM	NA	NA	3281.95	3281.95
MW-9	10/1/2019	3334.73	52.86	NM	NA	NA	3281.87	3281.87
MW-9	3/16/2020	3334.73	52.83	NM	NA	NA	3281.90	3281.90
MW-9	3/16/2021	3334.73	52.81	NM	NA	NA	3281.92	3281.92
MW-9	9/20/2021	3334.73	52.75	NM	NA	NA	3281.98	3281.98
MW-10	2/18/2009	3336.38	53.84	53.83	0.01	0.74	3282.54	3282.55
MW-10	8/5/2009	3336.38	53.95	NM	NA	0.74	3282.43	3282.43
MW-10	2/2/2010	3336.38	54.02	NM	NA	0.74	3282.36	3282.36
MW-10	8/2/2010	3336.38	54.28	54.05	0.23	0.74	3282.10	3282.27
MW-10	4/4/2011	3336.38	54.60	53.80	0.8	0.74	3281.78	3282.37
MW-10	8/8/2011	3336.38	54.22	53.85	0.37	0.74	3282.16	3282.43
MW-10	2/6/2012	3336.38	54.29	54.23	0.06	0.74	3282.09	3282.13
MW-10	8/7/2012	3336.38	56.40	53.33	3.07	0.74	3279.98	3282.25
MW-10	2/5/2013	3336.38	56.34	53.28	3.06	0.74	3280.04	3282.30
MW-10	8/5/2013	3336.38	56.33	53.24	3.09	0.74	3280.05	3282.34
MW-10	2/3/2014	3336.38	54.41	51.46	2.95	0.74	3281.97	3284.15
MW-10	8/5/2014	3336.38	54.43	51.47	2.96	0.74	3281.95	3284.14

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MW-10	2/2/2015	3336.38	51.83	51.61	0.22	0.74	3284.55	3284.71
MW-10	8/3/2015	3336.38	51.63	51.61	0.02	0.74	3284.75	3284.76
MW-10	3/29/2016	3336.38	52.06	52.03	0.03	0.74	3284.32	3284.34
MW-10	9/13/2016	3336.38	51.59	51.45	0.14	0.74	3284.79	3284.89
MW-10	4/3/2017	3336.38	51.41	51.28	0.13	0.74	3284.97	3285.07
MW-10	3/13/2018	3336.38	51.40	51.30	0.1	0.74	3284.98	3285.05
MW-10	9/24/2018	3336.38	NM	51.30	NA	0.74	NM	NM
MW-10	4/1/2019	3336.38	52.61	50.84	1.77	0.74	3283.77	3285.08
MW-10	10/1/2019	3336.38	52.78	50.95	1.83	0.74	3283.60	3284.95
MW-10	3/17/2020	3336.38	52.7	50.91	1.79	0.74	3283.68	3285.00
MW-10	3/15/2021	3336.38	52.67	50.87	1.8	0.74	3283.71	3285.04
MW-10	9/29/2021	3336.38	50.94	50.93	0.01	0.74	3285.44	3285.45
MW-11	2/18/2009	3334.86	52.21	NM	NA	0.72	3282.65	3282.65
MW-11	8/5/2009	3334.86	52.37	52.35	0.02	0.72	3282.49	3282.50
MW-11	2/2/2010	3334.86	52.46	NM	NA	0.72	3282.40	3282.40
MW-11	8/2/2010	3334.86	52.48	NM	NA	0.72	3282.38	3282.38
MW-11	4/4/2011	3334.86	52.32	NM	NA	0.72	3282.54	3282.54
MW-11	8/8/2011	3334.86	52.30	NM	NA	0.72	3282.56	3282.56
MW-11	2/6/2012	3334.86	52.36	NM	NA	0.72	3282.50	3282.50
MW-11	8/7/2012	3334.86	52.32	NM	NA	0.72	3282.54	3282.54
MW-11	2/5/2013	3334.86	52.30	NM	NA	0.72	3282.56	3282.56
MW-11	8/5/2013	3334.86	52.21	NM	NA	0.72	3282.65	3282.65
MW-11	2/3/2014	3334.86	52.18	NM	NA	0.72	3282.68	3282.68
MW-11	8/5/2014	3334.86	52.24	NM	NA	0.72	3282.62	3282.62
MW-11	2/2/2015	3334.86	51.84	NM	NA	0.72	3283.02	3283.02
MW-11	8/3/2015	3334.86	51.70	NM	NA	0.72	3283.16	3283.16
MW-11	3/29/2016	3334.86	51.43	NM	NA	0.72	3283.43	3283.43
MW-11	9/12/2016	3334.86	51.48	NM	NA	0.72	3283.38	3283.38
MW-11	4/3/2017	3334.86	51.34	NM	NA	0.72	3283.52	3283.52
MW-11	9/12/2017	3334.86	51.20	NM	NA	0.72	3283.66	3283.66
MW-11	3/13/2018	3334.86	51.34	NM	NA	0.72	3283.52	3283.52
MW-11	9/24/2018	3334.86	51.45	NM	NA	0.72	3283.41	3283.41
MW-11	4/1/2019	3334.86	51.31	NM	NA	0.72	3283.55	3283.55
MW-11	10/1/2019	3334.86	51.43	NM	NA	0.72	3283.43	3283.43
MW-11	3/16/2020	3334.86	51.35	NM	NA	0.72	3283.51	3283.51
MW-11	9/23/2020	3334.86	51.33	NM	NA	0.72	3283.53	3283.53
MW-11	3/19/2021	3334.86	51.36	NM	NA	0.72	3283.50	3283.50
MW-11	9/21/2021	3334.86	51.45	NM	NA	0.72	3283.41	3283.41
MW-12	2/18/2009	3333.88	52.14	51.42	0.72	0.72	3281.74	3282.26
MW-12	8/5/2009	3333.88	52.27	51.55	0.72	0.72	3281.61	3282.13
MW-12	2/2/2010	3333.88	52.20	51.75	0.45	0.72	3281.68	3282.00
MW-12	8/2/2010	3333.88	52.43	51.81	0.62	0.72	3281.45	3281.90
MW-12	4/4/2011	3333.88	52.10	51.50	0.6	0.72	3281.78	3282.21
MW-12	8/8/2011	3333.88	52.05	51.40	0.65	0.72	3281.83	3282.30
MW-12	2/6/2012	3333.88	52.28	51.73	0.55	0.72	3281.60	3282.00
MW-12	8/7/2012	3333.88	52.19	51.38	0.81	0.72	3281.69	3282.27
MW-12	2/5/2013	3333.88	52.05	51.35	0.7	0.72	3281.83	3282.33
MW-12	8/5/2013	3333.88	52.01	51.30	0.71	0.72	3281.87	3282.38
MW-12	2/3/2014	3333.88	51.99	51.29	0.7	0.72	3281.89	3282.39
MW-12	8/5/2014	3333.88	52.12	51.43	0.69	0.72	3281.76	3282.26
MW-12	2/2/2015	3333.88	56.11	54.03	2.08	0.72	3277.77	3279.27
MW-12	8/3/2015	3333.88	51.01	50.78	0.23	0.72	3282.87	3283.04
MW-12	3/29/2016	3333.88	51.00	50.44	0.56	0.72	3282.88	3283.28
MW-12	9/13/2016	3333.88	50.97	50.58	0.39	0.72	3282.91	3283.19
MW-12	4/3/2017	3333.88	51.14	50.30	0.84	0.72	3282.74	3283.34
MW-12	3/13/2018	3333.88	50.86	50.29	0.57	0.72	3283.02	3283.43
MW-12	9/24/2018	3333.88	NM	50.29	NA	0.72	NM	NM
MW-12	10/1/2019	3333.88	51.03	50.51	0.52	0.72	3282.85	3283.22
MW-12	3/17/2020	3333.88	51.16	50.41	0.75	0.72	3282.72	3283.26
MW-12	3/15/2021	3333.88	51.33	50.23	1.1	0.72	3282.55	3283.34
MW-12	9/29/2021	3333.88	51.29	50.25	1.04	0.72	3282.59	3283.34
MW-13	2/9/2009	3336.15	56.30	NM	NA	NA	3279.85	3279.85
MW-13	8/4/2009	3336.15	56.30	NM	NA	NA	3279.85	3279.85
MW-13	2/2/2010	3336.15	56.31	NM	NA	NA	3279.84	3279.84
MW-13	8/2/2010	3336.15	56.47	NM	NA	NA	3279.68	3279.68
MW-13	4/4/2011	3336.15	56.47	NM	NA	NA	3279.68	3279.68
MW-13	8/8/2011	3336.15	NM	NM	NA	NA	NM	NM
MW-13	2/6/2012	3336.15	56.36	NM	NA	NA	3279.79	3279.79
MW-13	8/6/2012	3336.15	56.42	NM	NA	NA	3279.73	3279.73
MW-13	2/5/2013	3336.15	56.37	NM	NA	NA	3279.78	3279.78
MW-13	8/5/2013	3336.15	56.34	NM	NA	NA	3279.81	3279.81
MW-13	2/3/2014	3336.15	56.27	NM	NA	NA	3279.88	3279.88
MW-13	8/5/2014	3336.15	56.36	NM	NA	NA	3279.79	3279.79
MW-13	2/2/2015	3336.15	56.13	NM	NA	NA	3280.02	3280.02
MW-13	8/3/2015	3336.15	55.95	NM	NA	NA	3280.20	3280.20
MW-13	3/29/2016	3336.15	55.85	NM	NA	NA	3280.30	3280.30

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MW-13	9/6/2016	3336.15	58.80	NM	NA	NA	3277.35	3277.35
MW-13	4/3/2017	3336.15	55.66	NM	NA	NA	3280.49	3280.49
MW-13	9/11/2017	3336.15	55.44	NM	NA	NA	3280.71	3280.71
MW-13	3/13/2018	3336.15	55.66	NM	NA	NA	3280.49	3280.49
MW-13	9/24/2018	3336.15	55.80	NM	NA	NA	3280.35	3280.35
MW-13	4/1/2019	3336.15	55.59	NM	NA	NA	3280.56	3280.56
MW-13	10/1/2019	3336.15	55.61	NM	NA	NA	3280.54	3280.54
MW-13	3/16/2020	3336.15	55.64	NM	NA	NA	3280.51	3280.51
MW-13	3/16/2021	3336.15	55.56	NM	NA	NA	3280.59	3280.59
MW-13	9/20/2021	3336.15	55.56	NM	NA	NA	3280.59	3280.59
MW-14	2/9/2009	3333.04	52.63	NM	NA	NA	3280.41	3280.41
MW-14	8/4/2009	3333.04	52.72	NM	NA	NA	3280.32	3280.32
MW-14	2/2/2010	3333.04	52.77	NM	NA	NA	3280.27	3280.27
MW-14	8/2/2010	3333.04	52.90	NM	NA	NA	3280.14	3280.14
MW-14	4/4/2011	3333.04	52.91	NM	NA	NA	3280.13	3280.13
MW-14	8/8/2011	3333.04	52.85	NM	NA	NA	3280.19	3280.19
MW-14	2/6/2012	3333.04	52.82	NM	NA	NA	3280.22	3280.22
MW-14	8/7/2012	3333.04	51.97	NM	NA	NA	3281.07	3281.07
MW-14	2/5/2013	3333.04	52.82	NM	NA	NA	3280.22	3280.22
MW-14	8/5/2013	3333.04	52.79	NM	NA	NA	3280.25	3280.25
MW-14	2/3/2014	3333.04	52.71	NM	NA	NA	3280.33	3280.33
MW-14	8/5/2014	3333.04	52.77	NM	NA	NA	3280.27	3280.27
MW-14	2/2/2015	3333.04	52.33	NM	NA	NA	3280.71	3280.71
MW-14	8/3/2015	3333.04	52.18	NM	NA	NA	3280.86	3280.86
MW-14	3/29/2016	3333.04	52.05	NM	NA	NA	3280.99	3280.99
MW-14	9/6/2016	3333.04	52.03	NM	NA	NA	3281.01	3281.01
MW-14	4/3/2017	3333.04	51.93	NM	NA	NA	3281.11	3281.11
MW-14	9/11/2017	3333.04	51.89	NM	NA	NA	3281.15	3281.15
MW-14	3/14/2018	3333.04	51.86	NM	NA	NA	3281.18	3281.18
MW-14	9/24/2018	3333.04	51.94	NM	NA	NA	3281.10	3281.10
MW-14	4/1/2019	3333.04	51.90	NM	NA	NA	3281.14	3281.14
MW-14	10/1/2019	3333.04	51.99	NM	NA	NA	3281.05	3281.05
MW-14	3/16/2020	3333.04	51.99	NM	NA	NA	3281.05	3281.05
MW-14	3/16/2021	3333.04	51.94	NM	NA	NA	3281.10	3281.10
MW-14	9/20/2021	3333.04	51.88	NM	NA	NA	3281.16	3281.16
MW-15	2/9/2009	3328.98	49.60	NM	NA	NA	3279.38	3279.38
MW-15	8/4/2009	3328.98	48.75	NM	NA	NA	3280.23	3280.23
MW-15	2/2/2010	3328.98	48.89	NM	NA	NA	3280.09	3280.09
MW-15	8/2/2010	3328.98	49.19	NM	NA	NA	3279.79	3279.79
MW-15	4/4/2011	3328.98	48.62	NM	NA	NA	3280.36	3280.36
MW-15	8/8/2011	3328.98	48.44	NM	NA	NA	3280.54	3280.54
MW-15	2/6/2012	3328.98	48.28	NM	NA	NA	3280.70	3280.70
MW-15	8/7/2012	3328.98	48.29	NM	NA	NA	3280.69	3280.69
MW-15	2/5/2013	3328.98	48.18	NM	NA	NA	3280.80	3280.80
MW-15	8/5/2013	3328.98	48.12	NM	NA	NA	3280.86	3280.86
MW-15	2/3/2014	3328.98	48.08	NM	NA	NA	3280.90	3280.90
MW-15	8/5/2014	3328.98	48.22	NM	NA	NA	3280.76	3280.76
MW-15	2/2/2015	3328.98	47.30	NM	NA	NA	3281.68	3281.68
MW-15	8/3/2015	3328.98	47.31	NM	NA	NA	3281.67	3281.67
MW-15	3/28/2016	3328.98	47.17	NM	NA	NA	3281.81	3281.81
MW-15	9/6/2016	3328.98	47.17	NM	NA	NA	3281.81	3281.81
MW-15	4/3/2017	3328.98	47.02	NM	NA	NA	3281.96	3281.96
MW-15	9/11/2017	3328.98	47.02	NM	NA	NA	3281.96	3281.96
MW-15	3/12/2018	3328.98	47.00	NM	NA	NA	3281.98	3281.98
MW-15	9/24/2018	3328.98	47.14	NM	NA	NA	3281.84	3281.84
MW-15	4/1/2019	3328.98	47.08	NM	NA	NA	3281.90	3281.90
MW-15	10/1/2019	3328.98	47.16	NM	NA	NA	3281.82	3281.82
MW-15	3/16/2020	3328.98	47.2	NM	NA	NA	3281.78	3281.78
MW-15	9/22/2020	3328.98	47.08	NM	NA	NA	3281.90	3281.90
MW-15	3/16/2021	3328.98	46.97	NM	NA	NA	3282.01	3282.01
MW-15	9/20/2021	3328.98	46.97	NM	NA	NA	3282.01	3282.01
MW-16	2/9/2009	3330.2	49.45	NM	NA	NA	3280.75	3280.75
MW-16	8/4/2009	3330.2	49.58	NM	NA	NA	3280.62	3280.62
MW-16	2/2/2010	3330.2	49.68	NM	NA	NA	3280.52	3280.52
MW-16	8/2/2010	3330.2	49.87	NM	NA	NA	3280.33	3280.33
MW-16	4/4/2011	3330.2	49.34	NM	NA	NA	3280.86	3280.86
MW-16	8/8/2011	3330.2	49.81	NM	NA	NA	3280.39	3280.39
MW-16	2/6/2012	3330.2	46.45	NM	NA	NA	3283.75	3283.75
MW-16	8/17/2012	3330.2	48.96	NM	NA	NA	3281.24	3281.24
MW-16	2/5/2013	3330.2	48.90	NM	NA	NA	3281.30	3281.30
MW-16	8/5/2013	3330.2	48.82	NM	NA	NA	3281.38	3281.38
MW-16	2/3/2014	3330.2	48.77	NM	NA	NA	3281.43	3281.43
MW-16	8/5/2014	3330.2	48.97	NM	NA	NA	3281.23	3281.23
MW-16	2/2/2015	3330.2	48.60	NM	NA	NA	3281.60	3281.60
MW-16	8/3/2015	3330.2	47.58	NM	NA	NA	3282.62	3282.62
MW-16	3/28/2016	3330.2	48.30	NM	NA	NA	3281.90	3281.90

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Location ID	Date	Top of Casing (feet amsl)	Depth To Groundwater (feet btoc)	Depth to LNAPL (feet btoc)	LNAPL Thickness (feet)	LNAPL Specific Gravity	Uncorrected Groundwater Elevation (feet amsl)	Corrected Groundwater Elevation (feet amsl)[1]
MW-16	9/6/2016	3330.2	48.20	NM	NA	NA	3282.00	3282.00
MW-16	4/3/2017	3330.2	48.15	NM	NA	NA	3282.05	3282.05
MW-16	9/11/2017	3330.2	48.05	NM	NA	NA	3282.15	3282.15
MW-16	3/12/2018	3330.2	47.97	NM	NA	NA	3282.23	3282.23
MW-16	9/24/2018	3330.2	46.00	NM	NA	NA	3284.20	3284.20
MW-16	4/1/2019	3330.2	47.90	NM	NA	NA	3282.30	3282.30
MW-16	10/1/2019	3330.2	47.99	NM	NA	NA	3282.21	3282.21
MW-16	3/16/2020	3330.2	47.97	NM	NA	NA	3282.23	3282.23
MW-16	9/24/2020	3330.2	47.78	NM	NA	NA	3282.42	3282.42
MW-16	3/16/2021	3330.2	47.76	NM	NA	NA	3282.44	3282.44
MW-16	9/20/2021	3330.2	47.68	NM	NA	NA	3282.52	3282.52
MW-17	2/11/2009	3334.32	52.75	NM	NA	NA	3281.57	3281.57
MW-17	8/4/2009	3334.32	52.88	NM	NA	NA	3281.44	3281.44
MW-17	2/2/2010	3334.32	52.98	NM	NA	NA	3281.34	3281.34
MW-17	8/2/2010	3334.32	53.10	NM	NA	NA	3281.22	3281.22
MW-17	4/4/2011	3334.32	52.29	NM	NA	NA	3282.03	3282.03
MW-17	8/8/2011	3334.32	52.11	NM	NA	NA	3282.21	3282.21
MW-17	2/6/2012	3334.32	52.00	NM	NA	NA	3282.32	3282.32
MW-17	8/7/2012	3334.32	51.89	NM	NA	NA	3282.43	3282.43
MW-17	2/5/2013	3334.32	51.81	NM	NA	NA	3282.51	3282.51
MW-17	8/5/2013	3334.32	51.90	NM	NA	NA	3282.42	3282.42
MW-17	2/3/2014	3334.32	51.72	NM	NA	NA	3282.60	3282.60
MW-17	8/5/2014	3334.32	52.26	NM	NA	NA	3282.06	3282.06
MW-17	2/2/2015	3334.32	51.92	NM	NA	NA	3282.40	3282.40
MW-17	8/3/2015	3334.32	51.90	NM	NA	NA	3282.42	3282.42
MW-17	3/28/2016	3334.32	51.71	NM	NA	NA	3282.61	3282.61
MW-17	9/9/2016	3334.32	51.65	NM	NA	NA	3282.67	3282.67
MW-17	4/3/2017	3334.32	51.67	NM	NA	NA	3282.65	3282.65
MW-17	9/12/2017	3334.32	51.61	NM	NA	NA	3282.71	3282.71
MW-17	3/12/2018	3334.32	51.35	NM	NA	NA	3282.97	3282.97
MW-17	9/24/2018	3334.32	51.35	NM	NA	NA	3282.97	3282.97
MW-17	4/1/2019	3334.32	51.22	NM	NA	NA	3283.10	3283.10
MW-17	10/1/2019	3334.32	51.41	NM	NA	NA	3282.91	3282.91
MW-17	3/16/2020	3334.32	49.99	NM	NA	NA	3284.33	3284.33
MW-17	9/22/2020	3334.32	50.78	NM	NA	NA	3283.54	3283.54
MW-17	3/18/2021	3334.32	50.75	NM	NA	NA	3283.57	3283.57
MW-17	9/20/2021	3334.32	50.67	NM	NA	NA	3283.65	3283.65
MW-18	2/10/2009	3336.1	53.38	NM	NA	NA	3282.72	3282.72
MW-18	8/4/2009	3336.1	53.27	NM	NA	NA	3282.83	3282.83
MW-18	2/2/2010	3336.1	53.47	NM	NA	NA	3282.63	3282.63
MW-18	8/2/2010	3336.1	53.43	NM	NA	NA	3282.67	3282.67
MW-18	4/4/2011	3336.1	53.07	NM	NA	NA	3283.03	3283.03
MW-18	8/8/2011	3336.1	52.93	NM	NA	NA	3283.17	3283.17
MW-18	2/6/2012	3336.1	52.89	NM	NA	NA	3283.21	3283.21
MW-18	8/7/2012	3336.1	52.81	NM	NA	NA	3283.29	3283.29
MW-18	2/5/2013	3336.1	52.80	NM	NA	NA	3283.30	3283.30
MW-18	8/5/2013	3336.1	52.86	NM	NA	NA	3283.24	3283.24
MW-18	2/3/2014	3336.1	52.69	NM	NA	NA	3283.41	3283.41
MW-18	8/5/2014	3336.1	52.82	NM	NA	NA	3283.28	3283.28
MW-18	8/3/2015	3336.1	52.50	NM	NA	NA	3283.60	3283.60
MW-18	3/29/2016	3336.1	52.37	NM	NA	NA	3283.73	3283.73
MW-18	9/12/2016	3336.1	52.38	NM	NA	NA	3283.72	3283.72
MW-18	4/3/2017	3336.1	52.23	NM	NA	NA	3283.87	3283.87
MW-18	3/12/2018	3336.1	52.08	NM	NA	NA	3284.02	3284.02
MW-18	9/24/2018	3336.1	NM	NM	NA	NA	NM	NM
MW-18	3/16/2020	3336.1	51.98	NM	NA	NA	3284.12	3284.12
MW-18	3/16/2021	3336.1	NM	NM	NA	NA	NM	NM
MW-19	2/18/2009	3334.21	53.42	52.44	0.98	0.82	3280.79	3281.59
MW-19	3/18/2009	3334.21	53.51	52.51	1	0.82	3280.70	3281.52
MW-19	8/5/2009	3334.21	52.81	NM	NA	0.82	3281.40	3281.40
MW-19	2/2/2010	3334.21	53.02	53.00	0.02	0.82	3281.19	3281.21
MW-19	8/2/2010	3334.21	53.19	NM	NA	0.82	3281.02	3281.02
MW-19	4/4/2011	3334.21	52.57	NM	NA	0.82	3281.64	3281.64
MW-19	8/8/2011	3334.21	NM	NM	NA	0.82	NM	NM
MW-19	2/6/2012	3334.21	53.09	53.07	0.02	0.82	3281.12	3281.14
MW-19	8/7/2012	3334.21	52.42	NM	NA	0.82	3281.79	3281.79
MW-19	2/5/2013	3334.21	52.50	NM	NA	0.82	3281.71	3281.71
MW-19	8/5/2013	3334.21	52.48	NM	NA	0.82	3281.73	3281.73
MW-19	2/3/2014	3334.21	52.48	NM	NA	0.82	3281.73	3281.73
MW-19	8/5/2014	3334.21	52.71	NM	NA	0.82	3281.50	3281.50
MW-19	2/2/2015	3334.21	51.41	51.40	0.01	0.82	3282.80	3282.81
MW-19	8/3/2015	3334.21	52.26	51.36	0.9	0.82	3281.95	3282.69
MW-19	3/29/2016	3334.21	52.64	51.06	1.58	0.82	3281.57	3282.87
MW-19	9/13/2016	3334.21	51.99	51.19	0.8	0.82	3282.22	3282.88
MW-19	4/3/2017	3334.21	52.51	50.94	1.57	0.82	3281.70	3282.99
MW-19	3/15/2018	3334.21	52.04	50.82	1.22	0.82	3282.17	3283.17

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MW-19	9/24/2018	3334.21	NM	50.82	NA	0.82	NM	NM
MW-19	4/1/2019	3334.21	52.26	50.93	1.33	0.82	3281.95	3283.04
MW-19	3/17/2020	3334.21	52.61	51.07	1.54	0.82	3281.60	3282.86
MW-19	3/15/2021	3334.21	52.49	50.91	1.58	0.82	3281.72	3283.02
MW-19	9/20/2021	3334.21	52.26	50.69	1.57	0.82	3281.95	3283.24
MW-20	2/4/2009	3334.06	54.37	52.44	1.93	0.82	3279.69	3281.27
MW-20	3/18/2009	3334.06	56.92	52.25	4.67	0.82	3277.14	3280.97
MW-20	3/25/2009	3334.06	57.44	52.19	5.25	0.82	3276.62	3280.93
MW-20	8/5/2009	3334.06	55.82	52.65	3.17	0.82	3278.24	3280.84
MW-20	2/2/2010	3334.06	56.91	52.75	4.16	0.82	3277.15	3280.56
MW-20	8/2/2010	3334.06	53.84	53.69	0.15	0.82	3280.22	3280.34
MW-20	4/4/2011	3334.06	55.80	52.84	2.96	0.82	3278.26	3280.69
MW-20	8/8/2011	3334.06	NM	NM	NA	0.82	NM	NM
MW-20	2/6/2012	3334.06	56.97	52.87	4.1	0.82	3277.09	3280.45
MW-20	8/7/2012	3334.06	55.27	51.63	3.64	0.82	3278.79	3281.77
MW-20	2/5/2013	3334.06	55.84	51.25	4.59	0.82	3278.22	3281.98
MW-20	8/5/2013	3334.06	55.87	51.61	4.26	0.82	3278.19	3281.68
MW-20	2/3/2014	3334.06	55.64	51.52	4.12	0.82	3278.42	3281.80
MW-20	8/5/2014	3334.06	56.14	51.86	4.28	0.82	3277.92	3281.43
MW-20	2/12/2015	3334.06	54.48	50.98	3.5	0.82	3279.58	3282.45
MW-20	8/3/2015	3334.06	54.58	50.98	3.6	0.82	3279.48	3282.43
MW-20	3/29/2016	3334.06	54.37	50.80	3.57	0.82	3279.69	3282.62
MW-20	9/13/2016	3334.06	53.87	50.70	3.17	0.82	3280.19	3282.79
MW-20	4/3/2017	3334.06	54.18	50.69	3.49	0.82	3279.88	3282.74
MW-20	3/15/2018	3334.06	53.90	50.60	3.3	0.82	3280.16	3282.87
MW-20	9/24/2018	3334.06	NM	50.60	NA	0.82	NM	NM
MW-20	10/1/2019	3334.06	54.61	50.91	3.7	0.82	3279.45	3282.48
MW-20	3/17/2020	3334.06	54.03	50.92	3.11	0.82	3280.03	3282.58
MW-20	3/15/2021	3334.06	53.52	51.58	1.94	0.82	3280.54	3282.13
MW-20	10/6/2021	3334.06	52.94	50.4	2.54	0.82	3281.12	3283.20
MW-21	2/18/2009	3333.02	51.89	51.86	0.03	0.82	3281.13	3281.15
MW-21	8/5/2009	3333.02	52.13	52.12	0.01	0.82	3280.89	3280.90
MW-21	2/2/2010	3333.02	52.33	NM	NA	0.82	3280.69	3280.69
MW-21	8/2/2010	3333.02	52.75	NM	NA	0.82	3280.27	3280.27
MW-21	4/4/2011	3333.02	51.23	NM	NA	0.82	3281.79	3281.79
MW-21	8/8/2011	3333.02	NM	NM	NA	0.82	NM	NM
MW-21	2/6/2012	3333.02	52.42	52.38	0.04	0.82	3280.60	3280.63
MW-21	8/7/2012	3333.02	51.41	NM	NA	0.82	3281.61	3281.61
MW-21	2/5/2013	3333.02	51.50	NM	NA	0.82	3281.52	3281.52
MW-21	8/15/2013	3333.02	51.53	NM	NA	0.82	3281.49	3281.49
MW-21	2/3/2014	3333.02	51.31	NM	NA	0.82	3281.71	3281.71
MW-21	8/5/2014	3333.02	51.70	51.64	0.06	0.82	3281.32	3281.37
MW-21	2/2/2015	3333.02	50.39	50.36	0.03	0.82	3282.63	3282.65
MW-21	8/3/2015	3333.02	50.40	50.38	0.02	0.82	3282.62	3282.64
MW-21	3/29/2016	3333.02	51.07	50.39	0.68	0.82	3281.95	3282.51
MW-21	9/13/2016	3333.02	50.88	50.21	0.67	0.82	3282.14	3282.69
MW-21	4/3/2017	3333.02	51.67	50.00	1.67	0.82	3281.35	3282.72
MW-21	3/15/2018	3333.02	50.92	50.04	0.88	0.82	3282.10	3282.82
MW-21	9/24/2018	3333.02	NM	50.04	NA	0.82	NM	NM
MW-21	4/1/2019	3333.02	51.00	50.15	0.85	0.82	3282.02	3282.72
MW-21	10/1/2019	3333.02	51.90	50.32	1.58	0.82	3281.12	3282.42
MW-21	3/17/2020	3333.02	52.15	50.18	1.97	0.82	3280.87	3282.49
MW-21	3/15/2021	3333.02	52.60	49.87	2.73	0.82	3280.42	3282.66
MW-21	9/20/2021	3333.02	52.58	49.69	2.89	0.82	3280.44	3282.81
MW-22	2/11/2009	3334.87	55.04	NM	NA	NA	3279.83	3279.83
MW-22	8/5/2009	3334.87	54.55	NM	NA	NA	3280.32	3280.32
MW-22	2/2/2010	3334.87	55.45	NM	NA	NA	3279.42	3279.42
MW-22	8/2/2010	3334.87	55.77	NM	NA	NA	3279.10	3279.10
MW-22	4/4/2011	3334.87	53.60	NM	NA	NA	3281.27	3281.27
MW-22	8/8/2011	3334.87	53.38	NM	NA	NA	3281.49	3281.49
MW-22	2/6/2012	3334.87	53.30	NM	NA	NA	3281.57	3281.57
MW-22	8/7/2012	3334.87	53.15	NM	NA	NA	3281.72	3281.72
MW-22	2/5/2013	3334.87	53.11	NM	NA	NA	3281.76	3281.76
MW-22	8/5/2013	3334.87	53.20	NM	NA	NA	3281.67	3281.67
MW-22	2/3/2014	3334.87	53.05	NM	NA	NA	3281.82	3281.82
MW-22	8/5/2014	3334.87	54.30	NM	NA	NA	3280.57	3280.57
MW-22	2/2/2015	3334.87	52.85	NM	NA	NA	3282.02	3282.02
MW-22	8/3/2015	3334.87	52.80	NM	NA	NA	3282.07	3282.07
MW-22	3/28/2016	3334.87	53.06	NM	NA	NA	3281.81	3281.81
MW-22	9/9/2016	3334.87	52.48	NM	NA	NA	3282.39	3282.39
MW-22	4/3/2017	3334.87	52.65	NM	NA	NA	3282.22	3282.22
MW-22	3/12/2018	3334.87	52.44	NM	NA	NA	3282.43	3282.43
MW-22	9/24/2018	3334.87	NM	NM	NA	NA	NM	NM
MW-22	4/1/2019	3334.87	52.24	NM	NA	NA	3282.63	3282.63
MW-22	3/16/2020	3334.87	52.37	NM	NA	NA	3282.50	3282.50
MW-22	3/18/2021	3334.87	52.95	NM	NA	NA	3281.92	3281.92

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MW-22	9/20/2021	3334.87	51.83	NM	NA	NA	3283.04	3283.04
MW-23	2/11/2009	3334.45	54.39	NM	NA	NA	3280.06	3280.06
MW-23	8/4/2009	3334.45	54.25	NM	NA	NA	3280.20	3280.20
MW-23	2/2/2010	3334.45	55.04	NM	NA	NA	3279.41	3279.41
MW-23	8/2/2010	3334.45	55.16	NM	NA	NA	3279.29	3279.29
MW-23	4/4/2011	3334.45	52.86	NM	NA	NA	3281.59	3281.59
MW-23	8/8/2011	3334.45	52.62	NM	NA	NA	3281.83	3281.83
MW-23	2/6/2012	3334.45	52.50	NM	NA	NA	3281.95	3281.95
MW-23	8/17/2012	3334.45	53.25	NM	NA	NA	3281.20	3281.20
MW-23	2/5/2013	3334.45	52.31	NM	NA	NA	3282.14	3282.14
MW-23	8/5/2013	3334.45	52.38	NM	NA	NA	3282.07	3282.07
MW-23	2/3/2014	3334.45	52.21	NM	NA	NA	3282.24	3282.24
MW-23	8/5/2014	3334.45	54.41	NM	NA	NA	3280.04	3280.04
MW-23	2/2/2015	3334.45	52.82	NM	NA	NA	3281.63	3281.63
MW-23	8/3/2015	3334.45	53.90	NM	NA	NA	3280.55	3280.55
MW-23	3/28/2016	3334.45	53.21	NM	NA	NA	3281.24	3281.24
MW-23	9/9/2016	3334.45	52.92	NM	NA	NA	3281.53	3281.53
MW-23	4/3/2017	3334.45	53.24	NM	NA	NA	3281.21	3281.21
MW-23	3/12/2018	3334.45	52.01	NM	NA	NA	3282.44	3282.44
MW-23	9/24/2018	3334.45	NM	NM	NA	NA	NM	NM
MW-23	3/16/2020	3334.45	51.55	NM	NA	NA	3282.90	3282.90
MW-23	3/15/2021	3334.45	51.17	NM	NA	NA	3283.28	3283.28
MW-23	9/20/2021	3334.45	51.09	NM	NA	NA	3283.36	3283.36
MW-24	2/18/2009	3336.97	54.16	NM	NA	0.74	3282.81	3282.81
MW-24	8/4/2009	3336.97	54.26	54.25	0.01	0.74	3282.71	3282.72
MW-24	2/2/2010	3336.97	54.38	NM	NA	0.74	3282.59	3282.59
MW-24	8/2/2010	3336.97	54.38	NM	NA	0.74	3282.59	3282.59
MW-24	4/4/2011	3336.97	54.23	NM	NA	0.74	3282.74	3282.74
MW-24	8/8/2011	3336.97	54.20	NM	NA	0.74	3282.77	3282.77
MW-24	2/6/2012	3336.97	54.25	NM	NA	0.74	3282.72	3282.72
MW-24	8/27/2012	3336.97	54.22	NM	NA	0.74	3282.75	3282.75
MW-24	2/5/2013	3336.97	54.20	NM	NA	0.74	3282.77	3282.77
MW-24	8/5/2013	3336.97	54.15	NM	NA	0.74	3282.82	3282.82
MW-24	2/3/2014	3336.97	54.12	NM	NA	0.74	3282.85	3282.85
MW-24	8/5/2014	3336.97	54.18	NM	NA	0.74	3282.79	3282.79
MW-24	2/2/2015	3336.97	53.71	NM	NA	0.74	3283.26	3283.26
MW-24	8/3/2015	3336.97	53.68	NM	NA	0.74	3283.29	3283.29
MW-24	3/29/2016	3336.97	53.45	NM	NA	0.74	3283.52	3283.52
MW-24	9/12/2016	3336.97	53.43	NM	NA	0.74	3283.54	3283.54
MW-24	4/3/2017	3336.97	53.32	NM	NA	0.74	3283.65	3283.65
MW-24	9/12/2017	3336.97	53.33	NM	NA	0.74	3283.64	3283.64
MW-24	3/13/2018	3336.97	53.29	NM	NA	0.74	3283.68	3283.68
MW-24	9/24/2018	3336.97	53.46	NM	NA	0.74	3283.51	3283.51
MW-24	4/1/2019	3336.97	53.28	NM	NA	0.74	3283.69	3283.69
MW-24	10/1/2019	3336.97	53.38	NM	NA	0.74	3283.59	3283.59
MW-24	3/16/2020	3336.97	53.35	NM	NA	0.74	3283.62	3283.62
MW-24	3/15/2021	3336.97	NM	NM	NA	0.74	NM	NM
MW-24	9/24/2021	3336.97	53.27	NM	NA	NA	3283.70	3283.70
MW-25	2/12/2009	3336.31	52.16	NM	NA	NA	3284.15	3284.15
MW-25	8/5/2009	3336.31	52.00	NM	NA	NA	3284.31	3284.31
MW-25	2/2/2010	3336.31	52.48	NM	NA	NA	3283.83	3283.83
MW-25	8/2/2010	3336.31	52.49	NM	NA	NA	3283.82	3283.82
MW-25	4/4/2011	3336.31	52.15	NM	NA	NA	3284.16	3284.16
MW-25	8/8/2011	3336.31	52.08	NM	NA	NA	3284.23	3284.23
MW-25	2/6/2012	3336.31	52.15	NM	NA	NA	3284.16	3284.16
MW-25	2/5/2013	3336.31	52.08	NM	NA	NA	3284.23	3284.23
MW-25	8/5/2013	3336.31	51.97	NM	NA	NA	3284.34	3284.34
MW-25	2/3/2014	3336.31	51.97	NM	NA	NA	3284.34	3284.34
MW-25	8/5/2014	3336.31	52.04	NM	NA	NA	3284.27	3284.27
MW-25	2/2/2015	3336.31	51.40	NM	NA	NA	3284.91	3284.91
MW-25	8/3/2015	3336.31	51.40	NM	NA	NA	3284.91	3284.91
MW-25	3/29/2016	3336.31	51.15	NM	NA	NA	3285.16	3285.16
MW-25	9/12/2016	3336.31	51.23	NM	NA	NA	3285.08	3285.08
MW-25	4/3/2017	3336.31	51.01	NM	NA	NA	3285.30	3285.30
MW-25	9/12/2017	3336.31	51.01	NM	NA	NA	3285.30	3285.30
MW-25	3/13/2018	3336.31	51.07	NM	NA	NA	3285.24	3285.24
MW-25	9/24/2018	3336.31	51.18	NM	NA	NA	3285.13	3285.13
MW-25	4/1/2019	3336.31	51.02	NM	NA	NA	3285.29	3285.29
MW-25	10/1/2019	3336.31	51.21	NM	NA	NA	3285.10	3285.10
MW-25	3/16/2020	3336.31	51.08	NM	NA	NA	3285.23	3285.23
MW-25	9/23/2020	3336.31	51.04	NM	NA	NA	3285.27	3285.27
MW-25	3/19/2021	3336.31	51.05	NM	NA	NA	3285.26	3285.26
MW-25	9/27/2021	3336.31	50.88	NM	NA	NA	3285.43	3285.43
MW-26	2/17/2009	3334.93	52.47	NM	NA	0.72	3282.46	3282.46
MW-26	8/4/2009	3334.93	52.61	52.60	0.01	0.72	3282.32	3282.33
MW-26	2/2/2010	3334.93	52.75	NM	NA	0.72	3282.18	3282.18

Appendix C
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Location ID	Date	Top of Casing (feet amsl)	Depth To Groundwater (feet btoc)	Depth to LNAPL (feet btoc)	LNAPL Thickness (feet)	LNAPL Specific Gravity	Uncorrected Groundwater Elevation (feet amsl)	Corrected Groundwater Elevation (feet amsl)[1]
MW-26	8/2/2010	3334.93	52.76	NM	NA	0.72	3282.17	3282.17
MW-26	4/4/2011	3334.93	52.60	NM	NA	0.72	3282.33	3282.33
MW-26	8/8/2011	3334.93	52.56	NM	NA	0.72	3282.37	3282.37
MW-26	2/6/2012	3334.93	52.65	NM	NA	0.72	3282.28	3282.28
MW-26	8/17/2012	3334.93	52.58	NM	NA	0.72	3282.35	3282.35
MW-26	2/5/2013	3334.93	52.55	NM	NA	0.72	3282.38	3282.38
MW-26	8/5/2013	3334.93	52.49	NM	NA	0.72	3282.44	3282.44
MW-26	2/3/2014	3334.93	52.46	NM	NA	0.72	3282.47	3282.47
MW-26	8/5/2014	3334.93	52.52	NM	NA	0.72	3282.41	3282.41
MW-26	2/2/2015	3334.93	51.95	NM	NA	0.72	3282.98	3282.98
MW-26	8/3/2015	3334.93	51.95	NM	NA	0.72	3282.98	3282.98
MW-26	3/29/2016	3334.93	51.69	NM	NA	0.72	3283.24	3283.24
MW-26	9/12/2016	3334.93	51.93	NM	NA	0.72	3283.00	3283.00
MW-26	4/3/2017	3334.93	52.58	NM	NA	0.72	3282.35	3282.35
MW-26	9/12/2017	3334.93	51.62	NM	NA	0.72	3283.31	3283.31
MW-26	3/13/2018	3334.93	51.60	51.58	0.02	0.72	3283.33	3283.34
MW-26	9/24/2018	3334.93	51.72	51.58	0.14	0.72	3283.21	3283.31
MW-26	4/1/2019	3334.93	51.59	NM	NA	0.72	3283.34	3283.34
MW-26	10/1/2019	3334.93	51.73	NM	NA	0.72	3283.20	3283.20
MW-26	3/16/2020	3334.93	51.67	NM	NA	0.72	3283.26	3283.26
MW-26	9/23/2020	3334.93	51.66	NM	NA	0.72	3283.27	3283.27
MW-26	3/19/2021	3334.93	51.96	NM	NA	0.72	3282.97	3282.97
MW-26	9/27/2021	3334.93	53.27	NM	NA	0.72	3281.66	3281.66
MW-27	2/17/2009	3334.96	52.51	NM	NA	0.72	3282.45	3282.45
MW-27	8/4/2009	3334.96	52.65	52.63	0.02	0.72	3282.31	3282.32
MW-27	2/2/2010	3334.96	52.84	52.81	0.03	0.72	3282.12	3282.14
MW-27	8/2/2010	3334.96	53.05	52.82	0.23	0.72	3281.91	3282.08
MW-27	4/4/2011	3334.96	54.90	52.18	2.72	0.72	3280.06	3282.02
MW-27	8/8/2011	3334.96	54.98	52.08	2.9	0.72	3279.98	3282.07
MW-27	2/6/2012	3334.96	58.15	53.87	4.28	0.72	3276.81	3279.89
MW-27	8/7/2012	3334.96	55.40	52.30	3.1	0.72	3279.56	3281.79
MW-27	2/5/2013	3334.96	55.05	52.01	3.04	0.72	3279.91	3282.10
MW-27	8/5/2013	3334.96	55.01	52.01	3	0.72	3279.95	3282.11
MW-27	2/3/2014	3334.96	54.88	51.94	2.94	0.72	3280.08	3282.20
MW-27	8/5/2014	3334.96	54.96	52.00	2.96	0.72	3280.00	3282.13
MW-27	2/2/2015	3334.96	52.42	51.78	0.64	0.72	3282.54	3283.00
MW-27	8/3/2015	3334.96	52.49	51.74	0.75	0.72	3282.47	3283.01
MW-27	3/29/2016	3334.96	51.50	NM	NA	0.72	3283.46	3283.46
MW-27	9/12/2016	3334.96	52.67	51.52	1.15	0.72	3282.29	3283.12
MW-27	4/3/2017	3334.96	52.33	51.4	0.93	0.72	3282.63	3283.30
MW-27	3/13/2018	3334.96	52.33	51.34	0.99	0.72	3282.63	3283.34
MW-27	9/24/2018	3334.96	NM	51.34	NA	0.72	NM	NM
MW-27	4/1/2019	3334.96	50.71	49.50	1.21	0.72	3284.25	3285.12
MW-27	10/1/2019	3334.96	50.86	49.61	1.25	0.72	3284.10	3285.00
MW-27	3/17/2020	3334.96	50.84	49.60	1.24	0.72	3284.12	3285.01
MW-27	3/15/2021	3334.96	53.62	52.19	1.43	0.72	3281.34	3282.37
MW-27	9/29/2021	3334.96	53.64	52.30	1.34	0.72	3281.32	3282.28
MW-28	3/9/2009	3333.04	57.65	53.6	4.05	0.72	3275.39	3278.31
MW-28	8/5/2009	3333.04	57.94	53.68	4.26	0.72	3275.10	3278.17
MW-28	2/2/2010	3333.04	58.13	53.85	4.28	0.72	3274.91	3277.99
MW-28	8/2/2010	3333.04	58.15	53.97	4.18	0.72	3274.89	3277.90
MW-28	4/4/2011	3333.04	57.44	53.78	3.66	0.72	3275.60	3278.24
MW-28	8/8/2011	3333.04	57.37	53.66	3.71	0.72	3275.67	3278.34
MW-28	2/6/2012	3333.04	58.22	53.84	4.38	0.72	3274.82	3277.97
MW-28	8/14/2012	3333.04	57.54	53.63	3.91	0.72	3275.50	3278.32
MW-28	2/5/2013	3333.04	57.42	53.61	3.81	0.72	3275.62	3278.36
MW-28	8/5/2013	3333.04	57.15	53.63	3.52	0.72	3275.89	3278.42
MW-28	2/3/2014	3333.04	56.86	53.67	3.19	0.72	3276.18	3278.48
MW-28	8/5/2014	3333.04	56.86	53.80	3.06	0.72	3276.18	3278.38
MW-28	2/2/2015	3333.04	55.65	53.80	1.85	0.72	3277.39	3278.72
MW-28	8/3/2015	3333.04	55.54	53.27	2.27	0.72	3277.50	3279.13
MW-28	3/29/2016	3333.04	NM	53.15	NA	0.72	NM	NM
MW-28	9/13/2016	3333.04	55.27	53.17	2.1	0.72	3277.77	3279.28
MW-28	4/3/2017	3333.04	55.02	53.00	2.02	0.72	3278.02	3279.47
MW-28	3/13/2018	3333.04	54.88	53.00	1.88	0.72	3278.16	3279.51
MW-28	9/24/2018	3333.04	NM	NM	NA	0.72	NM	NM
MW-28	4/1/2019	3333.04	54.94	53.05	1.89	0.72	3278.10	3279.46
MW-28	10/1/2019	3333.04	55.09	53.25	1.84	0.72	3277.95	3279.27
MW-28	3/17/2020	3333.04	54.98	53.22	1.76	0.72	3278.06	3279.33
MW-28	3/15/2021	3333.04	54.90	53.2	1.7	0.72	3278.14	3279.36
MW-28	9/29/2021	3333.04	57.85	53.17	NA	NA	3275.19	3275.19
MW-29	2/4/2009	3334.01	52.56	NM	NA	NA	3281.45	3281.45
MW-29	8/5/2009	3334.01	52.65	NM	NA	NA	3281.36	3281.36
MW-29	2/2/2010	3334.01	52.84	NM	NA	NA	3281.17	3281.17
MW-29	8/2/2010	3334.01	52.95	NM	NA	NA	3281.06	3281.06
MW-29	4/4/2011	3334.01	52.87	NM	NA	NA	3281.14	3281.14

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MW-29	8/8/2011	3334.01	52.80	NM	NA	NA	3281.21	3281.21
MW-29	2/6/2012	3334.01	52.83	NM	NA	NA	3281.18	3281.18
MW-29	8/6/2012	3334.01	52.85	NM	NA	NA	3281.16	3281.16
MW-29	2/5/2013	3334.01	52.70	NM	NA	NA	3281.31	3281.31
MW-29	8/5/2013	3334.01	52.73	NM	NA	NA	3281.28	3281.28
MW-29	2/3/2014	3334.01	52.67	NM	NA	NA	3281.34	3281.34
MW-29	8/5/2014	3334.01	52.76	NM	NA	NA	3281.25	3281.25
MW-29	2/2/2015	3334.01	52.03	NM	NA	NA	3281.98	3281.98
MW-29	8/3/2015	3334.01	52.02	NM	NA	NA	3281.99	3281.99
MW-29	3/29/2016	3334.01	51.90	NM	NA	NA	3282.11	3282.11
MW-29	9/7/2016	3334.01	51.93	NM	NA	NA	3282.08	3282.08
MW-29	4/3/2017	3334.01	51.77	NM	NA	NA	3282.24	3282.24
MW-29	9/11/2017	3334.01	51.81	NM	NA	NA	3282.20	3282.20
MW-29	3/15/2018	3334.01	51.79	NM	NA	NA	3282.22	3282.22
MW-29	9/24/2018	3334.01	51.92	NM	NA	NA	3282.09	3282.09
MW-29	4/1/2019	3334.01	51.82	NM	NA	NA	3282.19	3282.19
MW-29	10/1/2019	3334.01	51.92	NM	NA	NA	3282.09	3282.09
MW-29	3/16/2020	3334.01	51.93	NM	NA	NA	3282.08	3282.08
MW-29	9/24/2020	3334.01	51.88	NM	NA	NA	3282.13	3282.13
MW-29	3/16/2021	3334.01	51.94	NM	NA	NA	3282.07	3282.07
MW-29	9/27/2021	3334.01	51.81	NM	NA	NA	3282.20	3282.20
MW-30	2/4/2009	3336.49	55.26	NM	NA	NA	3281.23	3281.23
MW-30	8/4/2009	3336.49	55.31	NM	NA	NA	3281.18	3281.18
MW-30	2/2/2010	3336.49	55.43	NM	NA	NA	3281.06	3281.06
MW-30	8/2/2010	3336.49	55.51	NM	NA	NA	3280.98	3280.98
MW-30	4/4/2011	3336.49	55.47	NM	NA	NA	3281.02	3281.02
MW-30	8/8/2011	3336.49	55.40	NM	NA	NA	3281.09	3281.09
MW-30	2/6/2012	3336.49	55.41	NM	NA	NA	3281.08	3281.08
MW-30	8/6/2012	3336.49	55.45	NM	NA	NA	3281.04	3281.04
MW-30	2/5/2013	3336.49	55.35	NM	NA	NA	3281.14	3281.14
MW-30	8/5/2013	3336.49	55.37	NM	NA	NA	3281.12	3281.12
MW-30	2/3/2014	3336.49	55.29	NM	NA	NA	3281.20	3281.20
MW-30	8/5/2014	3336.49	55.34	NM	NA	NA	3281.15	3281.15
MW-30	2/2/2015	3336.49	54.90	NM	NA	NA	3281.59	3281.59
MW-30	8/3/2015	3336.49	54.85	NM	NA	NA	3281.64	3281.64
MW-30	3/29/2016	3336.49	54.76	NM	NA	NA	3281.73	3281.73
MW-30	9/6/2016	3336.49	54.69	NM	NA	NA	3281.80	3281.80
MW-30	4/3/2017	3336.49	54.62	NM	NA	NA	3281.87	3281.87
MW-30	9/11/2017	3336.49	54.59	NM	NA	NA	3281.90	3281.90
MW-30	3/12/2018	3336.49	54.54	NM	NA	NA	3281.95	3281.95
MW-30	9/24/2018	3336.49	54.63	NM	NA	NA	3281.86	3281.86
MW-30	4/1/2019	3336.49	54.54	NM	NA	NA	3281.95	3281.95
MW-30	10/1/2019	3336.49	54.65	NM	NA	NA	3281.84	3281.84
MW-30	3/16/2020	3336.49	54.62	NM	NA	NA	3281.87	3281.87
MW-30	9/24/2020	3336.49	54.55	NM	NA	NA	3281.94	3281.94
MW-30	3/16/2021	3336.49	54.59	NM	NA	NA	3281.90	3281.90
MW-30	9/27/2021	3336.49	54.51	NM	NA	NA	3281.98	3281.98
MW-31	2/9/2009	3334.52	53.78	NM	NA	NA	3280.74	3280.74
MW-31	8/5/2009	3334.52	53.83	NM	NA	NA	3280.69	3280.69
MW-31	2/2/2010	3334.52	53.91	NM	NA	NA	3280.61	3280.61
MW-31	8/2/2010	3334.52	54.05	NM	NA	NA	3280.47	3280.47
MW-31	4/4/2011	3334.52	54.00	NM	NA	NA	3280.52	3280.52
MW-31	8/8/2011	3334.52	53.94	NM	NA	NA	3280.58	3280.58
MW-31	2/6/2012	3334.52	53.95	NM	NA	NA	3280.57	3280.57
MW-31	8/6/2012	3334.52	53.99	NM	NA	NA	3280.53	3280.53
MW-31	2/5/2013	3334.52	53.90	NM	NA	NA	3280.62	3280.62
MW-31	8/5/2013	3334.52	53.88	NM	NA	NA	3280.64	3280.64
MW-31	2/3/2014	3334.52	53.83	NM	NA	NA	3280.69	3280.69
MW-31	8/5/2014	3334.52	53.88	NM	NA	NA	3280.64	3280.64
MW-31	2/2/2015	3334.52	53.48	NM	NA	NA	3281.04	3281.04
MW-31	8/3/2015	3334.52	53.35	NM	NA	NA	3281.17	3281.17
MW-31	3/29/2016	3334.52	53.27	NM	NA	NA	3281.25	3281.25
MW-31	9/6/2016	3334.52	53.23	NM	NA	NA	3281.29	3281.29
MW-31	4/3/2017	3334.52	53.12	NM	NA	NA	3281.40	3281.40
MW-31	9/11/2017	3334.52	53.11	NM	NA	NA	3281.41	3281.41
MW-31	3/13/2018	3334.52	53.08	NM	NA	NA	3281.44	3281.44
MW-31	9/24/2018	3334.52	51.12	NM	NA	NA	3283.40	3283.40
MW-31	4/1/2019	3334.52	53.06	NM	NA	NA	3281.46	3281.46
MW-31	10/1/2019	3334.52	53.13	NM	NA	NA	3281.39	3281.39
MW-31	3/16/2020	3334.52	53.13	NM	NA	NA	3281.39	3281.39
MW-31	3/16/2021	3334.52	53.09	NM	NA	NA	3281.43	3281.43
MW-31	9/20/2021	3334.52	53.05	NM	NA	NA	3281.47	3281.47
MW-32	2/4/2009	3333.01	51.28	NM	NA	NA	3281.73	3281.73
MW-32	8/4/2009	3333.01	51.44	NM	NA	NA	3281.57	3281.57
MW-32	2/2/2010	3333.01	51.64	NM	NA	NA	3281.37	3281.37
MW-32	8/2/2010	3333.01	51.74	NM	NA	NA	3281.27	3281.27

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Location ID	Date	Top of Casing (feet amsl)	Depth To Groundwater (feet btoc)	Depth to LNAPL (feet btoc)	LNAPL Thickness (feet)	LNAPL Specific Gravity	Uncorrected Groundwater Elevation (feet amsl)	Corrected Groundwater Elevation (feet amsl)[1]
MW-32	4/4/2011	3333.01	51.59	NM	NA	NA	3281.42	3281.42
MW-32	8/8/2011	3333.01	51.53	NM	NA	NA	3281.48	3281.48
MW-32	2/6/2012	3333.01	51.55	NM	NA	NA	3281.46	3281.46
MW-32	8/6/2012	3333.01	51.53	NM	NA	NA	3281.48	3281.48
MW-32	2/5/2013	3333.01	51.48	NM	NA	NA	3281.53	3281.53
MW-32	8/5/2013	3333.01	51.45	NM	NA	NA	3281.56	3281.56
MW-32	2/3/2014	3333.01	51.40	NM	NA	NA	3281.61	3281.61
MW-32	8/5/2014	3333.01	51.48	NM	NA	NA	3281.53	3281.53
MW-32	2/2/2015	3333.01	50.52	NM	NA	NA	3282.49	3282.49
MW-32	8/3/2015	3333.01	50.60	NM	NA	NA	3282.41	3282.41
MW-32	3/29/2016	3333.01	50.42	NM	NA	NA	3282.59	3282.59
MW-32	9/7/2016	3333.01	50.49	NM	NA	NA	3282.52	3282.52
MW-32	4/3/2017	3333.01	50.31	NM	NA	NA	3282.70	3282.70
MW-32	9/12/2017	3333.01	50.34	NM	NA	NA	3282.67	3282.67
MW-32	3/12/2018	3333.01	50.31	NM	NA	NA	3282.70	3282.70
MW-32	9/24/2018	3333.01	50.54	NM	NA	NA	3282.47	3282.47
MW-32	4/1/2019	3333.01	50.42	NM	NA	NA	3282.59	3282.59
MW-32	10/1/2019	3333.01	50.59	NM	NA	NA	3282.42	3282.42
MW-32	3/16/2020	3333.01	50.55	NM	NA	NA	3282.46	3282.46
MW-32	9/24/2020	3333.01	50.5	NM	NA	NA	3282.51	3282.51
MW-32	3/16/2021	3333.01	55.54	NM	NA	NA	3277.47	3277.47
MW-32	9/27/2021	3333.01	50.39	NM	NA	NA	3282.62	3282.62
MW-34	2/4/2009	3335.77	53.51	NM	NA	NA	3282.26	3282.26
MW-34	8/5/2009	3335.77	53.62	NM	NA	NA	3282.15	3282.15
MW-34	2/2/2010	3335.77	53.73	NM	NA	NA	3282.04	3282.04
MW-34	8/2/2010	3335.77	53.77	NM	NA	NA	3282.00	3282.00
MW-34	4/4/2011	3335.77	53.60	NM	NA	NA	3282.17	3282.17
MW-34	8/8/2011	3335.77	53.64	NM	NA	NA	3282.13	3282.13
MW-34	2/6/2012	3335.77	53.70	NM	NA	NA	3282.07	3282.07
MW-34	8/6/2012	3335.77	53.69	NM	NA	NA	3282.08	3282.08
MW-34	2/5/2013	3335.77	53.60	NM	NA	NA	3282.17	3282.17
MW-34	8/5/2013	3335.77	53.61	NM	NA	NA	3282.16	3282.16
MW-34	2/3/2014	3335.77	53.55	NM	NA	NA	3282.22	3282.22
MW-34	8/5/2014	3335.77	53.62	NM	NA	NA	3282.15	3282.15
MW-34	2/2/2015	3335.77	53.03	NM	NA	NA	3282.74	3282.74
MW-34	8/3/2015	3335.77	53.02	NM	NA	NA	3282.75	3282.75
MW-34	3/29/2016	3335.77	52.85	NM	NA	NA	3282.92	3282.92
MW-34	9/7/2016	3335.77	52.91	NM	NA	NA	3282.86	3282.86
MW-34	4/3/2017	3335.77	52.75	NM	NA	NA	3283.02	3283.02
MW-34	9/11/2017	3335.77	52.77	NM	NA	NA	3283.00	3283.00
MW-34	3/12/2018	3335.77	52.69	NM	NA	NA	3283.08	3283.08
MW-34	9/24/2018	3335.77	52.83	NM	NA	NA	3282.94	3282.94
MW-34	4/1/2019	3335.77	52.71	NM	NA	NA	3283.06	3283.06
MW-34	10/1/2019	3335.77	52.85	NM	NA	NA	3282.92	3282.92
MW-34	3/16/2020	3335.77	52.80	NM	NA	NA	3282.97	3282.97
MW-34	9/24/2020	3335.77	52.77	NM	NA	NA	3283.00	3283.00
MW-34	3/16/2021	3335.77	52.81	NM	NA	NA	3282.96	3282.96
MW-34	9/27/2021	3335.77	52.66	NM	NA	NA	3283.11	3283.11
MW-35	4/12/2017	NM	56.52	NM	NA	NA	NM	NM
MW-35	9/11/2017	NM	56.60	NM	NA	NA	NM	NM
MW-35	3/13/2018	NM	56.54	NM	NA	NA	NM	NM
MW-35	9/24/2018	NM	56.63	NM	NA	NA	NM	NM
MW-35	4/1/2019	NM	56.46	NM	NA	NA	NM	NM
MW-35	10/1/2019	NM	56.52	NM	NA	NA	NM	NM
MW-35	3/16/2020	NM	56.50	NM	NA	NA	NM	NM
MW-35	9/22/2020	NM	56.43	NM	NA	NA	NM	NM
MW-35	3/17/2021	NM	56.44	NM	NA	NA	NM	NM
MW-35	9/27/2021	NM	56.42	NM	NA	NA	NM	NM
MW-36	4/12/2017	NM	65.68	NM	NA	NA	NM	NM
MW-36	9/11/2017	NM	60.37	NM	NA	NA	NM	NM
MW-36	3/13/2018	NM	60.36	NM	NA	NA	NM	NM
MW-36	9/24/2018	NM	60.39	NM	NA	NA	NM	NM
MW-36	4/1/2019	NM	60.25	NM	NA	NA	NM	NM
MW-36	10/1/2019	NM	60.28	NM	NA	NA	NM	NM
MW-36	3/16/2020	NM	50.32	NM	NA	NA	NM	NM
MW-36	3/16/2021	NM	60.20	NM	NA	NA	NM	NM
MW-36	9/20/2021	NM	60.20	NM	NA	NA	NM	NM
MW-37	3/13/2018	NM	55.88	NM	NA	NA	NM	NM
MW-37	9/24/2018	NM	55.94	NM	NA	NA	NM	NM
MW-37	4/1/2019	NM	55.80	NM	NA	NA	NM	NM
MW-37	10/1/2019	NM	55.87	NM	NA	NA	NM	NM
MW-37	3/16/2020	NM	55.87	NM	NA	NA	NM	NM
MW-37	3/16/2021	NM	55.81	NM	NA	NA	NM	NM
MW-37	9/20/2021	NM	55.83	NM	NA	NA	NM	NM
MW-38	3/13/2018	NM	50.01	NM	NA	NA	NM	NM
MW-38	9/24/2018	NM	50.24	NM	NA	NA	NM	NM

Appendix C
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Location ID	Date	Top of Casing (feet amsl)	Depth To Groundwater (feet btoc)	Depth to LNAPL (feet btoc)	LNAPL Thickness (feet)	LNAPL Specific Gravity	Uncorrected Groundwater Elevation (feet amsl)	Corrected Groundwater Elevation (feet amsl)[1]
MW-38	4/1/2019	NM	50.11	NM	NA	NA	NM	NM
MW-38	10/1/2019	NM	50.21	NM	NA	NA	NM	NM
MW-38	3/16/2020	NM	50.22	NM	NA	NA	NM	NM
MW-38	9/22/2020	NM	50.24	NM	NA	NA	NM	NM
MW-38	3/16/2021	NM	50.23	NM	NA	NA	NM	NM
MW-38	9/27/2021	NM	50.18	NM	NA	NA	NM	NM
MWD-1	2/11/2009	3335.26	53.37	NM	NA	NA	3281.89	3281.89
MWD-1	8/4/2009	3335.26	53.65	NM	NA	NA	3281.61	3281.61
MWD-1	2/2/2010	3335.26	53.80	NM	NA	NA	3281.46	3281.46
MWD-1	8/2/2010	3335.26	53.84	NM	NA	NA	3281.42	3281.42
MWD-1	4/11/2011	3335.26	52.98	NM	NA	NA	3282.28	3282.28
MWD-1	8/8/2011	3335.26	52.88	NM	NA	NA	3282.38	3282.38
MWD-1	2/6/2012	3335.26	52.73	NM	NA	NA	3282.53	3282.53
MWD-1	8/7/2012	3335.26	52.61	NM	NA	NA	3282.65	3282.65
MWD-1	8/5/2013	3335.26	52.62	NM	NA	NA	3282.64	3282.64
MWD-1	2/3/2014	3335.26	52.44	NM	NA	NA	3282.82	3282.82
MWD-1	8/5/2014	3335.26	53.00	NM	NA	NA	3282.26	3282.26
MWD-1	2/2/2015	3335.26	52.65	NM	NA	NA	3282.61	3282.61
MWD-1	8/3/2015	3335.26	52.60	NM	NA	NA	3282.66	3282.66
MWD-1	3/28/2016	3335.26	52.45	NM	NA	NA	3282.81	3282.81
MWD-1	9/9/2016	3335.26	52.40	NM	NA	NA	3282.86	3282.86
MWD-1	4/3/2017	3335.26	52.41	NM	NA	NA	3282.85	3282.85
MWD-1	3/12/2018	3335.26	52.10	NM	NA	NA	3283.16	3283.16
MWD-1	2/5/2013	3335.26	52.55	NM	NA	NA	3282.71	3282.71
MWD-1	9/12/2017	3335.26	52.37	NM	NA	NA	3282.89	3282.89
MWD-1	9/24/2018	3335.26	52.11	NM	NA	NA	3283.15	3283.15
MWD-1	4/1/2019	3335.26	51.93	NM	NA	NA	3283.33	3283.33
MWD-1	10/1/2019	3335.26	52.17	NM	NA	NA	3283.09	3283.09
MWD-1	3/16/2020	3335.26	51.76	NM	NA	NA	3283.50	3283.50
MWD-1	3/18/2021	3335.26	51.48	NM	NA	NA	3283.78	3283.78
MWD-2	2/10/2009	3336.32	54.75	NM	NA	NA	3281.57	3281.57
MWD-2	8/4/2009	3336.32	54.22	NM	NA	NA	3282.10	3282.10
MWD-2	2/2/2010	3336.32	54.68	NM	NA	NA	3281.64	3281.64
MWD-2	8/2/2010	3336.32	54.43	NM	NA	NA	3281.89	3281.89
MWD-2	4/11/2011	3336.32	53.78	NM	NA	NA	3282.54	3282.54
MWD-2	8/8/2011	3336.32	53.69	NM	NA	NA	3282.63	3282.63
MWD-2	2/6/2012	3336.32	53.26	NM	NA	NA	3283.06	3283.06
MWD-2	8/7/2012	3336.32	53.48	NM	NA	NA	3282.84	3282.84
MWD-2	2/5/2013	3336.32	53.40	NM	NA	NA	3282.92	3282.92
MWD-2	8/5/2013	3336.32	53.52	NM	NA	NA	3282.80	3282.80
MWD-2	2/3/2014	3336.32	53.38	NM	NA	NA	3282.94	3282.94
MWD-2	8/5/2014	3336.32	53.65	NM	NA	NA	3282.67	3282.67
MWD-2	2/2/2015	3336.32	53.32	NM	NA	NA	3283.00	3283.00
MWD-2	8/3/2015	3336.32	53.20	NM	NA	NA	3283.12	3283.12
MWD-2	3/29/2016	3336.32	53.08	NM	NA	NA	3283.24	3283.24
MWD-2	9/9/2016	3336.32	53.08	NM	NA	NA	3283.24	3283.24
MWD-2	4/3/2017	3336.32	52.95	NM	NA	NA	3283.37	3283.37
MWD-2	3/12/2018	3336.32	52.76	NM	NA	NA	3283.56	3283.56
MWD-2	9/24/2018	3336.32	NM	NM	NA	NA	NM	NM
MWD-2	4/1/2019	3336.32	52.62	NM	NA	NA	3283.70	3283.70
MWD-2	3/16/2020	3336.32	52.65	NM	NA	NA	3283.67	3283.67
MWD-2	3/18/2021	3336.32	52.36	NM	NA	NA	3283.96	3283.96
MWD-3	2/11/2009	3335.06	NM	NM	NA	NA	NM	NM
MWD-3	8/18/2009	3335.06	NM	NM	NA	NA	NM	NM
MWD-3	2/2/2010	3335.06	NM	NM	NA	NA	NM	NM
MWD-3	8/2/2010	3335.06	NM	NM	NA	NA	NM	NM
MWD-3	4/11/2011	3335.06	NM	NM	NA	NA	NM	NM
MWD-3	8/8/2011	3335.06	NM	NM	NA	NA	NM	NM
MWD-3	2/6/2012	3335.06	NM	NM	NA	NA	NM	NM
MWD-3	8/7/2012	3335.06	NM	NM	NA	NA	NM	NM
MWD-3	2/5/2013	3335.06	NM	NM	NA	NA	NM	NM
MWD-3	8/5/2013	3335.06	NM	NM	NA	NA	NM	NM
MWD-3	2/3/2014	3335.06	NM	NM	NA	NA	NM	NM
MWD-3	8/5/2014	3335.06	NM	NM	NA	NA	NM	NM
MWD-3	3/13/2018	3335.06	NM	NM	NA	NA	NM	NM
MWD-3*	3/28/2016	3335.06	NM	NM	NA	NA	NM	NM
MWD-3*	9/9/2016	3335.06	52.70	NM	NA	NA	3282.36	3282.36
MWD-3*	4/3/2017	3335.06	52.97	NM	NA	NA	3282.09	3282.09
MWD-3*	9/12/2017	3335.06	52.62	NM	NA	NA	3282.44	3282.44
MWD-3*	9/24/2018	3335.06	NM	NM	NA	NA	NM	NM
MWD-3*	4/1/2019	3335.06	NM	NM	NA	NA	NM	NM
MWD-3*	10/1/2019	3335.06	48.71	NM	NA	NA	3286.35	3286.35
MWD-3	9/22/2020	3335.06	52.19	NM	NA	NA	3282.87	3282.87
MWD-3	3/16/2020	3335.06	52.69	NM	NA	NA	3282.37	3282.37
MWD-3	3/18/2021	3335.06	49.63	NM	NA	NA	3285.43	3285.43
MWD-3	9/20/2021	3335.06	51.78	NM	NA	NA	3283.28	3283.28

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MWD-4	2/5/2009	3330.86	50.32	NM	NA	NA	3280.54	3280.54
MWD-4	8/4/2009	3330.86	50.52	NM	NA	NA	3280.34	3280.34
MWD-4	2/2/2010	3330.86	50.74	NM	NA	NA	3280.12	3280.12
MWD-4	8/2/2010	3330.86	51.45	NM	NA	NA	3279.41	3279.41
MWD-4	4/11/2011	3330.86	49.89	NM	NA	NA	3280.97	3280.97
MWD-4	8/8/2011	3330.86	49.79	NM	NA	NA	3281.07	3281.07
MWD-4	2/6/2012	3330.86	49.67	NM	NA	NA	3281.19	3281.19
MWD-4	8/7/2012	3330.86	49.58	NM	NA	NA	3281.28	3281.28
MWD-4	2/5/2013	3330.86	49.55	NM	NA	NA	3281.31	3281.31
MWD-4	8/5/2013	3330.86	49.63	NM	NA	NA	3281.23	3281.23
MWD-4	2/3/2014	3330.86	49.46	NM	NA	NA	3281.40	3281.40
MWD-4	8/5/2014	3330.86	49.76	NM	NA	NA	3281.10	3281.10
MWD-4	2/2/2015	3330.86	48.25	NM	NA	NA	3282.61	3282.61
MWD-4	8/3/2015	3330.86	48.35	NM	NA	NA	3282.51	3282.51
MWD-4	3/28/2016	3330.86	48.27	NM	NA	NA	3282.59	3282.59
MWD-4	9/7/2016	3330.86	48.25	NM	NA	NA	3282.61	3282.61
MWD-4	4/3/2017	3330.86	47.78	NM	NA	NA	3283.08	3283.08
MWD-4	9/11/2017	3330.86	48.29	NM	NA	NA	3282.57	3282.57
MWD-4	3/12/2018	3330.86	48.35	NM	NA	NA	3282.51	3282.51
MWD-4	9/24/2018	3330.86	48.64	NM	NA	NA	3282.22	3282.22
MWD-4	4/1/2019	3330.86	48.45	NM	NA	NA	3282.41	3282.41
MWD-4	10/1/2019	3330.86	48.71	NM	NA	NA	3282.15	3282.15
MWD-4	3/16/2020	3330.86	48.64	NM	NA	NA	3282.22	3282.22
MWD-4	3/17/2021	3330.86	48.36	NM	NA	NA	3282.50	3282.50
MWD-4	9/20/2021	3330.86	48.26	NM	NA	NA	3282.60	3282.60
MWD-5	2/12/2009	3334.01	52.11	NM	NA	NA	3281.90	3281.90
MWD-5	8/5/2009	3334.01	52.23	NM	NA	NA	3281.78	3281.78
MWD-5	2/2/2010	3334.01	53.44	NM	NA	NA	3280.57	3280.57
MWD-5	8/2/2010	3334.01	52.50	NM	NA	NA	3281.51	3281.51
MWD-5	4/11/2011	3334.01	52.30	NM	NA	NA	3281.71	3281.71
MWD-5	8/8/2011	3334.01	52.38	NM	NA	NA	3281.63	3281.63
MWD-5	2/6/2012	3334.01	52.35	NM	NA	NA	3281.66	3281.66
MWD-5	8/6/2012	3334.01	52.33	NM	NA	NA	3281.68	3281.68
MWD-5	2/5/2013	3334.01	52.30	NM	NA	NA	3281.71	3281.71
MWD-5	2/3/2014	3334.01	52.20	NM	NA	NA	3281.81	3281.81
MWD-5	8/5/2014	3334.01	52.32	NM	NA	NA	3281.69	3281.69
MWD-5	2/2/2015	3334.01	51.50	NM	NA	NA	3282.51	3282.51
MWD-5	8/3/2015	3334.01	51.15	NM	NA	NA	3282.86	3282.86
MWD-5	3/29/2016	3334.01	51.35	NM	NA	NA	3282.66	3282.66
MWD-5	9/7/2016	3334.01	51.45	NM	NA	NA	3282.56	3282.56
MWD-5	4/3/2017	3334.01	51.27	NM	NA	NA	3282.74	3282.74
MWD-5	3/12/2018	3334.01	51.20	NM	NA	NA	3282.81	3282.81
MWD-5	9/24/2018	3334.01	NM	NM	NA	NA	NM	NM
MWD-5	4/1/2019	3334.01	51.29	NM	NA	NA	3282.72	3282.72
MWD-5	3/16/2020	3334.01	51.41	NM	NA	NA	3282.60	3282.60
MWD-5	3/16/2021	3334.01	51.44	NM	NA	NA	3282.57	3282.57
MWD-5	9/27/2021	3334.01	51.28	NM	NA	NA	3282.73	3282.73
MWD-6	2/12/2009	3335.08	53.44	NM	NA	NA	3281.64	3281.64
MWD-6	8/4/2009	3335.08	53.56	NM	NA	NA	3281.52	3281.52
MWD-6	2/2/2010	3335.08	53.67	NM	NA	NA	3281.41	3281.41
MWD-6	8/2/2010	3335.08	53.70	NM	NA	NA	3281.38	3281.38
MWD-6	4/11/2011	3335.08	53.61	NM	NA	NA	3281.47	3281.47
MWD-6	8/8/2011	3335.08	53.63	NM	NA	NA	3281.45	3281.45
MWD-6	2/6/2012	3335.08	53.62	NM	NA	NA	3281.46	3281.46
MWD-6	8/6/2012	3335.08	53.65	NM	NA	NA	3281.43	3281.43
MWD-6	2/5/2013	3335.08	53.42	NM	NA	NA	3281.66	3281.66
MWD-6	2/3/2014	3335.08	53.39	NM	NA	NA	3281.69	3281.69
MWD-6	8/5/2014	3335.08	53.53	NM	NA	NA	3281.55	3281.55
MWD-6	2/2/2015	3335.08	52.82	NM	NA	NA	3282.26	3282.26
MWD-6	8/3/2015	3335.08	52.98	NM	NA	NA	3282.10	3282.10
MWD-6	3/29/2016	3335.08	52.85	NM	NA	NA	3282.23	3282.23
MWD-6	9/7/2016	3335.08	52.88	NM	NA	NA	3282.20	3282.20
MWD-6	4/3/2017	3335.08	52.74	NM	NA	NA	3282.34	3282.34
MWD-6	9/11/2017	3335.08	52.75	NM	NA	NA	3282.33	3282.33
MWD-6	3/12/2018	3335.08	52.67	NM	NA	NA	3282.41	3282.41
MWD-6	9/24/2018	3335.08	52.74	NM	NA	NA	3282.34	3282.34
MWD-6	4/1/2019	3335.08	52.68	NM	NA	NA	3282.40	3282.40
MWD-6	10/1/2019	3335.08	52.81	NM	NA	NA	3282.27	3282.27
MWD-6	3/16/2020	3335.08	52.77	NM	NA	NA	3282.31	3282.31
MWD-6	3/16/2021	3335.08	52.76	NM	NA	NA	3282.32	3282.32
MWD-6	9/20/2021	3335.08	52.67	NM	NA	NA	3282.41	3282.41
MWD-7	2/11/2009	3332.82	51.54	NM	NA	NA	3281.28	3281.28
MWD-7	8/5/2009	3332.82	51.68	NM	NA	NA	3281.14	3281.14
MWD-7	2/2/2010	3332.82	51.78	NM	NA	NA	3281.04	3281.04
MWD-7	8/2/2010	3332.82	51.83	NM	NA	NA	3280.99	3280.99
MWD-7	4/11/2011	3332.82	51.22	NM	NA	NA	3281.60	3281.60

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MWD-7	8/8/2011	3332.82	52.13	NM	NA	NA	3280.69	3280.69
MWD-7	2/6/2012	3332.82	51.03	NM	NA	NA	3281.79	3281.79
MWD-7	8/7/2012	3332.82	50.92	NM	NA	NA	3281.90	3281.90
MWD-7	2/5/2013	3332.82	50.85	NM	NA	NA	3281.97	3281.97
MWD-7	8/5/2013	3332.82	50.95	NM	NA	NA	3281.87	3281.87
MWD-7	2/3/2014	3332.82	50.25	NM	NA	NA	3282.57	3282.57
MWD-7	8/5/2014	3332.82	51.08	NM	NA	NA	3281.74	3281.74
MWD-7	2/2/2015	3332.82	50.75	NM	NA	NA	3282.07	3282.07
MWD-7	8/3/2015	3332.82	50.67	NM	NA	NA	3282.15	3282.15
MWD-7	3/28/2016	3332.82	50.55	NM	NA	NA	3282.27	3282.27
MWD-7	9/9/2016	3332.82	50.52	NM	NA	NA	3282.30	3282.30
MWD-7	4/3/2017	3332.82	50.43	NM	NA	NA	3282.39	3282.39
MWD-7	9/12/2017	3332.82	50.35	NM	NA	NA	3282.47	3282.47
MWD-7	3/12/2018	3332.82	50.19	NM	NA	NA	3282.63	3282.63
MWD-7	9/24/2018	3332.82	50.19	NM	NA	NA	3282.63	3282.63
MWD-7	4/1/2019	3332.82	50.06	NM	NA	NA	3282.76	3282.76
MWD-7	10/1/2019	3332.82	50.26	NM	NA	NA	3282.56	3282.56
MWD-7	3/17/2020	3332.82	49.98	NM	NA	NA	3282.84	3282.84
MWD-7	3/17/2021	3332.82	49.77	NM	NA	NA	3283.05	3283.05
MWD-8	2/10/2009	3335.97	53.58	NM	NA	NA	3282.39	3282.39
MWD-8	8/5/2009	3335.97	53.50	NM	NA	NA	3282.47	3282.47
MWD-8	2/2/2010	3335.97	53.67	NM	NA	NA	3282.30	3282.30
MWD-8	8/2/2010	3335.97	53.58	NM	NA	NA	3282.39	3282.39
MWD-8	4/11/2011	3335.97	53.24	NM	NA	NA	3282.73	3282.73
MWD-8	8/8/2011	3335.97	53.27	NM	NA	NA	3282.70	3282.70
MWD-8	2/6/2012	3335.97	53.10	NM	NA	NA	3282.87	3282.87
MWD-8	8/7/2012	3335.97	53.30	NM	NA	NA	3282.67	3282.67
MWD-8	2/5/2013	3335.97	52.95	NM	NA	NA	3283.02	3283.02
MWD-8	8/5/2013	3335.97	53.08	NM	NA	NA	3282.89	3282.89
MWD-8	2/3/2014	3335.97	52.91	NM	NA	NA	3283.06	3283.06
MWD-8	8/5/2014	3335.97	53.04	NM	NA	NA	3282.93	3282.93
MWD-8	2/2/2015	3335.97	52.79	NM	NA	NA	3283.18	3283.18
MWD-8	8/3/2015	3335.97	52.70	NM	NA	NA	3283.27	3283.27
MWD-8	3/29/2016	3335.97	52.57	NM	NA	NA	3283.40	3283.40
MWD-8	9/12/2016	3335.97	52.57	NM	NA	NA	3283.40	3283.40
MWD-8	4/3/2017	3335.97	52.43	NM	NA	NA	3283.54	3283.54
MWD-8	9/12/2017	3335.97	52.42	NM	NA	NA	3283.55	3283.55
MWD-8	3/12/2018	3335.97	52.28	NM	NA	NA	3283.69	3283.69
MWD-8	9/24/2018	3335.97	52.30	NM	NA	NA	3283.67	3283.67
MWD-8	4/1/2019	3335.97	52.87	NM	NA	NA	3283.10	3283.10
MWD-8	10/1/2019	3335.97	52.23	NM	NA	NA	3283.74	3283.74
MWD-8	3/16/2020	3335.97	52.18	NM	NA	NA	3283.79	3283.79
MWD-8	3/18/2021	3335.97	51.99	NM	NA	NA	3283.98	3283.98
MWD-8	9/20/2021	3335.97	51.99	NM	NA	NA	3283.98	3283.98
MWD-9	2/11/2009	3333.45	NM	NM	NA	NA	NM	NM
MWD-9	8/17/2009	3333.45	NM	NM	NA	NA	NM	NM
MWD-9	2/2/2010	3333.45	NM	NM	NA	NA	NM	NM
MWD-9	8/2/2010	3333.45	NM	NM	NA	NA	NM	NM
MWD-9	4/11/2011	3333.45	NM	NM	NA	NA	NM	NM
MWD-9	8/8/2011	3333.45	NM	NM	NA	NA	NM	NM
MWD-9	2/6/2012	3333.45	NM	NM	NA	NA	NM	NM
MWD-9	8/7/2012	3333.45	NM	NM	NA	NA	NM	NM
MWD-9	2/5/2013	3333.45	NM	NM	NA	NA	NM	NM
MWD-9	8/5/2013	3333.45	NM	NM	NA	NA	NM	NM
MWD-9	2/3/2014	3333.45	NM	NM	NA	NA	NM	NM
MWD-9	8/5/2014	3333.45	NM	NM	NA	NA	NM	NM
MWD-9*	3/28/2016	3333.45	74.50	NM	NA	NA	3258.95	3258.95
MWD-9*	9/9/2016	3333.45	70.40	NM	NA	NA	3263.05	3263.05
MWD-9*	4/3/2017	3333.45	72.19	NM	NA	NA	3261.26	3261.26
MWD-9*	9/12/2017	3333.45	70.31	NM	NA	NA	3263.14	3263.14
MWD-9*	3/12/2018	3333.45	NM	NM	NA	NA	NM	NM
MWD-9*	9/24/2018	3333.45	NM	NM	NA	NA	NM	NM
MWD-9*	4/4/2019	3333.45	NM	NM	NA	NA	NM	NM
MWD-9*	10/1/2019	3333.45	NM	NM	NA	NA	NM	NM
MWD-9	9/22/2020	3333.45	50.62	NM	NA	NA	3282.83	3282.83
MWD-9	3/16/2020	3333.45	50.92	NM	NA	NA	3282.53	3282.53
MWD-9	3/15/2021	3333.45	50.51	NM	NA	NA	3282.94	3282.94
MWD-9	9/20/2021	3333.45	50.46	NM	NA	NA	3282.99	3282.99
MWD-10	2/12/2009	3334.92	53.19	NM	NA	0.74	3281.73	3281.73
MWD-10	8/4/2009	3334.92	53.21	NM	NA	0.74	3281.71	3281.71
MWD-10	2/2/2010	3334.92	53.49	NM	NA	0.74	3281.43	3281.43
MWD-10	8/2/2010	3334.92	53.49	53.47	0.02	0.74	3281.43	3281.44
MWD-10	4/11/2011	3334.92	52.93	52.92	0.01	0.74	3281.99	3282.00
MWD-10	8/8/2011	3334.92	52.89	52.88	0.01	0.74	3282.03	3282.04
MWD-10	2/6/2012	3334.92	NM	NM	NA	0.74	NM	NM
MWD-10	8/7/2012	3334.92	NM	NM	NA	0.74	NM	NM

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MWD-10	2/5/2013	3334.92	NM	NM	NA	0.74	NM	NM
MWD-10	2/3/2014	3334.92	NM	NM	NA	0.74	NM	NM
MWD-10	8/5/2014	3334.92	NM	NM	NA	0.74	NM	NM
MWD-10	3/28/2016	3334.92	NM	NM	NA	0.74	NM	NM
MWD-11	2/10/2009	3338.24	55.41	NM	NA	NA	3282.83	3282.83
MWD-11	8/5/2009	3338.24	55.43	NM	NA	NA	3282.81	3282.81
MWD-11	2/2/2010	3338.24	55.50	NM	NA	NA	3282.74	3282.74
MWD-11	8/2/2010	3338.24	55.52	NM	NA	NA	3282.72	3282.72
MWD-11	4/11/2011	3338.24	55.27	NM	NA	NA	3282.97	3282.97
MWD-11	8/8/2011	3338.24	55.23	NM	NA	NA	3283.01	3283.01
MWD-11	2/6/2012	3338.24	55.15	NM	NA	NA	3283.09	3283.09
MWD-11	8/7/2012	3338.24	55.17	NM	NA	NA	3283.07	3283.07
MWD-11	2/5/2013	3338.24	55.20	NM	NA	NA	3283.04	3283.04
MWD-11	8/5/2013	3338.24	55.21	NM	NA	NA	3283.03	3283.03
MWD-11	2/3/2014	3338.24	55.08	NM	NA	NA	3283.16	3283.16
MWD-11	8/5/2014	3338.24	55.13	NM	NA	NA	3283.11	3283.11
MWD-11	2/2/2015	3338.24	54.82	NM	NA	NA	3283.42	3283.42
MWD-11	8/3/2015	3338.24	54.76	NM	NA	NA	3283.48	3283.48
MWD-11	3/29/2016	3338.24	54.61	NM	NA	NA	3283.63	3283.63
MWD-11	9/12/2016	3338.24	54.54	NM	NA	NA	3283.70	3283.70
MWD-11	4/3/2017	3338.24	54.49	NM	NA	NA	3283.75	3283.75
MWD-11	9/12/2017	3338.24	54.43	NM	NA	NA	3283.81	3283.81
MWD-11	3/13/2018	3338.24	54.40	NM	NA	NA	3283.84	3283.84
MWD-11	9/24/2018	3338.24	54.41	NM	NA	NA	3283.83	3283.83
MWD-11	4/1/2019	3338.24	54.31	NM	NA	NA	3283.93	3283.93
MWD-11	10/1/2019	3338.24	54.37	NM	NA	NA	3283.87	3283.87
MWD-11	3/16/2020	3338.24	54.31	NM	NA	NA	3283.93	3283.93
MWD-11	3/17/2021	3338.24	54.27	NM	NA	NA	3283.97	3283.97
MWD-11	9/20/2021	3338.24	54.22	NM	NA	NA	3284.02	3284.02
MWD-12	2/17/2009	3334.08	53.04	NM	NA	NA	3281.04	3281.04
MWD-12	8/5/2009	3334.08	53.25	NM	NA	NA	3280.83	3280.83
MWD-12	2/2/2010	3334.08	53.43	NM	NA	NA	3280.65	3280.65
MWD-12	8/2/2010	3334.08	53.70	NM	NA	NA	3280.38	3280.38
MWD-12	4/11/2011	3334.08	53.03	NM	NA	NA	3281.05	3281.05
MWD-12	8/8/2011	3334.08	53.01	NM	NA	NA	3281.07	3281.07
MWD-12	2/6/2012	3334.08	52.92	NM	NA	NA	3281.16	3281.16
MWD-12	8/7/2012	3334.08	52.90	NM	NA	NA	3281.18	3281.18
MWD-12	2/5/2013	3334.08	52.90	NM	NA	NA	3281.18	3281.18
MWD-12	2/3/2014	3334.08	52.79	NM	NA	NA	3281.29	3281.29
MWD-12	8/5/2014	3334.08	52.95	NM	NA	NA	3281.13	3281.13
MWD-12	2/2/2015	3334.08	51.89	NM	NA	NA	3282.19	3282.19
MWD-12	8/3/2015	3334.08	51.95	NM	NA	NA	3282.13	3282.13
MWD-12	3/28/2016	3334.08	51.73	NM	NA	NA	3282.35	3282.35
MWD-12	9/7/2016	3334.08	51.85	NM	NA	NA	3282.23	3282.23
MWD-12	4/3/2017	3334.08	51.61	NM	NA	NA	3282.47	3282.47
MWD-12	9/12/2017	3334.08	51.63	NM	NA	NA	3282.45	3282.45
MWD-12	3/12/2018	3334.08	51.61	NM	NA	NA	3282.47	3282.47
MWD-12	9/24/2018	3334.08	51.91	NM	NA	NA	3282.17	3282.17
MWD-12	4/1/2019	3334.08	51.72	NM	NA	NA	3282.36	3282.36
MWD-12	10/1/2019	3334.08	51.96	NM	NA	NA	3282.12	3282.12
MWD-12	9/24/2020	3334.08	51.78	NM	NA	NA	3282.30	3282.30
MWD-12	3/16/2020	3334.08	51.89	NM	NA	NA	3282.19	3282.19
MWD-12	3/17/2021	3334.08	51.80	NM	NA	NA	3282.28	3282.28
MWD-12	9/20/2021	3334.08	51.64	NM	NA	NA	3282.44	3282.44
MWD-13	2/5/2009	3332.11	52.37	NM	NA	NA	3279.74	3279.74
MWD-13	8/4/2009	3332.11	52.33	NM	NA	NA	3279.78	3279.78
MWD-13	2/2/2010	3332.11	52.87	NM	NA	NA	3279.24	3279.24
MWD-13	8/2/2010	3332.11	53.11	NM	NA	NA	3279.00	3279.00
MWD-13	4/11/2011	3332.11	51.31	NM	NA	NA	3280.80	3280.80
MWD-13	8/8/2011	3332.11	51.13	NM	NA	NA	3280.98	3280.98
MWD-13	2/6/2012	3332.11	50.95	NM	NA	NA	3281.16	3281.16
MWD-13	8/6/2012	3332.11	50.85	NM	NA	NA	3281.26	3281.26
MWD-13	2/5/2013	3332.11	50.80	NM	NA	NA	3281.31	3281.31
MWD-13	8/5/2013	3332.11	50.90	NM	NA	NA	3281.21	3281.21
MWD-13	2/3/2014	3332.11	50.69	NM	NA	NA	3281.42	3281.42
MWD-13	8/5/2014	3332.11	51.40	NM	NA	NA	3280.71	3280.71
MWD-13	2/2/2015	3332.11	50.62	NM	NA	NA	3281.49	3281.49
MWD-13	8/3/2015	3332.11	50.60	NM	NA	NA	3281.51	3281.51
MWD-13	3/28/2016	3332.11	50.45	NM	NA	NA	3281.66	3281.66
MWD-13	9/7/2016	3332.11	50.30	NM	NA	NA	3281.81	3281.81
MWD-13	4/3/2017	3332.11	50.40	NM	NA	NA	3281.71	3281.71
MWD-13	9/12/2017	3332.11	50.27	NM	NA	NA	3281.84	3281.84
MWD-13	3/12/2018	3332.11	50.20	NM	NA	NA	3281.91	3281.91
MWD-13	9/24/2018	3332.11	50.46	NM	NA	NA	3281.65	3281.65
MWD-13	4/1/2019	3332.11	50.02	NM	NA	NA	3282.09	3282.09
MWD-13	10/1/2019	3332.11	50.41	NM	NA	NA	3281.70	3281.70

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MWD-13	9/22/2020	3332.11	49.70	NM	NA	NA	3282.41	3282.41
MWD-13	3/16/2020	3332.11	50.08	NM	NA	NA	3282.03	3282.03
MWD-13	3/17/2021	3332.11	49.63	NM	NA	NA	3282.48	3282.48
MWD-13	9/22/2021	3332.11	49.55	NM	NA	NA	3282.56	3282.56
MWD-14	2/12/2009	3333.76	52.86	NM	NA	NA	3280.90	3280.90
MWD-14	8/4/2009	3333.76	52.81	NM	NA	NA	3280.95	3280.95
MWD-14	2/2/2010	3333.76	53.23	NM	NA	NA	3280.53	3280.53
MWD-14	8/2/2010	3333.76	53.26	NM	NA	NA	3280.50	3280.50
MWD-14	4/11/2011	3333.76	52.27	NM	NA	NA	3281.49	3281.49
MWD-14	8/8/2011	3333.76	52.21	NM	NA	NA	3281.55	3281.55
MWD-14	2/6/2012	3333.76	52.10	NM	NA	NA	3281.66	3281.66
MWD-14	8/7/2012	3333.76	51.97	NM	NA	NA	3281.79	3281.79
MWD-14	2/5/2013	3333.76	51.96	NM	NA	NA	3281.80	3281.80
MWD-14	2/3/2014	3333.76	51.90	NM	NA	NA	3281.86	3281.86
MWD-14	8/5/2014	3333.76	52.35	NM	NA	NA	3281.41	3281.41
MWD-14	2/2/2015	3333.76	51.55	NM	NA	NA	3282.21	3282.21
MWD-14	8/3/2015	3333.76	51.50	NM	NA	NA	3282.26	3282.26
MWD-14	3/29/2016	3333.76	51.35	NM	NA	NA	3282.41	3282.41
MWD-14	9/7/2016	3333.76	51.15	NM	NA	NA	3282.61	3282.61
MWD-14	4/3/2017	3333.76	51.20	NM	NA	NA	3282.56	3282.56
MWD-14	9/12/2017	3333.76	50.76	NM	NA	NA	3283.00	3283.00
MWD-14	3/13/2018	3333.76	51.08	NM	NA	NA	3282.68	3282.68
MWD-14	9/24/2018	3333.76	48.64	NM	NA	NA	3285.12	3285.12
MWD-14	4/1/2019	3333.76	50.95	NM	NA	NA	3282.81	3282.81
MWD-14	10/1/2019	3333.76	51.36	NM	NA	NA	3282.40	3282.40
MWD-14	9/23/2020	3333.76	50.78	NM	NA	NA	3282.98	3282.98
MWD-14	3/16/2020	3333.76	51.06	NM	NA	NA	3282.70	3282.70
MWD-14	3/19/2021	3333.76	50.78	NM	NA	NA	3282.98	3282.98
MWD-14	9/20/2021	3333.76	50.55	NM	NA	NA	3283.21	3283.21
MWD-15	8/4/2009	3335.35	53.29	NM	NA	NA	3282.06	3282.06
MWD-15	2/2/2010	3335.35	53.70	NM	NA	NA	3281.65	3281.65
MWD-15	8/2/2010	3335.35	53.57	NM	NA	NA	3281.78	3281.78
MWD-15	4/11/2011	3335.35	52.92	NM	NA	NA	3282.43	3282.43
MWD-15	8/8/2011	3335.35	52.46	NM	NA	NA	3282.89	3282.89
MWD-15	2/6/2012	3335.35	54.81	NM	NA	NA	3280.54	3280.54
MWD-15	8/7/2012	3335.35	52.73	NM	NA	NA	3282.62	3282.62
MWD-15	2/5/2013	3335.35	52.66	NM	NA	NA	3282.69	3282.69
MWD-15	8/5/2013	3335.35	53.81	NM	NA	NA	3281.54	3281.54
MWD-15	2/3/2014	3335.35	52.63	NM	NA	NA	3282.72	3282.72
MWD-15	8/5/2014	3335.35	52.86	NM	NA	NA	3282.49	3282.49
MWD-15	2/2/2015	3335.35	52.35	NM	NA	NA	3283.00	3283.00
MWD-15	8/3/2015	3335.35	52.22	NM	NA	NA	3283.13	3283.13
MWD-15	3/29/2016	3335.35	52.13	NM	NA	NA	3283.22	3283.22
MWD-15	9/9/2016	3335.35	52.10	NM	NA	NA	3283.25	3283.25
MWD-15	4/3/2017	3335.35	51.99	NM	NA	NA	3283.36	3283.36
MWD-15	9/12/2017	3335.35	51.92	NM	NA	NA	3283.43	3283.43
MWD-15	3/12/2018	3335.35	51.84	NM	NA	NA	3283.51	3283.51
MWD-15	9/24/2018	3335.35	52.00	NM	NA	NA	3283.35	3283.35
MWD-15	4/1/2019	3335.35	51.77	NM	NA	NA	3283.58	3283.58
MWD-15	10/1/2019	3335.35	51.97	NM	NA	NA	3283.38	3283.38
MWD-15	9/22/2020	3335.35	51.85	NM	NA	NA	3283.50	3283.50
MWD-15	3/16/2020	3335.35	51.83	NM	NA	NA	3283.52	3283.52
MWD-15	3/18/2021	3335.35	51.85	NM	NA	NA	3283.50	3283.50
MWD-15	9/20/2021	3335.35	51.56	NM	NA	NA	3283.79	3283.79
MWD-16	2/12/2009	3334.1	52.39	NM	NA	NA	3281.71	3281.71
MWD-16	8/5/2009	3334.1	52.42	NM	NA	NA	3281.68	3281.68
MWD-16	2/2/2010	3334.1	52.73	NM	NA	NA	3281.37	3281.37
MWD-16	8/2/2010	3334.1	52.77	NM	NA	NA	3281.33	3281.33
MWD-16	4/11/2011	3334.1	52.04	NM	NA	NA	3282.06	3282.06
MWD-16	8/8/2011	3334.1	NM	NM	NA	NA	NM	NM
MWD-16	2/6/2012	3334.1	NM	NM	NA	NA	NM	NM
MWD-16	8/7/2012	3334.1	NM	NM	NA	NA	NM	NM
MWD-16	2/5/2013	3334.1	NM	NM	NA	NA	NM	NM
MWD-16	2/3/2014	3334.1	NM	NM	NA	NA	NM	NM
MWD-16	8/5/2014	3334.1	NM	NM	NA	NA	NM	NM
MWD-16	3/29/2016	3334.1	NM	NM	NA	NA	NM	NM
MWD-17	2/12/2009	3334.74	54.28	NM	NA	NA	3280.46	3280.46
MWD-17	8/4/2009	3334.74	54.13	NM	NA	NA	3280.61	3280.61
MWD-17	2/2/2010	3334.74	54.91	NM	NA	NA	3279.83	3279.83
MWD-17	8/2/2010	3334.74	55.03	NM	NA	NA	3279.71	3279.71
MWD-17	4/11/2011	3334.74	53.20	NM	NA	NA	3281.54	3281.54
MWD-17	8/8/2011	3334.74	53.04	NM	NA	NA	3281.70	3281.70
MWD-17	2/6/2012	3334.74	52.90	NM	NA	NA	3281.84	3281.84
MWD-17	8/7/2012	3334.74	52.75	NM	NA	NA	3281.99	3281.99
MWD-17	2/5/2013	3334.74	52.70	NM	NA	NA	3282.04	3282.04
MWD-17	8/5/2013	3334.74	52.80	NM	NA	NA	3281.94	3281.94

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MWD-17	2/3/2014	3334.74	52.63	NM	NA	NA	3282.11	3282.11
MWD-17	8/5/2014	3334.74	53.54	NM	NA	NA	3281.20	3281.20
MWD-17	2/2/2015	3334.74	52.69	NM	NA	NA	3282.05	3282.05
MWD-17	8/3/2015	3334.74	52.70	NM	NA	NA	3282.04	3282.04
MWD-17	3/28/2016	3334.74	52.66	NM	NA	NA	3282.08	3282.08
MWD-17	9/7/2016	3334.74	52.32	NM	NA	NA	3282.42	3282.42
MWD-17	4/3/2017	3334.74	52.45	NM	NA	NA	3282.29	3282.29
MWD-17	3/12/2018	3334.74	52.18	NM	NA	NA	3282.56	3282.56
MWD-17	9/24/2018	3334.74	NM	NM	NA	NA	NM	NM
MWD-17	4/1/2019	3334.74	52.24	NM	NA	NA	3282.50	3282.50
MWD-17	3/16/2020	3334.74	51.99	NM	NA	NA	3282.75	3282.75
MWD-17	3/18/2021	3334.74	51.58	NM	NA	NA	3283.16	3283.16
MWD-17	9/20/2021	3334.74	51.42	NM	NA	NA	3283.32	3283.32
RW-1	3/9/2009	3335.19	54.47	51.98	2.49	0.74	3280.72	3282.56
RW-1	8/5/2009	3335.19	55.01	51.92	3.09	0.74	3280.18	3282.47
RW-1	2/2/2010	3335.19	55.25	52.00	3.25	0.74	3279.94	3282.35
RW-1	8/2/2010	3335.19	55.20	51.98	3.22	0.74	3279.99	3282.37
RW-1	4/4/2011	3335.19	54.78	51.84	2.94	0.74	3280.41	3282.59
RW-1	8/8/2011	3335.19	54.45	51.73	2.72	0.74	3280.74	3282.75
RW-1	2/6/2012	3335.19	55.20	52.13	3.07	0.74	3279.99	3282.26
RW-1	8/14/2012	3335.19	54.68	51.77	2.91	0.74	3280.51	3282.66
RW-1	2/5/2013	3335.19	54.53	51.78	2.75	0.74	3280.66	3282.70
RW-1	8/5/2013	3335.19	54.50	51.70	2.8	0.74	3280.69	3282.76
RW-1	2/3/2014	3335.19	53.37	51.67	1.7	0.74	3281.82	3283.08
RW-1	8/5/2014	3335.19	54.41	51.69	2.72	0.74	3280.78	3282.79
RW-1	2/2/2015	3335.19	53.36	51.45	1.91	0.74	3281.83	3283.24
RW-1	8/3/2015	3335.19	53.36	51.41	1.95	0.74	3281.83	3283.27
RW-1	3/29/2016	3335.19	53.11	51.25	1.86	0.74	3282.08	3283.46
RW-1	9/13/2016	3335.19	53.13	51.30	1.83	0.74	3282.06	3283.41
RW-1	4/3/2017	3335.19	52.94	51.16	1.78	0.74	3282.25	3283.57
RW-1	3/13/2018	3335.19	52.78	51.16	1.62	0.74	3282.41	3283.61
RW-1	9/24/2018	3335.19	NM	51.16	NA	0.74	NM	NM
RW-1	4/1/2019	3335.19	52.72	51.09	1.63	0.74	3282.47	3283.68
RW-1	10/1/2019	3335.19	52.85	51.29	1.56	0.74	3282.34	3283.49
RW-1	3/17/2020	3335.19	52.83	51.17	1.66	0.74	3282.36	3283.59
RW-1	3/15/2021	3335.19	52.81	51.12	1.69	0.74	3282.38	3283.63
RW-1	9/29/2021	3335.19	52.88	51.19	1.69	0.74	3282.31	3283.56
RW-2	3/9/2009	3337.84	58.04	55.75	2.29	0.74	3279.80	3281.49
RW-2	8/5/2009	3337.84	58.31	55.79	2.52	0.74	3279.53	3281.39
RW-2	2/2/2010	3337.84	58.45	55.82	2.63	0.74	3279.39	3281.34
RW-2	8/2/2010	3337.84	58.45	55.84	2.61	0.74	3279.39	3281.32
RW-2	4/4/2011	3337.84	58.25	55.72	2.53	0.74	3279.59	3281.46
RW-2	8/8/2011	3337.84	58.23	55.73	2.5	0.74	3279.61	3281.46
RW-2	2/6/2012	3337.84	58.53	55.87	2.66	0.74	3279.31	3281.28
RW-2	8/14/2012	3337.84	58.31	55.65	2.66	0.74	3279.53	3281.50
RW-2	2/5/2013	3337.84	58.25	55.61	2.64	0.74	3279.59	3281.54
RW-2	8/5/2013	3337.84	57.89	55.35	2.54	0.74	3279.95	3281.83
RW-2	2/3/2014	3337.84	57.83	55.66	2.17	0.74	3280.01	3281.62
RW-2	8/5/2014	3337.84	58.17	55.61	2.56	0.74	3282.23	3280.34
RW-2	2/2/2015	3337.84	57.13	55.25	1.88	0.74	3280.71	3282.10
RW-2	8/3/2015	3337.84	57.18	55.30	1.88	0.74	3280.66	3282.05
RW-2	3/29/2016	3337.84	56.90	55.16	1.74	0.74	3280.94	3282.23
RW-2	9/13/2016	3337.84	56.90	56.90	0	0.74	3280.94	3280.94
RW-2	4/3/2017	3337.84	55.10	55.06	0.04	0.74	3282.74	3282.77
RW-2	3/13/2018	3337.84	56.53	55.03	1.5	0.74	3281.31	3282.42
RW-2	9/24/2018	3337.84	NM	55.03	NA	0.74	NM	NM
RW-2	4/1/2019	3337.84	56.47	54.95	1.52	0.74	3281.37	3282.49
RW-2	10/1/2019	3337.84	56.60	55.13	1.47	0.74	3281.24	3282.33
RW-2	3/17/2020	3337.84	56.54	55.1	1.44	0.74	3281.30	3282.37
RW-2	3/15/2021	3337.84	56.51	55.04	1.47	0.74	3281.33	3282.42
RW-2	9/29/2021	3337.84	55.12	NM	NA	NA	3282.72	3282.72
RW-3	3/9/2009	3338.06	57.15	56.37	0.78	0.72	3280.91	3281.47
RW-3	8/5/2009	3338.06	57.29	56.46	0.83	0.72	3280.77	3281.37
RW-3	2/2/2010	3338.06	57.45	56.58	0.87	0.72	3280.61	3281.24
RW-3	8/2/2010	3338.06	57.49	56.59	0.9	0.72	3280.57	3281.22
RW-3	4/4/2011	3338.06	57.23	56.40	0.83	0.72	3280.83	3281.43
RW-3	8/8/2011	3338.06	57.38	56.35	1.03	0.72	3280.68	3281.42
RW-3	2/6/2012	3338.06	57.50	56.52	0.98	0.72	3280.56	3281.27
RW-3	8/14/2012	3338.06	57.55	56.34	1.21	0.72	3280.51	3281.38
RW-3	2/5/2013	3338.06	57.61	56.31	1.3	0.72	3280.45	3281.39
RW-3	8/5/2013	3338.06	57.60	56.25	1.35	0.72	3280.46	3281.43
RW-3	2/3/2014	3338.06	57.58	56.20	1.38	0.72	3280.48	3281.47
RW-3	8/5/2014	3338.06	57.68	56.26	1.42	0.72	3280.38	3281.40
RW-3	2/2/2015	3338.06	56.21	55.94	0.27	0.72	3281.85	3282.04
RW-3	8/3/2015	3338.06	56.08	55.93	0.15	0.72	3281.98	3282.09
RW-3	3/29/2016	3338.06	55.84	55.67	0.17	0.72	3282.22	3282.34

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RW-3	9/13/2016	3338.06	55.72	NM	NA	0.72	3282.34	3282.34
RW-3	4/3/2017	3338.06	55.59	NM	NA	0.72	3282.47	3282.47
RW-3	3/13/2018	3338.06	55.71	55.54	0.17	0.72	3282.35	3282.47
RW-3	9/24/2018	3338.06	NM	55.54	NA	0.72	NM	NM
RW-3	4/4/2019	3338.06	55.55	55.55	0	0.72	3282.51	3282.51
RW-3	10/1/2019	3338.06	55.72	NM	NA	0.72	3282.34	3282.34
RW-3	3/16/2020	3338.06	55.69	55.62	0.07	0.72	3282.37	3282.42
RW-3	3/15/2021	3338.06	55.68	55.59	0.09	0.72	3282.38	3282.44
RW-3	9/29/2021	3338.06	55.49	NM	NA	NA	3282.57	3282.57
RW-4	3/9/2009	3334.14	57.70	54.63	3.07	0.72	3276.44	3278.65
RW-4	8/5/2009	3334.14	58.04	54.67	3.37	0.72	3276.10	3278.53
RW-4	2/2/2010	3334.14	58.00	54.77	3.23	0.72	3276.14	3278.47
RW-4	8/2/2010	3334.14	58.37	54.80	3.57	0.72	3275.77	3278.34
RW-4	4/4/2011	3334.14	57.77	54.57	3.2	0.72	3276.37	3278.67
RW-4	8/8/2011	3334.14	57.54	54.54	3	0.72	3276.60	3278.76
RW-4	2/6/2012	3334.14	58.10	54.79	3.31	0.72	3276.04	3278.42
RW-4	8/14/2012	3334.14	57.77	54.49	3.28	0.72	3276.37	3278.73
RW-4	2/5/2013	3334.14	57.70	54.45	3.25	0.72	3276.44	3278.78
RW-4	8/5/2013	3334.14	57.65	54.42	3.23	0.72	3276.49	3278.82
RW-4	2/3/2014	3334.14	57.57	54.42	3.15	0.72	3276.57	3278.84
RW-4	8/5/2014	3334.14	57.67	54.51	3.16	0.72	3276.47	3278.75
RW-4	2/2/2015	3334.14	50.95	50.80	0.15	0.72	3283.19	3283.30
RW-4	8/3/2015	3334.14	56.08	53.89	2.19	0.72	3278.06	3279.64
RW-4	3/29/2016	3334.14	56.78	53.80	2.98	0.72	3277.36	3279.51
RW-4	9/13/2016	3334.14	55.96	53.84	2.12	0.72	3278.18	3279.71
RW-4	4/3/2017	3334.14	55.72	53.75	1.97	0.72	3278.42	3279.84
RW-4	3/13/2018	3334.14	55.50	53.68	1.82	0.72	3278.64	3279.95
RW-4	9/24/2018	3334.14	NM	53.68	NA	0.72	NM	NM
RW-4	4/1/2019	3334.14	55.65	53.70	1.95	0.72	3278.49	3279.89
RW-4	10/1/2019	3334.14	53.89	NM	NA	0.72	3280.25	3280.25
RW-4	3/17/2020	3334.14	NM	53.84	NA	0.72	NM	NM
RW-4	3/15/2021	3334.14	55.58	53.80	1.78	0.72	3278.56	3279.84
RW-4	9/29/2021	3334.14	55.40	53.79	1.61	0.72	3278.74	3279.90
RW-5	3/9/2009	3334.2	57.60	55.23	2.37	0.72	3276.60	3278.31
RW-5	8/5/2009	3334.2	58.09	55.28	2.81	0.72	3276.11	3278.13
RW-5	2/2/2010	3334.2	58.13	55.35	2.78	0.72	3276.07	3278.07
RW-5	8/2/2010	3334.2	58.00	55.37	2.63	0.72	3276.20	3278.09
RW-5	4/4/2011	3334.2	58.11	55.25	2.86	0.72	3276.09	3278.15
RW-5	8/8/2011	3334.2	NM	NM	NA	0.72	NM	NM
RW-5	2/6/2012	3334.2	58.18	55.33	2.85	0.72	3276.02	3278.07
RW-5	8/14/2012	3334.2	58.07	55.21	2.86	0.72	3276.13	3278.19
RW-5	2/5/2013	3334.2	58.00	54.20	3.8	0.72	3276.20	3278.94
RW-5	8/5/2013	3334.2	58.01	55.15	2.86	0.72	3276.19	3278.25
RW-5	2/3/2014	3334.2	57.87	55.12	2.75	0.72	3276.33	3278.31
RW-5	8/5/2014	3334.2	NM	55.19	NA	0.72	NM	NM
RW-5	2/2/2015	3334.2	55.84	54.94	0.9	0.72	3278.36	3279.01
RW-5	8/3/2015	3334.2	56.09	54.89	1.2	0.72	3278.11	3278.97
RW-5	3/29/2016	3334.2	55.32	54.74	0.58	0.72	3278.88	3279.30
RW-5	9/13/2016	3334.2	55.53	54.78	0.75	0.72	3278.67	3279.21
RW-5	4/3/2017	3334.2	54.70	54.66	0.04	0.72	3279.50	3279.53
RW-5	3/13/2018	3334.2	55.01	54.66	0.35	0.72	3279.19	3279.44
RW-5	9/24/2018	3334.2	NM	54.66	NA	0.72	NM	NM
RW-5	4/1/2019	3334.2	55.06	54.64	0.42	0.72	3279.14	3279.44
RW-5	10/1/2019	3334.2	55.34	54.45	0.89	0.72	3278.86	3279.50
RW-5	3/17/2020	3334.2	55.03	54.72	0.31	0.72	3279.17	3279.39
RW-5	3/15/2021	3334.2	55.28	54.67	0.61	0.72	3278.92	3279.36
RW-5	9/29/2021	3334.2	55.14	54.71	0.43	0.72	3279.06	3279.37
RW-6	2/11/2009	3332.37	NM	NM	NA	NA	NM	NM
RW-6	8/17/2009	3332.37	NM	NM	NA	NA	NM	NM
RW-6	2/2/2010	3332.37	NM	NM	NA	NA	NM	NM
RW-6	8/2/2010	3332.37	NM	NM	NA	NA	NM	NM
RW-6	4/11/2011	3332.37	NM	NM	NA	NA	NM	NM
RW-6	8/8/2011	3332.37	NM	NM	NA	NA	NM	NM
RW-6	2/6/2012	3332.37	NM	NM	NA	NA	NM	NM
RW-6	8/7/2012	3332.37	NM	NM	NA	NA	NM	NM
RW-6	2/5/2013	3332.37	NM	NM	NA	NA	NM	NM
RW-6	8/5/2013	3332.37	50.87	NM	NA	NA	3281.50	3281.50
RW-6	2/3/2014	3332.37	50.68	NM	NA	NA	3281.69	3281.69
RW-6	8/5/2014	3332.37	51.20	NM	NA	NA	3281.17	3281.17
RW-6	2/2/2015	3332.37	49.80	NM	NA	NA	3282.57	3282.57
RW-6	8/3/2015	3332.37	50.15	NM	NA	NA	3282.22	3282.22
RW-6	3/28/2016	3332.37	49.92	NM	NA	NA	3282.45	3282.45
RW-6	9/7/2016	3332.37	49.66	NM	NA	NA	3282.71	3282.71
RW-6	4/3/2017	3332.37	49.91	NM	NA	NA	3282.46	3282.46
RW-6	9/12/2017	3332.37	49.81	NM	NA	NA	3282.56	3282.56
RW-6	3/12/2018	3332.37	49.75	NM	NA	NA	3282.62	3282.62

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RW-6	9/24/2018	3332.37	52.30	NM	NA	NA	3280.07	3280.07
RW-6	4/1/2019	3332.37	49.70	NM	NA	NA	3282.67	3282.67
RW-6	10/1/2019	3332.37	50.49	NM	NA	NA	3281.88	3281.88
RW-6	9/22/2020	3332.37	49.64	NM	NA	NA	3282.73	3282.73
RW-6	3/16/2020	3332.37	49.92	NM	NA	NA	3282.45	3282.45
RW-6	3/17/2021	3332.37	49.55	NM	NA	NA	3282.82	3282.82
RW-6	9/20/2021	3332.37	49.48	NM	NA	NA	3282.89	3282.89
RW-7	2/11/2009	3331.23	NM	NM	NA	NA	NM	NM
RW-7	8/17/2009	3331.23	NM	NM	NA	NA	NM	NM
RW-7	2/2/2010	3331.23	NM	NM	NA	NA	NM	NM
RW-7	8/2/2010	3331.23	NM	NM	NA	NA	NM	NM
RW-7	4/11/2011	3331.23	NM	NM	NA	NA	NM	NM
RW-7	8/8/2011	3331.23	NM	NM	NA	NA	NM	NM
RW-7	2/6/2012	3331.23	NM	NM	NA	NA	NM	NM
RW-7	8/7/2012	3331.23	NM	NM	NA	NA	NM	NM
RW-7	2/5/2013	3331.23	NM	NM	NA	NA	NM	NM
RW-7	8/5/2013	3331.23	52.55	NM	NA	NA	3278.68	3278.68
RW-7	2/3/2014	3331.23	52.40	NM	NA	NA	3278.83	3278.83
RW-7	8/5/2014	3331.23	53.05	NM	NA	NA	3278.18	3278.18
RW-7	2/2/2015	3331.23	52.43	NM	NA	NA	3278.80	3278.80
RW-7	8/3/2015	3331.23	52.53	NM	NA	NA	3278.70	3278.70
RW-7	3/28/2016	3331.23	52.41	NM	NA	NA	3278.82	3278.82
RW-7	9/7/2016	3331.23	52.13	NM	NA	NA	3279.10	3279.10
RW-7	4/3/2017	3331.23	52.34	NM	NA	NA	3278.89	3278.89
RW-7	9/12/2017	3331.23	52.22	NM	NA	NA	3279.01	3279.01
RW-7	3/12/2018	3331.23	51.96	NM	NA	NA	3279.27	3279.27
RW-7	9/24/2018	3331.23	52.22	NM	NA	NA	3279.01	3279.01
RW-7	4/1/2019	3331.23	51.76	NM	NA	NA	3279.47	3279.47
RW-7	10/1/2019	3331.23	52.28	NM	NA	NA	3278.95	3278.95
RW-7	3/16/2020	3331.23	51.68	NM	NA	NA	3279.55	3279.55
RW-7	3/19/2021	3331.23	50.81	NM	NA	NA	3280.42	3280.42
RW-7	9/20/2021	3331.23	50.75	NM	NA	NA	3280.48	3280.48
RW-8	2/11/2009	3333.39	NM	NM	NA	NA	NM	NM
RW-8	8/17/2009	3333.39	NM	NM	NA	NA	NM	NM
RW-8	2/2/2010	3333.39	NM	NM	NA	NA	NM	NM
RW-8	8/2/2010	3333.39	NM	NM	NA	NA	NM	NM
RW-8	4/11/2011	3333.39	NM	NM	NA	NA	NM	NM
RW-8	8/8/2011	3333.39	NM	NM	NA	NA	NM	NM
RW-8	2/6/2012	3333.39	NM	NM	NA	NA	NM	NM
RW-8	8/7/2012	3333.39	NM	NM	NA	NA	NM	NM

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Location ID	Date	Top of Casing (feet amsl)	Depth To Groundwater (feet btoc)	Depth to LNAPL (feet btoc)	LNAPL Thickness (feet)	LNAPL Specific Gravity	Uncorrected Groundwater Elevation (feet amsl)	Corrected Groundwater Elevation (feet amsl)[1]
RW-8	2/5/2013	3333.39	NM	NM	NA	NA	NM	NM
RW-8	8/5/2013	3333.39	53.82	NM	NA	NA	3279.57	3279.57
RW-8	2/3/2014	3333.39	53.66	NM	NA	NA	3279.73	3279.73
RW-8	8/5/2014	3333.39	53.98	NM	NA	NA	3279.41	3279.41
RW-8	2/2/2015	3333.39	53.55	NM	NA	NA	3279.84	3279.84
RW-8	8/3/2015	3333.39	53.45	NM	NA	NA	3279.94	3279.94
RW-8	3/29/2016	3333.39	53.37	NM	NA	NA	3280.02	3280.02
RW-8	9/9/2016	3333.39	53.35	NM	NA	NA	3280.04	3280.04
RW-8	4/3/2017	3333.39	53.30	NM	NA	NA	3280.09	3280.09
RW-8	3/12/2018	3333.39	53.04	NM	NA	NA	3280.35	3280.35
RW-8	9/24/2018	3333.39	NM	NM	NA	NA	NM	NM
RW-8	4/1/2019	3333.39	52.92	NM	NA	NA	3280.47	3280.47
RW-8	3/16/2020	3333.39	52.92	NM	NA	NA	3280.47	3280.47
RW-8	3/18/2021	3333.39	52.37	NM	NA	NA	3281.02	3281.02
RW-8	9/20/2021	3333.39	52.30	NM	NA	NA	3281.09	3281.09
TMW-1	2/10/2009	3337.7	54.61	NM	NA	NA	3283.09	3283.09
TMW-1	8/4/2009	3337.7	54.61	NM	NA	NA	3283.09	3283.09
TMW-1	2/2/2010	3337.7	54.69	NM	NA	NA	3283.01	3283.01
TMW-1	8/2/2010	3337.7	54.77	NM	NA	NA	3282.93	3282.93
TMW-1	4/4/2011	3337.7	54.56	NM	NA	NA	3283.14	3283.14
TMW-1	8/8/2011	3337.7	54.50	NM	NA	NA	3283.20	3283.20
TMW-1	2/6/2012	3337.7	54.48	NM	NA	NA	3283.22	3283.22
TMW-1	8/6/2012	3337.7	54.44	NM	NA	NA	3283.26	3283.26
TMW-1	2/5/2013	3337.7	54.42	NM	NA	NA	3283.28	3283.28
TMW-1	8/5/2013	3337.7	54.57	NM	NA	NA	3283.13	3283.13
TMW-1	2/3/2014	3337.7	54.38	NM	NA	NA	3283.32	3283.32
TMW-1	8/5/2014	3337.7	54.41	NM	NA	NA	3283.29	3283.29
TMW-1	2/2/2015	3337.7	54.05	NM	NA	NA	3283.65	3283.65
TMW-1	8/3/2015	3337.7	54.01	NM	NA	NA	3283.69	3283.69
TMW-1	3/29/2016	3337.7	53.79	NM	NA	NA	3283.91	3283.91
TMW-1	9/12/2016	3337.7	53.71	NM	NA	NA	3283.99	3283.99
TMW-1	4/3/2017	3337.7	53.66	NM	NA	NA	3284.04	3284.04
TMW-1	9/12/2017	3337.7	53.61	NM	NA	NA	3284.09	3284.09
TMW-1	3/15/2018	3337.7	52.53	NM	NA	NA	3285.17	3285.17
TMW-1	9/24/2018	3337.7	53.47	NM	NA	NA	3284.23	3284.23
TMW-1	4/1/2019	3337.7	54.52	NM	NA	NA	3283.18	3283.18
TMW-1	10/1/2019	3337.7	53.65	NM	NA	NA	3284.05	3284.05
TMW-1	3/16/2020	3337.7	53.57	NM	NA	NA	3284.13	3284.13
TMW-1	3/17/2021	3337.7	53.54	NM	NA	NA	3284.16	3284.16
TMW-1	9/29/2021	3337.7	53.43	NM	NA	NA	3284.27	3284.27
TMW-2	2/18/2009	3338.3	55.95	55.11	0.84	0.82	3282.35	3283.04
TMW-2	3/18/2009	3338.3	56.08	55.18	0.9	0.82	3282.22	3282.96
TMW-2	8/5/2009	3338.3	56.15	55.20	0.95	0.82	3282.15	3282.93
TMW-2	2/2/2010	3338.3	56.59	55.25	1.34	0.82	3281.71	3282.81
TMW-2	8/2/2010	3338.3	56.67	55.22	1.45	0.82	3281.63	3282.82
TMW-2	4/4/2011	3338.3	56.65	55.06	1.59	0.82	3281.65	3282.95
TMW-2	8/8/2011	3338.3	56.64	55.00	1.64	0.82	3281.66	3283.00
TMW-2	2/6/2012	3338.3	56.70	54.96	1.74	0.82	3281.60	3283.03
TMW-2	8/6/2012	3338.3	56.12	54.93	1.19	0.82	3282.18	3283.16
TMW-2	2/5/2013	3338.3	56.81	54.90	1.91	0.82	3281.49	3283.06
TMW-2	8/5/2013	3338.3	56.97	56.04	0.93	0.82	3281.33	3282.09
TMW-2	2/3/2014	3338.3	56.77	54.84	1.93	0.82	3281.53	3283.11
TMW-2	8/5/2014	3338.3	56.93	54.88	2.05	0.82	3281.37	3283.05
TMW-2	2/2/2015	3338.3	54.90	54.65	0.25	0.82	3283.40	3283.61
TMW-2	8/3/2015	3338.3	54.89	54.60	0.29	0.82	3283.41	3283.65
TMW-2	3/29/2016	3338.3	54.97	54.40	0.57	0.82	3283.33	3283.80
TMW-2	9/13/2016	3338.3	54.78	54.38	0.4	0.82	3283.52	3283.85
TMW-2	4/3/2017	3338.3	54.85	54.27	0.58	0.82	3283.45	3283.93
TMW-2	3/15/2018	3338.3	54.57	54.15	0.42	0.82	3283.73	3284.07
TMW-2	9/24/2018	3338.3	NM	54.15	NA	0.82	NM	NM
TMW-2	4/1/2019	3338.3	54.66	54.16	0.5	0.82	3283.64	3284.05
TMW-2	3/15/2021	3338.3	54.35	54.17	0.18	0.82	3283.95	3284.10
TMW-2	9/29/2021	3338.3	54.69	54.21	0.48	0.82	3283.61	3284.00
TMW-3	2/17/2009	3336.67	53.77	NM	NA	0.82	3282.90	3282.90
TMW-3	8/5/2009	3336.67	53.91	53.90	0.01	0.82	3282.76	3282.77
TMW-3	2/2/2010	3336.67	54.01	NM	NA	0.82	3282.66	3282.66
TMW-3	8/2/2010	3336.67	53.97	NM	NA	0.82	3282.70	3282.70
TMW-3	4/4/2011	3336.67	53.78	NM	NA	0.82	3282.89	3282.89
TMW-3	8/8/2011	3336.67	53.70	NM	NA	0.82	3282.97	3282.97
TMW-3	2/6/2012	3336.67	53.77	NM	NA	0.82	3282.90	3282.90
TMW-3	8/7/2012	3336.67	53.72	NM	NA	0.82	3282.95	3282.95
TMW-3	2/5/2013	3336.67	53.72	NM	NA	0.82	3282.95	3282.95
TMW-3	8/5/2013	3336.67	53.60	NM	NA	0.82	3283.07	3283.07
TMW-3	2/3/2014	3336.67	53.61	NM	NA	0.82	3283.06	3283.06
TMW-3	8/5/2014	3336.67	53.68	NM	NA	0.82	3282.99	3282.99
TMW-3	2/2/2015	3336.67	53.28	NM	NA	0.82	3283.39	3283.39

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TMW-3	8/3/2015	3336.67	53.14	NM	NA	0.82	3283.53	3283.53
TMW-3	3/29/2016	3336.67	52.92	NM	NA	0.82	3283.75	3283.75
TMW-3	9/12/2016	3336.67	52.94	NM	NA	0.82	3283.73	3283.73
TMW-3	4/3/2017	3336.67	52.79	NM	NA	0.82	3283.88	3283.88
TMW-3	3/13/2018	3336.67	52.75	NM	NA	0.82	3283.92	3283.92

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TMW-3	9/24/2018	3336.67	NM	NM	NA	0.82	NM	NM
TMW-3	3/16/2020	3336.67	52.75	NM	NA	NA	3283.92	3283.92
TMW-3	3/16/2021	3336.67	52.71	NM	NA	NA	3283.96	3283.96
TMW-3	9/29/2021	3336.67	52.61	NM	NA	NA	3284.06	3284.06
TMW-5	2/18/2009	3335.66	53.50	NM	NA	NA	3282.16	3282.16
TMW-5	8/4/2009	3335.66	53.51	NM	NA	NA	3282.15	3282.15
TMW-5	2/2/2010	3335.66	53.79	NM	NA	NA	3281.87	3281.87
TMW-5	8/2/2010	3335.66	53.81	NM	NA	NA	3281.85	3281.85
TMW-5	4/4/2011	3335.66	53.32	NM	NA	NA	3282.34	3282.34
TMW-5	8/8/2011	3335.66	NM	NM	NA	NA	NM	NM
TMW-5	2/6/2012	3335.66	NM	NM	NA	NA	NM	NM
TMW-5	8/7/2012	3335.66	NM	NM	NA	NA	NM	NM
TMW-5	2/5/2013	3335.66	NM	NM	NA	NA	NM	NM
TMW-5	2/3/2014	3335.66	NM	NM	NA	NA	NM	NM
TMW-5	8/5/2014	3335.66	NM	NM	NA	NA	NM	NM
TMW-5	3/29/2016	3335.66	NM	NM	NA	NA	NM	NM
TMW-6	2/17/2009	3335.36	52.36	NM	NA	NA	3283.00	3283.00
TMW-6	8/4/2009	3335.36	52.46	NM	NA	NA	3282.90	3282.90
TMW-6	2/2/2010	3335.36	52.59	NM	NA	NA	3282.77	3282.77
TMW-6	8/2/2010	3335.36	NM	NM	NA	NA	NM	NM
TMW-6	4/4/2011	3335.36	52.40	NM	NA	NA	3282.96	3282.96
TMW-6	8/8/2011	3335.36	52.35	NM	NA	NA	3283.01	3283.01
TMW-6	2/6/2012	3335.36	52.40	NM	NA	NA	3282.96	3282.96
TMW-6	8/7/2012	3335.36	52.36	NM	NA	NA	3283.00	3283.00
TMW-6	2/5/2013	3335.36	52.35	NM	NA	NA	3283.01	3283.01
TMW-6	8/5/2013	3335.36	52.25	NM	NA	NA	3283.11	3283.11
TMW-6	2/3/2014	3335.36	52.23	NM	NA	NA	3283.13	3283.13
TMW-6	8/5/2014	3335.36	52.27	NM	NA	NA	3283.09	3283.09
TMW-6	2/2/2015	3335.36	51.95	NM	NA	NA	3283.41	3283.41
TMW-6	8/3/2015	3335.36	51.80	NM	NA	NA	3283.56	3283.56
TMW-6	3/29/2016	3335.36	51.55	NM	NA	NA	3283.81	3283.81
TMW-6	9/12/2016	3335.36	51.53	NM	NA	NA	3283.83	3283.83
TMW-6	4/3/2017	3335.36	51.43	NM	NA	NA	3283.93	3283.93
TMW-6	9/12/2017	3335.36	51.37	NM	NA	NA	3283.99	3283.99
TMW-6	3/13/2018	3335.36	51.41	NM	NA	NA	3283.95	3283.95
TMW-6	9/24/2018	3335.36	51.50	NM	NA	NA	3283.86	3283.86
TMW-6	4/1/2019	3335.36	51.35	NM	NA	NA	3284.01	3284.01
TMW-6	10/1/2019	3335.36	54.48	NM	NA	NA	3280.88	3280.88
TMW-6	3/16/2020	3335.36	51.41	NM	NA	NA	3283.95	3283.95
TMW-6	3/19/2021	3335.36	50.37	NM	NA	NA	3284.99	3284.99
TMW-6	9/29/2021	3335.36	51.25	NM	NA	NA	3284.11	3284.11
WW-1	2/2/2009	3332.04	NM	NM	NA	NA	NM	NM
WW-1	8/17/2009	3332.04	NM	NM	NA	NA	NM	NM
WW-1	8/2/2010	3332.04	NM	NM	NA	NA	NM	NM
WW-1	4/11/2011	3332.04	NM	NM	NA	NA	NM	NM
WW-1	8/8/2011	3332.04	NM	NM	NA	NA	NM	NM
WW-1	2/6/2012	3332.04	NM	NM	NA	NA	NM	NM
WW-1	3/28/2016	3332.04	NM	NM	NA	NA	NM	NM
WW-2	2/2/2009	3331.46	49.91	NM	NA	NA	3281.55	3281.55
WW-2	8/17/2009	3331.46	NM	NM	NA	NA	NM	NM
WW-2	2/2/2010	3331.46	NM	NM	NA	NA	NM	NM
WW-2	8/2/2010	3331.46	NM	NM	NA	NA	NM	NM
WW-2	4/11/2011	3331.46	NM	NM	NA	NA	NM	NM
WW-2	8/8/2011	3331.46	NM	NM	NA	NA	NM	NM
WW-2	2/6/2012	3331.46	NM	NM	NA	NA	NM	NM
WW-2	3/29/2016	3331.46	49.20	NM	NA	NA	3282.26	3282.26
WW-2	9/6/2016	3331.46	49.20	NM	NA	NA	3282.26	3282.26
WW-2	4/3/2017	3331.46	49.10	NM	NA	NA	3282.36	3282.36
WW-2	3/12/2018	3331.46	49.07	NM	NA	NA	3282.39	3282.39
WW-2	9/24/2018	3331.46	NM	NM	NA	NA	NM	NM
WW-2	4/4/2019	3331.46	49.14	NM	NA	NA	3282.32	3282.32
WW-2	3/17/2020	3331.46	49.24	NM	NA	NA	3282.22	3282.22
WW-2	3/16/2021	3331.46	49.22	NM	NA	NA	3282.24	3282.24
WW-2	9/20/2021	3331.46	49.14	NM	NA	NA	3282.32	3282.32
WW-3	2/2/2009	3334.45	52.69	NM	NA	NA	3281.76	3281.76
WW-3	8/17/2009	3334.45	NM	NM	NA	NA	NM	NM
WW-3	2/2/2010	3334.45	NM	NM	NA	NA	NM	NM
WW-3	8/2/2010	3334.45	NM	NM	NA	NA	NM	NM
WW-3	4/11/2011	3334.45	NM	NM	NA	NA	NM	NM
WW-3	8/8/2011	3334.45	NM	NM	NA	NA	NM	NM
WW-3	2/6/2012	3334.45	NM	NM	NA	NA	NM	NM
WW-3	3/28/2016	3334.45	NM	NM	NA	NA	NM	NM
WW-3	4/4/2017	3334.45	52.08	NM	NA	NA	3282.37	3282.37
WW-4	2/3/2009	3335.4	55.95	NM	NA	NA	3279.45	3279.45
WW-4	2/6/2012	3335.4	NM	NM	NA	NA	NM	NM
WW-4	3/28/2016	3335.4	NM	NM	NA	NA	NM	NM

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WW-5	2/3/2009	3334.18	53.30	NM	NA	NA	3280.88	3280.88
WW-5	8/17/2009	3336.4	NM	NM	NA	NA	NM	NM
WW-5	2/2/2010	3334.18	NM	NM	NA	NA	NM	NM
WW-5	8/2/2010	3334.18	NM	NM	NA	NA	NM	NM
WW-5	4/11/2011	3334.18	NM	NM	NA	NA	NM	NM
WW-5	8/8/2011	3334.18	NM	NM	NA	NA	NM	NM
WW-5	2/6/2012	3334.18	NM	NM	NA	NA	NM	NM
WW-5	3/28/2016	3334.18	NM	NM	NA	NA	NM	NM
WW-6	2/3/2009	3329.72	50.30	NM	NA	NA	3279.42	3279.42
WW-6	8/17/2009	3329.72	NM	NM	NA	NA	NM	NM
WW-6	2/2/2010	3337.4	NM	NM	NA	NA	NM	NM
WW-6	8/2/2010	3329.72	NM	NM	NA	NA	NM	NM
WW-6	4/11/2011	3329.72	NM	NM	NA	NA	NM	NM
WW-6	8/8/2011	3329.72	NM	NM	NA	NA	NM	NM
WW-6	2/6/2012	3329.72	NM	NM	NA	NA	NM	NM
WW-6	3/28/2016	3329.72	NM	NM	NA	NA	NM	NM
WW-7	2/2/2009	3331.73	50.95	NM	NA	NA	3280.78	3280.78
WW-7	8/17/2009	3331.73	NM	NM	NA	NA	NM	NM
WW-7	2/2/2010	3338.4	NM	NM	NA	NA	NM	NM
WW-7	8/2/2010	3331.73	NM	NM	NA	NA	NM	NM
WW-7	4/11/2011	3331.73	NM	NM	NA	NA	NM	NM
WW-7	8/8/2011	3331.73	NM	NM	NA	NA	NM	NM
WW-7	2/6/2012	3331.73	NM	NM	NA	NA	NM	NM
WW-7	3/29/2016	3331.73	50.30	NM	NA	NA	3281.43	3281.43
WW-7	9/6/2016	3331.73	50.30	NM	NA	NA	3281.43	3281.43
WW-7	4/3/2017	3331.73	50.30	NM	NA	NA	3281.43	3281.43
WW-7	3/12/2018	3331.73	50.15	NM	NA	NA	3281.58	3281.58
WW-7	9/24/2018	3331.73	NM	NM	NA	NA	NM	NM
WW-7	4/4/2019	3331.73	50.21	NM	NA	NA	3281.52	3281.52
WW-7	3/17/2020	3331.73	50.31	NM	NA	NA	3281.42	3281.42
WW-7	3/16/2021	3331.73	50.28	NM	NA	NA	3281.45	3281.45
WW-7	9/20/2021	3331.73	50.20	NM	NA	NA	3281.53	3281.53
WW-8	8/2/2010	3339.4	NM	NM	NA	NA	NM	NM
WW-10	8/8/2011	3341.40	NM	NM	NA	NA	NM	NM

Note:

[1] Groundwater elevations corrected using an assumed LNAPL specific gravity ranging from 0.72 to 0.82 based on limited LNAPL characterization conducted during 2017. The formula used to correct groundwater elevation is as follows

$$Corrected\ GW\ Elevation = TOC\ Elevation - (DTW - LNAPL\ Thickness * LNAPL\ Specific\ Gravity)$$

Acronyms and Abbreviations:

amsl = above mean sea level
btoc = below top of casing
DTW = depth to groundwater
GW = groundwater
ID = identification
LNAPL = light nonaqueous phase liquid
NA = not applicable
NM = not measured
TOC = top of casing
* active recovery well

APPENDIX D

Laboratory Analytical Reports and Data Validation Review

ARCADIS

Chevron South Eunice

DATA REVIEW

SOUTH EUNICE, NEW MEXICO

Volatiles, TPH, Metals and Miscellaneous Analyses

SDGs # 692032, 692132, 692133, 692297 and 692406

Analyses Performed By:
Xenco Laboratories

Midland, TX

Report #44414R
Review Level: Tier II
Project: 30049612.00003GEC

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Groups (SDGs) # 692032, 692132, 692133, 692297 and 692406 for samples collected in association with the Chevron South Eunice Site. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets and chain of custody. Analyses were performed on the following samples:

SDGs	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis			
						VOC	TPH	MET	MISC
692032	MW-15	692032-001	Water	03/16/2021		X	X	X	X
	MW-16	692032-002	Water	03/16/2021		X	X	X	X
	MW-03	692032-003	Water	03/16/2021		X	X	X	X
	MW-31	692032-004	Water	03/16/2021		X	X	X	X
	MW-14	692032-005	Water	03/16/2021		X	X	X	X
	MW-32	692032-006	Water	03/16/2021		X	X	X	X
	MW-38	692032-007	Water	03/16/2021		X	X	X	X
	MW-36	692032-008	Water	03/16/2021		X	X	X	X
	DUP-2	692032-009	Water	03/16/2021	MW-15	X	X	X	X
692132	MW-8	692132-001	Water	03/17/2021		X	X	X	X
	MW-12	692132-002	Water	03/17/2021		X	X	X	X
	MWD-13	692132-003	Water	03/17/2021		X	X	X	X
	MWD-4	692132-004	Water	03/17/2021		X	X	X	X
	RW-6	692132-005	Water	03/17/2021		X	X	X	X
692133	MW-35	692133-001	Water	03/17/2021		X	X	X	X
	MW-3	692133-002	Water	03/17/2021		X	X	X	X
	MW-11	692133-003	Water	03/17/2021		X	X	X	X
	TMW-1	692133-004	Water	03/17/2021		X	X	X	X
	MWD-7	692133-005	Water	03/17/2021		X	X	X	X
	Dup-3	692133-006	Water	03/17/2021	TMW-1	X	X	X	X
692297	MW-17	692297-001	Water	03/18/2021		X	X	X	X
	MWD-1	692297-002	Water	03/18/2021		X	X	X	X
	MWD-8	692297-003	Water	03/18/2021		X	X	X	X
	MWD-17	692297-004	Water	03/18/2021		X	X	X	X
692406	TMW-6	692406-001	Water	03/19/2021		X	X	X	X
	MW-25	692406-002	Water	03/19/2021		X	X	X	X
	MWW-11	692406-003	Water	03/19/2021		X	X	X	X

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SDGs	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis			
						VOC	TPH	MET	MISC
	Dup-4	692406-004	Water	03/19/2021	MW-25	X	X	X	X

Notes:
VOC = volatile organic compounds.
TPH = total petroleum hydrocarbons.
MET = metals.
MISC = miscellaneous includes hexavalent chromium, chloride and total dissolved solids.

DATA REVIEW REPORT

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

Note:
QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 8021B and 8015. Data were reviewed in accordance with USEPA National Functional Guidelines NFG for Organic Superfund Methods Data Review, EPA-540-R-20-005 (November 2020), with reference to the historical (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, OSWER 9240.1-05A-P, October 1999, as appropriate).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8021B	Water	14 days from collection to analysis (preserved) 7 days from collection to analysis (non-preserved)	Cool to <6 °C; preserved to a pH of less than 2 s.u.

Note:

s.u. = standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the sample detection limit (SDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the SDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

Samples associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

SDGs	Sample	Surrogate	Recovery
692132	MW-8	4-Bromofluorobenzene	>UL
	RW-6	4-Bromofluorobenzene	>UL
692297	MWD-17	4-Bromofluorobenzene	>UL
692406	MW-25	1,4-Difluorobenzene	>UL
		4-Bromofluorobenzene	>UL
	Dup-4	1,4-Difluorobenzene	>UL
		4-Bromofluorobenzene	>UL

Note:
UL = upper control limit

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

SDG#692032: MS/MSD analysis was performed on sample ID MW-36, exhibited acceptable recoveries and RPDs.

SDG#692297: MS/MSD analysis was performed on sample ID MWD-8, exhibited acceptable recoveries and RPDs.

SDGs # 692132, 692133 and 692406: The MS/MSD analysis was not performed on samples from these SDGs.

5. Laboratory Control Sample/Laboratory Con67trol Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

SDG	Sample ID/Duplicate ID	Compounds	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
692032	MW-15 / DUP-2	Benzene	0.00622	0.000408	AC
		Toluene	0.00303	0.000367	AC
		Ethylbenzene	0.000657 U	0.000657	AC
		m,p-Xylenes	0.00246	0.00063	AC

SDG	Sample ID/Duplicate ID	Compounds	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
		o-Xylene	0.00193	0.000642	AC
		Total Xylenes	0.00439	0.00063	AC
		Total BTEX	0.0136	0.000367	AC
692133	TMW-1 / Dup-3	Benzene	0.00291	0.00292	AC
		Toluene	0.00097	0.00091	AC
		Ethylbenzene	0.0117	0.0104	AC
		m,p-Xylenes	0.00718	0.00654	AC
		o-Xylene	0.00143	0.00102	AC
		Total Xylenes	0.00861	0.00756	AC
		Total BTEX	0.0242	0.0218	10%
692406	MW-25 / Dup-4	Benzene	1.66	2.04	21%
		Toluene	0.00156	0.0016	AC
		Ethylbenzene	0.0187	0.0174	7%
		m,p-Xylenes	0.00748	0.00643	AC
		o-Xylene	0.00118	0.00837	AC
		Total Xylenes	0.00866	0.0148	AC
		Total BTEX	1.69	2.07	20%

Note:

AC = acceptable

The calculated RPDs between the parent sample and field duplicates were acceptable.

7. System Performance and Overall Assessment

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

SDGs	Sample ID	Compound	Original Analysis	Diluted Analysis (mg/L)	Reported Analysis (mg/L)
692406	MW-25	Benzene	--	1.66 D	1.66 D
		Total BTEX	--	1.69 D	1.69 D
	MWW-11	Benzene	--	2.62 D	2.62 D
		Total BTEX	--	2.64 D	2.64 D
	Dup-4	Benzene	--	2.04 D	2.04 D
		Total BTEX	--	2.07 D	2.07 D

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

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Reported Sample Results	Qualification
Diluted sample result within calibration range	D

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

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DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8021B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
C. Trip blanks	X				X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate (LCSD)		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS)		X		X	
Matrix Spike Duplicate (MSD)		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X	X		
Dilution Factor		X		X	

Notes:

%R Percent recovery

RPD Relative percent difference

DATA REVIEW REPORT

TPH ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
GRO by Method SW-846 8015	Water	14 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C
DRO by Method SW-846 8015	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the sample detection limit (SDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the SDL, with the exception of the compounds listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (B) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

SDG	Sample Locations	Compounds	Sample Result	Qualification
692032	MW-15 MW-16 MW-03 MW-31 MW-14 MW-32 MW-38 MW-36 DUP-2	Gasoline Range Hydrocarbons	Detected sample results <RL and <BAL	“UB” at the RL
692297	MW-17 MWD-1 MWD-8	Gasoline Range Hydrocarbons	Detected sample results <RL and <BAL	“UB” at the RL
	MWD-17	Gasoline Range Hydrocarbons	Detected sample results >RL and <BAL	“UB” at detected sample concentration

SDG	Sample Locations	Compounds	Sample Result	Qualification
692406	TMW-6 MW-25 MWW-11 Dup-4	Gasoline Range Hydrocarbons	Detected sample results >RL and <BAL	"UB" at detected sample concentration

Note:

RL Reporting limit

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. The analysis requires surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

All samples exhibited surrogate recoveries within the control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

SDGs # 692032, 692132, 692133, 692297 and 692406: The MS/MSD analysis was not performed on any of the samples from this SDG.

5. Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate Analysis (LCSD)

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

SDGs	Sample ID/Duplicate ID	Compounds	Sample Result (mg/l)	Duplicate Result (mg/l)	RPD
692032	MW-15 / DUP-2	Gasoline Range Hydrocarbons	1.83	1.46	AC
		Total TPH	1.83	1.46	AC
692133	TMW-1 / Dup-3	All target compounds	U	U	AC

SDGs	Sample ID/Duplicate ID	Compounds	Sample Result (mg/l)	Duplicate Result (mg/l)	RPD
692406	MW-25 / Dup-4	Gasoline Range Hydrocarbons	5.05	4.51	AC
		Diesel Range Organics	2.09	1.34	AC
		Total TPH	7.14	5.85	AC

Notes:
U = not detected
AC = acceptable

The calculated RPDs between the parent sample and field duplicates were acceptable.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA REVIEW REPORT

DATA VALIDATION CHECKLIST FOR TPH

TPH: SW-846 8015	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/FID)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X	X		
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	

Notes:
%R - percent recovery
RPD - relative percent difference

DATA REVIEW REPORT

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 6020A, 7196A, EPA 300, SM 2540C. Data were reviewed in accordance with USEPA National Functional Guidelines NFG for Inorganic Superfund Methods Data Review, EPA-540-R-20-006 (November 2020), with reference to the historical (USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, OSWER 9240.1-05A-P, October 2004, as appropriate).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.
  - J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).
- Quantitation (Q) Qualifiers
  - E The reported value is estimated due to the presence of interference.
  - N Spiked sample recovery is not within control limits.
  - * Duplicate analysis is not within control limits.
- Validation Qualifiers
  - J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
  - UB Analyte considered non-detect at the listed value due to associated blank contamination.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

DATA REVIEW REPORT

METALS ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6020A	Water	180 days from collection to analysis	Preserved to a pH of less than 2.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the sample detection limit (SDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All analytes were not detected above the SDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

SDGs # 692032, 692132, 692133, 692297 and 692406: MS/MSD analysis was not performed on any of the samples from this SDG.

3.2 Laboratory Duplicate Analysis

The laboratory duplicates relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices and two times the RL for soil matrices.

SDGs # 692032, 692132, 692133, 692297 and 692406: Laboratory duplicate analysis was not performed for the samples pertaining to this SDG.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations

are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

SDGs	Sample ID/Duplicate ID	Analytes	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
692032	MW-15 / DUP-2	Arsenic	0.0115	0.0113	AC
		Barium	0.0454	0.045	1%
692133	TMW-1 / Dup-3	Arsenic	0.0228	0.0234	3%
		Barium	1.22	1.24	2%
692406	MW-25 / Dup-4	Arsenic	0.00308	0.00266	AC
		Barium	1.55	1.31	17%
		Chromium	0.00194	0.00172	AC

Notes:
AC = acceptable

The calculated RPDs between the parent sample and field duplicates were acceptable.

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS/LCSD analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

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DATA VALIDATION CHECKLIST FOR METAL

METALS; SW-846 6020A	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)					
Tier II Validation					
Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Instrument Blanks	X				X
B. Method Blanks		X		X	
C. Equipment/Field Blanks	X				X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R	X				X
Matrix Spike Duplicate (MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)		X		X	
ICP Serial Dilution %D	X				X
Reporting Limit Verification		X		X	

Notes:

%R Percent recovery

RPD Relative percent difference

%D Percent difference

DATA REVIEW REPORT

GENERAL CHEMISTRY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Hexavalent chromium by SW-846 7196A	Water	24 hours from collection to analysis	Cool to <6 °C.
Chloride by EPA 300.0	Water	28 days from collection to analysis	Cool to <6 °C.
Total Dissolved Solids by SM 2540C	Water	7 days from collection to analysis	Cool to <6 °C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the sample detection limit (SDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were detected in the associated QA blanks; however, the associated sample results were greater than the BAL. Therefore, no other qualification of the sample results was required.

3. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS/MSD Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

SDG # 692032: MS/MSD analysis was performed on sample ID MW-36 for chloride and on sample ID MW-15 for hexavalent chromium analysis. MS/MSD analysis exhibited recoveries and RPDs within the control limits.

SDG # 692132: MS/MSD analysis was performed on sample ID MWD-13 for hexavalent chromium analysis. MS/MSD analysis exhibited recoveries and RPDs within the control limits.

SDG # 692133: MS/MSD analysis was performed on sample ID MW-35 for hexavalent chromium analysis. MS/MSD analysis exhibited recoveries and RPDs within the control limits.

SDG # 692406: MS/MSD analysis was performed on sample ID TMW-6 for hexavalent chromium analysis. MS/MSD analysis exhibited recoveries and RPDs within the control limits

3.2 Laboratory Duplicate Analysis

The laboratory duplicates relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices is

applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one time the RL is applied for water matrices.

SDG# 692032: The laboratory duplicate analysis performed on sample ID DUP-2 for total dissolved solids, exhibited RPD within the control limit.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

SDGs	Sample ID/Duplicate ID	Analytes	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
692032	MW-15 / DUP-2	Chloride	1310	968	30%
		Total Dissolved Solids	3140	3680	16%
692133	TMW-1 / Dup-3	Chloride	533	536	1%
		Total Dissolved Solids	1370	1780	26%
692406	MW-25 / Dup-4	Chloride	1330	1280	4%
		Total Dissolved Solids	4470	4620	3%

Notes:
AC - acceptable

The calculated RPDs between the parent sample and field duplicates were acceptable.

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS/LCSD analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA REVIEW REPORT

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: SW7196A, EPA 300.0 and SM 2540C	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	

Notes:

%RSD – Relative standard deviation
%R - Percent recovery
RPD - Relative percent difference

DATA REVIEW REPORT

VALIDATION PERFORMED BY: Bhagyashree Fulzele

SIGNATURE: BFulzele

DATE: February 05, 2022

PEER REVIEW: Dennis Capria

DATE: February 10, 2022

CHAIN OF CUSTODY

CORRECTED SAMPLE ANALYSIS DATA SHEETS

XENCO LABORATORIES

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com

Work Order No: 692032

Page 1 of 1

Project Manager:	Rebecca Andresen	Bill to: (if different)	
Company Name:	ARCADIS	Company Name:	
Address:	1004 N. Big Spring St.	Address:	
City, State ZIP:	Midland, TX. 79701	City, State ZIP:	
Phone:	303-471-3477	Email:	madisyn.frandsen@arcadis.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Eunice Project- S. Eunice	Turn Around	
Project Number:	30049612	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	J. Steinmann	Due Date:	Std

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	5.5	Thermometer ID	IR8
Received Intact:	Yes No		6
Cooler Custody Seals:	Yes No N/A	Correction Factor:	+0.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (EPA 8021B)	TPH (SW8015B)	Hex Chrome (SW7196A)	Dissolved Metals (SW6020_DIS): Chromium, Arsenic & Barium)	TDS (SM2540C)	Chlorides (EPA 300.0)
MW-34	W	3/16/21	0859	—	8						
MWD-6			0930	—	8						
MW-9			1010	—	8						
MW-30			1040	—	8						
WW-7			1110	—	8						
MW-29			1130	—	8						
WW-2			1220	—	8						
MW-32			1304	—	8						
MWD-5			1340	—	8						
Dup-1			—	—	8						

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3/16/21 1:1	2		3/16/21 16:55
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-15** Matrix: Water Sample Depth:
Lab Sample Id: 692032-001 Date Collected: 03.16.2021 09:05 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1310**	25.0	1.05	mg/L	03.21.2021 17:41		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**3140**	100	100	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0115**	0.00400	0.000246	mg/L	03.20.2021 20:47		1
Barium	7440-39-3	**0.0454**	0.00400	0.000484	mg/L	03.20.2021 20:47		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:47	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-15** Matrix: Water Sample Depth:

Lab Sample Id: 692032-001 Date Collected: 03.16.2021 09:05 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~**1.83**~~	2.26 UB	0.893	mg/L	03.21.2021 23:07	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.825	2.26	0.825	mg/L	03.21.2021 23:07	U	1
Oil Range Hydrocarbons	PHCG2835	<0.825	2.26	0.825	mg/L	03.21.2021 23:07	U	1
Total TPH	PHC635	**1.83**	2.26	0.825	mg/L	03.21.2021 23:07	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	112	70 - 135	%		
o-Terphenyl	126	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00622**	0.00200	0.000408	mg/L	03.23.2021 06:48		1
Toluene	108-88-3	**0.00303**	0.00200	0.000367	mg/L	03.23.2021 06:48		1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 06:48	U	1
m,p-Xylenes	179601-23-1	**0.00246**	0.00400	0.000630	mg/L	03.23.2021 06:48	J	1
o-Xylene	95-47-6	**0.00193**	0.00200	0.000642	mg/L	03.23.2021 06:48	J	1
Total Xylenes	1330-20-7	**0.00439**	0.00200	0.000630	mg/L	03.23.2021 06:48		1
Total BTEX		**0.0136**	0.00200	0.000367	mg/L	03.23.2021 06:48		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	104	70 - 130	%		
4-Bromofluorobenzene	101	70 - 130	%		

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-16** Matrix: Water Sample Depth:
Lab Sample Id: 692032-002 Date Collected: 03.16.2021 09:54 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1290**	25.0	1.05	mg/L	03.21.2021 17:46		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**3880**	100	100	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0130**	0.00400	0.000246	mg/L	03.20.2021 20:50		1
Barium	7440-39-3	**0.0375**	0.00400	0.000484	mg/L	03.20.2021 20:50		1
Chromium	7440-47-3	**0.102**	0.00400	0.000525	mg/L	03.20.2021 20:50		1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	**0.103**	0.0100	0.00273	mg/L	03.16.2021 21:20		1

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-16** Matrix: Water Sample Depth:

Lab Sample Id: 692032-002 Date Collected: 03.16.2021 09:54 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL		SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~**1.80**~~	2.26	UB	0.892	mg/L	03.21.2021 23:28	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.824	2.26		0.824	mg/L	03.21.2021 23:28	U	1
Oil Range Hydrocarbons	PHCG2835	<0.824	2.26		0.824	mg/L	03.21.2021 23:28	U	1
Total TPH	PHC635	**1.80**	2.26		0.824	mg/L	03.21.2021 23:28	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	102	70 - 135	%		
o-Terphenyl	114	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 07:08	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:08	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 07:08	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 07:08	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 07:08	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 07:08	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:08	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	107	70 - 130	%		
4-Bromofluorobenzene	101	70 - 130	%		

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-03** Matrix: Water Sample Depth:
Lab Sample Id: 692032-003 Date Collected: 03.16.2021 10:35 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**370**	5.00	0.210	mg/L	03.21.2021 17:51		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1510**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0158**	0.00400	0.000246	mg/L	03.20.2021 20:53		1
Barium	7440-39-3	**0.0908**	0.00400	0.000484	mg/L	03.20.2021 20:53		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:53	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-03** Matrix: Water Sample Depth:

Lab Sample Id: 692032-003 Date Collected: 03.16.2021 10:35 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~1.69~~	2.26 UB	0.894	mg/L	03.21.2021 23:50	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.826	2.26	0.826	mg/L	03.21.2021 23:50	U	1
Oil Range Hydrocarbons	PHCG2835	<0.826	2.26	0.826	mg/L	03.21.2021 23:50	U	1
Total TPH	PHC635	**1.69**	2.26	0.826	mg/L	03.21.2021 23:50	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	112	70 - 135	%		
o-Terphenyl	123	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 07:29	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:29	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 07:29	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 07:29	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 07:29	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 07:29	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:29	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	95	70 - 130	%		

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-31** Matrix: Water Sample Depth:
Lab Sample Id: 692032-004 Date Collected: 03.16.2021 11:10 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**482**	5.00	0.210	mg/L	03.21.2021 17:56		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1160**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0411**	0.00400	0.000246	mg/L	03.20.2021 20:56		1
Barium	7440-39-3	**0.414**	0.00400	0.000484	mg/L	03.20.2021 20:56		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:56	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-31** Matrix: Water Sample Depth:

Lab Sample Id: 692032-004 Date Collected: 03.16.2021 11:10 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL		SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~**1.74**~~	2.27	UB	0.895	mg/L	03.22.2021 00:11	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.827	2.27		0.827	mg/L	03.22.2021 00:11	U	1
Oil Range Hydrocarbons	PHCG2835	<0.827	2.27		0.827	mg/L	03.22.2021 00:11	U	1
Total TPH	PHC635	**1.74**	2.27		0.827	mg/L	03.22.2021 00:11	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	103	70 - 135	%		
o-Terphenyl	114	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 07:50	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:50	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 07:50	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 07:50	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 07:50	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 07:50	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:50	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	91	70 - 130	%		

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692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-14** Matrix: Water Sample Depth:
Lab Sample Id: 692032-005 Date Collected: 03.16.2021 11:54 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**550**	5.00	0.210	mg/L	03.21.2021 18:01		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1650**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00760**	0.00400	0.000246	mg/L	03.20.2021 20:59		1
Barium	7440-39-3	**0.0877**	0.00400	0.000484	mg/L	03.20.2021 20:59		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:59	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-14** Matrix: Water Sample Depth:

Lab Sample Id: 692032-005 Date Collected: 03.16.2021 11:54 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~1.76~~	2.27 UB	0.898	mg/L	03.22.2021 00:32	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.830	2.27	0.830	mg/L	03.22.2021 00:32	U	1
Oil Range Hydrocarbons	PHCG2835	<0.830	2.27	0.830	mg/L	03.22.2021 00:32	U	1
Total TPH	PHC635	**1.76**	2.27	0.830	mg/L	03.22.2021 00:32	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	98	70 - 135	%		
o-Terphenyl	110	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 08:10	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:10	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 08:10	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 08:10	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 08:10	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 08:10	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:10	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	104	70 - 130	%		
4-Bromofluorobenzene	99	70 - 130	%		

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692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-32** Matrix: Water Sample Depth:
Lab Sample Id: 692032-006 Date Collected: 03.16.2021 13:24 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**357**	5.00	0.210	mg/L	03.21.2021 18:06		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1060**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00840**	0.00400	0.000246	mg/L	03.20.2021 21:07		1
Barium	7440-39-3	**0.465**	0.00400	0.000484	mg/L	03.20.2021 21:07		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:07	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-32** Matrix: Water Sample Depth:

Lab Sample Id: 692032-006 Date Collected: 03.16.2021 13:24 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL		SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~**1.69**~~	2.25	UB	0.890	mg/L	03.22.2021 00:54	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.822	2.25		0.822	mg/L	03.22.2021 00:54	U	1
Oil Range Hydrocarbons	PHCG2835	<0.822	2.25		0.822	mg/L	03.22.2021 00:54	U	1
Total TPH	PHC635	**1.69**	2.25		0.822	mg/L	03.22.2021 00:54	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	111	70 - 135	%		
o-Terphenyl	122	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 08:31	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:31	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 08:31	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 08:31	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 08:31	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 08:31	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:31	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	99	70 - 130	%		

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692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-38** Matrix: Water Sample Depth:
Lab Sample Id: 692032-007 Date Collected: 03.16.2021 13:52 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**585**	10.0	0.421	mg/L	03.21.2021 18:11		20

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2040**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00874**	0.00400	0.000246	mg/L	03.20.2021 21:10		1
Barium	7440-39-3	**0.0736**	0.00400	0.000484	mg/L	03.20.2021 21:10		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:10	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-38** Matrix: Water Sample Depth:

Lab Sample Id: 692032-007 Date Collected: 03.16.2021 13:52 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL		SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~1.55~~	2.28	UB	0.902	mg/L	03.22.2021 01:15	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.833	2.28		0.833	mg/L	03.22.2021 01:15	U	1
Oil Range Hydrocarbons	PHCG2835	<0.833	2.28		0.833	mg/L	03.22.2021 01:15	U	1
Total TPH	PHC635	**1.55**	2.28		0.833	mg/L	03.22.2021 01:15	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	98	70 - 135	%		
o-Terphenyl	111	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 08:52	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:52	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 08:52	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 08:52	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 08:52	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 08:52	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:52	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	104	70 - 130	%		
4-Bromofluorobenzene	100	70 - 130	%		

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-36** Matrix: Water Sample Depth:
Lab Sample Id: 692032-008 Date Collected: 03.16.2021 14:14 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**439**	5.00	0.210	mg/L	03.21.2021 18:41	X	10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1370**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00856**	0.00400	0.000246	mg/L	03.20.2021 21:13		1
Barium	7440-39-3	**0.115**	0.00400	0.000484	mg/L	03.20.2021 21:13		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:13	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-36** Matrix: Water Sample Depth:

Lab Sample Id: 692032-008 Date Collected: 03.16.2021 14:14 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL		SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~**1.43**~~	2.28	UB	0.901	mg/L	03.22.2021 01:36	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.832	2.28		0.832	mg/L	03.22.2021 01:36	U	1
Oil Range Hydrocarbons	PHCG2835	<0.832	2.28		0.832	mg/L	03.22.2021 01:36	U	1
Total TPH	PHC635	**1.43**	2.28		0.832	mg/L	03.22.2021 01:36	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	94	70 - 135	%		
o-Terphenyl	109	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 08:23	U	1
Toluene	108-88-3	**0.00241**	0.00200	0.000367	mg/L	03.23.2021 08:23		1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 08:23	U	1
m,p-Xylenes	179601-23-1	**0.00165**	0.00400	0.000630	mg/L	03.23.2021 08:23	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 08:23	U	1
Total Xylenes	1330-20-7	**0.00165**	0.00200	0.000630	mg/L	03.23.2021 08:23	J	1
Total BTEX		**0.00406**	0.00200	0.000367	mg/L	03.23.2021 08:23		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	118	70 - 130	%		

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **DUP-2** Matrix: Water Sample Depth:
Lab Sample Id: 692032-009 Date Collected: 03.16.2021 00:00 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**968**	25.0	1.05	mg/L	03.21.2021 18:56		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**3680**	100	100	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0113**	0.00400	0.000246	mg/L	03.20.2021 21:16		1
Barium	7440-39-3	**0.0450**	0.00400	0.000484	mg/L	03.20.2021 21:16		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:16	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **DUP-2** Matrix: Water Sample Depth:

Lab Sample Id: 692032-009 Date Collected: 03.16.2021 00:00 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~1.46~~	2.25 UB	0.888	mg/L	03.22.2021 01:58	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.821	2.25	0.821	mg/L	03.22.2021 01:58	U	1
Oil Range Hydrocarbons	PHCG2835	<0.821	2.25	0.821	mg/L	03.22.2021 01:58	U	1
Total TPH	PHC635	**1.46**	2.25	0.821	mg/L	03.22.2021 01:58	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	103	70 - 135	%		
o-Terphenyl	119	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 08:49	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:49	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 08:49	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 08:49	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 08:49	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 08:49	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:49	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	106	70 - 130	%		
4-Bromofluorobenzene	107	70 - 130	%		

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

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Work Order No: 692132

Page 1 of 1

Project Manager:	Rebecca Andresen	Bill to: (if different)	
Company Name:	ARCADIS	Company Name:	
Address:	1004 N. Big Spring St.	Address:	
City, State ZIP:	Midland, TX. 79701	City, State ZIP:	
Phone:	303-471-3477	Email:	madisyn.frandsen@arcadis.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Eunice Project- S. Eunice	Turn Around	
Project Number:	30049612	Routine	✓
P.O. Number:		Rush:	
Sampler's Name:	J. Steinmann	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	(Yes) No
Temperature (°C):	4.7	Thermometer ID	
Received Intact:	Yes No	FR8	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (EPA 8021B)	TPH (SW8015B)	Hex Chrome (SW7196A)	Dissolved Metals (SW6020_DIS): Chromium, Arsenic & Barium)	TDS (SM2540C)	Chlorides (EPA 300.0)
MW-8	W	3/17/21	0845	—	8						
MWD-12			0920	—	8						
MWD-13			0955	—	8						
MWD-4			1040	—	8						
RW-6			1120	—	8						

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3/17/21 15:12	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

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Certificate of Analytical Results
692132
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-8** Matrix: Water Sample Depth:
Lab Sample Id: 692132-001 Date Collected: 03.17.2021 08:45 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**506**	10.0	0.421	mg/L	03.21.2021 19:01		20

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2520**	100	100	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0338**	0.00400	0.000246	mg/L	03.20.2021 21:19		1
Barium	7440-39-3	**0.0648**	0.00400	0.000484	mg/L	03.20.2021 21:19		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:19	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154489 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:02	U	1

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Certificate of Analytical Results
692132
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-8** Matrix: Water Sample Depth:

Lab Sample Id: 692132-001 Date Collected: 03.17.2021 08:45 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.890	2.25	0.890	mg/L	03.21.2021 22:03	U	1
Diesel Range Organics	C10C28DRO	<0.822	2.25	0.822	mg/L	03.21.2021 22:03	U	1
Oil Range Hydrocarbons	PHCG2835	<0.822	2.25	0.822	mg/L	03.21.2021 22:03	U	1
Total TPH	PHC635	<0.822	2.25	0.822	mg/L	03.21.2021 22:03	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	89	70 - 135	%		
o-Terphenyl	81	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 09:14	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 09:14	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 09:14	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 09:14	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 09:14	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 09:14	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 09:14	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	121	70 - 130	%		
4-Bromofluorobenzene	131	70 - 130	%		**

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Certificate of Analytical Results
692132
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-12** Matrix: Water Sample Depth:
Lab Sample Id: 692132-002 Date Collected: 03.17.2021 09:20 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**918**	25.0	1.05	mg/L	03.21.2021 19:06		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**3070**	100	100	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0429**	0.00400	0.000246	mg/L	03.20.2021 21:22		1
Barium	7440-39-3	**0.314**	0.00400	0.000484	mg/L	03.20.2021 21:22		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:22	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154489 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:02	U	1

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Certificate of Analytical Results
692132
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-12** Matrix: Water Sample Depth:

Lab Sample Id: 692132-002 Date Collected: 03.17.2021 09:20 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.881	2.23	0.881	mg/L	03.21.2021 22:24	U	1
Diesel Range Organics	C10C28DRO	**0.930**	2.23	0.814	mg/L	03.21.2021 22:24	J	1
Oil Range Hydrocarbons	PHCG2835	<0.814	2.23	0.814	mg/L	03.21.2021 22:24	U	1
Total TPH	PHC635	**0.930**	2.23	0.814	mg/L	03.21.2021 22:24	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	101	70 - 135	%		
o-Terphenyl	91	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00160**	0.00200	0.000408	mg/L	03.23.2021 09:39	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 09:39	U	1
Ethylbenzene	100-41-4	**0.0301**	0.00200	0.000657	mg/L	03.23.2021 09:39		1
m,p-Xylenes	179601-23-1	**0.00377**	0.00400	0.000630	mg/L	03.23.2021 09:39	J	1
o-Xylene	95-47-6	**0.00259**	0.00200	0.000642	mg/L	03.23.2021 09:39		1
Total Xylenes	1330-20-7	**0.00636**	0.00200	0.000630	mg/L	03.23.2021 09:39		1
Total BTEX		**0.0381**	0.00200	0.000367	mg/L	03.23.2021 09:39		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	111	70 - 130	%		
4-Bromofluorobenzene	128	70 - 130	%		

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Certificate of Analytical Results
692132
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-13** Matrix: Water Sample Depth:
Lab Sample Id: 692132-003 Date Collected: 03.17.2021 09:55 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1120**	25.0	1.05	mg/L	03.21.2021 19:11		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**5450**	250	250	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0526**	0.00400	0.000246	mg/L	03.20.2021 21:25		1
Barium	7440-39-3	**0.0877**	0.00400	0.000484	mg/L	03.20.2021 21:25		1
Chromium	7440-47-3	**0.00168**	0.00400	0.000525	mg/L	03.20.2021 21:25	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154489 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:02	U	1

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Certificate of Analytical Results
692132
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-13** Matrix: Water Sample Depth:

Lab Sample Id: 692132-003 Date Collected: 03.17.2021 09:55 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.875	2.22	0.875	mg/L	03.21.2021 23:07	U	1
Diesel Range Organics	C10C28DRO	<0.809	2.22	0.809	mg/L	03.21.2021 23:07	U	1
Oil Range Hydrocarbons	PHCG2835	<0.809	2.22	0.809	mg/L	03.21.2021 23:07	U	1
Total TPH	PHC635	<0.809	2.22	0.809	mg/L	03.21.2021 23:07	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	86	70 - 135	%		
o-Terphenyl	80	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 10:04	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 10:04	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 10:04	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 10:04	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 10:04	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 10:04	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 10:04	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	89	70 - 130	%		
4-Bromofluorobenzene	90	70 - 130	%		

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Certificate of Analytical Results
692132
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-4** Matrix: Water Sample Depth:
Lab Sample Id: 692132-004 Date Collected: 03.17.2021 10:40 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**44.3**	5.00	0.210	mg/L	03.21.2021 19:26		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1020**	25.0	25.0	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00212**	0.00400	0.000246	mg/L	03.20.2021 21:28	J	1
Barium	7440-39-3	**0.0742**	0.00400	0.000484	mg/L	03.20.2021 21:28		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:28	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154489 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:02	U	1

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Certificate of Analytical Results
692132
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-4** Matrix: Water Sample Depth:

Lab Sample Id: 692132-004 Date Collected: 03.17.2021 10:40 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.897	2.27	0.897	mg/L	03.21.2021 23:28	U	1
Diesel Range Organics	C10C28DRO	<0.828	2.27	0.828	mg/L	03.21.2021 23:28	U	1
Oil Range Hydrocarbons	PHCG2835	<0.828	2.27	0.828	mg/L	03.21.2021 23:28	U	1
Total TPH	PHC635	<0.828	2.27	0.828	mg/L	03.21.2021 23:28	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	104	70 - 135	%		
o-Terphenyl	96	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 10:29	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 10:29	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 10:29	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 10:29	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 10:29	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 10:29	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 10:29	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	113	70 - 130	%		
4-Bromofluorobenzene	116	70 - 130	%		

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Certificate of Analytical Results
692132
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **RW-6** Matrix: Water Sample Depth:
Lab Sample Id: 692132-005 Date Collected: 03.17.2021 11:20 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**929**	10.0	0.421	mg/L	03.21.2021 19:31		20

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2570**	100	100	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00300**	0.00400	0.000246	mg/L	03.20.2021 21:31	J	1
Barium	7440-39-3	**1.75**	0.00400	0.000484	mg/L	03.20.2021 21:31		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:31	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154489 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:02	U	1

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692132
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **RW-6** Matrix: Water Sample Depth:

Lab Sample Id: 692132-005 Date Collected: 03.17.2021 11:20 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**2.36**	2.31	0.914	mg/L	03.21.2021 23:50		1
Diesel Range Organics	C10C28DRO	<0.845	2.31	0.845	mg/L	03.21.2021 23:50	U	1
Oil Range Hydrocarbons	PHCG2835	<0.845	2.31	0.845	mg/L	03.21.2021 23:50	U	1
Total TPH	PHC635	**2.36**	2.31	0.845	mg/L	03.21.2021 23:50		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 135	%		
o-Terphenyl	79	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0424**	0.00200	0.000408	mg/L	03.23.2021 10:55		1
Toluene	108-88-3	**0.00122**	0.00200	0.000367	mg/L	03.23.2021 10:55	J	1
Ethylbenzene	100-41-4	**0.00100**	0.00200	0.000657	mg/L	03.23.2021 10:55	J	1
m,p-Xylenes	179601-23-1	**0.00339**	0.00400	0.000630	mg/L	03.23.2021 10:55	J	1
o-Xylene	95-47-6	**0.0109**	0.00200	0.000642	mg/L	03.23.2021 10:55		1
Total Xylenes	1330-20-7	**0.0143**	0.00200	0.000630	mg/L	03.23.2021 10:55		1
Total BTEX		**0.0589**	0.00200	0.000367	mg/L	03.23.2021 10:55		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	112	70 - 130	%		
4-Bromofluorobenzene	149	70 - 130	%		**

XENCO LABORATORIES

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

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Work Order No: 692133

Page 1 of 1

Project Manager:	Rebecca Andresen	Bill to: (if different)	
Company Name:	ARCADIS	Company Name:	
Address:	1004 N. Big Spring St.	Address:	
City, State ZIP:	Midland, TX. 79701	City, State ZIP:	
Phone:	303-471-3477	Email:	madisyn.frandsen@arcadis.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Eunice Project- S. Eunice	Turn Around	
Project Number:	30049612	Routine ☐	
P.O. Number:		Rush:	
Sampler's Name:	Tony S. Longwell	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	4.7	Thermometer ID	
Received Intact:	Yes No	IR8	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (EPA 8021B)	TPH (SW8015B)	Hex Chrome (SW7196A)	Dissolved Metals (SW6020_DIS): Chromium, Arsenic & Barium)	TDS (SM2540C)	Chlorides (EPA 300.0)
MW-35	W	03/17/21	0847		8	X	X	X	X	X	X
MW-3	W	03/17/21	0919		8	X	X	X	X	X	X
MWD-11	W	03/17/21	0946		8	X	X	X	X	X	X
TMW-1	W	03/17/21	1012		8	X	X	X	X	X	X
MWD-7	W	03/17/21	1117		8	X	X	X	X	X	X
DUP-3	W	03/17/21	—		8	X	X	X	X	X	X

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Tony S. Longwell	[signature]	03/17/21 / 1215	2 [signature]	[signature]	3/17/21 15:12
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-35** Matrix: Water Sample Depth:
Lab Sample Id: 692133-001 Date Collected: 03.17.2021 08:47 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**158**	5.00	0.210	mg/L	03.21.2021 20:42		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**958**	25.0	25.0	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154456 Date Prep: 03.22.2021 10:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723830

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00828**	0.00400	0.000246	mg/L	03.23.2021 00:03		1
Barium	7440-39-3	**0.107**	0.00400	0.000484	mg/L	03.23.2021 00:03		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 00:03	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154491 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:45	U	1

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-35** Matrix: Water Sample Depth:

Lab Sample Id: 692133-001 Date Collected: 03.17.2021 08:47 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.896	2.27	0.896	mg/L	03.22.2021 00:11	U	1
Diesel Range Organics	C10C28DRO	<0.827	2.27	0.827	mg/L	03.22.2021 00:11	U	1
Oil Range Hydrocarbons	PHCG2835	<0.827	2.27	0.827	mg/L	03.22.2021 00:11	U	1
Total TPH	PHC635	<0.827	2.27	0.827	mg/L	03.22.2021 00:11	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 135	%		
o-Terphenyl	79	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 11:20	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 11:20	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 11:20	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 11:20	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 11:20	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 11:20	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 11:20	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	118	70 - 130	%		
4-Bromofluorobenzene	122	70 - 130	%		

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-3** Matrix: Water Sample Depth:
Lab Sample Id: 692133-002 Date Collected: 03.17.2021 09:19 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**101**	2.50	0.105	mg/L	03.21.2021 20:47		5

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**717**	25.0	25.0	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154456 Date Prep: 03.22.2021 10:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723830

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0168**	0.00400	0.000246	mg/L	03.23.2021 00:06		1
Barium	7440-39-3	**0.0500**	0.00400	0.000484	mg/L	03.23.2021 00:06		1
Chromium	7440-47-3	**0.000802**	0.00400	0.000525	mg/L	03.23.2021 00:06	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154491 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:45	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-3** Matrix: Water Sample Depth:

Lab Sample Id: 692133-002 Date Collected: 03.17.2021 09:19 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.867	2.20	0.867	mg/L	03.22.2021 00:32	U	1
Diesel Range Organics	C10C28DRO	<0.801	2.20	0.801	mg/L	03.22.2021 00:32	U	1
Oil Range Hydrocarbons	PHCG2835	<0.801	2.20	0.801	mg/L	03.22.2021 00:32	U	1
Total TPH	PHC635	<0.801	2.20	0.801	mg/L	03.22.2021 00:32	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	117	70 - 135	%		
o-Terphenyl	110	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 11:45	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 11:45	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 11:45	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 11:45	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 11:45	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 11:45	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 11:45	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	124	70 - 130	%		
4-Bromofluorobenzene	120	70 - 130	%		

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-11** Matrix: Water Sample Depth:
Lab Sample Id: 692133-003 Date Collected: 03.17.2021 09:46 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**90.2**	2.50	0.105	mg/L	03.21.2021 20:52		5

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**683**	25.0	25.0	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154456 Date Prep: 03.22.2021 10:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723830

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0214**	0.00400	0.000246	mg/L	03.23.2021 00:09		1
Barium	7440-39-3	**0.0496**	0.00400	0.000484	mg/L	03.23.2021 00:09		1
Chromium	7440-47-3	**0.00145**	0.00400	0.000525	mg/L	03.23.2021 00:09	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154491 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:45	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-11** Matrix: Water Sample Depth:

Lab Sample Id: 692133-003 Date Collected: 03.17.2021 09:46 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.884	2.24	0.884	mg/L	03.22.2021 00:54	U	1
Diesel Range Organics	C10C28DRO	<0.817	2.24	0.817	mg/L	03.22.2021 00:54	U	1
Oil Range Hydrocarbons	PHCG2835	<0.817	2.24	0.817	mg/L	03.22.2021 00:54	U	1
Total TPH	PHC635	<0.817	2.24	0.817	mg/L	03.22.2021 00:54	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	101	70 - 135	%		
o-Terphenyl	96	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 12:11	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 12:11	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 12:11	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 12:11	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 12:11	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 12:11	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 12:11	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	122	70 - 130	%		
4-Bromofluorobenzene	120	70 - 130	%		

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692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **TMW-1** Matrix: Water Sample Depth:
Lab Sample Id: 692133-004 Date Collected: 03.17.2021 10:12 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**533**	5.00	0.210	mg/L	03.21.2021 20:57		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1370**	50.0	50.0	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154456 Date Prep: 03.22.2021 10:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723830

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0228**	0.00400	0.000246	mg/L	03.23.2021 00:18		1
Barium	7440-39-3	**1.22**	0.00400	0.000484	mg/L	03.23.2021 00:18		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 00:18	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154491 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:45	U	1

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **TMW-1** Matrix: Water Sample Depth:

Lab Sample Id: 692133-004 Date Collected: 03.17.2021 10:12 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.885	2.24	0.885	mg/L	03.22.2021 01:15	U	1
Diesel Range Organics	C10C28DRO	<0.818	2.24	0.818	mg/L	03.22.2021 01:15	U	1
Oil Range Hydrocarbons	PHCG2835	<0.818	2.24	0.818	mg/L	03.22.2021 01:15	U	1
Total TPH	PHC635	<0.818	2.24	0.818	mg/L	03.22.2021 01:15	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	95	70 - 135	%		
o-Terphenyl	90	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00291**	0.00200	0.000408	mg/L	03.23.2021 13:53		1
Toluene	108-88-3	**0.000970**	0.00200	0.000367	mg/L	03.23.2021 13:53	J	1
Ethylbenzene	100-41-4	**0.0117**	0.00200	0.000657	mg/L	03.23.2021 13:53		1
m,p-Xylenes	179601-23-1	**0.00718**	0.00400	0.000630	mg/L	03.23.2021 13:53		1
o-Xylene	95-47-6	**0.00143**	0.00200	0.000642	mg/L	03.23.2021 13:53	J	1
Total Xylenes	1330-20-7	**0.00861**	0.00200	0.000630	mg/L	03.23.2021 13:53		1
Total BTEX		**0.0242**	0.00200	0.000367	mg/L	03.23.2021 13:53		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	129	70 - 130	%		

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-7** Matrix: Water Sample Depth:
Lab Sample Id: 692133-005 Date Collected: 03.17.2021 11:17 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**3870**	25.0	1.05	mg/L	03.23.2021 12:55		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**10900**	50.0	50.0	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154456 Date Prep: 03.22.2021 10:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723830

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0153**	0.00400	0.000246	mg/L	03.23.2021 00:21		1
Barium	7440-39-3	**0.0474**	0.00400	0.000484	mg/L	03.23.2021 00:21		1
Chromium	7440-47-3	**0.000562**	0.00400	0.000525	mg/L	03.23.2021 00:21	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154491 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:45	U	1

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-7** Matrix: Water Sample Depth:

Lab Sample Id: 692133-005 Date Collected: 03.17.2021 11:17 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.856	2.17	0.856	mg/L	03.22.2021 01:36	U	1
Diesel Range Organics	C10C28DRO	<0.791	2.17	0.791	mg/L	03.22.2021 01:36	U	1
Oil Range Hydrocarbons	PHCG2835	<0.791	2.17	0.791	mg/L	03.22.2021 01:36	U	1
Total TPH	PHC635	<0.791	2.17	0.791	mg/L	03.22.2021 01:36	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	93	70 - 135	%		
o-Terphenyl	88	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 14:19	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 14:19	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 14:19	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 14:19	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 14:19	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 14:19	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 14:19	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	110	70 - 130	%		
4-Bromofluorobenzene	118	70 - 130	%		

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **Dup-3** Matrix: Water Sample Depth:
Lab Sample Id: 692133-006 Date Collected: 03.17.2021 00:00 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**536**	5.00	0.210	mg/L	03.23.2021 13:10		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1780**	250	250	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154456 Date Prep: 03.22.2021 10:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723830

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0234**	0.00400	0.000246	mg/L	03.23.2021 00:24		1
Barium	7440-39-3	**1.24**	0.00400	0.000484	mg/L	03.23.2021 00:24		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 00:24	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154491 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:45	U	1

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **Dup-3** Matrix: Water Sample Depth:

Lab Sample Id: 692133-006 Date Collected: 03.17.2021 00:00 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.893	2.26	0.893	mg/L	03.22.2021 01:58	U	1
Diesel Range Organics	C10C28DRO	<0.825	2.26	0.825	mg/L	03.22.2021 01:58	U	1
Oil Range Hydrocarbons	PHCG2835	<0.825	2.26	0.825	mg/L	03.22.2021 01:58	U	1
Total TPH	PHC635	<0.825	2.26	0.825	mg/L	03.22.2021 01:58	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	110	70 - 135	%		
o-Terphenyl	104	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00292**	0.00200	0.000408	mg/L	03.23.2021 14:45		1
Toluene	108-88-3	**0.000910**	0.00200	0.000367	mg/L	03.23.2021 14:45	J	1
Ethylbenzene	100-41-4	**0.0104**	0.00200	0.000657	mg/L	03.23.2021 14:45		1
m,p-Xylenes	179601-23-1	**0.00654**	0.00400	0.000630	mg/L	03.23.2021 14:45		1
o-Xylene	95-47-6	**0.00102**	0.00200	0.000642	mg/L	03.23.2021 14:45	J	1
Total Xylenes	1330-20-7	**0.00756**	0.00200	0.000630	mg/L	03.23.2021 14:45		1
Total BTEX		**0.0218**	0.00200	0.000367	mg/L	03.23.2021 14:45		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	118	70 - 130	%		
4-Bromofluorobenzene	120	70 - 130	%		

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com Page 1 of 1

Work Order No: _____

Project Manager:	Rebecca Andresen	Bill to: (if different)	
Company Name:	ARCADIS	Company Name:	
Address:	1004 N. Big Spring St.	Address:	
City, State ZIP:	Midland, TX. 79701	City, State ZIP:	
Phone:	303-471-3477	Email:	madisyn.frandsen@arcadis.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Eunice Project- S. Eunice	Turn Around	
Project Number:	30049612	Routine ☐	
P.O. Number:		Rush:	
Sampler's Name:	Jerry Stoughton	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes (circled) No
Temperature (°C):	3.5	Thermometer ID	IR8
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (EPA 8021B)	TPH (SW8015B)	Hex Chrome (SW7196A)	Dissolved Metals (SW6020_DIS): Chromium, Arsenic & Barium)	TDS (SM2540C)	Chlorides (EPA 300.0)	Sample Comments
MW-17	W	031821	0844		8	X	X	X	X	X	X	
MWD-1	W	031821	0911		8	X	X	X	X	X	X	
MWD-8	W	031821	0834		8	X	X	X	X	X	X	
MWD-17	W	031821	1005		8	X	X	X	X	X	X	

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010:** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471 : Hg**

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Jerry Stoughton		031821 / 1241	2		3/18/21 1555
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-17** Matrix: Water Sample Depth:
Lab Sample Id: 692297-001 Date Collected: 03.18.2021 08:44 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**811**	25.0	1.05	mg/L	03.23.2021 12:45		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2260**	100	100	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0138**	0.00400	0.000246	mg/L	03.23.2021 02:50		1
Barium	7440-39-3	**0.224**	0.00400	0.000484	mg/L	03.23.2021 02:50		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 02:50	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-17** Matrix: Water Sample Depth:

Lab Sample Id: 692297-001 Date Collected: 03.18.2021 08:44 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL		SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~**1.70**~~	2.22	UB	0.879	mg/L	03.24.2021 13:46	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.812	2.22		0.812	mg/L	03.24.2021 13:46	U	1
Oil Range Hydrocarbons	PHCG2835	<0.812	2.22		0.812	mg/L	03.24.2021 13:46	U	1
Total TPH	PHC635	**1.70**	2.22		0.812	mg/L	03.24.2021 13:46	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 135	%		
o-Terphenyl	84	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 17:23	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 17:23	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 17:23	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 17:23	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 17:23	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 17:23	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 17:23	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	114	70 - 130	%		
4-Bromofluorobenzene	116	70 - 130	%		

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-1** Matrix: Water Sample Depth:
Lab Sample Id: 692297-002 Date Collected: 03.18.2021 09:11 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**536**	5.00	0.210	mg/L	03.21.2021 20:26		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1590**	50.0	50.0	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0431**	0.00400	0.000246	mg/L	03.23.2021 02:53		1
Barium	7440-39-3	**0.0554**	0.00400	0.000484	mg/L	03.23.2021 02:53		1
Chromium	7440-47-3	**0.00330**	0.00400	0.000525	mg/L	03.23.2021 02:53	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-1** Matrix: Water Sample Depth:

Lab Sample Id: 692297-002 Date Collected: 03.18.2021 09:11 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~1.64~~	2.26 UB	0.893	mg/L	03.24.2021 14:08	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.825	2.26	0.825	mg/L	03.24.2021 14:08	U	1
Oil Range Hydrocarbons	PHCG2835	<0.825	2.26	0.825	mg/L	03.24.2021 14:08	U	1
Total TPH	PHC635	**1.64**	2.26	0.825	mg/L	03.24.2021 14:08	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 135	%		
o-Terphenyl	80	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 17:48	U	1
Toluene	108-88-3	**0.00127**	0.00200	0.000367	mg/L	03.23.2021 17:48	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 17:48	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 17:48	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 17:48	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 17:48	U	1
Total BTEX		**0.00127**	0.00200	0.000367	mg/L	03.23.2021 17:48	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	117	70 - 130	%		
4-Bromofluorobenzene	120	70 - 130	%		

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-8** Matrix: Water Sample Depth:
Lab Sample Id: 692297-003 Date Collected: 03.18.2021 09:34 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**363**	2.50	0.105	mg/L	03.21.2021 20:31		5

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**683**	25.0	25.0	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0230**	0.00400	0.000246	mg/L	03.23.2021 02:56		1
Barium	7440-39-3	**0.0435**	0.00400	0.000484	mg/L	03.23.2021 02:56		1
Chromium	7440-47-3	**0.00154**	0.00400	0.000525	mg/L	03.23.2021 02:56	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-8** Matrix: Water Sample Depth:

Lab Sample Id: 692297-003 Date Collected: 03.18.2021 09:34 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~**1.80**~~	2.25 UB	0.889	mg/L	03.24.2021 14:29	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.821	2.25	0.821	mg/L	03.24.2021 14:29	U	1
Oil Range Hydrocarbons	PHCG2835	<0.821	2.25	0.821	mg/L	03.24.2021 14:29	U	1
Total TPH	PHC635	**1.80**	2.25	0.821	mg/L	03.24.2021 14:29	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	81	70 - 135	%		
o-Terphenyl	78	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000750**	0.00200	0.000408	mg/L	03.23.2021 22:08	J	1
Toluene	108-88-3	**0.00330**	0.00200	0.000367	mg/L	03.23.2021 22:08		1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 22:08	U	1
m,p-Xylenes	179601-23-1	**0.00234**	0.00400	0.000630	mg/L	03.23.2021 22:08	J	1
o-Xylene	95-47-6	**0.00155**	0.00200	0.000642	mg/L	03.23.2021 22:08	J	1
Total Xylenes	1330-20-7	**0.00389**	0.00200	0.000630	mg/L	03.23.2021 22:08		1
Total BTEX		**0.00794**	0.00200	0.000367	mg/L	03.23.2021 22:08		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	128	70 - 130	%		

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-17** Matrix: Water Sample Depth:
Lab Sample Id: 692297-004 Date Collected: 03.18.2021 10:09 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**3350**	25.0	1.05	mg/L	03.21.2021 20:37		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**11900**	250	250	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0447**	0.00400	0.000246	mg/L	03.23.2021 02:59		1
Barium	7440-39-3	**0.422**	0.00400	0.000484	mg/L	03.23.2021 02:59		1
Chromium	7440-47-3	**0.000810**	0.00400	0.000525	mg/L	03.23.2021 02:59	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-17** Matrix: Water Sample Depth:

Lab Sample Id: 692297-004 Date Collected: 03.18.2021 10:09 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**2.77**	UB	2.27	0.896	mg/L	03.24.2021 14:51	B	1
Diesel Range Organics	C10C28DRO	<0.828		2.27	0.828	mg/L	03.24.2021 14:51	U	1
Oil Range Hydrocarbons	PHCG2835	<0.828		2.27	0.828	mg/L	03.24.2021 14:51	U	1
Total TPH	PHC635	**2.77**		2.27	0.828	mg/L	03.24.2021 14:51		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	112	70 - 135	%		
o-Terphenyl	109	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0120**		0.00200	0.000408	mg/L	03.23.2021 22:33		1
Toluene	108-88-3	**0.000740**		0.00200	0.000367	mg/L	03.23.2021 22:33	J	1
Ethylbenzene	100-41-4	**0.000970**		0.00200	0.000657	mg/L	03.23.2021 22:33	J	1
m,p-Xylenes	179601-23-1	**0.00216**	J	0.00400	0.000630	mg/L	03.23.2021 22:33	J	1
o-Xylene	95-47-6	**0.00646**		0.00200	0.000642	mg/L	03.23.2021 22:33		1
Total Xylenes	1330-20-7	**0.00862**		0.00200	0.000630	mg/L	03.23.2021 22:33		1
Total BTEX		**0.0223**		0.00200	0.000367	mg/L	03.23.2021 22:33		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	133	70 - 130	%		**

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

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Work Order No: 692406

Project Manager:	Rebecca Andresen	Bill to: (if different)	
Company Name:	ARCADIS	Company Name:	
Address:	1004 N. Big Spring St.	Address:	
City, State ZIP:	Midland, TX. 79701	City, State ZIP:	
Phone:	303-471-3477	Email:	madisyn.frandsen@arcadis.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Eunice Project- S. Eunice	Turn Around	
Project Number:	30049612	Routine ☐	
P.O. Number:		Rush:	
Sampler's Name:	Terry Silvernell	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	2.7/2.7	Thermometer ID	
Received Intact:	Yes No		180
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (EPA 8021B)	TPH (SW8015B)	Hex Chrome (SW7196A)	Dissolved Metals (SW6020_DIS): Chromium, Arsenic & Barium)	TDS (SM2540C)	Chlorides (EPA 300.0)
TMW-6	W	031921	0915		8	X	X	X	X	X	X
MW-25	W	031921	0834		8	X	X	X	X	X	X
MW-11	W	031921	0542		8	X	X	X	X	X	X
DUP-4	W	031921	—		8	X	X	X	X	X	X

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Terry Silvernell	[signature]	031921 / 1300	2 [signature]	[signature]	3/19/21 1500
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **TMW-6** Matrix: Water Sample Depth:
Lab Sample Id: 692406-001 Date Collected: 03.19.2021 09:19 Date Received: 03.19.2021 15:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**163**	5.00	0.210	mg/L	03.23.2021 13:15		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1340**	50.0	50.0	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0741**	0.00400	0.000246	mg/L	03.25.2021 21:38		1
Barium	7440-39-3	**0.744**	0.00400	0.000484	mg/L	03.25.2021 21:38		1
Chromium	7440-47-3	**0.000700**	0.00400	0.000525	mg/L	03.25.2021 21:38	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **TMW-6** Matrix: Water Sample Depth:

Lab Sample Id: 692406-001 Date Collected: 03.19.2021 09:19 Date Received: 03.19.2021 15:00

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**3.86**	UB	2.27	0.897	mg/L	03.24.2021 15:13	~~B~~	1
Diesel Range Organics	C10C28DRO	**1.23**		2.27	0.828	mg/L	03.24.2021 15:13	J	1
Oil Range Hydrocarbons	PHCG2835	<0.828		2.27	0.828	mg/L	03.24.2021 15:13	U	1
Total TPH	PHC635	**5.09**		2.27	0.828	mg/L	03.24.2021 15:13		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	94	70 - 135	%		
o-Terphenyl	86	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0367**	0.00200	0.000408	mg/L	03.23.2021 23:00		1
Toluene	108-88-3	**0.000420**	0.00200	0.000367	mg/L	03.23.2021 23:00	J	1
Ethylbenzene	100-41-4	**0.00446**	0.00200	0.000657	mg/L	03.23.2021 23:00		1
m,p-Xylenes	179601-23-1	**0.00465**	0.00400	0.000630	mg/L	03.23.2021 23:00		1
o-Xylene	95-47-6	**0.000850**	0.00200	0.000642	mg/L	03.23.2021 23:00	J	1
Total Xylenes	1330-20-7	**0.00550**	0.00200	0.000630	mg/L	03.23.2021 23:00		1
Total BTEX		**0.0471**	0.00200	0.000367	mg/L	03.23.2021 23:00		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	92	70 - 130	%		
4-Bromofluorobenzene	130	70 - 130	%		

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-25** Matrix: Water Sample Depth:
Lab Sample Id: 692406-002 Date Collected: 03.19.2021 08:34 Date Received: 03.19.2021 15:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1330**	25.0	1.05	mg/L	03.23.2021 13:20		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**4470**	100	100	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00308**	0.00400	0.000246	mg/L	03.25.2021 21:41	J	1
Barium	7440-39-3	**1.55**	0.00400	0.000484	mg/L	03.25.2021 21:41		1
Chromium	7440-47-3	**0.00194**	0.00400	0.000525	mg/L	03.25.2021 21:41	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-25** Matrix: Water Sample Depth:

Lab Sample Id: 692406-002 Date Collected: 03.19.2021 08:34 Date Received: 03.19.2021 15:00

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**5.05**	UB	2.24	0.885	mg/L	03.24.2021 15:56	~~B~~	1
Diesel Range Organics	C10C28DRO	**2.09**		2.24	0.817	mg/L	03.24.2021 15:56	J	1
Oil Range Hydrocarbons	PHCG2835	<0.817		2.24	0.817	mg/L	03.24.2021 15:56	U	1
Total TPH	PHC635	**7.14**		2.24	0.817	mg/L	03.24.2021 15:56		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	92	70 - 135	%		
o-Terphenyl	85	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**1.66**		0.200	0.0408	mg/L	03.24.2021 12:10	D	100
Toluene	108-88-3	**0.00156**		0.00200	0.000367	mg/L	03.23.2021 23:25	~~J~~	1
Ethylbenzene	100-41-4	**0.0187**		0.00200	0.000657	mg/L	03.23.2021 23:25		1
m,p-Xylenes	179601-23-1	**0.00748**	J	0.00400	0.000630	mg/L	03.23.2021 23:25		1
o-Xylene	95-47-6	**0.00118**		0.00200	0.000642	mg/L	03.23.2021 23:25	~~J~~	1
Total Xylenes	1330-20-7	**0.00866**		0.00200	0.000630	mg/L	03.23.2021 23:25		1
Total BTEX		**1.69**		0.00200	0.000367	mg/L	03.24.2021 12:10	D	100

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	146	70 - 130	%		**
4-Bromofluorobenzene	159	70 - 130	%		**

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWW-11** Matrix: Water Sample Depth:
Lab Sample Id: 692406-003 Date Collected: 03.19.2021 09:42 Date Received: 03.19.2021 15:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**117**	5.00	0.210	mg/L	03.23.2021 13:25		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**994**	25.0	25.0	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0324**	0.00400	0.000246	mg/L	03.25.2021 21:44		1
Barium	7440-39-3	**1.02**	0.00400	0.000484	mg/L	03.25.2021 21:44		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.25.2021 21:44	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWW-11** Matrix: Water Sample Depth:

Lab Sample Id: 692406-003 Date Collected: 03.19.2021 09:42 Date Received: 03.19.2021 15:00

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**6.91**	UB	2.18	0.860	mg/L	03.24.2021 16:17	B	1
Diesel Range Organics	C10C28DRO	<0.795		2.18	0.795	mg/L	03.24.2021 16:17	U	1
Oil Range Hydrocarbons	PHCG2835	<0.795		2.18	0.795	mg/L	03.24.2021 16:17	U	1
Total TPH	PHC635	**6.91**		2.18	0.795	mg/L	03.24.2021 16:17		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	88	70 - 135	%		
o-Terphenyl	83	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**2.62**	0.200	0.0408	mg/L	03.24.2021 12:36	D	100
Toluene	108-88-3	**0.00159**	0.00200	0.000367	mg/L	03.23.2021 23:51	J	1
Ethylbenzene	100-41-4	**0.00415**	0.00200	0.000657	mg/L	03.23.2021 23:51		1
m,p-Xylenes	179601-23-1	**0.00790**	0.00400	0.000630	mg/L	03.23.2021 23:51		1
o-Xylene	95-47-6	**0.00582**	0.00200	0.000642	mg/L	03.23.2021 23:51		1
Total Xylenes	1330-20-7	**0.0137**	0.00200	0.000630	mg/L	03.23.2021 23:51		1
Total BTEX		**2.64**	0.00200	0.000367	mg/L	03.24.2021 12:36	D	100

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	123	70 - 130	%		
4-Bromofluorobenzene	96	70 - 130	%		

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **Dup-4** Matrix: Water Sample Depth:
Lab Sample Id: 692406-004 Date Collected: 03.19.2021 00:00 Date Received: 03.19.2021 15:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1280**	25.0	1.05	mg/L	03.23.2021 13:30		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**4620**	100	100	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00266**	0.00400	0.000246	mg/L	03.25.2021 21:47	J	1
Barium	7440-39-3	**1.31**	0.00400	0.000484	mg/L	03.25.2021 21:47		1
Chromium	7440-47-3	**0.00172**	0.00400	0.000525	mg/L	03.25.2021 21:47	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **Dup-4** Matrix: Water Sample Depth:

Lab Sample Id: 692406-004 Date Collected: 03.19.2021 00:00 Date Received: 03.19.2021 15:00

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**4.51**	UB	2.26	0.894	mg/L	03.24.2021 16:39	B	1
Diesel Range Organics	C10C28DRO	**1.34**		2.26	0.826	mg/L	03.24.2021 16:39	J	1
Oil Range Hydrocarbons	PHCG2835	<0.826		2.26	0.826	mg/L	03.24.2021 16:39	U	1
Total TPH	PHC635	**5.85**		2.26	0.826	mg/L	03.24.2021 16:39		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	91	70 - 135	%		
o-Terphenyl	85	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**2.04**		0.200	0.0408	mg/L	03.24.2021 13:02	D	100
Toluene	108-88-3	**0.00160**		0.00200	0.000367	mg/L	03.24.2021 00:16	J	1
Ethylbenzene	100-41-4	**0.0174**	J	0.00200	0.000657	mg/L	03.24.2021 00:16		1
m,p-Xylenes	179601-23-1	**0.00643**		0.00400	0.000630	mg/L	03.24.2021 00:16		1
o-Xylene	95-47-6	**0.00837**		0.00200	0.000642	mg/L	03.24.2021 00:16		1
Total Xylenes	1330-20-7	**0.0148**		0.00200	0.000630	mg/L	03.24.2021 00:16		1
Total BTEX		**2.07**		0.00200	0.000367	mg/L	03.24.2021 13:02	D	100

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	135	70 - 130	%		**
4-Bromofluorobenzene	141	70 - 130	%		**

ARCADIS

Chevron South Eunice

DATA REVIEW

SOUTH EUNICE, NEW MEXICO

Volatiles, TPH, Metals and Miscellaneous Analyses

SDGs # 692031, 692296 and 692407

Analyses Performed By:
Xenco Laboratories

Midland, TX

Report #44564R
Review Level: Tier II
Project: 30049612.00003GEC

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Groups (SDGs) # 692031, 692296 and 692407 for samples collected in association with the Chevron South Eunice Site. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets and chain of custody. Analyses were performed on the following samples:

SDGs	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis			
						VOC	TPH	MET	MISC
692031	MW-34	692031-001	Water	03/16/2021		X	X	X	X
	MWD-6	692031-002	Water	03/16/2021		X	X	X	X
	MW-9	692031-003	Water	03/16/2021		X	X	X	X
	MW-30	692031-004	Water	03/16/2021		X	X	X	X
	WW-7	692031-005	Water	03/16/2021		X	X	X	X
	MW-29	692031-006	Water	03/16/2021		X	X	X	X
	WW-2	692031-007	Water	03/16/2021		X	X	X	X
	MW-32	692031-008	Water	03/16/2021		X	X	X	X
	MWD-5	692031-009	Water	03/16/2021		X	X	X	X
	DUP-1	692031-010	Water	03/16/2021	MW-34	X	X	X	X
692296	MW-4	692296-001	Water	03/18/2021		X	X	X	X
	MWD-2	692296-002	Water	03/18/2021		X	X	X	X
	MWD-3	692296-003	Water	03/18/2021		X	X	X	X
	RW-8	692296-004	Water	03/18/2021		X	X	X	X
	MW-22	692296-005	Water	03/18/2021		X	X	X	X
692407	MWD-14	692407-001	Water	03/19/2021		X	X	X	X
	MW-26	692407-002	Water	03/19/2021		X	X	X	X
	RW-7	692407-003	Water	03/19/2021		X	X	X	X

Notes:
VOC = volatile organic compounds.
TPH = total petroleum hydrocarbons.
MET = metals.
MISC = miscellaneous includes hexavalent chromium, chloride and total dissolved solids.

DATA REVIEW REPORT

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

Note:
QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 8021B and 8015. Data were reviewed in accordance with USEPA National Functional Guidelines NFG for Organic Superfund Methods Data Review, EPA-540-R-20-005 (November 2020), with reference to the historical (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, OSWER 9240.1-05A-P, October 1999, as appropriate).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

DATA REVIEW REPORT

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8021B	Water	14 days from collection to analysis (preserved) 7 days from collection to analysis (non-preserved)	Cool to <6 °C; preserved to a pH of less than 2 s.u.

Note:

s.u. = standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the sample detection limit (SDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the SDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

Samples associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

SDGs	Sample	Surrogate	Recovery
692031	DUP-1	4-Bromofluorobenzene	>UL
692296	MWD-3	1,4-Difluorobenzene	>UL
	MW-22	4-Bromofluorobenzene	>UL

Note:
UL = upper control limit

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J

Control Limit	Sample Result	Qualification
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

SDG#692031: MS/MSD analysis was performed on sample ID DUP-1, exhibited acceptable recoveries and RPDs with the below exceptions.

SDGs # 692296 and 692407: The MS/MSD analysis was not performed on samples from these SDGs.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

SDG	Sample Locations	Compounds	MS Recovery	MSD Recovery
692031	DUP-1	Benzene	>UL	<LL but >10%
		Toluene	>UL	<LL but >10%
		Ethylbenzene	>UL	<LL but >10%
		m,p-Xylenes	>UL	<LL but >10%
		o-Xylene	>UL	<LL but >10%

Note:

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R

Control Limit	Sample Result	Qualification
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than the control limit are presented in the following table.

SDG	Sample Locations	Compound
692031	DUP-1	Benzene
		Toluene
		Ethylbenzene
		m,p-Xylenes
		o-Xylene

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

SDG	Sample ID/Duplicate ID	Compounds	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
692031	MW-34 / DUP-1	Benzene	0.0204	0.0295	36%
		Total BTEX	0.0204	0.0295	36%

Note:

AC = acceptable

The compounds benzene and total BTEX associated with sample locations MW-34 and DUP-1 exhibited a field duplicate RPD greater than the control limit. The associated sample results from sample locations for the listed analyte were qualified as estimated.

7. System Performance and Overall Assessment

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

SDGs	Sample ID	Compound	Original Analysis	Diluted Analysis (mg/L)	Reported Analysis (mg/L)
692031	MWD-5	Benzene	--	6.02 D	6.02 D
		Total BTEX	--	6.03 D	6.03 D
692296	MWD-3	Benzene	--	0.824 D	0.824 D
		Total BTEX	--	0.832 D	0.832 D
692407	MWD-14	Benzene	--	0.845 D	0.845 D
		Total BTEX	--	0.854 D	0.854 D
	MW-26	Benzene	--	0.874 D	0.874 D
		Total BTEX	--	0.925 D	0.925 D

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA REVIEW REPORT

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8021B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
C. Trip blanks	X				X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate (LCSD)		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS)		X	X		
Matrix Spike Duplicate (MSD)		X	X		
MS/MSD Precision (RPD)		X	X		
Field/Lab Duplicate (RPD)		X	X		
Surrogate Spike Recoveries		X	X		
Dilution Factor		X		X	

Notes:

%R Percent recovery

RPD Relative percent difference

DATA REVIEW REPORT

TPH ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
GRO by Method SW-846 8015	Water	14 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C
DRO by Method SW-846 8015	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the sample detection limit (SDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the SDL, with the exception of the compounds listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (B) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

SDG	Sample Locations	Compounds	Sample Result	Qualification
692031	MWD-6 WW-7 WW-2	Gasoline Range Hydrocarbons	Detected sample results <RL and <BAL	"UB" at the RL
	MW-34 MW-9 MW-30 MW-29 MW-32 DUP-1	Gasoline Range Hydrocarbons	Detected sample results >RL and <BAL	"UB" at detected sample concentration
692296	MW-4 MWD-2 RW-8	Gasoline Range Hydrocarbons	Detected sample results <RL and <BAL	"UB" at the RL
	MWD-3 MW-22	Gasoline Range Hydrocarbons	Detected sample results >RL and <BAL	"UB" at detected sample concentration

SDG	Sample Locations	Compounds	Sample Result	Qualification
692407	MWD-14 MW-26 RW-7	Gasoline Range Hydrocarbons	Detected sample results <RL and <BAL	"UB" at the RL

Note:

RL Reporting limit

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. The analysis requires surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

All samples exhibited surrogate recoveries within the control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

SDG# 692031: The MS/MSD analysis was performed on sample ID MW-34, exhibited acceptable recoveries and RPDs.

SDG# 692296: The MS/MSD analysis was performed on sample ID MW-4, exhibited acceptable recoveries and RPDs.

SDG# 692407: The MS/MSD analysis was not performed on any of the samples from this SDG.

5. Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate Analysis (LCSD)

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

SDGs	Sample ID/Duplicate ID	Compounds	Sample Result (mg/l)	Duplicate Result (mg/l)	RPD
692031	MW-34 / DUP-1	Gasoline Range Hydrocarbons	3	4.24	AC
		Diesel Range Organics	1.04	1.2	AC

SDGs	Sample ID/Duplicate ID	Compounds	Sample Result (mg/l)	Duplicate Result (mg/l)	RPD
		Total TPH	4.04	5.44	AC

Notes:
U = not detected
AC = acceptable

The calculated RPDs between the parent sample and field duplicates were acceptable.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA REVIEW REPORT

DATA VALIDATION CHECKLIST FOR TPH

TPH: SW-846 8015	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/FID)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X	X		
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	

Notes:
%R - percent recovery
RPD - relative percent difference

DATA REVIEW REPORT

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 6020A, 7196A, EPA 300, SM 2540C. Data were reviewed in accordance with USEPA National Functional Guidelines NFG for Inorganic Superfund Methods Data Review, EPA-540-R-20-006 (November 2020), with reference to the historical (USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, OSWER 9240.1-05A-P, October 2004, as appropriate).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.
  - J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).
- Quantitation (Q) Qualifiers
  - E The reported value is estimated due to the presence of interference.
  - N Spiked sample recovery is not within control limits.
  - * Duplicate analysis is not within control limits.
- Validation Qualifiers
  - J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
  - UB Analyte considered non-detect at the listed value due to associated blank contamination.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

DATA REVIEW REPORT

METALS ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6020A	Water	180 days from collection to analysis	Preserved to a pH of less than 2.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the sample detection limit (SDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All analytes were not detected above the SDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

SDG # 692031: MS/MSD analysis was performed on sample ID MW-29, exhibited acceptable recoveries and RPDs.

SDGs # 692296 and 692407: MS/MSD analysis was not performed on any of the samples from this SDG.

3.2 Laboratory Duplicate Analysis

The laboratory duplicates relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices and two times the RL for soil matrices.

SDGs # 692031, 692296 and 692407: Laboratory duplicate analysis was not performed for the samples pertaining to this SDG.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices and 50% for soil matrices is applied to the RPD between the

parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

SDGs	Sample ID/Duplicate ID	Analytes	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
692031	MW-34 / DUP-1	Arsenic	0.000866	0.000884	AC
		Barium	5	4.96	1%

Notes:
AC = acceptable

The calculated RPDs between the parent sample and field duplicates were acceptable.

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS/LCSD analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA REVIEW REPORT

DATA VALIDATION CHECKLIST FOR METAL

METALS; SW-846 6020A	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)					
Tier II Validation					
Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Instrument Blanks	X				X
B. Method Blanks		X		X	
C. Equipment/Field Blanks	X				X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
ICP Serial Dilution %D	X				X
Reporting Limit Verification		X		X	

Notes:

%R Percent recovery

RPD Relative percent difference

%D Percent difference

DATA REVIEW REPORT

GENERAL CHEMISTRY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Hexavalent chromium by SW-846 7196A	Water	24 hours from collection to analysis	Cool to <6 °C.
Chloride by EPA 300.0	Water	28 days from collection to analysis	Cool to <6 °C.
Total Dissolved Solids by SM 2540C	Water	7 days from collection to analysis	Cool to <6 °C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the sample detection limit (SDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were detected in the associated QA blanks; however, the associated sample results were greater than the BAL. Therefore, no other qualification of the sample results was required.

3. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS/MSD Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

SDG # 692031: MS/MSD analysis was performed on sample ID WW-7 and MW-34 for chloride and on sample ID MW-9 for hexavalent chromium analysis. MS/MSD analysis exhibited recoveries and RPDs within the control limits with the below exceptions.

SDG # 692296: MS/MSD analysis was performed on sample ID RW-8 for chloride and on sample ID MW-4 for hexavalent chromium analysis. MS/MSD analysis exhibited recoveries and RPDs within the control limits with the below exceptions.

SDG #692407: MS/MSD analysis was performed on sample ID MW-26 for chloride analysis. MS/MSD analysis exhibited recoveries and RPDs within the control limits.

All analytes associated with MS recoveries were within control limits with the exception of the following analytes present in the table below.

SDGs	Sample Location	Analytes	MS Recovery	MSD Recovery
692031	MW-9	Chromium hexavalent	131%	131%
692296	RW-8	Chloride	131%	133%

The criteria used to evaluate MS recoveries are presented in the following table. In the case of an MS deviation, the sample results are qualified. The qualifications are applied to all sample results associated with this SDG.

Control limit	Sample Result	Qualification
MS percent recovery 30% to 74%	Non-detect	UJ
	Detect	J
MS percent recovery <30%	Non-detect	R
	Detect	J
MS percent recovery >125%	Non-detect	No Action
	Detect	J

3.2 Laboratory Duplicate Analysis

The laboratory duplicates relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one time the RL is applied for water matrices.

SDG# 692031: The laboratory duplicate analysis performed on sample ID MW-34 for total dissolved solids, exhibited RPD within the control limit.

SDG# 692296: The laboratory duplicate analysis performed on sample ID MW-4 for total dissolved solids, exhibited RPD within the control limit

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

SDGs	Sample ID/Duplicate ID	Analytes	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
692031	MW-34 / DUP-1	Chloride	282	298	6%
		Total Dissolved Solids	1900	2150	12%

Notes:
AC - acceptable

The calculated RPDs between the parent sample and field duplicates were acceptable.

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS/LCSD analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA REVIEW REPORT

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: SW7196A, EPA 300.0 and SM 2540C	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	

Notes:

%RSD – Relative standard deviation
%R - Percent recovery
RPD - Relative percent difference

DATA REVIEW REPORT

VALIDATION PERFORMED BY: Bhagyashree Fulzele

SIGNATURE: BFulzele

DATE: February 21, 2022

PEER REVIEW: Dennis Capria

DATE: February 24, 2022

CHAIN OF CUSTODY

CORRECTED SAMPLE ANALYSIS DATA SHEETS

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com

Work Order No: 692032

Page 1 of 1

Project Manager:	Rebecca Andresen	Bill to: (if different)	
Company Name:	ARCADIS	Company Name:	
Address:	1004 N. Big Spring St.	Address:	
City, State ZIP:	Midland, TX. 79701	City, State ZIP:	
Phone:	303-471-3477	Email:	madisyn.frandsen@arcadis.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Eunice Project- S. Eunice	Turn Around	
Project Number:	30049612	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	J. Steinmann	Due Date:	Std

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	5.5	Thermometer ID	IR8
Received Intact:	Yes No		6
Cooler Custody Seals:	Yes No N/A	Correction Factor:	+0.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (EPA 8021B)	TPH (SW8015B)	Hex Chrome (SW7196A)	Dissolved Metals (SW6020_DIS): Chromium, Arsenic & Barium)	TDS (SM2540C)	Chlorides (EPA 300.0)
MW-34	W	3/16/21	0859	—	8	✓	✓	✓	✓	✓	✓
MWD-6	✓	✓	0930	—	8	✓	✓	✓	✓	✓	✓
MW-9	✓	✓	1010	—	8	✓	✓	✓	✓	✓	✓
MW-30	✓	✓	1040	—	8	✓	✓	✓	✓	✓	✓
WW-7	✓	✓	1110	—	8	✓	✓	✓	✓	✓	✓
MW-29	✓	✓	1130	—	8	✓	✓	✓	✓	✓	✓
WW-2	✓	✓	1220	—	8	✓	✓	✓	✓	✓	✓
MW-32	✓	✓	1304	—	8	✓	✓	✓	✓	✓	✓
MWD-5	✓	✓	1340	—	8	✓	✓	✓	✓	✓	✓
Dup-1	✓	✓	—	—	8	✓	✓	✓	✓	✓	✓

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3/16/21 17:12	2		3/16/21 16:55
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-34** Matrix: Water Sample Depth:
Lab Sample Id: 692031-001 Date Collected: 03.16.2021 08:59 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154873 Date Prep: 03.31.2021 12:00 Tech: CHE
Prep seq: 7724117

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**282**	J	5.00	0.210	mg/L	03.31.2021 16:49	~~X~~	10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1900**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154347 Date Prep: 03.20.2021 09:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.000866**	0.00400	0.000246	mg/L	03.21.2021 01:41	J	1
Barium	7440-39-3	**5.00**	0.200	0.0242	mg/L	03.23.2021 07:50	~~D~~	50
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.21.2021 01:41	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-34** Matrix: Water Sample Depth:

Lab Sample Id: 692031-001 Date Collected: 03.16.2021 08:59 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**3.00** UB	2.25	0.890	mg/L	03.21.2021 18:28	~~B~~	1
Diesel Range Organics	C10C28DRO	**1.04**	2.25	0.822	mg/L	03.21.2021 18:28	J	1
Oil Range Hydrocarbons	PHCG2835	<0.822	2.25	0.822	mg/L	03.21.2021 18:28	U	1
Total TPH	PHC635	1.04 **~~4.04~~**	2.25	0.822	mg/L	03.21.2021 18:28		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	98	70 - 135	%		
o-Terphenyl	108	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0204** J	0.00200	0.000408	mg/L	03.23.2021 02:20		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 02:20	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 02:20	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 02:20	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 02:20	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 02:20	U	1
Total BTEX		**0.0204** J	0.00200	0.000367	mg/L	03.23.2021 02:20		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	119	70 - 130	%		
4-Bromofluorobenzene	111	70 - 130	%		

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-6** Matrix: Water Sample Depth:
Lab Sample Id: 692031-002 Date Collected: 03.16.2021 09:30 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**160**	5.00	0.210	mg/L	03.21.2021 16:26		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1100**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154347 Date Prep: 03.20.2021 09:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00623**	0.00400	0.000246	mg/L	03.21.2021 01:44		1
Barium	7440-39-3	**0.838**	0.00400	0.000484	mg/L	03.21.2021 01:44		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.21.2021 01:44	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-6** Matrix: Water Sample Depth:

Lab Sample Id: 692031-002 Date Collected: 03.16.2021 09:30 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~1.82~~	2.21 UB	0.872	mg/L	03.21.2021 19:33	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.805	2.21	0.805	mg/L	03.21.2021 19:33	U	1
Oil Range Hydrocarbons	PHCG2835	<0.805	2.21	0.805	mg/L	03.21.2021 19:33	U	1
Total TPH	PHC635	U ~~1.82~~	2.21	0.805	mg/L	03.21.2021 19:33	~~J~~	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	95	70 - 135	%		
o-Terphenyl	108	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 02:40	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 02:40	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 02:40	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 02:40	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 02:40	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 02:40	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 02:40	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	104	70 - 130	%		
4-Bromofluorobenzene	100	70 - 130	%		

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-9** Matrix: Water Sample Depth:
Lab Sample Id: 692031-003 Date Collected: 03.16.2021 10:10 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**241**	5.00	0.210	mg/L	03.21.2021 16:41		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1430**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154347 Date Prep: 03.20.2021 09:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00631**	0.00400	0.000246	mg/L	03.21.2021 01:47		1
Barium	7440-39-3	**11.6**	0.400	0.0484	mg/L	03.23.2021 07:53	~~D~~	100
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.21.2021 01:47	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U ~~UX~~	1

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-9** Matrix: Water Sample Depth:

Lab Sample Id: 692031-003 Date Collected: 03.16.2021 10:10 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**2.49**	UB	2.24	0.887	mg/L	03.21.2021 19:55	~~B~~	1
Diesel Range Organics	C10C28DRO	<0.819		2.24	0.819	mg/L	03.21.2021 19:55	U	1
Oil Range Hydrocarbons	PHCG2835	<0.819		2.24	0.819	mg/L	03.21.2021 19:55	U	1
Total TPH	PHC635	U ~~**2.49**~~		2.24	0.819	mg/L	03.21.2021 19:55		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	93	70 - 135	%		
o-Terphenyl	106	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 03:01	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 03:01	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 03:01	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 03:01	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 03:01	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 03:01	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 03:01	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	117	70 - 130	%		
4-Bromofluorobenzene	102	70 - 130	%		

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-30** Matrix: Water Sample Depth:
Lab Sample Id: 692031-004 Date Collected: 03.16.2021 10:40 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**275**	5.00	0.210	mg/L	03.21.2021 16:46		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1330**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154347 Date Prep: 03.20.2021 09:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00895**	0.00400	0.000246	mg/L	03.21.2021 01:50		1
Barium	7440-39-3	**0.355**	0.00400	0.000484	mg/L	03.21.2021 01:50		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.21.2021 01:50	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-30** Matrix: Water Sample Depth:

Lab Sample Id: 692031-004 Date Collected: 03.16.2021 10:40 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**2.55** UB	2.28	0.901	mg/L	03.21.2021 20:16	~~B~~	1
Diesel Range Organics	C10C28DRO	<0.833	2.28	0.833	mg/L	03.21.2021 20:16	U	1
Oil Range Hydrocarbons	PHCG2835	<0.833	2.28	0.833	mg/L	03.21.2021 20:16	U	1
Total TPH	PHC635	U ~~2.55~~	2.28	0.833	mg/L	03.21.2021 20:16		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	104	70 - 135	%		
o-Terphenyl	118	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 03:21	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 03:21	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 03:21	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 03:21	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 03:21	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 03:21	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 03:21	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	97	70 - 130	%		

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692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **WW-7** Matrix: Water Sample Depth:
Lab Sample Id: 692031-005 Date Collected: 03.16.2021 11:10 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**257**	2.50	0.105	mg/L	03.21.2021 17:06		5

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**410**	25.0	25.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154347 Date Prep: 03.20.2021 09:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.000637**	0.00400	0.000246	mg/L	03.21.2021 01:53	J	1
Barium	7440-39-3	**0.489**	0.00400	0.000484	mg/L	03.21.2021 01:53		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.21.2021 01:53	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **WW-7** Matrix: Water Sample Depth:

Lab Sample Id: 692031-005 Date Collected: 03.16.2021 11:10 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~2.10~~	2.23 UB	0.883	mg/L	03.21.2021 20:37	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.815	2.23	0.815	mg/L	03.21.2021 20:37	U	1
Oil Range Hydrocarbons	PHCG2835	<0.815	2.23	0.815	mg/L	03.21.2021 20:37	U	1
Total TPH	PHC635	U ~~2.10~~	2.23	0.815	mg/L	03.21.2021 20:37	~~J~~	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	101	70 - 135	%		
o-Terphenyl	116	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 03:42	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 03:42	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 03:42	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 03:42	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 03:42	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 03:42	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 03:42	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	95	70 - 130	%		

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692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-29** Matrix: Water Sample Depth:
Lab Sample Id: 692031-006 Date Collected: 03.16.2021 11:30 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**352**	5.00	0.210	mg/L	03.21.2021 16:51		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1360**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00288**	0.00400	0.000246	mg/L	03.20.2021 20:16	J	1
Barium	7440-39-3	**8.40**	0.200	0.0242	mg/L	03.23.2021 12:39	~~DX~~	50
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:16	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-29** Matrix: Water Sample Depth:

Lab Sample Id: 692031-006 Date Collected: 03.16.2021 11:30 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**4.59** UB	2.27	0.896	mg/L	03.21.2021 20:59	~~B~~	1
Diesel Range Organics	C10C28DRO	<0.828	2.27	0.828	mg/L	03.21.2021 20:59	U	1
Oil Range Hydrocarbons	PHCG2835	<0.828	2.27	0.828	mg/L	03.21.2021 20:59	U	1
Total TPH	PHC635	U **~~4.59~~**	2.27	0.828	mg/L	03.21.2021 20:59		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	104	70 - 135	%		
o-Terphenyl	119	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0903**	0.00200	0.000408	mg/L	03.23.2021 04:02		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 04:02	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 04:02	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 04:02	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 04:02	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 04:02	U	1
Total BTEX		**0.0903**	0.00200	0.000367	mg/L	03.23.2021 04:02		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	122	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		

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692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **WW-2** Matrix: Water Sample Depth:
Lab Sample Id: 692031-007 Date Collected: 03.16.2021 12:20 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**2460**	25.0	1.05	mg/L	03.21.2021 16:56		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**3340**	100	100	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.000734**	0.00400	0.000246	mg/L	03.20.2021 20:36	J	1
Barium	7440-39-3	**2.05**	0.0800	0.00967	mg/L	03.23.2021 12:47	~~D~~	20
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:36	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **WW-2** Matrix: Water Sample Depth:

Lab Sample Id: 692031-007 Date Collected: 03.16.2021 12:20 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~2.04~~	2.24 UB	0.886	mg/L	03.21.2021 21:20	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.819	2.24	0.819	mg/L	03.21.2021 21:20	U	1
Oil Range Hydrocarbons	PHCG2835	<0.819	2.24	0.819	mg/L	03.21.2021 21:20	U	1
Total TPH	PHC635	U ~~2.04~~	2.24	0.819	mg/L	03.21.2021 21:20	~~J~~	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	97	70 - 135	%		
o-Terphenyl	108	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 04:23	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 04:23	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 04:23	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 04:23	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 04:23	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 04:23	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 04:23	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	105	70 - 130	%		
4-Bromofluorobenzene	100	70 - 130	%		

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-32** Matrix: Water Sample Depth:
Lab Sample Id: 692031-008 Date Collected: 03.16.2021 13:04 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**583**	10.0	0.421	mg/L	03.21.2021 17:01		20

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2310**	100	100	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0423**	0.00400	0.000246	mg/L	03.20.2021 20:38		1
Barium	7440-39-3	**2.07**	0.0800	0.00967	mg/L	03.23.2021 12:50	~~D~~	20
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:38	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-32** Matrix: Water Sample Depth:

Lab Sample Id: 692031-008 Date Collected: 03.16.2021 13:04 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**4.97** UB	2.24	0.885	mg/L	03.21.2021 21:41	~~B~~	1
Diesel Range Organics	C10C28DRO	<0.817	2.24	0.817	mg/L	03.21.2021 21:41	U	1
Oil Range Hydrocarbons	PHCG2835	<0.817	2.24	0.817	mg/L	03.21.2021 21:41	U	1
Total TPH	PHC635	U ~~**4.97**~~	2.24	0.817	mg/L	03.21.2021 21:41		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	101	70 - 135	%		
o-Terphenyl	116	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.344**	0.00200	0.000408	mg/L	03.23.2021 05:46		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 05:46	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 05:46	U	1
m,p-Xylenes	179601-23-1	**0.00282**	0.00400	0.000630	mg/L	03.23.2021 05:46	J	1
o-Xylene	95-47-6	**0.00193**	0.00200	0.000642	mg/L	03.23.2021 05:46	J	1
Total Xylenes	1330-20-7	**0.00475**	0.00200	0.000630	mg/L	03.23.2021 05:46		1
Total BTEX		**0.349**	0.00200	0.000367	mg/L	03.23.2021 05:46		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	86	70 - 130	%		
4-Bromofluorobenzene	70	70 - 130	%		

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-5** Matrix: Water Sample Depth:
Lab Sample Id: 692031-009 Date Collected: 03.16.2021 13:40 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**502**	10.0	0.421	mg/L	03.21.2021 17:21		20

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2140**	100	100	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0154**	0.00400	0.000246	mg/L	03.20.2021 20:41		1
Barium	7440-39-3	**8.10**	0.200	0.0242	mg/L	03.23.2021 12:53	~~D~~	50
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:41	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-5** Matrix: Water Sample Depth:

Lab Sample Id: 692031-009 Date Collected: 03.16.2021 13:40 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**12.8**	2.26	0.892	mg/L	03.21.2021 22:03	B	1
Diesel Range Organics	C10C28DRO	**2.07**	2.26	0.824	mg/L	03.21.2021 22:03	J	1
Oil Range Hydrocarbons	PHCG2835	<0.824	2.26	0.824	mg/L	03.21.2021 22:03	U	1
Total TPH	PHC635	**14.9**	2.26	0.824	mg/L	03.21.2021 22:03		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	101	70 - 135	%		
o-Terphenyl	115	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**6.02**	1.00	0.204	mg/L	03.24.2021 02:00	D	500
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 06:07	U	1
Ethylbenzene	100-41-4	**0.00724**	0.00200	0.000657	mg/L	03.23.2021 06:07		1
m,p-Xylenes	179601-23-1	**0.00601**	0.00400	0.000630	mg/L	03.23.2021 06:07		1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 06:07	U	1
Total Xylenes	1330-20-7	**0.00601**	0.00200	0.000630	mg/L	03.23.2021 06:07		1
Total BTEX		**6.03**	0.00200	0.000367	mg/L	03.24.2021 02:00	D	500

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	126	70 - 130	%		
4-Bromofluorobenzene	84	70 - 130	%		

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **DUP-1** Matrix: Water Sample Depth:
Lab Sample Id: 692031-010 Date Collected: 03.16.2021 00:00 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**298**	5.00	0.210	mg/L	03.21.2021 17:26		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2150**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.000884**	0.00400	0.000246	mg/L	03.20.2021 20:44	J	1
Barium	7440-39-3	**4.96**	0.200	0.0242	mg/L	03.23.2021 12:56	~~D~~	50
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:44	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **DUP-1** Matrix: Water Sample Depth:

Lab Sample Id: 692031-010 Date Collected: 03.16.2021 00:00 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**4.24** UB	2.21	0.874	mg/L	03.21.2021 22:24	~~B~~	1
Diesel Range Organics	C10C28DRO	**1.20**	2.21	0.808	mg/L	03.21.2021 22:24	J	1
Oil Range Hydrocarbons	PHCG2835	<0.808	2.21	0.808	mg/L	03.21.2021 22:24	U	1
Total TPH	PHC635	1.20 ~~**5.44**~~	2.21	0.808	mg/L	03.21.2021 22:24		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	104	70 - 135	%		
o-Terphenyl	118	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154608 Date Prep: 03.24.2021 08:30 Tech: KTL

Prep seq: 7723931

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0295** J	0.00200	0.000408	mg/L	03.24.2021 11:20	~~XF~~	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.24.2021 11:20	~~UXF~~	1
Ethylbenzene	100-41-4	<0.000657 UJ	0.00200	0.000657	mg/L	03.24.2021 11:20	~~UXF~~	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.24.2021 11:20	~~UXF~~	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.24.2021 11:20	~~UXF~~	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.24.2021 11:20	U	1
Total BTEX		**0.0295** J	0.00200	0.000367	mg/L	03.24.2021 11:20		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	104	70 - 130	%		
4-Bromofluorobenzene	146	70 - 130	%		**

XENCO LABORATORIES

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

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Work Order No: 692296

Page 1 of 1

Project Manager:	Rebecca Andresen	Bill to: (if different)	
Company Name:	ARCADIS	Company Name:	
Address:	1004 N. Big Spring St.	Address:	
City, State ZIP:	Midland, TX. 79701	City, State ZIP:	
Phone:	303-471-3477	Email:	madisyn.frandsen@arcadis.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Eunice Project- S. Eunice	Turn Around	
Project Number:	30049612	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	J. Steinmann	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	3.5	Thermometer ID	IR8
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	+0.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (EPA 8021B)	TPH (SW8015B)	Hex Chrome (SW7196A)	Dissolved Metals (SW6020_DIS): Chromium, Arsenic & Barium)	TDS (SM2540C)	Chlorides (EPA 300.0)
MW-4	W	3/18/21	1045	—	8						
MWD-2			1015	—	8						
MWD-3			0915	—	8						
RW-8			0941	—	8						
MW-22			0845	—	8						

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2		
3		3/18/21 1555	4	3/18/21 1555	
5			6		

Revised Date 051418 Rev. 2018.1

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-4** Matrix: Water Sample Depth:
Lab Sample Id: 692296-001 Date Collected: 03.18.2021 10:45 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1250**	J	25.0	1.05	mg/L	03.21.2021 19:36		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**4160**	100	100	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00981**	0.00400	0.000246	mg/L	03.23.2021 02:30		1
Barium	7440-39-3	**0.0608**	0.00400	0.000484	mg/L	03.23.2021 02:30		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 02:30	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-4** Matrix: Water Sample Depth:

Lab Sample Id: 692296-001 Date Collected: 03.18.2021 10:45 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~1.76~~	2.26 UB	0.892	mg/L	03.24.2021 11:00	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.824	2.26	0.824	mg/L	03.24.2021 11:00	U	1
Oil Range Hydrocarbons	PHCG2835	<0.824	2.26	0.824	mg/L	03.24.2021 11:00	U	1
Total TPH	PHC635	U ~~1.76~~	2.26	0.824	mg/L	03.24.2021 11:00	~~J~~	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	88	70 - 135	%		
o-Terphenyl	86	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 15:13	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 15:13	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 15:13	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 15:13	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 15:13	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 15:13	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 15:13	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	115	70 - 130	%		

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-2** Matrix: Water Sample Depth:
Lab Sample Id: 692296-002 Date Collected: 03.18.2021 10:15 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**711**	J	10.0	0.421	mg/L	03.21.2021 19:41		20

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2600**	100	100	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0104**	0.00400	0.000246	mg/L	03.23.2021 02:39		1
Barium	7440-39-3	**0.0437**	0.00400	0.000484	mg/L	03.23.2021 02:39		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 02:39	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-2** Matrix: Water Sample Depth:

Lab Sample Id: 692296-002 Date Collected: 03.18.2021 10:15 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~1.74~~	2.23 UB	0.882	mg/L	03.24.2021 12:20	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.815	2.23	0.815	mg/L	03.24.2021 12:20	U	1
Oil Range Hydrocarbons	PHCG2835	<0.815	2.23	0.815	mg/L	03.24.2021 12:20	U	1
Total TPH	PHC635	U ~~1.74~~	2.23	0.815	mg/L	03.24.2021 12:20	~~J~~	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	83	70 - 135	%		
o-Terphenyl	80	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 15:39	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 15:39	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 15:39	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 15:39	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 15:39	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 15:39	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 15:39	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	120	70 - 130	%		
4-Bromofluorobenzene	125	70 - 130	%		

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-3** Matrix: Water Sample Depth:
Lab Sample Id: 692296-003 Date Collected: 03.18.2021 09:15 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154873 Date Prep: 03.31.2021 12:00 Tech: CHE
Prep seq: 7724117

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**16300**	100	4.21	mg/L	04.05.2021 12:11		200

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**31500**	500	500	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0490**	0.00400	0.000246	mg/L	03.23.2021 02:42		1
Barium	7440-39-3	**3.24**	0.0800	0.00967	mg/L	03.23.2021 12:27	D	20
Chromium	7440-47-3	**0.000579**	0.00400	0.000525	mg/L	03.23.2021 02:42	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-3** Matrix: Water Sample Depth:

Lab Sample Id: 692296-003 Date Collected: 03.18.2021 09:15 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**3.80**	UB	2.19	0.866	mg/L	03.24.2021 12:41	~~B~~	1
Diesel Range Organics	C10C28DRO	<0.800		2.19	0.800	mg/L	03.24.2021 12:41	U	1
Oil Range Hydrocarbons	PHCG2835	<0.800		2.19	0.800	mg/L	03.24.2021 12:41	U	1
Total TPH	PHC635	U ~~**3.80**~~		2.19	0.800	mg/L	03.24.2021 12:41		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 135	%		
o-Terphenyl	82	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.824**		0.200	0.0408	mg/L	03.24.2021 11:45	D	100
Toluene	108-88-3	**0.00127**		0.00200	0.000367	mg/L	03.23.2021 16:04	~~J~~	1
Ethylbenzene	100-41-4	**0.000720**	J	0.00200	0.000657	mg/L	03.23.2021 16:04	~~J~~	1
m,p-Xylenes	179601-23-1	**0.00169**		0.00400	0.000630	mg/L	03.23.2021 16:04	~~J~~	1
o-Xylene	95-47-6	**0.00409**		0.00200	0.000642	mg/L	03.23.2021 16:04		1
Total Xylenes	1330-20-7	**0.00578**		0.00200	0.000630	mg/L	03.23.2021 16:04		1
Total BTEX		**0.832**		0.00200	0.000367	mg/L	03.24.2021 11:45	D	100

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	158	70 - 130	%		**
4-Bromofluorobenzene	128	70 - 130	%		

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **RW-8** Matrix: Water Sample Depth:
Lab Sample Id: 692296-004 Date Collected: 03.18.2021 09:41 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**977** J	10.0	0.421	mg/L	03.21.2021 19:51	~~X~~	20

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2460**	100	100	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0319**	0.00400	0.000246	mg/L	03.23.2021 02:45		1
Barium	7440-39-3	**0.126**	0.00400	0.000484	mg/L	03.23.2021 02:45		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 02:45	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **RW-8** Matrix: Water Sample Depth:

Lab Sample Id: 692296-004 Date Collected: 03.18.2021 09:41 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~2.08~~	2.23 UB	0.881	mg/L	03.24.2021 13:03	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.813	2.23	0.813	mg/L	03.24.2021 13:03	U	1
Oil Range Hydrocarbons	PHCG2835	<0.813	2.23	0.813	mg/L	03.24.2021 13:03	U	1
Total TPH	PHC635	U ~~2.08~~	2.23	0.813	mg/L	03.24.2021 13:03	~~J~~	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	89	70 - 135	%		
o-Terphenyl	82	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 16:30	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 16:30	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 16:30	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 16:30	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 16:30	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 16:30	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 16:30	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	120	70 - 130	%		
4-Bromofluorobenzene	128	70 - 130	%		

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-22** Matrix: Water Sample Depth:
Lab Sample Id: 692296-005 Date Collected: 03.18.2021 08:45 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154873 Date Prep: 03.31.2021 12:00 Tech: CHE
Prep seq: 7724117

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**2300**	25.0	1.05	mg/L	03.31.2021 17:05		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**5750**	250	250	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0481**	0.00400	0.000246	mg/L	03.23.2021 02:47		1
Barium	7440-39-3	**0.810**	0.00400	0.000484	mg/L	03.23.2021 02:47		1
Chromium	7440-47-3	**0.000688**	0.00400	0.000525	mg/L	03.23.2021 02:47	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-22** Matrix: Water Sample Depth:

Lab Sample Id: 692296-005 Date Collected: 03.18.2021 08:45 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**4.14**	UB	2.27	0.897	mg/L	03.24.2021 13:25	~~B~~	1
Diesel Range Organics	C10C28DRO	<0.828		2.27	0.828	mg/L	03.24.2021 13:25	U	1
Oil Range Hydrocarbons	PHCG2835	<0.828		2.27	0.828	mg/L	03.24.2021 13:25	U	1
Total TPH	PHC635	U ~~**4.14**~~		2.27	0.828	mg/L	03.24.2021 13:25		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	86	70 - 135	%		
o-Terphenyl	80	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.151**		0.00200	0.000408	mg/L	03.23.2021 16:56		1
Toluene	108-88-3	**0.00129**	J	0.00200	0.000367	mg/L	03.23.2021 16:56	~~J~~	1
Ethylbenzene	100-41-4	<0.000657		0.00200	0.000657	mg/L	03.23.2021 16:56	U	1
m,p-Xylenes	179601-23-1	**0.00255**	J	0.00400	0.000630	mg/L	03.23.2021 16:56	~~J~~	1
o-Xylene	95-47-6	<0.000642		0.00200	0.000642	mg/L	03.23.2021 16:56	U	1
Total Xylenes	1330-20-7	**0.00255**	J	0.00200	0.000630	mg/L	03.23.2021 16:56		1
Total BTEX		**0.155**		0.00200	0.000367	mg/L	03.23.2021 16:56		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	116	70 - 130	%		
4-Bromofluorobenzene	134	70 - 130	%		**

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: 1092407

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Project Manager:	Rebecca Andresen	Bill to: (if different)	
Company Name:	ARCADIS	Company Name:	
Address:	1004 N. Big Spring St.	Address:	
City, State ZIP:	Midland, TX. 79701	City, State ZIP:	
Phone:	303-471-3477	Email:	madisyn.frandsen@arcadis.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Eunice Project- S. Eunice	Turn Around	
Project Number:	30049612	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	J. Steinmann	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	2.2/2.7	Thermometer ID	100
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (EPA 8021B)	TPH (SW8015B)	Hex Chrome (SW7196A)	Dissolved Metals (SW6020_DIS): Chromium, Arsenic & Barium)	TDS (SM2540C)	Chlorides (EPA 300.0)
MWD-14	W	3/19/21	0850	—	8	✓	✓	✓	✓	✓	✓
MW-26	W	3/19/21	0920	—	8	✓	✓	✓	✓	✓	✓
RW-7	W	3/19/21	0815	—	8	✓	✓	✓	✓	✓	✓

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3/19/21 1500	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

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Certificate of Analytical Results
692407
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-14** Matrix: Water Sample Depth:
Lab Sample Id: 692407-001 Date Collected: 03.19.2021 08:50 Date Received: 03.19.2021 15:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**430**	25.0	1.05	mg/L	03.23.2021 13:50		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**3450**	100	100	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.000648**	0.00400	0.000246	mg/L	03.25.2021 21:50	J	1
Barium	7440-39-3	**0.982**	0.00400	0.000484	mg/L	03.25.2021 21:50		1
Chromium	7440-47-3	**0.00105**	0.00400	0.000525	mg/L	03.25.2021 21:50	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

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Certificate of Analytical Results
692407
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-14** Matrix: Water Sample Depth:

Lab Sample Id: 692407-001 Date Collected: 03.19.2021 08:50 Date Received: 03.19.2021 15:00

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result		MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**4.70**	UB	2.26	0.892	mg/L	03.24.2021 17:00	~~B~~	1
Diesel Range Organics	C10C28DRO	<0.824		2.26	0.824	mg/L	03.24.2021 17:00	U	1
Oil Range Hydrocarbons	PHCG2835	<0.824		2.26	0.824	mg/L	03.24.2021 17:00	U	1
Total TPH	PHC635	U ~~**4.70**~~		2.26	0.824	mg/L	03.24.2021 17:00		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	96	70 - 135	%		
o-Terphenyl	89	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.845**	0.0400	0.00816	mg/L	03.24.2021 13:27	D	20
Toluene	108-88-3	**0.000820**	0.00200	0.000367	mg/L	03.24.2021 00:42	J	1
Ethylbenzene	100-41-4	**0.00184**	0.00200	0.000657	mg/L	03.24.2021 00:42	J	1
m,p-Xylenes	179601-23-1	**0.00510**	0.00400	0.000630	mg/L	03.24.2021 00:42		1
o-Xylene	95-47-6	**0.00136**	0.00200	0.000642	mg/L	03.24.2021 00:42	J	1
Total Xylenes	1330-20-7	**0.00646**	0.00200	0.000630	mg/L	03.24.2021 00:42		1
Total BTEX		**0.854**	0.00200	0.000367	mg/L	03.24.2021 13:27	D	20

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	83	70 - 130	%		
4-Bromofluorobenzene	99	70 - 130	%		

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Certificate of Analytical Results
692407
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-26** Matrix: Water Sample Depth:
Lab Sample Id: 692407-002 Date Collected: 03.19.2021 09:20 Date Received: 03.19.2021 15:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**158**	5.00	0.210	mg/L	03.23.2021 13:35	~~X~~	10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1360**	50.0	50.0	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0559**	0.00400	0.000246	mg/L	03.25.2021 21:52		1
Barium	7440-39-3	**5.09**	0.200	0.0242	mg/L	03.29.2021 15:06	~~D~~	50
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.25.2021 21:52	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

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Certificate of Analytical Results
692407
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-26** Matrix: Water Sample Depth:

Lab Sample Id: 692407-002 Date Collected: 03.19.2021 09:20 Date Received: 03.19.2021 15:00

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**4.07** UB	2.20	0.869	mg/L	03.24.2021 17:23	~~B~~	1
Diesel Range Organics	C10C28DRO	**9.74**	2.20	0.803	mg/L	03.24.2021 17:23		1
Oil Range Hydrocarbons	PHCG2835	<0.803	2.20	0.803	mg/L	03.24.2021 17:23	U	1
Total TPH	PHC635	9.74 ~~**13.8**~~	2.20	0.803	mg/L	03.24.2021 17:23		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	92	70 - 135	%		
o-Terphenyl	84	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.874**	0.200	0.0408	mg/L	03.24.2021 13:52	D	100
Toluene	108-88-3	**0.00100**	0.00200	0.000367	mg/L	03.24.2021 01:08	J	1
Ethylbenzene	100-41-4	**0.0451**	0.00200	0.000657	mg/L	03.24.2021 01:08		1
m,p-Xylenes	179601-23-1	**0.00248**	0.00400	0.000630	mg/L	03.24.2021 01:08	J	1
o-Xylene	95-47-6	**0.00226**	0.00200	0.000642	mg/L	03.24.2021 01:08		1
Total Xylenes	1330-20-7	**0.00474**	0.00200	0.000630	mg/L	03.24.2021 01:08		1
Total BTEX		**0.925**	0.00200	0.000367	mg/L	03.24.2021 13:52	D	100

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	108	70 - 130	%		
4-Bromofluorobenzene	94	70 - 130	%		

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Certificate of Analytical Results
692407
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **RW-7** Matrix: Water Sample Depth:
Lab Sample Id: 692407-003 Date Collected: 03.19.2021 08:15 Date Received: 03.19.2021 15:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1620**	25.0	1.05	mg/L	03.23.2021 13:55		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**8590**	250	250	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00892**	0.00400	0.000246	mg/L	03.25.2021 21:55		1
Barium	7440-39-3	**0.104**	0.00800	0.000967	mg/L	03.29.2021 15:09	~~D~~	2
Chromium	7440-47-3	**0.000823**	0.00400	0.000525	mg/L	03.25.2021 21:55	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

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Certificate of Analytical Results
692407
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **RW-7** Matrix: Water Sample Depth:

Lab Sample Id: 692407-003 Date Collected: 03.19.2021 08:15 Date Received: 03.19.2021 15:00

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL		SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	~~1.82~~	2.22	UB	0.877	mg/L	03.24.2021 17:44	~~BJ~~	1
Diesel Range Organics	C10C28DRO	<0.810	2.22		0.810	mg/L	03.24.2021 17:44	U	1
Oil Range Hydrocarbons	PHCG2835	<0.810	2.22		0.810	mg/L	03.24.2021 17:44	U	1
Total TPH	PHC635	U ~~1.82~~	2.22		0.810	mg/L	03.24.2021 17:44	~~J~~	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	91	70 - 135	%		
o-Terphenyl	87	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.24.2021 01:34	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.24.2021 01:34	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.24.2021 01:34	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.24.2021 01:34	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.24.2021 01:34	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.24.2021 01:34	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.24.2021 01:34	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	92	70 - 130	%		
4-Bromofluorobenzene	100	70 - 130	%		

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Analytical Report 692407

for

ARCADIS

Project Manager: Sonja Zabienski

Eunice Project - S. Eunice

04.02.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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04.02.2021

Project Manager: **Sonja Zabienski**
ARCADIS
1004 N. Big Spring St.
Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **692407**
Eunice Project - S. Eunice
Project Address:

Sonja Zabienski:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 692407. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 692407 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

John Builes
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 692407

ARCADIS, Midland, TX

Eunice Project - S. Eunice

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MWD-14	W	03.19.2021 08:50		692407-001
MW-26	W	03.19.2021 09:20		692407-002
RW-7	W	03.19.2021 08:15		692407-003

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CASE NARRATIVE

Client Name: ARCADIS

Project Name: Eunice Project - S. Eunice

Project ID:
Work Order Number(s): *692407*

Report Date: *04.02.2021*
Date Received: *03.19.2021*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3154553 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 692407-002.

Batch: LBA-3154665 TPH By SW8015 Mod
Detection in gas range <.5RL, data is acceptable.

Batch: LBA-3154839 Chloride by EPA 300
Lab Sample ID 692407-002 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 692407-001, -002, -003.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

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Certificate of Analytical Results
692407
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-14** Matrix: Water Sample Depth:
Lab Sample Id: 692407-001 Date Collected: 03.19.2021 08:50 Date Received: 03.19.2021 15:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**430**	25.0	1.05	mg/L	03.23.2021 13:50		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**3450**	100	100	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.000648**	0.00400	0.000246	mg/L	03.25.2021 21:50	J	1
Barium	7440-39-3	**0.982**	0.00400	0.000484	mg/L	03.25.2021 21:50		1
Chromium	7440-47-3	**0.00105**	0.00400	0.000525	mg/L	03.25.2021 21:50	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

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Certificate of Analytical Results
692407
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-14** Matrix: Water Sample Depth:

Lab Sample Id: 692407-001 Date Collected: 03.19.2021 08:50 Date Received: 03.19.2021 15:00

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**4.70**	2.26	0.892	mg/L	03.24.2021 17:00	B	1
Diesel Range Organics	C10C28DRO	<0.824	2.26	0.824	mg/L	03.24.2021 17:00	U	1
Oil Range Hydrocarbons	PHCG2835	<0.824	2.26	0.824	mg/L	03.24.2021 17:00	U	1
Total TPH	PHC635	**4.70**	2.26	0.824	mg/L	03.24.2021 17:00		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	96	70 - 135	%		
o-Terphenyl	89	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.845**	0.0400	0.00816	mg/L	03.24.2021 13:27	D	20
Toluene	108-88-3	**0.000820**	0.00200	0.000367	mg/L	03.24.2021 00:42	J	1
Ethylbenzene	100-41-4	**0.00184**	0.00200	0.000657	mg/L	03.24.2021 00:42	J	1
m,p-Xylenes	179601-23-1	**0.00510**	0.00400	0.000630	mg/L	03.24.2021 00:42		1
o-Xylene	95-47-6	**0.00136**	0.00200	0.000642	mg/L	03.24.2021 00:42	J	1
Total Xylenes	1330-20-7	**0.00646**	0.00200	0.000630	mg/L	03.24.2021 00:42		1
Total BTEX		**0.854**	0.00200	0.000367	mg/L	03.24.2021 13:27		20

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	83	70 - 130	%		
4-Bromofluorobenzene	99	70 - 130	%		

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Certificate of Analytical Results
692407
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-26** Matrix: Water Sample Depth:
Lab Sample Id: 692407-002 Date Collected: 03.19.2021 09:20 Date Received: 03.19.2021 15:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**158**	5.00	0.210	mg/L	03.23.2021 13:35	X	10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1360**	50.0	50.0	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0559**	0.00400	0.000246	mg/L	03.25.2021 21:52		1
Barium	7440-39-3	**5.09**	0.200	0.0242	mg/L	03.29.2021 15:06	D	50
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.25.2021 21:52	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

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Certificate of Analytical Results
692407
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-26** Matrix: Water Sample Depth:

Lab Sample Id: 692407-002 Date Collected: 03.19.2021 09:20 Date Received: 03.19.2021 15:00

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**4.07**	2.20	0.869	mg/L	03.24.2021 17:23	B	1
Diesel Range Organics	C10C28DRO	**9.74**	2.20	0.803	mg/L	03.24.2021 17:23		1
Oil Range Hydrocarbons	PHCG2835	<0.803	2.20	0.803	mg/L	03.24.2021 17:23	U	1
Total TPH	PHC635	**13.8**	2.20	0.803	mg/L	03.24.2021 17:23		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	92	70 - 135	%		
o-Terphenyl	84	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.874**	0.200	0.0408	mg/L	03.24.2021 13:52	D	100
Toluene	108-88-3	**0.00100**	0.00200	0.000367	mg/L	03.24.2021 01:08	J	1
Ethylbenzene	100-41-4	**0.0451**	0.00200	0.000657	mg/L	03.24.2021 01:08		1
m,p-Xylenes	179601-23-1	**0.00248**	0.00400	0.000630	mg/L	03.24.2021 01:08	J	1
o-Xylene	95-47-6	**0.00226**	0.00200	0.000642	mg/L	03.24.2021 01:08		1
Total Xylenes	1330-20-7	**0.00474**	0.00200	0.000630	mg/L	03.24.2021 01:08		1
Total BTEX		**0.925**	0.00200	0.000367	mg/L	03.24.2021 13:52		100

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	108	70 - 130	%		
4-Bromofluorobenzene	94	70 - 130	%		

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Certificate of Analytical Results
692407
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **RW-7** Matrix: Water Sample Depth:
Lab Sample Id: 692407-003 Date Collected: 03.19.2021 08:15 Date Received: 03.19.2021 15:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1620**	25.0	1.05	mg/L	03.23.2021 13:55		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**8590**	250	250	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00892**	0.00400	0.000246	mg/L	03.25.2021 21:55		1
Barium	7440-39-3	**0.104**	0.00800	0.000967	mg/L	03.29.2021 15:09	D	2
Chromium	7440-47-3	**0.000823**	0.00400	0.000525	mg/L	03.25.2021 21:55	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

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Certificate of Analytical Results
692407
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **RW-7** Matrix: Water Sample Depth:

Lab Sample Id: 692407-003 Date Collected: 03.19.2021 08:15 Date Received: 03.19.2021 15:00

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.82**	2.22	0.877	mg/L	03.24.2021 17:44	BJ	1
Diesel Range Organics	C10C28DRO	<0.810	2.22	0.810	mg/L	03.24.2021 17:44	U	1
Oil Range Hydrocarbons	PHCG2835	<0.810	2.22	0.810	mg/L	03.24.2021 17:44	U	1
Total TPH	PHC635	**1.82**	2.22	0.810	mg/L	03.24.2021 17:44	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	91	70 - 135	%		
o-Terphenyl	87	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.24.2021 01:34	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.24.2021 01:34	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.24.2021 01:34	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.24.2021 01:34	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.24.2021 01:34	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.24.2021 01:34	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.24.2021 01:34	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	92	70 - 130	%		
4-Bromofluorobenzene	100	70 - 130	%		

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Certificate of Analytical Results
692407
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **3154583-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 3154583-1-BLK Date Collected: Date Received:
Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	<12.5	12.5	12.5	mg/L	03.23.2021 15:00	U	1

Sample Id: **3154835-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 3154835-1-BLK Date Collected: Date Received:
Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

Sample Id: **7723845-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723845-1-BLK Date Collected: Date Received:
Analytical Method: BTEX by EPA 8021B Prep Method: 5030B
Analyst: KTL % Moist:
Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL
Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 21:42	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 21:42	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 21:42	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 21:42	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 21:42	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	90	70 - 130	%		
4-Bromofluorobenzene	84	70 - 130	%		

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Certificate of Analytical Results
692407
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7723995-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723995-1-BLK Date Collected: Date Received:
Analytical Method: TPH By SW8015 Mod Prep Method: 8015
Analyst: ARM % Moist:
Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM
Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.77**	2.27	0.896	mg/L	03.24.2021 09:55	BJ	1
Diesel Range Organics	C10C28DRO	<0.828	2.27	0.828	mg/L	03.24.2021 09:55	U	1
Oil Range Hydrocarbons	PHCG2835	<0.828	2.27	0.828	mg/L	03.24.2021 09:55	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	79	70 - 135	%		
o-Terphenyl	76	70 - 135	%		

Sample Id: **7723998-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723998-1-BLK Date Collected: Date Received:
Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	<0.000246	0.00400	0.000246	mg/L	03.25.2021 20:28	U	1
Barium	7440-39-3	<0.000484	0.00400	0.000484	mg/L	03.25.2021 20:28	U	1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.25.2021 20:28	U	1

Sample Id: **7724108-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7724108-1-BLK Date Collected: Date Received:
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.0210	0.500	0.0210	mg/L	03.23.2021 12:10	U	1

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692407

Project ID:

Lab Batch #: 3154553 **Sample:** 7723845-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 19:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0341	0.0300	114	70-130	
4-Bromofluorobenzene	0.0332	0.0300	111	70-130	

Lab Batch #: 3154553 **Sample:** 7723845-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 19:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0357	0.0300	119	70-130	
4-Bromofluorobenzene	0.0358	0.0300	119	70-130	

Lab Batch #: 3154553 **Sample:** 692297-003 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 19:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0362	0.0300	121	70-130	
4-Bromofluorobenzene	0.0363	0.0300	121	70-130	

Lab Batch #: 3154553 **Sample:** 692297-003 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 20:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0368	0.0300	123	70-130	
4-Bromofluorobenzene	0.0376	0.0300	125	70-130	

Lab Batch #: 3154553 **Sample:** 7723845-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 21:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	70-130	
4-Bromofluorobenzene	0.0252	0.0300	84	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692407

Project ID:

Lab Batch #: 3154553 **Sample:** 692407-001 / DL **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 13:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0373	0.0300	124	70-130	
4-Bromofluorobenzene	0.0387	0.0300	129	70-130	

Lab Batch #: 3154553 **Sample:** 692407-002 / DL **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 13:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0353	0.0300	118	70-130	
4-Bromofluorobenzene	0.0401	0.0300	134	70-130	**

Lab Batch #: 3154665 **Sample:** 7723995-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 09:55

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.17	9.07	79	70-135	
o-Terphenyl	3.43	4.54	76	70-135	

Lab Batch #: 3154665 **Sample:** 7723995-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 10:17

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	8.24	9.07	91	70-135	
o-Terphenyl	3.50	4.53	77	70-135	

Lab Batch #: 3154665 **Sample:** 7723995-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 10:39

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.65	9.07	84	70-135	
o-Terphenyl	3.22	4.53	71	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692407

Project ID:

Lab Batch #: 3154665 **Sample:** 692296-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 11:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.22	8.97	80	70-135	
o-Terphenyl	3.16	4.49	70	70-135	

Lab Batch #: 3154665 **Sample:** 692296-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 11:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.06	8.88	80	70-135	
o-Terphenyl	3.11	4.44	70	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692407 **Project ID:**

Analyst: KTL **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154553 **Sample:** 7723845-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.106	106	0.100	0.0921	92	14	70-130	25	
Toluene	<0.000367	0.100	0.100	100	0.100	0.0886	89	12	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0972	97	0.100	0.0858	86	12	70-130	25	
m,p-Xylenes	<0.000630	0.200	0.198	99	0.200	0.176	88	12	70-130	25	
o-Xylene	<0.000642	0.100	0.0968	97	0.100	0.0883	88	9	70-130	25	

Analyst: CHE **Date Prepared:** 03.23.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154839 **Sample:** 7724108-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.0210	25.0	27.1	108	25.0	27.1	108	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692407 **Project ID:**

Analyst: CHE **Date Prepared:** 03.19.2021 **Date Analyzed:** 03.19.2021

Lab Batch ID: 3154835 **Sample:** 3154835-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.0400	0.0371	93	0.0400	0.0373	93	1	85-115	20	

Analyst: DEP **Date Prepared:** 03.25.2021 **Date Analyzed:** 03.25.2021

Lab Batch ID: 3154716 **Sample:** 7723998-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	<0.000246	0.100	0.102	102	0.100	0.101	101	1	80-120	20	
Barium	<0.000484	0.100	0.102	102	0.100	0.102	102	0	80-120	20	
Chromium	<0.000525	0.100	0.100	100	0.100	0.100	100	0	80-120	20	

Analyst: DTH **Date Prepared:** 03.23.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154583 **Sample:** 3154583-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TDS by SM2540C Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Total Dissolved Solids	<25.0	1000	1030	103	1000	964	96	7	90-110	10	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692407 **Project ID:**

Analyst: ARM **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.24.2021

Lab Batch ID: 3154665 **Sample:** 7723995-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	1.77	90.7	95.8	106	90.7	92.4	102	4	70-135	20	
Diesel Range Organics	<0.827	90.7	83.7	92	90.7	81.0	89	3	70-135	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692407
Lab Batch ID: 3154553 **QC- Sample ID:** 692297-003 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.23.2021 **Date Prepared:** 03.22.2021 **Analyst:** KTL
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.000750	0.100	0.101	100	0.100	0.0924	92	9	70-130	25	
Toluene	0.00330	0.100	0.101	98	0.100	0.0907	87	11	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0950	95	0.100	0.0861	86	10	70-130	25	
m,p-Xylenes	0.00234	0.200	0.197	97	0.200	0.178	88	10	70-130	25	
o-Xylene	0.00155	0.100	0.0976	96	0.100	0.0877	86	11	70-130	25	

Lab Batch ID: 3154839 **QC- Sample ID:** 692407-002 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.23.2021 **Date Prepared:** 03.23.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	158	250	461	121	250	461	121	0	90-110	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692407
Lab Batch ID: 3154835 **QC- Sample ID:** 692406-001 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.19.2021 **Date Prepared:** 03.19.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.200	0.215	108	0.200	0.215	108	0	75-125	20	

Lab Batch ID: 3154716 **QC- Sample ID:** 692469-003 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.25.2021 **Date Prepared:** 03.25.2021 **Analyst:** DEP
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	0.000840	0.100	0.106	105	0.100	0.105	104	1	75-125	20	
Barium	0.0278	0.100	0.132	104	0.100	0.130	102	2	75-125	20	
Chromium	<0.000525	0.100	0.102	102	0.100	0.102	102	0	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692407
Lab Batch ID: 3154665
Date Analyzed: 03.24.2021
Reporting Units: mg/L

QC- Sample ID: 692296-001 S
Date Prepared: 03.22.2021

Batch #: 1
Analyst: ARM

Matrix: Water

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	1.76	89.7	85.5	93	88.8	83.2	92	3	70-135	20	
Diesel Range Organics	<0.819	89.7	73.2	82	88.8	71.6	81	2	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Method Duplicate

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Project Name: Eunice Project - S. Eunice

Work Order #: 692407 **Report Date:** 04022021

Lab Batch #: 3154583 **Project ID:**

Date Analyzed: 03.23.2021 15:00 **Date Prepared:** 03.23.2021 **Analyst:** DTH

QC- Sample ID: 692296-001 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY

TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	4160	4080	2	10	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

XENCO LABORATORIES

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: 1092407

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Project Manager:	Rebecca Andresen	Bill to: (if different)	
Company Name:	ARCADIS	Company Name:	
Address:	1004 N. Big Spring St.	Address:	
City, State ZIP:	Midland, TX. 79701	City, State ZIP:	
Phone:	303-471-3477	Email:	madisyn.frandsen@arcadis.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Eunice Project- S. Eunice	Turn Around	
Project Number:	30049612	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	J. Steinmann	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	2.2/2.7	Thermometer ID	
Received Intact:	Yes No	100	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (EPA 8021B)	TPH (SW8015B)	Hex Chrome (SW7196A)	Dissolved Metals (SW6020_DIS): Chromium, Arsenic & Barium)	TDS (SM2540C)	Chlorides (EPA 300.0)
MWD-14	W	3/19/21	0850	—	8	|	|	|	|	|	|
MW-26	W	3/19/21	0920	—	8	|	|	|	|	|	|
RW-7	W	3/19/21	0815	—	8	|	|	|	|	|	|

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3/19/21 1500	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number : 79683

Date/Time:	03.19.2021	Created by:	Brianna Teel	Please send report to:	John Builes
Lab# From:	**Midland**	Delivery Priority:		Address:	1211 W. Florida Ave
Lab# To:	**El Paso**	Air Bill No.:		E-Mail:	john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692407-001	W	MWD-14	03.19.2021 08:50	SM2540C	TDS by SM2540C	03.25.2021	03.26.2021	JHB	TDS	
692407-002	W	MW-26	03.19.2021 09:20	SM2540C	TDS by SM2540C	03.25.2021	03.26.2021	JHB	TDS	
692407-003	W	RW-7	03.19.2021 08:15	SM2540C	TDS by SM2540C	03.25.2021	03.26.2021	JHB	TDS	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel

Brianna Teel

Date Relinquished: 03.19.2021

Received By: _____

Date Received: _____

Cooler Temperature: _____

Inter-Office Shipment

IOS Number : 79684

Date/Time:	03.19.2021	Created by:	Brianna Teel	Please send report to:	John Builes
Lab# From:	**Midland**	Delivery Priority:		Address:	1211 W. Florida Ave
Lab# To:	**Houston**	Air Bill No.:	773214265606	E-Mail:	john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692407-001	W	MWD-14	03.19.2021 08:50	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.25.2021	09.15.2021	JHB	AS BA CR	
692407-002	W	MW-26	03.19.2021 09:20	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.25.2021	09.15.2021	JHB	AS BA CR	
692407-003	W	RW-7	03.19.2021 08:15	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.25.2021	09.15.2021	JHB	AS BA CR	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel

Brianna Teel

Date Relinquished: 03.19.2021

Received By: Jose F. Londono

Jose Londono

Date Received: 03.20.2021

Cooler Temperature: 3.7

Environment Testing Xenco

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 79684

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : HOU-272

Sent By: Brianna Teel **Date Sent:** 03.19.2021 03.07 PM

Received By: Jose Londono **Date Received:** 03.20.2021 11.00 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.7	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Jose F. Londono

Jose Londono

Date: 03.20.2021

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Analytical Report 692406

for

ARCADIS

Project Manager: Sonja Zabienski

Eunice Project - S. Eunice

04.02.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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04.02.2021

Project Manager: **Sonja Zabienski**
ARCADIS
1004 N. Big Spring St.
Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **692406**
Eunice Project - S. Eunice
Project Address:

Sonja Zabienski:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 692406. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 692406 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

John Builes
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 692406

ARCADIS, Midland, TX

Eunice Project - S. Eunice

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TMW-6	W	03.19.2021 09:19		692406-001
MW-25	W	03.19.2021 08:34		692406-002
MWW-11	W	03.19.2021 09:42		692406-003
Dup-4	W	03.19.2021 00:00		692406-004

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CASE NARRATIVE

Client Name: ARCADIS

Project Name: Eunice Project - S. Eunice

Project ID:
Work Order Number(s): *692406*

Report Date: *04.02.2021*
Date Received: *03.19.2021*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3154553 BTEX by EPA 8021B

Surrogate 1,4-Difluorobenzene, Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 692406-002,692406-004.

Batch: LBA-3154665 TPH By SW8015 Mod

Detection in gas range <.5RL, data is acceptable.

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **TMW-6** Matrix: Water Sample Depth:
Lab Sample Id: 692406-001 Date Collected: 03.19.2021 09:19 Date Received: 03.19.2021 15:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**163**	5.00	0.210	mg/L	03.23.2021 13:15		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1340**	50.0	50.0	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0741**	0.00400	0.000246	mg/L	03.25.2021 21:38		1
Barium	7440-39-3	**0.744**	0.00400	0.000484	mg/L	03.25.2021 21:38		1
Chromium	7440-47-3	**0.000700**	0.00400	0.000525	mg/L	03.25.2021 21:38	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **TMW-6** Matrix: Water Sample Depth:

Lab Sample Id: 692406-001 Date Collected: 03.19.2021 09:19 Date Received: 03.19.2021 15:00

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**3.86**	2.27	0.897	mg/L	03.24.2021 15:13	B	1
Diesel Range Organics	C10C28DRO	**1.23**	2.27	0.828	mg/L	03.24.2021 15:13	J	1
Oil Range Hydrocarbons	PHCG2835	<0.828	2.27	0.828	mg/L	03.24.2021 15:13	U	1
Total TPH	PHC635	**5.09**	2.27	0.828	mg/L	03.24.2021 15:13		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	94	70 - 135	%		
o-Terphenyl	86	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0367**	0.00200	0.000408	mg/L	03.23.2021 23:00		1
Toluene	108-88-3	**0.000420**	0.00200	0.000367	mg/L	03.23.2021 23:00	J	1
Ethylbenzene	100-41-4	**0.00446**	0.00200	0.000657	mg/L	03.23.2021 23:00		1
m,p-Xylenes	179601-23-1	**0.00465**	0.00400	0.000630	mg/L	03.23.2021 23:00		1
o-Xylene	95-47-6	**0.000850**	0.00200	0.000642	mg/L	03.23.2021 23:00	J	1
Total Xylenes	1330-20-7	**0.00550**	0.00200	0.000630	mg/L	03.23.2021 23:00		1
Total BTEX		**0.0471**	0.00200	0.000367	mg/L	03.23.2021 23:00		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	92	70 - 130	%		
4-Bromofluorobenzene	130	70 - 130	%		

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-25** Matrix: Water Sample Depth:
Lab Sample Id: 692406-002 Date Collected: 03.19.2021 08:34 Date Received: 03.19.2021 15:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1330**	25.0	1.05	mg/L	03.23.2021 13:20		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**4470**	100	100	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00308**	0.00400	0.000246	mg/L	03.25.2021 21:41	J	1
Barium	7440-39-3	**1.55**	0.00400	0.000484	mg/L	03.25.2021 21:41		1
Chromium	7440-47-3	**0.00194**	0.00400	0.000525	mg/L	03.25.2021 21:41	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-25** Matrix: Water Sample Depth:

Lab Sample Id: 692406-002 Date Collected: 03.19.2021 08:34 Date Received: 03.19.2021 15:00

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**5.05**	2.24	0.885	mg/L	03.24.2021 15:56	B	1
Diesel Range Organics	C10C28DRO	**2.09**	2.24	0.817	mg/L	03.24.2021 15:56	J	1
Oil Range Hydrocarbons	PHCG2835	<0.817	2.24	0.817	mg/L	03.24.2021 15:56	U	1
Total TPH	PHC635	**7.14**	2.24	0.817	mg/L	03.24.2021 15:56		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	92	70 - 135	%		
o-Terphenyl	85	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**1.66**	0.200	0.0408	mg/L	03.24.2021 12:10	D	100
Toluene	108-88-3	**0.00156**	0.00200	0.000367	mg/L	03.23.2021 23:25	J	1
Ethylbenzene	100-41-4	**0.0187**	0.00200	0.000657	mg/L	03.23.2021 23:25		1
m,p-Xylenes	179601-23-1	**0.00748**	0.00400	0.000630	mg/L	03.23.2021 23:25		1
o-Xylene	95-47-6	**0.00118**	0.00200	0.000642	mg/L	03.23.2021 23:25	J	1
Total Xylenes	1330-20-7	**0.00866**	0.00200	0.000630	mg/L	03.23.2021 23:25		1
Total BTEX		**1.69**	0.00200	0.000367	mg/L	03.24.2021 12:10		100

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	146	70 - 130	%		**
4-Bromofluorobenzene	159	70 - 130	%		**

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWW-11** Matrix: Water Sample Depth:
Lab Sample Id: 692406-003 Date Collected: 03.19.2021 09:42 Date Received: 03.19.2021 15:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**117**	5.00	0.210	mg/L	03.23.2021 13:25		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**994**	25.0	25.0	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0324**	0.00400	0.000246	mg/L	03.25.2021 21:44		1
Barium	7440-39-3	**1.02**	0.00400	0.000484	mg/L	03.25.2021 21:44		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.25.2021 21:44	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWW-11** Matrix: Water Sample Depth:

Lab Sample Id: 692406-003 Date Collected: 03.19.2021 09:42 Date Received: 03.19.2021 15:00

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**6.91**	2.18	0.860	mg/L	03.24.2021 16:17	B	1
Diesel Range Organics	C10C28DRO	<0.795	2.18	0.795	mg/L	03.24.2021 16:17	U	1
Oil Range Hydrocarbons	PHCG2835	<0.795	2.18	0.795	mg/L	03.24.2021 16:17	U	1
Total TPH	PHC635	**6.91**	2.18	0.795	mg/L	03.24.2021 16:17		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	88	70 - 135	%		
o-Terphenyl	83	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**2.62**	0.200	0.0408	mg/L	03.24.2021 12:36	D	100
Toluene	108-88-3	**0.00159**	0.00200	0.000367	mg/L	03.23.2021 23:51	J	1
Ethylbenzene	100-41-4	**0.00415**	0.00200	0.000657	mg/L	03.23.2021 23:51		1
m,p-Xylenes	179601-23-1	**0.00790**	0.00400	0.000630	mg/L	03.23.2021 23:51		1
o-Xylene	95-47-6	**0.00582**	0.00200	0.000642	mg/L	03.23.2021 23:51		1
Total Xylenes	1330-20-7	**0.0137**	0.00200	0.000630	mg/L	03.23.2021 23:51		1
Total BTEX		**2.64**	0.00200	0.000367	mg/L	03.24.2021 12:36		100

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	123	70 - 130	%		
4-Bromofluorobenzene	96	70 - 130	%		

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **Dup-4** Matrix: Water Sample Depth:
Lab Sample Id: 692406-004 Date Collected: 03.19.2021 00:00 Date Received: 03.19.2021 15:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1280**	25.0	1.05	mg/L	03.23.2021 13:30		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**4620**	100	100	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00266**	0.00400	0.000246	mg/L	03.25.2021 21:47	J	1
Barium	7440-39-3	**1.31**	0.00400	0.000484	mg/L	03.25.2021 21:47		1
Chromium	7440-47-3	**0.00172**	0.00400	0.000525	mg/L	03.25.2021 21:47	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **Dup-4** Matrix: Water Sample Depth:

Lab Sample Id: 692406-004 Date Collected: 03.19.2021 00:00 Date Received: 03.19.2021 15:00

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**4.51**	2.26	0.894	mg/L	03.24.2021 16:39	B	1
Diesel Range Organics	C10C28DRO	**1.34**	2.26	0.826	mg/L	03.24.2021 16:39	J	1
Oil Range Hydrocarbons	PHCG2835	<0.826	2.26	0.826	mg/L	03.24.2021 16:39	U	1
Total TPH	PHC635	**5.85**	2.26	0.826	mg/L	03.24.2021 16:39		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	91	70 - 135	%		
o-Terphenyl	85	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**2.04**	0.200	0.0408	mg/L	03.24.2021 13:02	D	100
Toluene	108-88-3	**0.00160**	0.00200	0.000367	mg/L	03.24.2021 00:16	J	1
Ethylbenzene	100-41-4	**0.0174**	0.00200	0.000657	mg/L	03.24.2021 00:16		1
m,p-Xylenes	179601-23-1	**0.00643**	0.00400	0.000630	mg/L	03.24.2021 00:16		1
o-Xylene	95-47-6	**0.00837**	0.00200	0.000642	mg/L	03.24.2021 00:16		1
Total Xylenes	1330-20-7	**0.0148**	0.00200	0.000630	mg/L	03.24.2021 00:16		1
Total BTEX		**2.07**	0.00200	0.000367	mg/L	03.24.2021 13:02		100

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	135	70 - 130	%		**
4-Bromofluorobenzene	141	70 - 130	%		**

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **3154583-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 3154583-1-BLK Date Collected: Date Received:
Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	<12.5	12.5	12.5	mg/L	03.23.2021 15:00	U	1

Sample Id: **3154835-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 3154835-1-BLK Date Collected: Date Received:
Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154835 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.19.2021 19:30	U	1

Sample Id: **7723845-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723845-1-BLK Date Collected: Date Received:
Analytical Method: BTEX by EPA 8021B Prep Method: 5030B
Analyst: KTL % Moist:
Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL
Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 21:42	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 21:42	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 21:42	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 21:42	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 21:42	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	90	70 - 130	%		
4-Bromofluorobenzene	84	70 - 130	%		

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Certificate of Analytical Results
692406
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7723995-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723995-1-BLK Date Collected: Date Received:
Analytical Method: TPH By SW8015 Mod Prep Method: 8015
Analyst: ARM % Moist:
Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM
Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.77**	2.27	0.896	mg/L	03.24.2021 09:55	BJ	1
Diesel Range Organics	C10C28DRO	<0.828	2.27	0.828	mg/L	03.24.2021 09:55	U	1
Oil Range Hydrocarbons	PHCG2835	<0.828	2.27	0.828	mg/L	03.24.2021 09:55	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	79	70 - 135	%		
o-Terphenyl	76	70 - 135	%		

Sample Id: **7723998-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723998-1-BLK Date Collected: Date Received:
Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154716 Date Prep: 03.25.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723998

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	<0.000246	0.00400	0.000246	mg/L	03.25.2021 20:28	U	1
Barium	7440-39-3	<0.000484	0.00400	0.000484	mg/L	03.25.2021 20:28	U	1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.25.2021 20:28	U	1

Sample Id: **7724108-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7724108-1-BLK Date Collected: Date Received:
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.0210	0.500	0.0210	mg/L	03.23.2021 12:10	U	1

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692406

Project ID:

Lab Batch #: 3154553 **Sample:** 7723845-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 19:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0341	0.0300	114	70-130	
4-Bromofluorobenzene	0.0332	0.0300	111	70-130	

Lab Batch #: 3154553 **Sample:** 7723845-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 19:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0357	0.0300	119	70-130	
4-Bromofluorobenzene	0.0358	0.0300	119	70-130	

Lab Batch #: 3154553 **Sample:** 692297-003 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 19:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0362	0.0300	121	70-130	
4-Bromofluorobenzene	0.0363	0.0300	121	70-130	

Lab Batch #: 3154553 **Sample:** 692297-003 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 20:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0368	0.0300	123	70-130	
4-Bromofluorobenzene	0.0376	0.0300	125	70-130	

Lab Batch #: 3154553 **Sample:** 7723845-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 21:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	70-130	
4-Bromofluorobenzene	0.0252	0.0300	84	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692406

Project ID:

Lab Batch #: 3154553 **Sample:** 692406-002 / DL **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 12:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0331	0.0300	110	70-130	
4-Bromofluorobenzene	0.0368	0.0300	123	70-130	

Lab Batch #: 3154553 **Sample:** 692406-003 / DL **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 12:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0339	0.0300	113	70-130	
4-Bromofluorobenzene	0.0363	0.0300	121	70-130	

Lab Batch #: 3154553 **Sample:** 692406-004 / DL **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 13:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0372	0.0300	124	70-130	
4-Bromofluorobenzene	0.0411	0.0300	137	70-130	**

Lab Batch #: 3154665 **Sample:** 7723995-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 09:55

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.17	9.07	79	70-135	
o-Terphenyl	3.43	4.54	76	70-135	

Lab Batch #: 3154665 **Sample:** 7723995-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 10:17

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	8.24	9.07	91	70-135	
o-Terphenyl	3.50	4.53	77	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692406

Project ID:

Lab Batch #: 3154665 **Sample:** 7723995-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 10:39

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.65	9.07	84	70-135	
o-Terphenyl	3.22	4.53	71	70-135	

Lab Batch #: 3154665 **Sample:** 692296-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 11:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.22	8.97	80	70-135	
o-Terphenyl	3.16	4.49	70	70-135	

Lab Batch #: 3154665 **Sample:** 692296-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 11:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.06	8.88	80	70-135	
o-Terphenyl	3.11	4.44	70	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692406 **Project ID:**

Analyst: KTL **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154553 **Sample:** 7723845-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.106	106	0.100	0.0921	92	14	70-130	25	
Toluene	<0.000367	0.100	0.100	100	0.100	0.0886	89	12	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0972	97	0.100	0.0858	86	12	70-130	25	
m,p-Xylenes	<0.000630	0.200	0.198	99	0.200	0.176	88	12	70-130	25	
o-Xylene	<0.000642	0.100	0.0968	97	0.100	0.0883	88	9	70-130	25	

Analyst: CHE **Date Prepared:** 03.23.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154839 **Sample:** 7724108-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.0210	25.0	27.1	108	25.0	27.1	108	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692406 **Project ID:**

Analyst: CHE **Date Prepared:** 03.19.2021 **Date Analyzed:** 03.19.2021

Lab Batch ID: 3154835 **Sample:** 3154835-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.0400	0.0371	93	0.0400	0.0373	93	1	85-115	20	

Analyst: DEP **Date Prepared:** 03.25.2021 **Date Analyzed:** 03.25.2021

Lab Batch ID: 3154716 **Sample:** 7723998-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	<0.000246	0.100	0.102	102	0.100	0.101	101	1	80-120	20	
Barium	<0.000484	0.100	0.102	102	0.100	0.102	102	0	80-120	20	
Chromium	<0.000525	0.100	0.100	100	0.100	0.100	100	0	80-120	20	

Analyst: DTH **Date Prepared:** 03.23.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154583 **Sample:** 3154583-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TDS by SM2540C Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Total Dissolved Solids	<25.0	1000	1030	103	1000	964	96	7	90-110	10	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692406 **Project ID:**

Analyst: ARM **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.24.2021

Lab Batch ID: 3154665 **Sample:** 7723995-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	1.77	90.7	95.8	106	90.7	92.4	102	4	70-135	20	
Diesel Range Organics	<0.827	90.7	83.7	92	90.7	81.0	89	3	70-135	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692406
Lab Batch ID: 3154553 **QC- Sample ID:** 692297-003 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.23.2021 **Date Prepared:** 03.22.2021 **Analyst:** KTL
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.000750	0.100	0.101	100	0.100	0.0924	92	9	70-130	25	
Toluene	0.00330	0.100	0.101	98	0.100	0.0907	87	11	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0950	95	0.100	0.0861	86	10	70-130	25	
m,p-Xylenes	0.00234	0.200	0.197	97	0.200	0.178	88	10	70-130	25	
o-Xylene	0.00155	0.100	0.0976	96	0.100	0.0877	86	11	70-130	25	

Lab Batch ID: 3154839 **QC- Sample ID:** 692407-002 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.23.2021 **Date Prepared:** 03.23.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	158	250	461	121	250	461	121	0	90-110	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692406
Lab Batch ID: 3154835 **QC- Sample ID:** 692406-001 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.19.2021 **Date Prepared:** 03.19.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.200	0.215	108	0.200	0.215	108	0	75-125	20	

Lab Batch ID: 3154716 **QC- Sample ID:** 692469-003 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.25.2021 **Date Prepared:** 03.25.2021 **Analyst:** DEP
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	0.000840	0.100	0.106	105	0.100	0.105	104	1	75-125	20	
Barium	0.0278	0.100	0.132	104	0.100	0.130	102	2	75-125	20	
Chromium	<0.000525	0.100	0.102	102	0.100	0.102	102	0	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692406
Lab Batch ID: 3154665
Date Analyzed: 03.24.2021
Reporting Units: mg/L

QC- Sample ID: 692296-001 S
Date Prepared: 03.22.2021

Batch #: 1
Analyst: ARM

Matrix: Water

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	1.76	89.7	85.5	93	88.8	83.2	92	3	70-135	20	
Diesel Range Organics	<0.819	89.7	73.2	82	88.8	71.6	81	2	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Method Duplicate

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Project Name: Eunice Project - S. Eunice

Work Order #: 692406 **Report Date:** 04022021

Lab Batch #: 3154583 **Project ID:**

Date Analyzed: 03.23.2021 15:00 **Date Prepared:** 03.23.2021 **Analyst:** DTH

QC- Sample ID: 692296-001 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY

TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	4160	4080	2	10	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

XENCO LABORATORIES

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: 692406

www.xenco.com Page 1 of 1

Project Manager:	Rebecca Andresen	Bill to: (if different)	
Company Name:	ARCADIS	Company Name:	
Address:	1004 N. Big Spring St.	Address:	
City, State ZIP:	Midland, TX. 79701	City, State ZIP:	
Phone:	303-471-3477	Email:	madisyn.frandsen@arcadis.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Eunice Project- S. Eunice	Turn Around	
Project Number:	30049612	Routine ☐	
P.O. Number:		Rush:	
Sampler's Name:	Terry Silcox-well	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	2.7/2.7	Thermometer ID	
Received Intact:	Yes No	IR8	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (EPA 8021B)	TPH (SW8015B)	Hex Chrome (SW7196A)	Dissolved Metals (SW6020_DIS): Chromium, Arsenic & Barium)	TDS (SM2540C)	Chlorides (EPA 300.0)
TMW-6	W	031921	0915		8	X	X	X	X	X	X
MW-25	W	031921	0834		8	X	X	X	X	X	X
MW-11	W	031921	0542		8	X	X	X	X	X	X
DUP-4	W	031921	—		8	X	X	X	X	X	X

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Terry Silcox-well	[signature]	031921 / 1300	2 [signature]	[signature]	3/19/21 1500
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number : 79685

Date/Time:	03.19.2021	Created by:	Brianna Teel	Please send report to:	John Builes
Lab# From:	**Midland**	Delivery Priority:		Address:	1211 W. Florida Ave
Lab# To:	**El Paso**	Air Bill No.:		E-Mail:	john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692406-001	W	TMW-6	03.19.2021 09:19	SM2540C	TDS by SM2540C	03.25.2021	03.26.2021	JHB	TDS	
692406-002	W	MW-25	03.19.2021 08:34	SM2540C	TDS by SM2540C	03.25.2021	03.26.2021	JHB	TDS	
692406-003	W	MWW-11	03.19.2021 09:42	SM2540C	TDS by SM2540C	03.25.2021	03.26.2021	JHB	TDS	
692406-004	W	Dup-4	03.19.2021 00:00	SM2540C	TDS by SM2540C	03.25.2021	03.26.2021	JHB	TDS	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 03.19.2021

Received By:

Date Received:

Cooler Temperature:

Inter-Office Shipment

IOS Number : 79686

Date/Time:	03.19.2021	Created by:	Brianna Teel	Please send report to:	John Builes
Lab# From:	**Midland**	Delivery Priority:		Address:	1211 W. Florida Ave
Lab# To:	**Houston**	Air Bill No.:	773214265606	E-Mail:	john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692406-001	W	TMW-6	03.19.2021 09:19	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.25.2021	09.15.2021	JHB	AS BA CR	
692406-002	W	MW-25	03.19.2021 08:34	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.25.2021	09.15.2021	JHB	AS BA CR	
692406-003	W	MWW-11	03.19.2021 09:42	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.25.2021	09.15.2021	JHB	AS BA CR	
692406-004	W	Dup-4	03.19.2021 00:00	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.25.2021	09.15.2021	JHB	AS BA CR	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel

Date Relinquished: 03.19.2021

Received By: Jose Londono

Date Received: 03.20.2021

Cooler Temperature: 3.7

Environment Testing Xenco

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 79686

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : HOU-272

Sent By: Brianna Teel **Date Sent:** 03.19.2021 03.08 PM

Received By: Jose Londono **Date Received:** 03.20.2021 11.00 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.7	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Jose F. Londono

Jose Londono

Date: 03.20.2021

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Analytical Report 692297

for

ARCADIS

Project Manager: Sonja Zabienski

Eunice Project - S. Eunice

04.02.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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04.02.2021

Project Manager: **Sonja Zabienski**
ARCADIS
1004 N. Big Spring St.
Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **692297**
Eunice Project - S. Eunice
Project Address:

Sonja Zabienski:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 692297. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 692297 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

John Builes
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 692297

ARCADIS, Midland, TX

Eunice Project - S. Eunice

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-17	W	03.18.2021 08:44		692297-001
MWD-1	W	03.18.2021 09:11		692297-002
MWD-8	W	03.18.2021 09:34		692297-003
MWD-17	W	03.18.2021 10:09		692297-004

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CASE NARRATIVE

Client Name: ARCADIS

Project Name: Eunice Project - S. Eunice

Project ID:
Work Order Number(s): *692297*

Report Date: *04.02.2021*
Date Received: *03.18.2021*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3154553 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 692297-004.

Batch: LBA-3154665 TPH By SW8015 Mod
Detection in gas range <.5RL, data is acceptable.

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-17** Matrix: Water Sample Depth:
Lab Sample Id: 692297-001 Date Collected: 03.18.2021 08:44 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**811**	25.0	1.05	mg/L	03.23.2021 12:45		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2260**	100	100	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0138**	0.00400	0.000246	mg/L	03.23.2021 02:50		1
Barium	7440-39-3	**0.224**	0.00400	0.000484	mg/L	03.23.2021 02:50		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 02:50	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-17** Matrix: Water Sample Depth:

Lab Sample Id: 692297-001 Date Collected: 03.18.2021 08:44 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.70**	2.22	0.879	mg/L	03.24.2021 13:46	BJ	1
Diesel Range Organics	C10C28DRO	<0.812	2.22	0.812	mg/L	03.24.2021 13:46	U	1
Oil Range Hydrocarbons	PHCG2835	<0.812	2.22	0.812	mg/L	03.24.2021 13:46	U	1
Total TPH	PHC635	**1.70**	2.22	0.812	mg/L	03.24.2021 13:46	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 135	%		
o-Terphenyl	84	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 17:23	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 17:23	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 17:23	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 17:23	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 17:23	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 17:23	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 17:23	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	114	70 - 130	%		
4-Bromofluorobenzene	116	70 - 130	%		

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-1** Matrix: Water Sample Depth:
Lab Sample Id: 692297-002 Date Collected: 03.18.2021 09:11 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**536**	5.00	0.210	mg/L	03.21.2021 20:26		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1590**	50.0	50.0	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0431**	0.00400	0.000246	mg/L	03.23.2021 02:53		1
Barium	7440-39-3	**0.0554**	0.00400	0.000484	mg/L	03.23.2021 02:53		1
Chromium	7440-47-3	**0.00330**	0.00400	0.000525	mg/L	03.23.2021 02:53	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-1** Matrix: Water Sample Depth:

Lab Sample Id: 692297-002 Date Collected: 03.18.2021 09:11 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.64**	2.26	0.893	mg/L	03.24.2021 14:08	BJ	1
Diesel Range Organics	C10C28DRO	<0.825	2.26	0.825	mg/L	03.24.2021 14:08	U	1
Oil Range Hydrocarbons	PHCG2835	<0.825	2.26	0.825	mg/L	03.24.2021 14:08	U	1
Total TPH	PHC635	**1.64**	2.26	0.825	mg/L	03.24.2021 14:08	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 135	%		
o-Terphenyl	80	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 17:48	U	1
Toluene	108-88-3	**0.00127**	0.00200	0.000367	mg/L	03.23.2021 17:48	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 17:48	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 17:48	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 17:48	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 17:48	U	1
Total BTEX		**0.00127**	0.00200	0.000367	mg/L	03.23.2021 17:48	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	117	70 - 130	%		
4-Bromofluorobenzene	120	70 - 130	%		

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-8** Matrix: Water Sample Depth:
Lab Sample Id: 692297-003 Date Collected: 03.18.2021 09:34 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**363**	2.50	0.105	mg/L	03.21.2021 20:31		5

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**683**	25.0	25.0	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0230**	0.00400	0.000246	mg/L	03.23.2021 02:56		1
Barium	7440-39-3	**0.0435**	0.00400	0.000484	mg/L	03.23.2021 02:56		1
Chromium	7440-47-3	**0.00154**	0.00400	0.000525	mg/L	03.23.2021 02:56	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-8** Matrix: Water Sample Depth:

Lab Sample Id: 692297-003 Date Collected: 03.18.2021 09:34 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.80**	2.25	0.889	mg/L	03.24.2021 14:29	BJ	1
Diesel Range Organics	C10C28DRO	<0.821	2.25	0.821	mg/L	03.24.2021 14:29	U	1
Oil Range Hydrocarbons	PHCG2835	<0.821	2.25	0.821	mg/L	03.24.2021 14:29	U	1
Total TPH	PHC635	**1.80**	2.25	0.821	mg/L	03.24.2021 14:29	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	81	70 - 135	%		
o-Terphenyl	78	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000750**	0.00200	0.000408	mg/L	03.23.2021 22:08	J	1
Toluene	108-88-3	**0.00330**	0.00200	0.000367	mg/L	03.23.2021 22:08		1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 22:08	U	1
m,p-Xylenes	179601-23-1	**0.00234**	0.00400	0.000630	mg/L	03.23.2021 22:08	J	1
o-Xylene	95-47-6	**0.00155**	0.00200	0.000642	mg/L	03.23.2021 22:08	J	1
Total Xylenes	1330-20-7	**0.00389**	0.00200	0.000630	mg/L	03.23.2021 22:08		1
Total BTEX		**0.00794**	0.00200	0.000367	mg/L	03.23.2021 22:08		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	128	70 - 130	%		

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-17** Matrix: Water Sample Depth:
Lab Sample Id: 692297-004 Date Collected: 03.18.2021 10:09 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**3350**	25.0	1.05	mg/L	03.21.2021 20:37		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**11900**	250	250	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0447**	0.00400	0.000246	mg/L	03.23.2021 02:59		1
Barium	7440-39-3	**0.422**	0.00400	0.000484	mg/L	03.23.2021 02:59		1
Chromium	7440-47-3	**0.000810**	0.00400	0.000525	mg/L	03.23.2021 02:59	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-17** Matrix: Water Sample Depth:

Lab Sample Id: 692297-004 Date Collected: 03.18.2021 10:09 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**2.77**	2.27	0.896	mg/L	03.24.2021 14:51	B	1
Diesel Range Organics	C10C28DRO	<0.828	2.27	0.828	mg/L	03.24.2021 14:51	U	1
Oil Range Hydrocarbons	PHCG2835	<0.828	2.27	0.828	mg/L	03.24.2021 14:51	U	1
Total TPH	PHC635	**2.77**	2.27	0.828	mg/L	03.24.2021 14:51		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	112	70 - 135	%		
o-Terphenyl	109	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL

Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0120**	0.00200	0.000408	mg/L	03.23.2021 22:33		1
Toluene	108-88-3	**0.000740**	0.00200	0.000367	mg/L	03.23.2021 22:33	J	1
Ethylbenzene	100-41-4	**0.000970**	0.00200	0.000657	mg/L	03.23.2021 22:33	J	1
m,p-Xylenes	179601-23-1	**0.00216**	0.00400	0.000630	mg/L	03.23.2021 22:33	J	1
o-Xylene	95-47-6	**0.00646**	0.00200	0.000642	mg/L	03.23.2021 22:33		1
Total Xylenes	1330-20-7	**0.00862**	0.00200	0.000630	mg/L	03.23.2021 22:33		1
Total BTEX		**0.0223**	0.00200	0.000367	mg/L	03.23.2021 22:33		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	133	70 - 130	%		**

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **3154492-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 3154492-1-BLK Date Collected: Date Received:
Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

Sample Id: **3154583-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 3154583-1-BLK Date Collected: Date Received:
Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	<12.5	12.5	12.5	mg/L	03.23.2021 15:00	U	1

Sample Id: **7723832-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723832-1-BLK Date Collected: Date Received:
Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	<0.000246	0.00400	0.000246	mg/L	03.23.2021 01:35	U	1
Barium	7440-39-3	<0.000484	0.00400	0.000484	mg/L	03.23.2021 01:35	U	1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 01:35	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7723845-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723845-1-BLK Date Collected: Date Received:
Analytical Method: BTEX by EPA 8021B Prep Method: 5030B
Analyst: KTL % Moist:
Seq Number: 3154553 Date Prep: 03.22.2021 11:00 Tech: KTL
Prep seq: 7723845

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 21:42	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 21:42	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 21:42	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 21:42	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 21:42	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	90	70 - 130	%		
4-Bromofluorobenzene	84	70 - 130	%		

Sample Id: **7723846-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723846-1-BLK Date Collected: Date Received:
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.0210	0.500	0.0210	mg/L	03.21.2021 18:26	U	1

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Certificate of Analytical Results
692297
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7723848-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723848-1-BLK Date Collected: Date Received:
Analytical Method: BTEX by EPA 8021B Prep Method: 5030B
Analyst: KTL % Moist:
Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL
Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 07:58	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:58	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 07:58	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 07:58	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 07:58	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	91	70 - 130	%		
4-Bromofluorobenzene	82	70 - 130	%		

Sample Id: **7723995-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723995-1-BLK Date Collected: Date Received:
Analytical Method: TPH By SW8015 Mod Prep Method: 8015
Analyst: ARM % Moist:
Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM
Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.77**	2.27	0.896	mg/L	03.24.2021 09:55	BJ	1
Diesel Range Organics	C10C28DRO	<0.828	2.27	0.828	mg/L	03.24.2021 09:55	U	1
Oil Range Hydrocarbons	PHCG2835	<0.828	2.27	0.828	mg/L	03.24.2021 09:55	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	79	70 - 135	%		
o-Terphenyl	76	70 - 135	%		

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Certificate of Analytical Results
692297

ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7724108-1-BLK**
Matrix: Water
Sample Depth:
Lab Sample Id: 7724108-1-BLK
Date Collected:
Date Received:
Analytical Method: Chloride by EPA 300
Prep Method: E300P
Analyst: CHE
% Moist:
Seq Number: 3154839
Date Prep: 03.23.2021 12:00
Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.0210	0.500	0.0210	mg/L	03.23.2021 12:10	U	1

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692297

Project ID:

Lab Batch #: 3154502 **Sample:** 7723848-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 05:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	70-130	
4-Bromofluorobenzene	0.0293	0.0300	98	70-130	

Lab Batch #: 3154502 **Sample:** 7723848-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 05:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	70-130	
4-Bromofluorobenzene	0.0333	0.0300	111	70-130	

Lab Batch #: 3154502 **Sample:** 692032-008 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 06:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0334	0.0300	111	70-130	
4-Bromofluorobenzene	0.0348	0.0300	116	70-130	

Lab Batch #: 3154502 **Sample:** 692032-008 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 06:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0358	0.0300	119	70-130	
4-Bromofluorobenzene	0.0381	0.0300	127	70-130	

Lab Batch #: 3154502 **Sample:** 7723848-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 07:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	70-130	
4-Bromofluorobenzene	0.0247	0.0300	82	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692297

Project ID:

Lab Batch #: 3154553 **Sample:** 7723845-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 19:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0341	0.0300	114	70-130	
4-Bromofluorobenzene	0.0332	0.0300	111	70-130	

Lab Batch #: 3154553 **Sample:** 7723845-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 19:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0357	0.0300	119	70-130	
4-Bromofluorobenzene	0.0358	0.0300	119	70-130	

Lab Batch #: 3154553 **Sample:** 692297-003 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 19:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0362	0.0300	121	70-130	
4-Bromofluorobenzene	0.0363	0.0300	121	70-130	

Lab Batch #: 3154553 **Sample:** 692297-003 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 20:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0368	0.0300	123	70-130	
4-Bromofluorobenzene	0.0376	0.0300	125	70-130	

Lab Batch #: 3154553 **Sample:** 7723845-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 21:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	70-130	
4-Bromofluorobenzene	0.0252	0.0300	84	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692297

Project ID:

Lab Batch #: 3154665 **Sample:** 7723995-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 09:55

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.17	9.07	79	70-135	
o-Terphenyl	3.43	4.54	76	70-135	

Lab Batch #: 3154665 **Sample:** 7723995-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 10:17

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	8.24	9.07	91	70-135	
o-Terphenyl	3.50	4.53	77	70-135	

Lab Batch #: 3154665 **Sample:** 7723995-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 10:39

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.65	9.07	84	70-135	
o-Terphenyl	3.22	4.53	71	70-135	

Lab Batch #: 3154665 **Sample:** 692296-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 11:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.22	8.97	80	70-135	
o-Terphenyl	3.16	4.49	70	70-135	

Lab Batch #: 3154665 **Sample:** 692296-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 11:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.06	8.88	80	70-135	
o-Terphenyl	3.11	4.44	70	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692297 **Project ID:**

Analyst: KTL **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154553 **Sample:** 7723845-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.106	106	0.100	0.0921	92	14	70-130	25	
Toluene	<0.000367	0.100	0.100	100	0.100	0.0886	89	12	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0972	97	0.100	0.0858	86	12	70-130	25	
m,p-Xylenes	<0.000630	0.200	0.198	99	0.200	0.176	88	12	70-130	25	
o-Xylene	<0.000642	0.100	0.0968	97	0.100	0.0883	88	9	70-130	25	

Analyst: KTL **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154502 **Sample:** 7723848-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.0997	100	0.100	0.104	104	4	70-130	25	
Toluene	<0.000367	0.100	0.0971	97	0.100	0.107	107	10	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0941	94	0.100	0.103	103	9	70-130	25	
m,p-Xylenes	<0.000630	0.200	0.192	96	0.200	0.210	105	9	70-130	25	
o-Xylene	<0.000642	0.100	0.0939	94	0.100	0.111	111	17	70-130	25	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692297 **Project ID:**

Analyst: CHE **Date Prepared:** 03.21.2021 **Date Analyzed:** 03.21.2021

Lab Batch ID: 3154463 **Sample:** 7723846-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.0210	25.0	26.6	106	25.0	26.6	106	0	90-110	20	

Analyst: CHE **Date Prepared:** 03.23.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154839 **Sample:** 7724108-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.0210	25.0	27.1	108	25.0	27.1	108	0	90-110	20	

Analyst: CHE **Date Prepared:** 03.18.2021 **Date Analyzed:** 03.18.2021

Lab Batch ID: 3154492 **Sample:** 3154492-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.0400	0.0376	94	0.0400	0.0378	95	1	85-115	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692297 **Project ID:**

Analyst: DEP **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154461 **Sample:** 7723832-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	<0.000246	0.100	0.102	102	0.100	0.101	101	1	80-120	20	
Barium	<0.000484	0.100	0.102	102	0.100	0.101	101	1	80-120	20	
Chromium	<0.000525	0.100	0.101	101	0.100	0.101	101	0	80-120	20	

Analyst: DTH **Date Prepared:** 03.23.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154583 **Sample:** 3154583-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TDS by SM2540C Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Total Dissolved Solids	<25.0	1000	1030	103	1000	964	96	7	90-110	10	

Analyst: ARM **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.24.2021

Lab Batch ID: 3154665 **Sample:** 7723995-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	1.77	90.7	95.8	106	90.7	92.4	102	4	70-135	20	
Diesel Range Organics	<0.827	90.7	83.7	92	90.7	81.0	89	3	70-135	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692297
Lab Batch ID: 3154502 **QC- Sample ID:** 692032-008 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.23.2021 **Date Prepared:** 03.22.2021 **Analyst:** KTL
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.111	111	0.100	0.122	122	9	70-130	25	
Toluene	0.00241	0.100	0.111	109	0.100	0.119	117	7	70-130	25	
Ethylbenzene	<0.000657	0.100	0.105	105	0.100	0.113	113	7	70-130	25	
m,p-Xylenes	0.00165	0.200	0.218	108	0.200	0.234	116	7	70-130	25	
o-Xylene	<0.000642	0.100	0.108	108	0.100	0.115	115	6	70-130	25	

Lab Batch ID: 3154553 **QC- Sample ID:** 692297-003 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.23.2021 **Date Prepared:** 03.22.2021 **Analyst:** KTL
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.000750	0.100	0.101	100	0.100	0.0924	92	9	70-130	25	
Toluene	0.00330	0.100	0.101	98	0.100	0.0907	87	11	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0950	95	0.100	0.0861	86	10	70-130	25	
m,p-Xylenes	0.00234	0.200	0.197	97	0.200	0.178	88	10	70-130	25	
o-Xylene	0.00155	0.100	0.0976	96	0.100	0.0877	86	11	70-130	25	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692297
Lab Batch ID: 3154463 **QC- Sample ID:** 692032-008 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.21.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	439	250	733	118	250	734	118	0	90-110	20	X

Lab Batch ID: 3154463 **QC- Sample ID:** 692296-004 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.21.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	977	500	1630	131	500	1640	133	1	90-110	20	X

Lab Batch ID: 3154839 **QC- Sample ID:** 692407-002 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.23.2021 **Date Prepared:** 03.23.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	158	250	461	121	250	461	121	0	90-110	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692297
Lab Batch ID: 3154492 **QC- Sample ID:** 692296-001 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.18.2021 **Date Prepared:** 03.18.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.200	0.203	102	0.200	0.203	102	0	75-125	20	

Lab Batch ID: 3154461 **QC- Sample ID:** 692390-001 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.23.2021 **Date Prepared:** 03.22.2021 **Analyst:** DEP
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	0.0122	0.100	0.111	99	0.100	0.111	99	0	75-125	20	
Barium	0.0594	0.100	0.160	101	0.100	0.161	102	1	75-125	20	
Chromium	<0.000525	0.100	0.101	101	0.100	0.101	101	0	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692297
Lab Batch ID: 3154665
Date Analyzed: 03.24.2021
Reporting Units: mg/L

QC- Sample ID: 692296-001 S
Date Prepared: 03.22.2021

Batch #: 1
Analyst: ARM

Matrix: Water

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	1.76	89.7	85.5	93	88.8	83.2	92	3	70-135	20	
Diesel Range Organics	<0.819	89.7	73.2	82	88.8	71.6	81	2	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Method Duplicate

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Project Name: Eunice Project - S. Eunice

Work Order #: 692297 **Report Date:** 04022021

Lab Batch #: 3154583 **Project ID:**

Date Analyzed: 03.23.2021 15:00 **Date Prepared:** 03.23.2021 **Analyst:** DTH

QC- Sample ID: 692296-001 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY

TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	4160	4080	2	10	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

CHAIN OF CUSTODY RECORD

Page: 1 of 1

692287

Customer Information		Project Information		Analysis/Methods			
PO:	4524162325	Project Name:		A	Ammonia-N (350.1)	K	Copper (200.7)
WO:		TAL Project No:	60000335	B	5-Day BOD (405.1)	L	Dissolved Calcium (200.7)
Company:	Shell Deer Park	Bill To:	Shell Deer Park	C	ortho-Phosphate (365.2)	M	Sulfide (SM4500 S2 D)
Report to:	Pat Follett	Invoice ATTN:	Accounts Payable	D	Cr, Cu, Pb, Ni, Zn (200.7)	N	Enterococci (1:20 dilution)
Address:	5900 Highway	Address:	See P.O.	E	Hex. Ext. Mat. (EPA 1664A)	O	
	P.O. Box 100			F	Hex. Ext. Mat. (EPA 1664A) Matrix Spike	P	
	Deer Park, TX 77536			G	Total Organ Carbon (415.1)	Q	
E-mail:				H	Total Dissolved Solids (160.1)	R	
Phone:	713-246-4389	Phone:		I	Total Suspended Solids (SM2540 D)	Other:	
Fax:	713-246-7800	Fax:		J	Calcium (200.7)		

No.	Sample Description	GLIMS I.D. #	Date	Time	Matrix	# Cont.	Comments	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	SET004	4294478	03/18/21	0300	Water	1	Composite				X														
2	SETCLO	4294479	03/18/21	0300	Water	1	Grab										X								
3																									
4																									
5																									
6																									
7																									
8																									

Sampler: Shell Operator on Duty

Shipment Method: TAL Pickup

Required TAT: 24-h 48-h 72-h 5 Days 10 Days Other:

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
Company: Shell	Time: 0900	Company: SDS	Time: 1120	Company: SDS	Time: 230	Company:	Time:
5. Relinquished by:	Date:	6. Received by:	Date:	7. Relinquished by:	Date:	8. Received by:	Date:
Company:	Time:	Company:	Time:	Company:	Time:	Company:	Time:

Comments/Notes:

Temp: 4 IR ID:HOU-188
C/F:+0.2
Corrected Temp: 4.2

Test America Laboratories 6310 Rothway Drive, Suite 130 Houston, TX 77040 Phone: 713.690.4444
Project Manager: Jodi Allen 832-401-4315 Fax: 713.690.5646

KP

Inter-Office Shipment

IOS Number : 79669

Date/Time:	03.18.2021	Created by:	Brianna Teel	Please send report to:	John Builes
Lab# From:	**Midland**	Delivery Priority:		Address:	1211 W. Florida Ave
Lab# To:	**El Paso**	Air Bill No.:		E-Mail:	john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692297-001	W	MW-17	03.18.2021 08:44	SM2540C	TDS by SM2540C	03.24.2021	03.25.2021	JHB	TDS	
692297-002	W	MWD-1	03.18.2021 09:11	SM2540C	TDS by SM2540C	03.24.2021	03.25.2021	JHB	TDS	
692297-003	W	MWD-8	03.18.2021 09:34	SM2540C	TDS by SM2540C	03.24.2021	03.25.2021	JHB	TDS	
692297-004	W	MWD-17	03.18.2021 10:09	SM2540C	TDS by SM2540C	03.24.2021	03.25.2021	JHB	TDS	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel

Brianna Teel

Date Relinquished: 03.18.2021

Received By: _____

Date Received: _____

Cooler Temperature: _____

Inter-Office Shipment

IOS Number : 79670

Date/Time:	03.18.2021	Created by:	Brianna Teel	Please send report to:	John Builes
Lab# From:	**Midland**	Delivery Priority:		Address:	1211 W. Florida Ave
Lab# To:	**Houston**	Air Bill No.:	773203929882	E-Mail:	john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692297-001	W	MW-17	03.18.2021 08:44	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.24.2021	09.14.2021	JHB	AS BA CR	
692297-002	W	MWD-1	03.18.2021 09:11	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.24.2021	09.14.2021	JHB	AS BA CR	
692297-003	W	MWD-8	03.18.2021 09:34	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.24.2021	09.14.2021	JHB	AS BA CR	
692297-004	W	MWD-17	03.18.2021 10:09	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.24.2021	09.14.2021	JHB	AS BA CR	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel

Date Relinquished: 03.18.2021

Received By: Jose Londono

Date Received: 03.19.2021

Cooler Temperature: 4.3

Environment Testing Xenco

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 79670

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : HOU-272

Sent By: Brianna Teel **Date Sent:** 03.18.2021 04.10 PM

Received By: Jose Londono **Date Received:** 03.19.2021 10.30 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Jose F. Londono

Jose Londono

Date: 03.19.2021

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Analytical Report 692296

for

ARCADIS

Project Manager: Sonja Zabienski

Eunice Project - S. Eunice

04.28.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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04.28.2021

Project Manager: **Sonja Zabienski**
ARCADIS
1004 N. Big Spring St.
Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **692296**
Eunice Project - S. Eunice
Project Address:

Sonja Zabienski:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 692296. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 692296 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

John Builes
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 692296

ARCADIS, Midland, TX

Eunice Project - S. Eunice

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-4	W	03.18.2021 10:45		692296-001
MWD-2	W	03.18.2021 10:15		692296-002
MWD-3	W	03.18.2021 09:15		692296-003
RW-8	W	03.18.2021 09:41		692296-004
MW-22	W	03.18.2021 08:45		692296-005

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CASE NARRATIVE

Client Name: ARCADIS

Project Name: Eunice Project - S. Eunice

Project ID:
Work Order Number(s): *692296*

Report Date: *04.28.2021*
Date Received: *03.18.2021*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3154463 Chloride by EPA 300

Lab Sample ID 692296-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 692296-001, -002, -004.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3154502 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 692296-003.
Surrogate 1,4-Difluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 692296-003.
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 692296-005.

Batch: LBA-3154665 TPH By SW8015 Mod

Detection in gas range <.5RL, data is acceptable.

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-4** Matrix: Water Sample Depth:
Lab Sample Id: 692296-001 Date Collected: 03.18.2021 10:45 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1250**	25.0	1.05	mg/L	03.21.2021 19:36		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**4160**	100	100	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00981**	0.00400	0.000246	mg/L	03.23.2021 02:30		1
Barium	7440-39-3	**0.0608**	0.00400	0.000484	mg/L	03.23.2021 02:30		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 02:30	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-4** Matrix: Water Sample Depth:

Lab Sample Id: 692296-001 Date Collected: 03.18.2021 10:45 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.76**	2.26	0.892	mg/L	03.24.2021 11:00	BJ	1
Diesel Range Organics	C10C28DRO	<0.824	2.26	0.824	mg/L	03.24.2021 11:00	U	1
Oil Range Hydrocarbons	PHCG2835	<0.824	2.26	0.824	mg/L	03.24.2021 11:00	U	1
Total TPH	PHC635	**1.76**	2.26	0.824	mg/L	03.24.2021 11:00	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	88	70 - 135	%		
o-Terphenyl	86	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 15:13	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 15:13	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 15:13	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 15:13	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 15:13	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 15:13	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 15:13	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	115	70 - 130	%		

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-2** Matrix: Water Sample Depth:
Lab Sample Id: 692296-002 Date Collected: 03.18.2021 10:15 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**711**	10.0	0.421	mg/L	03.21.2021 19:41		20

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2600**	100	100	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0104**	0.00400	0.000246	mg/L	03.23.2021 02:39		1
Barium	7440-39-3	**0.0437**	0.00400	0.000484	mg/L	03.23.2021 02:39		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 02:39	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-2** Matrix: Water Sample Depth:

Lab Sample Id: 692296-002 Date Collected: 03.18.2021 10:15 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.74**	2.23	0.882	mg/L	03.24.2021 12:20	BJ	1
Diesel Range Organics	C10C28DRO	<0.815	2.23	0.815	mg/L	03.24.2021 12:20	U	1
Oil Range Hydrocarbons	PHCG2835	<0.815	2.23	0.815	mg/L	03.24.2021 12:20	U	1
Total TPH	PHC635	**1.74**	2.23	0.815	mg/L	03.24.2021 12:20	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	83	70 - 135	%		
o-Terphenyl	80	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 15:39	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 15:39	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 15:39	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 15:39	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 15:39	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 15:39	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 15:39	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	120	70 - 130	%		
4-Bromofluorobenzene	125	70 - 130	%		

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-3** Matrix: Water Sample Depth:
Lab Sample Id: 692296-003 Date Collected: 03.18.2021 09:15 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154873 Date Prep: 03.31.2021 12:00 Tech: CHE
Prep seq: 7724117

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**16300**	100	4.21	mg/L	04.05.2021 12:11		200

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**31500**	500	500	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0490**	0.00400	0.000246	mg/L	03.23.2021 02:42		1
Barium	7440-39-3	**3.24**	0.0800	0.00967	mg/L	03.23.2021 12:27	D	20
Chromium	7440-47-3	**0.000579**	0.00400	0.000525	mg/L	03.23.2021 02:42	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-3** Matrix: Water Sample Depth:

Lab Sample Id: 692296-003 Date Collected: 03.18.2021 09:15 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**3.80**	2.19	0.866	mg/L	03.24.2021 12:41	B	1
Diesel Range Organics	C10C28DRO	<0.800	2.19	0.800	mg/L	03.24.2021 12:41	U	1
Oil Range Hydrocarbons	PHCG2835	<0.800	2.19	0.800	mg/L	03.24.2021 12:41	U	1
Total TPH	PHC635	**3.80**	2.19	0.800	mg/L	03.24.2021 12:41		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 135	%		
o-Terphenyl	82	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.824**	0.200	0.0408	mg/L	03.24.2021 11:45	D	100
Toluene	108-88-3	**0.00127**	0.00200	0.000367	mg/L	03.23.2021 16:04	J	1
Ethylbenzene	100-41-4	**0.000720**	0.00200	0.000657	mg/L	03.23.2021 16:04	J	1
m,p-Xylenes	179601-23-1	**0.00169**	0.00400	0.000630	mg/L	03.23.2021 16:04	J	1
o-Xylene	95-47-6	**0.00409**	0.00200	0.000642	mg/L	03.23.2021 16:04		1
Total Xylenes	1330-20-7	**0.00578**	0.00200	0.000630	mg/L	03.23.2021 16:04		1
Total BTEX		**0.832**	0.00200	0.000367	mg/L	03.24.2021 11:45		100

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	158	70 - 130	%		**
4-Bromofluorobenzene	128	70 - 130	%		

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Certificate of Analytical Results
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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **RW-8** Matrix: Water Sample Depth:
Lab Sample Id: 692296-004 Date Collected: 03.18.2021 09:41 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**977**	10.0	0.421	mg/L	03.21.2021 19:51	X	20

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2460**	100	100	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0319**	0.00400	0.000246	mg/L	03.23.2021 02:45		1
Barium	7440-39-3	**0.126**	0.00400	0.000484	mg/L	03.23.2021 02:45		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 02:45	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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Certificate of Analytical Results
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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **RW-8** Matrix: Water Sample Depth:

Lab Sample Id: 692296-004 Date Collected: 03.18.2021 09:41 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**2.08**	2.23	0.881	mg/L	03.24.2021 13:03	BJ	1
Diesel Range Organics	C10C28DRO	<0.813	2.23	0.813	mg/L	03.24.2021 13:03	U	1
Oil Range Hydrocarbons	PHCG2835	<0.813	2.23	0.813	mg/L	03.24.2021 13:03	U	1
Total TPH	PHC635	**2.08**	2.23	0.813	mg/L	03.24.2021 13:03	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	89	70 - 135	%		
o-Terphenyl	82	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 16:30	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 16:30	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 16:30	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 16:30	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 16:30	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 16:30	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 16:30	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	120	70 - 130	%		
4-Bromofluorobenzene	128	70 - 130	%		

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692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-22** Matrix: Water Sample Depth:
Lab Sample Id: 692296-005 Date Collected: 03.18.2021 08:45 Date Received: 03.18.2021 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154873 Date Prep: 03.31.2021 12:00 Tech: CHE
Prep seq: 7724117

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**2300**	25.0	1.05	mg/L	03.31.2021 17:05		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154583 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**5750**	250	250	mg/L	03.23.2021 15:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0481**	0.00400	0.000246	mg/L	03.23.2021 02:47		1
Barium	7440-39-3	**0.810**	0.00400	0.000484	mg/L	03.23.2021 02:47		1
Chromium	7440-47-3	**0.000688**	0.00400	0.000525	mg/L	03.23.2021 02:47	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154492 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-22** Matrix: Water Sample Depth:

Lab Sample Id: 692296-005 Date Collected: 03.18.2021 08:45 Date Received: 03.18.2021 15:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM

Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**4.14**	2.27	0.897	mg/L	03.24.2021 13:25	B	1
Diesel Range Organics	C10C28DRO	<0.828	2.27	0.828	mg/L	03.24.2021 13:25	U	1
Oil Range Hydrocarbons	PHCG2835	<0.828	2.27	0.828	mg/L	03.24.2021 13:25	U	1
Total TPH	PHC635	**4.14**	2.27	0.828	mg/L	03.24.2021 13:25		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	86	70 - 135	%		
o-Terphenyl	80	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.151**	0.00200	0.000408	mg/L	03.23.2021 16:56		1
Toluene	108-88-3	**0.00129**	0.00200	0.000367	mg/L	03.23.2021 16:56	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 16:56	U	1
m,p-Xylenes	179601-23-1	**0.00255**	0.00400	0.000630	mg/L	03.23.2021 16:56	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 16:56	U	1
Total Xylenes	1330-20-7	**0.00255**	0.00200	0.000630	mg/L	03.23.2021 16:56		1
Total BTEX		**0.155**	0.00200	0.000367	mg/L	03.23.2021 16:56		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	116	70 - 130	%		
4-Bromofluorobenzene	134	70 - 130	%		**

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Certificate of Analytical Results

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ARCADIS, Midland, TX

Eunice Project - S. Eunice

Sample Id: **3154492-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 3154492-1-BLK Date Collected: Date Received:

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:

Analyst: CHE % Moist:

Seq Number: 3154492 Date Prep: Tech: CHE

Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.18.2021 22:39	U	1

Sample Id: **3154583-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 3154583-1-BLK Date Collected: Date Received:

Analytical Method: TDS by SM2540C Prep Method:

Analyst: DTH % Moist:

Seq Number: 3154583 Date Prep: Tech: DTH

Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	<12.5	12.5	12.5	mg/L	03.23.2021 15:00	U	1

Sample Id: **7723832-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7723832-1-BLK Date Collected: Date Received:

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A

Analyst: DEP % Moist:

Seq Number: 3154461 Date Prep: 03.22.2021 14:30 Tech: DEP

Subcontractor: SUB: T104704215-20-39 Prep seq: 7723832

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	<0.000246	0.00400	0.000246	mg/L	03.23.2021 01:35	U	1
Barium	7440-39-3	<0.000484	0.00400	0.000484	mg/L	03.23.2021 01:35	U	1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 01:35	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7723846-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723846-1-BLK Date Collected: Date Received:
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.0210	0.500	0.0210	mg/L	03.21.2021 18:26	U	1

Sample Id: **7723848-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723848-1-BLK Date Collected: Date Received:
Analytical Method: BTEX by EPA 8021B Prep Method: 5030B
Analyst: KTL % Moist:
Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL
Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 07:58	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:58	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 07:58	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 07:58	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 07:58	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	91	70 - 130	%		
4-Bromofluorobenzene	82	70 - 130	%		

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Certificate of Analytical Results
692296
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7723995-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723995-1-BLK Date Collected: Date Received:
Analytical Method: TPH By SW8015 Mod Prep Method: 8015
Analyst: ARM % Moist:
Seq Number: 3154665 Date Prep: 03.22.2021 12:00 Tech: ARM
Prep seq: 7723995

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.77**	2.27	0.896	mg/L	03.24.2021 09:55	BJ	1
Diesel Range Organics	C10C28DRO	<0.828	2.27	0.828	mg/L	03.24.2021 09:55	U	1
Oil Range Hydrocarbons	PHCG2835	<0.828	2.27	0.828	mg/L	03.24.2021 09:55	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	79	70 - 135	%		
o-Terphenyl	76	70 - 135	%		

Sample Id: **7724117-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7724117-1-BLK Date Collected: Date Received:
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154873 Date Prep: 03.31.2021 12:00 Tech: CHE
Prep seq: 7724117

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.0210	0.500	0.0210	mg/L	03.31.2021 16:33	U	1

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04282021

Work Orders : 692296

Project ID:

Lab Batch #: 3154502 **Sample:** 7723848-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 05:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	70-130	
4-Bromofluorobenzene	0.0293	0.0300	98	70-130	

Lab Batch #: 3154502 **Sample:** 7723848-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 05:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	70-130	
4-Bromofluorobenzene	0.0333	0.0300	111	70-130	

Lab Batch #: 3154502 **Sample:** 692032-008 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 06:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0334	0.0300	111	70-130	
4-Bromofluorobenzene	0.0348	0.0300	116	70-130	

Lab Batch #: 3154502 **Sample:** 692032-008 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 06:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0358	0.0300	119	70-130	
4-Bromofluorobenzene	0.0381	0.0300	127	70-130	

Lab Batch #: 3154502 **Sample:** 7723848-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 07:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	70-130	
4-Bromofluorobenzene	0.0247	0.0300	82	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04282021

Work Orders : 692296

Project ID:

Lab Batch #: 3154502 **Sample:** 692296-003 / DL **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 11:45 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0211	0.0300	70	70-130	
4-Bromofluorobenzene	0.0206	0.0300	69	70-130	***

Lab Batch #: 3154665 **Sample:** 7723995-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 09:55 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.17	9.07	79	70-135	
o-Terphenyl	3.43	4.54	76	70-135	

Lab Batch #: 3154665 **Sample:** 7723995-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 10:17 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	8.24	9.07	91	70-135	
o-Terphenyl	3.50	4.53	77	70-135	

Lab Batch #: 3154665 **Sample:** 7723995-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 10:39 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.65	9.07	84	70-135	
o-Terphenyl	3.22	4.53	71	70-135	

Lab Batch #: 3154665 **Sample:** 692296-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 11:36 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.22	8.97	80	70-135	
o-Terphenyl	3.16	4.49	70	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04282021

Work Orders : 692296

Project ID:

Lab Batch #: 3154665 **Sample:** 692296-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 11:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.06	8.88	80	70-135	
o-Terphenyl	3.11	4.44	70	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692296 **Project ID:**

Analyst: KTL **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154502 **Sample:** 7723848-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.0997	100	0.100	0.104	104	4	70-130	25	
Toluene	<0.000367	0.100	0.0971	97	0.100	0.107	107	10	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0941	94	0.100	0.103	103	9	70-130	25	
m,p-Xylenes	<0.000630	0.200	0.192	96	0.200	0.210	105	9	70-130	25	
o-Xylene	<0.000642	0.100	0.0939	94	0.100	0.111	111	17	70-130	25	

Analyst: CHE **Date Prepared:** 03.21.2021 **Date Analyzed:** 03.21.2021

Lab Batch ID: 3154463 **Sample:** 7723846-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.0210	25.0	26.6	106	25.0	26.6	106	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692296 **Project ID:**

Analyst: CHE **Date Prepared:** 03.31.2021 **Date Analyzed:** 03.31.2021

Lab Batch ID: 3154873 **Sample:** 7724117-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.0210	25.0	25.1	100	25.0	24.7	99	2	90-110	20	

Analyst: CHE **Date Prepared:** 03.18.2021 **Date Analyzed:** 03.18.2021

Lab Batch ID: 3154492 **Sample:** 3154492-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.0400	0.0376	94	0.0400	0.0378	95	1	85-115	20	

Analyst: DEP **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154461 **Sample:** 7723832-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	<0.000246	0.100	0.102	102	0.100	0.101	101	1	80-120	20	
Barium	<0.000484	0.100	0.102	102	0.100	0.101	101	1	80-120	20	
Chromium	<0.000525	0.100	0.101	101	0.100	0.101	101	0	80-120	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692296 **Project ID:**

Analyst: DTH **Date Prepared:** 03.23.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154583 **Sample:** 3154583-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TDS by SM2540C Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Total Dissolved Solids	<25.0	1000	1030	103	1000	964	96	7	90-110	10	

Analyst: ARM **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.24.2021

Lab Batch ID: 3154665 **Sample:** 7723995-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	1.77	90.7	95.8	106	90.7	92.4	102	4	70-135	20	
Diesel Range Organics	<0.827	90.7	83.7	92	90.7	81.0	89	3	70-135	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04282021
Project ID:

Work Order # : 692296
Lab Batch ID: 3154502 **QC- Sample ID:** 692032-008 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.23.2021 **Date Prepared:** 03.22.2021 **Analyst:** KTL
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.111	111	0.100	0.122	122	9	70-130	25	
Toluene	0.00241	0.100	0.111	109	0.100	0.119	117	7	70-130	25	
Ethylbenzene	<0.000657	0.100	0.105	105	0.100	0.113	113	7	70-130	25	
m,p-Xylenes	0.00165	0.200	0.218	108	0.200	0.234	116	7	70-130	25	
o-Xylene	<0.000642	0.100	0.108	108	0.100	0.115	115	6	70-130	25	

Lab Batch ID: 3154463 **QC- Sample ID:** 692032-008 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.21.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	439	250	733	118	250	734	118	0	90-110	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04282021
Project ID:

Work Order # : 692296

Lab Batch ID: 3154463 **QC- Sample ID:** 692296-004 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.21.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	977	500	1630	131	500	1640	133	1	90-110	20	X

Lab Batch ID: 3154873 **QC- Sample ID:** 692031-001 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.31.2021 **Date Prepared:** 03.31.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	282	250	509	91	250	502	88	1	90-110	20	X

Lab Batch ID: 3154492 **QC- Sample ID:** 692296-001 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.18.2021 **Date Prepared:** 03.18.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.200	0.203	102	0.200	0.203	102	0	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04282021
Project ID:

Work Order # : 692296
Lab Batch ID: 3154461 **QC- Sample ID:** 692390-001 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.23.2021 **Date Prepared:** 03.22.2021 **Analyst:** DEP
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	0.0122	0.100	0.111	99	0.100	0.111	99	0	75-125	20	
Barium	0.0594	0.100	0.160	101	0.100	0.161	102	1	75-125	20	
Chromium	<0.000525	0.100	0.101	101	0.100	0.101	101	0	75-125	20	

Lab Batch ID: 3154665 **QC- Sample ID:** 692296-001 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.24.2021 **Date Prepared:** 03.22.2021 **Analyst:** ARM
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	1.76	89.7	85.5	93	88.8	83.2	92	3	70-135	20	
Diesel Range Organics	<0.819	89.7	73.2	82	88.8	71.6	81	2	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Method Duplicate

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Project Name: Eunice Project - S. Eunice

Work Order #: 692296 **Report Date:** 04282021

Lab Batch #: 3154583 **Project ID:**

Date Analyzed: 03.23.2021 15:00 **Date Prepared:** 03.23.2021 **Analyst:** DTH

QC- Sample ID: 692296-001 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY

TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	4160	4080	2	10	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

XENCO LABORATORIES

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: 692296

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Project Manager:	Rebecca Andresen	Bill to: (if different)	
Company Name:	ARCADIS	Company Name:	
Address:	1004 N. Big Spring St.	Address:	
City, State ZIP:	Midland, TX. 79701	City, State ZIP:	
Phone:	303-471-3477	Email:	madisyn.frandsen@arcadis.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Eunice Project- S. Eunice	Turn Around	
Project Number:	30049612	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	J. Steinmann	Due Date:	

SAMPLE RECEIPT

Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	3.5	Thermometer ID	IR8
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	+0.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (EPA 8021B)	TPH (SW8015B)	Hex Chrome (SW7196A)	Dissolved Metals (SW6020_DIS): Chromium, Arsenic & Barium)	TDS (SM2540C)	Chlorides (EPA 300.0)
MW-4	W	3/18/21	1045	—	8						
MWD-2			1015	—	8						
MWD-3			0915	—	8						
RW-8			0941	—	8						
MW-22			0845	—	8						

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3/18/21 1555	2	3/18/21 1555	
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number : 79671

Date/Time: 03.18.2021

Lab# From: **Midland**

Lab# To: **El Paso**

Created by: Brianna Teel

Delivery Priority:

Air Bill No.:

Please send report to: John Builes

Address: 1211 W. Florida Ave

E-Mail: john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692296-001	W	MW-4	03.18.2021 10:45	SM2540C	TDS by SM2540C	03.24.2021	03.25.2021	JHB	TDS	
692296-002	W	MWD-2	03.18.2021 10:15	SM2540C	TDS by SM2540C	03.24.2021	03.25.2021	JHB	TDS	
692296-003	W	MWD-3	03.18.2021 09:15	SM2540C	TDS by SM2540C	03.24.2021	03.25.2021	JHB	TDS	
692296-004	W	RW-8	03.18.2021 09:41	SM2540C	TDS by SM2540C	03.24.2021	03.25.2021	JHB	TDS	
692296-005	W	RW-22	03.18.2021 08:45	SM2540C	TDS by SM2540C	03.24.2021	03.25.2021	JHB	TDS	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel

Brianna Teel

Date Relinquished: 03.18.2021

Received By:

Date Received:

Cooler Temperature:

Inter-Office Shipment

IOS Number : 79672

Date/Time: 03.18.2021
Lab# From: **Midland**
Lab# To: **Houston**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.: 773203929882

Please send report to: John Builes
Address: 1211 W. Florida Ave
E-Mail: john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692296-001	W	MW-4	03.18.2021 10:45	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.24.2021	09.14.2021	JHB	AS BA CR	
692296-002	W	MWD-2	03.18.2021 10:15	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.24.2021	09.14.2021	JHB	AS BA CR	
692296-003	W	MWD-3	03.18.2021 09:15	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.24.2021	09.14.2021	JHB	AS BA CR	
692296-004	W	RW-8	03.18.2021 09:41	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.24.2021	09.14.2021	JHB	AS BA CR	
692296-005	W	RW-22	03.18.2021 08:45	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.24.2021	09.14.2021	JHB	AS BA CR	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 03.18.2021

Received By: Jose F. Londono
Jose Londono

Date Received: 03.19.2021

Cooler Temperature: 4.3

Environment Testing Xenco

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 79672

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : HOU-272

Sent By: Brianna Teel **Date Sent:** 03.18.2021 04.11 PM

Received By: Jose Londono **Date Received:** 03.19.2021 10.30 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Jose F. Londono

Jose Londono

Date: 03.19.2021

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Analytical Report 692133

for

ARCADIS

Project Manager: Sonja Zabienski

Eunice Project - S. Eunice

04.02.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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04.02.2021

Project Manager: **Sonja Zabienski**
ARCADIS
1004 N. Big Spring St.
Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **692133**
Eunice Project - S. Eunice
Project Address:

Sonja Zabienski:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 692133. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 692133 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

John Builes
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 692133

ARCADIS, Midland, TX

Eunice Project - S. Eunice

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-35	W	03.17.2021 08:47		692133-001
MW-3	W	03.17.2021 09:19		692133-002
MW-11	W	03.17.2021 09:46		692133-003
TMW-1	W	03.17.2021 10:12		692133-004
MWD-7	W	03.17.2021 11:17		692133-005
Dup-3	W	03.17.2021 00:00		692133-006

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CASE NARRATIVE

Client Name: ARCADIS

Project Name: Eunice Project - S. Eunice

Project ID:
Work Order Number(s): *692133*

Report Date: *04.02.2021*
Date Received: *03.17.2021*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-35** Matrix: Water Sample Depth:
Lab Sample Id: 692133-001 Date Collected: 03.17.2021 08:47 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**158**	5.00	0.210	mg/L	03.21.2021 20:42		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**958**	25.0	25.0	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154456 Date Prep: 03.22.2021 10:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723830

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00828**	0.00400	0.000246	mg/L	03.23.2021 00:03		1
Barium	7440-39-3	**0.107**	0.00400	0.000484	mg/L	03.23.2021 00:03		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 00:03	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154491 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:45	U	1

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-35** Matrix: Water Sample Depth:

Lab Sample Id: 692133-001 Date Collected: 03.17.2021 08:47 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.896	2.27	0.896	mg/L	03.22.2021 00:11	U	1
Diesel Range Organics	C10C28DRO	<0.827	2.27	0.827	mg/L	03.22.2021 00:11	U	1
Oil Range Hydrocarbons	PHCG2835	<0.827	2.27	0.827	mg/L	03.22.2021 00:11	U	1
Total TPH	PHC635	<0.827	2.27	0.827	mg/L	03.22.2021 00:11	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 135	%		
o-Terphenyl	79	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 11:20	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 11:20	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 11:20	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 11:20	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 11:20	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 11:20	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 11:20	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	118	70 - 130	%		
4-Bromofluorobenzene	122	70 - 130	%		

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-3** Matrix: Water Sample Depth:
Lab Sample Id: 692133-002 Date Collected: 03.17.2021 09:19 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**101**	2.50	0.105	mg/L	03.21.2021 20:47		5

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**717**	25.0	25.0	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154456 Date Prep: 03.22.2021 10:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723830

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0168**	0.00400	0.000246	mg/L	03.23.2021 00:06		1
Barium	7440-39-3	**0.0500**	0.00400	0.000484	mg/L	03.23.2021 00:06		1
Chromium	7440-47-3	**0.000802**	0.00400	0.000525	mg/L	03.23.2021 00:06	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154491 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:45	U	1

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-3** Matrix: Water Sample Depth:

Lab Sample Id: 692133-002 Date Collected: 03.17.2021 09:19 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.867	2.20	0.867	mg/L	03.22.2021 00:32	U	1
Diesel Range Organics	C10C28DRO	<0.801	2.20	0.801	mg/L	03.22.2021 00:32	U	1
Oil Range Hydrocarbons	PHCG2835	<0.801	2.20	0.801	mg/L	03.22.2021 00:32	U	1
Total TPH	PHC635	<0.801	2.20	0.801	mg/L	03.22.2021 00:32	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	117	70 - 135	%		
o-Terphenyl	110	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 11:45	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 11:45	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 11:45	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 11:45	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 11:45	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 11:45	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 11:45	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	124	70 - 130	%		
4-Bromofluorobenzene	120	70 - 130	%		

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-11** Matrix: Water Sample Depth:
Lab Sample Id: 692133-003 Date Collected: 03.17.2021 09:46 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**90.2**	2.50	0.105	mg/L	03.21.2021 20:52		5

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**683**	25.0	25.0	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154456 Date Prep: 03.22.2021 10:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723830

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0214**	0.00400	0.000246	mg/L	03.23.2021 00:09		1
Barium	7440-39-3	**0.0496**	0.00400	0.000484	mg/L	03.23.2021 00:09		1
Chromium	7440-47-3	**0.00145**	0.00400	0.000525	mg/L	03.23.2021 00:09	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154491 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:45	U	1

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-11** Matrix: Water Sample Depth:

Lab Sample Id: 692133-003 Date Collected: 03.17.2021 09:46 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.884	2.24	0.884	mg/L	03.22.2021 00:54	U	1
Diesel Range Organics	C10C28DRO	<0.817	2.24	0.817	mg/L	03.22.2021 00:54	U	1
Oil Range Hydrocarbons	PHCG2835	<0.817	2.24	0.817	mg/L	03.22.2021 00:54	U	1
Total TPH	PHC635	<0.817	2.24	0.817	mg/L	03.22.2021 00:54	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	101	70 - 135	%		
o-Terphenyl	96	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 12:11	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 12:11	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 12:11	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 12:11	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 12:11	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 12:11	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 12:11	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	122	70 - 130	%		
4-Bromofluorobenzene	120	70 - 130	%		

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **TMW-1** Matrix: Water Sample Depth:
Lab Sample Id: 692133-004 Date Collected: 03.17.2021 10:12 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**533**	5.00	0.210	mg/L	03.21.2021 20:57		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1370**	50.0	50.0	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154456 Date Prep: 03.22.2021 10:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723830

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0228**	0.00400	0.000246	mg/L	03.23.2021 00:18		1
Barium	7440-39-3	**1.22**	0.00400	0.000484	mg/L	03.23.2021 00:18		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 00:18	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154491 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:45	U	1

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **TMW-1** Matrix: Water Sample Depth:

Lab Sample Id: 692133-004 Date Collected: 03.17.2021 10:12 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.885	2.24	0.885	mg/L	03.22.2021 01:15	U	1
Diesel Range Organics	C10C28DRO	<0.818	2.24	0.818	mg/L	03.22.2021 01:15	U	1
Oil Range Hydrocarbons	PHCG2835	<0.818	2.24	0.818	mg/L	03.22.2021 01:15	U	1
Total TPH	PHC635	<0.818	2.24	0.818	mg/L	03.22.2021 01:15	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	95	70 - 135	%		
o-Terphenyl	90	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00291**	0.00200	0.000408	mg/L	03.23.2021 13:53		1
Toluene	108-88-3	**0.000970**	0.00200	0.000367	mg/L	03.23.2021 13:53	J	1
Ethylbenzene	100-41-4	**0.0117**	0.00200	0.000657	mg/L	03.23.2021 13:53		1
m,p-Xylenes	179601-23-1	**0.00718**	0.00400	0.000630	mg/L	03.23.2021 13:53		1
o-Xylene	95-47-6	**0.00143**	0.00200	0.000642	mg/L	03.23.2021 13:53	J	1
Total Xylenes	1330-20-7	**0.00861**	0.00200	0.000630	mg/L	03.23.2021 13:53		1
Total BTEX		**0.0242**	0.00200	0.000367	mg/L	03.23.2021 13:53		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	129	70 - 130	%		

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-7** Matrix: Water Sample Depth:
Lab Sample Id: 692133-005 Date Collected: 03.17.2021 11:17 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**3870**	25.0	1.05	mg/L	03.23.2021 12:55		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**10900**	50.0	50.0	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154456 Date Prep: 03.22.2021 10:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723830

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0153**	0.00400	0.000246	mg/L	03.23.2021 00:21		1
Barium	7440-39-3	**0.0474**	0.00400	0.000484	mg/L	03.23.2021 00:21		1
Chromium	7440-47-3	**0.000562**	0.00400	0.000525	mg/L	03.23.2021 00:21	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154491 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:45	U	1

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-7** Matrix: Water Sample Depth:

Lab Sample Id: 692133-005 Date Collected: 03.17.2021 11:17 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.856	2.17	0.856	mg/L	03.22.2021 01:36	U	1
Diesel Range Organics	C10C28DRO	<0.791	2.17	0.791	mg/L	03.22.2021 01:36	U	1
Oil Range Hydrocarbons	PHCG2835	<0.791	2.17	0.791	mg/L	03.22.2021 01:36	U	1
Total TPH	PHC635	<0.791	2.17	0.791	mg/L	03.22.2021 01:36	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	93	70 - 135	%		
o-Terphenyl	88	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 14:19	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 14:19	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 14:19	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 14:19	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 14:19	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 14:19	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 14:19	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	110	70 - 130	%		
4-Bromofluorobenzene	118	70 - 130	%		

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Certificate of Analytical Results
692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **Dup-3** Matrix: Water Sample Depth:
Lab Sample Id: 692133-006 Date Collected: 03.17.2021 00:00 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154839 Date Prep: 03.23.2021 12:00 Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**536**	5.00	0.210	mg/L	03.23.2021 13:10		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1780**	250	250	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154456 Date Prep: 03.22.2021 10:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723830

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0234**	0.00400	0.000246	mg/L	03.23.2021 00:24		1
Barium	7440-39-3	**1.24**	0.00400	0.000484	mg/L	03.23.2021 00:24		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.23.2021 00:24	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154491 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:45	U	1

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692133
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **Dup-3** Matrix: Water Sample Depth:

Lab Sample Id: 692133-006 Date Collected: 03.17.2021 00:00 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.893	2.26	0.893	mg/L	03.22.2021 01:58	U	1
Diesel Range Organics	C10C28DRO	<0.825	2.26	0.825	mg/L	03.22.2021 01:58	U	1
Oil Range Hydrocarbons	PHCG2835	<0.825	2.26	0.825	mg/L	03.22.2021 01:58	U	1
Total TPH	PHC635	<0.825	2.26	0.825	mg/L	03.22.2021 01:58	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	110	70 - 135	%		
o-Terphenyl	104	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00292**	0.00200	0.000408	mg/L	03.23.2021 14:45		1
Toluene	108-88-3	**0.000910**	0.00200	0.000367	mg/L	03.23.2021 14:45	J	1
Ethylbenzene	100-41-4	**0.0104**	0.00200	0.000657	mg/L	03.23.2021 14:45		1
m,p-Xylenes	179601-23-1	**0.00654**	0.00400	0.000630	mg/L	03.23.2021 14:45		1
o-Xylene	95-47-6	**0.00102**	0.00200	0.000642	mg/L	03.23.2021 14:45	J	1
Total Xylenes	1330-20-7	**0.00756**	0.00200	0.000630	mg/L	03.23.2021 14:45		1
Total BTEX		**0.0218**	0.00200	0.000367	mg/L	03.23.2021 14:45		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	118	70 - 130	%		
4-Bromofluorobenzene	120	70 - 130	%		

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **3154486-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 3154486-1-BLK Date Collected: Date Received:
Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	<12.5	12.5	12.5	mg/L	03.22.2021 11:35	U	1

Sample Id: **3154491-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 3154491-1-BLK Date Collected: Date Received:
Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154491 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:45	U	1

Sample Id: **7723822-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723822-1-BLK Date Collected: Date Received:
Analytical Method: TPH By SW8015 Mod Prep Method: 8015
Analyst: ARM % Moist:
Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM
Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.894	2.26	0.894	mg/L	03.21.2021 17:23	U	1
Diesel Range Organics	C10C28DRO	<0.826	2.26	0.826	mg/L	03.21.2021 17:23	U	1
Oil Range Hydrocarbons	PHCG2835	<0.826	2.26	0.826	mg/L	03.21.2021 17:23	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	100	70 - 135	%		
o-Terphenyl	94	70 - 135	%		

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7723830-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723830-1-BLK Date Collected: Date Received:
Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154456 Date Prep: 03.22.2021 10:30 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723830

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	<0.000246	0.00400	0.000246	mg/L	03.22.2021 23:14	U	1
Barium	7440-39-3	<0.000484	0.00400	0.000484	mg/L	03.22.2021 23:14	U	1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.22.2021 23:14	U	1

Sample Id: **7723846-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723846-1-BLK Date Collected: Date Received:
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.0210	0.500	0.0210	mg/L	03.21.2021 18:26	U	1

Sample Id: **7723848-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723848-1-BLK Date Collected: Date Received:
Analytical Method: BTEX by EPA 8021B Prep Method: 5030B
Analyst: KTL % Moist:
Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL
Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 07:58	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:58	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 07:58	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 07:58	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 07:58	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	91	70 - 130	%		
4-Bromofluorobenzene	82	70 - 130	%		

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Certificate of Analytical Results
692133

ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7724108-1-BLK**
Matrix: Water
Sample Depth:
Lab Sample Id: 7724108-1-BLK
Date Collected:
Date Received:
Analytical Method: Chloride by EPA 300
Prep Method: E300P
Analyst: CHE
% Moist:
Seq Number: 3154839
Date Prep: 03.23.2021 12:00
Tech: CHE
Prep seq: 7724108

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.0210	0.500	0.0210	mg/L	03.23.2021 12:10	U	1

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692133

Project ID:

Lab Batch #: 3154502 **Sample:** 7723848-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 05:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	70-130	
4-Bromofluorobenzene	0.0293	0.0300	98	70-130	

Lab Batch #: 3154502 **Sample:** 7723848-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 05:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	70-130	
4-Bromofluorobenzene	0.0333	0.0300	111	70-130	

Lab Batch #: 3154502 **Sample:** 692032-008 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 06:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0334	0.0300	111	70-130	
4-Bromofluorobenzene	0.0348	0.0300	116	70-130	

Lab Batch #: 3154502 **Sample:** 692032-008 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 06:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0358	0.0300	119	70-130	
4-Bromofluorobenzene	0.0381	0.0300	127	70-130	

Lab Batch #: 3154502 **Sample:** 7723848-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 07:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	70-130	
4-Bromofluorobenzene	0.0247	0.0300	82	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692133

Project ID:

Lab Batch #: 3154388 **Sample:** 7723822-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 17:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	9.01	9.05	100	70-135	
o-Terphenyl	4.23	4.52	94	70-135	

Lab Batch #: 3154388 **Sample:** 7723822-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 17:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	12.1	9.04	134	70-135	
o-Terphenyl	5.03	4.52	111	70-135	

Lab Batch #: 3154388 **Sample:** 7723822-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 18:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	10.5	9.05	116	70-135	
o-Terphenyl	4.35	4.53	96	70-135	

Lab Batch #: 3154388 **Sample:** 691655-005 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 18:50

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	8.33	8.90	94	70-135	
o-Terphenyl	3.54	4.45	80	70-135	

Lab Batch #: 3154388 **Sample:** 691655-005 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 19:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.07	8.94	79	70-135	
o-Terphenyl	3.13	4.47	70	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692133 **Project ID:**

Analyst: KTL **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154502 **Sample:** 7723848-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.0997	100	0.100	0.104	104	4	70-130	25	
Toluene	<0.000367	0.100	0.0971	97	0.100	0.107	107	10	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0941	94	0.100	0.103	103	9	70-130	25	
m,p-Xylenes	<0.000630	0.200	0.192	96	0.200	0.210	105	9	70-130	25	
o-Xylene	<0.000642	0.100	0.0939	94	0.100	0.111	111	17	70-130	25	

Analyst: CHE **Date Prepared:** 03.21.2021 **Date Analyzed:** 03.21.2021

Lab Batch ID: 3154463 **Sample:** 7723846-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.0210	25.0	26.6	106	25.0	26.6	106	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692133 **Project ID:**

Analyst: CHE **Date Prepared:** 03.23.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154839 **Sample:** 7724108-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.0210	25.0	27.1	108	25.0	27.1	108	0	90-110	20	

Analyst: CHE **Date Prepared:** 03.17.2021 **Date Analyzed:** 03.17.2021

Lab Batch ID: 3154491 **Sample:** 3154491-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.0400	0.0427	107	0.0400	0.0428	107	0	85-115	20	

Analyst: DEP **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.22.2021

Lab Batch ID: 3154456 **Sample:** 7723830-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	<0.000246	0.100	0.103	103	0.100	0.102	102	1	80-120	20	
Barium	<0.000484	0.100	0.103	103	0.100	0.102	102	1	80-120	20	
Chromium	<0.000525	0.100	0.100	100	0.100	0.101	101	1	80-120	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692133 **Project ID:**

Analyst: DTH **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.22.2021

Lab Batch ID: 3154486 **Sample:** 3154486-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TDS by SM2540C Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Total Dissolved Solids	<25.0	1000	989	99	1000	990	99	0	90-110	10	

Analyst: ARM **Date Prepared:** 03.19.2021 **Date Analyzed:** 03.21.2021

Lab Batch ID: 3154388 **Sample:** 7723822-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	<0.893	90.4	107	118	90.5	106	117	1	70-135	20	
Diesel Range Organics	<0.825	90.4	105	116	90.5	95.9	106	9	70-135	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692133
Lab Batch ID: 3154502 **QC- Sample ID:** 692032-008 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.23.2021 **Date Prepared:** 03.22.2021 **Analyst:** KTL
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.111	111	0.100	0.122	122	9	70-130	25	
Toluene	0.00241	0.100	0.111	109	0.100	0.119	117	7	70-130	25	
Ethylbenzene	<0.000657	0.100	0.105	105	0.100	0.113	113	7	70-130	25	
m,p-Xylenes	0.00165	0.200	0.218	108	0.200	0.234	116	7	70-130	25	
o-Xylene	<0.000642	0.100	0.108	108	0.100	0.115	115	6	70-130	25	

Lab Batch ID: 3154463 **QC- Sample ID:** 692032-008 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.21.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	439	250	733	118	250	734	118	0	90-110	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692133

Lab Batch ID: 3154463 **QC- Sample ID:** 692296-004 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.21.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	977	500	1630	131	500	1640	133	1	90-110	20	X

Lab Batch ID: 3154839 **QC- Sample ID:** 692407-002 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.23.2021 **Date Prepared:** 03.23.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	158	250	461	121	250	461	121	0	90-110	20	X

Lab Batch ID: 3154491 **QC- Sample ID:** 692133-001 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.17.2021 **Date Prepared:** 03.17.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.200	0.172	86	0.200	0.172	86	0	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692133
Lab Batch ID: 3154456 **QC- Sample ID:** 692073-001 S **Batch #:** 1 **Matrix:** Ground Water
Date Analyzed: 03.22.2021 **Date Prepared:** 03.22.2021 **Analyst:** DEP
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	<0.000246	0.100	0.0963	96	0.100	0.0985	99	2	75-125	20	
Barium	<0.000484	0.100	0.121	121	0.100	0.122	122	1	75-125	20	
Chromium	<0.000525	0.100	0.0999	100	0.100	0.101	101	1	75-125	20	

Lab Batch ID: 3154388 **QC- Sample ID:** 691655-005 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.19.2021 **Analyst:** ARM
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	<0.879	89.0	85.0	96	89.4	69.6	78	20	70-135	20	
Diesel Range Organics	<0.812	89.0	77.6	87	89.4	68.0	76	13	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Method Duplicate

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Project Name: Eunice Project - S. Eunice

Work Order #: 692133 **Report Date:** 04022021

Lab Batch #: 3154486 **Project ID:**

Date Analyzed: 03.22.2021 11:35 **Date Prepared:** 03.22.2021 **Analyst:** DTH

QC- Sample ID: 692032-009 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY

TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	3680	3500	5	10	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

XENCO LABORATORIES

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: 692133

www.xenco.com Page 1 of 1

Project Manager:	Rebecca Andresen	Bill to: (if different)	
Company Name:	ARCADIS	Company Name:	
Address:	1004 N. Big Spring St.	Address:	
City, State ZIP:	Midland, TX. 79701	City, State ZIP:	
Phone:	303-471-3477	Email:	madisyn.frandsen@arcadis.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Eunice Project- S. Eunice	Turn Around	
Project Number:	30049612	Routine ☐	
P.O. Number:		Rush:	
Sampler's Name:	Tony S. Longwell	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	4.7	Thermometer ID	
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (EPA 8021B)	TPH (SW8015B)	Hex Chrome (SW7196A)	Dissolved Metals (SW6020_DIS): Chromium, Arsenic & Barium)	TDS (SM2540C)	Chlorides (EPA 300.0)
MW-35	W	03/17/21	0847		8	X	X	X	X	X	X
MW-3	W	03/17/21	0919		8	X	X	X	X	X	X
MWD-11	W	03/17/21	0946		8	X	X	X	X	X	X
TMW-1	W	03/17/21	1012		8	X	X	X	X	X	X
MWD-7	W	03/17/21	1117		8	X	X	X	X	X	X
DUP-3	W	03/17/21	—		8	X	X	X	X	X	X

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Tony S. Longwell	[signature]	03/17/21 / 1215	2 [signature]	[signature]	3/17/21 15:12
			4		
			6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number : 79627

Date/Time: 03.18.2021

Lab# From: **Midland**

Lab# To: **El Paso**

Created by: Brianna Teel

Delivery Priority:

Air Bill No.:

Please send report to: John Builes

Address: 1211 W. Florida Ave

E-Mail: john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692133-001	W	MW-35	03.17.2021 08:47	SM2540C	TDS by SM2540C	03.23.2021	03.24.2021	JHB	TDS	
692133-002	W	MW-3	03.17.2021 09:19	SM2540C	TDS by SM2540C	03.23.2021	03.24.2021	JHB	TDS	
692133-003	W	MW-11	03.17.2021 09:46	SM2540C	TDS by SM2540C	03.23.2021	03.24.2021	JHB	TDS	
692133-004	W	TMW-1	03.17.2021 10:12	SM2540C	TDS by SM2540C	03.23.2021	03.24.2021	JHB	TDS	
692133-005	W	MWD-7	03.17.2021 11:17	SM2540C	TDS by SM2540C	03.23.2021	03.24.2021	JHB	TDS	
692133-006	W	Dup-3	03.17.2021 00:00	SM2540C	TDS by SM2540C	03.23.2021	03.24.2021	JHB	TDS	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel

Brianna Teel

Date Relinquished: 03.18.2021

Received By:

Date Received:

Cooler Temperature:

Inter-Office Shipment

IOS Number : 79628

Date/Time:	03.18.2021	Created by:	Brianna Teel	Please send report to:	John Builes
Lab# From:	**Midland**	Delivery Priority:		Address:	1211 W. Florida Ave
Lab# To:	**Houston**	Air Bill No.:	773203929882	E-Mail:	john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692133-001	W	MW-35	03.17.2021 08:47	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.23.2021	09.13.2021	JHB	AS BA CR	
692133-002	W	MW-3	03.17.2021 09:19	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.23.2021	09.13.2021	JHB	AS BA CR	
692133-003	W	MW-11	03.17.2021 09:46	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.23.2021	09.13.2021	JHB	AS BA CR	
692133-004	W	TMW-1	03.17.2021 10:12	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.23.2021	09.13.2021	JHB	AS BA CR	
692133-005	W	MWD-7	03.17.2021 11:17	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.23.2021	09.13.2021	JHB	AS BA CR	
692133-006	W	Dup-3	03.17.2021 00:00	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.23.2021	09.13.2021	JHB	AS BA CR	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel

Date Relinquished: 03.18.2021

Received By: Jose Londono

Date Received: 03.19.2021

Cooler Temperature: 4.3

Environment Testing Xenco

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 79628

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : HOU-272

Sent By: Brianna Teel **Date Sent:** 03.18.2021 03.33 PM

Received By: Jose Londono **Date Received:** 03.19.2021 10.30 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Jose F. Londono

Jose Londono

Date: 03.19.2021

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Analytical Report 692132

for

ARCADIS

Project Manager: Sonja Zabienski

Eunice Project - S. Eunice

04.02.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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04.02.2021

Project Manager: **Sonja Zabienski**
ARCADIS
1004 N. Big Spring St.
Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **692132**
Eunice Project - S. Eunice
Project Address:

Sonja Zabienski:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 692132. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 692132 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

John Builes
Project Manager

A Small Business and Minority Company

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Sample Cross Reference 692132

ARCADIS, Midland, TX

Eunice Project - S. Eunice

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-8	W	03.17.2021 08:45		692132-001
MW-12	W	03.17.2021 09:20		692132-002
MWD-13	W	03.17.2021 09:55		692132-003
MWD-4	W	03.17.2021 10:40		692132-004
RW-6	W	03.17.2021 11:20		692132-005

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CASE NARRATIVE

Client Name: ARCADIS

Project Name: Eunice Project - S. Eunice

Project ID:
Work Order Number(s): *692132*

Report Date: *04.02.2021*
Date Received: *03.17.2021*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3154502 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 692132-005,692132-001.

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Certificate of Analytical Results
692132
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-8** Matrix: Water Sample Depth:
Lab Sample Id: 692132-001 Date Collected: 03.17.2021 08:45 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**506**	10.0	0.421	mg/L	03.21.2021 19:01		20

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2520**	100	100	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0338**	0.00400	0.000246	mg/L	03.20.2021 21:19		1
Barium	7440-39-3	**0.0648**	0.00400	0.000484	mg/L	03.20.2021 21:19		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:19	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154489 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:02	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-8** Matrix: Water Sample Depth:

Lab Sample Id: 692132-001 Date Collected: 03.17.2021 08:45 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.890	2.25	0.890	mg/L	03.21.2021 22:03	U	1
Diesel Range Organics	C10C28DRO	<0.822	2.25	0.822	mg/L	03.21.2021 22:03	U	1
Oil Range Hydrocarbons	PHCG2835	<0.822	2.25	0.822	mg/L	03.21.2021 22:03	U	1
Total TPH	PHC635	<0.822	2.25	0.822	mg/L	03.21.2021 22:03	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	89	70 - 135	%		
o-Terphenyl	81	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 09:14	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 09:14	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 09:14	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 09:14	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 09:14	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 09:14	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 09:14	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	121	70 - 130	%		
4-Bromofluorobenzene	131	70 - 130	%		**

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Certificate of Analytical Results
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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-12** Matrix: Water Sample Depth:
Lab Sample Id: 692132-002 Date Collected: 03.17.2021 09:20 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**918**	25.0	1.05	mg/L	03.21.2021 19:06		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**3070**	100	100	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0429**	0.00400	0.000246	mg/L	03.20.2021 21:22		1
Barium	7440-39-3	**0.314**	0.00400	0.000484	mg/L	03.20.2021 21:22		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:22	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154489 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:02	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-12** Matrix: Water Sample Depth:

Lab Sample Id: 692132-002 Date Collected: 03.17.2021 09:20 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.881	2.23	0.881	mg/L	03.21.2021 22:24	U	1
Diesel Range Organics	C10C28DRO	**0.930**	2.23	0.814	mg/L	03.21.2021 22:24	J	1
Oil Range Hydrocarbons	PHCG2835	<0.814	2.23	0.814	mg/L	03.21.2021 22:24	U	1
Total TPH	PHC635	**0.930**	2.23	0.814	mg/L	03.21.2021 22:24	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	101	70 - 135	%		
o-Terphenyl	91	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00160**	0.00200	0.000408	mg/L	03.23.2021 09:39	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 09:39	U	1
Ethylbenzene	100-41-4	**0.0301**	0.00200	0.000657	mg/L	03.23.2021 09:39		1
m,p-Xylenes	179601-23-1	**0.00377**	0.00400	0.000630	mg/L	03.23.2021 09:39	J	1
o-Xylene	95-47-6	**0.00259**	0.00200	0.000642	mg/L	03.23.2021 09:39		1
Total Xylenes	1330-20-7	**0.00636**	0.00200	0.000630	mg/L	03.23.2021 09:39		1
Total BTEX		**0.0381**	0.00200	0.000367	mg/L	03.23.2021 09:39		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	111	70 - 130	%		
4-Bromofluorobenzene	128	70 - 130	%		

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Certificate of Analytical Results
692132
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-13** Matrix: Water Sample Depth:
Lab Sample Id: 692132-003 Date Collected: 03.17.2021 09:55 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1120**	25.0	1.05	mg/L	03.21.2021 19:11		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**5450**	250	250	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0526**	0.00400	0.000246	mg/L	03.20.2021 21:25		1
Barium	7440-39-3	**0.0877**	0.00400	0.000484	mg/L	03.20.2021 21:25		1
Chromium	7440-47-3	**0.00168**	0.00400	0.000525	mg/L	03.20.2021 21:25	J	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154489 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:02	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-13** Matrix: Water Sample Depth:

Lab Sample Id: 692132-003 Date Collected: 03.17.2021 09:55 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.875	2.22	0.875	mg/L	03.21.2021 23:07	U	1
Diesel Range Organics	C10C28DRO	<0.809	2.22	0.809	mg/L	03.21.2021 23:07	U	1
Oil Range Hydrocarbons	PHCG2835	<0.809	2.22	0.809	mg/L	03.21.2021 23:07	U	1
Total TPH	PHC635	<0.809	2.22	0.809	mg/L	03.21.2021 23:07	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	86	70 - 135	%		
o-Terphenyl	80	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 10:04	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 10:04	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 10:04	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 10:04	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 10:04	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 10:04	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 10:04	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	89	70 - 130	%		
4-Bromofluorobenzene	90	70 - 130	%		

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-4** Matrix: Water Sample Depth:
Lab Sample Id: 692132-004 Date Collected: 03.17.2021 10:40 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**44.3**	5.00	0.210	mg/L	03.21.2021 19:26		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1020**	25.0	25.0	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00212**	0.00400	0.000246	mg/L	03.20.2021 21:28	J	1
Barium	7440-39-3	**0.0742**	0.00400	0.000484	mg/L	03.20.2021 21:28		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:28	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154489 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:02	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-4** Matrix: Water Sample Depth:

Lab Sample Id: 692132-004 Date Collected: 03.17.2021 10:40 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.897	2.27	0.897	mg/L	03.21.2021 23:28	U	1
Diesel Range Organics	C10C28DRO	<0.828	2.27	0.828	mg/L	03.21.2021 23:28	U	1
Oil Range Hydrocarbons	PHCG2835	<0.828	2.27	0.828	mg/L	03.21.2021 23:28	U	1
Total TPH	PHC635	<0.828	2.27	0.828	mg/L	03.21.2021 23:28	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	104	70 - 135	%		
o-Terphenyl	96	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 10:29	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 10:29	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 10:29	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 10:29	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 10:29	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 10:29	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 10:29	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	113	70 - 130	%		
4-Bromofluorobenzene	116	70 - 130	%		

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Certificate of Analytical Results
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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **RW-6** Matrix: Water Sample Depth:
Lab Sample Id: 692132-005 Date Collected: 03.17.2021 11:20 Date Received: 03.17.2021 15:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**929**	10.0	0.421	mg/L	03.21.2021 19:31		20

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2570**	100	100	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00300**	0.00400	0.000246	mg/L	03.20.2021 21:31	J	1
Barium	7440-39-3	**1.75**	0.00400	0.000484	mg/L	03.20.2021 21:31		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:31	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154489 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:02	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **RW-6** Matrix: Water Sample Depth:

Lab Sample Id: 692132-005 Date Collected: 03.17.2021 11:20 Date Received: 03.17.2021 15:12

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**2.36**	2.31	0.914	mg/L	03.21.2021 23:50		1
Diesel Range Organics	C10C28DRO	<0.845	2.31	0.845	mg/L	03.21.2021 23:50	U	1
Oil Range Hydrocarbons	PHCG2835	<0.845	2.31	0.845	mg/L	03.21.2021 23:50	U	1
Total TPH	PHC635	**2.36**	2.31	0.845	mg/L	03.21.2021 23:50		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 135	%		
o-Terphenyl	79	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0424**	0.00200	0.000408	mg/L	03.23.2021 10:55		1
Toluene	108-88-3	**0.00122**	0.00200	0.000367	mg/L	03.23.2021 10:55	J	1
Ethylbenzene	100-41-4	**0.00100**	0.00200	0.000657	mg/L	03.23.2021 10:55	J	1
m,p-Xylenes	179601-23-1	**0.00339**	0.00400	0.000630	mg/L	03.23.2021 10:55	J	1
o-Xylene	95-47-6	**0.0109**	0.00200	0.000642	mg/L	03.23.2021 10:55		1
Total Xylenes	1330-20-7	**0.0143**	0.00200	0.000630	mg/L	03.23.2021 10:55		1
Total BTEX		**0.0589**	0.00200	0.000367	mg/L	03.23.2021 10:55		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	112	70 - 130	%		
4-Bromofluorobenzene	149	70 - 130	%		**

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Certificate of Analytical Results
692132
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **3154486-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 3154486-1-BLK Date Collected: Date Received:
Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	<12.5	12.5	12.5	mg/L	03.22.2021 11:35	U	1

Sample Id: **3154489-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 3154489-1-BLK Date Collected: Date Received:
Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154489 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.17.2021 18:02	U	1

Sample Id: **7723750-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723750-1-BLK Date Collected: Date Received:
Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	<0.000246	0.00400	0.000246	mg/L	03.20.2021 20:07	U	1
Barium	7440-39-3	<0.000484	0.00400	0.000484	mg/L	03.20.2021 20:07	U	1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:07	U	1

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Certificate of Analytical Results
692132
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7723822-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723822-1-BLK Date Collected: Date Received:
Analytical Method: TPH By SW8015 Mod Prep Method: 8015
Analyst: ARM % Moist:
Seq Number: 3154388 Date Prep: 03.19.2021 12:00 Tech: ARM
Prep seq: 7723822

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	<0.894	2.26	0.894	mg/L	03.21.2021 17:23	U	1
Diesel Range Organics	C10C28DRO	<0.826	2.26	0.826	mg/L	03.21.2021 17:23	U	1
Oil Range Hydrocarbons	PHCG2835	<0.826	2.26	0.826	mg/L	03.21.2021 17:23	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	100	70 - 135	%		
o-Terphenyl	94	70 - 135	%		

Sample Id: **7723846-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723846-1-BLK Date Collected: Date Received:
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.0210	0.500	0.0210	mg/L	03.21.2021 18:26	U	1

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Certificate of Analytical Results
692132
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7723848-1-BLK**
Matrix: Water
Sample Depth:
Lab Sample Id: 7723848-1-BLK
Date Collected:
Date Received:
Analytical Method: BTEX by EPA 8021B
Prep Method: 5030B
Analyst: KTL
% Moist:
Seq Number: 3154502
Date Prep: 03.22.2021 15:15
Tech: KTL
Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 07:58	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:58	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 07:58	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 07:58	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 07:58	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	91	70 - 130	%		
4-Bromofluorobenzene	82	70 - 130	%		

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692132

Project ID:

Lab Batch #: 3154502 **Sample:** 7723848-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 05:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	70-130	
4-Bromofluorobenzene	0.0293	0.0300	98	70-130	

Lab Batch #: 3154502 **Sample:** 7723848-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 05:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	70-130	
4-Bromofluorobenzene	0.0333	0.0300	111	70-130	

Lab Batch #: 3154502 **Sample:** 692032-008 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 06:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0334	0.0300	111	70-130	
4-Bromofluorobenzene	0.0348	0.0300	116	70-130	

Lab Batch #: 3154502 **Sample:** 692032-008 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 06:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0358	0.0300	119	70-130	
4-Bromofluorobenzene	0.0381	0.0300	127	70-130	

Lab Batch #: 3154502 **Sample:** 7723848-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 07:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	70-130	
4-Bromofluorobenzene	0.0247	0.0300	82	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692132

Project ID:

Lab Batch #: 3154388 **Sample:** 7723822-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 17:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	9.01	9.05	100	70-135	
o-Terphenyl	4.23	4.52	94	70-135	

Lab Batch #: 3154388 **Sample:** 7723822-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 17:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	12.1	9.04	134	70-135	
o-Terphenyl	5.03	4.52	111	70-135	

Lab Batch #: 3154388 **Sample:** 7723822-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 18:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	10.5	9.05	116	70-135	
o-Terphenyl	4.35	4.53	96	70-135	

Lab Batch #: 3154388 **Sample:** 691655-005 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 18:50

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	8.33	8.90	94	70-135	
o-Terphenyl	3.54	4.45	80	70-135	

Lab Batch #: 3154388 **Sample:** 691655-005 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 19:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.07	8.94	79	70-135	
o-Terphenyl	3.13	4.47	70	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692132 **Project ID:**

Analyst: KTL **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154502 **Sample:** 7723848-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.0997	100	0.100	0.104	104	4	70-130	25	
Toluene	<0.000367	0.100	0.0971	97	0.100	0.107	107	10	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0941	94	0.100	0.103	103	9	70-130	25	
m,p-Xylenes	<0.000630	0.200	0.192	96	0.200	0.210	105	9	70-130	25	
o-Xylene	<0.000642	0.100	0.0939	94	0.100	0.111	111	17	70-130	25	

Analyst: CHE **Date Prepared:** 03.21.2021 **Date Analyzed:** 03.21.2021

Lab Batch ID: 3154463 **Sample:** 7723846-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.0210	25.0	26.6	106	25.0	26.6	106	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692132 **Project ID:**

Analyst: CHE **Date Prepared:** 03.17.2021 **Date Analyzed:** 03.17.2021

Lab Batch ID: 3154489 **Sample:** 3154489-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.0400	0.0428	107	0.0400	0.0426	107	0	85-115	20	

Analyst: DEP **Date Prepared:** 03.20.2021 **Date Analyzed:** 03.20.2021

Lab Batch ID: 3154319 **Sample:** 7723750-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	<0.000246	0.100	0.0979	98	0.100	0.0974	97	1	80-120	20	
Barium	<0.000484	0.100	0.0976	98	0.100	0.0987	99	1	80-120	20	
Chromium	<0.000525	0.100	0.0970	97	0.100	0.0963	96	1	80-120	20	

Analyst: DTH **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.22.2021

Lab Batch ID: 3154486 **Sample:** 3154486-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TDS by SM2540C Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Total Dissolved Solids	<25.0	1000	989	99	1000	990	99	0	90-110	10	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692132 **Project ID:**

Analyst: ARM **Date Prepared:** 03.19.2021 **Date Analyzed:** 03.21.2021

Lab Batch ID: 3154388 **Sample:** 7723822-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	<0.893	90.4	107	118	90.5	106	117	1	70-135	20	
Diesel Range Organics	<0.825	90.4	105	116	90.5	95.9	106	9	70-135	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692132
Lab Batch ID: 3154502 **QC- Sample ID:** 692032-008 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.23.2021 **Date Prepared:** 03.22.2021 **Analyst:** KTL
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.111	111	0.100	0.122	122	9	70-130	25	
Toluene	0.00241	0.100	0.111	109	0.100	0.119	117	7	70-130	25	
Ethylbenzene	<0.000657	0.100	0.105	105	0.100	0.113	113	7	70-130	25	
m,p-Xylenes	0.00165	0.200	0.218	108	0.200	0.234	116	7	70-130	25	
o-Xylene	<0.000642	0.100	0.108	108	0.100	0.115	115	6	70-130	25	

Lab Batch ID: 3154463 **QC- Sample ID:** 692032-008 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.21.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	439	250	733	118	250	734	118	0	90-110	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692132
Lab Batch ID: 3154463 **QC- Sample ID:** 692296-004 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.21.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	977	500	1630	131	500	1640	133	1	90-110	20	X

Lab Batch ID: 3154489 **QC- Sample ID:** 692132-003 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.17.2021 **Date Prepared:** 03.17.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.200	0.170	85	0.200	0.170	85	0	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692132
Lab Batch ID: 3154319 **QC- Sample ID:** 692031-006 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.20.2021 **Date Prepared:** 03.20.2021 **Analyst:** DEP
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	0.00288	0.100	0.102	99	0.100	0.102	99	0	75-125	20	
Barium <03/23/2021 12:41>	8.40	0.100	8.35	0	0.100	8.37	0	0	75-125	20	X
Chromium	<0.000525	0.100	0.0989	99	0.100	0.0995	100	1	75-125	20	

Lab Batch ID: 3154388 **QC- Sample ID:** 691655-005 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.19.2021 **Analyst:** ARM
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	<0.879	89.0	85.0	96	89.4	69.6	78	20	70-135	20	
Diesel Range Organics	<0.812	89.0	77.6	87	89.4	68.0	76	13	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Method Duplicate

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Project Name: Eunice Project - S. Eunice

Work Order #: 692132 **Report Date:** 04022021

Lab Batch #: 3154486 **Project ID:**

Date Analyzed: 03.22.2021 11:35 **Date Prepared:** 03.22.2021 **Analyst:** DTH

QC- Sample ID: 692032-009 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY

TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	3680	3500	5	10	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

XENCO LABORATORIES

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: 692132

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Project Manager:	Rebecca Andresen	Bill to: (if different)	
Company Name:	ARCADIS	Company Name:	
Address:	1004 N. Big Spring St.	Address:	
City, State ZIP:	Midland, TX. 79701	City, State ZIP:	
Phone:	303-471-3477	Email:	madisyn.frandsen@arcadis.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Eunice Project- S. Eunice	Turn Around	
Project Number:	30049612	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	J. Steinmann	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	(Yes) No
Temperature (°C):	4.7	Thermometer ID	
Received Intact:	Yes No	FR8	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (EPA 8021B)	TPH (SW8015B)	Hex Chrome (SW7196A)	Dissolved Metals (SW6020_DIS): Chromium, Arsenic & Barium)	TDS (SM2540C)	Chlorides (EPA 300.0)
MW-8	W	3/17/21	0845	—	8						
MWD-12			0920	—	8						
MWD-13			0955	—	8						
MWD-4			1040	—	8						
RW-6			1120	—	8						

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		3/17/21 15:12	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number : 79625

Date/Time: 03.18.2021

Lab# From: **Midland**

Lab# To: **El Paso**

Created by: Brianna Teel

Delivery Priority:

Air Bill No.:

Please send report to: John Builes

Address: 1211 W. Florida Ave

E-Mail: john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692132-001	W	MW-8	03.17.2021 08:45	SM2540C	TDS by SM2540C	03.23.2021	03.24.2021	JHB	TDS	
692132-002	W	MW-12	03.17.2021 09:20	SM2540C	TDS by SM2540C	03.23.2021	03.24.2021	JHB	TDS	
692132-003	W	MWD-13	03.17.2021 09:55	SM2540C	TDS by SM2540C	03.23.2021	03.24.2021	JHB	TDS	
692132-004	W	MWD-4	03.17.2021 10:40	SM2540C	TDS by SM2540C	03.23.2021	03.24.2021	JHB	TDS	
692132-005	W	RW-6	03.17.2021 11:20	SM2540C	TDS by SM2540C	03.23.2021	03.24.2021	JHB	TDS	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel

Brianna Teel

Date Relinquished: 03.18.2021

Received By:

Date Received:

Cooler Temperature:

Inter-Office Shipment

IOS Number : 79626

Date/Time:	03.17.2021	Created by:	Brianna Teel	Please send report to:	John Builes
Lab# From:	**Midland**	Delivery Priority:		Address:	1211 W. Florida Ave
Lab# To:	**Houston**	Air Bill No.:	773192009543	E-Mail:	john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692132-001	W	MW-8	03.17.2021 08:45	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.23.2021	09.13.2021	JHB	AS BA CR	
692132-002	W	MW-12	03.17.2021 09:20	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.23.2021	09.13.2021	JHB	AS BA CR	
692132-003	W	MWD-13	03.17.2021 09:55	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.23.2021	09.13.2021	JHB	AS BA CR	
692132-004	W	MWD-4	03.17.2021 10:40	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.23.2021	09.13.2021	JHB	AS BA CR	
692132-005	W	RW-6	03.17.2021 11:20	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	03.23.2021	09.13.2021	JHB	AS BA CR	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel

Date Relinquished: 03.17.2021

Received By: Jose Londono

Date Received: 03.19.2021

Cooler Temperature: 4.3

Environment Testing Xenco

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 79626

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : HOU-272

Sent By: Brianna Teel **Date Sent:** 03.17.2021 03.28 PM

Received By: Jose Londono **Date Received:** 03.19.2021 10.30 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Jose F. Londono

Jose Londono

Date: 03.19.2021

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Analytical Report 692032

for

ARCADIS

Project Manager: Sonja Zabienski

Eunice Project - S. Eunice

04.02.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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04.02.2021

Project Manager: **Sonja Zabienski**
ARCADIS
1004 N. Big Spring St.
Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **692032**
Eunice Project - S. Eunice
Project Address:

Sonja Zabienski:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 692032. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 692032 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

John Builes
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 692032

ARCADIS, Midland, TX

Eunice Project - S. Eunice

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-15	W	03.16.2021 09:05		692032-001
MW-16	W	03.16.2021 09:54		692032-002
MW-03	W	03.16.2021 10:35		692032-003
MW-31	W	03.16.2021 11:10		692032-004
MW-14	W	03.16.2021 11:54		692032-005
MW-32	W	03.16.2021 13:24		692032-006
MW-38	W	03.16.2021 13:52		692032-007
MW-36	W	03.16.2021 14:14		692032-008
DUP-2	W	03.16.2021 00:00		692032-009

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CASE NARRATIVE

Client Name: ARCADIS

Project Name: Eunice Project - S. Eunice

Project ID:
Work Order Number(s): *692032*

Report Date: *04.02.2021*
Date Received: *03.16.2021*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3154382 TPH By SW8015 Mod

Detection in the gasoline range in the method blank, data acceptable due to detection being .5<RL.

Batch: LBA-3154463 Chloride by EPA 300

Lab Sample ID 692296-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 692032-008, -009.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-15** Matrix: Water Sample Depth:
Lab Sample Id: 692032-001 Date Collected: 03.16.2021 09:05 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1310**	25.0	1.05	mg/L	03.21.2021 17:41		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**3140**	100	100	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0115**	0.00400	0.000246	mg/L	03.20.2021 20:47		1
Barium	7440-39-3	**0.0454**	0.00400	0.000484	mg/L	03.20.2021 20:47		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:47	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-15** Matrix: Water Sample Depth:

Lab Sample Id: 692032-001 Date Collected: 03.16.2021 09:05 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.83**	2.26	0.893	mg/L	03.21.2021 23:07	BJ	1
Diesel Range Organics	C10C28DRO	<0.825	2.26	0.825	mg/L	03.21.2021 23:07	U	1
Oil Range Hydrocarbons	PHCG2835	<0.825	2.26	0.825	mg/L	03.21.2021 23:07	U	1
Total TPH	PHC635	**1.83**	2.26	0.825	mg/L	03.21.2021 23:07	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	112	70 - 135	%		
o-Terphenyl	126	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00622**	0.00200	0.000408	mg/L	03.23.2021 06:48		1
Toluene	108-88-3	**0.00303**	0.00200	0.000367	mg/L	03.23.2021 06:48		1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 06:48	U	1
m,p-Xylenes	179601-23-1	**0.00246**	0.00400	0.000630	mg/L	03.23.2021 06:48	J	1
o-Xylene	95-47-6	**0.00193**	0.00200	0.000642	mg/L	03.23.2021 06:48	J	1
Total Xylenes	1330-20-7	**0.00439**	0.00200	0.000630	mg/L	03.23.2021 06:48		1
Total BTEX		**0.0136**	0.00200	0.000367	mg/L	03.23.2021 06:48		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	104	70 - 130	%		
4-Bromofluorobenzene	101	70 - 130	%		

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-16** Matrix: Water Sample Depth:
Lab Sample Id: 692032-002 Date Collected: 03.16.2021 09:54 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1290**	25.0	1.05	mg/L	03.21.2021 17:46		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**3880**	100	100	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0130**	0.00400	0.000246	mg/L	03.20.2021 20:50		1
Barium	7440-39-3	**0.0375**	0.00400	0.000484	mg/L	03.20.2021 20:50		1
Chromium	7440-47-3	**0.102**	0.00400	0.000525	mg/L	03.20.2021 20:50		1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	**0.103**	0.0100	0.00273	mg/L	03.16.2021 21:20		1

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-16** Matrix: Water Sample Depth:

Lab Sample Id: 692032-002 Date Collected: 03.16.2021 09:54 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.80**	2.26	0.892	mg/L	03.21.2021 23:28	BJ	1
Diesel Range Organics	C10C28DRO	<0.824	2.26	0.824	mg/L	03.21.2021 23:28	U	1
Oil Range Hydrocarbons	PHCG2835	<0.824	2.26	0.824	mg/L	03.21.2021 23:28	U	1
Total TPH	PHC635	**1.80**	2.26	0.824	mg/L	03.21.2021 23:28	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	102	70 - 135	%		
o-Terphenyl	114	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 07:08	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:08	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 07:08	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 07:08	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 07:08	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 07:08	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:08	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	107	70 - 130	%		
4-Bromofluorobenzene	101	70 - 130	%		

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-03** Matrix: Water Sample Depth:
Lab Sample Id: 692032-003 Date Collected: 03.16.2021 10:35 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**370**	5.00	0.210	mg/L	03.21.2021 17:51		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1510**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0158**	0.00400	0.000246	mg/L	03.20.2021 20:53		1
Barium	7440-39-3	**0.0908**	0.00400	0.000484	mg/L	03.20.2021 20:53		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:53	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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Eunice Project - S. Eunice

Sample Id: **MW-03** Matrix: Water Sample Depth:

Lab Sample Id: 692032-003 Date Collected: 03.16.2021 10:35 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.69**	2.26	0.894	mg/L	03.21.2021 23:50	BJ	1
Diesel Range Organics	C10C28DRO	<0.826	2.26	0.826	mg/L	03.21.2021 23:50	U	1
Oil Range Hydrocarbons	PHCG2835	<0.826	2.26	0.826	mg/L	03.21.2021 23:50	U	1
Total TPH	PHC635	**1.69**	2.26	0.826	mg/L	03.21.2021 23:50	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	112	70 - 135	%		
o-Terphenyl	123	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 07:29	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:29	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 07:29	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 07:29	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 07:29	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 07:29	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:29	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	95	70 - 130	%		

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Eunice Project - S. Eunice

Sample Id: **MW-31** Matrix: Water Sample Depth:
Lab Sample Id: 692032-004 Date Collected: 03.16.2021 11:10 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**482**	5.00	0.210	mg/L	03.21.2021 17:56		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1160**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0411**	0.00400	0.000246	mg/L	03.20.2021 20:56		1
Barium	7440-39-3	**0.414**	0.00400	0.000484	mg/L	03.20.2021 20:56		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:56	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-31** Matrix: Water Sample Depth:

Lab Sample Id: 692032-004 Date Collected: 03.16.2021 11:10 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.74**	2.27	0.895	mg/L	03.22.2021 00:11	BJ	1
Diesel Range Organics	C10C28DRO	<0.827	2.27	0.827	mg/L	03.22.2021 00:11	U	1
Oil Range Hydrocarbons	PHCG2835	<0.827	2.27	0.827	mg/L	03.22.2021 00:11	U	1
Total TPH	PHC635	**1.74**	2.27	0.827	mg/L	03.22.2021 00:11	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	103	70 - 135	%		
o-Terphenyl	114	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 07:50	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:50	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 07:50	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 07:50	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 07:50	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 07:50	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:50	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	91	70 - 130	%		

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-14** Matrix: Water Sample Depth:
Lab Sample Id: 692032-005 Date Collected: 03.16.2021 11:54 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**550**	5.00	0.210	mg/L	03.21.2021 18:01		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1650**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00760**	0.00400	0.000246	mg/L	03.20.2021 20:59		1
Barium	7440-39-3	**0.0877**	0.00400	0.000484	mg/L	03.20.2021 20:59		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:59	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-14** Matrix: Water Sample Depth:

Lab Sample Id: 692032-005 Date Collected: 03.16.2021 11:54 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.76**	2.27	0.898	mg/L	03.22.2021 00:32	BJ	1
Diesel Range Organics	C10C28DRO	<0.830	2.27	0.830	mg/L	03.22.2021 00:32	U	1
Oil Range Hydrocarbons	PHCG2835	<0.830	2.27	0.830	mg/L	03.22.2021 00:32	U	1
Total TPH	PHC635	**1.76**	2.27	0.830	mg/L	03.22.2021 00:32	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	98	70 - 135	%		
o-Terphenyl	110	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 08:10	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:10	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 08:10	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 08:10	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 08:10	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 08:10	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:10	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	104	70 - 130	%		
4-Bromofluorobenzene	99	70 - 130	%		

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-32** Matrix: Water Sample Depth:
Lab Sample Id: 692032-006 Date Collected: 03.16.2021 13:24 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**357**	5.00	0.210	mg/L	03.21.2021 18:06		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1060**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00840**	0.00400	0.000246	mg/L	03.20.2021 21:07		1
Barium	7440-39-3	**0.465**	0.00400	0.000484	mg/L	03.20.2021 21:07		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:07	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-32** Matrix: Water Sample Depth:

Lab Sample Id: 692032-006 Date Collected: 03.16.2021 13:24 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.69**	2.25	0.890	mg/L	03.22.2021 00:54	BJ	1
Diesel Range Organics	C10C28DRO	<0.822	2.25	0.822	mg/L	03.22.2021 00:54	U	1
Oil Range Hydrocarbons	PHCG2835	<0.822	2.25	0.822	mg/L	03.22.2021 00:54	U	1
Total TPH	PHC635	**1.69**	2.25	0.822	mg/L	03.22.2021 00:54	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	111	70 - 135	%		
o-Terphenyl	122	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 08:31	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:31	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 08:31	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 08:31	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 08:31	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 08:31	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:31	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	99	70 - 130	%		

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Eunice Project - S. Eunice

Sample Id: **MW-38** Matrix: Water Sample Depth:
Lab Sample Id: 692032-007 Date Collected: 03.16.2021 13:52 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**585**	10.0	0.421	mg/L	03.21.2021 18:11		20

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2040**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00874**	0.00400	0.000246	mg/L	03.20.2021 21:10		1
Barium	7440-39-3	**0.0736**	0.00400	0.000484	mg/L	03.20.2021 21:10		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:10	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-38** Matrix: Water Sample Depth:

Lab Sample Id: 692032-007 Date Collected: 03.16.2021 13:52 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.55**	2.28	0.902	mg/L	03.22.2021 01:15	BJ	1
Diesel Range Organics	C10C28DRO	<0.833	2.28	0.833	mg/L	03.22.2021 01:15	U	1
Oil Range Hydrocarbons	PHCG2835	<0.833	2.28	0.833	mg/L	03.22.2021 01:15	U	1
Total TPH	PHC635	**1.55**	2.28	0.833	mg/L	03.22.2021 01:15	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	98	70 - 135	%		
o-Terphenyl	111	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 08:52	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:52	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 08:52	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 08:52	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 08:52	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 08:52	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:52	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	104	70 - 130	%		
4-Bromofluorobenzene	100	70 - 130	%		

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-36** Matrix: Water Sample Depth:
Lab Sample Id: 692032-008 Date Collected: 03.16.2021 14:14 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**439**	5.00	0.210	mg/L	03.21.2021 18:41	X	10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1370**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00856**	0.00400	0.000246	mg/L	03.20.2021 21:13		1
Barium	7440-39-3	**0.115**	0.00400	0.000484	mg/L	03.20.2021 21:13		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:13	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-36** Matrix: Water Sample Depth:

Lab Sample Id: 692032-008 Date Collected: 03.16.2021 14:14 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.43**	2.28	0.901	mg/L	03.22.2021 01:36	BJ	1
Diesel Range Organics	C10C28DRO	<0.832	2.28	0.832	mg/L	03.22.2021 01:36	U	1
Oil Range Hydrocarbons	PHCG2835	<0.832	2.28	0.832	mg/L	03.22.2021 01:36	U	1
Total TPH	PHC635	**1.43**	2.28	0.832	mg/L	03.22.2021 01:36	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	94	70 - 135	%		
o-Terphenyl	109	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 08:23	U	1
Toluene	108-88-3	**0.00241**	0.00200	0.000367	mg/L	03.23.2021 08:23		1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 08:23	U	1
m,p-Xylenes	179601-23-1	**0.00165**	0.00400	0.000630	mg/L	03.23.2021 08:23	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 08:23	U	1
Total Xylenes	1330-20-7	**0.00165**	0.00200	0.000630	mg/L	03.23.2021 08:23	J	1
Total BTEX		**0.00406**	0.00200	0.000367	mg/L	03.23.2021 08:23		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	118	70 - 130	%		

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **DUP-2** Matrix: Water Sample Depth:
Lab Sample Id: 692032-009 Date Collected: 03.16.2021 00:00 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**968**	25.0	1.05	mg/L	03.21.2021 18:56		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**3680**	100	100	mg/L	03.22.2021 11:35		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0113**	0.00400	0.000246	mg/L	03.20.2021 21:16		1
Barium	7440-39-3	**0.0450**	0.00400	0.000484	mg/L	03.20.2021 21:16		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 21:16	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **DUP-2** Matrix: Water Sample Depth:

Lab Sample Id: 692032-009 Date Collected: 03.16.2021 00:00 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.46**	2.25	0.888	mg/L	03.22.2021 01:58	BJ	1
Diesel Range Organics	C10C28DRO	<0.821	2.25	0.821	mg/L	03.22.2021 01:58	U	1
Oil Range Hydrocarbons	PHCG2835	<0.821	2.25	0.821	mg/L	03.22.2021 01:58	U	1
Total TPH	PHC635	**1.46**	2.25	0.821	mg/L	03.22.2021 01:58	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	103	70 - 135	%		
o-Terphenyl	119	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154502 Date Prep: 03.22.2021 15:15 Tech: KTL

Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 08:49	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:49	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 08:49	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 08:49	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 08:49	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 08:49	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 08:49	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	106	70 - 130	%		
4-Bromofluorobenzene	107	70 - 130	%		

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **3154346-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 3154346-1-BLK Date Collected: Date Received:
Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	<12.5	12.5	12.5	mg/L	03.19.2021 17:00	U	1

Sample Id: **3154486-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 3154486-1-BLK Date Collected: Date Received:
Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154486 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	<12.5	12.5	12.5	mg/L	03.22.2021 11:35	U	1

Sample Id: **3154488-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 3154488-1-BLK Date Collected: Date Received:
Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154488 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:20	U	1

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7723750-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723750-1-BLK Date Collected: Date Received:
Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	<0.000246	0.00400	0.000246	mg/L	03.20.2021 20:07	U	1
Barium	7440-39-3	<0.000484	0.00400	0.000484	mg/L	03.20.2021 20:07	U	1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:07	U	1

Sample Id: **7723821-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723821-1-BLK Date Collected: Date Received:
Analytical Method: TPH By SW8015 Mod Prep Method: 8015
Analyst: ARM % Moist:
Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM
Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.33**	2.26	0.894	mg/L	03.21.2021 17:23	BJ	1
Diesel Range Organics	C10C28DRO	<0.825	2.26	0.825	mg/L	03.21.2021 17:23	U	1
Oil Range Hydrocarbons	PHCG2835	<0.825	2.26	0.825	mg/L	03.21.2021 17:23	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	105	70 - 135	%		
o-Terphenyl	121	70 - 135	%		

Sample Id: **7723842-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723842-1-BLK Date Collected: Date Received:
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.0210	0.500	0.0210	mg/L	03.21.2021 15:41	U	1

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692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7723844-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723844-1-BLK Date Collected: Date Received:
Analytical Method: BTEX by EPA 8021B Prep Method: 5030B
Analyst: KTL % Moist:
Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL
Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 00:56	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 00:56	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 00:56	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 00:56	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 00:56	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	93	70 - 130	%		
4-Bromofluorobenzene	118	70 - 130	%		

Sample Id: **7723846-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723846-1-BLK Date Collected: Date Received:
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154463 Date Prep: 03.21.2021 12:00 Tech: CHE
Prep seq: 7723846

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.0210	0.500	0.0210	mg/L	03.21.2021 18:26	U	1

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Certificate of Analytical Results
692032
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7723848-1-BLK**
Matrix: Water
Sample Depth:
Lab Sample Id: 7723848-1-BLK
Date Collected:
Date Received:
Analytical Method: BTEX by EPA 8021B
Prep Method: 5030B
Analyst: KTL
% Moist:
Seq Number: 3154502
Date Prep: 03.22.2021 15:15
Tech: KTL
Prep seq: 7723848

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 07:58	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 07:58	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 07:58	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 07:58	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 07:58	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	91	70 - 130	%		
4-Bromofluorobenzene	82	70 - 130	%		

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692032

Project ID:

Lab Batch #: 3154452 **Sample:** 7723844-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.22.2021 22:55

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0299	0.0300	100	70-130	

Lab Batch #: 3154452 **Sample:** 7723844-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.22.2021 23:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	70-130	
4-Bromofluorobenzene	0.0281	0.0300	94	70-130	

Lab Batch #: 3154452 **Sample:** 691739-014 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 03.22.2021 23:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	70-130	
4-Bromofluorobenzene	0.0313	0.0300	104	70-130	

Lab Batch #: 3154452 **Sample:** 691739-014 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 03.22.2021 23:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0297	0.0300	99	70-130	

Lab Batch #: 3154452 **Sample:** 7723844-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 00:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	70-130	
4-Bromofluorobenzene	0.0355	0.0300	118	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692032

Project ID:

Lab Batch #: 3154502 **Sample:** 7723848-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 05:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	70-130	
4-Bromofluorobenzene	0.0293	0.0300	98	70-130	

Lab Batch #: 3154502 **Sample:** 7723848-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 05:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	70-130	
4-Bromofluorobenzene	0.0333	0.0300	111	70-130	

Lab Batch #: 3154502 **Sample:** 692032-008 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 06:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0334	0.0300	111	70-130	
4-Bromofluorobenzene	0.0348	0.0300	116	70-130	

Lab Batch #: 3154502 **Sample:** 692032-008 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 06:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0358	0.0300	119	70-130	
4-Bromofluorobenzene	0.0381	0.0300	127	70-130	

Lab Batch #: 3154502 **Sample:** 7723848-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 07:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	70-130	
4-Bromofluorobenzene	0.0247	0.0300	82	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021

Work Orders : 692032

Project ID:

Lab Batch #: 3154382 **Sample:** 7723821-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 17:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	9.51	9.05	105	70-135	
o-Terphenyl	5.49	4.52	121	70-135	

Lab Batch #: 3154382 **Sample:** 7723821-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 17:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	11.1	9.04	123	70-135	
o-Terphenyl	5.38	4.52	119	70-135	

Lab Batch #: 3154382 **Sample:** 7723821-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 18:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	11.0	9.06	121	70-135	
o-Terphenyl	5.33	4.53	118	70-135	

Lab Batch #: 3154382 **Sample:** 692031-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 18:50

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.79	8.92	87	70-135	
o-Terphenyl	4.30	4.46	96	70-135	

Lab Batch #: 3154382 **Sample:** 692031-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 19:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.73	8.95	86	70-135	
o-Terphenyl	4.19	4.48	94	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692032 **Project ID:**

Analyst: KTL **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.22.2021

Lab Batch ID: 3154452 **Sample:** 7723844-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.0985	99	0.100	0.0938	94	5	70-130	25	
Toluene	<0.000367	0.100	0.0962	96	0.100	0.0881	88	9	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0910	91	0.100	0.0843	84	8	70-130	25	
m,p-Xylenes	<0.000630	0.200	0.182	91	0.200	0.169	85	7	70-130	25	
o-Xylene	<0.000642	0.100	0.0900	90	0.100	0.0823	82	9	70-130	25	

Analyst: KTL **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.23.2021

Lab Batch ID: 3154502 **Sample:** 7723848-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.0997	100	0.100	0.104	104	4	70-130	25	
Toluene	<0.000367	0.100	0.0971	97	0.100	0.107	107	10	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0941	94	0.100	0.103	103	9	70-130	25	
m,p-Xylenes	<0.000630	0.200	0.192	96	0.200	0.210	105	9	70-130	25	
o-Xylene	<0.000642	0.100	0.0939	94	0.100	0.111	111	17	70-130	25	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692032 **Project ID:**

Analyst: CHE **Date Prepared:** 03.21.2021 **Date Analyzed:** 03.21.2021

Lab Batch ID: 3154453 **Sample:** 7723842-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.0210	25.0	26.4	106	25.0	26.5	106	0	90-110	20	

Analyst: CHE **Date Prepared:** 03.21.2021 **Date Analyzed:** 03.21.2021

Lab Batch ID: 3154463 **Sample:** 7723846-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.0210	25.0	26.6	106	25.0	26.6	106	0	90-110	20	

Analyst: CHE **Date Prepared:** 03.16.2021 **Date Analyzed:** 03.16.2021

Lab Batch ID: 3154488 **Sample:** 3154488-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.0400	0.0422	106	0.0400	0.0421	105	0	85-115	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692032 **Project ID:**

Analyst: DEP **Date Prepared:** 03.20.2021 **Date Analyzed:** 03.20.2021

Lab Batch ID: 3154319 **Sample:** 7723750-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	<0.000246	0.100	0.0979	98	0.100	0.0974	97	1	80-120	20	
Barium	<0.000484	0.100	0.0976	98	0.100	0.0987	99	1	80-120	20	
Chromium	<0.000525	0.100	0.0970	97	0.100	0.0963	96	1	80-120	20	

Analyst: DTH **Date Prepared:** 03.19.2021 **Date Analyzed:** 03.19.2021

Lab Batch ID: 3154346 **Sample:** 3154346-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TDS by SM2540C Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Total Dissolved Solids	<25.0	1000	997	100	1000	971	97	3	90-110	10	

Analyst: DTH **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.22.2021

Lab Batch ID: 3154486 **Sample:** 3154486-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TDS by SM2540C Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Total Dissolved Solids	<25.0	1000	989	99	1000	990	99	0	90-110	10	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692032 **Project ID:**

Analyst: ARM **Date Prepared:** 03.19.2021 **Date Analyzed:** 03.21.2021

Lab Batch ID: 3154382 **Sample:** 7723821-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	1.33	90.4	101	112	90.6	105	116	4	70-135	20	
Diesel Range Organics	<0.825	90.4	106	117	90.6	107	118	1	70-135	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692032
Lab Batch ID: 3154452 **QC- Sample ID:** 691739-014 S **Batch #:** 1 **Matrix:** Ground Water
Date Analyzed: 03.22.2021 **Date Prepared:** 03.22.2021 **Analyst:** KTL
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.0822	82	0.100	0.0968	97	16	70-130	25	
Toluene	<0.000367	0.100	0.0891	89	0.100	0.0929	93	4	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0839	84	0.100	0.0887	89	6	70-130	25	
m,p-Xylenes	<0.000630	0.200	0.169	85	0.200	0.178	89	5	70-130	25	
o-Xylene	<0.000642	0.100	0.0833	83	0.100	0.0867	87	4	70-130	25	

Lab Batch ID: 3154502 **QC- Sample ID:** 692032-008 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.23.2021 **Date Prepared:** 03.22.2021 **Analyst:** KTL
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.111	111	0.100	0.122	122	9	70-130	25	
Toluene	0.00241	0.100	0.111	109	0.100	0.119	117	7	70-130	25	
Ethylbenzene	<0.000657	0.100	0.105	105	0.100	0.113	113	7	70-130	25	
m,p-Xylenes	0.00165	0.200	0.218	108	0.200	0.234	116	7	70-130	25	
o-Xylene	<0.000642	0.100	0.108	108	0.100	0.115	115	6	70-130	25	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692032
Lab Batch ID: 3154453 **QC- Sample ID:** 691735-004 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.21.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	131	125	272	113	125	272	113	0	90-110	20	X

Lab Batch ID: 3154453 **QC- Sample ID:** 692031-005 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.21.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	257	125	391	107	125	392	108	0	90-110	20	

Lab Batch ID: 3154463 **QC- Sample ID:** 692032-008 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.21.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	439	250	733	118	250	734	118	0	90-110	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692032
Lab Batch ID: 3154463 **QC- Sample ID:** 692296-004 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.21.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	977	500	1630	131	500	1640	133	1	90-110	20	X

Lab Batch ID: 3154488 **QC- Sample ID:** 692032-001 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.16.2021 **Date Prepared:** 03.16.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.200	0.207	104	0.200	0.207	104	0	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04022021
Project ID:

Work Order # : 692032
Lab Batch ID: 3154319 **QC- Sample ID:** 692031-006 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.20.2021 **Date Prepared:** 03.20.2021 **Analyst:** DEP
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	0.00288	0.100	0.102	99	0.100	0.102	99	0	75-125	20	
Barium <03/23/2021 12:41>	8.40	0.100	8.35	0	0.100	8.37	0	0	75-125	20	X
Chromium	<0.000525	0.100	0.0989	99	0.100	0.0995	100	1	75-125	20	

Lab Batch ID: 3154382 **QC- Sample ID:** 692031-001 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.19.2021 **Analyst:** ARM
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	3.00	89.2	74.0	80	89.5	74.4	80	1	70-135	20	
Diesel Range Organics	1.04	89.2	92.6	103	89.5	88.6	98	4	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Method Duplicate

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Project Name: Eunice Project - S. Eunice

Work Order #: 692032 **Report Date:** 04022021

Lab Batch #: 3154346 **Project ID:**

Date Analyzed: 03.19.2021 17:00 **Date Prepared:** 03.19.2021 **Analyst:** DTH

QC- Sample ID: 692031-001 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY

TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	1900	1990	5	10	

Lab Batch #: 3154486

Date Analyzed: 03.22.2021 11:35 **Date Prepared:** 03.22.2021 **Analyst:** DTH

QC- Sample ID: 692032-009 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY

TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	3680	3500	5	10	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

XENCO LABORATORIES

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: 692032

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Project Manager:	Rebecca Andresen	Bill to: (if different)	
Company Name:	ARCADIS	Company Name:	
Address:	1004 N. Big Spring St.	Address:	
City, State ZIP:	Midland, TX. 79701	City, State ZIP:	
Phone:	303-471-3477	Email:	madisyn.frandsen@arcadis.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Eunice Project- S. Eunice	Turn Around	
Project Number:	30049612	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	J. Steinmann	Due Date:	Std

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	5.5	Thermometer ID	IR8
Received Intact:	Yes No		6
Cooler Custody Seals:	Yes No N/A	Correction Factor:	+0.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (EPA 8021B)	TPH (SW8015B)	Hex Chrome (SW7196A)	Dissolved Metals (SW6020_DIS): Chromium, Arsenic & Barium)	TDS (SM2540C)	Chlorides (EPA 300.0)	Sample Comments
MW-34	W	3/16/21	0859	—	8							
MWD-6			0930	—	8							
MW-9			1010	—	8							
MW-30			1040	—	8							
WW-7			1110	—	8							
MW-29			1130	—	8							
WW-2			1220	—	8							
MW-32			1304	—	8							
MWD-5			1340	—	8							
Dup-1			—	—	8							

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	[signature]	[signature]	3/16/21 1:4	2	[signature]	[signature]	3/16/21 16:55
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number : 79592

Date/Time:	03.17.2021	Created by:	Brianna Teel	Please send report to:	John Builes
Lab# From:	**Midland**	Delivery Priority:		Address:	1211 W. Florida Ave
Lab# To:	**El Paso**	Air Bill No.:		E-Mail:	john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692032-001	W	MW-15	03.16.2021 09:05	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692032-002	W	MW-16	03.16.2021 09:54	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692032-003	W	MW-03	03.16.2021 10:35	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692032-004	W	MW-31	03.16.2021 11:10	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692032-005	W	MW-14	03.16.2021 11:54	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692032-006	W	MW-32	03.16.2021 13:24	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692032-007	W	MW-38	03.16.2021 13:52	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692032-008	W	MW-36	03.16.2021 14:14	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692032-009	W	DUP-2	03.16.2021 00:00	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 03.17.2021

Received By: _____

Date Received: _____

Cooler Temperature: _____

Inter-Office Shipment

IOS Number : 79593

Date/Time:	03.17.2021	Created by:	Brianna Teel	Please send report to:	John Builes
Lab# From:	**Midland**	Delivery Priority:		Address:	1211 W. Florida Ave
Lab# To:	**Houston**	Air Bill No.:	773192009543	E-Mail:	john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692032-001	W	MW-15	03.16.2021 09:05	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692032-002	W	MW-16	03.16.2021 09:54	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692032-003	W	MW-03	03.16.2021 10:35	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692032-004	W	MW-31	03.16.2021 11:10	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692032-005	W	MW-14	03.16.2021 11:54	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692032-006	W	MW-32	03.16.2021 13:24	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692032-007	W	MW-38	03.16.2021 13:52	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692032-008	W	MW-36	03.16.2021 14:14	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692032-009	W	DUP-2	03.16.2021 00:00	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel

Brianna Teel

Date Relinquished: 03.17.2021

Received By: Jose F. Londono

Jose Londono

Date Received: 03.19.2021

Cooler Temperature: 4.3

Inter-Office Shipment

IOS Number : 79594

Date/Time: 03.17.2021
Lab# From: **Midland**
Lab# To: **Dallas**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.:

Please send report to: John Builes
Address: 1211 W. Florida Ave
E-Mail: john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692032-001	W	MW-15	03.16.2021 09:05	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.30.2021	JHB	PHCC10C28 PHCC28C35	
692032-002	W	MW-16	03.16.2021 09:54	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	
692032-003	W	MW-03	03.16.2021 10:35	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	
692032-004	W	MW-31	03.16.2021 11:10	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	
692032-005	W	MW-14	03.16.2021 11:54	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	
692032-006	W	MW-32	03.16.2021 13:24	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	
692032-007	W	MW-38	03.16.2021 13:52	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	
692032-008	W	MW-36	03.16.2021 14:14	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	
692032-009	W	DUP-2	03.16.2021 00:00	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 03.17.2021

Received By:

Date Received:

Cooler Temperature:

Environment Testing Xenco

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 79593

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : HOU-272

Sent By: Brianna Teel **Date Sent:** 03.17.2021 08.02 AM

Received By: Jose Londono **Date Received:** 03.19.2021 10.30 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Jose F. Londono

Jose Londono

Date: 03.19.2021

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Analytical Report 692031

for

ARCADIS

Project Manager: Sonja Zabienski

Eunice Project - S. Eunice

04.28.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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04.28.2021

Project Manager: **Sonja Zabienski**
ARCADIS
1004 N. Big Spring St.
Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **692031**
Eunice Project - S. Eunice
Project Address:

Sonja Zabienski:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 692031. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 692031 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

John Builes
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 692031

ARCADIS, Midland, TX

Eunice Project - S. Eunice

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-34	W	03.16.2021 08:59		692031-001
MWD-6	W	03.16.2021 09:30		692031-002
MW-9	W	03.16.2021 10:10		692031-003
MW-30	W	03.16.2021 10:40		692031-004
WW-7	W	03.16.2021 11:10		692031-005
MW-29	W	03.16.2021 11:30		692031-006
WW-2	W	03.16.2021 12:20		692031-007
MW-32	W	03.16.2021 13:04		692031-008
MWD-5	W	03.16.2021 13:40		692031-009
DUP-1	W	03.16.2021 00:00		692031-010

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CASE NARRATIVE

Client Name: ARCADIS

Project Name: Eunice Project - S. Eunice

Project ID:
Work Order Number(s): *692031*

Report Date: *04.28.2021*
Date Received: *03.16.2021*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3154319 (S) Dissolved Metals by SW6020A
Lab Sample ID 692031-006 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Barium recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 692031-006, -007, -008, -009, -010.
The Laboratory Control Sample for Barium is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3154382 TPH By SW8015 Mod
Detection in the gasoline range in the method blank, data acceptable due to detection being .5<RL.

Batch: LBA-3154487 Chromium, Hexavalent by SW 7196A
Lab Sample ID 692031-003 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chromium, Hexavalent recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 692031-001, -002, -003, -004, -005, -006, -007, -008, -009, -010.
The Laboratory Control Sample for Chromium, Hexavalent is within laboratory Control Limits, therefore the data was accepted.

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CASE NARRATIVE

Client Name: ARCADIS

Project Name: Eunice Project - S. Eunice

Project ID:
Work Order Number(s): *692031*

Report Date: *04.28.2021*
Date Received: *03.16.2021*

Batch: LBA-3154608 BTEX by EPA 8021B
Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 692031-010

Surrogate 1,4-Difluorobenzene, Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected.
Samples affected are: 692031-010 SD.

Lab Sample ID 692031-010 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 692031-010.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3154873 Chloride by EPA 300
Lab Sample ID 692031-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 692031-001.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-34** Matrix: Water Sample Depth:
Lab Sample Id: 692031-001 Date Collected: 03.16.2021 08:59 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154873 Date Prep: 03.31.2021 12:00 Tech: CHE
Prep seq: 7724117

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**282**	5.00	0.210	mg/L	03.31.2021 16:49	X	10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1900**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154347 Date Prep: 03.20.2021 09:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.000866**	0.00400	0.000246	mg/L	03.21.2021 01:41	J	1
Barium	7440-39-3	**5.00**	0.200	0.0242	mg/L	03.23.2021 07:50	D	50
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.21.2021 01:41	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-34** Matrix: Water Sample Depth:

Lab Sample Id: 692031-001 Date Collected: 03.16.2021 08:59 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**3.00**	2.25	0.890	mg/L	03.21.2021 18:28	B	1
Diesel Range Organics	C10C28DRO	**1.04**	2.25	0.822	mg/L	03.21.2021 18:28	J	1
Oil Range Hydrocarbons	PHCG2835	<0.822	2.25	0.822	mg/L	03.21.2021 18:28	U	1
Total TPH	PHC635	**4.04**	2.25	0.822	mg/L	03.21.2021 18:28		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	98	70 - 135	%		
o-Terphenyl	108	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0204**	0.00200	0.000408	mg/L	03.23.2021 02:20		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 02:20	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 02:20	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 02:20	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 02:20	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 02:20	U	1
Total BTEX		**0.0204**	0.00200	0.000367	mg/L	03.23.2021 02:20		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	119	70 - 130	%		
4-Bromofluorobenzene	111	70 - 130	%		

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-6** Matrix: Water Sample Depth:
Lab Sample Id: 692031-002 Date Collected: 03.16.2021 09:30 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**160**	5.00	0.210	mg/L	03.21.2021 16:26		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1100**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154347 Date Prep: 03.20.2021 09:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00623**	0.00400	0.000246	mg/L	03.21.2021 01:44		1
Barium	7440-39-3	**0.838**	0.00400	0.000484	mg/L	03.21.2021 01:44		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.21.2021 01:44	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-6** Matrix: Water Sample Depth:

Lab Sample Id: 692031-002 Date Collected: 03.16.2021 09:30 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.82**	2.21	0.872	mg/L	03.21.2021 19:33	BJ	1
Diesel Range Organics	C10C28DRO	<0.805	2.21	0.805	mg/L	03.21.2021 19:33	U	1
Oil Range Hydrocarbons	PHCG2835	<0.805	2.21	0.805	mg/L	03.21.2021 19:33	U	1
Total TPH	PHC635	**1.82**	2.21	0.805	mg/L	03.21.2021 19:33	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	95	70 - 135	%		
o-Terphenyl	108	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 02:40	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 02:40	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 02:40	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 02:40	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 02:40	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 02:40	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 02:40	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	104	70 - 130	%		
4-Bromofluorobenzene	100	70 - 130	%		

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Certificate of Analytical Results
692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-9** Matrix: Water Sample Depth:
Lab Sample Id: 692031-003 Date Collected: 03.16.2021 10:10 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**241**	5.00	0.210	mg/L	03.21.2021 16:41		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1430**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154347 Date Prep: 03.20.2021 09:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00631**	0.00400	0.000246	mg/L	03.21.2021 01:47		1
Barium	7440-39-3	**11.6**	0.400	0.0484	mg/L	03.23.2021 07:53	D	100
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.21.2021 01:47	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	UX	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-9** Matrix: Water Sample Depth:

Lab Sample Id: 692031-003 Date Collected: 03.16.2021 10:10 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**2.49**	2.24	0.887	mg/L	03.21.2021 19:55	B	1
Diesel Range Organics	C10C28DRO	<0.819	2.24	0.819	mg/L	03.21.2021 19:55	U	1
Oil Range Hydrocarbons	PHCG2835	<0.819	2.24	0.819	mg/L	03.21.2021 19:55	U	1
Total TPH	PHC635	**2.49**	2.24	0.819	mg/L	03.21.2021 19:55		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	93	70 - 135	%		
o-Terphenyl	106	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 03:01	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 03:01	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 03:01	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 03:01	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 03:01	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 03:01	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 03:01	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	117	70 - 130	%		
4-Bromofluorobenzene	102	70 - 130	%		

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-30** Matrix: Water Sample Depth:
Lab Sample Id: 692031-004 Date Collected: 03.16.2021 10:40 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**275**	5.00	0.210	mg/L	03.21.2021 16:46		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1330**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154347 Date Prep: 03.20.2021 09:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00895**	0.00400	0.000246	mg/L	03.21.2021 01:50		1
Barium	7440-39-3	**0.355**	0.00400	0.000484	mg/L	03.21.2021 01:50		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.21.2021 01:50	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-30** Matrix: Water Sample Depth:

Lab Sample Id: 692031-004 Date Collected: 03.16.2021 10:40 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**2.55**	2.28	0.901	mg/L	03.21.2021 20:16	B	1
Diesel Range Organics	C10C28DRO	<0.833	2.28	0.833	mg/L	03.21.2021 20:16	U	1
Oil Range Hydrocarbons	PHCG2835	<0.833	2.28	0.833	mg/L	03.21.2021 20:16	U	1
Total TPH	PHC635	**2.55**	2.28	0.833	mg/L	03.21.2021 20:16		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	104	70 - 135	%		
o-Terphenyl	118	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 03:21	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 03:21	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 03:21	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 03:21	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 03:21	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 03:21	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 03:21	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	97	70 - 130	%		

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **WW-7** Matrix: Water Sample Depth:
Lab Sample Id: 692031-005 Date Collected: 03.16.2021 11:10 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**257**	2.50	0.105	mg/L	03.21.2021 17:06		5

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**410**	25.0	25.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154347 Date Prep: 03.20.2021 09:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.000637**	0.00400	0.000246	mg/L	03.21.2021 01:53	J	1
Barium	7440-39-3	**0.489**	0.00400	0.000484	mg/L	03.21.2021 01:53		1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.21.2021 01:53	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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Eunice Project - S. Eunice

Sample Id: **WW-7** Matrix: Water Sample Depth:

Lab Sample Id: 692031-005 Date Collected: 03.16.2021 11:10 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**2.10**	2.23	0.883	mg/L	03.21.2021 20:37	BJ	1
Diesel Range Organics	C10C28DRO	<0.815	2.23	0.815	mg/L	03.21.2021 20:37	U	1
Oil Range Hydrocarbons	PHCG2835	<0.815	2.23	0.815	mg/L	03.21.2021 20:37	U	1
Total TPH	PHC635	**2.10**	2.23	0.815	mg/L	03.21.2021 20:37	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	101	70 - 135	%		
o-Terphenyl	116	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 03:42	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 03:42	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 03:42	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 03:42	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 03:42	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 03:42	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 03:42	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	95	70 - 130	%		

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Eunice Project - S. Eunice

Sample Id: **MW-29** Matrix: Water Sample Depth:
Lab Sample Id: 692031-006 Date Collected: 03.16.2021 11:30 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**352**	5.00	0.210	mg/L	03.21.2021 16:51		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**1360**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.00288**	0.00400	0.000246	mg/L	03.20.2021 20:16	J	1
Barium	7440-39-3	**8.40**	0.200	0.0242	mg/L	03.23.2021 12:39	DX	50
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:16	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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Eunice Project - S. Eunice

Sample Id: **MW-29** Matrix: Water Sample Depth:

Lab Sample Id: 692031-006 Date Collected: 03.16.2021 11:30 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**4.59**	2.27	0.896	mg/L	03.21.2021 20:59	B	1
Diesel Range Organics	C10C28DRO	<0.828	2.27	0.828	mg/L	03.21.2021 20:59	U	1
Oil Range Hydrocarbons	PHCG2835	<0.828	2.27	0.828	mg/L	03.21.2021 20:59	U	1
Total TPH	PHC635	**4.59**	2.27	0.828	mg/L	03.21.2021 20:59		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	104	70 - 135	%		
o-Terphenyl	119	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0903**	0.00200	0.000408	mg/L	03.23.2021 04:02		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 04:02	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 04:02	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 04:02	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 04:02	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 04:02	U	1
Total BTEX		**0.0903**	0.00200	0.000367	mg/L	03.23.2021 04:02		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	122	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		

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Eunice Project - S. Eunice

Sample Id: **WW-2** Matrix: Water Sample Depth:
Lab Sample Id: 692031-007 Date Collected: 03.16.2021 12:20 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**2460**	25.0	1.05	mg/L	03.21.2021 16:56		50

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**3340**	100	100	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.000734**	0.00400	0.000246	mg/L	03.20.2021 20:36	J	1
Barium	7440-39-3	**2.05**	0.0800	0.00967	mg/L	03.23.2021 12:47	D	20
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:36	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **WW-2** Matrix: Water Sample Depth:

Lab Sample Id: 692031-007 Date Collected: 03.16.2021 12:20 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**2.04**	2.24	0.886	mg/L	03.21.2021 21:20	BJ	1
Diesel Range Organics	C10C28DRO	<0.819	2.24	0.819	mg/L	03.21.2021 21:20	U	1
Oil Range Hydrocarbons	PHCG2835	<0.819	2.24	0.819	mg/L	03.21.2021 21:20	U	1
Total TPH	PHC635	**2.04**	2.24	0.819	mg/L	03.21.2021 21:20	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	97	70 - 135	%		
o-Terphenyl	108	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 04:23	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 04:23	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 04:23	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 04:23	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 04:23	U	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.23.2021 04:23	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	03.23.2021 04:23	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	105	70 - 130	%		
4-Bromofluorobenzene	100	70 - 130	%		

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-32** Matrix: Water Sample Depth:
Lab Sample Id: 692031-008 Date Collected: 03.16.2021 13:04 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**583**	10.0	0.421	mg/L	03.21.2021 17:01		20

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2310**	100	100	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0423**	0.00400	0.000246	mg/L	03.20.2021 20:38		1
Barium	7440-39-3	**2.07**	0.0800	0.00967	mg/L	03.23.2021 12:50	D	20
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:38	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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692031
ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MW-32** Matrix: Water Sample Depth:

Lab Sample Id: 692031-008 Date Collected: 03.16.2021 13:04 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**4.97**	2.24	0.885	mg/L	03.21.2021 21:41	B	1
Diesel Range Organics	C10C28DRO	<0.817	2.24	0.817	mg/L	03.21.2021 21:41	U	1
Oil Range Hydrocarbons	PHCG2835	<0.817	2.24	0.817	mg/L	03.21.2021 21:41	U	1
Total TPH	PHC635	**4.97**	2.24	0.817	mg/L	03.21.2021 21:41		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	101	70 - 135	%		
o-Terphenyl	116	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.344**	0.00200	0.000408	mg/L	03.23.2021 05:46		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 05:46	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 05:46	U	1
m,p-Xylenes	179601-23-1	**0.00282**	0.00400	0.000630	mg/L	03.23.2021 05:46	J	1
o-Xylene	95-47-6	**0.00193**	0.00200	0.000642	mg/L	03.23.2021 05:46	J	1
Total Xylenes	1330-20-7	**0.00475**	0.00200	0.000630	mg/L	03.23.2021 05:46		1
Total BTEX		**0.349**	0.00200	0.000367	mg/L	03.23.2021 05:46		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	86	70 - 130	%		
4-Bromofluorobenzene	70	70 - 130	%		

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-5** Matrix: Water Sample Depth:
Lab Sample Id: 692031-009 Date Collected: 03.16.2021 13:40 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**502**	10.0	0.421	mg/L	03.21.2021 17:21		20

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2140**	100	100	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.0154**	0.00400	0.000246	mg/L	03.20.2021 20:41		1
Barium	7440-39-3	**8.10**	0.200	0.0242	mg/L	03.23.2021 12:53	D	50
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:41	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **MWD-5** Matrix: Water Sample Depth:

Lab Sample Id: 692031-009 Date Collected: 03.16.2021 13:40 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**12.8**	2.26	0.892	mg/L	03.21.2021 22:03	B	1
Diesel Range Organics	C10C28DRO	**2.07**	2.26	0.824	mg/L	03.21.2021 22:03	J	1
Oil Range Hydrocarbons	PHCG2835	<0.824	2.26	0.824	mg/L	03.21.2021 22:03	U	1
Total TPH	PHC635	**14.9**	2.26	0.824	mg/L	03.21.2021 22:03		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	101	70 - 135	%		
o-Terphenyl	115	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL

Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**6.02**	1.00	0.204	mg/L	03.24.2021 02:00	D	500
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 06:07	U	1
Ethylbenzene	100-41-4	**0.00724**	0.00200	0.000657	mg/L	03.23.2021 06:07		1
m,p-Xylenes	179601-23-1	**0.00601**	0.00400	0.000630	mg/L	03.23.2021 06:07		1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 06:07	U	1
Total Xylenes	1330-20-7	**0.00601**	0.00200	0.000630	mg/L	03.23.2021 06:07		1
Total BTEX		**6.03**	0.00200	0.000367	mg/L	03.24.2021 02:00		500

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	126	70 - 130	%		
4-Bromofluorobenzene	84	70 - 130	%		

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **DUP-1** Matrix: Water Sample Depth:
Lab Sample Id: 692031-010 Date Collected: 03.16.2021 00:00 Date Received: 03.16.2021 16:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**298**	5.00	0.210	mg/L	03.21.2021 17:26		10

Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	**2150**	50.0	50.0	mg/L	03.19.2021 17:00		1

Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	**0.000884**	0.00400	0.000246	mg/L	03.20.2021 20:44	J	1
Barium	7440-39-3	**4.96**	0.200	0.0242	mg/L	03.23.2021 12:56	D	50
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:44	U	1

Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **DUP-1** Matrix: Water Sample Depth:

Lab Sample Id: 692031-010 Date Collected: 03.16.2021 00:00 Date Received: 03.16.2021 16:55

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM

Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**4.24**	2.21	0.874	mg/L	03.21.2021 22:24	B	1
Diesel Range Organics	C10C28DRO	**1.20**	2.21	0.808	mg/L	03.21.2021 22:24	J	1
Oil Range Hydrocarbons	PHCG2835	<0.808	2.21	0.808	mg/L	03.21.2021 22:24	U	1
Total TPH	PHC635	**5.44**	2.21	0.808	mg/L	03.21.2021 22:24		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	104	70 - 135	%		
o-Terphenyl	118	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: KTL % Moist:

Seq Number: 3154608 Date Prep: 03.24.2021 08:30 Tech: KTL

Prep seq: 7723931

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0295**	0.00200	0.000408	mg/L	03.24.2021 11:20	XF	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.24.2021 11:20	UXF	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.24.2021 11:20	UXF	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.24.2021 11:20	UXF	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.24.2021 11:20	UXF	1
Total Xylenes	1330-20-7	<0.000630	0.00200	0.000630	mg/L	03.24.2021 11:20	U	1
Total BTEX		**0.0295**	0.00200	0.000367	mg/L	03.24.2021 11:20		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	104	70 - 130	%		
4-Bromofluorobenzene	146	70 - 130	%		**

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Certificate of Analytical Results
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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **3154346-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 3154346-1-BLK Date Collected: Date Received:
Analytical Method: TDS by SM2540C Prep Method:
Analyst: DTH % Moist:
Seq Number: 3154346 Date Prep: Tech: DTH
Subcontractor: SUB: T104704221-20-18 Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Total Dissolved Solids	1642222	<12.5	12.5	12.5	mg/L	03.19.2021 17:00	U	1

Sample Id: **3154487-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 3154487-1-BLK Date Collected: Date Received:
Analytical Method: Chromium, Hexavalent by SW 7196A Prep Method:
Analyst: CHE % Moist:
Seq Number: 3154487 Date Prep: Tech: CHE
Prep seq:

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chromium, Hexavalent	18540-29-9	<0.00273	0.0100	0.00273	mg/L	03.16.2021 21:00	U	1

Sample Id: **7723748-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723748-1-BLK Date Collected: Date Received:
Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154347 Date Prep: 03.20.2021 09:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	<0.000246	0.00400	0.000246	mg/L	03.21.2021 00:26	U	1
Barium	7440-39-3	<0.000484	0.00400	0.000484	mg/L	03.21.2021 00:26	U	1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.21.2021 00:26	U	1

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Eunice Project - S. Eunice

Sample Id: **7723750-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723750-1-BLK Date Collected: Date Received:
Analytical Method: (S) Dissolved Metals by SW6020A Prep Method: 3010A
Analyst: DEP % Moist:
Seq Number: 3154319 Date Prep: 03.20.2021 10:00 Tech: DEP
Subcontractor: SUB: T104704215-20-39 Prep seq: 7723750

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Arsenic	7440-38-2	<0.000246	0.00400	0.000246	mg/L	03.20.2021 20:07	U	1
Barium	7440-39-3	<0.000484	0.00400	0.000484	mg/L	03.20.2021 20:07	U	1
Chromium	7440-47-3	<0.000525	0.00400	0.000525	mg/L	03.20.2021 20:07	U	1

Sample Id: **7723821-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723821-1-BLK Date Collected: Date Received:
Analytical Method: TPH By SW8015 Mod Prep Method: 8015
Analyst: ARM % Moist:
Seq Number: 3154382 Date Prep: 03.19.2021 12:00 Tech: ARM
Prep seq: 7723821

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons	PHC610	**1.33**	2.26	0.894	mg/L	03.21.2021 17:23	BJ	1
Diesel Range Organics	C10C28DRO	<0.825	2.26	0.825	mg/L	03.21.2021 17:23	U	1
Oil Range Hydrocarbons	PHCG2835	<0.825	2.26	0.825	mg/L	03.21.2021 17:23	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	105	70 - 135	%		
o-Terphenyl	121	70 - 135	%		

Sample Id: **7723842-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723842-1-BLK Date Collected: Date Received:
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: CHE % Moist:
Seq Number: 3154453 Date Prep: 03.21.2021 11:50 Tech: CHE
Prep seq: 7723842

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.0210	0.500	0.0210	mg/L	03.21.2021 15:41	U	1

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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7723844-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723844-1-BLK Date Collected: Date Received:
Analytical Method: BTEX by EPA 8021B Prep Method: 5030B
Analyst: KTL % Moist:
Seq Number: 3154452 Date Prep: 03.22.2021 10:00 Tech: KTL
Prep seq: 7723844

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.23.2021 00:56	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.23.2021 00:56	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.23.2021 00:56	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.23.2021 00:56	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.23.2021 00:56	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	93	70 - 130	%		
4-Bromofluorobenzene	118	70 - 130	%		

Sample Id: **7723931-1-BLK** Matrix: Water Sample Depth:
Lab Sample Id: 7723931-1-BLK Date Collected: Date Received:
Analytical Method: BTEX by EPA 8021B Prep Method: 5030B
Analyst: KTL % Moist:
Seq Number: 3154608 Date Prep: 03.24.2021 08:30 Tech: KTL
Prep seq: 7723931

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.24.2021 10:52	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.24.2021 10:52	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.24.2021 10:52	U	1
m,p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.24.2021 10:52	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.24.2021 10:52	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	93	70 - 130	%		
4-Bromofluorobenzene	84	70 - 130	%		

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Certificate of Analytical Results
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ARCADIS, Midland, TX
Eunice Project - S. Eunice

Sample Id: **7724117-1-BLK**
Matrix: Water
Sample Depth:
Lab Sample Id: 7724117-1-BLK
Date Collected:
Date Received:
Analytical Method: Chloride by EPA 300
Prep Method: E300P
Analyst: CHE
% Moist:
Seq Number: 3154873
Date Prep: 03.31.2021 12:00
Tech: CHE
Prep seq: 7724117

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.0210	0.500	0.0210	mg/L	03.31.2021 16:33	U	1

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04282021

Work Orders : 692031

Project ID:

Lab Batch #: 3154452 **Sample:** 7723844-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.22.2021 22:55

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0299	0.0300	100	70-130	

Lab Batch #: 3154452 **Sample:** 7723844-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.22.2021 23:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	70-130	
4-Bromofluorobenzene	0.0281	0.0300	94	70-130	

Lab Batch #: 3154452 **Sample:** 691739-014 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 03.22.2021 23:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	70-130	
4-Bromofluorobenzene	0.0313	0.0300	104	70-130	

Lab Batch #: 3154452 **Sample:** 691739-014 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 03.22.2021 23:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0297	0.0300	99	70-130	

Lab Batch #: 3154452 **Sample:** 7723844-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2021 00:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	70-130	
4-Bromofluorobenzene	0.0355	0.0300	118	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04282021

Work Orders : 692031

Project ID:

Lab Batch #: 3154452 **Sample:** 692031-009 / DL **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 02:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0355	0.0300	118	70-130	
4-Bromofluorobenzene	0.0370	0.0300	123	70-130	

Lab Batch #: 3154608 **Sample:** 7723931-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 08:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0341	0.0300	114	70-130	
4-Bromofluorobenzene	0.0338	0.0300	113	70-130	

Lab Batch #: 3154608 **Sample:** 7723931-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 09:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0361	0.0300	120	70-130	
4-Bromofluorobenzene	0.0357	0.0300	119	70-130	

Lab Batch #: 3154608 **Sample:** 692031-010 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 09:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0384	0.0300	128	70-130	
4-Bromofluorobenzene	0.0417	0.0300	139	70-130	**

Lab Batch #: 3154608 **Sample:** 692031-010 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 10:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0172	0.0300	57	70-130	**
4-Bromofluorobenzene	0.0207	0.0300	69	70-130	**

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04282021

Work Orders : 692031

Project ID:

Lab Batch #: 3154608 **Sample:** 7723931-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.24.2021 10:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	70-130	
4-Bromofluorobenzene	0.0253	0.0300	84	70-130	

Lab Batch #: 3154382 **Sample:** 7723821-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 17:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	9.51	9.05	105	70-135	
o-Terphenyl	5.49	4.52	121	70-135	

Lab Batch #: 3154382 **Sample:** 7723821-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 17:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	11.1	9.04	123	70-135	
o-Terphenyl	5.38	4.52	119	70-135	

Lab Batch #: 3154382 **Sample:** 7723821-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 18:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	11.0	9.06	121	70-135	
o-Terphenyl	5.33	4.53	118	70-135	

Lab Batch #: 3154382 **Sample:** 692031-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 18:50

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.79	8.92	87	70-135	
o-Terphenyl	4.30	4.46	96	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04282021

Work Orders : 692031

Project ID:

Lab Batch #: 3154382 **Sample:** 692031-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.21.2021 19:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	7.73	8.95	86	70-135	
o-Terphenyl	4.19	4.48	94	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692031 **Project ID:**

Analyst: KTL **Date Prepared:** 03.22.2021 **Date Analyzed:** 03.22.2021

Lab Batch ID: 3154452 **Sample:** 7723844-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.0985	99	0.100	0.0938	94	5	70-130	25	
Toluene	<0.000367	0.100	0.0962	96	0.100	0.0881	88	9	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0910	91	0.100	0.0843	84	8	70-130	25	
m,p-Xylenes	<0.000630	0.200	0.182	91	0.200	0.169	85	7	70-130	25	
o-Xylene	<0.000642	0.100	0.0900	90	0.100	0.0823	82	9	70-130	25	

Analyst: KTL **Date Prepared:** 03.24.2021 **Date Analyzed:** 03.24.2021

Lab Batch ID: 3154608 **Sample:** 7723931-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.121	121	0.100	0.128	128	6	70-130	25	
Toluene	<0.000367	0.100	0.117	117	0.100	0.124	124	6	70-130	25	
Ethylbenzene	<0.000657	0.100	0.116	116	0.100	0.123	123	6	70-130	25	
m,p-Xylenes	<0.000630	0.200	0.237	119	0.200	0.255	128	7	70-130	25	
o-Xylene	<0.000642	0.100	0.113	113	0.100	0.124	124	9	70-130	25	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692031 **Project ID:**

Analyst: CHE **Date Prepared:** 03.21.2021 **Date Analyzed:** 03.21.2021

Lab Batch ID: 3154453 **Sample:** 7723842-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.0210	25.0	26.4	106	25.0	26.5	106	0	90-110	20	

Analyst: CHE **Date Prepared:** 03.31.2021 **Date Analyzed:** 03.31.2021

Lab Batch ID: 3154873 **Sample:** 7724117-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.0210	25.0	25.1	100	25.0	24.7	99	2	90-110	20	

Analyst: CHE **Date Prepared:** 03.16.2021 **Date Analyzed:** 03.16.2021

Lab Batch ID: 3154487 **Sample:** 3154487-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.0400	0.0419	105	0.0400	0.0420	105	0	85-115	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692031 **Project ID:**

Analyst: DEP **Date Prepared:** 03.20.2021 **Date Analyzed:** 03.21.2021

Lab Batch ID: 3154347 **Sample:** 7723748-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	<0.000246	0.100	0.100	100	0.100	0.100	100	0	80-120	20	
Barium	<0.000484	0.100	0.0987	99	0.100	0.0979	98	1	80-120	20	
Chromium	<0.000525	0.100	0.0969	97	0.100	0.0969	97	0	80-120	20	

Analyst: DEP **Date Prepared:** 03.20.2021 **Date Analyzed:** 03.20.2021

Lab Batch ID: 3154319 **Sample:** 7723750-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	<0.000246	0.100	0.0979	98	0.100	0.0974	97	1	80-120	20	
Barium	<0.000484	0.100	0.0976	98	0.100	0.0987	99	1	80-120	20	
Chromium	<0.000525	0.100	0.0970	97	0.100	0.0963	96	1	80-120	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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BS / BSD Recoveries

Project Name: Eunice Project - S. Eunice

Work Order #: 692031 **Project ID:**

Analyst: DTH **Date Prepared:** 03.19.2021 **Date Analyzed:** 03.19.2021

Lab Batch ID: 3154346 **Sample:** 3154346-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TDS by SM2540C Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Total Dissolved Solids	<25.0	1000	997	100	1000	971	97	3	90-110	10	

Analyst: ARM **Date Prepared:** 03.19.2021 **Date Analyzed:** 03.21.2021

Lab Batch ID: 3154382 **Sample:** 7723821-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	1.33	90.4	101	112	90.6	105	116	4	70-135	20	
Diesel Range Organics	<0.825	90.4	106	117	90.6	107	118	1	70-135	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04282021
Project ID:

Work Order # : 692031
Lab Batch ID: 3154452 **QC- Sample ID:** 691739-014 S **Batch #:** 1 **Matrix:** Ground Water
Date Analyzed: 03.22.2021 **Date Prepared:** 03.22.2021 **Analyst:** KTL
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.0822	82	0.100	0.0968	97	16	70-130	25	
Toluene	<0.000367	0.100	0.0891	89	0.100	0.0929	93	4	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0839	84	0.100	0.0887	89	6	70-130	25	
m,p-Xylenes	<0.000630	0.200	0.169	85	0.200	0.178	89	5	70-130	25	
o-Xylene	<0.000642	0.100	0.0833	83	0.100	0.0867	87	4	70-130	25	

Lab Batch ID: 3154608 **QC- Sample ID:** 692031-010 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.24.2021 **Date Prepared:** 03.24.2021 **Analyst:** KTL
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.0295	0.100	0.187	158	0.100	0.0883	59	72	70-130	25	XF
Toluene	<0.000367	0.100	0.139	139	0.100	0.0660	66	71	70-130	25	XF
Ethylbenzene	<0.000657	0.100	0.137	137	0.100	0.0640	64	73	70-130	25	XF
m,p-Xylenes	<0.000630	0.200	0.285	143	0.200	0.133	67	73	70-130	25	XF
o-Xylene	<0.000642	0.100	0.137	137	0.100	0.0643	64	72	70-130	25	XF

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04282021
Project ID:

Work Order # : 692031
Lab Batch ID: 3154453 **QC- Sample ID:** 691735-004 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.21.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	131	125	272	113	125	272	113	0	90-110	20	X

Lab Batch ID: 3154453 **QC- Sample ID:** 692031-005 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.21.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	257	125	391	107	125	392	108	0	90-110	20	

Lab Batch ID: 3154873 **QC- Sample ID:** 692031-001 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.31.2021 **Date Prepared:** 03.31.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	282	250	509	91	250	502	88	1	90-110	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04282021
Project ID:

Work Order # : 692031

Lab Batch ID: 3154487 **QC- Sample ID:** 692031-003 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.16.2021 **Date Prepared:** 03.16.2021 **Analyst:** CHE
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chromium, Hexavalent by SW 7196A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chromium, Hexavalent	<0.00273	0.200	0.262	131	0.200	0.262	131	0	75-125	20	X

Lab Batch ID: 3154319 **QC- Sample ID:** 692031-006 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.20.2021 **Date Prepared:** 03.20.2021 **Analyst:** DEP
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	0.00288	0.100	0.102	99	0.100	0.102	99	0	75-125	20	
Barium <03/23/2021 12:41>	8.40	0.100	8.35	0	0.100	8.37	0	0	75-125	20	X
Chromium	<0.000525	0.100	0.0989	99	0.100	0.0995	100	1	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Form 3 - MS / MSD Recoveries

Project Name: Eunice Project - S. Eunice

Report Date: 04282021
Project ID:

Work Order # : 692031
Lab Batch ID: 3154347 **QC- Sample ID:** 691842-007 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.20.2021 **Analyst:** DEP
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

(S) Dissolved Metals by SW6020A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	0.00705	0.100	0.108	101	0.100	0.109	102	1	75-125	20	
Barium	0.0641	0.100	0.166	102	0.100	0.165	101	1	75-125	20	
Chromium	<0.000525	0.100	0.0998	100	0.100	0.0993	99	1	75-125	20	

Lab Batch ID: 3154382 **QC- Sample ID:** 692031-001 S **Batch #:** 1 **Matrix:** Water
Date Analyzed: 03.21.2021 **Date Prepared:** 03.19.2021 **Analyst:** ARM
Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	3.00	89.2	74.0	80	89.5	74.4	80	1	70-135	20	
Diesel Range Organics	1.04	89.2	92.6	103	89.5	88.6	98	4	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Method Duplicate

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Project Name: Eunice Project - S. Eunice

Work Order #: 692031 **Report Date:** 04282021

Lab Batch #: 3154346 **Project ID:**

Date Analyzed: 03.19.2021 17:00 **Date Prepared:** 03.19.2021 **Analyst:** DTH

QC- Sample ID: 692031-001 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY

TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	1900	1990	5	10	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com

Work Order No: 692032

Page 1 of 1

Project Manager:	Rebecca Andresen	Bill to: (if different)	
Company Name:	ARCADIS	Company Name:	
Address:	1004 N. Big Spring St.	Address:	
City, State ZIP:	Midland, TX. 79701	City, State ZIP:	
Phone:	303-471-3477	Email:	madisyn.frandsen@arcadis.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Eunice Project- S. Eunice	Turn Around	
Project Number:	30049612	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	J. Steinmann	Due Date:	Std

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	5.5	Thermometer ID	IR8
Received Intact:	Yes No		6
Cooler Custody Seals:	Yes No N/A	Correction Factor:	+0.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (EPA 8021B)	TPH (SW8015B)	Hex Chrome (SW7196A)	Dissolved Metals (SW6020_DIS): Chromium, Arsenic & Barium)	TDS (SM2540C)	Chlorides (EPA 300.0)
MW-34	W	3/16/21	0859	—	8						
MWD-6			0930	—	8						
MW-9			1010	—	8						
MW-30			1040	—	8						
WW-7			1110	—	8						
MW-29			1130	—	8						
WW-2			1220	—	8						
MW-32			1304	—	8						
MWD-5			1340	—	8						
Dup-1			—	—	8						

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3/16/21 17:12	2		3/16/21 16:55
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number : 79595

Date/Time: 03.17.2021
Lab# From: **Midland**
Lab# To: **El Paso**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.:

Please send report to: John Builes
Address: 1211 W. Florida Ave
E-Mail: john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692031-001	W	MW-34	03.16.2021 08:59	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692031-002	W	MWD-6	03.16.2021 09:30	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692031-003	W	MW-9	03.16.2021 10:10	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692031-004	W	MW-30	03.16.2021 10:40	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692031-005	W	WW-7	03.16.2021 11:10	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692031-006	W	MW-29	03.16.2021 11:30	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692031-007	W	WW-2	03.16.2021 12:20	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692031-008	W	MW-32	03.16.2021 13:04	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692031-009	W	MWD-5	03.16.2021 13:40	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	
692031-010	W	DUP-1	03.16.2021 00:00	SM2540C	TDS by SM2540C	03.22.2021	03.23.2021	JHB	TDS	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 03.17.2021

Received By:

Date Received:

Cooler Temperature:

Inter-Office Shipment

IOS Number : 79596

Date/Time:	03.17.2021	Created by:	Brianna Teel	Please send report to:	John Builes
Lab# From:	**Midland**	Delivery Priority:		Address:	1211 W. Florida Ave
Lab# To:	**Houston**	Air Bill No.:	773192009543	E-Mail:	john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692031-001	W	MW-34	03.16.2021 08:59	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692031-002	W	MWD-6	03.16.2021 09:30	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692031-003	W	MW-9	03.16.2021 10:10	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692031-004	W	MW-30	03.16.2021 10:40	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692031-005	W	WW-7	03.16.2021 11:10	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692031-006	W	MW-29	03.16.2021 11:30	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692031-007	W	WW-2	03.16.2021 12:20	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692031-008	W	MW-32	03.16.2021 13:04	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692031-009	W	MWD-5	03.16.2021 13:40	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	
692031-010	W	DUP-1	03.16.2021 00:00	SW6020_Select_DIS	(S) Dissolved Metals by SW6020A	**03.22.2021**	09.12.2021	JHB	AS BA CR	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel

Brianna Teel

Date Relinquished: 03.17.2021

Received By: Jose F. Londono

Jose Londono

Date Received: 03.19.2021

Cooler Temperature: 4.3

Inter-Office Shipment

IOS Number : 79597

Date/Time: 03.17.2021
Lab# From: **Midland**
Lab# To: **Dallas**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.:

Please send report to: John Builes
Address: 1211 W. Florida Ave
E-Mail: john.builes@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
692031-001	W	MW-34	03.16.2021 08:59	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.30.2021	JHB	PHCC10C28 PHCC28C35	
692031-002	W	MWD-6	03.16.2021 09:30	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	
692031-003	W	MW-9	03.16.2021 10:10	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	
692031-004	W	MW-30	03.16.2021 10:40	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	
692031-005	W	WW-7	03.16.2021 11:10	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	
692031-006	W	MW-29	03.16.2021 11:30	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	
692031-007	W	WW-2	03.16.2021 12:20	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	
692031-008	W	MW-32	03.16.2021 13:04	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	
692031-009	W	MWD-5	03.16.2021 13:40	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	
692031-010	W	DUP-1	03.16.2021 00:00	SW8015MOD_NM	TPH By SW8015 Mod	03.22.2021	03.23.2021	JHB	PHCC10C28 PHCC28C35	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 03.17.2021

Received By:

Date Received:

Cooler Temperature:

Environment Testing Xenco

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 79596

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : HOU-272

Sent By: Brianna Teel **Date Sent:** 03.17.2021 08.03 AM

Received By: Jose Londono **Date Received:** 03.19.2021 10.30 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Jose F. Londono
Jose Londono

Date: 03.19.2021

ARCADIS

Chevron South Eunice

DATA REVIEW

South Eunice, New Mexico

Volatiles, TPH, Metals and Miscellaneous Analyses

SDGs # 880-6346-1, 880-6402-1 and 880-6434-1

Analyses Performed By:
Eurofins Xenco, Laboratories

Midland, TX

Report #43943R
Review Level: Tier II
Project: 30049612.00003GEC

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Groups (SDGs) # 880-6346-1, 880-6402-1 and 880-6434-1 for samples collected in association with the Chevron South Eunice Site. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets and chain of custody. Analyses were performed on the following samples:

SDGs	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis			
						VOC	TPH	MET	MISC
880-6346-1	MW-15-W-210921	880-6346-1	Water	09/21/2021		X	X	X	X
	MW-16-W-210921	880-6346-2	Water	09/21/2021		X	X	X	X
	MW-17-W-210921	880-6346-3	Water	09/21/2021		X	X	X	X
	Dup1-W-210921	880-6346-4	Water	09/21/2021	MW-15-W-210921	X	X	X	X
	MW-11-W-210921	880-6346-5	Water	09/21/2021		X	X	X	X
	RW-6-W-210921	880-6346-6	Water	09/21/2021		X	X	X	X
880-6402-1	MW-24-W-210922	880-6402-1	Water	09/22/2021		X	X	X	X
	MW-25-W-210922	880-6402-2	Water	09/22/2021		X	X	X	X
	MW-26-W-210922	880-6402-3	Water	09/22/2021		X	X	X	X
	MW-29-W-210922	880-6402-4	Water	09/22/2021		X	X	X	X
	MW-30-W-210922	880-6402-5	Water	09/22/2021		X	X	X	X
	MW-32-W-210922	880-6402-6	Water	09/22/2021		X	X	X	X
	MWD-15-W-210922	880-6402-7	Water	09/22/2021		X	X	X	X
	MWD-14-W-210922	880-6402-8	Water	09/22/2021		X	X	X	X
	MWD-13-W-210922	880-6402-9	Water	09/22/2021		X	X	X	X
	MWD-12-W-210922	880-6402-10	Water	09/22/2021		X	X	X	X
	MWD-3-W-210922	880-6402-11	Water	09/22/2021		X	X	X	X
880-6434-1	MW-34-W-210923	880-6434-1	Water	09/23/2021		X	X	X	X
	MW-35-W-210923	880-6434-2	Water	09/23/2021		X	X	X	X
	MW-38-W-210923	880-6434-3	Water	09/23/2021		X	X	X	X
	Dup-2-W-210923	880-6434-4	Water	09/23/2021	MW-34-W-210923	X	X	X	X

Notes:
VOC = volatile organic compounds.
TPH = total petroleum hydrocarbons.
MET = metals.
MISC = miscellaneous includes hexavalent chromium, chloride and total dissolved solids.

DATA REVIEW REPORT

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

Note:
QA - Quality Assurance

DATA REVIEW REPORT

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 8021B and 8015B. Data were reviewed in accordance with USEPA National Functional Guidelines NFG for Organic Superfund Methods Data Review, EPA-540-R-20-005 (November 2020), with reference to the historical (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, OSWER 9240.1-05A-P, October 1999, as appropriate).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

DATA REVIEW REPORT

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8021B	Water	14 days from collection to analysis (preserved) 7 days from collection to analysis (non-preserved)	Cool to <6 °C; preserved to a pH of less than 2 s.u.

Note:
s.u. = standard units
SDGs #880-6346-1, 880-6402-1 and 880-6434-1: All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the sample detection limit (SDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

SDGs #880-6346-1, 880-6402-1 and 880-6434-1: Compounds were not detected above the SDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

SDGs #880-6346-1 and 880-6434-1: All surrogate recoveries were within control limits.

SDGs #880-6402-1: All samples exhibited surrogate recoveries within the control limits with the exceptions noted below.

SDGs	Sample Locations	Surrogate	Recovery
880-6402-1	MW-24-W-210922	1,4-Difluorobenzene	> UL
	MW-25-W-210922	4-Bromofluorobenzene 1,4-Difluorobenzene	> UL
	MW-30-W-210922	4-Bromofluorobenzene 1,4-Difluorobenzene	< LL but > 10%

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	Non-detect	UJ[1]
	Detect	J[1]

Note:

[1] A more concentrated analysis was not performed with surrogate compounds within the calibration range; therefore, no determination of extraction efficiency could be made.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

SDGs #880-6346-1,880-6402-1 and 880-6434-1: The MS/MSD analysis was not performed on samples from this SDGs.

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

SDGs #880-6346-1, 880-6402-1 and 880-6434-1: All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

SDG	Sample ID/Duplicate ID	Compounds	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
880-6346-1	MW-15-W-210921 / Dup1-W-210921	Benzene	0.000837 J	U	AC
		m-Xylene & p-Xylene	0.000631 J	U	AC
880-6434-1	MW-34-W-210923 / Dup-2-W-210923	All compounds	U	U	AC

Notes:
AC = acceptable
U= Non detect

The calculated RPDs between the parent sample and field duplicates were acceptable.

SDG #880-6402-1: A field duplicate sample was not collected for the samples from this SDG.

7. System Performance and Overall Assessment

SDGs #880-6346-1 and 880-6434-1: Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

SDG #880-6402-1: Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compounds	Original Analysis	Diluted Analysis	Reported Analysis
MW-24-W-210922	Benzene	--	11.9	11.9 D
MW-25-W-210922	Benzene	--	1.60	1.60 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8021B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
C. Trip blanks	X				X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate (LCSD)		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS)	X				X
Matrix Spike Duplicate (MSD)	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X	X		
Dilution Factor		X		X	

Notes:

%R = Percent recovery

RPD = Relative percent difference

DATA REVIEW REPORT

TPH ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
GRO by Method SW-846 8015	Water	14 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C
DRO by Method SW-846 8015	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C

SDGs #880-6346-1,880-6402-1 and 880-6434-1: All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the sample detection limit (SDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

SDGs# 880-6346-1,880-6402-1 and 880-6434-1: Compounds were not detected above the SDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. The analysis requires surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

Samples associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

SDGs	Sample IDs	Surrogate	Recovery
880-6346-1	MW-15-W-210921 MW-16-W-210921 MW-17-W-210921 Dup1-W-210921 MW-11-W-210921 RW-6-W-210921	1-Chlorooctane o-Terphenyl	> UL
880-6402-1	MW-24-W-210922 MW-25-W-210922 MW-26-W-210922 MW-29-W-210922 MW-30-W-210922 MW-32-W-210922	1-Chlorooctane o-Terphenyl	> UL

SDGs	Sample IDs	Surrogate	Recovery
	MWD-15-W-210922 MWD-14-W-210922 MWD-13-W-210922 MWD-12-W-210922 MWD-3-W-210922		
880-6434-1	MW-38-W-210923 Dup-2-W-210923	1-Chlorooctane o-Terphenyl	> UL

Note:
UL = Upper control limit

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

SDG #880-6346-1: The MS/MSD analysis was performed on sample ID MW-15-W-210921. MS/MSD analysis exhibited acceptable recoveries and RPDs.

SDG #880-6402-1: The MS/MSD analysis was not performed on samples from this SDG.

SDG#880-6434-1: Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
MW-34-W-210923	Gasoline Range Organics (GRO)-C6-C10	< LL but > 10%	AC
	Diesel Range Organics (Over C10-C28)	< LL but > 10%	< LL but > 10%

Notes:

AC = Acceptable

LL= Lower control limit

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration (D).	Detect	No Action
	Non-detect	

5. Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate Analysis (LCSD)

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery and RPDs within the laboratory-established acceptance limits.

SDGs #880-6346-1, 880-6402-1 and 880-6434-1: All compounds associated with the LCS/LCSD analysis exhibited recoveries and RPDs within the control limits.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

SDG #880-6402-1: A field duplicate sample was not collected for the samples from this SDG.

Results for duplicate samples are summarized in the following table.

SDGs	Sample ID/Duplicate ID	Compounds	Sample Result (mg/l)	Duplicate Result (mg/l)	RPD
880-6346-1	MW-15-W-210921 / Dup1-W-210921	All compounds	U	U	AC
880-6434-1	MW-34-W-210923 / Dup-2-W-210923	All compounds	U	U	AC

Notes:
U =Non detect
AC = acceptable

The calculated RPDs between the parent sample and field duplicates were acceptable.

7. System Performance and Overall Assessment

SDGs #880-6346-1,880-6402-1 and 880-6434-1: Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA REVIEW REPORT

DATA VALIDATION CHECKLIST FOR TPH

TPH: SW-846 8015	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/FID)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X	X		
Dilution Factor		X		X	

Notes:
%R - percent recovery
RPD - relative percent difference

DATA REVIEW REPORT

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 6020A, 7196A, EPA 300, SM 2540C. Data were reviewed in accordance with USEPA National Functional Guidelines NFG for Inorganic Superfund Methods Data Review, EPA-540-R-20-006 (November 2020), with reference to the historical (USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, OSWER 9240.1-05A-P, October 2004, as appropriate).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.
  - J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).
- Quantitation (Q) Qualifiers
  - E The reported value is estimated due to the presence of interference.
  - N Spiked sample recovery is not within control limits.
  - * Duplicate analysis is not within control limits.
- Validation Qualifiers
  - J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
  - UB Analyte considered non-detect at the listed value due to associated blank contamination.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

DATA REVIEW REPORT

METALS ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6020A	Water	180 days from collection to analysis	Preserved to a pH of less than 2.

SDGs #880-6346-1,880-6402-1 and 880-6434-1: All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the sample detection limit (SDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

SDGs #880-6346-1,880-6402-1 and 880-6434-1: All analytes were not detected above the SDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

SDG #880-6346-1: The MS/MSD analysis was performed on sample MW-15-W-210921. All analytes associated with MS/MSD recoveries and RPDs were within control limits.

SDG #880-6402-1: The MS/MSD analysis was not performed on samples from this SDG.

SDG #880-6434-1: The MS/MSD analysis was performed on sample MW-34-W-210923. All analytes associated with MS/MSD recoveries and RPDs were within control limits.

3.2 Laboratory Duplicate Analysis

The laboratory duplicates relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices and two times the RL for soil matrices.

SDGs #880-6346-1,880-6402-1 and 880-6434-1: Laboratory duplicate analysis was not performed for the samples from this SDGs.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

SDGs	Sample ID/Duplicate ID	Analytes	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
880-6346-1	MW-15-W-210921 / Dup1-W-210921	Arsenic	0.0113	0.0120	AC
		Barium	0.0419	0.0443	AC
		Chromium	0.000686 J	U	AC
880-6434-1	MW-34-W-210923 / Dup-2-W-210923	Arsenic	0.000909 J	0.000958 J	AC
		Barium	4.85	4.72	2.71 %

Notes:
AC = acceptable
U =Non detect

The calculated RPDs between the parent sample and field duplicates were acceptable.

SDGs #880-6402-1: Field duplicate analysis was not performed on samples from this SDG.

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120% and RPDs within the laboratory-established acceptance limits.

SDGs #880-6346-1,880-6402-1 and 880-6434-1: The LCS/LCSD analysis exhibited recoveries and RPDs within the control limits.

6. System Performance and Overall Assessment

SDGs #880-6346-1,880-6402-1 and 880-6434-1: Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA REVIEW REPORT

DATA VALIDATION CHECKLIST FOR METAL

METALS; SW-846 6020A	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)					
Tier II Validation					
Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Instrument Blanks	X				X
B. Method Blanks		X		X	
C. Equipment/Field Blanks	X				X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Reporting Limit Verification		X		X	

Notes:
%R Percent recovery
RPD Relative percent difference
%D Percent difference

DATA REVIEW REPORT

GENERAL CHEMISTRY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Hexavalent chromium by SW-846 7196A	Water	24 hours from collection to analysis	Cool to <6 °C.
Chloride by EPA 300.0	Water	28 days from collection to analysis	Cool to <6 °C.
Total Dissolved Solids by SM 2540C	Water	7 days from collection to analysis	Cool to <6 °C.

SDGs #880-6346-1,880-6402-1 and 880-6434-1: All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the sample detection limit (SDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

SDGs #880-6346-1,880-6402-1 and 880-6434-1: All analytes were not detected above the SDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS/MSD Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

SDG #880-6346-1: MS/MSD analysis was performed on sample ID MW-15-W-210921 for hexavalent chromium analysis. MS/MSD analysis exhibited recoveries and RPDs within the control limits.

SDG #880-6402-1: MS/MSD analysis was performed on sample ID MW-24-W-210922, MW-25-W-210922 for Anions, Ion Chromatography and MWD-15-W-210922, MWD-3-W-210922 for 7196A - Chromium, Hexavalent analysis. MS/MSD analysis exhibited recoveries and RPDs within the control limits.

SDGs #880-6434-1: MS/MSD analysis was performed on sample ID MW-34-W-210923 for hexavalent chromium analysis. MS/MSD analysis exhibited recoveries and RPDs within the control limits.

3.2 Laboratory Duplicate Analysis

The laboratory duplicates relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one time the RL is applied for water matrices.

SDG #880-6346-1: The laboratory duplicate analysis was performed on sample MW-11-W-210921 for total dissolved solids, exhibited RPD within the control limit.

SDG #880-6402-1: The laboratory duplicate analysis was performed on sample MW-30-W-210922 for total dissolved solids exhibited RPD within the control limit.

SDG #880-6434-1: The laboratory duplicate analysis was not performed on samples from this SDG.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

SDGs	Sample ID/Duplicate ID	Analytes	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
880-6346-1	MW-15-W-210921 / Dup1-W-210921	Chloride	1440	1510	AC
		Total Dissolved Solids	4110	4220	AC
880-6434-1	MW-34-W-210923 / Dup-2-W-210923	Chloride	25.7	25.6	0.38 %
		Total Dissolved Solids	852	1710	67.0 %

Notes:
AC - acceptable

The calculated RPDs between the parent sample and field duplicates were acceptable.

SDG #880-6402-1: Field duplicate analysis was not performed on samples from this SDG.

SDG #880-6434-1: The analytes Total Dissolved Solids associated with sample IDs MW-34-W-210923 and Dup-2-W-210923 exhibited a field duplicate RPD greater than the control limit. The associated sample results from sample locations for the listed analyte were qualified as estimated.

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120% and RPDs within the laboratory-established acceptance limits.

SDGs #880-6346-1,880-6402-1 and 880-6434-1: The LCS/LCSD analysis exhibited recoveries and RPDs within the control limits.

6. System Performance and Overall Assessment

SDGs #880-6346-1,880-6402-1 and 880-6434-1: Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: SW7196A, EPA 300.0 and SM 2540C	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	

Notes:

%RSD – Relative standard deviation
%R - Percent recovery
RPD - Relative percent difference

DATA REVIEW REPORT

VALIDATION PERFORMED BY: Bhagyashree Fulzele

SIGNATURE: BFulzele

DATE: January 10, 2022

PEER REVIEW: Dennis Capria

DATE: January 11, 2022

CHAIN OF CUSTODY

CORRECTED SAMPLE ANALYSIS DATA SHEETS

Eurofins Xenco, Midland
1211 W Florida Ave
Midland TX 79701
Phone (432) 704-5440

Chain of Custody Record

880-6346 Chain of Custody

Eurofins Environment Testing America

01-106 3

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Client Information			
Client Contact: Callum Ferguson	Sampler: Daniel McLee	Lab PM: Builes John	
	Phone: 432-999-2980	E-Mail: john.builes@eurofinset.com	
Company: ARCADIS U S Inc.	PWSID		
Address: 1004 North Big Spring Suite 300	Due Date Requested:		
City: Midland	TAT Requested (days):		
State, Zip: TX 79701	Compliance Project: Δ Yes Δ No		
Phone: 206-295-3273(Tel)	PO #: Purchase Order not required		
Email: Callum.Ferguson@arcadis.com	WO #:		
Project Name: Eunice Project SOUTH	Project #: 88000209		
Site	SSOW#:		

Job #:

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, 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)	300_ORGFM_28D - Chloride	6020A Custom List	2540C_Calcd - Local Method	8015MOD_NM - Full TPH	8021B BTEX	7196A Local Method	Total Number of containers	Special Instructions/Note
			Preservation Code:				N	D	N	A	A	N		
MW-15-W-210921	092121	1250	G	W	Y		X	X	X	X	X	X	9	
MW-16-W-210921	092121	1420	G	W	Y		X	X	X	X	X	X	9	
MW-17-W-210921	092121	1515	G	W	Y		X	X	X	X	X	X	9	
DUP1-W-210921	092121	—	G	W	Y		X	X	X	X	X	X	9	
MW-11-W-210921	092121	1037	G	W	Y		X	X	X	X	X	X	9	
RW-6-W-210921	092121	1420	G	W	Y		X	X	X	X	X	X	9	

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]	092121 / 1740	Arcadis	[signature]	9/21/21 1740	XENCO

Custody Seals Intact	Custody Seal No	Cooler Temperature(s) °C and Other Remarks
Δ Yes Δ No		

Ver: 01/16/2019

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Client Sample ID: MW-15-W-210921

Date Collected: 09/21/21 12:50
Date Received: 09/21/21 17:44

Lab Sample ID: 880-6346-1

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000837**	**J**	0.00200	0.000408	mg/L			09/24/21 18:22	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/24/21 18:22	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/24/21 18:22	1
m-Xylene & p-Xylene	**0.000631**	**J**	0.00400	0.000629	mg/L			09/24/21 18:22	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/24/21 18:22	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/24/21 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*		*09/24/21 18:22*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*		*09/24/21 18:22*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00147**	**J**	0.00400	0.000657	mg/L			01/05/22 13:44	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.901	U	4.56	0.901	mg/L		09/24/21 14:09	09/24/21 20:01	1
Diesel Range Organics (Over C10-C28)	<0.901	U	4.56	0.901	mg/L		09/24/21 14:09	09/24/21 20:01	1
Oil Range Organics (Over C28-C36)	<0.869	U	4.56	0.869	mg/L		09/24/21 14:09	09/24/21 20:01	1
Total TPH	<0.901	U	4.56	0.901	mg/L		09/24/21 14:09	09/24/21 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*12544*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 20:01*	*1*
o-Terphenyl	*14662*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 20:01*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1440**		5.00	2.00	mg/L			09/24/21 02:43	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0113**		0.00400	0.000246	mg/L		09/24/21 08:30	09/24/21 14:16	1
Barium	**0.0419**		0.00400	0.000484	mg/L		09/24/21 08:30	09/24/21 14:16	1
Chromium	**0.000686**	**J**	0.00400	0.000525	mg/L		09/24/21 08:30	09/24/21 14:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4110**		40.0	40.0	mg/L			09/27/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/22/21 10:00	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Client Sample ID: MW-16-W-210921

Date Collected: 09/21/21 14:20
Date Received: 09/21/21 17:44

Lab Sample ID: 880-6346-2

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/24/21 18:48	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/24/21 18:48	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/24/21 18:48	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/24/21 18:48	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/24/21 18:48	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/24/21 18:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*09/24/21 18:48*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*		*09/24/21 18:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000657	U	0.00400	0.000657	mg/L			01/05/22 13:44	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.872	U	4.41	0.872	mg/L		09/24/21 14:09	09/24/21 21:06	1
Diesel Range Organics (Over C10-C28)	<0.872	U	4.41	0.872	mg/L		09/24/21 14:09	09/24/21 21:06	1
Oil Range Organics (Over C28-C36)	<0.841	U	4.41	0.841	mg/L		09/24/21 14:09	09/24/21 21:06	1
Total TPH	<0.872	U	4.41	0.872	mg/L		09/24/21 14:09	09/24/21 21:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*13129*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 21:06*	*1*
o-Terphenyl	*14273*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 21:06*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1780**		5.00	2.00	mg/L			09/24/21 03:16	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0135**		0.00400	0.000246	mg/L		09/24/21 08:30	09/24/21 14:57	1
Barium	**0.0371**		0.00400	0.000484	mg/L		09/24/21 08:30	09/24/21 14:57	1
Chromium	**0.0909**		0.00400	0.000525	mg/L		09/24/21 08:30	09/24/21 14:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4180**		40.0	40.0	mg/L			09/27/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**0.0931**		0.0100	0.00273	mg/L			09/22/21 10:00	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Client Sample ID: MW-17-W-210921

Date Collected: 09/21/21 15:15
Date Received: 09/21/21 17:44

Lab Sample ID: 880-6346-3

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/24/21 19:15	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/24/21 19:15	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/24/21 19:15	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/24/21 19:15	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/24/21 19:15	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/24/21 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*09/24/21 19:15*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*		*09/24/21 19:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000657	U	0.00400	0.000657	mg/L			01/05/22 13:44	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.893	U	4.52	0.893	mg/L		09/24/21 14:09	09/24/21 21:27	1
Diesel Range Organics (Over C10-C28)	<0.893	U	4.52	0.893	mg/L		09/24/21 14:09	09/24/21 21:27	1
Oil Range Organics (Over C28-C36)	<0.862	U	4.52	0.862	mg/L		09/24/21 14:09	09/24/21 21:27	1
Total TPH	<0.893	U	4.52	0.893	mg/L		09/24/21 14:09	09/24/21 21:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*12419*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 21:27*	*1*
o-Terphenyl	*13301*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 21:27*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1050**		5.00	2.00	mg/L			09/24/21 03:27	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0105**		0.00400	0.000246	mg/L		09/24/21 08:30	09/24/21 15:00	1
Barium	**0.180**		0.00400	0.000484	mg/L		09/24/21 08:30	09/24/21 15:00	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/24/21 08:30	09/24/21 15:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**2400**		40.0	40.0	mg/L			09/27/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/22/21 10:00	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Client Sample ID: Dup1-W-210921

Lab Sample ID: 880-6346-4
Date Collected: 09/21/21 00:00
Matrix: Water
Date Received: 09/21/21 17:44

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/24/21 19:41	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/24/21 19:41	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/24/21 19:41	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/24/21 19:41	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/24/21 19:41	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/24/21 19:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*		*09/24/21 19:41*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*		*09/24/21 19:41*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000657	U	0.00400	0.000657	mg/L			01/05/22 13:44	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.877	U	4.44	0.877	mg/L		09/24/21 14:09	09/24/21 21:49	1
Diesel Range Organics (Over C10-C28)	<0.877	U	4.44	0.877	mg/L		09/24/21 14:09	09/24/21 21:49	1
Oil Range Organics (Over C28-C36)	<0.846	U	4.44	0.846	mg/L		09/24/21 14:09	09/24/21 21:49	1
Total TPH	<0.877	U	4.44	0.877	mg/L		09/24/21 14:09	09/24/21 21:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*10652*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 21:49*	*1*
o-Terphenyl	*11953*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 21:49*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1510**		5.00	2.00	mg/L			09/24/21 03:39	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0120**		0.00400	0.000246	mg/L		09/24/21 08:30	09/24/21 15:03	1
Barium	**0.0443**		0.00400	0.000484	mg/L		09/24/21 08:30	09/24/21 15:03	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/24/21 08:30	09/24/21 15:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4220**		40.0	40.0	mg/L			09/27/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U ~~H~~	0.0100	0.00273	mg/L			09/22/21 10:00	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Client Sample ID: MW-11-W-210921

Lab Sample ID: 880-6346-5
Matrix: Water
Date Collected: 09/21/21 10:37
Date Received: 09/21/21 17:44

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0189**		0.00200	0.000408	mg/L			09/24/21 20:08	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/24/21 20:08	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/24/21 20:08	1
m-Xylene & p-Xylene	**0.000635**	**J**	0.00400	0.000629	mg/L			09/24/21 20:08	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/24/21 20:08	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/24/21 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*		*09/24/21 20:08*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*		*09/24/21 20:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0195**		0.00400	0.000657	mg/L			01/05/22 13:44	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**5.57**	J	4.57	0.904	mg/L		09/24/21 14:09	09/24/21 22:11	1
Diesel Range Organics (Over C10-C28)	<0.904	U	4.57	0.904	mg/L		09/24/21 14:09	09/24/21 22:11	1
Oil Range Organics (Over C28-C36)	<0.872	U	4.57	0.872	mg/L		09/24/21 14:09	09/24/21 22:11	1
Total TPH	**5.57**	J	4.57	0.904	mg/L		09/24/21 14:09	09/24/21 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*11870*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 22:11*	*1*
o-Terphenyl	*13256*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 22:11*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**91.8**		0.500	0.200	mg/L			09/24/21 03:50	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0326**		0.00400	0.000246	mg/L		09/24/21 08:30	09/24/21 15:06	1
Barium	**1.00**		0.00400	0.000484	mg/L		09/24/21 08:30	09/24/21 15:06	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/24/21 08:30	09/24/21 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1010**		10.0	10.0	mg/L			09/27/21 10:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/22/21 10:00	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Client Sample ID: RW-6-W-210921

Date Collected: 09/21/21 14:20
Date Received: 09/21/21 17:44

Lab Sample ID: 880-6346-6

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/24/21 20:35	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/24/21 20:35	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/24/21 20:35	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/24/21 20:35	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/24/21 20:35	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/24/21 20:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*		*09/24/21 20:35*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*		*09/24/21 20:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000657	U	0.00400	0.000657	mg/L			01/05/22 13:44	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**1.83**	**J**	4.49	0.887	mg/L		09/24/21 14:09	09/24/21 22:33	1
Diesel Range Organics (Over C10-C28)	**1.38**	**J**	4.49	0.887	mg/L		09/24/21 14:09	09/24/21 22:33	1
Oil Range Organics (Over C28-C36)	**0.950**	**J**	4.49	0.856	mg/L		09/24/21 14:09	09/24/21 22:33	1
Total TPH	**4.16**	**J**	4.49	0.887	mg/L		09/24/21 14:09	09/24/21 22:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*12634*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 22:33*	*1*
o-Terphenyl	*13404*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 22:33*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**872**		5.00	2.00	mg/L			09/24/21 06:25	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00358**	**J**	0.00400	0.000246	mg/L		09/24/21 08:30	09/24/21 15:09	1
Barium	**1.58**		0.00400	0.000484	mg/L		09/24/21 08:30	09/24/21 15:09	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/24/21 08:30	09/24/21 15:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**2450**		40.0	40.0	mg/L			09/27/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/22/21 10:00	1

Eurofins Xenco, Midland
1211 W Florida Ave
Midland TX 79701
Phone (432) 704-5440

Chain of Custody Record

880-6402 Chain of Custody

Page 1 of 1

Client Information			
Client Contact: Callum Ferguson	Sampler: Daniel McLee	Lab PM: Builes John	Carrier 1
	Phone: 432-909-2980	E-Mail: john.builes@eurofinset.com	State of
Company: ARCADIS U S Inc.	PWSID:		
Address: 1004 North Big Spring Suite 300	Due Date Requested:		
City: Midland	TAT Requested (days):		
State Zip: TX, 79701	Compliance Project: Δ Yes Δ No		
Phone: 206-295-3273(Tel)	PO #: Purchase Order not required		
Email: Callum.Ferguson@arcadis.com	WO #:		
Project Name: Eunice Project SOUTH	Project #: 88000209		
Site:	SSOW#:		

Job #:

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, 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)	300_ORGFM_28D - Chloride	6020A - Custom List	2540C_Calcd - Local Method	8015MOD_NM - Full TPH	8021B BTEX	7196A - Local Method	Total Number of containers	Special Instructions/Note
			Preservation Code:				N	D	N	A	A	N		
MW-24-W-210922	092221	1017	G	W	Y		X	X	X	X	X	X	9	
MW-25-W-210922	092221	1113	G	W	Y		X	X	X	X	X	X	9	
MW-26-W-210922	092221	1200	G	W	Y		X	X	X	X	X	X	9	
MW-29-W-210922	092221	1240	G	W	Y		X	X	X	X	X	X	9	
MW-30-W-210922	092221	1405	G	W	Y		X	X	X	X	X	X	9	
MW-32-W-210922	092221	1450	G	W	Y		X	X	X	X	X	X	9	
MWD-15-W-210922	092221	0940	G	W	Y		X	X	X	X	X	X	9	
MWD-14-W-210922	092221	1058	G	W	Y		X	X	X	X	X	X	9	
MWD-13-W-210922	092221	1140	G	W	Y		X	X	X	X	X	X	9	
MWD-12-W-210922	092221	1258	G	W	Y		X	X	X	X	X	X	9	
MWD-3-W-210922	092221	1410	G	W	Y		X	X	X	X	X	X	9	

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Empty Kit Relinquished by:	Date	Time	Method of Shipment:		
Relinquished by:	092221 / 1748	Arcadis		092221 1748	
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.

Ver: 01/16/2019

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MW-24-W-210922

Date Collected: 09/22/21 10:17
Date Received: 09/22/21 17:01

Lab Sample ID: 880-6402-1

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	11.9	D	0.100	0.0204	mg/L			09/29/21 03:20	50
Toluene	0.00671	J	0.0200	0.00367	mg/L			09/28/21 03:09	10
Ethylbenzene	0.0541	J	0.0200	0.00657	mg/L			09/28/21 03:09	10
m-Xylene & p-Xylene	0.0843	J	0.0400	0.00629	mg/L			09/28/21 03:09	10
o-Xylene	<0.00642	U	0.0200	0.00642	mg/L			09/28/21 03:09	10
Xylenes, Total	0.0843	J	0.0400	0.00642	mg/L			09/28/21 03:09	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*09/28/21 03:09*	*10*
1,4-Difluorobenzene (Surr)	*146*	*S1+*	*70 - 130*		*09/28/21 03:09*	*10*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	12.0		0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	23.6		5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	22.0	J	4.55	0.898	mg/L		09/24/21 14:09	09/24/21 22:55	1
Diesel Range Organics (Over C10-C28)	1.56	J	4.55	0.898	mg/L		09/24/21 14:09	09/24/21 22:55	1
Oil Range Organics (Over C28-C36)	<0.867	U	4.55	0.867	mg/L		09/24/21 14:09	09/24/21 22:55	1
Total TPH	23.6	J	4.55	0.898	mg/L		09/24/21 14:09	09/24/21 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*11308*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 22:55*	*1*
o-Terphenyl	*12106*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 22:55*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	172		5.00	2.00	mg/L			09/26/21 00:30	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0281		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:03	1
Barium	2.55		0.0200	0.00242	mg/L		09/27/21 09:00	09/28/21 13:56	5
Chromium	0.000670	J	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1520		20.0	20.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.00595	J	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MW-25-W-210922

Date Collected: 09/22/21 11:13
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-2

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.60	D	0.100	0.0204	mg/L			09/29/21 03:47	50
Toluene	<0.00367	U	0.0200	0.00367	mg/L			09/28/21 03:35	10
Ethylbenzene	0.0579	J	0.0200	0.00657	mg/L			09/28/21 03:35	10
m-Xylene & p-Xylene	<0.00629	U	0.0400	0.00629	mg/L			09/28/21 03:35	10
o-Xylene	<0.00642	U	0.0200	0.00642	mg/L			09/28/21 03:35	10
Xylenes, Total	<0.00642	U	0.0400	0.00642	mg/L			09/28/21 03:35	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*312*	*S1+*	*70 - 130*		*09/28/21 03:35*	*10*
1,4-Difluorobenzene (Surr)	*286*	*S1+*	*70 - 130*		*09/28/21 03:35*	*10*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	1.66		0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	6.06		5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	3.97	J	4.35	0.859	mg/L		09/24/21 14:09	09/24/21 23:17	1
Diesel Range Organics (Over C10-C28)	2.09	J	4.35	0.859	mg/L		09/24/21 14:09	09/24/21 23:17	1
Oil Range Organics (Over C28-C36)	<0.829	U	4.35	0.829	mg/L		09/24/21 14:09	09/24/21 23:17	1
Total TPH	6.06	J	4.35	0.859	mg/L		09/24/21 14:09	09/24/21 23:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*8202*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 23:17*	*1*
o-Terphenyl	*8490*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 23:17*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2160		5.00	2.00	mg/L			09/29/21 05:17	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0148		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:12	1
Barium	1.44		0.00400	0.000484	mg/L		09/27/21 09:00	09/27/21 20:12	1
Chromium	0.00114	J	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	6350		100	100	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MW-26-W-210922

Lab Sample ID: 880-6402-3
Matrix: Water
Date Collected: 09/22/21 12:00
Date Received: 09/22/21 17:48

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.766**		0.0200	0.00408	mg/L			09/28/21 04:01	10
Toluene	<0.00367	U	0.0200	0.00367	mg/L			09/28/21 04:01	10
Ethylbenzene	<0.00657	U	0.0200	0.00657	mg/L			09/28/21 04:01	10
m-Xylene & p-Xylene	**0.0140**	**J**	0.0400	0.00629	mg/L			09/28/21 04:01	10
o-Xylene	<0.00642	U	0.0200	0.00642	mg/L			09/28/21 04:01	10
Xylenes, Total	**0.0140**	**J**	0.0400	0.00642	mg/L			09/28/21 04:01	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*09/28/21 04:01*	*10*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*		*09/28/21 04:01*	*10*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.780**		0.00200	0.00100	mg/L			09/30/21 19:38	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**8.60**		5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**3.67**	**J**	4.48	0.885	mg/L		09/24/21 14:09	09/24/21 23:45	1
Diesel Range Organics (Over C10-C28)	**4.93**	J	4.48	0.885	mg/L		09/24/21 14:09	09/24/21 23:45	1
Oil Range Organics (Over C28-C36)	<0.854	U	4.48	0.854	mg/L		09/24/21 14:09	09/24/21 23:45	1
Total TPH	**8.60**	J	4.48	0.885	mg/L		09/24/21 14:09	09/24/21 23:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*10771*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 23:45*	*1*
o-Terphenyl	*11365*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 23:45*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**		5.00	2.00	mg/L			09/29/21 05:50	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0520**		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:15	1
Barium	**4.65**		0.0400	0.00484	mg/L		09/27/21 09:00	09/28/21 13:59	10
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1510**		20.0	20.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MW-29-W-210922

Lab Sample ID: 880-6402-4
Matrix: Water
Date Collected: 09/22/21 12:40
Date Received: 09/22/21 17:48

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0584**		0.0200	0.00408	mg/L			09/28/21 04:27	10
Toluene	<0.00367	U	0.0200	0.00367	mg/L			09/28/21 04:27	10
Ethylbenzene	<0.00657	U	0.0200	0.00657	mg/L			09/28/21 04:27	10
m-Xylene & p-Xylene	<0.00629	U	0.0400	0.00629	mg/L			09/28/21 04:27	10
o-Xylene	<0.00642	U	0.0200	0.00642	mg/L			09/28/21 04:27	10
Xylenes, Total	<0.00642	U	0.0400	0.00642	mg/L			09/28/21 04:27	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*09/28/21 04:27*	*10*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*		*09/28/21 04:27*	*10*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0584**		0.00200	0.00100	mg/L			09/30/21 19:38	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**5.04**		5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**3.90**	**J**	4.49	0.887	mg/L		09/24/21 14:09	09/25/21 00:07	1
Diesel Range Organics (Over C10-C28)	**1.14**	**J**	4.49	0.887	mg/L		09/24/21 14:09	09/25/21 00:07	1
Oil Range Organics (Over C28-C36)	<0.856	U	4.49	0.856	mg/L		09/24/21 14:09	09/25/21 00:07	1
Total TPH	**5.04**	J	4.49	0.887	mg/L		09/24/21 14:09	09/25/21 00:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*8936*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 00:07*	*1*
o-Terphenyl	*9501*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 00:07*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**317**		5.00	2.00	mg/L			09/29/21 06:01	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00284**	**J**	0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:18	1
Barium	**7.72**		0.0400	0.00484	mg/L		09/27/21 09:00	09/28/21 14:02	10
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1370**		20.0	20.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MW-30-W-210922

Date Collected: 09/22/21 14:05
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-5

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00816	~~U~~	0.0400	0.00816	mg/L			09/29/21 00:36	20
Toluene	<0.00734	~~U~~	0.0400	0.00734	mg/L			09/29/21 00:36	20
Ethylbenzene	<0.0131	~~U~~ UJ	0.0400	0.0131	mg/L			09/29/21 00:36	20
m-Xylene & p-Xylene	<0.0126	~~U~~	0.0800	0.0126	mg/L			09/29/21 00:36	20
o-Xylene	<0.0128	~~U~~	0.0400	0.0128	mg/L			09/29/21 00:36	20
Xylenes, Total	<0.0128	~~U~~	0.0800	0.0128	mg/L			09/29/21 00:36	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*	*S1-*	*70 - 130*		*09/29/21 00:36*	*20*
1,4-Difluorobenzene (Surr)	*68*	*S1-*	*70 - 130*		*09/29/21 00:36*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.988	U	5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.869	U	4.40	0.869	mg/L		09/24/21 14:09	09/25/21 00:52	1
Diesel Range Organics (Over C10-C28)	<0.869	U	4.40	0.869	mg/L		09/24/21 14:09	09/25/21 00:52	1
Oil Range Organics (Over C28-C36)	<0.839	U	4.40	0.839	mg/L		09/24/21 14:09	09/25/21 00:52	1
Total TPH	<0.869	U	4.40	0.869	mg/L		09/24/21 14:09	09/25/21 00:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*10208*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 00:52*	*1*
o-Terphenyl	*11105*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 00:52*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**242**		5.00	2.00	mg/L			09/29/21 06:12	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00923**		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:21	1
Barium	**0.308**		0.00400	0.000484	mg/L		09/27/21 09:00	09/28/21 14:05	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1310**		20.0	20.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MW-32-W-210922

Date Collected: 09/22/21 14:50
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-6

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.638**		0.0400	0.00816	mg/L			09/29/21 01:03	20
Toluene	<0.00734	U	0.0400	0.00734	mg/L			09/29/21 01:03	20
Ethylbenzene	<0.0131	U	0.0400	0.0131	mg/L			09/29/21 01:03	20
m-Xylene & p-Xylene	<0.0126	U	0.0800	0.0126	mg/L			09/29/21 01:03	20
o-Xylene	<0.0128	U	0.0400	0.0128	mg/L			09/29/21 01:03	20
Xylenes, Total	<0.0128	U	0.0800	0.0128	mg/L			09/29/21 01:03	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*09/29/21 01:03*	*20*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*		*09/29/21 01:03*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.638**		0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.988	U	5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.872	U	4.41	0.872	mg/L		09/24/21 14:09	09/25/21 01:14	1
Diesel Range Organics (Over C10-C28)	<0.872	U	4.41	0.872	mg/L		09/24/21 14:09	09/25/21 01:14	1
Oil Range Organics (Over C28-C36)	<0.841	U	4.41	0.841	mg/L		09/24/21 14:09	09/25/21 01:14	1
Total TPH	<0.872	U	4.41	0.872	mg/L		09/24/21 14:09	09/25/21 01:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*9132*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 01:14*	*1*
o-Terphenyl	*9880*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 01:14*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**613**		5.00	2.00	mg/L			09/29/21 06:45	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0393**		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:24	1
Barium	**2.07**		0.0200	0.00242	mg/L		09/27/21 09:00	09/28/21 14:08	5
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**3240**		40.0	40.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**0.00322**	**J**	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MWD-15-W-210922

Lab Sample ID: 880-6402-7
Matrix: Water
Date Collected: 09/22/21 09:40
Date Received: 09/22/21 17:48

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0138**	**J**	0.0400	0.00816	mg/L			09/29/21 01:31	20
Toluene	<0.00734	U	0.0400	0.00734	mg/L			09/29/21 01:31	20
Ethylbenzene	<0.0131	U	0.0400	0.0131	mg/L			09/29/21 01:31	20
m-Xylene & p-Xylene	**0.0167**	**J**	0.0800	0.0126	mg/L			09/29/21 01:31	20
o-Xylene	<0.0128	U	0.0400	0.0128	mg/L			09/29/21 01:31	20
Xylenes, Total	**0.0167**	**J**	0.0800	0.0128	mg/L			09/29/21 01:31	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*		*09/29/21 01:31*	*20*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*		*09/29/21 01:31*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0305**		0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.988	U	5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.882	U	4.46	0.882	mg/L		09/24/21 14:09	09/25/21 01:36	1
Diesel Range Organics (Over C10-C28)	<0.882	U	4.46	0.882	mg/L		09/24/21 14:09	09/25/21 01:36	1
Oil Range Organics (Over C28-C36)	<0.851	U	4.46	0.851	mg/L		09/24/21 14:09	09/25/21 01:36	1
Total TPH	<0.882	U	4.46	0.882	mg/L		09/24/21 14:09	09/25/21 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*9817*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 01:36*	*1*
o-Terphenyl	*10338*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 01:36*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1250**		5.00	2.00	mg/L			09/29/21 06:56	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00583**		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:27	1
Barium	**2.51**		0.0200	0.00242	mg/L		09/27/21 09:00	09/28/21 14:11	5
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**3230**		40.0	40.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.0137	U	0.0500	0.0137	mg/L			09/23/21 09:20	5

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MWD-14-W-210922

Lab Sample ID: 880-6402-8
Matrix: Water

Date Collected: 09/22/21 10:58
Date Received: 09/22/21 17:48

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.701**		0.0400	0.00816	mg/L			09/29/21 01:58	20
Toluene	<0.00734	U	0.0400	0.00734	mg/L			09/29/21 01:58	20
Ethylbenzene	**0.0365**	**J**	0.0400	0.0131	mg/L			09/29/21 01:58	20
m-Xylene & p-Xylene	<0.0126	U	0.0800	0.0126	mg/L			09/29/21 01:58	20
o-Xylene	<0.0128	U	0.0400	0.0128	mg/L			09/29/21 01:58	20
Xylenes, Total	<0.0128	U	0.0800	0.0128	mg/L			09/29/21 01:58	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*09/29/21 01:58*	*20*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*		*09/29/21 01:58*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.738**		0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.988	U	5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.895	U	4.53	0.895	mg/L		09/24/21 14:09	09/25/21 01:58	1
Diesel Range Organics (Over C10-C28)	<0.895	U	4.53	0.895	mg/L		09/24/21 14:09	09/25/21 01:58	1
Oil Range Organics (Over C28-C36)	<0.864	U	4.53	0.864	mg/L		09/24/21 14:09	09/25/21 01:58	1
Total TPH	<0.895	U	4.53	0.895	mg/L		09/24/21 14:09	09/25/21 01:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*8037*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 01:58*	*1*
o-Terphenyl	*8505*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 01:58*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**586**		5.00	2.00	mg/L			09/29/21 07:08	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.000558**	**J**	0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:30	1
Barium	**0.807**		0.00400	0.000484	mg/L		09/27/21 09:00	09/28/21 14:14	1
Chromium	**0.000690**	**J**	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**2670**		40.0	40.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MWD-13-W-210922

Date Collected: 09/22/21 11:40
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-9

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00408	U	0.0200	0.00408	mg/L			09/29/21 00:09	10
Toluene	<0.00367	U	0.0200	0.00367	mg/L			09/29/21 00:09	10
Ethylbenzene	<0.00657	U	0.0200	0.00657	mg/L			09/29/21 00:09	10
m-Xylene & p-Xylene	<0.00629	U	0.0400	0.00629	mg/L			09/29/21 00:09	10
o-Xylene	<0.00642	U	0.0200	0.00642	mg/L			09/29/21 00:09	10
Xylenes, Total	<0.00642	U	0.0400	0.00642	mg/L			09/29/21 00:09	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*09/29/21 00:09*	*10*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*		*09/29/21 00:09*	*10*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.988	U	5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**0.869**	**J**	4.37	0.864	mg/L		09/24/21 14:09	09/25/21 02:21	1
Diesel Range Organics (Over C10-C28)	<0.864	U	4.37	0.864	mg/L		09/24/21 14:09	09/25/21 02:21	1
Oil Range Organics (Over C28-C36)	<0.834	U	4.37	0.834	mg/L		09/24/21 14:09	09/25/21 02:21	1
Total TPH	**0.869**	**J**	4.37	0.864	mg/L		09/24/21 14:09	09/25/21 02:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*9477*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 02:21*	*1*
o-Terphenyl	*9740*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 02:21*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2000**		5.00	2.00	mg/L			09/29/21 07:19	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0693**		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:33	1
Barium	**0.112**		0.00400	0.000484	mg/L		09/27/21 09:00	09/27/21 20:33	1
Chromium	**0.00216**	**J**	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**5680**		100	100	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MWD-12-W-210922

Lab Sample ID: 880-6402-10
Date Collected: 09/22/21 12:58
Matrix: Water
Date Received: 09/22/21 17:48

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00816	U	0.0400	0.00816	mg/L			09/29/21 02:25	20
Toluene	<0.00734	U	0.0400	0.00734	mg/L			09/29/21 02:25	20
Ethylbenzene	**0.0952**		0.0400	0.0131	mg/L			09/29/21 02:25	20
m-Xylene & p-Xylene	<0.0126	U	0.0800	0.0126	mg/L			09/29/21 02:25	20
o-Xylene	<0.0128	U	0.0400	0.0128	mg/L			09/29/21 02:25	20
Xylenes, Total	<0.0128	U	0.0800	0.0128	mg/L			09/29/21 02:25	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*09/29/21 02:25*	*20*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*		*09/29/21 02:25*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0952**		0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.988	U	5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.857	U	4.34	0.857	mg/L		09/24/21 14:09	09/25/21 02:43	1
Diesel Range Organics (Over C10-C28)	<0.857	U	4.34	0.857	mg/L		09/24/21 14:09	09/25/21 02:43	1
Oil Range Organics (Over C28-C36)	<0.827	U	4.34	0.827	mg/L		09/24/21 14:09	09/25/21 02:43	1
Total TPH	<0.857	U	4.34	0.857	mg/L		09/24/21 14:09	09/25/21 02:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*9962*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 02:43*	*1*
o-Terphenyl	*10275*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 02:43*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1570**		5.00	2.00	mg/L			09/29/21 07:30	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0440**		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:36	1
Barium	**0.374**		0.00400	0.000484	mg/L		09/27/21 09:00	09/27/21 20:36	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4260**		40.0	40.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MWD-3-W-210922

Date Collected: 09/22/21 14:10
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-11

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.29**		0.0400	0.00816	mg/L			09/29/21 02:52	20
Toluene	<0.00734	U	0.0400	0.00734	mg/L			09/29/21 02:52	20
Ethylbenzene	<0.0131	U	0.0400	0.0131	mg/L			09/29/21 02:52	20
m-Xylene & p-Xylene	<0.0126	U	0.0800	0.0126	mg/L			09/29/21 02:52	20
o-Xylene	<0.0128	U	0.0400	0.0128	mg/L			09/29/21 02:52	20
Xylenes, Total	<0.0128	U	0.0800	0.0128	mg/L			09/29/21 02:52	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*09/29/21 02:52*	*20*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*		*09/29/21 02:52*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**1.29**		0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.988	U	5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.840	U	4.25	0.840	mg/L		09/24/21 14:09	09/25/21 03:06	1
Diesel Range Organics (Over C10-C28)	<0.840	U	4.25	0.840	mg/L		09/24/21 14:09	09/25/21 03:06	1
Oil Range Organics (Over C28-C36)	<0.810	U	4.25	0.810	mg/L		09/24/21 14:09	09/25/21 03:06	1
Total TPH	<0.840	U	4.25	0.840	mg/L		09/24/21 14:09	09/25/21 03:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*10371*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 03:06*	*1*
o-Terphenyl	*10569*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 03:06*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19300**		50.0	20.0	mg/L			09/29/21 07:41	100

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0985**		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:39	1
Barium	**5.79**		0.0400	0.00484	mg/L		09/27/21 09:00	09/28/21 14:17	10
Chromium	**0.000533**	**J**	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**34300**		200	200	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 11:00	1

Eurofins Xenco, Midland
1211 W Florida Ave
Midland TX 79701
Phone (432) 704-5440

Chain of Custody Record

eurofins Environment Testing America

880-6434 Chain of Custody

Client Information			
Client Contact: Callum Ferguson	Sampler: Daniel McGee	Lab PM: Builes John	IC No 0-1501-106 3
Company: ARCADIS U S Inc	Phone: 432-999-2980	E-Mail: john builes@eurofinset.com	Page 1 of 1
Address: 1004 North Big Spring Suite 300	PWSID:		Job #: 880-6434
City: Midland	Due Date Requested		
State Zip: TX, 79701	TAT Requested (days)		
Phone: 206-295-3273(Tel)	Compliance Project: Δ Yes Δ No		
Email: Callum Ferguson@arcadis com	PO #: Purchase Order not required		
Project Name: Eunice Project SOUTH	WO #:		
Site	Project #: 88000209		
	SSOW#:		

Analysis Requested

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)	300_ORGFM_28D - Chloride	6020A Custom List	2540C_Calcd Local Method	8015MOD_NM Full TPH	8021B BTEX	7196A - Local Method	Total Number of containers	Special Instructions/Note
			Preservation Code:				N	D	N	A	A	N		
MW-34-W-210923	092321	0945	G	W	Y		X	X	X	X	X	X	9	
MW-35-W-210923	092321	1048	G	W	Y		X	X	X	X	X	X	9	
MW-38-W-210923	092321	1139	G	W	Y		X	X	X	X	X	X	9	
DUP-2-W-210923	092321	—	G	W	Y		X	X	X	X	X	X	9	

Preservation Codes

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

Other:

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
	092321 / 1537	Arcadis		092321 / 17:44	Arcadis
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
				9-23-21 / 17:44	Eurofins
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 0.6/1.1 +0.5

Ver: 01/16/2019

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Client Sample ID: MW-34-W-210923

Date Collected: 09/23/21 09:45
Date Received: 09/23/21 16:24

Lab Sample ID: 880-6434-1

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/30/21 06:42	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/30/21 06:42	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/30/21 06:42	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/30/21 06:42	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/30/21 06:42	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/30/21 06:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*09/30/21 06:42*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*		*09/30/21 06:42*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000657	U	0.00400	0.000657	mg/L			01/05/22 13:44	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.877	~~U F1~~ UJ	4.44	0.877	mg/L		09/29/21 15:31	09/30/21 06:39	1
Diesel Range Organics (Over C10-C28)	<0.877	~~U F1~~ UJ	4.44	0.877	mg/L		09/29/21 15:31	09/30/21 06:39	1
Oil Range Organics (Over C28-C36)	<0.846	U	4.44	0.846	mg/L		09/29/21 15:31	09/30/21 06:39	1
Total TPH	<0.877	~~U F1~~ UJ	4.44	0.877	mg/L		09/29/21 15:31	09/30/21 06:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*09/29/21 15:31*	*09/30/21 06:39*	*1*
o-Terphenyl	*113*		*70 - 130*	*09/29/21 15:31*	*09/30/21 06:39*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.7**		0.500	0.200	mg/L			10/01/21 05:10	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.000909**	**J**	0.00400	0.000246	mg/L		09/28/21 09:00	09/28/21 19:07	1
Barium	**4.85**		0.0200	0.00242	mg/L		09/28/21 09:00	09/29/21 14:50	5
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/28/21 09:00	09/28/21 19:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**852**	J	20.0	20.0	mg/L			09/29/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.0137	U	0.0500	0.0137	mg/L			09/23/21 17:58	5

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Client Sample ID: MW-35-W-210923

Lab Sample ID: 880-6434-2
Matrix: Water

Date Collected: 09/23/21 10:48
Date Received: 09/23/21 00:00

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00416		0.00200	0.000408	mg/L			09/30/21 04:08	1
Toluene	0.00611		0.00200	0.000367	mg/L			09/30/21 04:08	1
Ethylbenzene	0.000659	J	0.00200	0.000657	mg/L			09/30/21 04:08	1
m-Xylene & p-Xylene	0.00313	J	0.00400	0.000629	mg/L			09/30/21 04:08	1
o-Xylene	0.00102	J	0.00200	0.000642	mg/L			09/30/21 04:08	1
Xylenes, Total	0.00415		0.00400	0.000642	mg/L			09/30/21 04:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*		*09/30/21 04:08*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*		*09/30/21 04:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0151		0.00400	0.000657	mg/L			01/05/22 13:44	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.890	U	4.50	0.890	mg/L		09/29/21 15:31	09/30/21 07:42	1
Diesel Range Organics (Over C10-C28)	<0.890	U	4.50	0.890	mg/L		09/29/21 15:31	09/30/21 07:42	1
Oil Range Organics (Over C28-C36)	<0.859	U	4.50	0.859	mg/L		09/29/21 15:31	09/30/21 07:42	1
Total TPH	<0.890	U	4.50	0.890	mg/L		09/29/21 15:31	09/30/21 07:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*09/29/21 15:31*	*09/30/21 07:42*	*1*
o-Terphenyl	*100*		*70 - 130*	*09/29/21 15:31*	*09/30/21 07:42*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	133		0.500	0.200	mg/L			10/01/21 05:43	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0110		0.00400	0.000246	mg/L		09/28/21 09:00	09/28/21 19:27	1
Barium	0.104		0.00400	0.000484	mg/L		09/28/21 09:00	09/28/21 19:27	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/28/21 09:00	09/28/21 19:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	943		10.0	10.0	mg/L			09/29/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 17:58	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Client Sample ID: MW-38-W-210923

Lab Sample ID: 880-6434-3

Date Collected: 09/23/21 11:39
Date Received: 09/23/21 00:00

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000632**	**J**	0.00200	0.000408	mg/L			09/30/21 06:16	1
Toluene	**0.00115**	**J**	0.00200	0.000367	mg/L			09/30/21 06:16	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/30/21 06:16	1
m-Xylene & p-Xylene	**0.000671**	**J**	0.00400	0.000629	mg/L			09/30/21 06:16	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/30/21 06:16	1
Xylenes, Total	**0.000671**	**J**	0.00400	0.000642	mg/L			09/30/21 06:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*09/30/21 06:16*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*		*09/30/21 06:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00245**	**J**	0.00400	0.000657	mg/L			01/05/22 13:44	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.874	U	4.42	0.874	mg/L		09/24/21 14:09	09/25/21 03:28	1
Diesel Range Organics (Over C10-C28)	<0.874	U	4.42	0.874	mg/L		09/24/21 14:09	09/25/21 03:28	1
Oil Range Organics (Over C28-C36)	<0.844	U	4.42	0.844	mg/L		09/24/21 14:09	09/25/21 03:28	1
Total TPH	<0.874	U	4.42	0.874	mg/L		09/24/21 14:09	09/25/21 03:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*10677*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 03:28*	*1*
o-Terphenyl	*11432*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 03:28*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**52.7**		0.500	0.200	mg/L			10/01/21 06:06	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00852**		0.00400	0.000246	mg/L		09/28/21 09:00	09/28/21 19:30	1
Barium	**0.0732**		0.00400	0.000484	mg/L		09/28/21 09:00	09/28/21 19:30	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/28/21 09:00	09/28/21 19:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1880**		20.0	20.0	mg/L			09/29/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 17:58	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Client Sample ID: Dup-2-W-210923

Date Collected: 09/23/21 00:00
Date Received: 09/23/21 00:00

Lab Sample ID: 880-6434-4

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/30/21 07:08	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/30/21 07:08	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/30/21 07:08	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/30/21 07:08	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/30/21 07:08	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/30/21 07:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*		*09/30/21 07:08*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*		*09/30/21 07:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000657	U	0.00400	0.000657	mg/L			01/05/22 13:44	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.885	U	4.48	0.885	mg/L		09/24/21 14:09	09/25/21 03:51	1
Diesel Range Organics (Over C10-C28)	<0.885	U	4.48	0.885	mg/L		09/24/21 14:09	09/25/21 03:51	1
Oil Range Organics (Over C28-C36)	<0.854	U	4.48	0.854	mg/L		09/24/21 14:09	09/25/21 03:51	1
Total TPH	<0.885	U	4.48	0.885	mg/L		09/24/21 14:09	09/25/21 03:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*7959*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 03:51*	*1*
o-Terphenyl	*8524*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 03:51*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.6**		0.500	0.200	mg/L			10/01/21 06:17	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.000958**	**J**	0.00400	0.000246	mg/L		09/28/21 09:00	09/28/21 19:33	1
Barium	**4.72**		0.0200	0.00242	mg/L		09/28/21 09:00	09/29/21 14:59	5
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/28/21 09:00	09/28/21 19:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1710**	J	40.0	40.0	mg/L			09/29/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 17:58	1

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ANALYTICAL REPORT

Eurofins Xenco, Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-6434-1
Client Project/Site: Eunice Project South

For:
ARCADIS U.S. Inc
1100 Olive Way
Suite 800
Seattle, Washington 98101

Attn: Rebecca Andresen

Authorized for release by:
10/1/2021 5:31:06 PM

John Builes, Project Manager
(281)240-4200
john.builes@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Job ID: 880-6434-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative
880-6434-1

Receipt
The samples were received on 9/23/2021 12:00 AM and 9/23/2021 4:24 PM. 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 time was 1.1°C

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-8606 and analytical batch 880-8565 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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

Metals
Method 6020A: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-34-W-210923 (880-6434-1), Dup-2-W-210923 (880-6434-4), (880-6434-C-1-B MS ^5) and (880-6434-C-1-C MSD ^5). Elevated reporting limits (RLs) are provided.

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

General Chemistry
Method 7196A: The following sample matrix has been determined to be reductive in nature, which has the potential to convert hexavalent chromium to trivalent chromium: MW-34-W-210923 (880-6434-1), (880-6434-A-1 MS) and (880-6434-A-1 MSD). This reducing matrix may cause a low bias in the initial matrix spike (MS) and spike duplicate (MSD) results. The sample, matrix, spike (MS) and matrix spike duplicate (MSD) were run at a dilution to overcome this affect.

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

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Client Sample ID: MW-34-W-210923

Lab Sample ID: 880-6434-1
Matrix: Water
Date Collected: 09/23/21 09:45
Date Received: 09/23/21 16:24

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/30/21 06:42	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/30/21 06:42	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/30/21 06:42	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/30/21 06:42	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/30/21 06:42	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/30/21 06:42	1
Total BTEX	<0.00100	U *+	0.00200	0.00100	mg/L			09/30/21 06:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*09/30/21 06:42*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*		*09/30/21 06:42*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.877	U F1	4.44	0.877	mg/L		09/29/21 15:31	09/30/21 06:39	1
Diesel Range Organics (Over C10-C28)	<0.877	U F1	4.44	0.877	mg/L		09/29/21 15:31	09/30/21 06:39	1
Oil Range Organics (Over C28-C36)	<0.846	U	4.44	0.846	mg/L		09/29/21 15:31	09/30/21 06:39	1
Total TPH	<0.877	U F1	4.44	0.877	mg/L		09/29/21 15:31	09/30/21 06:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*09/29/21 15:31*	*09/30/21 06:39*	*1*
o-Terphenyl	*113*		*70 - 130*	*09/29/21 15:31*	*09/30/21 06:39*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.7**		0.500	0.200	mg/L			10/01/21 05:10	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.000909**	**J**	0.00400	0.000246	mg/L		09/28/21 09:00	09/28/21 19:07	1
Barium	**4.85**		0.0200	0.00242	mg/L		09/28/21 09:00	09/29/21 14:50	5
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/28/21 09:00	09/28/21 19:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**852**		20.0	20.0	mg/L			09/29/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.0137	U	0.0500	0.0137	mg/L			09/23/21 17:58	5

Client Sample ID: MW-35-W-210923

Lab Sample ID: 880-6434-2
Matrix: Water
Date Collected: 09/23/21 10:48
Date Received: 09/23/21 00:00

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00416**		0.00200	0.000408	mg/L			09/30/21 04:08	1
Toluene	**0.00611**		0.00200	0.000367	mg/L			09/30/21 04:08	1
Ethylbenzene	**0.000659**	**J**	0.00200	0.000657	mg/L			09/30/21 04:08	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Client Sample ID: MW-35-W-210923

Lab Sample ID: 880-6434-2
Matrix: Water

Date Collected: 09/23/21 10:48
Date Received: 09/23/21 00:00

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	0.00313	J	0.00400	0.000629	mg/L			09/30/21 04:08	1
o-Xylene	0.00102	J	0.00200	0.000642	mg/L			09/30/21 04:08	1
Xylenes, Total	0.00415		0.00400	0.000642	mg/L			09/30/21 04:08	1
Total BTEX	0.0151	*+	0.00200	0.00100	mg/L			09/30/21 04:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*		*09/30/21 04:08*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*		*09/30/21 04:08*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.890	U	4.50	0.890	mg/L		09/29/21 15:31	09/30/21 07:42	1
Diesel Range Organics (Over C10-C28)	<0.890	U	4.50	0.890	mg/L		09/29/21 15:31	09/30/21 07:42	1
OII Range Organics (Over C28-C36)	<0.859	U	4.50	0.859	mg/L		09/29/21 15:31	09/30/21 07:42	1
Total TPH	<0.890	U	4.50	0.890	mg/L		09/29/21 15:31	09/30/21 07:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*09/29/21 15:31*	*09/30/21 07:42*	*1*
o-Terphenyl	*100*		*70 - 130*	*09/29/21 15:31*	*09/30/21 07:42*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	133		0.500	0.200	mg/L			10/01/21 05:43	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0110		0.00400	0.000246	mg/L		09/28/21 09:00	09/28/21 19:27	1
Barium	0.104		0.00400	0.000484	mg/L		09/28/21 09:00	09/28/21 19:27	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/28/21 09:00	09/28/21 19:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	943		10.0	10.0	mg/L			09/29/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 17:58	1

Client Sample ID: MW-38-W-210923

Lab Sample ID: 880-6434-3
Matrix: Water

Date Collected: 09/23/21 11:39
Date Received: 09/23/21 00:00

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000632	J	0.00200	0.000408	mg/L			09/30/21 06:16	1
Toluene	0.00115	J	0.00200	0.000367	mg/L			09/30/21 06:16	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/30/21 06:16	1
m-Xylene & p-Xylene	0.000671	J	0.00400	0.000629	mg/L			09/30/21 06:16	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/30/21 06:16	1
Xylenes, Total	0.000671	J	0.00400	0.000642	mg/L			09/30/21 06:16	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Client Sample ID: MW-38-W-210923

Lab Sample ID: 880-6434-3
Matrix: Water
Date Collected: 09/23/21 11:39
Date Received: 09/23/21 00:00

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00284	*+	0.00200	0.00100	mg/L			09/30/21 06:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*09/30/21 06:16*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*		*09/30/21 06:16*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.874	U	4.42	0.874	mg/L		09/24/21 14:09	09/25/21 03:28	1
Diesel Range Organics (Over C10-C28)	<0.874	U	4.42	0.874	mg/L		09/24/21 14:09	09/25/21 03:28	1
Oil Range Organics (Over C28-C36)	<0.844	U	4.42	0.844	mg/L		09/24/21 14:09	09/25/21 03:28	1
Total TPH	<0.874	U	4.42	0.874	mg/L		09/24/21 14:09	09/25/21 03:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*10677*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 03:28*	*1*
o-Terphenyl	*11432*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 03:28*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	52.7		0.500	0.200	mg/L			10/01/21 06:06	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00852		0.00400	0.000246	mg/L		09/28/21 09:00	09/28/21 19:30	1
Barium	0.0732		0.00400	0.000484	mg/L		09/28/21 09:00	09/28/21 19:30	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/28/21 09:00	09/28/21 19:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1880		20.0	20.0	mg/L			09/29/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 17:58	1

Client Sample ID: Dup-2-W-210923

Lab Sample ID: 880-6434-4
Matrix: Water
Date Collected: 09/23/21 00:00
Date Received: 09/23/21 00:00

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/30/21 07:08	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/30/21 07:08	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/30/21 07:08	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/30/21 07:08	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/30/21 07:08	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/30/21 07:08	1
Total BTEX	<0.00100	U *+	0.00200	0.00100	mg/L			09/30/21 07:08	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Client Sample ID: Dup-2-W-210923

Date Collected: 09/23/21 00:00
Date Received: 09/23/21 00:00

Lab Sample ID: 880-6434-4

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*		*09/30/21 07:08*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*		*09/30/21 07:08*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.885	U	4.48	0.885	mg/L		09/24/21 14:09	09/25/21 03:51	1
Diesel Range Organics (Over C10-C28)	<0.885	U	4.48	0.885	mg/L		09/24/21 14:09	09/25/21 03:51	1
Oll Range Organics (Over C28-C36)	<0.854	U	4.48	0.854	mg/L		09/24/21 14:09	09/25/21 03:51	1
Total TPH	<0.885	U	4.48	0.885	mg/L		09/24/21 14:09	09/25/21 03:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*7959*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 03:51*	*1*
o-Terphenyl	*8524*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 03:51*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.6**		0.500	0.200	mg/L			10/01/21 06:17	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.000958**	**J**	0.00400	0.000246	mg/L		09/28/21 09:00	09/28/21 19:33	1
Barium	**4.72**		0.0200	0.00242	mg/L		09/28/21 09:00	09/29/21 14:59	5
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/28/21 09:00	09/28/21 19:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1710**		40.0	40.0	mg/L			09/29/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 17:58	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-6434-1	MW-34-W-210923	101	102
880-6434-2	MW-35-W-210923	106	99
880-6434-3	MW-38-W-210923	102	105
880-6434-4	Dup-2-W-210923	115	108
LCS 880-8514/65	Lab Control Sample	102	109
LCSD 880-8514/66	Lab Control Sample Dup	106	108
MB 880-8514/39	Method Blank	63 S1-	93
MB 880-8514/70	Method Blank	64 S1-	93

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-6434-1	MW-34-W-210923	102	113
880-6434-1 MS	MW-34-W-210923	71	70
880-6434-1 MSD	MW-34-W-210923	79	79
880-6434-2	MW-35-W-210923	91	100
880-6434-3	MW-38-W-210923	10677 S1+	11432 S1+
880-6434-4	Dup-2-W-210923	7959 S1+	8524 S1+
LCS 880-8368/2-A	Lab Control Sample	9416 S1+	9608 S1+
LCS 880-8606/2-A	Lab Control Sample	97	95
LCSD 880-8368/3-A	Lab Control Sample Dup	9242 S1+	9101 S1+
LCSD 880-8606/3-A	Lab Control Sample Dup	89	88
MB 880-8368/1-A	Method Blank	12376 S1+	14178 S1+
MB 880-8606/1-A	Method Blank	83	85

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-8514/39
Matrix: Water
Analysis Batch: 8514

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/29/21 13:21	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/29/21 13:21	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/29/21 13:21	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/29/21 13:21	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/29/21 13:21	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/29/21 13:21	1
Total BTEX	<0.00100	U	0.00200	0.00100	mg/L			09/29/21 13:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*63*	*S1-*	*70 - 130*		*09/29/21 13:21*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*		*09/29/21 13:21*	*1*

Lab Sample ID: MB 880-8514/70
Matrix: Water
Analysis Batch: 8514

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/30/21 02:51	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/30/21 02:51	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/30/21 02:51	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/30/21 02:51	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/30/21 02:51	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/30/21 02:51	1
Total BTEX	<0.00100	U	0.00200	0.00100	mg/L			09/30/21 02:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*64*	*S1-*	*70 - 130*		*09/30/21 02:51*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*		*09/30/21 02:51*	*1*

Lab Sample ID: LCS 880-8514/65
Matrix: Water
Analysis Batch: 8514

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07930		mg/L		79	70 - 130
Toluene	0.100	0.08734		mg/L		87	70 - 130
Ethylbenzene	0.100	0.08962		mg/L		90	70 - 130
m-Xylene & p-Xylene	0.200	0.1932		mg/L		97	70 - 130
o-Xylene	0.100	0.1003		mg/L		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-8514/66
Matrix: Water
Analysis Batch: 8514

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07779		mg/L		78	70 - 130	2	20
Toluene			0.100	0.08514		mg/L		85	70 - 130	3	20
Ethylbenzene			0.100	0.08761		mg/L		88	70 - 130	2	20
m-Xylene & p-Xylene			0.200	0.1895		mg/L		95	70 - 130	2	20
o-Xylene			0.100	0.09976		mg/L		100	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-8368/1-A
Matrix: Water
Analysis Batch: 8344

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8368

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.926	U	4.69	0.926	mg/L		09/24/21 14:09	09/24/21 18:55	1
Diesel Range Organics (Over C10-C28)	<0.926	U	4.69	0.926	mg/L		09/24/21 14:09	09/24/21 18:55	1
Oil Range Organics (Over C28-C36)	<0.894	U	4.69	0.894	mg/L		09/24/21 14:09	09/24/21 18:55	1
Total TPH	<0.926	U	4.69	0.926	mg/L		09/24/21 14:09	09/24/21 18:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*12376*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 18:55*	*1*
o-Terphenyl	*14178*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 18:55*	*1*

Lab Sample ID: LCS 880-8368/2-A
Matrix: Water
Analysis Batch: 8344

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8368

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			93.8	80.03		mg/L		85	75 - 125		
Diesel Range Organics (Over C10-C28)			93.8	91.35		mg/L		97	75 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*9416*	*S1+*	*70 - 130*
o-Terphenyl	*9608*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-8368/3-A
Matrix: Water
Analysis Batch: 8344

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 8368

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			93.8	82.48		mg/L		88	75 - 125	3	20

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-8368/3-A
Matrix: Water
Analysis Batch: 8344

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 8368

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)			93.8	87.48		mg/L		93	75 - 125	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*9242*	*S1+*	*70 - 130*
o-Terphenyl	*9101*	*S1+*	*70 - 130*

Lab Sample ID: MB 880-8606/1-A
Matrix: Water
Analysis Batch: 8565

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8606

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.926	U	4.69	0.926	mg/L		09/29/21 15:31	09/30/21 05:35	1
Diesel Range Organics (Over C10-C28)	<0.926	U	4.69	0.926	mg/L		09/29/21 15:31	09/30/21 05:35	1
Oil Range Organics (Over C28-C36)	<0.894	U	4.69	0.894	mg/L		09/29/21 15:31	09/30/21 05:35	1
Total TPH	<0.926	U	4.69	0.926	mg/L		09/29/21 15:31	09/30/21 05:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*09/29/21 15:31*	*09/30/21 05:35*	*1*
o-Terphenyl	*85*		*70 - 130*	*09/29/21 15:31*	*09/30/21 05:35*	*1*

Lab Sample ID: LCS 880-8606/2-A
Matrix: Water
Analysis Batch: 8565

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8606

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			93.8	85.31		mg/L		91	75 - 125		
Diesel Range Organics (Over C10-C28)			93.8	78.35		mg/L		84	75 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*95*		*70 - 130*

Lab Sample ID: LCSD 880-8606/3-A
Matrix: Water
Analysis Batch: 8565

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 8606

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			93.8	80.23		mg/L		86	75 - 125	6	20
Diesel Range Organics (Over C10-C28)			93.8	75.06		mg/L		80	75 - 125	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-8606/3-A
Matrix: Water
Analysis Batch: 8565

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 8606

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	88		70 - 130

Lab Sample ID: 880-6434-1 MS
Matrix: Water
Analysis Batch: 8565

Client Sample ID: MW-34-W-210923
Prep Type: Total/NA
Prep Batch: 8606

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<0.877	U F1	90.9	62.94	F1	mg/L		69	75 - 125		
Diesel Range Organics (Over C10-C28)	<0.877	U F1	90.9	51.98	F1	mg/L		57	75 - 125		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	71		70 - 130
o-Terphenyl	70		70 - 130

Lab Sample ID: 880-6434-1 MSD
Matrix: Water
Analysis Batch: 8565

Client Sample ID: MW-34-W-210923
Prep Type: Total/NA
Prep Batch: 8606

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	<0.877	U F1	90.9	70.87		mg/L		78	75 - 125	12	20
Diesel Range Organics (Over C10-C28)	<0.877	U F1	90.9	59.31	F1	mg/L		65	75 - 125	13	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	79		70 - 130
o-Terphenyl	79		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-24691/37
Matrix: Water
Analysis Batch: 24691

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.200	U	0.500	0.200	mg/L			10/01/21 01:17	1

Lab Sample ID: LCS 860-24691/38
Matrix: Water
Analysis Batch: 24691

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			10.0	9.491		mg/L		95	90 - 110		

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 860-24691/39
Matrix: Water
Analysis Batch: 24691

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.589		mg/L		96	90 - 110	1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 860-24304/1-A
Matrix: Water
Analysis Batch: 24460

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24304

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.000246	U	0.00400	0.000246	mg/L		09/28/21 09:00	09/28/21 18:58	1
Barium	<0.000484	U	0.00400	0.000484	mg/L		09/28/21 09:00	09/28/21 18:58	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/28/21 09:00	09/28/21 18:58	1

Lab Sample ID: LCS 860-24304/2-A
Matrix: Water
Analysis Batch: 24460

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24304

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.1019		mg/L		102	80 - 120
Barium	0.100	0.1003		mg/L		100	80 - 120
Chromium	0.100	0.1002		mg/L		100	80 - 120

Lab Sample ID: LCSD 860-24304/3-A
Matrix: Water
Analysis Batch: 24460

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24304

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.100	0.09919		mg/L		99	80 - 120	3	20
Barium	0.100	0.09921		mg/L		99	80 - 120	1	20
Chromium	0.100	0.09842		mg/L		98	80 - 120	2	20

Lab Sample ID: 880-6434-1 MS
Matrix: Water
Analysis Batch: 24460

Client Sample ID: MW-34-W-210923
Prep Type: Dissolved
Prep Batch: 24304

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.000909	J	0.100	0.09216		mg/L		91	75 - 125
Chromium	<0.000525	U	0.100	0.09098		mg/L		91	75 - 125

Lab Sample ID: 880-6434-1 MS
Matrix: Water
Analysis Batch: 24540

Client Sample ID: MW-34-W-210923
Prep Type: Dissolved
Prep Batch: 24304

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	4.85		0.100	4.683	4	mg/L		-163	75 - 125

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 880-6434-1 MSD — **Client Sample ID: MW-34-W-210923**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 24460 — **Prep Batch: 24304**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.000909	J	0.100	0.09374		mg/L		93	75 - 125	2	20
Chromium	<0.000525	U	0.100	0.09113		mg/L		91	75 - 125	0	20

Lab Sample ID: 880-6434-1 MSD — **Client Sample ID: MW-34-W-210923**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 24540 — **Prep Batch: 24304**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	4.85		0.100	4.649	4	mg/L		-197	75 - 125	1	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 880-8362/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8362

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 17:58	1

Lab Sample ID: LCS 880-8362/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8362

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.0400	0.03645		mg/L		91	85 - 115

Lab Sample ID: LCSD 880-8362/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8362

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	0.0400	0.03754		mg/L		94	85 - 115	3	20

Lab Sample ID: 880-6434-1 MS — **Client Sample ID: MW-34-W-210923**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 8362

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	<0.0137	U	1.00	0.9448		mg/L		94	85 - 115

Lab Sample ID: 880-6434-1 MSD — **Client Sample ID: MW-34-W-210923**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 8362

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	<0.0137	U	1.00	0.9475		mg/L		95	85 - 115	0	20

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 860-24510/1
Matrix: Water
Analysis Batch: 24510

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00	mg/L			09/29/21 10:30	1

Lab Sample ID: LCS 860-24510/2
Matrix: Water
Analysis Batch: 24510

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	1143		mg/L		114	80 - 120		

Lab Sample ID: LCSD 860-24510/3
Matrix: Water
Analysis Batch: 24510

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids			1000	1072		mg/L		107	80 - 120	6	10

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

GC VOA

Analysis Batch: 8514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6434-1	MW-34-W-210923	Total/NA	Water	8021B	
880-6434-2	MW-35-W-210923	Total/NA	Water	8021B	
880-6434-3	MW-38-W-210923	Total/NA	Water	8021B	
880-6434-4	Dup-2-W-210923	Total/NA	Water	8021B	
MB 880-8514/39	Method Blank	Total/NA	Water	8021B	
MB 880-8514/70	Method Blank	Total/NA	Water	8021B	
LCS 880-8514/65	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-8514/66	Lab Control Sample Dup	Total/NA	Water	8021B	

GC Semi VOA

Analysis Batch: 8344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6434-3	MW-38-W-210923	Total/NA	Water	8015B NM	8368
880-6434-4	Dup-2-W-210923	Total/NA	Water	8015B NM	8368
MB 880-8368/1-A	Method Blank	Total/NA	Water	8015B NM	8368
LCS 880-8368/2-A	Lab Control Sample	Total/NA	Water	8015B NM	8368
LCSD 880-8368/3-A	Lab Control Sample Dup	Total/NA	Water	8015B NM	8368

Prep Batch: 8368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6434-3	MW-38-W-210923	Total/NA	Water	8015NM Aq Prep	
880-6434-4	Dup-2-W-210923	Total/NA	Water	8015NM Aq Prep	
MB 880-8368/1-A	Method Blank	Total/NA	Water	8015NM Aq Prep	
LCS 880-8368/2-A	Lab Control Sample	Total/NA	Water	8015NM Aq Prep	
LCSD 880-8368/3-A	Lab Control Sample Dup	Total/NA	Water	8015NM Aq Prep	

Analysis Batch: 8565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6434-1	MW-34-W-210923	Total/NA	Water	8015B NM	8606
880-6434-2	MW-35-W-210923	Total/NA	Water	8015B NM	8606
MB 880-8606/1-A	Method Blank	Total/NA	Water	8015B NM	8606
LCS 880-8606/2-A	Lab Control Sample	Total/NA	Water	8015B NM	8606
LCSD 880-8606/3-A	Lab Control Sample Dup	Total/NA	Water	8015B NM	8606
880-6434-1 MS	MW-34-W-210923	Total/NA	Water	8015B NM	8606
880-6434-1 MSD	MW-34-W-210923	Total/NA	Water	8015B NM	8606

Prep Batch: 8606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6434-1	MW-34-W-210923	Total/NA	Water	8015NM Aq Prep	
880-6434-2	MW-35-W-210923	Total/NA	Water	8015NM Aq Prep	
MB 880-8606/1-A	Method Blank	Total/NA	Water	8015NM Aq Prep	
LCS 880-8606/2-A	Lab Control Sample	Total/NA	Water	8015NM Aq Prep	
LCSD 880-8606/3-A	Lab Control Sample Dup	Total/NA	Water	8015NM Aq Prep	
880-6434-1 MS	MW-34-W-210923	Total/NA	Water	8015NM Aq Prep	
880-6434-1 MSD	MW-34-W-210923	Total/NA	Water	8015NM Aq Prep	

HPLC/IC

Analysis Batch: 24691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6434-1	MW-34-W-210923	Total/NA	Water	300.0	

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

HPLC/IC (Continued)

Analysis Batch: 24691 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6434-2	MW-35-W-210923	Total/NA	Water	300.0	
880-6434-3	MW-38-W-210923	Total/NA	Water	300.0	
880-6434-4	Dup-2-W-210923	Total/NA	Water	300.0	
MB 860-24691/37	Method Blank	Total/NA	Water	300.0	
LCS 860-24691/38	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-24691/39	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 24304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6434-1	MW-34-W-210923	Dissolved	Water	3010A	
880-6434-2	MW-35-W-210923	Dissolved	Water	3010A	
880-6434-3	MW-38-W-210923	Dissolved	Water	3010A	
880-6434-4	Dup-2-W-210923	Dissolved	Water	3010A	
MB 860-24304/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-24304/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-24304/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
880-6434-1 MS	MW-34-W-210923	Dissolved	Water	3010A	
880-6434-1 MSD	MW-34-W-210923	Dissolved	Water	3010A	

Analysis Batch: 24460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6434-1	MW-34-W-210923	Dissolved	Water	6020A	24304
880-6434-2	MW-35-W-210923	Dissolved	Water	6020A	24304
880-6434-3	MW-38-W-210923	Dissolved	Water	6020A	24304
880-6434-4	Dup-2-W-210923	Dissolved	Water	6020A	24304
MB 860-24304/1-A	Method Blank	Total/NA	Water	6020A	24304
LCS 860-24304/2-A	Lab Control Sample	Total/NA	Water	6020A	24304
LCSD 860-24304/3-A	Lab Control Sample Dup	Total/NA	Water	6020A	24304
880-6434-1 MS	MW-34-W-210923	Dissolved	Water	6020A	24304
880-6434-1 MSD	MW-34-W-210923	Dissolved	Water	6020A	24304

Analysis Batch: 24540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6434-1	MW-34-W-210923	Dissolved	Water	6020A	24304
880-6434-4	Dup-2-W-210923	Dissolved	Water	6020A	24304
880-6434-1 MS	MW-34-W-210923	Dissolved	Water	6020A	24304
880-6434-1 MSD	MW-34-W-210923	Dissolved	Water	6020A	24304

General Chemistry

Analysis Batch: 8362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6434-1	MW-34-W-210923	Dissolved	Water	7196A	
880-6434-2	MW-35-W-210923	Dissolved	Water	7196A	
880-6434-3	MW-38-W-210923	Dissolved	Water	7196A	
880-6434-4	Dup-2-W-210923	Dissolved	Water	7196A	
MB 880-8362/3	Method Blank	Total/NA	Water	7196A	
LCS 880-8362/4	Lab Control Sample	Total/NA	Water	7196A	
LCSD 880-8362/5	Lab Control Sample Dup	Total/NA	Water	7196A	
880-6434-1 MS	MW-34-W-210923	Dissolved	Water	7196A	

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

General Chemistry (Continued)

Analysis Batch: 8362 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6434-1 MSD	MW-34-W-210923	Dissolved	Water	7196A	

Analysis Batch: 24510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6434-1	MW-34-W-210923	Total/NA	Water	SM 2540C	
880-6434-2	MW-35-W-210923	Total/NA	Water	SM 2540C	
880-6434-3	MW-38-W-210923	Total/NA	Water	SM 2540C	
880-6434-4	Dup-2-W-210923	Total/NA	Water	SM 2540C	
MB 860-24510/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-24510/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-24510/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Client Sample ID: MW-34-W-210923
Lab Sample ID: 880-6434-1

Date Collected: 09/23/21 09:45
Date Received: 09/23/21 16:24
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	8021B		1	5 mL	5 mL	8514	09/30/21 06:42	MR	XEN MID
Total/NA	Prep	8015NM Aq Prep			33.8 mL	3 mL	8606	09/29/21 15:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8565	09/30/21 06:39	AJ	XEN MID
Total/NA	Analysis	300.0		1			24691	10/01/21 05:10	ANP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24304	09/28/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24460	09/28/21 19:07	DCL	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24304	09/28/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		5			24540	09/29/21 14:50	DCL	XEN STF
Dissolved	Analysis	7196A		5	100 mL	100 mL	8362	09/23/21 17:58	SC	XEN MID
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	24510	09/29/21 10:30	YGG	XEN STF

Client Sample ID: MW-35-W-210923
Lab Sample ID: 880-6434-2

Date Collected: 09/23/21 10:48
Date Received: 09/23/21 00:00
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	8021B		1	5 mL	5 mL	8514	09/30/21 04:08	MR	XEN MID
Total/NA	Prep	8015NM Aq Prep			33.3 mL	3 mL	8606	09/29/21 15:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8565	09/30/21 07:42	AJ	XEN MID
Total/NA	Analysis	300.0		1			24691	10/01/21 05:43	ANP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24304	09/28/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24460	09/28/21 19:27	DCL	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8362	09/23/21 17:58	SC	XEN MID
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	24510	09/29/21 10:30	YGG	XEN STF

Client Sample ID: MW-38-W-210923
Lab Sample ID: 880-6434-3

Date Collected: 09/23/21 11:39
Date Received: 09/23/21 00:00
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	8021B		1	5 mL	5 mL	8514	09/30/21 06:16	MR	XEN MID
Total/NA	Prep	8015NM Aq Prep			33.9 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/25/21 03:28	AJ	XEN MID
Total/NA	Analysis	300.0		1			24691	10/01/21 06:06	ANP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24304	09/28/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24460	09/28/21 19:30	DCL	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8362	09/23/21 17:58	SC	XEN MID
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	24510	09/29/21 10:30	YGG	XEN STF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Client Sample ID: Dup-2-W-210923

Date Collected: 09/23/21 00:00
Date Received: 09/23/21 00:00

Lab Sample ID: 880-6434-4

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	8021B		1	5 mL	5 mL	8514	09/30/21 07:08	MR	XEN MID
Total/NA	Prep	8015NM Aq Prep			33.5 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/25/21 03:51	AJ	XEN MID
Total/NA	Analysis	300.0		1			24691	10/01/21 06:17	ANP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24304	09/28/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24460	09/28/21 19:33	DCL	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24304	09/28/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		5			24540	09/29/21 14:59	DCL	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8362	09/23/21 17:58	SC	XEN MID
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	24510	09/29/21 10:30	YGG	XEN STF

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440
XEN STF = Eurofins Xenco, Stafford, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Aq Prep	Water	Total TPH
8021B		Water	Total BTEX

Laboratory: Eurofins Xenco, Stafford

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215-21-44	06-30-22

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN STF
6020A	Metals (ICP/MS)	SW846	XEN STF
7196A	Chromium, Hexavalent	SW846	XEN MID
SM 2540C	Solids, Total Dissolved (TDS)	SM	XEN STF
3010A	Preparation, Total Metals	SW846	XEN STF
5030B	Purge and Trap	SW846	XEN MID
8015NM Aq Prep	Microextraction	SW846	XEN MID

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

XEN STF = Eurofins Xenco, Stafford, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6434-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-6434-1	MW-34-W-210923	Water	09/23/21 09:45	09/23/21 16:24
880-6434-2	MW-35-W-210923	Water	09/23/21 10:48	09/23/21 00:00
880-6434-3	MW-38-W-210923	Water	09/23/21 11:39	09/23/21 00:00
880-6434-4	Dup-2-W-210923	Water	09/23/21 00:00	09/23/21 00:00

Eurofins Xenco, Midland
1211 W Florida Ave
Midland TX 79701
Phone (432) 704-5440

Chain of Custody Record

880-6434 Chain of Custody

eurofins Environment Testing America

Client Information	Sampler: Daniel McGee	Lab PM: Builes John	IC No: 0-1501-106 3
Client Contact: Callum Ferguson	Phone: 432-999-2980	E-Mail: john builes@eurofinset.com	Page 1 of 1
Company: ARCADIS U S Inc	PWSID:		Job #: 880-6434
Address: 1004 North Big Spring Suite 300	Due Date Requested		
City: Midland	TAT Requested (days)		
State Zip: TX, 79701	Compliance Project: Δ Yes Δ No		
Phone: 206-295-3273(Tel)	PO #: Purchase Order not required		
Email: Callum Ferguson@arcadis com	WO #:		
Project Name: Eunice Project SOUTH	Project #: 88000209		
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, 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)	300_ORGFM_28D - Chloride	6020A Custom List	2540C_Calcd Local Method	8015MOD_NM Full TPH	8021B BTEX	7196A - Local Method	Total Number of containers	Special Instructions/Note
			Preservation Code:				N	D	N	A	A	N		
MW-34-W-210923	092321	0945	G	W	Y		X	X	X	X	X	X	9	
MW-35-W-210923	092321	1048	G	W	Y		X	X	X	X	X	X	9	
MW-38-W-210923	092321	1139	G	W	Y		X	X	X	X	X	X	9	
DUP-2-W-210923	092321	—	G	W	Y		X	X	X	X	X	X	9	

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: 092321 / 1537	Company: Arcadis	Received by	Date/Time: 092321 / 17:44	Company: Arcadis
Relinquished by	Date/Time	Company	Received by	Date/Time: 9-23-21 / 17:44	Company: Eurofins
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: 0.6/1.1 +0.5

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 880-6434-1

Login Number: 6434
List Number: 1
Creator: Teel, Brianna

List Source: Eurofins Xenco, Midland

Question	Answer	Comment
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	
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.	True	
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	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 880-6434-1

Login Number: 6434
List Number: 2
Creator: Rubio, Yuri

List Source: Eurofins Xenco, Stafford
List Creation: 09/25/21 01:02 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	3.3
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.	True	
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	

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ANALYTICAL REPORT

Eurofins Xenco, Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-6402-1
Client Project/Site: Eunice Project South

For:
ARCADIS U.S. Inc
1100 Olive Way
Suite 800
Seattle, Washington 98101

Attn: Rebecca Andresen

Authorized for release by:
10/1/2021 5:27:33 PM

John Builes, Project Manager
(281)240-4200
john.builes@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

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

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Job ID: 880-6402-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative
880-6402-1

Receipt
The samples were received on 9/22/2021 5:01 PM and 9/22/2021 5:48 PM. 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 time was 2.0°C

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: MW-24-W-210922 (880-6402-1), MW-25-W-210922 (880-6402-2), MW-26-W-210922 (880-6402-3) and (MB 880-8460/8). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following samples were outside control limits: MW-30-W-210922 (880-6402-5) and (MB 880-8514/8). Evidence of matrix interferences is not obvious.

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

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

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

Metals
Method 6020A: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-24-W-210922 (880-6402-1), MW-26-W-210922 (880-6402-3), MW-29-W-210922 (880-6402-4), MW-32-W-210922 (880-6402-6), MWD-15-W-210922 (880-6402-7) and MWD-3-W-210922 (880-6402-11). Elevated reporting limits (RLs) are provided.

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

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

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MW-24-W-210922

Date Collected: 09/22/21 10:17
Date Received: 09/22/21 17:01

Lab Sample ID: 880-6402-1

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	11.9		0.100	0.0204	mg/L			09/29/21 03:20	50
Toluene	0.00671	J	0.0200	0.00367	mg/L			09/28/21 03:09	10
Ethylbenzene	0.0541		0.0200	0.00657	mg/L			09/28/21 03:09	10
m-Xylene & p-Xylene	0.0843		0.0400	0.00629	mg/L			09/28/21 03:09	10
o-Xylene	<0.00642	U	0.0200	0.00642	mg/L			09/28/21 03:09	10
Xylenes, Total	0.0843		0.0400	0.00642	mg/L			09/28/21 03:09	10
Total BTEX	12.0	*+	0.100	0.0500	mg/L			09/29/21 03:20	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*09/28/21 03:09*	*10*
1,4-Difluorobenzene (Surr)	*146*	*S1+*	*70 - 130*		*09/28/21 03:09*	*10*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	12.0		0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	23.6		5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	22.0		4.55	0.898	mg/L		09/24/21 14:09	09/24/21 22:55	1
Diesel Range Organics (Over C10-C28)	1.56	J	4.55	0.898	mg/L		09/24/21 14:09	09/24/21 22:55	1
Oil Range Organics (Over C28-C36)	<0.867	U	4.55	0.867	mg/L		09/24/21 14:09	09/24/21 22:55	1
Total TPH	23.6		4.55	0.898	mg/L		09/24/21 14:09	09/24/21 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*11308*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 22:55*	*1*
o-Terphenyl	*12106*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 22:55*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	172		5.00	2.00	mg/L			09/26/21 00:30	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0281		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:03	1
Barium	2.55		0.0200	0.00242	mg/L		09/27/21 09:00	09/28/21 13:56	5
Chromium	0.000670	J	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1520		20.0	20.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.00595	J	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MW-25-W-210922

Date Collected: 09/22/21 11:13
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-2

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.60**		0.100	0.0204	mg/L			09/29/21 03:47	50
Toluene	<0.00367	U	0.0200	0.00367	mg/L			09/28/21 03:35	10
Ethylbenzene	**0.0579**		0.0200	0.00657	mg/L			09/28/21 03:35	10
m-Xylene & p-Xylene	<0.00629	U	0.0400	0.00629	mg/L			09/28/21 03:35	10
o-Xylene	<0.00642	U	0.0200	0.00642	mg/L			09/28/21 03:35	10
Xylenes, Total	<0.00642	U	0.0400	0.00642	mg/L			09/28/21 03:35	10
Total BTEX	**1.62**	***+**	0.100	0.0500	mg/L			09/29/21 03:47	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*312*	*S1+*	*70 - 130*		*09/28/21 03:35*	*10*
1,4-Difluorobenzene (Surr)	*286*	*S1+*	*70 - 130*		*09/28/21 03:35*	*10*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**1.66**		0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**6.06**		5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**3.97**	**J**	4.35	0.859	mg/L		09/24/21 14:09	09/24/21 23:17	1
Diesel Range Organics (Over C10-C28)	**2.09**	**J**	4.35	0.859	mg/L		09/24/21 14:09	09/24/21 23:17	1
Oil Range Organics (Over C28-C36)	<0.829	U	4.35	0.829	mg/L		09/24/21 14:09	09/24/21 23:17	1
Total TPH	**6.06**		4.35	0.859	mg/L		09/24/21 14:09	09/24/21 23:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*8202*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 23:17*	*1*
o-Terphenyl	*8490*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 23:17*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2160**		5.00	2.00	mg/L			09/29/21 05:17	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0148**		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:12	1
Barium	**1.44**		0.00400	0.000484	mg/L		09/27/21 09:00	09/27/21 20:12	1
Chromium	**0.00114**	**J**	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6350**		100	100	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MW-26-W-210922

Date Collected: 09/22/21 12:00
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-3

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.766**		0.0200	0.00408	mg/L			09/28/21 04:01	10
Toluene	<0.00367	U	0.0200	0.00367	mg/L			09/28/21 04:01	10
Ethylbenzene	<0.00657	U	0.0200	0.00657	mg/L			09/28/21 04:01	10
m-Xylene & p-Xylene	**0.0140**	**J**	0.0400	0.00629	mg/L			09/28/21 04:01	10
o-Xylene	<0.00642	U	0.0200	0.00642	mg/L			09/28/21 04:01	10
Xylenes, Total	**0.0140**	**J**	0.0400	0.00642	mg/L			09/28/21 04:01	10
Total BTEX	**0.784**	***+**	0.0200	0.0100	mg/L			09/28/21 04:01	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*09/28/21 04:01*	*10*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*		*09/28/21 04:01*	*10*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.780**		0.00200	0.00100	mg/L			09/30/21 19:38	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**8.60**		5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**3.67**	**J**	4.48	0.885	mg/L		09/24/21 14:09	09/24/21 23:45	1
Diesel Range Organics (Over C10-C28)	**4.93**		4.48	0.885	mg/L		09/24/21 14:09	09/24/21 23:45	1
Oil Range Organics (Over C28-C36)	<0.854	U	4.48	0.854	mg/L		09/24/21 14:09	09/24/21 23:45	1
Total TPH	**8.60**		4.48	0.885	mg/L		09/24/21 14:09	09/24/21 23:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*10771*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 23:45*	*1*
o-Terphenyl	*11365*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 23:45*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**		5.00	2.00	mg/L			09/29/21 05:50	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0520**		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:15	1
Barium	**4.65**		0.0400	0.00484	mg/L		09/27/21 09:00	09/28/21 13:59	10
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1510**		20.0	20.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MW-29-W-210922

Date Collected: 09/22/21 12:40
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-4

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0584**		0.0200	0.00408	mg/L			09/28/21 04:27	10
Toluene	<0.00367	U	0.0200	0.00367	mg/L			09/28/21 04:27	10
Ethylbenzene	<0.00657	U	0.0200	0.00657	mg/L			09/28/21 04:27	10
m-Xylene & p-Xylene	<0.00629	U	0.0400	0.00629	mg/L			09/28/21 04:27	10
o-Xylene	<0.00642	U	0.0200	0.00642	mg/L			09/28/21 04:27	10
Xylenes, Total	<0.00642	U	0.0400	0.00642	mg/L			09/28/21 04:27	10
Total BTEX	**0.0598**	***+**	0.0200	0.0100	mg/L			09/28/21 04:27	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*09/28/21 04:27*	*10*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*		*09/28/21 04:27*	*10*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0584**		0.00200	0.00100	mg/L			09/30/21 19:38	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**5.04**		5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**3.90**	**J**	4.49	0.887	mg/L		09/24/21 14:09	09/25/21 00:07	1
Diesel Range Organics (Over C10-C28)	**1.14**	**J**	4.49	0.887	mg/L		09/24/21 14:09	09/25/21 00:07	1
Oil Range Organics (Over C28-C36)	<0.856	U	4.49	0.856	mg/L		09/24/21 14:09	09/25/21 00:07	1
Total TPH	**5.04**		4.49	0.887	mg/L		09/24/21 14:09	09/25/21 00:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*8936*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 00:07*	*1*
o-Terphenyl	*9501*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 00:07*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**317**		5.00	2.00	mg/L			09/29/21 06:01	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00284**	**J**	0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:18	1
Barium	**7.72**		0.0400	0.00484	mg/L		09/27/21 09:00	09/28/21 14:02	10
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1370**		20.0	20.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MW-30-W-210922

Date Collected: 09/22/21 14:05
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-5

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00816	U	0.0400	0.00816	mg/L			09/29/21 00:36	20
Toluene	<0.00734	U	0.0400	0.00734	mg/L			09/29/21 00:36	20
Ethylbenzene	<0.0131	U	0.0400	0.0131	mg/L			09/29/21 00:36	20
m-Xylene & p-Xylene	<0.0126	U	0.0800	0.0126	mg/L			09/29/21 00:36	20
o-Xylene	<0.0128	U	0.0400	0.0128	mg/L			09/29/21 00:36	20
Xylenes, Total	<0.0128	U	0.0800	0.0128	mg/L			09/29/21 00:36	20
Total BTEX	<0.0200	U *+	0.0400	0.0200	mg/L			09/29/21 00:36	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*	*S1-*	*70 - 130*		*09/29/21 00:36*	*20*
1,4-Difluorobenzene (Surr)	*68*	*S1-*	*70 - 130*		*09/29/21 00:36*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.988	U	5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.869	U	4.40	0.869	mg/L		09/24/21 14:09	09/25/21 00:52	1
Diesel Range Organics (Over C10-C28)	<0.869	U	4.40	0.869	mg/L		09/24/21 14:09	09/25/21 00:52	1
Oil Range Organics (Over C28-C36)	<0.839	U	4.40	0.839	mg/L		09/24/21 14:09	09/25/21 00:52	1
Total TPH	<0.869	U	4.40	0.869	mg/L		09/24/21 14:09	09/25/21 00:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*10208*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 00:52*	*1*
o-Terphenyl	*11105*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 00:52*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**242**		5.00	2.00	mg/L			09/29/21 06:12	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00923**		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:21	1
Barium	**0.308**		0.00400	0.000484	mg/L		09/27/21 09:00	09/28/21 14:05	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1310**		20.0	20.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MW-32-W-210922

Date Collected: 09/22/21 14:50
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-6

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.638**		0.0400	0.00816	mg/L			09/29/21 01:03	20
Toluene	<0.00734	U	0.0400	0.00734	mg/L			09/29/21 01:03	20
Ethylbenzene	<0.0131	U	0.0400	0.0131	mg/L			09/29/21 01:03	20
m-Xylene & p-Xylene	<0.0126	U	0.0800	0.0126	mg/L			09/29/21 01:03	20
o-Xylene	<0.0128	U	0.0400	0.0128	mg/L			09/29/21 01:03	20
Xylenes, Total	<0.0128	U	0.0800	0.0128	mg/L			09/29/21 01:03	20
Total BTEX	**0.642**	*+	0.0400	0.0200	mg/L			09/29/21 01:03	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*09/29/21 01:03*	*20*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*		*09/29/21 01:03*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.638**		0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.988	U	5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.872	U	4.41	0.872	mg/L		09/24/21 14:09	09/25/21 01:14	1
Diesel Range Organics (Over C10-C28)	<0.872	U	4.41	0.872	mg/L		09/24/21 14:09	09/25/21 01:14	1
Oil Range Organics (Over C28-C36)	<0.841	U	4.41	0.841	mg/L		09/24/21 14:09	09/25/21 01:14	1
Total TPH	<0.872	U	4.41	0.872	mg/L		09/24/21 14:09	09/25/21 01:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*9132*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 01:14*	*1*
o-Terphenyl	*9880*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 01:14*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**613**		5.00	2.00	mg/L			09/29/21 06:45	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0393**		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:24	1
Barium	**2.07**		0.0200	0.00242	mg/L		09/27/21 09:00	09/28/21 14:08	5
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**3240**		40.0	40.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**0.00322**	**J**	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MWD-15-W-210922

Lab Sample ID: 880-6402-7
Matrix: Water
Date Collected: 09/22/21 09:40
Date Received: 09/22/21 17:48

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0138**	**J**	0.0400	0.00816	mg/L			09/29/21 01:31	20
Toluene	<0.00734	U	0.0400	0.00734	mg/L			09/29/21 01:31	20
Ethylbenzene	<0.0131	U	0.0400	0.0131	mg/L			09/29/21 01:31	20
m-Xylene & p-Xylene	**0.0167**	**J**	0.0800	0.0126	mg/L			09/29/21 01:31	20
o-Xylene	<0.0128	U	0.0400	0.0128	mg/L			09/29/21 01:31	20
Xylenes, Total	**0.0167**	**J**	0.0800	0.0128	mg/L			09/29/21 01:31	20
Total BTEX	**0.0343**	**J *+**	0.0400	0.0200	mg/L			09/29/21 01:31	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*		*09/29/21 01:31*	*20*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*		*09/29/21 01:31*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0305**		0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.988	U	5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.882	U	4.46	0.882	mg/L		09/24/21 14:09	09/25/21 01:36	1
Diesel Range Organics (Over C10-C28)	<0.882	U	4.46	0.882	mg/L		09/24/21 14:09	09/25/21 01:36	1
Oil Range Organics (Over C28-C36)	<0.851	U	4.46	0.851	mg/L		09/24/21 14:09	09/25/21 01:36	1
Total TPH	<0.882	U	4.46	0.882	mg/L		09/24/21 14:09	09/25/21 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*9817*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 01:36*	*1*
o-Terphenyl	*10338*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 01:36*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1250**		5.00	2.00	mg/L			09/29/21 06:56	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00583**		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:27	1
Barium	**2.51**		0.0200	0.00242	mg/L		09/27/21 09:00	09/28/21 14:11	5
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**3230**		40.0	40.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.0137	U	0.0500	0.0137	mg/L			09/23/21 09:20	5

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MWD-14-W-210922

Lab Sample ID: 880-6402-8
Matrix: Water
Date Collected: 09/22/21 10:58
Date Received: 09/22/21 17:48

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.701**		0.0400	0.00816	mg/L			09/29/21 01:58	20
Toluene	<0.00734	U	0.0400	0.00734	mg/L			09/29/21 01:58	20
Ethylbenzene	**0.0365**	**J**	0.0400	0.0131	mg/L			09/29/21 01:58	20
m-Xylene & p-Xylene	<0.0126	U	0.0800	0.0126	mg/L			09/29/21 01:58	20
o-Xylene	<0.0128	U	0.0400	0.0128	mg/L			09/29/21 01:58	20
Xylenes, Total	<0.0128	U	0.0800	0.0128	mg/L			09/29/21 01:58	20
Total BTEX	**0.739**	***+**	0.0400	0.0200	mg/L			09/29/21 01:58	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*09/29/21 01:58*	*20*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*		*09/29/21 01:58*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.738**		0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.988	U	5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.895	U	4.53	0.895	mg/L		09/24/21 14:09	09/25/21 01:58	1
Diesel Range Organics (Over C10-C28)	<0.895	U	4.53	0.895	mg/L		09/24/21 14:09	09/25/21 01:58	1
Oil Range Organics (Over C28-C36)	<0.864	U	4.53	0.864	mg/L		09/24/21 14:09	09/25/21 01:58	1
Total TPH	<0.895	U	4.53	0.895	mg/L		09/24/21 14:09	09/25/21 01:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*8037*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 01:58*	*1*
o-Terphenyl	*8505*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 01:58*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**586**		5.00	2.00	mg/L			09/29/21 07:08	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.000558**	**J**	0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:30	1
Barium	**0.807**		0.00400	0.000484	mg/L		09/27/21 09:00	09/28/21 14:14	1
Chromium	**0.000690**	**J**	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**2670**		40.0	40.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MWD-13-W-210922

Date Collected: 09/22/21 11:40
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-9

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00408	U	0.0200	0.00408	mg/L			09/29/21 00:09	10
Toluene	<0.00367	U	0.0200	0.00367	mg/L			09/29/21 00:09	10
Ethylbenzene	<0.00657	U	0.0200	0.00657	mg/L			09/29/21 00:09	10
m-Xylene & p-Xylene	<0.00629	U	0.0400	0.00629	mg/L			09/29/21 00:09	10
o-Xylene	<0.00642	U	0.0200	0.00642	mg/L			09/29/21 00:09	10
Xylenes, Total	<0.00642	U	0.0400	0.00642	mg/L			09/29/21 00:09	10
Total BTEX	<0.0100	U *+	0.0200	0.0100	mg/L			09/29/21 00:09	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*09/29/21 00:09*	*10*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*		*09/29/21 00:09*	*10*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.988	U	5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**0.869**	**J**	4.37	0.864	mg/L		09/24/21 14:09	09/25/21 02:21	1
Diesel Range Organics (Over C10-C28)	<0.864	U	4.37	0.864	mg/L		09/24/21 14:09	09/25/21 02:21	1
Oil Range Organics (Over C28-C36)	<0.834	U	4.37	0.834	mg/L		09/24/21 14:09	09/25/21 02:21	1
Total TPH	**0.869**	**J**	4.37	0.864	mg/L		09/24/21 14:09	09/25/21 02:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*9477*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 02:21*	*1*
o-Terphenyl	*9740*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 02:21*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2000**		5.00	2.00	mg/L			09/29/21 07:19	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0693**		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:33	1
Barium	**0.112**		0.00400	0.000484	mg/L		09/27/21 09:00	09/27/21 20:33	1
Chromium	**0.00216**	**J**	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**5680**		100	100	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MWD-12-W-210922

Date Collected: 09/22/21 12:58
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-10

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00816	U	0.0400	0.00816	mg/L			09/29/21 02:25	20
Toluene	<0.00734	U	0.0400	0.00734	mg/L			09/29/21 02:25	20
Ethylbenzene	**0.0952**		0.0400	0.0131	mg/L			09/29/21 02:25	20
m-Xylene & p-Xylene	<0.0126	U	0.0800	0.0126	mg/L			09/29/21 02:25	20
o-Xylene	<0.0128	U	0.0400	0.0128	mg/L			09/29/21 02:25	20
Xylenes, Total	<0.0128	U	0.0800	0.0128	mg/L			09/29/21 02:25	20
Total BTEX	**0.113**	*+	0.0400	0.0200	mg/L			09/29/21 02:25	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*09/29/21 02:25*	*20*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*		*09/29/21 02:25*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0952**		0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.988	U	5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.857	U	4.34	0.857	mg/L		09/24/21 14:09	09/25/21 02:43	1
Diesel Range Organics (Over C10-C28)	<0.857	U	4.34	0.857	mg/L		09/24/21 14:09	09/25/21 02:43	1
Oil Range Organics (Over C28-C36)	<0.827	U	4.34	0.827	mg/L		09/24/21 14:09	09/25/21 02:43	1
Total TPH	<0.857	U	4.34	0.857	mg/L		09/24/21 14:09	09/25/21 02:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*9962*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 02:43*	*1*
o-Terphenyl	*10275*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 02:43*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1570**		5.00	2.00	mg/L			09/29/21 07:30	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0440**		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:36	1
Barium	**0.374**		0.00400	0.000484	mg/L		09/27/21 09:00	09/27/21 20:36	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4260**		40.0	40.0	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 09:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MWD-3-W-210922

Date Collected: 09/22/21 14:10
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-11

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.29**		0.0400	0.00816	mg/L			09/29/21 02:52	20
Toluene	<0.00734	U	0.0400	0.00734	mg/L			09/29/21 02:52	20
Ethylbenzene	<0.0131	U	0.0400	0.0131	mg/L			09/29/21 02:52	20
m-Xylene & p-Xylene	<0.0126	U	0.0800	0.0126	mg/L			09/29/21 02:52	20
o-Xylene	<0.0128	U	0.0400	0.0128	mg/L			09/29/21 02:52	20
Xylenes, Total	<0.0128	U	0.0800	0.0128	mg/L			09/29/21 02:52	20
Total BTEX	**1.29**	*+	0.0400	0.0200	mg/L			09/29/21 02:52	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*09/29/21 02:52*	*20*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*		*09/29/21 02:52*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**1.29**		0.00200	0.00100	mg/L			09/30/21 09:33	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<0.988	U	5.00	0.988	mg/L			09/30/21 12:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.840	U	4.25	0.840	mg/L		09/24/21 14:09	09/25/21 03:06	1
Diesel Range Organics (Over C10-C28)	<0.840	U	4.25	0.840	mg/L		09/24/21 14:09	09/25/21 03:06	1
Oil Range Organics (Over C28-C36)	<0.810	U	4.25	0.810	mg/L		09/24/21 14:09	09/25/21 03:06	1
Total TPH	<0.840	U	4.25	0.840	mg/L		09/24/21 14:09	09/25/21 03:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*10371*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 03:06*	*1*
o-Terphenyl	*10569*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/25/21 03:06*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19300**		50.0	20.0	mg/L			09/29/21 07:41	100

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0985**		0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 20:39	1
Barium	**5.79**		0.0400	0.00484	mg/L		09/27/21 09:00	09/28/21 14:17	10
Chromium	**0.000533**	J	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 20:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**34300**		200	200	mg/L			09/28/21 11:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 11:00	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-6402-1	MW-24-W-210922	99	146 S1+
880-6402-2	MW-25-W-210922	312 S1+	286 S1+
880-6402-3	MW-26-W-210922	108	107
880-6402-4	MW-29-W-210922	104	104
880-6402-5	MW-30-W-210922	69 S1-	68 S1-
880-6402-6	MW-32-W-210922	94	105
880-6402-7	MWD-15-W-210922	113	100
880-6402-8	MWD-14-W-210922	108	104
880-6402-9	MWD-13-W-210922	108	100
880-6402-10	MWD-12-W-210922	97	99
880-6402-11	MWD-3-W-210922	97	107
LCS 880-8460/3	Lab Control Sample	113	101
LCS 880-8514/3	Lab Control Sample	108	99
LCSD 880-8460/4	Lab Control Sample Dup	95	106
LCSD 880-8514/4	Lab Control Sample Dup	107	101
MB 880-8460/8	Method Blank	63 S1-	91
MB 880-8514/8	Method Blank	63 S1-	93

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-6402-1	MW-24-W-210922	11308 S1+	12106 S1+
880-6402-2	MW-25-W-210922	8202 S1+	8490 S1+
880-6402-3	MW-26-W-210922	10771 S1+	11365 S1+
880-6402-4	MW-29-W-210922	8936 S1+	9501 S1+
880-6402-5	MW-30-W-210922	10208 S1+	11105 S1+
880-6402-6	MW-32-W-210922	9132 S1+	9880 S1+
880-6402-7	MWD-15-W-210922	9817 S1+	10338 S1+
880-6402-8	MWD-14-W-210922	8037 S1+	8505 S1+
880-6402-9	MWD-13-W-210922	9477 S1+	9740 S1+
880-6402-10	MWD-12-W-210922	9962 S1+	10275 S1+
880-6402-11	MWD-3-W-210922	10371 S1+	10569 S1+
LCS 880-8368/2-A	Lab Control Sample	9416 S1+	9608 S1+
LCSD 880-8368/3-A	Lab Control Sample Dup	9242 S1+	9101 S1+
MB 880-8368/1-A	Method Blank	12376 S1+	14178 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-8460/8
Matrix: Water
Analysis Batch: 8460

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/27/21 18:19	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/27/21 18:19	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/27/21 18:19	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/27/21 18:19	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/27/21 18:19	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/27/21 18:19	1
Total BTEX	<0.00100	U	0.00200	0.00100	mg/L			09/27/21 18:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*63*	*S1-*	*70 - 130*		*09/27/21 18:19*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*		*09/27/21 18:19*	*1*

Lab Sample ID: LCS 880-8460/3
Matrix: Water
Analysis Batch: 8460

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08775		mg/L		88	70 - 130
Toluene	0.100	0.1036		mg/L		104	70 - 130
Ethylbenzene	0.100	0.09935		mg/L		99	70 - 130
m-Xylene & p-Xylene	0.200	0.2135		mg/L		107	70 - 130
o-Xylene	0.100	0.1095		mg/L		109	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-8460/4
Matrix: Water
Analysis Batch: 8460

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.07875		mg/L		79	70 - 130	11	20
Toluene	0.100	0.09292		mg/L		93	70 - 130	11	20
Ethylbenzene	0.100	0.09440		mg/L		94	70 - 130	5	20
m-Xylene & p-Xylene	0.200	0.2046		mg/L		102	70 - 130	4	20
o-Xylene	0.100	0.1024		mg/L		102	70 - 130	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: MB 880-8514/8
Matrix: Water
Analysis Batch: 8514

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/28/21 23:15	1

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 880-8514/8
Matrix: Water
Analysis Batch: 8514

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/28/21 23:15	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/28/21 23:15	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/28/21 23:15	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/28/21 23:15	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/28/21 23:15	1
Total BTEX	<0.00100	U	0.00200	0.00100	mg/L			09/28/21 23:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*63*	*S1-*	*70 - 130*		*09/28/21 23:15*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*		*09/28/21 23:15*	*1*

Lab Sample ID: LCS 880-8514/3
Matrix: Water
Analysis Batch: 8514

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07762		mg/L		78	70 - 130		
Toluene			0.100	0.08855		mg/L		89	70 - 130		
Ethylbenzene			0.100	0.08337		mg/L		83	70 - 130		
m-Xylene & p-Xylene			0.200	0.1858		mg/L		93	70 - 130		
o-Xylene			0.100	0.09237		mg/L		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-8514/4
Matrix: Water
Analysis Batch: 8514

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08397		mg/L		84	70 - 130	8	20
Toluene			0.100	0.09149		mg/L		91	70 - 130	3	20
Ethylbenzene			0.100	0.08647		mg/L		86	70 - 130	4	20
m-Xylene & p-Xylene			0.200	0.1870		mg/L		93	70 - 130	1	20
o-Xylene			0.100	0.09496		mg/L		95	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-8368/1-A
Matrix: Water
Analysis Batch: 8344

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8368

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.926	U	4.69	0.926	mg/L		09/24/21 14:09	09/24/21 18:55	1
Diesel Range Organics (Over C10-C28)	<0.926	U	4.69	0.926	mg/L		09/24/21 14:09	09/24/21 18:55	1
OII Range Organics (Over C28-C36)	<0.894	U	4.69	0.894	mg/L		09/24/21 14:09	09/24/21 18:55	1
Total TPH	<0.926	U	4.69	0.926	mg/L		09/24/21 14:09	09/24/21 18:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*12376*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 18:55*	*1*
o-Terphenyl	*14178*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 18:55*	*1*

Lab Sample ID: LCS 880-8368/2-A
Matrix: Water
Analysis Batch: 8344

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8368

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	93.8	80.03		mg/L		85	75 - 125
Diesel Range Organics (Over C10-C28)	93.8	91.35		mg/L		97	75 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*9416*	*S1+*	*70 - 130*
o-Terphenyl	*9608*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-8368/3-A
Matrix: Water
Analysis Batch: 8344

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 8368

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	93.8	82.48		mg/L		88	75 - 125	3	20
Diesel Range Organics (Over C10-C28)	93.8	87.48		mg/L		93	75 - 125	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*9242*	*S1+*	*70 - 130*
o-Terphenyl	*9101*	*S1+*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-24101/3
Matrix: Water
Analysis Batch: 24101

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.200	U	0.500	0.200	mg/L			09/25/21 23:56	1

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 860-24101/4
Matrix: Water
Analysis Batch: 24101

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.806		mg/L		98	90 - 110

Lab Sample ID: LCSD 860-24101/5
Matrix: Water
Analysis Batch: 24101

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.914		mg/L		99	90 - 110	1	20

Lab Sample ID: 880-6402-1 MS
Matrix: Water
Analysis Batch: 24101

Client Sample ID: MW-24-W-210922
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	172		100	276.7		mg/L		104	90 - 110

Lab Sample ID: 880-6402-1 MSD
Matrix: Water
Analysis Batch: 24101

Client Sample ID: MW-24-W-210922
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	172		100	277.2		mg/L		105	90 - 110	0	20

Lab Sample ID: MB 860-24295/27
Matrix: Water
Analysis Batch: 24295

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.200	U	0.500	0.200	mg/L			09/29/21 04:43	1

Lab Sample ID: LCS 860-24295/28
Matrix: Water
Analysis Batch: 24295

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.674		mg/L		97	90 - 110

Lab Sample ID: LCSD 860-24295/29
Matrix: Water
Analysis Batch: 24295

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.713		mg/L		97	90 - 110	0	20

Lab Sample ID: 880-6402-2 MS
Matrix: Water
Analysis Batch: 24295

Client Sample ID: MW-25-W-210922
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2160		100	2216	4	mg/L		56	90 - 110

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 880-6402-2 MSD
Matrix: Water
Analysis Batch: 24295

Client Sample ID: MW-25-W-210922
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2160		100	2216	4	mg/L		57	90 - 110	0	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 860-24129/1-A
Matrix: Water
Analysis Batch: 24311

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24129

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.000246	U	0.00400	0.000246	mg/L		09/27/21 09:00	09/27/21 17:53	1
Barium	<0.000484	U	0.00400	0.000484	mg/L		09/27/21 09:00	09/27/21 17:53	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/27/21 09:00	09/27/21 17:53	1

Lab Sample ID: LCS 860-24129/2-A
Matrix: Water
Analysis Batch: 24311

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24129

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.09934		mg/L		99	80 - 120
Barium	0.100	0.09721		mg/L		97	80 - 120
Chromium	0.100	0.09646		mg/L		96	80 - 120

Lab Sample ID: LCSD 860-24129/3-A
Matrix: Water
Analysis Batch: 24311

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24129

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.100	0.09952		mg/L		100	80 - 120	0	20
Barium	0.100	0.09743		mg/L		97	80 - 120	0	20
Chromium	0.100	0.09512		mg/L		95	80 - 120	1	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 880-8510/3
Matrix: Water
Analysis Batch: 8510

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 09:20	1

Lab Sample ID: LCS 880-8510/4
Matrix: Water
Analysis Batch: 8510

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.0400	0.03917		mg/L		98	85 - 115

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCSD 880-8510/5
Matrix: Water
Analysis Batch: 8510

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)			0.0400	0.03917		mg/L		98	85 - 115	0	20

Lab Sample ID: MB 880-8512/3
Matrix: Water
Analysis Batch: 8512

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/23/21 11:00	1

Lab Sample ID: LCS 880-8512/4
Matrix: Water
Analysis Batch: 8512

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cr (VI)			0.0400	0.03808		mg/L		95	85 - 115		

Lab Sample ID: LCSD 880-8512/5
Matrix: Water
Analysis Batch: 8512

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)			0.0400	0.03808		mg/L		95	85 - 115	0	20

Lab Sample ID: 880-6402-7 MS
Matrix: Water
Analysis Batch: 8510

Client Sample ID: MWD-15-W-210922
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cr (VI)	<0.0137	U	1.00	0.9040		mg/L		90	85 - 115		

Lab Sample ID: 880-6402-7 MSD
Matrix: Water
Analysis Batch: 8510

Client Sample ID: MWD-15-W-210922
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	<0.0137	U	1.00	0.9040		mg/L		90	85 - 115	0	20

Lab Sample ID: 880-6402-11 MS
Matrix: Water
Analysis Batch: 8512

Client Sample ID: MWD-3-W-210922
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cr (VI)	<0.00273	U	0.200	0.1748		mg/L		87	85 - 115		

Lab Sample ID: 880-6402-11 MSD
Matrix: Water
Analysis Batch: 8512

Client Sample ID: MWD-3-W-210922
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	<0.00273	U	0.200	0.1748		mg/L		87	85 - 115	0	20

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 860-24342/1
Matrix: Water
Analysis Batch: 24342

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00	mg/L			09/28/21 11:35	1

Lab Sample ID: LCS 860-24342/2
Matrix: Water
Analysis Batch: 24342

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	1095		mg/L		110	80 - 120		

Lab Sample ID: LCSD 860-24342/3
Matrix: Water
Analysis Batch: 24342

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids			1000	1018		mg/L		102	80 - 120	7	10

Lab Sample ID: 880-6402-5 DU
Matrix: Water
Analysis Batch: 24342

Client Sample ID: MW-30-W-210922
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1310			1396		mg/L				7	10

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

GC VOA

Analysis Batch: 8460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-1	MW-24-W-210922	Total/NA	Water	8021B	
880-6402-2	MW-25-W-210922	Total/NA	Water	8021B	
880-6402-3	MW-26-W-210922	Total/NA	Water	8021B	
880-6402-4	MW-29-W-210922	Total/NA	Water	8021B	
MB 880-8460/8	Method Blank	Total/NA	Water	8021B	
LCS 880-8460/3	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-8460/4	Lab Control Sample Dup	Total/NA	Water	8021B	

Analysis Batch: 8514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-1	MW-24-W-210922	Total/NA	Water	8021B	
880-6402-2	MW-25-W-210922	Total/NA	Water	8021B	
880-6402-5	MW-30-W-210922	Total/NA	Water	8021B	
880-6402-6	MW-32-W-210922	Total/NA	Water	8021B	
880-6402-7	MWD-15-W-210922	Total/NA	Water	8021B	
880-6402-8	MWD-14-W-210922	Total/NA	Water	8021B	
880-6402-9	MWD-13-W-210922	Total/NA	Water	8021B	
880-6402-10	MWD-12-W-210922	Total/NA	Water	8021B	
880-6402-11	MWD-3-W-210922	Total/NA	Water	8021B	
MB 880-8514/8	Method Blank	Total/NA	Water	8021B	
LCS 880-8514/3	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-8514/4	Lab Control Sample Dup	Total/NA	Water	8021B	

Analysis Batch: 8640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-1	MW-24-W-210922	Total/NA	Water	Total BTEX	
880-6402-2	MW-25-W-210922	Total/NA	Water	Total BTEX	
880-6402-5	MW-30-W-210922	Total/NA	Water	Total BTEX	
880-6402-6	MW-32-W-210922	Total/NA	Water	Total BTEX	
880-6402-7	MWD-15-W-210922	Total/NA	Water	Total BTEX	
880-6402-8	MWD-14-W-210922	Total/NA	Water	Total BTEX	
880-6402-9	MWD-13-W-210922	Total/NA	Water	Total BTEX	
880-6402-10	MWD-12-W-210922	Total/NA	Water	Total BTEX	
880-6402-11	MWD-3-W-210922	Total/NA	Water	Total BTEX	

Analysis Batch: 8694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-3	MW-26-W-210922	Total/NA	Water	Total BTEX	
880-6402-4	MW-29-W-210922	Total/NA	Water	Total BTEX	

GC Semi VOA

Analysis Batch: 8344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-1	MW-24-W-210922	Total/NA	Water	8015B NM	8368
880-6402-2	MW-25-W-210922	Total/NA	Water	8015B NM	8368
880-6402-3	MW-26-W-210922	Total/NA	Water	8015B NM	8368
880-6402-4	MW-29-W-210922	Total/NA	Water	8015B NM	8368
880-6402-5	MW-30-W-210922	Total/NA	Water	8015B NM	8368
880-6402-6	MW-32-W-210922	Total/NA	Water	8015B NM	8368
880-6402-7	MWD-15-W-210922	Total/NA	Water	8015B NM	8368

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

GC Semi VOA (Continued)

Analysis Batch: 8344 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-8	MWD-14-W-210922	Total/NA	Water	8015B NM	8368
880-6402-9	MWD-13-W-210922	Total/NA	Water	8015B NM	8368
880-6402-10	MWD-12-W-210922	Total/NA	Water	8015B NM	8368
880-6402-11	MWD-3-W-210922	Total/NA	Water	8015B NM	8368
MB 880-8368/1-A	Method Blank	Total/NA	Water	8015B NM	8368
LCS 880-8368/2-A	Lab Control Sample	Total/NA	Water	8015B NM	8368
LCSD 880-8368/3-A	Lab Control Sample Dup	Total/NA	Water	8015B NM	8368

Prep Batch: 8368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-1	MW-24-W-210922	Total/NA	Water	8015NM Aq Prep	
880-6402-2	MW-25-W-210922	Total/NA	Water	8015NM Aq Prep	
880-6402-3	MW-26-W-210922	Total/NA	Water	8015NM Aq Prep	
880-6402-4	MW-29-W-210922	Total/NA	Water	8015NM Aq Prep	
880-6402-5	MW-30-W-210922	Total/NA	Water	8015NM Aq Prep	
880-6402-6	MW-32-W-210922	Total/NA	Water	8015NM Aq Prep	
880-6402-7	MWD-15-W-210922	Total/NA	Water	8015NM Aq Prep	
880-6402-8	MWD-14-W-210922	Total/NA	Water	8015NM Aq Prep	
880-6402-9	MWD-13-W-210922	Total/NA	Water	8015NM Aq Prep	
880-6402-10	MWD-12-W-210922	Total/NA	Water	8015NM Aq Prep	
880-6402-11	MWD-3-W-210922	Total/NA	Water	8015NM Aq Prep	
MB 880-8368/1-A	Method Blank	Total/NA	Water	8015NM Aq Prep	
LCS 880-8368/2-A	Lab Control Sample	Total/NA	Water	8015NM Aq Prep	
LCSD 880-8368/3-A	Lab Control Sample Dup	Total/NA	Water	8015NM Aq Prep	

Analysis Batch: 8663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-1	MW-24-W-210922	Total/NA	Water	8015 NM	
880-6402-2	MW-25-W-210922	Total/NA	Water	8015 NM	
880-6402-3	MW-26-W-210922	Total/NA	Water	8015 NM	
880-6402-4	MW-29-W-210922	Total/NA	Water	8015 NM	
880-6402-5	MW-30-W-210922	Total/NA	Water	8015 NM	
880-6402-6	MW-32-W-210922	Total/NA	Water	8015 NM	
880-6402-7	MWD-15-W-210922	Total/NA	Water	8015 NM	
880-6402-8	MWD-14-W-210922	Total/NA	Water	8015 NM	
880-6402-9	MWD-13-W-210922	Total/NA	Water	8015 NM	
880-6402-10	MWD-12-W-210922	Total/NA	Water	8015 NM	
880-6402-11	MWD-3-W-210922	Total/NA	Water	8015 NM	

HPLC/IC

Analysis Batch: 24101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-1	MW-24-W-210922	Total/NA	Water	300.0	
MB 860-24101/3	Method Blank	Total/NA	Water	300.0	
LCS 860-24101/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-24101/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-6402-1 MS	MW-24-W-210922	Total/NA	Water	300.0	
880-6402-1 MSD	MW-24-W-210922	Total/NA	Water	300.0	

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

HPLC/IC

Analysis Batch: 24295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-2	MW-25-W-210922	Total/NA	Water	300.0	
880-6402-3	MW-26-W-210922	Total/NA	Water	300.0	
880-6402-4	MW-29-W-210922	Total/NA	Water	300.0	
880-6402-5	MW-30-W-210922	Total/NA	Water	300.0	
880-6402-6	MW-32-W-210922	Total/NA	Water	300.0	
880-6402-7	MWD-15-W-210922	Total/NA	Water	300.0	
880-6402-8	MWD-14-W-210922	Total/NA	Water	300.0	
880-6402-9	MWD-13-W-210922	Total/NA	Water	300.0	
880-6402-10	MWD-12-W-210922	Total/NA	Water	300.0	
880-6402-11	MWD-3-W-210922	Total/NA	Water	300.0	
MB 860-24295/27	Method Blank	Total/NA	Water	300.0	
LCS 860-24295/28	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-24295/29	Lab Control Sample Dup	Total/NA	Water	300.0	
880-6402-2 MS	MW-25-W-210922	Total/NA	Water	300.0	
880-6402-2 MSD	MW-25-W-210922	Total/NA	Water	300.0	

Metals

Prep Batch: 24129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-1	MW-24-W-210922	Dissolved	Water	3010A	
880-6402-2	MW-25-W-210922	Dissolved	Water	3010A	
880-6402-3	MW-26-W-210922	Dissolved	Water	3010A	
880-6402-4	MW-29-W-210922	Dissolved	Water	3010A	
880-6402-5	MW-30-W-210922	Dissolved	Water	3010A	
880-6402-6	MW-32-W-210922	Dissolved	Water	3010A	
880-6402-7	MWD-15-W-210922	Dissolved	Water	3010A	
880-6402-8	MWD-14-W-210922	Dissolved	Water	3010A	
880-6402-9	MWD-13-W-210922	Dissolved	Water	3010A	
880-6402-10	MWD-12-W-210922	Dissolved	Water	3010A	
880-6402-11	MWD-3-W-210922	Dissolved	Water	3010A	
MB 860-24129/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-24129/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-24129/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Analysis Batch: 24311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-1	MW-24-W-210922	Dissolved	Water	6020A	24129
880-6402-2	MW-25-W-210922	Dissolved	Water	6020A	24129
880-6402-3	MW-26-W-210922	Dissolved	Water	6020A	24129
880-6402-4	MW-29-W-210922	Dissolved	Water	6020A	24129
880-6402-5	MW-30-W-210922	Dissolved	Water	6020A	24129
880-6402-6	MW-32-W-210922	Dissolved	Water	6020A	24129
880-6402-7	MWD-15-W-210922	Dissolved	Water	6020A	24129
880-6402-8	MWD-14-W-210922	Dissolved	Water	6020A	24129
880-6402-9	MWD-13-W-210922	Dissolved	Water	6020A	24129
880-6402-10	MWD-12-W-210922	Dissolved	Water	6020A	24129
880-6402-11	MWD-3-W-210922	Dissolved	Water	6020A	24129
MB 860-24129/1-A	Method Blank	Total/NA	Water	6020A	24129
LCS 860-24129/2-A	Lab Control Sample	Total/NA	Water	6020A	24129
LCSD 860-24129/3-A	Lab Control Sample Dup	Total/NA	Water	6020A	24129

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Metals

Analysis Batch: 24363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-1	MW-24-W-210922	Dissolved	Water	6020A	24129
880-6402-3	MW-26-W-210922	Dissolved	Water	6020A	24129
880-6402-4	MW-29-W-210922	Dissolved	Water	6020A	24129
880-6402-5	MW-30-W-210922	Dissolved	Water	6020A	24129
880-6402-6	MW-32-W-210922	Dissolved	Water	6020A	24129
880-6402-7	MWD-15-W-210922	Dissolved	Water	6020A	24129
880-6402-8	MWD-14-W-210922	Dissolved	Water	6020A	24129
880-6402-11	MWD-3-W-210922	Dissolved	Water	6020A	24129

General Chemistry

Analysis Batch: 8510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-1	MW-24-W-210922	Dissolved	Water	7196A	
880-6402-2	MW-25-W-210922	Dissolved	Water	7196A	
880-6402-3	MW-26-W-210922	Dissolved	Water	7196A	
880-6402-4	MW-29-W-210922	Dissolved	Water	7196A	
880-6402-5	MW-30-W-210922	Dissolved	Water	7196A	
880-6402-6	MW-32-W-210922	Dissolved	Water	7196A	
880-6402-7	MWD-15-W-210922	Dissolved	Water	7196A	
880-6402-8	MWD-14-W-210922	Dissolved	Water	7196A	
880-6402-9	MWD-13-W-210922	Dissolved	Water	7196A	
880-6402-10	MWD-12-W-210922	Dissolved	Water	7196A	
MB 880-8510/3	Method Blank	Total/NA	Water	7196A	
LCS 880-8510/4	Lab Control Sample	Total/NA	Water	7196A	
LCSD 880-8510/5	Lab Control Sample Dup	Total/NA	Water	7196A	
880-6402-7 MS	MWD-15-W-210922	Dissolved	Water	7196A	
880-6402-7 MSD	MWD-15-W-210922	Dissolved	Water	7196A	

Analysis Batch: 8512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-11	MWD-3-W-210922	Dissolved	Water	7196A	
MB 880-8512/3	Method Blank	Total/NA	Water	7196A	
LCS 880-8512/4	Lab Control Sample	Total/NA	Water	7196A	
LCSD 880-8512/5	Lab Control Sample Dup	Total/NA	Water	7196A	
880-6402-11 MS	MWD-3-W-210922	Dissolved	Water	7196A	
880-6402-11 MSD	MWD-3-W-210922	Dissolved	Water	7196A	

Analysis Batch: 24342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6402-1	MW-24-W-210922	Total/NA	Water	SM 2540C	
880-6402-2	MW-25-W-210922	Total/NA	Water	SM 2540C	
880-6402-3	MW-26-W-210922	Total/NA	Water	SM 2540C	
880-6402-4	MW-29-W-210922	Total/NA	Water	SM 2540C	
880-6402-5	MW-30-W-210922	Total/NA	Water	SM 2540C	
880-6402-6	MW-32-W-210922	Total/NA	Water	SM 2540C	
880-6402-7	MWD-15-W-210922	Total/NA	Water	SM 2540C	
880-6402-8	MWD-14-W-210922	Total/NA	Water	SM 2540C	
880-6402-9	MWD-13-W-210922	Total/NA	Water	SM 2540C	
880-6402-10	MWD-12-W-210922	Total/NA	Water	SM 2540C	
880-6402-11	MWD-3-W-210922	Total/NA	Water	SM 2540C	

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

General Chemistry (Continued)

Analysis Batch: 24342 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-24342/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-24342/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-24342/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
880-6402-5 DU	MW-30-W-210922	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MW-24-W-210922
Date Collected: 09/22/21 10:17
Date Received: 09/22/21 17:01

Lab Sample ID: 880-6402-1
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	8021B		10	5 mL	5 mL	8460	09/28/21 03:09	MR	XEN MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	8514	09/29/21 03:20	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			8640	09/30/21 09:33	MR	XEN MID
Total/NA	Analysis	8015 NM		1			8663	09/30/21 12:51	AJ	XEN MID
Total/NA	Prep	8015NM Aq Prep			33 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/24/21 22:55	AJ	XEN MID
Total/NA	Analysis	300.0		10			24101	09/26/21 00:30	WP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24311	09/27/21 20:03	DCL	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		5			24363	09/28/21 13:56	DCL	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8510	09/23/21 09:20	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	24342	09/28/21 11:35	YGG	XEN STF

Client Sample ID: MW-25-W-210922
Date Collected: 09/22/21 11:13
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-2
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	8021B		10	5 mL	5 mL	8460	09/28/21 03:35	MR	XEN MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	8514	09/29/21 03:47	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			8640	09/30/21 09:33	MR	XEN MID
Total/NA	Analysis	8015 NM		1			8663	09/30/21 12:51	AJ	XEN MID
Total/NA	Prep	8015NM Aq Prep			34.5 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/24/21 23:17	AJ	XEN MID
Total/NA	Analysis	300.0		10			24295	09/29/21 05:17	WP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24311	09/27/21 20:12	DCL	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8510	09/23/21 09:20	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	24342	09/28/21 11:35	YGG	XEN STF

Client Sample ID: MW-26-W-210922
Date Collected: 09/22/21 12:00
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-3
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	8021B		10	5 mL	5 mL	8460	09/28/21 04:01	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			8694	09/30/21 19:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			8663	09/30/21 12:51	AJ	XEN MID
Total/NA	Prep	8015NM Aq Prep			33.5 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/24/21 23:45	AJ	XEN MID
Total/NA	Analysis	300.0		10			24295	09/29/21 05:50	WP	XEN STF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MW-26-W-210922
Date Collected: 09/22/21 12:00
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24311	09/27/21 20:15	DCL	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		10			24363	09/28/21 13:59	DCL	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8510	09/23/21 09:20	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	24342	09/28/21 11:35	YGG	XEN STF

Client Sample ID: MW-29-W-210922
Date Collected: 09/22/21 12:40
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-4
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	8021B		10	5 mL	5 mL	8460	09/28/21 04:27	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			8694	09/30/21 19:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			8663	09/30/21 12:51	AJ	XEN MID
Total/NA	Prep	8015NM Aq Prep			33.4 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/25/21 00:07	AJ	XEN MID
Total/NA	Analysis	300.0		10			24295	09/29/21 06:01	WP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24311	09/27/21 20:18	DCL	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		10			24363	09/28/21 14:02	DCL	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8510	09/23/21 09:20	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	24342	09/28/21 11:35	YGG	XEN STF

Client Sample ID: MW-30-W-210922
Date Collected: 09/22/21 14:05
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-5
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	8021B		20	5 mL	5 mL	8514	09/29/21 00:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			8640	09/30/21 09:33	MR	XEN MID
Total/NA	Analysis	8015 NM		1			8663	09/30/21 12:51	AJ	XEN MID
Total/NA	Prep	8015NM Aq Prep			34.1 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/25/21 00:52	AJ	XEN MID
Total/NA	Analysis	300.0		10			24295	09/29/21 06:12	WP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24311	09/27/21 20:21	DCL	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24363	09/28/21 14:05	DCL	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8510	09/23/21 09:20	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	24342	09/28/21 11:35	YGG	XEN STF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MW-32-W-210922
Date Collected: 09/22/21 14:50
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-6
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	8021B		20	5 mL	5 mL	8514	09/29/21 01:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			8640	09/30/21 09:33	MR	XEN MID
Total/NA	Analysis	8015 NM		1			8663	09/30/21 12:51	AJ	XEN MID
Total/NA	Prep	8015NM Aq Prep			34 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/25/21 01:14	AJ	XEN MID
Total/NA	Analysis	300.0		10			24295	09/29/21 06:45	WP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24311	09/27/21 20:24	DCL	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		5			24363	09/28/21 14:08	DCL	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8510	09/23/21 09:20	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	24342	09/28/21 11:35	YGG	XEN STF

Client Sample ID: MWD-15-W-210922
Date Collected: 09/22/21 09:40
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-7
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	8021B		20	5 mL	5 mL	8514	09/29/21 01:31	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			8640	09/30/21 09:33	MR	XEN MID
Total/NA	Analysis	8015 NM		1			8663	09/30/21 12:51	AJ	XEN MID
Total/NA	Prep	8015NM Aq Prep			33.6 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/25/21 01:36	AJ	XEN MID
Total/NA	Analysis	300.0		10			24295	09/29/21 06:56	WP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24311	09/27/21 20:27	DCL	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		5			24363	09/28/21 14:11	DCL	XEN STF
Dissolved	Analysis	7196A		5	20 mL	100 mL	8510	09/23/21 09:20	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	24342	09/28/21 11:35	YGG	XEN STF

Client Sample ID: MWD-14-W-210922
Date Collected: 09/22/21 10:58
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-8
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	8021B		20	5 mL	5 mL	8514	09/29/21 01:58	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			8640	09/30/21 09:33	MR	XEN MID
Total/NA	Analysis	8015 NM		1			8663	09/30/21 12:51	AJ	XEN MID
Total/NA	Prep	8015NM Aq Prep			33.1 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/25/21 01:58	AJ	XEN MID
Total/NA	Analysis	300.0		10			24295	09/29/21 07:08	WP	XEN STF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MWD-14-W-210922
Lab Sample ID: 880-6402-8
Date Collected: 09/22/21 10:58
Matrix: Water
Date Received: 09/22/21 17:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24311	09/27/21 20:30	DCL	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24363	09/28/21 14:14	DCL	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8510	09/23/21 09:20	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	24342	09/28/21 11:35	YGG	XEN STF

Client Sample ID: MWD-13-W-210922
Lab Sample ID: 880-6402-9
Date Collected: 09/22/21 11:40
Matrix: Water
Date Received: 09/22/21 17:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		10	5 mL	5 mL	8514	09/29/21 00:09	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			8640	09/30/21 09:33	MR	XEN MID
Total/NA	Analysis	8015 NM		1			8663	09/30/21 12:51	AJ	XEN MID
Total/NA	Prep	8015NM Aq Prep			34.3 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/25/21 02:21	AJ	XEN MID
Total/NA	Analysis	300.0		10			24295	09/29/21 07:19	WP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24311	09/27/21 20:33	DCL	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8510	09/23/21 09:20	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	24342	09/28/21 11:35	YGG	XEN STF

Client Sample ID: MWD-12-W-210922
Lab Sample ID: 880-6402-10
Date Collected: 09/22/21 12:58
Matrix: Water
Date Received: 09/22/21 17:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		20	5 mL	5 mL	8514	09/29/21 02:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			8640	09/30/21 09:33	MR	XEN MID
Total/NA	Analysis	8015 NM		1			8663	09/30/21 12:51	AJ	XEN MID
Total/NA	Prep	8015NM Aq Prep			34.6 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/25/21 02:43	AJ	XEN MID
Total/NA	Analysis	300.0		10			24295	09/29/21 07:30	WP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24311	09/27/21 20:36	DCL	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8510	09/23/21 09:20	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	24342	09/28/21 11:35	YGG	XEN STF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Client Sample ID: MWD-3-W-210922

Date Collected: 09/22/21 14:10
Date Received: 09/22/21 17:48

Lab Sample ID: 880-6402-11

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	8021B		20	5 mL	5 mL	8514	09/29/21 02:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			8640	09/30/21 09:33	MR	XEN MID
Total/NA	Analysis	8015 NM		1			8663	09/30/21 12:51	AJ	XEN MID
Total/NA	Prep	8015NM Aq Prep			35.3 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/25/21 03:06	AJ	XEN MID
Total/NA	Analysis	300.0		100			24295	09/29/21 07:41	WP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		1			24311	09/27/21 20:39	DCL	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	24129	09/27/21 09:00	MD	XEN STF
Dissolved	Analysis	6020A		10			24363	09/28/21 14:17	DCL	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8512	09/23/21 11:00	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	5 mL	200 mL	24342	09/28/21 11:35	YGG	XEN STF

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440
XEN STF = Eurofins Xenco, Stafford, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Water	Total TPH
8015B NM	8015NM Aq Prep	Water	Total TPH
8021B		Water	Total BTEX
Total BTEX		Water	Total BTEX

Laboratory: Eurofins Xenco, Stafford

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215-21-44	06-30-22

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN STF
6020A	Metals (ICP/MS)	SW846	XEN STF
7196A	Chromium, Hexavalent	SW846	XEN MID
SM 2540C	Solids, Total Dissolved (TDS)	SM	XEN STF
3010A	Preparation, Total Metals	SW846	XEN STF
5030B	Purge and Trap	SW846	XEN MID
8015NM Aq Prep	Microextraction	SW846	XEN MID

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440
XEN STF = Eurofins Xenco, Stafford, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6402-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-6402-1	MW-24-W-210922	Water	09/22/21 10:17	09/22/21 17:01
880-6402-2	MW-25-W-210922	Water	09/22/21 11:13	09/22/21 17:48
880-6402-3	MW-26-W-210922	Water	09/22/21 12:00	09/22/21 17:48
880-6402-4	MW-29-W-210922	Water	09/22/21 12:40	09/22/21 17:48
880-6402-5	MW-30-W-210922	Water	09/22/21 14:05	09/22/21 17:48
880-6402-6	MW-32-W-210922	Water	09/22/21 14:50	09/22/21 17:48
880-6402-7	MWD-15-W-210922	Water	09/22/21 09:40	09/22/21 17:48
880-6402-8	MWD-14-W-210922	Water	09/22/21 10:58	09/22/21 17:48
880-6402-9	MWD-13-W-210922	Water	09/22/21 11:40	09/22/21 17:48
880-6402-10	MWD-12-W-210922	Water	09/22/21 12:58	09/22/21 17:48
880-6402-11	MWD-3-W-210922	Water	09/22/21 14:10	09/22/21 17:48

Eurofins Xenco, Midland
1211 W Florida Ave
Midland TX 79701
Phone (432) 704-5440

Chain of Custody Record

880-6402 Chain of Custody

Page 1 of 1

Client Information			
Client Contact: Callum Ferguson	Sampler: Daniel McKee	Lab PM: Builes John	Carrier 1
	Phone: 432-999-2980	E-Mail: john.builes@eurofinset.com	State of
Company: ARCADIS U S Inc.	PWSID:		
Address: 1004 North Big Spring Suite 300	Due Date Requested:		
City: Midland	TAT Requested (days):		
State Zip: TX, 79701	Compliance Project: Δ Yes Δ No		
Phone: 206-295-3273(Tel)	PO #: Purchase Order not required		
Email: Callum.Ferguson@arcadis.com	WO #:		
Project Name: Eunice Project SOUTH	Project #: 88000209		
Site:	SSOW#:		

Job #:

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, 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)	300_ORGFM_28D - Chloride	6020A - Custom List	2540C_Calcd - Local Method	8015MOD_NM - Full TPH	8021B BTEX	7196A - Local Method	Total Number of containers	Special Instructions/Note
			Preservation Code:				N	D	N	A	A	N		
MW-24-W-210922	092221	1017	G	W	Y		X	X	X	X	X	X	9	
MW-25-W-210922	092221	1113	G	W	Y		X	X	X	X	X	X	9	
MW-26-W-210922	092221	1200	G	W	Y		X	X	X	X	X	X	9	
MW-29-W-210922	092221	1240	G	W	Y		X	X	X	X	X	X	9	
MW-30-W-210922	092221	1405	G	W	Y		X	X	X	X	X	X	9	
MW-32-W-210922	092221	1450	G	W	Y		X	X	X	X	X	X	9	
MWD-15-W-210922	092221	0940	G	W	Y		X	X	X	X	X	X	9	
MWD-14-W-210922	092221	1058	G	W	Y		X	X	X	X	X	X	9	
MWD-13-W-210922	092221	1140	G	W	Y		X	X	X	X	X	X	9	
MWD-12-W-210922	092221	1258	G	W	Y		X	X	X	X	X	X	9	
MWD-3-W-210922	092221	1410	G	W	Y		X	X	X	X	X	X	9	

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: 092221 / 1748	Company: Arcadis	Received by:	Date/Time: 092221 1748	Company
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.

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 880-6402-1

Login Number: 6402
List Number: 1
Creator: Teel, Brianna

List Source: Eurofins Xenco, Midland

Question	Answer	Comment
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	
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.	True	
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	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 880-6402-1

Login Number: 6402
List Number: 2
Creator: Palmar, Pedro

List Source: Eurofins Xenco, Stafford
List Creation: 09/24/21 12:09 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	
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?	N/A	
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.	True	
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	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-6346-1
Client Project/Site: Eunice Project South

For:
ARCADIS U.S. Inc
1100 Olive Way
Suite 800
Seattle, Washington 98101

Attn: Rebecca Andresen

Authorized for release by:
9/28/2021 10:38:45 AM

John Builes, Project Manager
(281)240-4200
john.builes@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
U	Indicates the analyte was analyzed for but not detected.

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)

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Job ID: 880-6346-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative
880-6346-1

Receipt
The samples were received on 9/21/2021 5:44 PM. 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 time was 2.0°C

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

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

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

Metals
Since the lab was given no sampling time for the Duplicate sample we assumed the sampling date/time to be 00:00 which cause an out of hold flag. We do not believe the analysis to actually be out of hold this is just a result of not knowing the sampling time.

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

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

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Client Sample ID: MW-15-W-210921

Lab Sample ID: 880-6346-1
Matrix: Water
Date Collected: 09/21/21 12:50
Date Received: 09/21/21 17:44

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000837**	**J**	0.00200	0.000408	mg/L			09/24/21 18:22	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/24/21 18:22	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/24/21 18:22	1
m-Xylene & p-Xylene	**0.000631**	**J**	0.00400	0.000629	mg/L			09/24/21 18:22	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/24/21 18:22	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/24/21 18:22	1
Total BTEX	**0.00147**	**J**	0.00400	0.000657	mg/L			09/24/21 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*		*09/24/21 18:22*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*		*09/24/21 18:22*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.901	U	4.56	0.901	mg/L		09/24/21 14:09	09/24/21 20:01	1
Diesel Range Organics (Over C10-C28)	<0.901	U	4.56	0.901	mg/L		09/24/21 14:09	09/24/21 20:01	1
Oil Range Organics (Over C28-C36)	<0.869	U	4.56	0.869	mg/L		09/24/21 14:09	09/24/21 20:01	1
Total TPH	<0.901	U	4.56	0.901	mg/L		09/24/21 14:09	09/24/21 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*12544*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 20:01*	*1*
o-Terphenyl	*14662*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 20:01*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1440**		5.00	2.00	mg/L			09/24/21 02:43	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0113**		0.00400	0.000246	mg/L		09/24/21 08:30	09/24/21 14:16	1
Barium	**0.0419**		0.00400	0.000484	mg/L		09/24/21 08:30	09/24/21 14:16	1
Chromium	**0.000686**	**J**	0.00400	0.000525	mg/L		09/24/21 08:30	09/24/21 14:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4110**		40.0	40.0	mg/L			09/27/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/22/21 10:00	1

Client Sample ID: MW-16-W-210921

Lab Sample ID: 880-6346-2
Matrix: Water
Date Collected: 09/21/21 14:20
Date Received: 09/21/21 17:44

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/24/21 18:48	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/24/21 18:48	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/24/21 18:48	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Client Sample ID: MW-16-W-210921

Lab Sample ID: 880-6346-2
Matrix: Water
Date Collected: 09/21/21 14:20
Date Received: 09/21/21 17:44

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/24/21 18:48	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/24/21 18:48	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/24/21 18:48	1
Total BTEX	<0.000657	U	0.00400	0.000657	mg/L			09/24/21 18:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*09/24/21 18:48*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*		*09/24/21 18:48*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.872	U	4.41	0.872	mg/L		09/24/21 14:09	09/24/21 21:06	1
Diesel Range Organics (Over C10-C28)	<0.872	U	4.41	0.872	mg/L		09/24/21 14:09	09/24/21 21:06	1
OII Range Organics (Over C28-C36)	<0.841	U	4.41	0.841	mg/L		09/24/21 14:09	09/24/21 21:06	1
Total TPH	<0.872	U	4.41	0.872	mg/L		09/24/21 14:09	09/24/21 21:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*13129*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 21:06*	*1*
o-Terphenyl	*14273*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 21:06*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1780**		5.00	2.00	mg/L			09/24/21 03:16	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0135**		0.00400	0.000246	mg/L		09/24/21 08:30	09/24/21 14:57	1
Barium	**0.0371**		0.00400	0.000484	mg/L		09/24/21 08:30	09/24/21 14:57	1
Chromium	**0.0909**		0.00400	0.000525	mg/L		09/24/21 08:30	09/24/21 14:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4180**		40.0	40.0	mg/L			09/27/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**0.0931**		0.0100	0.00273	mg/L			09/22/21 10:00	1

Client Sample ID: MW-17-W-210921

Lab Sample ID: 880-6346-3
Matrix: Water
Date Collected: 09/21/21 15:15
Date Received: 09/21/21 17:44

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/24/21 19:15	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/24/21 19:15	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/24/21 19:15	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/24/21 19:15	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/24/21 19:15	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/24/21 19:15	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Client Sample ID: MW-17-W-210921

Lab Sample ID: 880-6346-3
Matrix: Water

Date Collected: 09/21/21 15:15
Date Received: 09/21/21 17:44

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000657	U	0.00400	0.000657	mg/L			09/24/21 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*09/24/21 19:15*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*		*09/24/21 19:15*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.893	U	4.52	0.893	mg/L		09/24/21 14:09	09/24/21 21:27	1
Diesel Range Organics (Over C10-C28)	<0.893	U	4.52	0.893	mg/L		09/24/21 14:09	09/24/21 21:27	1
Oil Range Organics (Over C28-C36)	<0.862	U	4.52	0.862	mg/L		09/24/21 14:09	09/24/21 21:27	1
Total TPH	<0.893	U	4.52	0.893	mg/L		09/24/21 14:09	09/24/21 21:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*12419*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 21:27*	*1*
o-Terphenyl	*13301*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 21:27*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1050**		5.00	2.00	mg/L			09/24/21 03:27	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0105**		0.00400	0.000246	mg/L		09/24/21 08:30	09/24/21 15:00	1
Barium	**0.180**		0.00400	0.000484	mg/L		09/24/21 08:30	09/24/21 15:00	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/24/21 08:30	09/24/21 15:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**2400**		40.0	40.0	mg/L			09/27/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/22/21 10:00	1

Client Sample ID: Dup1-W-210921

Lab Sample ID: 880-6346-4
Matrix: Water

Date Collected: 09/21/21 00:00
Date Received: 09/21/21 17:44

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/24/21 19:41	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/24/21 19:41	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/24/21 19:41	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/24/21 19:41	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/24/21 19:41	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/24/21 19:41	1
Total BTEX	<0.000657	U	0.00400	0.000657	mg/L			09/24/21 19:41	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Client Sample ID: Dup1-W-210921

Lab Sample ID: 880-6346-4
Matrix: Water
Date Collected: 09/21/21 00:00
Date Received: 09/21/21 17:44

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130		09/24/21 19:41	1
1,4-Difluorobenzene (Surr)	102		70 - 130		09/24/21 19:41	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.877	U	4.44	0.877	mg/L		09/24/21 14:09	09/24/21 21:49	1
Diesel Range Organics (Over C10-C28)	<0.877	U	4.44	0.877	mg/L		09/24/21 14:09	09/24/21 21:49	1
Oil Range Organics (Over C28-C36)	<0.846	U	4.44	0.846	mg/L		09/24/21 14:09	09/24/21 21:49	1
Total TPH	<0.877	U	4.44	0.877	mg/L		09/24/21 14:09	09/24/21 21:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	10652	S1+	70 - 130	09/24/21 14:09	09/24/21 21:49	1
o-Terphenyl	11953	S1+	70 - 130	09/24/21 14:09	09/24/21 21:49	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1510**		5.00	2.00	mg/L			09/24/21 03:39	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0120**		0.00400	0.000246	mg/L		09/24/21 08:30	09/24/21 15:03	1
Barium	**0.0443**		0.00400	0.000484	mg/L		09/24/21 08:30	09/24/21 15:03	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/24/21 08:30	09/24/21 15:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4220**		40.0	40.0	mg/L			09/27/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U H	0.0100	0.00273	mg/L			09/22/21 10:00	1

Client Sample ID: MW-11-W-210921

Lab Sample ID: 880-6346-5
Matrix: Water
Date Collected: 09/21/21 10:37
Date Received: 09/21/21 17:44

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0189**		0.00200	0.000408	mg/L			09/24/21 20:08	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/24/21 20:08	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/24/21 20:08	1
m-Xylene & p-Xylene	**0.000635**	**J**	0.00400	0.000629	mg/L			09/24/21 20:08	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/24/21 20:08	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/24/21 20:08	1
Total BTEX	**0.0195**		0.00400	0.000657	mg/L			09/24/21 20:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130		09/24/21 20:08	1
1,4-Difluorobenzene (Surr)	101		70 - 130		09/24/21 20:08	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Client Sample ID: MW-11-W-210921

Lab Sample ID: 880-6346-5
Matrix: Water

Date Collected: 09/21/21 10:37
Date Received: 09/21/21 17:44

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	5.57		4.57	0.904	mg/L		09/24/21 14:09	09/24/21 22:11	1
Diesel Range Organics (Over C10-C28)	<0.904	U	4.57	0.904	mg/L		09/24/21 14:09	09/24/21 22:11	1
Oil Range Organics (Over C28-C36)	<0.872	U	4.57	0.872	mg/L		09/24/21 14:09	09/24/21 22:11	1
Total TPH	5.57		4.57	0.904	mg/L		09/24/21 14:09	09/24/21 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*11870*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 22:11*	*1*
o-Terphenyl	*13256*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 22:11*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	91.8		0.500	0.200	mg/L			09/24/21 03:50	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0326		0.00400	0.000246	mg/L		09/24/21 08:30	09/24/21 15:06	1
Barium	1.00		0.00400	0.000484	mg/L		09/24/21 08:30	09/24/21 15:06	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/24/21 08:30	09/24/21 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1010		10.0	10.0	mg/L			09/27/21 10:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/22/21 10:00	1

Client Sample ID: RW-6-W-210921

Lab Sample ID: 880-6346-6
Matrix: Water

Date Collected: 09/21/21 14:20
Date Received: 09/21/21 17:44

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/24/21 20:35	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/24/21 20:35	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/24/21 20:35	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/24/21 20:35	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/24/21 20:35	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/24/21 20:35	1
Total BTEX	<0.000657	U	0.00400	0.000657	mg/L			09/24/21 20:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*		*09/24/21 20:35*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*		*09/24/21 20:35*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1.83	J	4.49	0.887	mg/L		09/24/21 14:09	09/24/21 22:33	1
Diesel Range Organics (Over C10-C28)	1.38	J	4.49	0.887	mg/L		09/24/21 14:09	09/24/21 22:33	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Client Sample ID: RW-6-W-210921

Lab Sample ID: 880-6346-6
Matrix: Water

Date Collected: 09/21/21 14:20
Date Received: 09/21/21 17:44

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	0.950	J	4.49	0.856	mg/L		09/24/21 14:09	09/24/21 22:33	1
Total TPH	4.16	J	4.49	0.887	mg/L		09/24/21 14:09	09/24/21 22:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*12634*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 22:33*	*1*
o-Terphenyl	*13404*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 22:33*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	872		5.00	2.00	mg/L			09/24/21 06:25	10

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00358	J	0.00400	0.000246	mg/L		09/24/21 08:30	09/24/21 15:09	1
Barium	1.58		0.00400	0.000484	mg/L		09/24/21 08:30	09/24/21 15:09	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/24/21 08:30	09/24/21 15:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2450		40.0	40.0	mg/L			09/27/21 10:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/22/21 10:00	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
		Percent Surrogate Recovery (Acceptance Limits)	
880-6346-1	MW-15-W-210921	113	95
880-6346-2	MW-16-W-210921	90	97
880-6346-3	MW-17-W-210921	104	101
880-6346-4	Dup1-W-210921	107	102
880-6346-5	MW-11-W-210921	105	101
880-6346-6	RW-6-W-210921	116	101
LCS 880-8335/34	Lab Control Sample	88	108
LCSD 880-8335/35	Lab Control Sample Dup	99	109
MB 880-8335/39	Method Blank	65 S1-	89
MB 880-8335/8	Method Blank	64 S1-	91

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
		Percent Surrogate Recovery (Acceptance Limits)	
880-6346-1	MW-15-W-210921	12544 S1+	14662 S1+
880-6346-1 MS	MW-15-W-210921	11129 S1+	11251 S1+
880-6346-1 MSD	MW-15-W-210921	11198 S1+	10845 S1+
880-6346-2	MW-16-W-210921	13129 S1+	14273 S1+
880-6346-3	MW-17-W-210921	12419 S1+	13301 S1+
880-6346-4	Dup1-W-210921	10652 S1+	11953 S1+
880-6346-5	MW-11-W-210921	11870 S1+	13256 S1+
880-6346-6	RW-6-W-210921	12634 S1+	13404 S1+
LCS 880-8368/2-A	Lab Control Sample	9416 S1+	9608 S1+
LCSD 880-8368/3-A	Lab Control Sample Dup	9242 S1+	9101 S1+
MB 880-8368/1-A	Method Blank	12376 S1+	14178 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-8335/39
Matrix: Water
Analysis Batch: 8335

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/24/21 12:10	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/24/21 12:10	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/24/21 12:10	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/24/21 12:10	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/24/21 12:10	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/24/21 12:10	1
Total BTEX	<0.000657	U	0.00400	0.000657	mg/L			09/24/21 12:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*65*	*S1-*	*70 - 130*		*09/24/21 12:10*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*		*09/24/21 12:10*	*1*

Lab Sample ID: MB 880-8335/8
Matrix: Water
Analysis Batch: 8335

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000408	U	0.00200	0.000408	mg/L			09/23/21 22:15	1
Toluene	<0.000367	U	0.00200	0.000367	mg/L			09/23/21 22:15	1
Ethylbenzene	<0.000657	U	0.00200	0.000657	mg/L			09/23/21 22:15	1
m-Xylene & p-Xylene	<0.000629	U	0.00400	0.000629	mg/L			09/23/21 22:15	1
o-Xylene	<0.000642	U	0.00200	0.000642	mg/L			09/23/21 22:15	1
Xylenes, Total	<0.000642	U	0.00400	0.000642	mg/L			09/23/21 22:15	1
Total BTEX	<0.000657	U	0.00400	0.000657	mg/L			09/23/21 22:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*64*	*S1-*	*70 - 130*		*09/23/21 22:15*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*		*09/23/21 22:15*	*1*

Lab Sample ID: LCS 880-8335/34
Matrix: Water
Analysis Batch: 8335

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08916		mg/L		89	70 - 130
Toluene	0.100	0.08386		mg/L		84	70 - 130
Ethylbenzene	0.100	0.08098		mg/L		81	70 - 130
m-Xylene & p-Xylene	0.200	0.1736		mg/L		87	70 - 130
o-Xylene	0.100	0.08933		mg/L		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-8335/35
Matrix: Water
Analysis Batch: 8335

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09214		mg/L		92	70 - 130	3	20
Toluene			0.100	0.1014		mg/L		101	70 - 130	19	20
Ethylbenzene			0.100	0.09834		mg/L		98	70 - 130	19	20
m-Xylene & p-Xylene			0.200	0.2121		mg/L		106	70 - 130	20	20
o-Xylene			0.100	0.1087		mg/L		109	70 - 130	20	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-8368/1-A
Matrix: Water
Analysis Batch: 8344

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8368

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<0.926	U	4.69	0.926	mg/L		09/24/21 14:09	09/24/21 18:55	1
Diesel Range Organics (Over C10-C28)	<0.926	U	4.69	0.926	mg/L		09/24/21 14:09	09/24/21 18:55	1
Oil Range Organics (Over C28-C36)	<0.894	U	4.69	0.894	mg/L		09/24/21 14:09	09/24/21 18:55	1
Total TPH	<0.926	U	4.69	0.926	mg/L		09/24/21 14:09	09/24/21 18:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*12376*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 18:55*	*1*
o-Terphenyl	*14178*	*S1+*	*70 - 130*	*09/24/21 14:09*	*09/24/21 18:55*	*1*

Lab Sample ID: LCS 880-8368/2-A
Matrix: Water
Analysis Batch: 8344

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8368

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			93.8	80.03		mg/L		85	75 - 125		
Diesel Range Organics (Over C10-C28)			93.8	91.35		mg/L		97	75 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*9416*	*S1+*	*70 - 130*
o-Terphenyl	*9608*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-8368/3-A
Matrix: Water
Analysis Batch: 8344

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 8368

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			93.8	82.48		mg/L		88	75 - 125	3	20

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-8368/3-A
Matrix: Water
Analysis Batch: 8344

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 8368

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)			93.8	87.48		mg/L		93	75 - 125	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*9242*	*S1+*	*70 - 130*
o-Terphenyl	*9101*	*S1+*	*70 - 130*

Lab Sample ID: 880-6346-1 MS
Matrix: Water
Analysis Batch: 8344

Client Sample ID: MW-15-W-210921
Prep Type: Total/NA
Prep Batch: 8368

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<0.901	U	89.6	78.50		mg/L		88	75 - 125		
Diesel Range Organics (Over C10-C28)	<0.901	U	89.6	94.16		mg/L		105	75 - 125		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*11129*	*S1+*	*70 - 130*
o-Terphenyl	*11251*	*S1+*	*70 - 130*

Lab Sample ID: 880-6346-1 MSD
Matrix: Water
Analysis Batch: 8344

Client Sample ID: MW-15-W-210921
Prep Type: Total/NA
Prep Batch: 8368

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	<0.901	U	89.6	89.31		mg/L		100	75 - 125	13	20
Diesel Range Organics (Over C10-C28)	<0.901	U	89.6	91.59		mg/L		102	75 - 125	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*11198*	*S1+*	*70 - 130*
o-Terphenyl	*10845*	*S1+*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-23752/55
Matrix: Water
Analysis Batch: 23752

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.200	U	0.500	0.200	mg/L			09/24/21 01:03	1

Lab Sample ID: LCS 860-23752/56
Matrix: Water
Analysis Batch: 23752

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			10.0	9.837		mg/L		98	90 - 110		

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 860-23752/57
Matrix: Water
Analysis Batch: 23752

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.934		mg/L		99	90 - 110	1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 860-23942/1-A
Matrix: Water
Analysis Batch: 24039

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23942

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.000246	U	0.00400	0.000246	mg/L		09/24/21 08:30	09/24/21 14:07	1
Barium	<0.000484	U	0.00400	0.000484	mg/L		09/24/21 08:30	09/24/21 14:07	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/24/21 08:30	09/24/21 14:07	1

Lab Sample ID: LCS 860-23942/2-A
Matrix: Water
Analysis Batch: 24039

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23942

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.1058		mg/L		106	80 - 120
Barium	0.100	0.09739		mg/L		97	80 - 120
Chromium	0.100	0.09612		mg/L		96	80 - 120

Lab Sample ID: LCSD 860-23942/3-A
Matrix: Water
Analysis Batch: 24039

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 23942

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.100	0.1045		mg/L		104	80 - 120	1	20
Barium	0.100	0.09679		mg/L		97	80 - 120	1	20
Chromium	0.100	0.09666		mg/L		97	80 - 120	1	20

Lab Sample ID: MB 860-23807/1-B
Matrix: Water
Analysis Batch: 24039

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 23942

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.000246	U	0.00400	0.000246	mg/L		09/24/21 08:30	09/24/21 14:36	1
Barium	<0.000484	U	0.00400	0.000484	mg/L		09/24/21 08:30	09/24/21 14:36	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		09/24/21 08:30	09/24/21 14:36	1

Lab Sample ID: LCS 860-23807/2-B
Matrix: Water
Analysis Batch: 24039

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 23942

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.1046		mg/L		105	80 - 120
Barium	0.100	0.09673		mg/L		97	80 - 120
Chromium	0.100	0.09531		mg/L		95	80 - 120

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 860-23807/3-B
Matrix: Water
Analysis Batch: 24039

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved
Prep Batch: 23942

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			0.100	0.1048		mg/L		105	80 - 120	0	20
Barium			0.100	0.09715		mg/L		97	80 - 120	0	20
Chromium			0.100	0.09615		mg/L		96	80 - 120	1	20

Lab Sample ID: 880-6346-1 MS
Matrix: Water
Analysis Batch: 24039

Client Sample ID: MW-15-W-210921
Prep Type: Dissolved
Prep Batch: 23942

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	0.0113		0.100	0.1014		mg/L		90	75 - 125		
Barium	0.0419		0.100	0.1403		mg/L		98	75 - 125		
Chromium	0.000686	J	0.100	0.08276		mg/L		82	75 - 125		

Lab Sample ID: 880-6346-1 MSD
Matrix: Water
Analysis Batch: 24039

Client Sample ID: MW-15-W-210921
Prep Type: Dissolved
Prep Batch: 23942

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0113		0.100	0.1006		mg/L		89	75 - 125	1	20
Barium	0.0419		0.100	0.1428		mg/L		101	75 - 125	2	20
Chromium	0.000686	J	0.100	0.08460		mg/L		84	75 - 125	2	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 880-8285/3
Matrix: Water
Analysis Batch: 8285

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.00273	U	0.0100	0.00273	mg/L			09/22/21 10:00	1

Lab Sample ID: LCS 880-8285/4
Matrix: Water
Analysis Batch: 8285

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cr (VI)			0.0400	0.03462		mg/L		87	85 - 115		

Lab Sample ID: LCSD 880-8285/5
Matrix: Water
Analysis Batch: 8285

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)			0.0400	0.03462		mg/L		87	85 - 115	0	20

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 880-6346-1 MS
Matrix: Water
Analysis Batch: 8285

Client Sample ID: MW-15-W-210921
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	<0.00273	U	0.200	0.1711		mg/L		86	85 - 115

Lab Sample ID: 880-6346-1 MSD
Matrix: Water
Analysis Batch: 8285

Client Sample ID: MW-15-W-210921
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	<0.00273	U	0.200	0.1705		mg/L		85	85 - 115	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 860-24206/1
Matrix: Water
Analysis Batch: 24206

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00	mg/L			09/27/21 10:30	1

Lab Sample ID: LCS 860-24206/2
Matrix: Water
Analysis Batch: 24206

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	1104		mg/L		110	80 - 120

Lab Sample ID: LCSD 860-24206/3
Matrix: Water
Analysis Batch: 24206

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids	1000	1139		mg/L		114	80 - 120	3	10

Lab Sample ID: MB 860-24207/1
Matrix: Water
Analysis Batch: 24207

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00	mg/L			09/27/21 10:35	1

Lab Sample ID: LCS 860-24207/2
Matrix: Water
Analysis Batch: 24207

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	1008		mg/L		101	80 - 120

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCSD 860-24207/3
Matrix: Water
Analysis Batch: 24207

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids			1000	987.0		mg/L		99	80 - 120	2	10

Lab Sample ID: 880-6346-5 DU
Matrix: Water
Analysis Batch: 24207

Client Sample ID: MW-11-W-210921
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1010			1025		mg/L				1	10

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

GC VOA

Analysis Batch: 8335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6346-1	MW-15-W-210921	Total/NA	Water	8021B	
880-6346-2	MW-16-W-210921	Total/NA	Water	8021B	
880-6346-3	MW-17-W-210921	Total/NA	Water	8021B	
880-6346-4	Dup1-W-210921	Total/NA	Water	8021B	
880-6346-5	MW-11-W-210921	Total/NA	Water	8021B	
880-6346-6	RW-6-W-210921	Total/NA	Water	8021B	
MB 880-8335/39	Method Blank	Total/NA	Water	8021B	
MB 880-8335/8	Method Blank	Total/NA	Water	8021B	
LCS 880-8335/34	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-8335/35	Lab Control Sample Dup	Total/NA	Water	8021B	

GC Semi VOA

Analysis Batch: 8344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6346-1	MW-15-W-210921	Total/NA	Water	8015B NM	8368
880-6346-2	MW-16-W-210921	Total/NA	Water	8015B NM	8368
880-6346-3	MW-17-W-210921	Total/NA	Water	8015B NM	8368
880-6346-4	Dup1-W-210921	Total/NA	Water	8015B NM	8368
880-6346-5	MW-11-W-210921	Total/NA	Water	8015B NM	8368
880-6346-6	RW-6-W-210921	Total/NA	Water	8015B NM	8368
MB 880-8368/1-A	Method Blank	Total/NA	Water	8015B NM	8368
LCS 880-8368/2-A	Lab Control Sample	Total/NA	Water	8015B NM	8368
LCSD 880-8368/3-A	Lab Control Sample Dup	Total/NA	Water	8015B NM	8368
880-6346-1 MS	MW-15-W-210921	Total/NA	Water	8015B NM	8368
880-6346-1 MSD	MW-15-W-210921	Total/NA	Water	8015B NM	8368

Prep Batch: 8368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6346-1	MW-15-W-210921	Total/NA	Water	8015NM Aq Prep	
880-6346-2	MW-16-W-210921	Total/NA	Water	8015NM Aq Prep	
880-6346-3	MW-17-W-210921	Total/NA	Water	8015NM Aq Prep	
880-6346-4	Dup1-W-210921	Total/NA	Water	8015NM Aq Prep	
880-6346-5	MW-11-W-210921	Total/NA	Water	8015NM Aq Prep	
880-6346-6	RW-6-W-210921	Total/NA	Water	8015NM Aq Prep	
MB 880-8368/1-A	Method Blank	Total/NA	Water	8015NM Aq Prep	
LCS 880-8368/2-A	Lab Control Sample	Total/NA	Water	8015NM Aq Prep	
LCSD 880-8368/3-A	Lab Control Sample Dup	Total/NA	Water	8015NM Aq Prep	
880-6346-1 MS	MW-15-W-210921	Total/NA	Water	8015NM Aq Prep	
880-6346-1 MSD	MW-15-W-210921	Total/NA	Water	8015NM Aq Prep	

HPLC/IC

Analysis Batch: 23752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6346-1	MW-15-W-210921	Total/NA	Water	300.0	
880-6346-2	MW-16-W-210921	Total/NA	Water	300.0	
880-6346-3	MW-17-W-210921	Total/NA	Water	300.0	
880-6346-4	Dup1-W-210921	Total/NA	Water	300.0	
880-6346-5	MW-11-W-210921	Total/NA	Water	300.0	
880-6346-6	RW-6-W-210921	Total/NA	Water	300.0	
MB 860-23752/55	Method Blank	Total/NA	Water	300.0	

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

HPLC/IC (Continued)

Analysis Batch: 23752 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 860-23752/56	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-23752/57	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Filtration Batch: 23807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-23807/1-B	Method Blank	Dissolved	Water	Filtration	
LCS 860-23807/2-B	Lab Control Sample	Dissolved	Water	Filtration	
LCSD 860-23807/3-B	Lab Control Sample Dup	Dissolved	Water	Filtration	

Prep Batch: 23942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6346-1	MW-15-W-210921	Dissolved	Water	3010A	
880-6346-2	MW-16-W-210921	Dissolved	Water	3010A	
880-6346-3	MW-17-W-210921	Dissolved	Water	3010A	
880-6346-4	Dup1-W-210921	Dissolved	Water	3010A	
880-6346-5	MW-11-W-210921	Dissolved	Water	3010A	
880-6346-6	RW-6-W-210921	Dissolved	Water	3010A	
MB 860-23807/1-B	Method Blank	Dissolved	Water	3010A	23807
MB 860-23942/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-23807/2-B	Lab Control Sample	Dissolved	Water	3010A	23807
LCS 860-23942/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-23807/3-B	Lab Control Sample Dup	Dissolved	Water	3010A	23807
LCSD 860-23942/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
880-6346-1 MS	MW-15-W-210921	Dissolved	Water	3010A	
880-6346-1 MSD	MW-15-W-210921	Dissolved	Water	3010A	

Analysis Batch: 24039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6346-1	MW-15-W-210921	Dissolved	Water	6020A	23942
880-6346-2	MW-16-W-210921	Dissolved	Water	6020A	23942
880-6346-3	MW-17-W-210921	Dissolved	Water	6020A	23942
880-6346-4	Dup1-W-210921	Dissolved	Water	6020A	23942
880-6346-5	MW-11-W-210921	Dissolved	Water	6020A	23942
880-6346-6	RW-6-W-210921	Dissolved	Water	6020A	23942
MB 860-23807/1-B	Method Blank	Dissolved	Water	6020A	23942
MB 860-23942/1-A	Method Blank	Total/NA	Water	6020A	23942
LCS 860-23807/2-B	Lab Control Sample	Dissolved	Water	6020A	23942
LCS 860-23942/2-A	Lab Control Sample	Total/NA	Water	6020A	23942
LCSD 860-23807/3-B	Lab Control Sample Dup	Dissolved	Water	6020A	23942
LCSD 860-23942/3-A	Lab Control Sample Dup	Total/NA	Water	6020A	23942
880-6346-1 MS	MW-15-W-210921	Dissolved	Water	6020A	23942
880-6346-1 MSD	MW-15-W-210921	Dissolved	Water	6020A	23942

General Chemistry

Analysis Batch: 8285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6346-1	MW-15-W-210921	Dissolved	Water	7196A	
880-6346-2	MW-16-W-210921	Dissolved	Water	7196A	
880-6346-3	MW-17-W-210921	Dissolved	Water	7196A	

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

General Chemistry (Continued)

Analysis Batch: 8285 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6346-4	Dup1-W-210921	Dissolved	Water	7196A	
880-6346-5	MW-11-W-210921	Dissolved	Water	7196A	
880-6346-6	RW-6-W-210921	Dissolved	Water	7196A	
MB 880-8285/3	Method Blank	Total/NA	Water	7196A	
LCS 880-8285/4	Lab Control Sample	Total/NA	Water	7196A	
LCSD 880-8285/5	Lab Control Sample Dup	Total/NA	Water	7196A	
880-6346-1 MS	MW-15-W-210921	Dissolved	Water	7196A	
880-6346-1 MSD	MW-15-W-210921	Dissolved	Water	7196A	

Analysis Batch: 24206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6346-1	MW-15-W-210921	Total/NA	Water	SM 2540C	
880-6346-2	MW-16-W-210921	Total/NA	Water	SM 2540C	
880-6346-3	MW-17-W-210921	Total/NA	Water	SM 2540C	
880-6346-4	Dup1-W-210921	Total/NA	Water	SM 2540C	
880-6346-6	RW-6-W-210921	Total/NA	Water	SM 2540C	
MB 860-24206/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-24206/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-24206/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

Analysis Batch: 24207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6346-5	MW-11-W-210921	Total/NA	Water	SM 2540C	
MB 860-24207/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-24207/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-24207/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
880-6346-5 DU	MW-11-W-210921	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Client Sample ID: MW-15-W-210921
Lab Sample ID: 880-6346-1
Date Collected: 09/21/21 12:50
Matrix: Water
Date Received: 09/21/21 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	8335	09/24/21 18:22	MR	XEN MID
Total/NA	Prep	8015NM Aq Prep			32.9 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/24/21 20:01	AJ	XEN MID
Total/NA	Analysis	300.0		10			23752	09/24/21 02:43	WP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	23942	09/24/21 08:30	MD	XEN STF
Dissolved	Analysis	6020A		1			24039	09/24/21 14:16	AV	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8285	09/22/21 10:00	CA	XEN MID
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	24206	09/27/21 10:30	YGG	XEN STF

Client Sample ID: MW-16-W-210921
Lab Sample ID: 880-6346-2
Date Collected: 09/21/21 14:20
Matrix: Water
Date Received: 09/21/21 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	8335	09/24/21 18:48	MR	XEN MID
Total/NA	Prep	8015NM Aq Prep			34 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/24/21 21:06	AJ	XEN MID
Total/NA	Analysis	300.0		10			23752	09/24/21 03:16	WP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	23942	09/24/21 08:30	MD	XEN STF
Dissolved	Analysis	6020A		1			24039	09/24/21 14:57	AV	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8285	09/22/21 10:00	CA	XEN MID
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	24206	09/27/21 10:30	YGG	XEN STF

Client Sample ID: MW-17-W-210921
Lab Sample ID: 880-6346-3
Date Collected: 09/21/21 15:15
Matrix: Water
Date Received: 09/21/21 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	8335	09/24/21 19:15	MR	XEN MID
Total/NA	Prep	8015NM Aq Prep			33.2 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/24/21 21:27	AJ	XEN MID
Total/NA	Analysis	300.0		10			23752	09/24/21 03:27	WP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	23942	09/24/21 08:30	MD	XEN STF
Dissolved	Analysis	6020A		1			24039	09/24/21 15:00	AV	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8285	09/22/21 10:00	CA	XEN MID
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	24206	09/27/21 10:30	YGG	XEN STF

Client Sample ID: Dup1-W-210921
Lab Sample ID: 880-6346-4
Date Collected: 09/21/21 00:00
Matrix: Water
Date Received: 09/21/21 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	8335	09/24/21 19:41	MR	XEN MID

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Client Sample ID: Dup1-W-210921
Date Collected: 09/21/21 00:00
Date Received: 09/21/21 17:44

Lab Sample ID: 880-6346-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Aq Prep			33.8 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/24/21 21:49	AJ	XEN MID
Total/NA	Analysis	300.0		10			23752	09/24/21 03:39	WP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	23942	09/24/21 08:30	MD	XEN STF
Dissolved	Analysis	6020A		1			24039	09/24/21 15:03	AV	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8285	09/22/21 10:00	CA	XEN MID
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	24206	09/27/21 10:30	YGG	XEN STF

Client Sample ID: MW-11-W-210921
Date Collected: 09/21/21 10:37
Date Received: 09/21/21 17:44

Lab Sample ID: 880-6346-5
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	8021B		1	5 mL	5 mL	8335	09/24/21 20:08	MR	XEN MID
Total/NA	Prep	8015NM Aq Prep			32.8 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/24/21 22:11	AJ	XEN MID
Total/NA	Analysis	300.0		1			23752	09/24/21 03:50	WP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	23942	09/24/21 08:30	MD	XEN STF
Dissolved	Analysis	6020A		1			24039	09/24/21 15:06	AV	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8285	09/22/21 10:00	CA	XEN MID
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	24207	09/27/21 10:35	YGG	XEN STF

Client Sample ID: RW-6-W-210921
Date Collected: 09/21/21 14:20
Date Received: 09/21/21 17:44

Lab Sample ID: 880-6346-6
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	8021B		1	5 mL	5 mL	8335	09/24/21 20:35	MR	XEN MID
Total/NA	Prep	8015NM Aq Prep			33.4 mL	3 mL	8368	09/24/21 14:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8344	09/24/21 22:33	AJ	XEN MID
Total/NA	Analysis	300.0		10			23752	09/24/21 06:25	WP	XEN STF
Dissolved	Prep	3010A			50 mL	50 mL	23942	09/24/21 08:30	MD	XEN STF
Dissolved	Analysis	6020A		1			24039	09/24/21 15:09	AV	XEN STF
Dissolved	Analysis	7196A		1	100 mL	100 mL	8285	09/22/21 10:00	CA	XEN MID
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	24206	09/27/21 10:30	YGG	XEN STF

Laboratory References:
XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440
XEN STF = Eurofins Xenco, Stafford, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Aq Prep	Water	Total TPH
8021B		Water	Total BTEX

Laboratory: Eurofins Xenco, Stafford

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215-21-44	06-30-22

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN STF
6020A	Metals (ICP/MS)	SW846	XEN STF
7196A	Chromium, Hexavalent	SW846	XEN MID
SM 2540C	Solids, Total Dissolved (TDS)	SM	XEN STF
3010A	Preparation, Total Metals	SW846	XEN STF
5030B	Purge and Trap	SW846	XEN MID
8015NM Aq Prep	Microextraction	SW846	XEN MID

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

XEN STF = Eurofins Xenco, Stafford, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Eunice Project South

Job ID: 880-6346-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-6346-1	MW-15-W-210921	Water	09/21/21 12:50	09/21/21 17:44
880-6346-2	MW-16-W-210921	Water	09/21/21 14:20	09/21/21 17:44
880-6346-3	MW-17-W-210921	Water	09/21/21 15:15	09/21/21 17:44
880-6346-4	Dup1-W-210921	Water	09/21/21 00:00	09/21/21 17:44
880-6346-5	MW-11-W-210921	Water	09/21/21 10:37	09/21/21 17:44
880-6346-6	RW-6-W-210921	Water	09/21/21 14:20	09/21/21 17:44

Eurofins Xenco, Midland
1211 W Florida Ave
Midland TX 79701
Phone (432) 704-5440

Chain of Custody Record

880-6346 Chain of Custody

Eurofins Environment Testing America

01-106 3

Page 1 of ___

Client Information	Sampler: Daniel McLee	Lab PM: Builes John	
Client Contact: Callum Ferguson	Phone: 432-999-2980	E-Mail: john builes@eurofinset com	
Company: ARCADIS U S Inc.	PWSID		
Address: 1004 North Big Spring Suite 300	Due Date Requested:		
City: Midland	TAT Requested (days):		
State Zip: TX 79701	Compliance Project: Δ Yes Δ No		
Phone: 206-295-3273(Tel)	PO #: Purchase Order not required		
Email: Callum Ferguson@arcadis com	WO #:		
Project Name: Eunice Project SOUTH	Project #: 88000209		
Site	SSOW#:		

Job #:

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, 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)	300_ORGFM_28D - Chloride	6020A Custom List	2540C_Calcd - Local Method	8015MOD_NM - Full TPH	8021B BTEX	7196A Local Method							Total Number of containers	Special Instructions/Note
			Preservation Code:				N	D	N	A	A	N								
MW-15-W-210921	092121	1250	G	W	Y		X	X	X	X	X	X							9	
MW-16-W-210921	092121	1420	G	W	Y		X	X	X	X	X	X							9	
MW-17-W-210921	092121	1515	G	W	Y		X	X	X	X	X	X							9	
DUP1-W-210921	092121	—	G	W	Y		X	X	X	X	X	X							9	
MW-11-W-210921	092121	1037	G	W	Y		X	X	X	X	X	X							9	
RW-6-W-210921	092121	1420	G	W	Y		X	X	X	X	X	X							9	

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: 092121 / 1740	Company: Arcadis	Received by:	Date/Time: 9/21/21 1740	Company: XENCO	
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

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 880-6346-1

Login Number: 6346
List Number: 1
Creator: Teel, Brianna

List Source: Eurofins Xenco, Midland

Question	Answer	Comment
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	
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.	True	
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	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 880-6346-1

Login Number: 6346
List Number: 2
Creator: Palmar, Pedro

List Source: Eurofins Xenco, Stafford
List Creation: 09/23/21 12:20 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	
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?	N/A	
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.	True	
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	

APPENDIX E

Historical Analytical Data (through 2017)

Appendix E
Historical Analytical Data (through 2017)
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant

ARCADIS Design & Consultancy for natural and built assets

		Chemical Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Manganese	Benzene	Ethylbenzene	Total Xylenes	DRO (C10-C28)	GRO (C6-C10)	Chloride	Total Dissolved Solids
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MW-11	2/17/2010	N	0.054	< 0.0150 U	--	--	--	29000	710	< 300 U	--	--	337	1410
	8/12/2010	N	0.0565	< 0.0150 U	--	--	--	17000	420	< 150 U	--	--	406	1540
	4/8/2011	N	0.0558	< 0.0150 U	--	--	--	29000	480	< 300 U	--	--	425	1550
	8/16/2011	N	0.0450	< 0.0150 U	--	--	--	32000	430	< 150 U	--	--	422	1350
	2/16/2012	N	0.0309	< 0.0150 U	--	--	--	22000	420	< 60 U	--	--	260	1390
	8/14/2012	N	0.0368	< 0.0150 U	--	--	--	20000	760	< 300 U	--	--	304 J	1200
	2/11/2013	N	0.0315	< 0.0150 U	--	--	--	18000	560	32	--	--	192	1180
	8/12/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	14000	410	< 150 U	--	--	199	1150
	2/7/2014	N	0.0138 J	< 0.0150 U	--	--	--	22000	670	57 J	--	--	195	1050
	8/13/2014	N	< 0.0200 UJ	< 0.0150 UJ	--	--	--	30000	130	< 100 U	--	--	277	1340
	2/11/2015	N	0.0077 J	< 0.0150 U	--	--	--	16000	26 J	160	--	--	144	696
	8/11/2015	N	< 0.0200 U	0.0016 J	--	--	--	11000	33	190	--	--	97.8	798
	4/1/2016	N	< 0.01 U	< 0.01 U	< 0.01 U	--	--	6840	< 40 U	54.8	< 1.41 U	11.5	93.9	688
	9/12/2016	N	< 0.00336 U	< 0.00136 U	--	6.54	0.14	5890 D	15	91.2	< 0.986 U	7.72	71.1	888
	4/6/2017	N	< 0.05 U	< 0.05 U	0.0078 J	0.219 J	0.142 J	7020	< 100 U	< 100 U	< 1.5 U	1.67	128	1060
	9/14/2017	N	0.0118	0.000585 J	< 0.01 U	--	--	7210 J	49.8 J	259 J	< 1.5 U	2.54	91	900
MW-13	2/9/2009	N	0.0286	< 0.0150 U	--	--	--	5.5	3.3	4.6	--	--	374	1170
	8/11/2009	N	0.0246	< 0.0150 U	--	--	--	< 5.0 U	< 1.0 U	< 3.0 U	--	--	340	1160
	2/12/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	562	1100
	8/6/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	337	1010
	4/6/2011	N	0.0339	< 0.0150 U	--	--	--	< 10 U	< 1.0 U	< 3.0 U	--	--	426	1120
	8/15/2011	N	0.0235	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	454	1080
	2/8/2012	N	0.0276	< 0.0150 U	--	--	--	14	< 1.0 U	< 3.0 U	--	--	379	1090
	8/9/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	439	1140
	2/6/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	348 J	1000
	8/6/2013	N	0.0249	< 0.0150 U	--	--	--	< 3.0 U	< 1.0 U	< 3.0 U	--	--	372	1380
	8/6/2013	FD	0.0248	< 0.0150 U	--	--	--	< 2.0 U	< 1.0 U	< 3.0 U	--	--	377	1250
	2/4/2014	N	0.0137 J	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	830	1100
	8/7/2014	N	0.0291	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	366	1160
	2/3/2015	N	0.0120 J	0.0017 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	366	828
	8/6/2015	N	0.0151 J	0.0026 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	381	1040 J
	3/30/2016	N	< 0.01 U	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	337	835
	3/30/2016	FD	0.014	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	340	865
	9/6/2016	N	0.0166	< 0.00136 U	< 0.01 U	< 0.00616 U	0.0101 J	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	329	1030
	9/6/2016	FD	0.0105	< 0.00136 U	< 0.01 U	0.00629 J	0.0103 J	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	314	1130
	4/5/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	< 1 U	0.0182 J	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	343	976
	9/13/2017	N	0.0145	< 0.004 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	331	1170
MW-14	2/9/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	2.4	< 3.0 U	--	--	421	1280
	8/6/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	429	1500
	2/5/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	573	1550
	8/4/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	485	1540
	4/6/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	512	1460
	8/8/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	595	1750
	2/8/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	475	1620
	8/9/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	553	1760
	2/6/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	556 J	1510
	8/6/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	580	1770
	2/4/2014	N	0.0105 J	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	597	1500

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		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MW-14	8/7/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	558	1700 J
	8/7/2014	FD	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	530	1580
	2/3/2015	N	< 0.0200 U	0.0014 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	504	1260
	8/6/2015	N	0.0075 J	0.0023 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	475	1380 J
	3/30/2016	N	0.0139	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	488	1360
	9/6/2016	N	< 0.00336 U	< 0.00136 U	< 0.01 U	0.0263 J	0.831	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	465	1670
	4/5/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	< 1 U	0.835	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	489	1560
	9/13/2017	N	0.00699	< 0.004 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	486	1640
MW-15	2/9/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	6.1	3.7	3.2	--	--	2370	5250
	8/12/2009	N	0.0252	< 0.0150 U	--	--	--	3.3	< 1.0 U	< 3.0 U	--	--	2560	4810
	2/8/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1970	4520
	8/9/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1270	3230
	4/7/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	2.4	< 1.0 U	< 3.0 U	--	--	3310	4260
	8/9/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	16	< 1.0 U	< 3.0 U	--	--	1840	3820
	2/15/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	3.2	< 1.0 U	< 3.0 U	--	--	1020	3190
	2/15/2012	FD	< 0.0200 U	< 0.0150 U	--	--	--	3.2	< 1.0 U	< 3.0 U	--	--	778	3620
	8/13/2012	N	0.0203	< 0.0150 U	--	--	--	1.9	< 1.0 U	< 3.0 U	--	--	1540 J	3000
	2/7/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	1.4	< 1.0 U	< 3.0 U	--	--	1340 J	3250
	8/7/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	1.2	< 1.0 U	< 3.0 U	--	--	1320	3310
	2/6/2014	N	0.0106 J	< 0.0150 U	--	--	--	1.3	< 1.0 U	< 1.0 U	--	--	2610 J	3010
	8/14/2014	N	< 0.0200 UJ	< 0.0150 UJ	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	1340	3160
	2/10/2015	N	0.0169 J	0.0025 J	--	--	--	1.5	< 1.0 U	< 1.0 U	--	--	1150	2160
	8/13/2015	N	0.0141 J	0.0020 J	--	--	--	0.5 J	< 1.0 U	< 1.0 U	--	--	1180	2920
	3/30/2016	N	0.0181	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	1750	3160
	9/6/2016	N	< 0.00336 U	< 0.00136 U	< 0.01 U	0.00905 J	0.028	1.8 J	< 0.657 U	< 0.642 U	< 0.987 U	< 0.987 U	1780	4580
	4/5/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	< 1 U	0.0345 J	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	1960	2900
	9/13/2017	N	0.0124	0.000535 J	< 0.01 U	--	--	7.95	< 2 U	< 2 U	< 1.5 U	< 1.5 U	2040	4590
MW-16	2/9/2009	N	< 0.0200 U	0.138	--	--	--	1.3	3.6	3.2	--	--	1830	3790
	8/6/2009	N	< 0.0200 U	0.123	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1570	3970
	2/8/2010	N	< 0.0200 U	0.109	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1820	3750
	8/4/2010	N	< 0.0200 U	0.138	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1840	3950
	4/7/2011	N	< 0.0200 U	0.114	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1830	3380
	8/9/2011	N	< 0.0200 U	0.0936	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1790	3230
	2/15/2012	N	< 0.0200 U	0.108	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1270	3940
	8/13/2012	N	< 0.0200 U	0.101	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1750 J	3530
	2/6/2013	N	< 0.0200 U	0.0965	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1590 J	3450
	8/7/2013	N	< 0.0200 U	0.0783	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1650	3790
	2/6/2014	N	0.0132 J	0.0952	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	1730 J	4200
	8/14/2014	N	< 0.0200 UJ	0.104 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	1560	3880
	2/10/2015	N	0.0169 J	0.104	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	1390	2760
	8/13/2015	N	0.0149 J	0.0817	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	1560	3480
	3/30/2016	N	0.0255	0.107	0.0946	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	2060	3220
	9/6/2016	N	< 0.00336 U	0.0625	0.0959	0.00979 J	< 0.000585 U	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	1750	4860
	4/5/2017	N	< 0.05 U	0.0955	0.106	< 1 U	< 0.1 U	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	1880	3810
	9/13/2017	N	0.0129	0.11	0.0957	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	1880	4230
MW-17	2/11/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	4.5	4.2	< 3.0 U	--	--	4160	8240
	8/11/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	3100	7680
	2/10/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1260	3110

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		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MW-17	8/6/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	2910	7030
	4/7/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	697	2140
	8/10/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	3050	6270
	2/14/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	3950	10800
	8/13/2012	N	0.0226	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	5490 J	7580
	2/7/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1820 J	4000
	8/7/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	3430	7280
	8/7/2013	FD	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	3310	7360
	2/5/2014	N	0.0110 J	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	0.2 J	--	--	2730	5640
	8/12/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	3120	6130
	2/6/2015	N	0.0109 J	0.0022 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	2050	2890
	8/12/2015	N	0.0095 J	0.0021 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	2220	5640
	3/31/2016	N	0.0127	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	3460	4180
	9/9/2016	N	0.00742 J	< 0.00136 U	--	0.154 J	0.504	< 0.408 U	< 0.657 U	< 0.642 U	< 0.987 U	< 0.987 U	2220	3740
	4/6/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	< 1 U	0.534 J	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	1750	3440
	9/13/2017	N	0.0141	< 0.004 U	< 0.01 U	--	--	< 2 UJ	< 2 UJ	< 2 UJ	< 1.5 U	< 1.5 U	603	3030
	9/13/2017	FD	0.0127	< 0.004 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	627	3450
MW-18	2/10/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	4.0	4.2	< 3.0 U	--	--	2570	4880
	8/10/2009	N	0.0246	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1070	2740
	2/10/2010	N	0.0329	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	457	1440
	8/5/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1340	2970
	4/7/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1170	2280
	8/10/2011	N	0.0210	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	532	1510
	2/13/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	907	2250
	8/9/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	598	1580
	2/6/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	699 J	1540
	8/7/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	700	1620
	2/4/2014	N	0.0206 J	0.0016 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	474	1260
	8/6/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	533	1260
	2/4/2015	N	0.0191 J	0.0014 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	401	1080
	8/6/2015	N	0.0180 J	0.0027 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	406	1130
	4/1/2016	N	0.0218	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	284	906
	9/12/2016	N	0.0135	< 0.00136 U	--	< 0.00616 U	< 0.000585 U	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	287	964
	4/4/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	< 1 U	< 0.1 U	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	231	730
MW-19	8/10/2010	N	0.0484	< 0.0150 U	--	--	--	1300	83	52	--	--	4070	8300
	8/9/2012	N	0.0464	< 0.0150 U	--	--	--	1300 J	170 J	57 J	--	--	4050	8440
	8/9/2012	FD	0.0466	< 0.0150 U	--	--	--	1400 J	170 J	57 J	--	--	4360 J	8880
	2/8/2013	N	0.0494	< 0.0150 U	--	--	--	1300	150 J	58 J	--	--	4030	9000
	8/9/2013	N	0.0411	< 0.0150 U	--	--	--	1400	210 J	7.1 J	--	--	4080	8740
	2/10/2014	N	0.0270	< 0.0150 U	--	--	--	1000	160	36	--	--	4850	9720
MW-21	8/11/2010	N	0.0621	< 0.0150 U	--	--	--	510	140	22	--	--	834	2370
	8/14/2012	N	0.0562	< 0.0150 U	--	--	--	490	250	33	--	--	856 J	2320
	2/11/2013	N	0.0557	< 0.0150 U	--	--	--	340	230	11	--	--	857	2430
	8/9/2013	N	0.0294	< 0.0150 U	--	--	--	650 J	150 J	45 J	--	--	913 J	2030
	2/7/2014	N	0.0642	< 0.0150 U	--	--	--	130	190	9.9	--	--	945	2480
	2/7/2014	FD	0.0667	< 0.0150 U	--	--	--	130	190	9.8	--	--	853	2540

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		Chemical Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Manganese	Benzene	Ethylbenzene	Total Xylenes	DRO (C10-C28)	GRO (C6-C10)	Chloride	Total Dissolved Solids
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MW-22	2/11/2009	N	0.0508	< 0.0150 U	--	--	--	2700	66	43	--	--	6400	9840
	8/13/2009	N	0.0381	< 0.0150 U	--	--	--	3500	130	< 30 U	--	--	2990	6480
	2/17/2010	N	0.0363	< 0.0150 U	--	--	--	19000	260	< 150 U	--	--	2770	5520
	8/10/2010	N	0.0444	< 0.0150 U	--	--	--	18000	260	< 150 U	--	--	2150	5000
	8/10/2010	FD	0.0448	< 0.0150 U	--	--	--	18000	230	< 150 U	--	--	2420	4990
	4/7/2011	N	0.0581	< 0.0150 U	--	--	--	1900	36	3.2	--	--	6270	10500
	8/11/2011	N	0.0670	< 0.0150 U	--	--	--	7500	67	< 60 U	--	--	5120	8360
	2/15/2012	N	0.0242	< 0.0150 U	--	--	--	6800	6.9	< 15 U	--	--	10100	26600
	8/13/2012	N	0.0352	< 0.0150 U	--	--	--	8700	120	16	--	--	4660 J	6050
	2/8/2013	N	0.0285	< 0.0150 U	--	--	--	73	3.3	< 8.0 U	--	--	10500	20000
	8/12/2013	N	0.0200	< 0.0150 U	--	--	--	160	3.1	3.0	--	--	6840	13000
	2/6/2014	N	0.0175 J	< 0.0150 U	--	--	--	3400	39	8.1	--	--	12100	23700
	8/13/2014	N	0.0342 J	< 0.0150 UJ	--	--	--	7100	150	120	--	--	6540	10400
	2/6/2015	N	0.0194 J	0.0019 J	--	--	--	18000	200	51	--	--	3060	3720
	8/12/2015	N	0.0227	0.0020 J	--	--	--	15000	140	49	--	--	2570	6240
	3/31/2016	N	0.0367	< 0.01 U	0.0157	--	--	17100	205	< 100 U	< 1.41 U	23.1	2270	4800
	9/9/2016	N	0.0195	< 0.00136 U	--	8.22	0.0761	3090 D	3.05	< 0.642 U	< 0.986 U	3.51	3510	6160
	4/4/2017	N	< 0.05 U	< 0.05 U	--	0.267 J	0.0947 J	16700	624	668	1.62	2.35	2310	4050
	4/7/2017	N	--	--	0.0038 J	--	--	--	--	--	--	--	--	--
MW-23	2/11/2009	N	0.0524	< 0.0150 U	--	--	--	3.1	2.7	< 3.0 U	--	--	12100	21000
	8/7/2009	N	0.0566	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	8860	17800
	2/9/2010	N	0.0228	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	9770	17400
	8/5/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	7960	14400
	4/6/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	7640	13000
	4/6/2011	FD	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	7660	12900
	8/9/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	6360	11200
	2/15/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1590	15000
	8/14/2012	N	0.0218	< 0.0150 U	--	--	--	13	2.0	< 3.0 U	--	--	8360 J	16000
	2/7/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	8080 J	12000
	8/8/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	10200 J	16300
	2/6/2014	N	0.0150 J	0.0029 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	9750	17300
	8/12/2014	N	0.0217	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	7610	12400
	2/3/2015	N	0.0154 J	0.0021 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	6740	10500
	8/12/2015	N	0.0226	0.0024 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	5680	13700
	3/31/2016	N	0.0275	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	4590	8680
	9/9/2016	N	< 0.00336 U	< 0.00136 U	--	0.0175 J	< 0.000585 U	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	5570	10300
	4/4/2017	N	< 0.05 U	< 0.05 U	--	< 1 U	< 0.1 U	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	4150	8040
	4/7/2017	N	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--
MW-24	2/18/2009	N	0.0350	< 0.0150 U	--	--	--	11000	630	610	--	--	371	1390
	2/16/2010	N	0.0355	< 0.0150 U	--	--	--	25000	990	520	--	--	201	1340
	8/12/2010	N	0.0361	< 0.0150 U	--	--	--	23000	1100	530	--	--	175	1450
	4/6/2011	N	0.0383	< 0.0150 U	--	--	--	23000	760	240	--	--	202	1210
	8/10/2011	N	0.0326	< 0.0150 U	--	--	--	26000	840	260	--	--	84.7	944
	2/16/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	27000	1400	440	--	--	70.2	1030
	8/13/2012	N	0.0288	< 0.0150 U	--	--	--	28000	1500	500	--	--	66.0 J	854
	2/11/2013	N	0.0306	< 0.0150 U	--	--	--	27000	1500	590	--	--	74.1	988
	8/9/2013	N	0.0239	< 0.0150 U	--	--	--	14000	580	< 150 U	--	--	202	1250
	2/7/2014	N	0.0213	0.0028 J	--	--	--	14000	970	230	--	--	184	1040

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		Chemical Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Manganese	Benzene	Ethylbenzene	Total Xylenes	DRO (C10-C28)	GRO (C6-C10)	Chloride	Total Dissolved Solids
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MW-24	8/13/2014	N	< 0.0200 UJ	< 0.0150 UJ	--	--	--	17000	870	110	--	--	282	1170
	8/13/2014	FD	< 0.0200 UJ	< 0.0150 UJ	--	--	--	22000	910	140	--	--	279	1330
	2/11/2015	N	0.0198 J	0.0025 J	--	--	--	19000	1100	380	--	--	305	1160
	8/11/2015	N	0.0161 J	0.0027 J	--	--	--	15000 J	130 J	100 J	--	--	301	1340
	4/1/2016	N	0.0335	< 0.01 U	< 0.01 U	--	--	19800	174	221	< 1.41 U	34.6	164	1610
	9/12/2016	N	0.0254	< 0.00136 U	--	3.88	0.0318	31300 D	134	110	< 0.986 U	27.7	153	1580
MW-25	2/12/2009	N	0.0272	< 0.0150 U	--	--	--	7900	560	< 75 U	--	--	2630	6470
	8/14/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	8200	780	< 60 U	--	--	1940	4570
	2/17/2010	N	0.0209	< 0.0150 U	--	--	--	6800	770	16	--	--	4180	7280
	8/11/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	8600	860	< 60 U	--	--	1290	3430
	8/12/2010	FD	< 0.0200 U	< 0.0150 U	--	--	--	10000	890	15	--	--	1310	3470
	4/7/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	6500	740	< 60 U	--	--	2890	6060
	8/11/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	6700	510	< 60 U	--	--	2900	5880
	2/15/2012	N	0.0291	< 0.0150 U	--	--	--	4800	750	34	--	--	2900	6620
	2/15/2012	FD	0.0254	< 0.0150 U	--	--	--	5000	730	34	--	--	1350	6460
	8/13/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	7900	970	41	--	--	2830 J	9480
	2/8/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	6700	790	30 J	--	--	2840	6310
	8/12/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	4500	610	< 60 U	--	--	2960	5120
	2/10/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	4200 J	390 J	26 J	--	--	2470	5120
	8/13/2014	N	< 0.0200 UJ	< 0.0150 UJ	--	--	--	2800 J	540 J	1.9 J	--	--	2540	5210
	2/11/2015	N	0.0077 J	0.0020 J	--	--	--	2700	160	< 20 U	--	--	2510	5020
	2/11/2015	FD	0.0078 J	< 0.0150 U	--	--	--	2900	170	22	--	--	2260	4870
	8/11/2015	N	0.0074 J	< 0.0150 U	--	--	--	2300	100	6.4 J	--	--	2170	5070
	4/1/2016	N	< 0.01 U	< 0.01 U	< 0.01 U	--	--	1940	13.8	< 10 U	< 1.41 U	4.63	1920	4420
	4/1/2016	FD	0.0109	< 0.01 U	< 0.01 U	--	--	1970	18.9	< 10 U	< 1.41 U	4.57	190	3810
	9/12/2016	N	< 0.00336 U	< 0.00136 U	--	3.3	0.0957	2000 D	29.2	< 0.642 U	1.2 J	3.76	1830	4240
	9/12/2016	FD	< 0.00336 U	< 0.00136 U	--	3.05	0.0968	1980 D	25.1	2.22	1.32 J	2.94	1780	4200
	4/6/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	0.343 J	0.0964 J	1340	35.8	< 20 U	1.72	1.9	2170	4370
	9/14/2017	N	0.00341	0.00146 J	< 0.01 U	--	--	7110	120	49.6	3.12	3.22	1810	4790
MW-26	2/17/2009	N	0.0442	< 0.0150 U	--	--	--	6100	350	78	--	--	295	1330
	2/16/2010	N	0.0493	< 0.0150 U	--	--	--	1800	160	6.0	--	--	297	1380
	8/11/2010	N	0.0485	< 0.0150 U	--	--	--	1700	150	22	--	--	240	1280
	4/7/2011	N	0.0460	< 0.0150 U	--	--	--	2800	110	8.5	--	--	354	1290
	8/9/2011	N	0.0468	< 0.0150 U	--	--	--	3300	160	22	--	--	360	1440
	2/17/2012	N	0.0320	< 0.0150 U	--	--	--	2300	120	16	--	--	256	1350
	8/13/2012	N	0.0336	< 0.0150 U	--	--	--	4600	230	32	--	--	233 J	1340
	2/8/2013	N	0.0256	< 0.0150 U	--	--	--	4400	140	< 30 U	--	--	259	1380
	8/12/2013	N	0.0263	< 0.0150 U	--	--	--	3300 J	150 J	27 J	--	--	312	1290
	8/12/2013	FD	0.0299	< 0.0150 U	--	--	--	3200 J	140 J	25 J	--	--	277	1330
	2/10/2014	N	0.0236	0.0017 J	--	--	--	2400	110	14	--	--	270	1390
	8/14/2014	N	0.0285 J	< 0.0150 UJ	--	--	--	3600	210	22	--	--	263	1260
	8/14/2014	FD	0.0293 J	< 0.0150 UJ	--	--	--	3100	220	23	--	--	268	1240
	2/11/2015	N	0.0304	< 0.0150 U	--	--	--	1200	51	14	--	--	320	1200
	8/11/2015	N	0.0352	< 0.0150 U	--	--	--	1600	7.9 J	17	--	--	260	1320
	4/1/2016	N	0.059	< 0.01 U	< 0.01 U	--	--	962	< 10 U	< 10 U	2.53	3	285	1220
	9/12/2016	N	0.0519	< 0.00136 U	--	7.35	0.039	1500 D	5.28	22	7.1	3.25	233	1270
	4/6/2017	N	0.0362 J	< 0.05 U	0.0049 J	0.26 J	0.0324 J	940	< 20 U	< 20 U	3.53	1.61	191	1200
	9/15/2017	N	0.057	< 0.004 U	< 0.01 U	--	--	1790	14.6	25.2	4.19	1.74	167	1240

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		Chemical Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Manganese	Benzene	Ethylbenzene	Total Xylenes	DRO (C10-C28)	GRO (C6-C10)	Chloride	Total Dissolved Solids
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MW-27	2/17/2009	N	0.0408	< 0.0150 U	--	--	--	12000	1300	420	--	--	1000	2390
MW-29	2/4/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	490	170	140	--	--	661	1840
	8/13/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	49	51	29	--	--	916	1510
	2/15/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	130	190	58	--	--	389	1470
	2/15/2010	FD	< 0.0200 U	< 0.0150 U	--	--	--	120	180	58	--	--	434	1460
	8/23/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	78	59	33	--	--	365	1380
	4/7/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	250	510	3.7	--	--	371	1420
	8/10/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	190	230	< 15 U	--	--	344	1470
	8/10/2011	FD	< 0.0200 U	< 0.0150 U	--	--	--	180	230	< 3.0 U	--	--	377	1490
	2/9/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	100	250	15	--	--	241	1270
	8/8/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	130 J	170 J	30 J	--	--	186	1230
	2/8/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	86 J	160 J	79 J	--	--	151 J	1140
	2/8/2013	FD	< 0.0200 U	< 0.0150 U	--	--	--	84 J	150 J	77 J	--	--	150 J	1180
	8/8/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	60 J	48 J	28 J	--	--	126	874
	2/6/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	110 J	88 J	7.4 J	--	--	103 J	856
	8/11/2014	N	< 0.0200 UJ	< 0.0150 UJ	--	--	--	80 J	63 J	14 J	--	--	101	870
	2/9/2015	N	< 0.0200 U	< 0.0150 U	--	--	--	240 J	27 J	3.5 J	--	--	135	850
	8/5/2015	N	< 0.0200 U	< 0.0150 U	--	--	--	86	4.3	1.9	--	--	91.9 J	930
	3/31/2016	N	< 0.01 U	< 0.01 U	< 0.01 U	--	--	134	2.51	< 2 U	< 1.41 U	4.28	115	829
	9/7/2016	N	< 0.00336 U	< 0.00136 U	0.0101	6.92	0.107	90.7	2.25	1.56 J	< 0.987 U	4.68	101	953
	4/5/2017	N	< 0.05 U	< 0.05 U	--	0.323 J	0.115 J	272	3.87	< 2 U	< 1.5 U	2.15	131	918
	4/7/2017	N	--	--	0.0056 J	--	--	--	--	--	--	--	--	--
	9/12/2017	N	0.00288	< 0.004 U	0.0028 J	--	--	1600 D	10	2.92	< 1.5 U	1.72	138	1040
MW-3	2/9/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	98	31	< 3.0 U	--	--	110	685
	8/13/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	423	706
	2/16/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	86.7	667
	8/10/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	95.0	694
	4/7/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	120	675
	4/7/2011	FD	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	98.1	706
	8/9/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	134	784
	2/10/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	105	740
	8/9/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	133	744
	2/7/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	85.4 J	756
	8/12/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	80.2	732
	2/4/2014	N	0.0147 J	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	75.0	709
	8/5/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	59.9	669
	2/3/2015	N	0.0126 J	0.0019 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	68.5	667
	8/6/2015	N	0.0150 J	0.0024 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	71.5	690
	4/1/2016	N	0.0121	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	83.8	784
	9/12/2016	N	0.0124	< 0.00136 U	--	< 0.00616 U	< 0.000585 U	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	79	683
	4/5/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	< 1 U	< 0.1 U	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	83.7	706
	4/5/2017	FD	< 0.05 U	< 0.05 U	< 0.01 U	0.0738 J	< 0.1 U	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	91.7	664
	9/13/2017	N	0.0141	0.00068 J	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	74.1	806
MW-30	2/4/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	75	10	< 3.0 U	--	--	412	1380
	8/13/2009	N	0.0334	< 0.0150 U	--	--	--	1.9	< 1.0 U	< 3.0 U	--	--	795	1250
	2/15/2010	N	0.0270	< 0.0150 U	--	--	--	1.4	< 1.0 U	< 3.0 U	--	--	365	1240
	8/23/2010	N	0.0263	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	374	1210
	4/6/2011	N	0.0249	< 0.0150 U	--	--	--	1.7	< 1.0 U	< 3.0 U	--	--	455	1330

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		Chemical Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Manganese	Benzene	Ethylbenzene	Total Xylenes	DRO (C10-C28)	GRO (C6-C10)	Chloride	Total Dissolved Solids
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MW-30	8/10/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	320	7.3	< 3.0 U	--	--	509	1470
	2/8/2012	N	0.0270	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	403	1340
	8/9/2012	N	0.0252	< 0.0150 U	--	--	--	1.5	< 1.0 U	< 3.0 U	--	--	372	1260
	2/11/2013	N	0.0209	< 0.0150 U	--	--	--	9.8	< 1.0 U	< 3.0 U	--	--	423 J	1520
	8/7/2013	N	0.0237	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	365	1370
	2/7/2014	N	0.0243	< 0.0150 U	--	--	--	0.9 J	< 1.0 U	1.5	--	--	342	1240
	8/11/2014	N	0.0200 J	< 0.0150 UJ	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	349	1350
	2/10/2015	N	0.0297	0.0017 J	--	--	--	0.5 J	< 1.0 U	< 1.0 U	--	--	312	1120
	8/5/2015	N	0.0224	0.0017 J	--	--	--	4.3	0.2 J	< 1.0 U	--	--	344 J	1320 J
	9/6/2016	N	0.0101	< 0.00136 U	< 0.01 U	0.0699 J	0.484	40.9	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	321	1290
	4/5/2017	N	< 0.05 U	< 0.05 U	--	< 1 U	0.529 J	32.5	< 2 U	< 2 U	< 1.5 U	< 1.5 U	328	1330
	4/7/2017	N	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--
	9/12/2017	N	0.00903	< 0.004 U	< 0.01 U	--	--	53	< 2 U	2.31	< 1.5 U	< 1.5 U	307	1320
MW-31	2/9/2009	N	0.0539	< 0.0150 U	--	--	--	3700	330	6.7	--	--	454	1400
	8/14/2009	N	0.0365	< 0.0150 U	--	--	--	2000	180	< 15 U	--	--	844	1500
	2/15/2010	N	0.0323	< 0.0150 U	--	--	--	1700	190	3.0	--	--	507	1380
	8/10/2010	N	0.0420	< 0.0150 U	--	--	--	1400	130	4.7	--	--	496	1420
	4/7/2011	N	0.0452	< 0.0150 U	--	--	--	1300	200	< 3.0 U	--	--	769	1600
	8/15/2011	N	0.0361	< 0.0150 U	--	--	--	1300	190	< 15 U	--	--	666	1510
	2/8/2012	N	0.0296	< 0.0150 U	--	--	--	230	190	4.5	--	--	743	1480
	8/9/2012	N	0.0308	< 0.0150 U	--	--	--	340 J	190 J	10 J	--	--	591	1470
	2/6/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	14	17	< 5.0 U	--	--	414 J	1120
	8/6/2013	N	0.0236	< 0.0150 U	--	--	--	9.4 J	29 J	< 3.0 U	--	--	464	1530
	2/7/2014	N	0.0242	< 0.0150 U	--	--	--	0.4 J	< 1.0 U	< 2.0 U	--	--	571	1290
	8/12/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 20 U	< 1.0 U	< 2.0 U	--	--	453	1260
	2/3/2015	N	0.0277	< 0.0150 U	--	--	--	0.5 J	< 1.0 U	< 1.0 U	--	--	476	1110
	8/6/2015	N	0.0290	0.0016 J	--	--	--	< 1.0 U	< 1.0 U	0.6 J	--	--	424	1290 J
	8/6/2015	FD	0.0236	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	0.6 J	--	--	461	1380 J
	3/30/2016	N	0.0267	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	417	1160
	9/6/2016	N	0.034	< 0.00136 U	< 0.01 U	1.07	0.245	< 0.408 U	< 0.657 U	< 0.642 U	< 0.987 U	< 0.987 U	218	1490
	12/12/2016	N	--	--	--	--	--	--	--	--	--	--	116	--
	4/5/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	0.105 J	0.316	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	435	1310
	4/5/2017	FD	< 0.05 U	< 0.05 U	< 0.01 U	0.0918 J	0.298	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	431	1400
	9/13/2017	N	0.0347	< 0.004 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	445	1450
MW-32	2/4/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	20	17	14	--	--	1540	3910
	8/12/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	2.8	< 1.0 U	< 3.0 U	--	--	2180	3770
	2/12/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1370	3810
	8/9/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	38	25	8.6	--	--	1860	3750
	4/6/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	43	16	< 3.0 U	--	--	2080	3990
	4/6/2011	FD	< 0.0200 U	< 0.0150 U	--	--	--	45	17	< 3.0 U	--	--	1870	3900
	8/10/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	99	19	5.5	--	--	2040	3790
	2/8/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	400	13	12	--	--	656	2980
	8/8/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	1400 J	7.3 J	21 J	--	--	1170	3040
	2/7/2013	N	0.0233	< 0.0150 U	--	--	--	1800 J	5.0 J	7.2 J	--	--	1200 J	3070
	8/8/2013	N	0.0233	< 0.0150 U	--	--	--	2000 J	3.2 J	8.8 J	--	--	1220	2830
	2/7/2014	N	0.0188 J	< 0.0150 U	--	--	--	4200	9.5 J	16 J	--	--	1340	3000
	8/11/2014	N	< 0.0200 UJ	< 0.0150 UJ	--	--	--	3600	7.6	91	--	--	1360	3310
	2/9/2015	N	0.0277	< 0.0150 U	--	--	--	3700	6.4 J	85	--	--	1360	2550

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		Chemical Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Manganese	Benzene	Ethylbenzene	Total Xylenes	DRO (C10-C28)	GRO (C6-C10)	Chloride	Total Dissolved Solids
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MW-32	2/9/2015	FD	0.0206	< 0.0150 U	--	--	--	3500	5.8 J	87	--	--	1400	2490
	8/5/2015	N	0.0304	0.0018 J	--	--	--	6500	5.1 J	15	--	--	1220 J	3010 J
	3/31/2016	N	0.0297	< 0.01 U	0.0128	--	--	4300	< 40 U	< 40 U	< 1.41 U	6.79	1120	2450
	9/7/2016	N	0.011	< 0.00136 U	0.008 J	6.35	0.0674	6500	< 32.9 U	< 32.1 U	< 0.986 U	7.52	1070	2650
	4/7/2017	N	< 0.05 U	0.00848 J	0.0056 J	0.0899 J	0.054 J	7560	177	119	< 1.5 U	< 1.5 U	988	2650
	9/13/2017	N	0.0263	< 0.004 U	< 0.01 U	--	--	14700	9.9	3.25	< 1.5 U	1.35 J	1070	3140
MW-34	2/4/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	84	240	240	--	--	73	569
	8/13/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	26	150	210	--	--	93.2	697
	2/16/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	28	120	180	--	--	226	942
	8/23/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 50 U	81	90	--	--	206	1030
	4/6/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	170	160	190	--	--	385	1230
	8/10/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	160	200	250	--	--	392	1410
	8/10/2011	FD	< 0.0200 U	< 0.0150 U	--	--	--	160	200	250	--	--	437	1340
	2/8/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	560	180	190	--	--	431	1160
	8/8/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	1100	120	100	--	--	300	1450
	2/7/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	910 J	84 J	46 J	--	--	322 J	1580
	8/8/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	1400 J	80 J	51 J	--	--	298	1340
	2/6/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	1200	16 J	7.7 J	--	--	394 J	1540
	2/6/2014	FD	< 0.0200 U	< 0.0150 U	--	--	--	1200	14	6.9	--	--	268 J	1370
	8/11/2014	N	< 0.0200 UJ	< 0.0150 UJ	--	--	--	1500	21	6.8	--	--	293	1410
	2/10/2015	N	< 0.0200 U	< 0.0150 U	--	--	--	870	3.0 J	< 5.0 U	--	--	269	1330
	8/4/2015	N	< 0.0200 U	< 0.0150 U	--	--	--	1500	7.1 J	2.5 J	--	--	272 J	1540 J
	3/31/2016	N	< 0.01 U	< 0.01 U	< 0.01 U	--	--	230	< 2 U	< 2 U	5.4	3.22	272	1160
	9/7/2016	N	< 0.00336 U	< 0.00136 U	< 0.01 U	3.43	0.0506	1590	< 13.1 U	< 12.8 U	1.32 J	3.99	< 0.858 U	1390
	4/5/2017	N	< 0.05 U	0.0078 J	--	0.162 J	0.0612 J	1840	85	45.4	< 1.5 U	< 1.5 U	244	1340
	4/7/2017	N	--	--	0.0034 J	--	--	--	--	--	--	--	--	--
	9/12/2017	N	0.00215	< 0.004 U	0.003 J	--	--	2420 J	< 2 UJ	< 2 UJ	1.04 J	< 1.5 U	235	1500
MW-35	4/12/2017	N	--	--	< 0.01 U	--	--	0.75 J	< 2 U	< 2 U	1.77	2.28	1810	3300
	9/15/2017	N	0.0293 J	< 0.004 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	941	2090
MW-36	4/12/2017	N	--	--	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	391	1150
	9/15/2017	N	0.00957 J	< 0.004 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	393	1350
MW-4	2/11/2009	N	0.0207	< 0.0150 U	--	--	--	5.9	4.7	< 3.0 U	--	--	4190	9220
	2/11/2009	FD	< 0.0200 U	< 0.0150 U	--	--	--	5.9	4.8	< 3.0 U	--	--	4900	9800
	8/12/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	3600	6940
	2/12/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	3480	5790
	8/6/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	3100	6110
	8/10/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	3610	6680
	2/14/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1180	8480
	8/10/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	3230 J	6090
	2/7/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	2420 J	4910
	8/8/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	3040 J	5310
	2/5/2014	N	< 0.0200 U	0.0021 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	2290	4920
	8/12/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	3910	6880
	2/4/2015	N	0.0093 J	0.0023 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	2490	4650
	8/10/2015	N	0.0099 J	0.0019 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	2300	4720
	9/12/2016	N	< 0.00336 U	< 0.00136 U	--	0.338	1.43	1.77 J	< 0.657 U	< 0.642 U	< 0.987 U	< 0.987 U	3740	6810
	9/12/2016	FD	< 0.00336 U	< 0.00136 U	--	0.242	1.04	1.55 J	< 0.657 U	< 0.642 U	< 0.986 U	1.05 J	2400	5280
	4/4/2017	N	< 0.05 U	< 0.05 U	--	0.0629 J	1.14	4.02	< 2 U	< 2 U	< 1.5 U	< 1.5 U	2390	4180

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		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MW-4	4/7/2017	N	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--
	9/13/2017	N	**0.00758**	< 0.004 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	**2500**	**5360**
MW-6	2/5/2009	N	**0.0269**	< 0.0150 U	--	--	--	**3.1**	**7.6**	**6.7**	--	--	**5050**	**10700**
	8/7/2009	N	**0.0247**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**748**	**3160**
	2/9/2010	N	**0.0227**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**867**	**2950**
	8/5/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**1070**	**3940**
	4/6/2011	N	**0.0230**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**913**	**2940**
	8/9/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**973**	**3180**
	2/9/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**1050**	**3400**
	8/10/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**2190 J**	**5980**
	2/7/2013	N	**0.0248**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**1170 J**	**4120**
	2/7/2013	FD	**0.0241**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**1210 J**	**4040**
	8/6/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**1910**	**5990**
	2/5/2014	N	**0.0193 J**	**0.0024 J**	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	**2030 J**	**5620**
	8/5/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	**3810**	**8280**
	2/5/2015	N	**0.0257**	**0.0022 J**	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	**825**	**3450**
	8/7/2015	N	**0.0328 J**	**0.0018 J**	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	**1020**	**3960**
	3/31/2016	N	**0.0344**	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	**1430**	**3490**
	9/7/2016	N	**0.0167**	< 0.00136 U	< 0.01 U	**0.449**	**0.125**	< 0.408 U	< 0.657 U	< 0.642 U	< 0.987 U	< 0.987 U	**1440**	**4480**
	4/4/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	**0.0437 J**	**0.115**	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	**866**	**3700**
MW-7	2/5/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	**2.8**	**11**	**9.0**	--	--	**97.1**	**1060**
	8/6/2009	N	**0.0277**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**51.3**	**1010**
	2/9/2010	N	**0.0250**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**38.4**	**1000**
	8/5/2010	N	**0.0258**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**33.6**	**1030**
	4/6/2011	N	**0.0273**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**101**	**894**
	8/9/2011	N	**0.0256**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**35.7**	**876**
	2/9/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**40.9**	**884**
	8/9/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**71.1**	**1040**
	2/6/2013	N	**0.0226**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**41.3 J**	**1180**
	8/6/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**56.4**	**1370**
	2/4/2014	N	**0.0085 J**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	**44.8**	**1420**
	8/5/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	**46.7**	**1420**
	2/3/2015	N	< 0.0200 U	**0.0014 J**	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	**49.3**	**1150**
	8/7/2015	N	**0.0084 J**	**0.0018 J**	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	**78.1**	**1400**
	9/9/2016	N	**0.0138**	< 0.00136 U	--	**4.25**	**1.26**	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	**154**	**1170**
	4/4/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	**0.265 J**	**1.08**	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	**95.7**	**1050**
MW-8	8/6/2009	N	**0.0442**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**1310**	**4010**
	2/5/2010	N	**0.0321**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**1230**	**3710**
	8/4/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**1420**	**3690**
	4/6/2011	N	**0.0220**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**1230**	**3270**
	8/8/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**1250**	**3130**
	2/8/2012	N	**0.0224**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**1350**	**3420**
	8/8/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**1260**	**3280**
	8/8/2012	FD	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**1310 J**	**3380**
	2/6/2013	FD	**0.0235**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**874 J**	**1640**
	2/7/2013	N	**0.0282**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**1440 J**	**3780**
	8/8/2013	N	**0.0399**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	**1550**	**4020**
	2/5/2014	N	**0.0224 J**	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	**0.7 J**	--	--	**1810 J**	**4260**

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		Chemical Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Manganese	Benzene	Ethylbenzene	Total Xylenes	DRO (C10-C28)	GRO (C6-C10)	Chloride	Total Dissolved Solids
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MW-8	8/8/2014	N	0.0436	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	1720	4110 J
	2/5/2015	N	0.0154 J	0.0014 J	--	--	--	< 1.0 U	0.6 J	1.3	--	--	1630	4000
	8/5/2015	N	0.0234	0.0021 J	--	--	--	< 1.0 U	0.4 J	0.9 J	--	--	1260 J	4100 J
	3/31/2016	N	0.029	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	1200	3150
	9/6/2016	N	0.0311	< 0.00136 U	< 0.01 U	4.39	0.236	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	51	2920
	4/5/2017	N	< 0.05 U	< 0.05 U	0.0067 J	0.0964 J	0.181	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	840	2620
	4/5/2017	FD	< 0.05 U	< 0.05 U	0.0042 J	0.0918 J	0.194	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	851	2460
	9/12/2017	N	0.0408	< 0.004 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	782	3300
MW-9	2/12/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	3700	470	140	--	--	560	1720
	8/14/2009	N	0.0244	< 0.0150 U	--	--	--	1600	64	< 3.0 U	--	--	802	1540
	2/15/2010	N	0.0221	< 0.0150 U	--	--	--	2700	430	6.0	--	--	536	1640
	8/23/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	1500	250	< 15 U	--	--	583	1680
	4/7/2011	N	0.0201	< 0.0150 U	--	--	--	1400	270	< 3.0 U	--	--	608	1640
	8/10/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	610	210	3.7	--	--	544	1710
	2/9/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	220 J	200 J	4.5 J	--	--	525	1680
	8/8/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	16	5.0	< 3.0 U	--	--	492	1730
	2/11/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	61	130	6.2	--	--	580 J	1970
	8/7/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	54	110	< 5.0 U	--	--	504	1710
	2/7/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	13	5.9	2.2	--	--	490	1600
	8/8/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	42	21	< 3.0 U	--	--	602	1770 J
	2/9/2015	N	0.0136 J	< 0.0150 U	--	--	--	8.1	0.2 J	< 1.0 U	--	--	576	1640
	8/4/2015	N	0.0119 J	0.0022 J	--	--	--	1.6	< 1.0 U	< 1.0 U	--	--	504 J	1680 J
	3/30/2016	N	< 0.01 U	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	526	1660
	9/6/2016	N	0.0106	< 0.00136 U	< 0.01 U	0.24	0.312	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	477	1770
	4/5/2017	N	< 0.05 U	< 0.05 U	--	0.0551 J	0.307 J	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	453	1650
	4/7/2017	N	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--
	9/12/2017	N	0.0131	< 0.004 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	434	1760
MWD-1	2/11/2009	N	0.0263	< 0.0150 U	--	--	--	3.7	3.1	< 3.0 U	--	--	10500	19600
	8/6/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	1.9	< 1.0 U	< 3.0 U	--	--	9340	18800
	2/8/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	1.2	< 1.0 U	< 3.0 U	--	--	9500	17400
	8/4/2010	N	0.0293	< 0.0150 U	--	--	--	5.0	< 1.0 U	< 3.0 U	--	--	8490	11100
	4/14/2011	N	0.0221	< 0.0150 U	--	--	--	4.5	< 1.0 U	< 3.0 U	--	--	9670	18100
	8/17/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	5.4	1.9	< 3.0 U	--	--	8950	13000
	2/13/2012	N	0.0379 J	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1630 J	7950 J
	2/13/2012	FD	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	381 J	1470 J
	8/13/2012	N	0.0210	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	8220 J	13300
	2/6/2013	N	0.0201	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	3820 J	7330
	8/7/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	7290	11400
	2/4/2014	N	0.0158 J	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	8140 J	12800
	8/6/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	4860	9920
	2/6/2015	N	0.0513	0.0088 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	908	2000
	8/6/2015	N	0.0572	0.0087 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	712	2040
	4/1/2016	N	0.0375	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	718	1820
	9/9/2016	N	0.0571	0.00432 J	--	< 0.00616 U	0.00129 J	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	815	1840
	4/6/2017	N	0.0715	< 0.05 U	< 0.01 U	< 1 U	< 0.1 U	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	629	1700
	9/13/2017	N	0.0514	0.00479	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	635	1910

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		Chemical Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Manganese	Benzene	Ethylbenzene	Total Xylenes	DRO (C10-C28)	GRO (C6-C10)	Chloride	Total Dissolved Solids
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MWD-10	2/12/2009	N	0.0866	< 0.0150 U	--	--	--	700	100	18	--	--	6130	11600
	8/10/2009	N	0.0739	< 0.0150 U	--	--	--	700	67	13	--	--	5550	11400
	8/10/2009	FD	0.0717	< 0.0150 U	--	--	--	700	70	14	--	--	5670	12600
	2/9/2010	N	0.0717	< 0.0150 U	--	--	--	1100	40	< 3.0 U	--	--	6590	10900
	8/19/2011	N	0.0695	< 0.0150 U	--	--	--	810	76	8.5	--	--	4660	9810
MWD-11	2/10/2009	N	< 0.020 U	< 0.0150 U	--	--	--	13	6.6	< 3.0 U	--	--	2640	4670
	8/12/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	3.5	1.2	< 3.0 U	--	--	2460	4370
	2/8/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	2210	4440
	8/5/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1560	3330
	4/15/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	4.2	< 1.0 U	< 3.0 U	--	--	2400	4750
	4/15/2011	FD	< 0.0200 U	< 0.0150 U	--	--	--	4.3	< 1.0 U	< 3.0 U	--	--	2370	4110
	8/19/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	4.0	1.4	< 3.0 U	--	--	1520	3130
	8/19/2011	FD	< 0.0200 U	< 0.0150 U	--	--	--	3.4	1.4	< 3.0 U	--	--	1340	3370
	2/10/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	205	932
	8/9/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	315 J	864
	8/9/2012	FD	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	156 J	836
	2/5/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	623 J	1450
	8/9/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	701	1600
	8/9/2013	FD	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	675	1670
	2/4/2014	N	0.0079 J	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	1700 J	3520
	8/5/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	112	656
	2/5/2015	N	0.0183 J	0.0024 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	89.6	672
	8/10/2015	N	0.0217 J	0.0022 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	85.9	682
	4/1/2016	N	0.0143	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	66.9	630
	9/12/2016	N	0.012	< 0.00136 U	--	< 0.00616 U	< 0.000585 U	< 0.408 U	< 0.657 U	< 0.642 U	< 0.987 U	< 0.987 U	94.2	707
	4/5/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	< 1 U	< 0.1 U	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	91.6	722
	9/15/2017	N	0.0157 J	0.00142 J	0.0058 J	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	101 J	758 J
	9/15/2017	FD	0.0276 J	< 0.004 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	1190 J	2560 J
MWD-12	2/10/2009	N	0.0534	< 0.0150 U	--	--	--	900	69	25	--	--	5280	7480
	8/6/2009	N	0.0617	< 0.0150 U	--	--	--	660	41	12	--	--	4350	9440
	2/5/2010	N	0.0629	< 0.0150 U	--	--	--	700	51	12	--	--	4630	8600
	8/4/2010	N	0.0636	< 0.0150 U	--	--	--	640	40	9.3	--	--	4340	8100
	4/14/2011	N	0.0632	< 0.0150 U	--	--	--	780	57	13	--	--	5260	8820
	8/17/2011	N	0.0572	< 0.0150 U	--	--	--	720	49	12	--	--	5090	8460
	2/10/2012	N	0.0317	< 0.0150 U	--	--	--	1.7	< 1.0 U	< 3.0 U	--	--	8390	22800
	8/9/2012	N	0.0761	< 0.0150 U	--	--	--	1000	45	13	--	--	3280	6340
	2/11/2013	N	0.0515	< 0.0150 U	--	--	--	660	31	8.3	--	--	1630 J	4400
	8/8/2013	N	0.0679	< 0.0150 U	--	--	--	930	44	13	--	--	1500	3670
	2/6/2014	N	0.0805	< 0.0150 U	--	--	--	1300	54	11	--	--	2320	5420
	8/11/2014	N	0.0662 J	< 0.0150 UJ	--	--	--	160	17	< 1.0 U	--	--	4370	7040
	8/11/2014	FD	0.0714 J	< 0.0150 UJ	--	--	--	160	17	< 1.0 U	--	--	4290	7480
	2/9/2015	N	0.0362	< 0.0150 U	--	--	--	5.8	9.5	3.8	--	--	667	2410
	8/5/2015	N	0.0463	0.0016 J	--	--	--	6.9	85	8.7	--	--	694 J	2690 J
	3/31/2016	N	0.0435	< 0.01 U	< 0.01 U	--	--	32.6	14.5	< 2 U	< 1.41 U	< 1.41 U	714	4570
	9/7/2016	N	0.0165	< 0.00136 U	< 0.01 U	1.21	0.13	51.4	109	4.85	< 0.986 U	1.39 J	998	2730
	4/6/2017	N	0.0375 J	< 0.05 U	0.0028 J	0.161 J	0.0977 J	48	74.5	5.92	3.07	1.61	962	2780
	9/13/2017	N	0.037	< 0.004 U	< 0.01 U	--	--	27.1	83.4	2.33	< 1.5 U	< 1.5 U	793	2740

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		Chemical Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Manganese	Benzene	Ethylbenzene	Total Xylenes	DRO (C10-C28)	GRO (C6-C10)	Chloride	Total Dissolved Solids
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MWD-13	2/5/2009	N	0.0244	< 0.0150 U	--	--	--	1.2	3.6	3.1	--	--	6610	12600
	2/5/2009	FD	< 0.0200 U	< 0.0150 U	--	--	--	1.2	3.6	3.1	--	--	6830	13000
	8/7/2009	N	0.0264	< 0.0150 U	--	--	--	1.1	< 1.0 U	< 3.0 U	--	--	9110	20800
	2/5/2010	N	0.0257	< 0.0150 U	--	--	--	2.7	< 1.0 U	< 3.0 U	--	--	1840	5540
	8/20/2010	N	0.0245	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1950	5710
	4/15/2011	N	< 0.100 U	< 0.0750 U	--	--	--	3.6	< 1.0 U	< 3.0 U	--	--	26800	45400
	8/17/2011	N	0.0240	< 0.0150 U	--	--	--	9.8	2.9	< 3.0 U	--	--	12400	17500
	2/9/2012	N	0.0531	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	935	3100
	8/10/2012	N	0.0232	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1820 J	5530
	2/8/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	5280 J	13300
	8/6/2013	N	0.0205	< 0.0150 U	--	--	--	11	< 1.0 U	< 3.0 U	--	--	20000	37000
	2/5/2014	N	0.0172 J	0.0018 J	--	--	--	3.1	< 1.0 U	< 1.0 U	--	--	11900 J	20900
	8/5/2014	N	0.0594	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	2850	7000
	2/5/2015	N	0.0702	0.0024 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	1250	3930
	8/7/2015	N	0.0464 J	0.0027 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	1300	4760
	3/31/2016	N	0.0451	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	1760	3860
	9/7/2016	N	0.0304	< 0.00136 U	< 0.01 U	0.102 J	0.177	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	4010	8690
	4/4/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	< 1 U	0.269	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	1930	5150
	9/12/2017	N	0.0294	0.000896 J	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	2620	6280
MWD-14	2/12/2009	N	0.0589	< 0.0150 U	--	--	--	1400	16	< 15 U	--	--	9170	18500
	8/10/2009	N	0.0543	< 0.0150 U	--	--	--	1600	31	18	--	--	10700	21200
	2/9/2010	N	0.0612	< 0.0150 U	--	--	--	1400	13	7.8	--	--	11800	19000
	8/5/2010	N	0.0520	< 0.0150 U	--	--	--	1300	31	20	--	--	7150	13700
	8/19/2011	N	0.0587	< 0.0150 U	--	--	--	730 E	11	17	--	--	10900	19200
	8/19/2011	FD	0.0602	< 0.0750 U	--	--	--	1400	12	18	--	--	9990	18500
	2/17/2012	N	0.0585	< 0.0150 U	--	--	--	1200	100	74	--	--	5220	10400
	2/17/2012	FD	0.0532	< 0.0150 U	--	--	--	1300	98	66	--	--	6140	10600
	8/9/2012	N	0.0265	< 0.0150 U	--	--	--	1600 J	190 J	100 J	--	--	4900	8960
	2/8/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	1200	310 J	98 J	--	--	4170	8670
	8/8/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	1700	460	92 J	--	--	4800	8560
	2/6/2014	N	0.0274	< 0.0150 U	--	--	--	1100	170	29	--	--	7180	10400
	8/13/2014	N	< 0.0200 UJ	< 0.0150 UJ	--	--	--	1900 J	580 J	63 J	--	--	5290	7960
	2/11/2015	N	0.0077 J	0.0015 J	--	--	--	1300	210	41	--	--	3910	6880
	8/5/2015	N	0.0079 J	< 0.0150 U	--	--	--	1000	400	90	--	--	4070 J	8030
	4/1/2016	N	< 0.01 U	< 0.01 U	< 0.01 U	--	--	940	250	46.8	< 1.41 U	2.83	3460	6980
	9/7/2016	N	< 0.00336 U	< 0.00136 U	0.0097 J	0.886	0.128	1080	467	108	1.2 J	3.3	3650	7190
	4/6/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	0.212 J	0.161 J	1320	337	86.5	2.02	< 1.5 U	2980	5760
	9/14/2017	N	0.00292	0.000812 J	< 0.01 U	--	--	2600	369	30.3	< 1.5 U	1.59	1210	4090
MWD-15	2/12/2009	N	0.0540	< 0.0150 U	--	--	--	440	210	56	--	--	20800	37000
	2/12/2009	FD	0.0606	< 0.0150 U	--	--	--	420	210	55	--	--	20400	37000
	8/12/2009	N	< 0.100 U	< 0.0750 U	--	--	--	300	120	29	--	--	26500	31500
	2/8/2010	N	< 0.100 U	< 0.0150 U	--	--	--	360	23	4.6	--	--	33700	56400
	8/5/2010	N	0.0785	< 0.0750 U	--	--	--	240	28	< 5.0 U	--	--	19100	33400
	4/15/2011	N	< 0.100 U	< 0.150 U	--	--	--	280	14	< 3.0 U	--	--	90600	136000
	8/19/2011	N	0.0749	< 0.0150 U	--	--	--	150	93	64	--	--	7180	19000
	2/16/2012	N	< 0.100 U	< 0.0750 U	--	--	--	< 230 U	7.6	< 3.0 U	--	--	33100	160000
	8/10/2012	N	0.0707	< 0.0150 U	--	--	--	< 1.0 U	2.3	8.9	--	--	3420 J	7350
	2/8/2013	N	0.120	< 0.0150 U	--	--	--	20	20	18	--	--	1620 J	4980

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		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MWD-15	8/8/2013	N	0.0559	< 0.0150 U	--	--	--	1.3	6.1	12	--	--	4010 J	10600
	2/5/2014	N	0.0905	< 0.0150 U	--	--	--	0.2 J	1.7	11	--	--	2500	5610
	8/12/2014	N	0.0971	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	1.9	--	--	2500	6440
	2/4/2015	N	0.0312	0.0014 J	--	--	--	12	19	35	--	--	1720	4000
	8/11/2015	N	0.0953	0.0015 J	--	--	--	1.1	0.4 J	0.7 J	--	--	1650	4180
	8/11/2015	FD	0.0881	< 0.0150 U	--	--	--	0.8 J	0.4 J	< 5.0 UJ	--	--	1620	3990
	4/1/2016	N	0.036	< 0.01 U	< 0.01 U	--	--	4.37	< 2 U	2.5	< 1.41 U	< 1.41 U	1520	2560
	9/9/2016	N	0.025	0.00181 J	--	2.1	0.103	2.56	3.58	12.4	< 0.986 U	1.08 J	1170	3400
	4/6/2017	N	< 0.05 U	< 0.05 U	0.0061 J	0.199 J	0.0899 J	17.7	24.4	58.5	< 1.5 U	2.2	< 25 U	3390
	9/14/2017	N	0.0258	0.000651 J	0.0025 J	--	--	5.98	2.62	10.2	< 1.5 U	1.24 J	1450	4010
MWD-16	2/12/2009	N	0.0376	< 0.0150 U	--	--	--	770	300	170	--	--	8080	16500
	8/10/2009	N	0.0484	< 0.0150 U	--	--	--	660	280	160	--	--	8750	17600
	2/9/2010	N	0.0426	< 0.0150 U	--	--	--	760	340	180	--	--	7160	14100
	8/5/2010	N	0.0399	< 0.0150 U	--	--	--	700	280	140	--	--	4570	8600
MWD-17	2/12/2009	N	0.471	< 0.0150 U	--	--	--	2400	34	22	--	--	34400	62500
	8/12/2009	N	0.616	< 0.0750 U	--	--	--	3200	68	45	--	--	46500	67800
	2/9/2010	N	0.535	< 0.0150 U	--	--	--	1800	100	37	--	--	18900	34100
	8/6/2010	N	0.669	< 0.0750 U	--	--	--	2100	71	36	--	--	29200	53500
	4/15/2011	N	0.376	< 0.0750 U	--	--	--	1900	110	38	--	--	39200	65200
	8/16/2011	N	0.600	< 0.0750 U	--	--	--	2200	140	54	--	--	53500	101000
	2/21/2012	N	0.999	< 0.0150 U	--	--	--	1500	220	< 62 UJ	--	--	8690	20600
	8/14/2012	N	--	--	--	--	--	1200	47	15	--	--	6900 J	13800
	8/24/2012	N	< 0.200 U	< 0.150 U	--	--	--	--	--	--	--	--	--	--
	2/11/2013	N	1.13	< 0.0150 U	--	--	--	2600	520	220	--	--	11400	23200
	8/8/2013	N	1.30	< 0.0150 U	--	--	--	5100 J	20 J	20 J	--	--	17400 J	27300
	2/6/2014	N	0.429	< 0.0150 U	--	--	--	1600	240	43	--	--	8470 J	16600
	8/12/2014	N	< 0.100 U	< 0.0750 U	--	--	--	210 J	14 J	18 J	--	--	117000	203000
	2/10/2015	N	0.0698	< 0.0150 U	--	--	--	260	9.9	< 5.0 U	--	--	6480	8230
	8/12/2015	N	0.0819	0.0018 J	--	--	--	130	16	< 5.0 U	--	--	5720	12200
	3/31/2016	N	0.0518	< 0.01 U	< 0.01 U	--	--	567	110	< 10 U	< 1.41 U	2.06	6030	11800
	9/7/2016	N	< 0.00336 U	< 0.00136 U	0.0152	1.58	0.127	957	251	< 12.8 U	< 0.987 U	2.63	6300	12900
	4/4/2017	N	0.0765	< 0.05 U	--	0.0942 J	0.118	790	145	17.3	< 1.5 U	< 1.5 U	7460	13300
	4/7/2017	N	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--
MWD-2	2/10/2009	N	< 0.020 U	0.0219	--	--	--	6.2	3.6	< 3.0 U	--	--	14500	31100
	8/12/2009	N	< 0.0200 U	< 0.0750 U	--	--	--	3.5	1.2	< 3.0 U	--	--	18200	25900
	2/8/2010	N	< 0.100 U	0.0206	--	--	--	1.6	< 1.0 U	< 3.0 U	--	--	27900	44900
	8/5/2010	N	< 0.0200 U	< 0.0750 U	--	--	--	1.4	< 1.0 U	< 3.0 U	--	--	15800	26500
	8/5/2010	FD	< 0.0200 U	< 0.0750 U	--	--	--	1.6	< 1.0 U	< 3.0 U	--	--	15600	27900
	4/15/2011	N	< 0.100 U	< 0.0750 U	--	--	--	7.8	< 1.0 U	< 3.0 U	--	--	26700	31500
	8/17/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	2.6	< 1.0 U	< 3.0 U	--	--	19600	26700
	2/14/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	3460	8720
	8/10/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	2860 J	5770
	2/5/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	7570 J	9240
	2/5/2013	FD	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	7920 J	9530
	8/8/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	11500 J	18900
	2/4/2014	N	< 0.100 U	0.0446 J	--	--	--	3.4	< 1.0 U	< 1.0 U	--	--	59700	60200
	8/6/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	2620	5120
	8/6/2014	FD	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	2620	5250

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		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MWD-2	2/4/2015	N	< 0.0200 U	0.0018 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	1900	4250
	8/10/2015	N	0.0103 J	0.0016 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	2060	4470
	4/1/2016	N	< 0.01 U	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	1630	2910
	9/9/2016	N	0.0124	< 0.00136 U	--	0.0188 J	0.162	< 0.408 U	< 0.657 U	< 0.642 U	< 0.987 U	< 0.987 U	1570	3130
	4/5/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	< 1 U	0.105	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	1200	2370
MWD-3	2/11/2009	N	< 0.100 U	< 0.0150 U	--	--	--	4100	160	87	--	--	48100	82200
	8/18/2009	N	< 0.100 U	< 0.0750 U	--	--	--	4100	120	< 30 U	--	--	48200	84000
	2/2/2010	N	< 0.100 U	< 0.150 U	--	--	--	2400	88	44.0	--	--	57800	89600
	8/3/2010	N	< 0.200 U	< 0.150 U	--	--	--	2100	81	32	--	--	55300	89000
	2/6/2015	N	--	--	--	--	--	--	--	--	--	--	38500	58600
	4/29/2016	N	< 0.01 U	0.0127	< 0.01 U	--	--	2330	42.6	27.4	< 1.5 U	4.21	39900	64900
MWD-4	2/5/2009	N	0.0275	< 0.0150 U	--	--	--	2.8	11	9.2	--	--	237	1170
	8/6/2009	N	0.0344	< 0.0150 U	--	--	--	1.0	< 1.0 U	< 3.0 U	--	--	310	1440
	2/5/2010	N	0.0382	< 0.0150 U	--	--	--	8.1	1.3	< 3.0 U	--	--	270	1250
	8/20/2010	N	0.0331	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	328	1490
	4/14/2011	N	0.0324	< 0.0150 U	--	--	--	4.5	1.4	< 3.0 U	--	--	1620	2230
	8/17/2011	N	0.0257	< 0.0150 U	--	--	--	5.7	2.4	< 3.0 U	--	--	729	2030
	2/9/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	73.4	902
	8/9/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	50.4 J	910
	2/6/2013	N	0.0222	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	44.5 J	1030
	8/6/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	50.4	1380
	2/4/2014	N	0.0154 J	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	45.7	1190
	8/5/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	53.8	1220
	2/3/2015	N	< 0.0200 U	0.0017 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	52.7	916
	8/7/2015	N	0.0117 J	0.0019 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	49.9	1260
	3/31/2016	N	< 0.01 U	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	68.4	1100
	9/7/2016	N	0.0527	< 0.00136 U	< 0.01 U	12.2	1.02	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	59.6	1260
	4/4/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	0.105 J	0.608	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	45.5	872
	9/12/2017	N	0.00158 J	< 0.004 U	0.0039 J	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	48.4	1290
MWD-5	2/12/2009	N	0.0880	< 0.0150 U	--	--	--	5000	470	110	--	--	1830	3780
	8/12/2009	N	0.116	< 0.0150 U	--	--	--	5700	< 250 U	< 750 U	--	--	2240	4530
	2/9/2010	N	0.143	< 0.0150 U	--	--	--	4800	< 250 U	< 750 U	--	--	1710	4510
	8/6/2010	N	0.106	< 0.0150 U	--	--	--	3500	280	58	--	--	1960	3970
	4/15/2011	N	0.133	< 0.0150 U	--	--	--	4600	420	< 750 U	--	--	2050	4480
	8/15/2011	N	0.0930	< 0.0150 U	--	--	--	4400	450	49	--	--	2070	3600
	8/8/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	5000	200	150	--	--	2010	2520
	2/8/2013	N	0.0203	< 0.0150 U	--	--	--	5800	310 J	86 J	--	--	1070 J	2700
	8/8/2013	N	0.0698	< 0.0150 U	--	--	--	4800 J	180 J	27 J	--	--	2000	3650
	8/8/2013	FD	0.0651	< 0.0150 U	--	--	--	4800	190	< 60 UJ	--	--	2000	3690
	2/7/2014	N	0.0293	0.0018 J	--	--	--	5500 J	33 J	47 J	--	--	1120	2520
	8/11/2014	N	0.948 J	< 0.0150 UJ	--	--	--	< 5000 U	< 5000 U	< 5000 U	--	--	3260	9560
	2/9/2015	N	0.0204	< 0.0150 U	--	--	--	5800	95	120	--	--	603	1690
	8/5/2015	N	0.0205	0.0017 J	--	--	--	7400	35 J	73 J	--	--	565 J	2200 J
	3/31/2016	N	0.0148	< 0.01 U	< 0.01 U	--	--	5200	< 40 U	57	< 1.41 U	13	404	1750
	3/31/2016	FD	0.0156	< 0.01 U	< 0.01 U	--	--	3800	32.5	44.1	< 1.41 U	12.6	404	1660
	9/7/2016	N	0.0192	< 0.00136 U	0.0055 J	5.33	0.238	7180	58.5 J	70 J	9.02	15.4	421	1790
	9/7/2016	FD	0.014	< 0.00136 U	< 0.01 U	5.39	0.248	7050	73.5 J	88.5 J	14.5	17	486	1800
	1/31/2017	N	--	--	--	--	--	--	--	--	--	--	512	1980

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		Chemical Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Manganese	Benzene	Ethylbenzene	Total Xylenes	DRO (C10-C28)	GRO (C6-C10)	Chloride	Total Dissolved Solids
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MWD-5	4/5/2017	N	< 0.05 U	< 0.05 U	--	0.2 J	0.248 J	5050	< 100 U	62.5 J	5.36	3.73	448	1840
	4/7/2017	N	--	--	0.0048 J	--	--	--	--	--	--	--	--	--
MWD-6	2/12/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	5.8	8.3	< 3.0 U	--	--	237	822
	8/7/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	71	61	4.9	--	--	995	2800
	8/7/2009	FD	< 0.0200 U	< 0.0150 U	--	--	--	69	59	< 6.0 U	--	--	1010	2760
	2/5/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	370	43	6.1	--	--	948	2550
	8/20/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	160	44	6.5	--	--	1020	2400
	4/15/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	270	2.9	< 3.0 U	--	--	1030	2420
	8/15/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	170	100	4.0	--	--	1170	2130
	2/9/2012	N	0.0329	< 0.0150 U	--	--	--	1.9	< 1.0 U	< 3.0 U	--	--	1400	6620
	8/8/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	84	21	3.7	--	--	507	1880
	8/8/2012	FD	< 0.0200 U	< 0.0150 U	--	--	--	86	26	3.9	--	--	608 J	1860
	2/8/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	3.2	15	< 3.0 U	--	--	413 J	1820
	8/7/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	3.4	6.2	< 3.0 U	--	--	427	1520
	2/6/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	32	20	2.8	--	--	621 J	1550
	8/8/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	5.4	< 2.0 U	--	--	261	1460 J
	2/9/2015	N	< 0.0200 U	< 0.0150 U	--	--	--	12	17	< 1.3 U	--	--	260	1300
	8/4/2015	N	< 0.0200 U	0.0016 J	--	--	--	< 1.0 U	2.8	0.3 J	--	--	229 J	1540 J
	3/31/2016	N	< 0.01 U	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	237	1370
	9/7/2016	N	0.00504 J	< 0.00136 U	< 0.01 U	2.33	0.189	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	193	2340
	4/5/2017	N	< 0.05 U	< 0.05 U	--	0.106 J	0.239 J	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	< 5 U	1260
	4/7/2017	N	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--
	9/13/2017	N	0.00345	< 0.004 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	183	1310
MWD-7	2/11/2009	N	< 0.020 U	< 0.0150 U	--	--	--	2.3	2.8	< 3.0 U	--	--	7940	14700
	8/6/2009	N	< 0.0200 U	< 0.0150 U	--	--	--	2.9	< 1.0 U	< 3.0 U	--	--	7610	16600
	2/8/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	8040	15100
	8/4/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	11	1.2	< 3.0 U	--	--	7630	14100
	4/14/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	9.4	2.3	< 3.0 U	--	--	7870	14800
	8/17/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	4.5	1.8	< 3.0 U	--	--	8880	14600
	2/16/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	10200	25100
	8/13/2012	N	0.0266	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	7220 J	13600
	2/6/2013	N	0.0205	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	6140 J	11000
	8/7/2013	N	0.0214	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	5830	12400
	2/4/2014	N	0.0229 J	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	7010 J	10700
	2/4/2014	FD	0.0139 J	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	45.2 J	1380
	8/6/2014	N	0.0229	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	5650	10900 J
	2/6/2015	N	0.0159 J	0.0032 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	5240	7560
	2/6/2015	FD	0.0131 J	0.0025 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	5170	9080
	8/12/2015	N	0.0198 J	0.0018 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	4940	10600
	3/31/2016	N	0.0363	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	5020	10800
	9/9/2016	N	< 0.00336 U	< 0.00136 U	--	0.021 J	0.319	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	7210	12100
	4/4/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	< 1 U	0.324	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	5130	9590
	9/13/2017	N	0.0146	0.00116 J	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	5900	10400
MWD-8	2/10/2009	N	< 0.020 U	< 0.0150 U	--	--	--	7.0	4.8	< 3.0 U	--	--	9390	18400
	8/11/2009	N	< 0.0200 U	0.0222	--	--	--	3.3	2.2	4.7	--	--	8570	16300
	2/8/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	1.2	< 1.0 U	< 3.0 U	--	--	11100	20000
	8/5/2010	N	< 0.0200 U	< 0.0150 U	--	--	--	1.1	< 1.0 U	< 3.0 U	--	--	10000	17500
	4/15/2011	N	< 0.0200 U	0.0164	--	--	--	4.1	< 1.0 U	< 3.0 U	--	--	15100	20700

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		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
MWD-8	8/17/2011	N	< 0.0200 U	< 0.0150 U	--	--	--	4.4	1.8	< 3.0 U	--	--	8840	12400
	2/13/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	336	1400
	8/9/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	980	2220
	2/6/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	824 J	1800
	8/8/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1190 J	2630
	2/4/2014	N	0.0120 J	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	1140 J	2210
	8/6/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	968	2000
	2/4/2015	N	0.0121 J	0.0016 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	571	1260
	2/4/2015	FD	0.0164 J	0.0020 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	416	1080
	8/6/2015	N	0.0112 J	0.0027 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	474	1270
	4/1/2016	N	0.0101	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	305	854
	9/12/2016	N	0.0055 J	< 0.00136 U	--	< 0.00616 U	< 0.000585 U	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	251	864
	4/4/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	< 1 U	< 0.1 U	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	177	540
	9/13/2017	N	0.0141	0.000796 J	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	220	884
MWD-9	2/11/2009	N	< 0.100 U	< 0.0150 U	--	--	--	10	1.4	< 3.0 U	--	--	22700	39300
	8/17/2009	N	< 0.100 U	< 0.0750 U	--	--	--	13	1.0	< 3.0 U	--	--	20900	39600
	2/2/2010	N	< 0.100 U	< 0.0750 U	--	--	--	15	1.2	< 3.0 U	--	--	23800	39500
	8/3/2010	N	0.0245	< 0.0750 U	--	--	--	8.6	< 5.0 U	< 15 U	--	--	20900	37400
	2/6/2015	N	--	--	--	--	--	--	--	--	--	--	19600	29400
	8/13/2015	N	0.0271	0.0088 J	--	--	--	24	2.0	2.4	--	--	18300	45700 J
	8/13/2015	FD	0.0273	0.0090 J	--	--	--	26	2.0	2.8	--	--	22900	98000 J
	3/31/2016	N	0.0431	< 0.01 U	< 0.01 U	--	--	17.2	< 2 U	< 2 U	< 1.41 U	< 1.41 U	2690	34800
	9/9/2016	N	< 0.00336 U	< 0.00136 U	--	0.111 J	0.611	22.2	0.88 J	< 0.642 U	2.92	< 0.986 U	18000	31600
	4/4/2017	N	< 0.05 U	< 0.05 U	--	< 1 U	0.629	20.1	< 2 U	< 2 U	< 1.5 U	< 1.5 U	18700	33300
	4/7/2017	N	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--
	9/14/2017	N	0.0172	0.00738	< 0.01 U	--	--	53.3	2.07	2.18	< 1.5 U	< 1.5 U	19300	32800
RW-6	2/11/2009	N	0.0252	< 0.0150 U	--	--	--	15	4.8	7.4	--	--	26700	44800
	8/17/2009	N	< 0.100 U	< 0.0750 U	--	--	--	23	9.5	11	--	--	32400	61300
	2/2/2010	N	< 0.100 U	< 0.0750 U	--	--	--	16	4.0	6.7	--	--	22100	37800
	8/3/2010	N	< 0.100 U	< 0.0750 U	--	--	--	30	8.5	19	--	--	30800	52600
	8/9/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 8.0 U	3.8	23	--	--	1930 J	3840
	2/5/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 25 U	7.5	25	--	--	1470	3330
	8/7/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 30 U	6.4	6.7	--	--	1530	3530
	2/10/2015	N	< 0.0200 U	< 0.0150 U	--	--	--	< 31 U	40	35	--	--	1020	2240
	8/12/2015	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	5.0	--	--	959	2820
	3/31/2016	N	< 0.01 U	< 0.01 U	< 0.01 U	--	--	9.49	< 2 U	< 2 U	< 1.41 U	< 1.41 U	488	1600
	9/7/2016	N	< 0.00336 U	< 0.00136 U	< 0.01 U	2.81	0.063	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	502	1150
	4/6/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	0.203 J	0.111 J	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	396	2040
	9/14/2017	N	0.0652	0.000638 J	< 0.01 U	--	--	3090	104	89.9	4.86	2.91	337	1600
RW-7	2/12/2009	N	< 0.100 U	0.0278	--	--	--	13	3.7	3.4	--	--	46900	115000
	8/17/2009	N	< 0.100 U	< 0.0750 U	--	--	--	17	4.5	3.8	--	--	58600	104000
	2/2/2010	N	< 0.100 U	< 0.150 U	--	--	--	16	5.7	4.6	--	--	62500	98000
	8/3/2010	N	< 0.100 U	< 0.0750 U	--	--	--	18	3.5	18	--	--	41100	66400
	8/9/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	330	< 1.0 U	< 3.0 U	--	--	18000 J	30400
	2/5/2014	N	0.0146 J	0.0016 J	--	--	--	54	< 1.0 U	0.4 J	--	--	12900	19600
	8/7/2014	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	3020	5840 J
	2/10/2015	N	0.0172 J	0.0024 J	--	--	--	0.2 J	< 1.0 U	< 1.0 U	--	--	3750	5510
	8/12/2015	N	0.0098 J	0.0021 J	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	2480	6530

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		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
RW-7	3/31/2016	N	0.0209	< 0.01 U	< 0.01 U	--	--	4.22	< 2 U	< 2 U	< 1.41 U	< 1.41 U	4100	7500
	9/7/2016	N	< 0.00336 U	< 0.00136 U	< 0.01 UX	0.013 J	0.666	< 0.408 U	< 0.657 U	< 0.642 U	< 0.987 U	< 0.987 U	5850	12300
	4/6/2017	N	< 0.05 U	< 0.05 U	< 0.01 U	< 1 U	0.61 J	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	5180 J	10000 J
	4/6/2017	FD	< 0.05 U	< 0.05 U	0.0054 J	< 1 U	0.0547 J	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	2730 J	5750 J
	9/14/2017	N	0.00754	0.000949 J	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	4740	9050
RW-8	2/12/2009	N	0.0216	< 0.0150 U	--	--	--	95	19	220	--	--	12100	22900
	10/1/2009	N	0.0212	< 0.0150 U	--	--	--	19	7.1	110	--	--	10700	20800
	2/9/2010	N	0.0243	< 0.0150 U	--	--	--	57	23	190	--	--	12600	22200
	8/20/2010	N	< 0.100 U	< 0.0750 U	--	--	--	17	2.7	< 3.0 U	--	--	31800	57100
	8/8/2013	N	0.0454	< 0.0150 U	--	--	--	< 1.0 U	2.9	23	--	--	5950 J	11500
	2/5/2014	N	0.0161 J	< 0.0150 U	--	--	--	0.4 J	2.2	27	--	--	10100	19100
	2/5/2014	FD	0.0167 J	< 0.0150 U	--	--	--	0.4 J	2.3	27	--	--	9700 J	15500
	8/7/2014	N	0.152	< 0.0150 U	--	--	--	< 1.0 U	< 2.0 U	< 3.0 U	--	--	1870	4380
	2/5/2015	N	0.0391	0.0014 J	--	--	--	< 1.0 U	< 1.0 U	1.6	--	--	1420	2860
	8/10/2015	N	0.0730 J	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	2.2	--	--	1360	3400
	8/10/2015	FD	0.0851 J	0.0020 J	--	--	--	< 1.0 U	< 1.0 U	2.4	--	--	1510	3530
	4/1/2016	N	0.0426	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	1310	2410
	4/1/2016	FD	0.0406	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	1230	2380
	9/9/2016	N	0.0656	< 0.00136 U	--	12.4	0.434	< 0.408 U	< 0.657 U	< 0.642 U	< 0.986 U	< 0.986 U	1250	2110
	4/4/2017	N	< 0.05 U	< 0.05 U	--	0.26 J	0.369	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	1220	2510
	4/7/2017	N	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--
TMW-1	2/10/2009	N	0.0585	< 0.0150 U	--	--	--	--	--	--	--	--	1840	3620
	8/12/2009	N	0.0481	< 0.0150 U	--	--	--	--	--	--	--	--	1070	2130
	2/12/2010	N	0.0500	< 0.0150 U	--	--	--	--	--	--	--	--	369	1130
	8/9/2010	N	0.0444	< 0.0150 U	--	--	--	9.0	< 1.0 U	4.4	--	--	368	1130
	4/6/2011	N	0.0437	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	2290	4430
	8/9/2011	N	0.0340	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1990	3440
	2/15/2012	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1170	3310
	8/9/2012	N	0.0225	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1210	2380
	2/7/2013	N	0.0203	< 0.0150 U	--	--	--	4.0	< 1.0 U	< 3.0 U	--	--	1060 J	2500
	8/12/2013	N	< 0.0200 U	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1100	2250
	2/5/2014	N	0.0224 J	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	1.8	--	--	1090 J	2610
	8/12/2014	N	0.0241	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	875	1930
	2/5/2015	N	0.0117 J	0.0017 J	--	--	--	14	0.4 J	1.8	--	--	833	1710
	8/10/2015	N	0.0186 J	0.0022 J	--	--	--	1 J	< 1.0 U	< 1.0 U	--	--	842	1990
	4/1/2016	N	0.0172	< 0.01 U	0.0135	--	--	2.53	< 2 U	< 2 U	< 1.41 U	< 1.41 U	761	1950
	9/12/2016	N	0.0122	< 0.00136 U	--	11.5	1.21	< 0.408 U	< 0.657 U	< 0.642 U	< 0.987 U	1.04 J	748	1830
	4/7/2017	N	< 0.05 U	< 0.05 U	0.0125	0.442 J	1.18	5.59	< 2 U	< 2 U	< 1.5 U	< 1.5 U	757	1970
	4/7/2017	FD	< 0.05 U	0.00707 J	0.0116	0.342 J	1.15	5.29	< 2 U	< 2 U	< 1.5 U	< 1.5 U	712	1720
	9/13/2017	N	0.0195	0.000722 J	< 0.01 U	--	--	31.6	1.42 J	3.53	< 1.5 U	< 1.5 U	685	1600
TMW-3	2/17/2010	N	0.0577	< 0.0150 U	--	--	--	4	0.2	< 3.0 U	--	--	383	1320
	8/12/2010	N	0.0501	< 0.0150 U	--	--	--	3.0	2.2	9.3	--	--	318	1200
	4/8/2011	N	0.0511	< 0.0150 U	--	--	--	4.3	1.6	< 3.0 U	--	--	333	1170
	8/16/2011	N	0.0549	< 0.0150 U	--	--	--	1.8	< 1.0 U	< 3.0 U	--	--	855	1740
	2/15/2012	N	0.0393	< 0.0150 U	--	--	--	< 1.0 U	< 1.0 U	< 3.0 U	--	--	1190	2120
	8/14/2012	N	0.0357	< 0.0150 U	--	--	--	6.6	3.1	9.2	--	--	345 J	1180
	2/7/2013	N	0.0336	< 0.0150 U	--	--	--	2.5	1.2	5.0	--	--	381 J	1390
	8/9/2013	N	0.0279	< 0.0150 U	--	--	--	6.4	1.4	< 3.0 U	--	--	344	1090

Appendix E
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		Chemical Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Manganese	Benzene	Ethylbenzene	Total Xylenes	DRO (C10-C28)	GRO (C6-C10)	Chloride	Total Dissolved Solids
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Standard	0.01	0.05	0.05	1	0.2	10	750	620	--	--	250	1000
Location ID	Sample Date	Sample Type												
TMW-3	2/6/2014	N	0.0181 J	< 0.0150 U	--	--	--	18	1.5	7.3	--	--	237	1070
	8/13/2014	N	0.0442 J	< 0.0150 UJ	--	--	--	3.8	< 1.0 U	< 1.0 U	--	--	670	1620
	2/11/2015	N	0.0222	< 0.0150 U	--	--	--	34	1.8	< 3.0 U	--	--	360	1020
	8/11/2015	N	0.0215	< 0.0150 U	--	--	--	17	1.9	3.1	--	--	309	1070
	4/1/2016	N	0.0434	< 0.01 U	< 0.01 U	--	--	5.88	< 2 U	< 2 U	< 1.41 U	< 1.41 U	310	1140
	9/12/2016	N	0.0393	< 0.00136 U	--	11.3	0.49	10.1	< 0.657 U	< 0.642 U	< 0.987 U	1.23 J	297	1180
	4/6/2017	N	< 0.05 U	< 0.05 U	0.0063 J	0.47 J	0.491 J	6.89	< 2 U	< 2 U	< 1.5 U	< 1.5 U	325	1130
TMW-5	2/18/2009	N	0.0669	< 0.0150 U	--	--	--	2200	110	41	--	--	4780	7660
	8/10/2009	N	0.0372	< 0.0150 U	--	--	--	4700	140	5.3	--	--	2970	6830
	2/10/2010	N	0.0302	< 0.0150 U	--	--	--	4400	210	15	--	--	3120	6120
	8/11/2010	N	0.0341	< 0.0150 U	--	--	--	2800	180	< 30 U	--	--	2660	5450
	8/11/2010	FD	0.0324	< 0.0150 U	--	--	--	3100	190	5.0	--	--	2660	5540
	4/7/2011	N	0.0454	< 0.0150 U	--	--	--	1900	180	3.4	--	--	3210	5910
	8/9/2011	N	0.0312	< 0.0150 U	--	--	--	1400	100	15	--	--	3470	6030
TMW-6	2/17/2009	N	0.0724	< 0.0150 U	--	--	--	3700	420	210	--	--	437	1440
	8/11/2009	N	0.0712	< 0.0150 U	--	--	--	3800	200	8.5	--	--	177	1140
	2/16/2010	N	0.0930	< 0.0150 U	--	--	--	2600	350	11	--	--	657	1850
	4/7/2011	N	0.0867	< 0.0150 U	--	--	--	2500	310	4.8	--	--	515	1430
	8/9/2011	N	0.0585	< 0.0150 U	--	--	--	4700	400	25	--	--	345	1310
	2/10/2012	N	0.0445	< 0.0150 U	--	--	--	600	140	29	--	--	684	1940
	8/14/2012	N	0.0504	< 0.0150 U	--	--	--	4900	640	29	--	--	603 J	1550
	2/11/2013	N	0.0568	< 0.0150 U	--	--	--	4900	470	31	--	--	516	1760
	8/9/2013	N	0.0366	< 0.0150 U	--	--	--	1400	230 J	7.8 J	--	--	755	1930
	2/6/2014	N	0.0295	< 0.0150 U	--	--	--	1700	570	22	--	--	239	1570
	8/13/2014	N	< 0.0200 UJ	< 0.0150 UJ	--	--	--	8.1	3.5	< 5.0 U	--	--	1270	2280
	2/11/2015	N	0.0386	0.0016 J	--	--	--	2600	6.5 J	23	--	--	411	1380
	8/11/2015	N	0.0401	< 0.0150 U	--	--	--	3600 J	6.5 J	4.1 J	--	--	436	1590
	4/1/2016	N	0.056	< 0.01 U	< 0.01 U	--	--	345	< 2 U	< 2 U	1.63	3.01	257	1300
	4/1/2016	FD	0.0553	< 0.01 U	< 0.01 U	--	--	341	< 2 U	< 2 U	1.47	2.86	254	1360
	9/12/2016	N	0.0516	< 0.00136 U	--	6.7	0.0241	1370 D	31.3	7.31	2.55	3.14	324	1530
	9/12/2016	FD	0.0573	< 0.00136 U	--	6.62	0.0239	1220 D	25.7	4.74	2.82	3.29	320	1540
	4/6/2017	N	0.046 J	0.00768 J	0.0078 J	0.28 J	0.0301 J	446	< 10 U	< 10 U	3.18	1.53	318	1260
	9/14/2017	N	0.00275	< 0.004 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	519	2640
WW-2	3/30/2016	N	< 0.01 U	< 0.01 U	< 0.01 U	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	304	652
	9/6/2016	N	< 0.00336 U	< 0.00136 U	< 0.01 U	0.109 J	0.134	< 0.408 U	< 0.657 U	< 0.642 U	< 0.987 U	< 0.987 U	287	627
	4/5/2017	N	< 0.05 U	< 0.05 U	--	< 1 U	0.0806 J	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	352 J	546
	4/7/2017	N	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--
WW-3	4/7/2017	N	< 0.05 U	< 0.05 U	0.0105	0.24 J	0.211	40.3	5.01	< 2 U	< 1.5 U	< 1.5 U	207	468
WW-7	3/30/2016	N	< 0.01 U	< 0.01 U	0.0148	--	--	< 2 U	< 2 U	< 2 U	< 1.41 U	< 1.41 U	266	548
	9/6/2016	N	< 0.00336 U	< 0.00136 U	< 0.01 U	3.14	0.583	< 0.408 U	< 0.657 U	< 0.642 U	< 0.987 U	< 0.987 U	563	511
	4/4/2017	N	< 0.05 U	< 0.05 U	--	< 1 U	0.389	< 2 U	< 2 U	< 2 U	< 1.5 U	< 1.5 U	270 J	458
	4/7/2017	N	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--

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Notes:
NMWQCC Standard exceedance
Detected analytes are **bolded**.
-- = not applicable/not analyzed
< = less than
DRO = diesel range organics
FD = field duplicate sample
GRO = gasoline-range organics
ID = identification
mg/l = milligrams per liter
N = normal sample
NMWQCC = New Mexico Water Quality Control Commission
TDS = total dissolved solids
ug/l = micrograms per liter

Qualifiers:
D = compounds identified at a secondary dilution factor
J = estimated value
U = analyte was not detected

APPENDIX F

Historical Analytical Data (2017 to current)

GROUNDWATER ANALYTICAL RESULTS
EUNICE SOUTH GAS PLANT

		Parameter Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Barium	Manganese	Benzene	Toluene	Ethylbenzene	Xylene (total)	Petroleum Hydrocarbons (C6-C10)-GRO	Petroleum Hydrocarbons (C10-C28)-DRO	C6-C35 Petroleum Hydrocarbon Summary	Chloride	Total Dissolved Solids
		Report Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Domestic	0.01	0.05	0.05	1.0	2.0	0.2	0.005	1	0.7	0.62	--	--	--	250	1000
Location ID	Date Sampled	Sample Purpose															
MW-11	4/6/2017	REG	< 0.0500 U	< 0.0500 U	0.00780 J	0.219 J	--	0.142 J	7.02	< 0.0750 U	< 0.100 U	< 0.100 U	1.67	< 1.50 U	1.67	128	1,060
MW-11	9/14/2017	REG	0.0118	0.000585 J	< 0.0100 U	--	0.841	--	7.21 J	0.0788 J	0.0498 J	0.259 J	2.54	< 1.50 U	2.54	91	900
MW-11	3/19/2018	REG	0.0125	0.000888 J	< 0.0100 U	--	0.779	--	4.78 J	0.0223 J	< 0.0500 U	0.0648	4.3	< 1.50 U	4.3	104	852
MW-11	3/19/2018	FD	0.0109	< 0.00400 U	< 0.0100 U	--	0.676	--	1.31 J	< 0.0200 U	< 0.0200 U	0.0130 J	4.04	< 1.50 U	4.04	105	935
MW-11	9/28/2018	REG	0.021	< 0.00400 U	< 0.0100 U	--	1.19	--	4.19 D	0.00268	0.00582	0.0339	11.1	< 1.50 U	11.1	120	942
MW-11	4/4/2019	REG	0.0182	0.00989	< 0.0100 U	--	0.614	--	1.87	< 0.0200 U	0.00840 J	0.0542	7.23	< 1.50 U	7.23	78.0 J	815
MW-11	4/4/2019	FD	0.0122	0.00543	< 0.0100 U	--	0.631	--	1.67 D	0.00190 J	0.00639	0.0382	6.99	< 1.50 U	6.99	93.1 J	844
MW-11	10/4/2019	REG	0.0143	0.00340 J	< 0.0100 U	--	0.472	--	1.96 DJ	0.00752 J	0.0255 J	0.145 J	6.06	< 1.38 U	6.06	92.9	692
MW-11	3/20/2020	REG	0.0249	< 0.00400 U	< 0.0100 U	--	1.26	--	2.25 DJ	0.00162 J	0.00423 J	0.0202 J	4.77	< 2.18 U	4.77	133	974
MW-11	9/23/2020	REG	0.0294	< 0.00400 U	< 0.0100 UJ	--	1.05	--	1.67 D	0.00288	0.00606	0.0281	5.67	< 2.19 U	5.67	117	972
MW-11	3/19/2021	REG	0.0324	< 0.00400 U	< 0.0100 U	--	1.02	--	2.62 D	0.00159 J	0.00415	0.0137	6.91 B	< 2.18 U	6.91 B	117	994
MW-11	9/21/2021	REG	0.0326	< 0.00400 U	< 0.0100 U	--	1.00	--	0.0189	< 0.00200 U	< 0.00200 U	< 0.00400 U	5.57 J	< 4.57 U	5.57 J	91.8	1,010
MW-13	4/5/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	< 1.00 U	--	0.0182 J	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	343	976
MW-13	3/14/2018	REG	0.016	0.000616 J	< 0.0100 U	--	0.102	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	336	1,030
MW-13	9/25/2018	REG	0.0165	0.00114 J	< 0.0100 U	--	0.102	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	339	980
MW-13	4/2/2019	REG	0.0139	< 0.00400 U	< 0.0100 U	--	0.0935	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	349	1,060
MW-13	10/1/2019	REG	0.0161	0.000672 J	< 0.0100 U	--	0.0981	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.38 U	< 1.38 U	< 1.38 U	332	1,130
MW-13	3/18/2020	REG	0.0169	< 0.00400 U	< 0.0100 U	--	0.100	--	0.00226	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.19 U	< 2.19 U	< 2.19 U	342	1140
MW-13	3/16/2021	REG	0.0158	< 0.00400 U	< 0.0100 U	--	0.0908	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	1.69 B J	< 2.26 U	1.69 B J	370	1,510
MW-14	4/5/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	< 1.00 U	--	0.835	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	489	1,560
MW-14	9/13/2017	REG	0.00699	< 0.00400 U	< 0.0100 U	--	0.0691	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	486	1,640
MW-14	3/13/2018	REG	0.0077	< 0.00400 U	< 0.0100 U	--	0.0644	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	0.000730 J	< 1.50 U	< 1.50 U	< 1.50 U	516	1,500
MW-14	3/13/2018	FD	0.00764	< 0.00400 U	< 0.0100 U	--	0.0637	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	0.000820 J	< 1.50 U	< 1.50 U	< 1.50 U	498	1,440
MW-14	9/26/2018	REG	0.00827	< 0.00400 U	< 0.0100 U	--	0.0786	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	527	1,470
MW-14	4/3/2019	REG	0.00933	0.157	< 0.0100 U	--	0.076	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	496	1,520
MW-14	10/2/2019	REG	0.00787	< 0.00400 U	< 0.0100 U	--	0.0726	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.40 U	< 1.40 U	< 1.40 U	512	1,630
MW-14	3/18/2020	REG	0.00862	< 0.00400 U	< 0.0100 U	--	0.0793	--	0.00121 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.19 U	< 2.19 U	< 2.19 U	504	2100
MW-14	3/16/2021	REG	0.00760	< 0.00400 U	< 0.0100 U	--	0.0877	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.27 UB	< 2.27 U	< 2.27 UB	550	1,650
MW-15	4/5/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	< 1.00 U	--	0.0345 J	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,960	2,900
MW-15	9/13/2017	REG	0.0124	0.000535 J	< 0.0100 U	--	0.0481	--	0.00795	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,040	4,590
MW-15	3/13/2018	REG	0.0135	< 0.00400 U	< 0.0100 U	--	0.0475	--	0.00159 J	0.000630 J	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,160	5,060
MW-15	9/25/2018	REG	0.0133	0.000735 J	< 0.0100 U	--	0.0533	--	0.000780 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,320	3,910
MW-15	4/2/2019	REG	0.0142	0.00109 J	< 0.0100 U	--	0.0452	--	0.00102 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,960	3,840
MW-15	10/2/2019	REG	0.0119	< 0.00400 U	< 0.0100 U	--	0.0452	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.40 U	< 1.40 U	< 1.40 U	1,890	3,930
MW-15	10/2/2019	FD	0.0122	< 0.00400 U	< 0.0100 U	--	0.0482	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.41 U	< 1.41 U	< 1.41 U	1,850	3,920
MW-15	3/17/2020	FD	0.0113	< 0.00400 U	< 0.0100 U	--	0.0506	--	0.000910 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.28 U	< 2.28 U	< 2.28 U	1840	880 J
MW-15	3/17/2020	REG	0.0115	< 0.00400 U	< 0.0100 U	--	0.0447	--	0.000820 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.23 U	< 2.23 U	< 2.23 U	1900	3690 J
MW-15	9/22/2020	FD	0.0116	< 0.00400 U	< 0.0100 U	--	0.0430 J	--	0.000770 J	0.000610 J	< 0.00200 U	< 0.00200 U	< 2.16 U	< 2.16 U	< 2.16 U	1590	3290
MW-15	9/22/2020	REG	0.0114	< 0.00400 U	< 0.0100 U	--	0.0430 J	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.19 U	< 2.19 U	< 2.19 U	1590	3320
MW-15	3/16/2021	REG	0.0115	< 0.00400 U	< 0.0100 U	--	0.0454	--	0.00622	0.00303	< 0.00200 U	0.00439	< 2.26 UB	< 2.26 U	< 2.26 UB	1,310	3,140
MW-15	3/16/2021	FD	0.0113	< 0.00400 U	< 0.0100 U	--	0.0450	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.25 UB	< 2.25 U	< 2.25 UB	968	3,680
MW-15	9/21/2021	REG	0.0113	0.000686 J	< 0.0100 U	--	0.0419	--	0.000837 J	< 0.00200 U	< 0.00200 U	< 0.00400 U	< 4.56 U	< 4.56 U	< 4.56 U	1,440	4,110
MW-15	9/21/2021	FD	0.0120	< 0.00400 U	< 0.0100 U	--	0.0443	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00400 U	< 4.44 U	< 4.44 U	< 4.44 U	1,510	4,220
MW-16	4/5/2017	REG	< 0.0500 U	0.0955	0.106	< 1.00 U	--	< 0.100 U	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,880	3,810
MW-16	9/13/2017	REG	0.0129	0.11	0.0957	--	0.0448	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,880	4,230
MW-16	3/13/2018	REG	0.013	0.108	0.101	--	0.0406	--	< 0.00200 U	0.000950 J	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,150	3,930
MW-16	9/25/2018	REG	0.0144	0.111	< 0.0100 U	--	0.0423	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,090	3,880
MW-16	4/2/2019	REG	0.0136	0.111	0.0976	--	0.0417	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,780	3,760
MW-16	10/2/2019	REG	0.0136	0.107	0.0982	--	0.0394	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.38 U	< 1.38 U	< 1.38 U	1,930	3,970
MW-16	3/17/2020	REG	0.0135	0.115	0.104	--	0.0400	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.22 U	< 2.22 U	< 2.22 U	2120	4030
MW-16	9/22/2020	REG	0.0136	0.0972	0.0950	--	0.0356	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.18 U	< 2.18 U	< 2.18 U	1900	4040
MW-16	3/16/2021	REG	0.0130	0.102	0.103	--	0.0375	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.26 UB	< 2.26 U	< 2.26 UB	1,290	3,880
MW-16	9/21/2021	REG	0.0135	0.0909	0.0931	--	0.0371	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00400 U	< 4.41 U	< 4.41 U	< 4.41 U	1,780	4,180
MW-17	4/6/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	< 1.00 U	--	0.534 J	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,750	3,440
MW-17	9/13/2017	REG	0.0141	< 0.00400 U	< 0.0100 U	--	0.316	--	< 0.00200 UJ	< 0.00200 UJ	< 0.00200 UJ	< 0.00200 UJ	< 1.50 U	< 1.50 U	< 1.50 U	603	3,030
MW-17	9/13/2017	FD	0.0127	< 0.00400 U	< 0.0100 U	--	0.27	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	627	3,450
MW-17	3/14/2018	REG	0.00804	< 0.00400 U	< 0.0100 U	--	0.195	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,730	3,100
MW-17	9/25/2018	REG	0.00912	< 0.00400 U	< 0.0100 U	--	0.21	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,590	2,970
MW-17	4/3/2019	REG	0.0113	0.00141 J	< 0.0100 U	--	0.206	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,190	2,860
MW-17	10/3/2019	REG	0.00838	< 0.00400 U	< 0.0100 U	--	0.156	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.38 U	< 1.38 U	< 1.38 U	1,300	2,700
MW-17	3/19/2020	REG	0.0213	< 0.00400 U	< 0.0100 U	--	0.764	--	0.000600 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.16 U	< 2.16 U	< 2.16 U	1060	2320
MW-17	9/22/2020	REG	0.0105	< 0.00400 U	< 0.0100 U	--	0.214 J	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.19 U	< 2.19 U	< 2.19 U	1140	2320
MW-17	3/18/2021	REG	0.0138	< 0.00400 U	< 0.0100 U	--	0.224	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	<2.22 UB	< 2.22 U	<2.22 UB	811	2,260
MW-17	9/21/2021	REG	0.0105	< 0.00400 U	< 0.0100 U	--	0.18	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00400 U	< 4.52 U	< 4.52 U	< 4.52 U	1,050	2,400
MW-18	4/4/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	< 1.00 U	--	< 0.100 U	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	231	730
MW-22	4/4/2017	REG	< 0.0500 U	< 0.0500 U	--	0.267 J	--	0.0947 J	16.7	0.367	0.624	0.668	2.35	1.62	3.97	2,310	4,050
MW-22	4/7/2017	REG	--	--	0.00380 J	--	--	--	--	--	--	--	--	--	--	--	--
MW-22	3/15/2018	REG	0.0371	< 0.00400 U	< 0.0100 U	--	0.982	--	8.55	0.0605 J	0.279	0.113	25.5	1.00 J	26.5	2,440	5,530
MW-22	4/3/2019	REG	0.0554	0.00802	< 0.0100 U	--	0.654	--	0.588	< 0.0200 U	< 0.0200 U	< 0.0200 U	5.66	1.01 J	6.67	1,670	4,900
MW-22	3/20/2020	REG	0.0711	0.000743 J	< 0.0500 U	--	0.851	--	26.5 DJ	0.00740 J	0.0441 J	0.0297 J	19.0	< 2.21 U	19.0	1940	4600
MW-22	3/18/2021	REG	0.0481	0.000688 J	< 0.0100 U	--	0.810	--	0.151	0.00129 J	< 0.00200 U	0.00255	4.14 B	< 2.27 U	4.14 B	2,300	5,750
MW-23	4/4/2017	REG	< 0.0500 U	< 0.0500 U	--	< 1.00 U	--	< 0.100 U	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	4,150	8,040
MW-23	4/7/2017	REG	--	--	< 0.0100 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-24	9/22/2021	REG	0.0281	0.000670 J	0.00595 J	--	2.55	--	11.9 D	0.00671 J	0.0541 J	0.0843 J	22.0 J	1.56 J	23.56 J	172	1,520
MW-25	4/6/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	0.343 J	--	0.0964 J	1.34	< 0.0150 U	0.0358	< 0.0200 U	1.9	1.72	3.62	2,170	4,370
MW-25	9/14/2017	REG	0.00341	0.00146 J	< 0.0100 U	--	1.72	--	7.11	0.0167	0.12	0.0496	3.22	3.12	6.34	1,810	4,790
MW-25	3/19/2018	REG	0.00155 J	0.00104 J	< 0.0100 U	--	1.19	--	1.8	0.00910 J	0.0422	0.016	2.97	1.65	4.62	1,550	3,760
MW-25	9/28/2018	REG	0.00187 J	0.00138 J	< 0.0100 U	--	1.46	--	2.18 D	< 0.00200 U	0.0145	0.00639	6.12	3.55	9.67	1,590	4,210
MW-25	4/5/2019	REG	0.00145 J	0.00163 J	< 0.0100 U	--	1.21	--	14.1 D	0.00325	0.0232	0.0144	5.95	3.52	9.47	1,240	4,230
MW-25	10/4/2019	REG	0.00129 J	0.00161 J	< 0.0100 U	--	1.34	--	2.99 DJ	< 0.00200 U	0.0358 J	0.0157 J	7.03	3.98	11	1,960	4,420

GROUNDWATER ANALYTICAL RESULTS
EUNICE SOUTH GAS PLANT

		Parameter Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Barium	Manganese	Benzene	Toluene	Ethylbenzene	Xylene (total)	Petroleum Hydrocarbons (C6-C10)-GRO	Petroleum Hydrocarbons (C10-C28)-DRO	C6-C35 Petroleum Hydrocarbon Summary	Chloride	Total Dissolved Solids
		Report Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Domestic	0.01	0.05	0.05	1.0	2.0	0.2	0.005	1	0.7	0.62	--	--	--	250	1000
Location ID	Date Sampled	Sample Purpose															
MW-25	3/20/2020	FD	0.00203 J	0.00151 J	< 0.0100 U	--	1.48	--	1.97 DJ	0.000790 J	0.00331 J	0.00236 J	2.48	3.00	5.48	1880	4680
MW-25	3/20/2020	REG	0.00166 J	0.00151 J	< 0.0100 U	--	1.34	--	2.19 DJ	0.000930 J	0.00365 J	0.00246 J	2.98	3.03	6.01	1900	4560
MW-25	9/23/2020	REG	0.00162 J	0.00126 J	< 0.0100 UJ	--	1.13	--	0.871 DJ	0.00107 J	0.00919 J	0.00510 J	2.38	1.25 J	3.63	1540	4550
MW-25	3/19/2021	REG	0.00308 J	0.00194 J	< 0.0100 U	--	1.55	--	1.66 D J	0.00156 J	0.0187 J	0.00866 J	5.05 UB	2.09 J	7.14 UBJ	1,330	4,470
MW-25	3/19/2021	FD	0.00266 J	0.00172 J	< 0.0100 U	--	1.31	--	2.04 D J	0.00160 J	0.0174 J	0.0148 J	4.51 UB	1.34 J	5.85 UBJ	1,280	4,620
MW-25	9/22/2021	REG	0.0148	0.00114 J	< 0.0100 U	--	1.44	--	1.60 D	< 0.0200 U	0.0579 J	< 0.00400 U	3.97 J	2.09 J	6.06 J	2,160	6,350
MW-26	4/6/2017	REG	0.0362 J	< 0.0500 U	0.00490 J	0.260 J	--	0.0324 J	0.94	< 0.0150 U	< 0.0200 U	< 0.0200 U	1.61	3.53	5.14	191	1,200
MW-26	9/14/2017	REG	0.057	< 0.00400 U	< 0.0100 U	--	5.09	--	1.79	0.00486	0.0146	0.0252	1.74	4.19	5.93	167	1,240
MW-26	3/19/2018	REG	0.0421	0.00155 J	< 0.0100 U	--	3.52	--	0.821 J	< 0.0100 U	< 0.0100 U	0.00650 J	2.83	8.85 J	11.7 J	139	1,120
MW-26	3/19/2018	FD	0.0374	0.000994 J	< 0.0100 U	--	3.13	--	0.177 J	< 0.0200 U	< 0.0200 U	< 0.0200 U	4.26	54.4 J	58.7 J	138	1,080
MW-26	9/28/2018	REG	0.0645	< 0.00400 U	0.353	--	5.73	--	1.08 D	0.00284	0.00328	0.00951	6.24	38.4	44.6	149	1,120
MW-26	4/4/2019	REG	0.063	0.000777 J	< 0.0100 U	--	5.59	--	0.577 D	0.000710 J	0.00152 J	0.00421	3.41	8.19	11.6	140 J	1,070
MW-26	10/4/2019	REG	0.0599	< 0.00400 U	< 0.0100 U	--	6.33	--	0.797 DJ	< 0.00200 U	0.00743 J	0.0177 J	2.37	4.73	14.8	157	1,090
MW-26	3/20/2020	REG	0.0605	< 0.00400 U	< 0.0100 U	--	5.71 D	--	0.814 DJ	0.000730 J	0.00125 J	0.00214 J	3.58	28.9	32.5	173	1080
MW-26	9/23/2020	REG	0.0606	< 0.00400 U	< 0.0100 U	--	5.69	--	0.921 D	< 0.00200 U	0.00623	0.00905	3.17	4.17	7.34	168	1120
MW-26	3/19/2021	REG	0.0559	< 0.00400 U	< 0.0100 U	--	5.09 D	--	0.874 D	0.00100 J	0.0451	0.00474	4.07 B	9.74	13.81 B	158 X	1,360
MW-26	9/22/2021	REG	0.052	< 0.00400 U	< 0.0100 U	--	4.65	--	0.766	< 0.0200 U	< 0.00200 U	0.0140 J	3.67 J	4.93 J	8.60 J	160	1,510
MW-29	4/5/2017	REG	< 0.0500 U	< 0.0500 U	--	0.323 J	--	0.115 J	0.272	< 0.00150 U	0.00387	< 0.00200 U	2.15	< 1.50 U	2.15	131	918
MW-29	4/7/2017	REG	--	--	0.00560 J	--	--	--	--	--	--	--	--	--	--	--	--
MW-29	9/12/2017	REG	0.00288	< 0.00400 U	0.00280 J	--	6.85	--	1.6	0.0135	0.01	0.00292	1.72	< 1.50 U	1.72	138	1,040
MW-29	3/16/2018	REG	0.00292	< 0.00400 U	< 0.0100 U	--	7.28	--	0.634	< 0.0200 U	< 0.0200 U	< 0.0200 U	7.58	0.929 J	8.51	128	1,120
MW-29	9/27/2018	REG	0.00327 J	< 0.00400 U	0.00530 J	--	6.59	--	0.231	0.0109	0.00107 J	0.000900 J	5.28	< 1.50 U	5.28	153	1,120
MW-29	4/3/2019	REG	0.00389 J	0.000856 J	< 0.0100 U	--	9.21	--	0.0624	< 0.00200 U	< 0.00200 U	< 0.00200 U	4.32	< 1.50 U	4.32	185	1,170
MW-29	4/3/2019	FD	0.00338 J	0.000706 J	< 0.0100 U	--	7.51	--	0.0462	< 0.00200 U	< 0.00200 U	< 0.00200 U	4.21	1.20 J	5.41	165	1,100
MW-29	10/3/2019	REG	0.00249 J	< 0.00400 U	0.0139	--	8.41	--	0.177	< 0.00200 U	< 0.00200 U	< 0.00200 U	4.72	< 1.41 U	4.72	232	1,250
MW-29	3/18/2020	REG	0.00335 J	< 0.00400 U	< 0.0100 U	--	8.64 D	--	0.259 J	0.000470 J	0.00144 J	0.000700 J	3.43	< 2.20 U	3.43	308	1290
MW-29	9/22/2020	REG	0.00270 J	< 0.00400 U	< 0.0100 U	--	9.44	--	0.113	< 0.00200 U	< 0.00200 U	< 0.00200 U	3.87	< 2.40 U	3.87	316	1430
MW-29	3/16/2021	REG	0.00288 J	< 0.00400 U	< 0.0100 U	--	8.40 D X	--	0.0903	< 0.00200 U	< 0.00200 U	< 0.00200 U	4.59 B	< 2.27 U	4.59 B	352	1,360
MW-29	9/22/2021	REG	0.00284 J	< 0.00400 U	< 0.0100 U	--	7.72	--	0.0584	< 0.0200 U	< 0.00200 U	< 0.00400 U	3.90 J	1.14 J	5.04 J	317	1,370
MW-3	4/5/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	< 1.00 U	--	< 0.100 U	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	83.7	706
MW-3	4/5/2017	FD	< 0.0500 U	< 0.0500 U	< 0.0100 U	0.0738 J	--	< 0.100 U	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	91.7	664
MW-3	9/13/2017	REG	0.0141	0.000680 J	< 0.0100 U	--	0.0619	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	74.1	806
MW-3	3/15/2018	REG	0.0146	0.000668 J	< 0.0100 U	--	0.0584	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	61.4	732
MW-3	9/25/2018	REG	0.017	0.00122 J	< 0.0100 U	--	0.0528	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	130	656
MW-3	4/5/2019	REG	0.016	0.00111 J	< 0.0100 U	--	0.0562	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	67.7	344
MW-3	10/4/2019	REG	0.0164	0.00113 J	< 0.0100 U	--	0.0512	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.39 U	< 1.39 U	< 1.39 U	84	723
MW-3	3/18/2020	REG	0.0174	0.00114 J	< 0.0100 U	--	0.0497	--	0.000460 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.31 U	< 2.31 U	< 2.31 U	86.3	709
MW-3	3/17/2021	REG	0.0168	0.000802 J	< 0.0100 U	--	0.0500	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.20 U	< 2.20 U	< 2.20 U	101	717
MW-30	4/5/2017	REG	< 0.0500 U	< 0.0500 U	--	< 1.00 U	--	0.529 J	0.0325	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	328	1,330
MW-30	4/7/2017	REG	--	--	< 0.0100 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-30	9/12/2017	REG	0.00903	< 0.00400 U	< 0.0100 U	--	0.542	--	0.053	< 0.00200 U	< 0.00200 U	0.00231	< 1.50 U	< 1.50 U	< 1.50 U	307	1,320
MW-30	3/16/2018	REG	0.0119	< 0.00400 U	< 0.0100 U	--	0.616	--	0.015	< 0.00200 U	< 0.00200 U	0.000860 J	< 1.50 U	< 1.50 U	< 1.50 U	285	1,230
MW-30	9/26/2018	REG	0.0158	< 0.00400 U	< 0.0100 U	--	0.455	--	0.0244	< 0.00200 U	< 0.00200 U	0.00125 J	< 1.50 U	< 1.50 U	< 1.50 U	284	1,130
MW-30	4/3/2019	REG	0.0212	0.00146 J	< 0.0100 U	--	0.37	--	0.00872	< 0.00200 U	< 0.00200 U	0.00100 J	< 1.50 U	< 1.50 U	< 1.50 U	260	1,240
MW-30	10/3/2019	REG	0.0123	< 0.00400 U	< 0.0100 U	--	0.298	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	0.969 J	< 1.38 U	0.969 J	244	1,220
MW-30	3/18/2020	REG	0.00942	< 0.00400 U	< 0.0100 U	--	0.440	--	0.00387	< 0.00200 U	< 0.00200 U	0.000870 J	< 2.25 U	< 2.25 U	< 2.25 U	256	1250
MW-30	9/22/2020	REG	0.00762	< 0.00400 U	< 0.0100 U	--	0.317	--	0.00474	< 0.00200 U	< 0.00200 U	< 0.00200 U	0.927 J	< 2.22 U	0.927 J	266	1220
MW-30	3/16/2021	REG	0.00895	< 0.00400 U	< 0.0100 U	--	0.355	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	2.55 B	< 2.28 U	2.55 B	275	1,330
MW-30	9/22/2021	REG	0.00923	< 0.00400 U	< 0.0100 U	--	0.308	--	0.0400 UJ	< 0.0400 U	< 0.00400 UJ	< 0.00800 UJ	< 4.40 UJ	< 4.40 UJ	< 4.40 UJ	242	1,310
MW-31	4/5/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	0.105 J	--	0.316	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	435	1,310
MW-31	4/5/2017	FD	< 0.0500 U	< 0.0500 U	< 0.0100 U	0.0918 J	--	0.298	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	431	1,400
MW-31	9/13/2017	REG	0.0347	< 0.00400 U	< 0.0100 U	--	0.569	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	445	1,450
MW-31	3/14/2018	REG	0.0463	< 0.00400 U	< 0.0100 U	--	0.483	--	< 0.00200 UJ	< 0.00200 UJ	< 0.00200 UJ	< 0.00200 UJ	< 1.50 U	< 1.50 U	< 1.50 U	449	1,450
MW-31	9/25/2018	REG	0.0334	< 0.00400 U	< 0.0100 U	--	0.565	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	499	1,420
MW-31	4/3/2019	REG	0.0359	< 0.00400 U	< 0.0100 U	--	0.440	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	533	1,460
MW-31	10/2/2019	REG	0.0392	< 0.00400 U	< 0.0100 U	--	0.555	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.41 U	< 1.41 U	< 1.41 U	462	1,440
MW-31	3/18/2020	REG	0.0409	< 0.00400 U	< 0.0100 U	--	0.442	--	0.000740 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.22 U	< 2.22 U	< 2.22 U	462	1430
MW-31	3/16/2021	REG	0.0411	< 0.00400 U	< 0.0100 U	--	0.414	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.27 UB	< 2.27 U	< 2.27 UB	482	1,160
MW-32	4/7/2017	REG	< 0.0500 U	0.00848 J	0.00560 J	0.0899 J	--	0.0540 J	7.56	0.133	0.177	0.119	< 1.50 U	< 1.50 U	< 1.50 U	988	2,650
MW-32	9/13/2017	REG	0.0263	< 0.00400 U	< 0.0100 U	--	1.32	--	14.7	< 0.00200 U	0.0099	0.00325	1.35 J	< 1.50 U	1.35 J	1,070	3,140
MW-32	3/19/2018	REG	0.0198	< 0.00400 U	< 0.0100 U	--	0.886	--	5.08	0.07	< 0.0500 U	0.056	2.99	< 1.50 U	2.99	831	2,470
MW-32	9/27/2018	REG	0.0298	< 0.00400 U	< 0.0100 U	--	1.32	--	8.37 D	0.000520 J	0.00239	0.00134 J	10.7	< 1.50 U	10.7	578	2,000
MW-32	4/3/2019	REG	0.0361	0.000949 J	< 0.0100 U	--	1.40	--	4.30 D	0.000510 J	0.00196 J	0.00311	11.1	< 1.50 U	11.1	583	2,200
MW-32	10/3/2019	REG	0.0329	< 0.00400 U	< 0.0100 U	--	1.32	--	5.96 DJ	< 0.00200 U	0.00533	0.00538	11.9	< 1.36 U	11.9	435	2,110
MW-32	3/18/2020	REG	0.0397	< 0.00400 U	< 0.0100 U	--	1.81	--	3.91 DJ	0.00200 J	0.00703 J	0.00663 J	7.65	< 2.20 U	7.65	438	2300
MW-32	9/22/2020	REG	0.0380	< 0.00400 U	< 0.0100 U	--	1.63	--	1.21 D	< 0.00200 U	0.00157 J	< 0.00200 U	3.76	< 2.23 U	3.76	510	2320
MW-32	3/16/2021	REG	0.0423	< 0.00400 U	< 0.0100 U	--	2.07 D	--	0.344	< 0.00200 U	< 0.00200 U	0.00475	< 2.25 UB	< 2.25 U	< 2.25 UB	583	2,310
MW-32	9/23/2021	REG	0.000909 J	< 0.00400 U	< 0.0100 U	--	4.85	--	0.638	< 0.00200 U	< 0.00200 U	< 0.00400 U	< 4.41 U	< 4.41 U	< 4.41 U	25.7	852 J
MW-34	4/5/2017	REG	< 0.0500 U	0.00780 J	--	0.162 J	--	0.0612 J	1.84	< 0.0150 U	0.085	0.0454	< 1.50 U	< 1.50 U	< 1.50 U	244	1,340
MW-34	4/7/2017	REG	--	--	0.00340 J	--	--	--	--	--	--	--	--	--	--	--	--
MW-34	9/12/2017	REG	0.00215	< 0.00400 U	0.00300 J	--	4.72	--	2.42 J	< 0.00200 UJ	< 0.00200 UJ	< 0.00200 UJ	< 1.50 U	1.04 J	1.04 J	235	1,500
MW-34	3/16/2018	REG	0.00242	< 0.00400 U	< 0.0100 U	--	4.66	--	3.68	< 0.0200 U	< 0.0200 U	< 0.0200 U	7.24	2.4	9.64	455	1,470
MW-34	9/27/2018	REG	0.00186 J	< 0.00400 U	0.00470 J	--	5.28	--	0.599 D	< 0.00200 U	< 0.00200 U	< 0.00200 U	2.33	1.46 J	3.79	262	1,450
MW-34	4/2/2019	REG	0.00180 J	< 0.00400 U	< 0.0100 U	--	5.3	--	0.0989	0.000770 J	< 0.00200 U	< 0.00200 U	1.33 J	0.937 J	2.27	286	1,680
MW-34	10/2/2019	REG	0.00108 J	< 0.00400 U	< 0.0100 U	--	4.84	--	0.0642 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	2.17	1.18 J	3.35	302	1,710
MW-34	10/2/2019	FD	0.00107 J	< 0.00400 U	< 0.0100 U	--	4.7	--	0.0609 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	2.33	1.29 J	3.62	299	1,590
MW-34	3/18/2020	FD	0.00102 J	< 0.00400 U	< 0.0100 U	--	4.36 D	--	0.347	< 0.00200 U	0.000810 J	< 0.00200 U	1.55 J	1.68 J	3.23	311	1620
MW-34	3/18/2020	REG	0.00123 J	< 0.00400 U	< 0.0100 U	--	4.59 D	--	0.331	< 0.00200 U	0.000890 J	< 0.00200 U	1.60 J	1.82 J	3.42	308	1620
MW-34	9/22/2020	FD	0.000838 J	< 0.00400 U	< 0.0100 U	--	5.14	--	0.186 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	2.04 J	< 2.22 U	2.04 J	297	1530
MW-34	3/16/2021	REG	0.000866 J	< 0.00400 U	< 0.0100 U	--	5 D	--	0.0204	< 0.00200 U	< 0.00200 U	< 0.00200 U	3.00 B	1.04 J	4.04 BJ	282 X	1,900

GROUNDWATER ANALYTICAL RESULTS
EUNICE SOUTH GAS PLANT

		Parameter Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Barium	Manganese	Benzene	Toluene	Ethylbenzene	Xylene (total)	Petroleum Hydrocarbons (C6-C10)-GRO	Petroleum Hydrocarbons (C10-C28)-DRO	C6-C35 Petroleum Hydrocarbon Summary	Chloride	Total Dissolved Solids
		Report Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Domestic	0.01	0.05	0.05	1.0	2.0	0.2	0.005	1	0.7	0.62	--	--	--	250	1000
Location ID	Date Sampled	Sample Purpose															
MW-34	3/16/2021	FD	0.000884 J	< 0.00400 U	< 0.0100 U	--	4.96 D	--	0.0295 X F	< 0.00200 U X F	< 0.00200 U X F	< 0.00200 U	4.24 B	1.20 J	5.44 B J	298	2,150
MW-34	9/23/2021	REG	0.000802 J	< 0.00400 U	< 0.0100 U	--	4.69	--	0.0857 J	< 0.00200 U	< 0.00200 U	0.000900 J	<4.44 UJ	<4.44 UJ	<4.44 UJ	295	1550
MW-34	9/23/2021	FD	0.000958 J	< 0.00400 U	< 0.0100 U	--	4.72	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00400 U	< 4.48 U	< 4.48 U	< 4.48 U	25.6	1,710 J
MW-35	4/12/2017	REG	--	--	< 0.0100 U	--	0.046	--	0.000750 J	0.0044	< 0.00200 U	< 0.00200 U	2.28	1.77	4.05	1,810	3,300
MW-35	9/15/2017	REG	0.0293 J	< 0.00400 U	< 0.0100 U	--	0.163 J	--	< 0.00200 U	0.00455	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	941	2,090
MW-35	3/14/2018	REG	0.0184	< 0.00400 U	< 0.0100 U	--	0.0735	--	< 0.00200 U	0.00148 J	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	761	2,220
MW-35	9/27/2018	REG	0.0175	< 0.00400 U	< 0.0100 U	--	0.0802	--	< 0.00200 U	0.00130 J	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	331	1,120
MW-35	4/2/2019	REG	0.0166	0.000714 J	< 0.0100 U	--	0.0775	--	< 0.00200 U	0.000440 J	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	321	1,100
MW-35	10/1/2019	REG	0.0108	< 0.00400 U	< 0.0100 U	--	0.0875	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.38 U	< 1.38 U	< 1.38 U	243	1,020
MW-35	3/18/2020	REG	0.00963	< 0.00400 U	< 0.0100 U	--	0.104	--	0.000580 J	0.000470 J	< 0.00200 U	< 0.00200 U	< 2.19 U	< 2.19 U	< 2.19 U	167	955
MW-35	9/22/2020	REG	0.00942	< 0.00400 U	< 0.0100 U	--	0.122 J	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.19 U	< 2.19 U	< 2.19 U	167	937
MW-35	3/17/2021	REG	0.00828	< 0.00400 U	< 0.0100 U	--	0.107	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.27 U	< 2.27 U	< 2.27 U	158	958
MW-35	9/23/2021	REG	0.0110	< 0.00400 U	< 0.0100 U	--	0.104	--	0.00416	0.00611	0.000659 J	0.00415	< 4.50 U	< 4.50 U	< 4.50 U	133	943
MW-36	4/12/2017	REG	--	--	< 0.0100 U	--	0.0488	--	< 0.00200 U	0.0348	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	391	1,150
MW-36	9/15/2017	REG	0.00957 J	< 0.00400 U	< 0.0100 U	--	0.0627 J	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	393	1,350
MW-36	3/14/2018	REG	0.00978	< 0.00400 U	< 0.0100 U	--	0.0802	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	421	1,190
MW-36	9/26/2018	REG	0.01	< 0.00400 U	< 0.0100 U	--	0.102	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	426	1,200
MW-36	9/26/2018	FD	0.01	< 0.00400 U	< 0.0100 U	--	0.101	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	417	1,120
MW-36	4/2/2019	REG	0.0103	< 0.00400 U	< 0.0100 U	--	0.107	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	406	1,180
MW-36	10/1/2019	REG	0.00948	< 0.00400 U	< 0.0100 U	--	0.124	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.40 U	< 1.40 U	< 1.40 U	434	1,280
MW-36	3/17/2020	REG	0.00886	< 0.00400 U	< 0.0100 U	--	0.105	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.25 U	< 2.25 U	< 2.25 U	453	1270
MW-36	3/16/2021	REG	0.00856	< 0.00400 U	< 0.0100 U	--	0.115	--	< 0.00200 U	0.00241	< 0.00200 U	0.00165 J	< 2.28 UB	< 2.28 U	< 2.28 UB	439	1,370
MW-37	3/14/2018	REG	0.0118	< 0.00400 U	< 0.0100 U	--	0.127	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	318	1,000
MW-37	9/26/2018	REG	0.0105	< 0.00400 U	< 0.0100 U	--	0.201	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	327	1,010
MW-37	4/2/2019	REG	0.00678	< 0.00400 U	< 0.0100 U	--	0.223	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	336	1,100
MW-37	10/2/2019	REG	0.00595	< 0.00400 U	< 0.0100 U	--	0.192	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.38 U	< 1.38 U	< 1.38 U	314	1,060
MW-37	3/18/2020	REG	0.00797	< 0.00400 U	< 0.0100 U	--	0.287	--	0.000750 J	0.000370 J	< 0.00200 U	< 0.00200 U	< 2.22 U	0.888 J	0.888 J	318	1090
MW-37	3/16/2021	REG	0.0084	< 0.00400 U	< 0.0100 U	--	0.465	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	1.69 B J	< 2.25 U	1.69 B J	357	1,060
MW-38	3/14/2018	REG	0.0106	< 0.00400 U	< 0.0100 U	--	0.183	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	307 J	1,110
MW-38	3/14/2018	FD	0.0102	< 0.00400 U	< 0.0100 U	--	0.175	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	438 J	1,230
MW-38	9/26/2018	REG	0.0492	0.000709 J	< 0.0100 U	--	0.265	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	613	1,850
MW-38	4/2/2019	REG	0.0273	< 0.00400 U	< 0.0100 U	--	0.102	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	614	1,870
MW-38	10/2/2019	REG	0.0126	< 0.00400 U	< 0.0100 U	--	0.094	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.36 U	< 1.36 U	< 1.36 U	655	1,960
MW-38	3/18/2020	REG	0.00838	< 0.00400 U	< 0.0100 U	--	0.09	--	0.00104 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.18 U	< 2.18 U	< 2.18 U	772	2400
MW-38	9/22/2020	REG	0.00970	< 0.00400 U	< 0.0100 U	--	0.0718	--	0.00121 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.19 U	< 2.19 U	< 2.19 U	641	1960
MW-38	3/16/2021	REG	0.00874	< 0.00400 U	< 0.0100 U	--	0.0736	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.28 UB	< 2.28 U	< 2.28 UB	585	2,040
MW-38	9/23/2021	REG	0.00852	< 0.00400 U	< 0.0100 U	--	0.0732	--	0.000632 J	0.00115 J	< 0.00200 U	0.000671 J	< 4.42 U	< 4.42 U	< 4.42 U	52.7	1,880
MW-4	4/4/2017	REG	< 0.0500 U	< 0.0500 U	--	0.0629 J	--	1.14	0.00402	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,390	4,180
MW-4	4/7/2017	REG	--	--	< 0.0100 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	9/13/2017	REG	0.00758	< 0.00400 U	< 0.0100 U	--	0.0783	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,500	5,360
MW-4	3/15/2018	REG	0.00787	< 0.00400 U	< 0.0100 U	--	0.0796	--	0.00595	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,540	6,170
MW-4	9/27/2018	REG	0.00858	< 0.00400 U	< 0.0100 U	--	0.0803	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,620	4,350
MW-4	4/4/2019	REG	0.00818	0.00163 J	< 0.0100 U	--	0.062	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,830	4,970
MW-4	10/3/2019	REG	0.00848	< 0.00400 U	< 0.0100 U	--	0.0585	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	0.928 J	< 1.39 U	0.928 J	2,150	4,390
MW-4	10/3/2019	FD	0.00914	< 0.00400 U	< 0.0100 U	--	0.0534	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.38 U	< 1.38 U	< 1.38 U	2,130	4,240
MW-4	3/19/2020	REG	0.00985	< 0.0200 U	< 0.0100 U	--	0.0627	--	0.000470 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.19 U	< 2.19 U	< 2.19 U	2120	4460
MW-4	3/18/2021	REG	0.00981	< 0.00400 U	< 0.0100 U	--	0.0608	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	1.76 B J	< 2.26 U	1.76 B J	1,250	4,160
MW-6	4/4/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	0.0437 J	--	0.115	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	866	3,700
MW-7	4/4/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	0.265 J	--	1.08	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	95.7	1,050
MW-8	4/5/2017	REG	< 0.0500 U	< 0.0500 U	0.0067 J	0.0964 J	--	0.181	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	840	2,620
MW-8	4/5/2017	FD	< 0.0500 U	< 0.0500 U	0.0042 J	0.0918 J	--	0.194	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	851	2,460
MW-8	9/12/2017	REG	0.0408	< 0.00400 U	< 0.0100 U	--	0.04	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	782	3,300
MW-8	3/16/2018	REG	0.0344	< 0.00400 U	< 0.0100 U	--	0.0383	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,330	2,340
MW-8	9/28/2018	REG	0.0416	< 0.00400 U	< 0.0100 U	--	0.0484	--	0.00242	< 0.00200 U	< 0.00200 U	0.000930 J	< 1.50 U	< 1.50 U	< 1.50 U	592	2,160
MW-8	4/3/2019	REG	0.0519	0.00112 J	< 0.0100 U	--	0.0496	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	512	2,240
MW-8	10/3/2019	REG	0.034	< 0.00400 U	< 0.0100 U	--	0.0426	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.38 U	< 1.38 U	< 1.38 U	458	2,090
MW-8	3/18/2020	REG	0.0353	< 0.00400 U	< 0.0100 U	--	0.0607	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.24 U	< 2.24 U	< 2.24 U	423	2330
MW-8	3/17/2021	REG	0.0338	< 0.00400 U	< 0.0100 U	--	0.0648	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.25 U	< 2.25 U	< 2.25 U	506	2,520
MW-9	4/5/2017	REG	< 0.0500 U	< 0.0500 U	--	0.0551 J	--	0.307 J	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	453	1,650
MW-9	4/7/2017	REG	--	--	< 0.0100 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	9/12/2017	REG	0.0131	< 0.00400 U	< 0.0100 U	--	0.177	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	434	1,760
MW-9	3/16/2018	REG	0.0125	< 0.00400 U	< 0.0100 U	--	0.379	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	716	1,670
MW-9	9/27/2018	REG	0.0145	< 0.00400 U	< 0.0100 U	--	1.11	--	0.00122 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	360	1,470
MW-9	4/3/2019	REG	0.0107	0.00113 J	< 0.0100 U	--	4.79	--	0.00105 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	334	1,410
MW-9	10/3/2019	REG	0.00387 J	< 0.00400 U	< 0.0100 U	--	9.06	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	1.04 J	< 1.38 U	1.04 J	286	1,340
MW-9	3/18/2020	REG	0.00572	< 0.00400 U	< 0.0100 U	--	11.0 D	--	0.00370	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.24 U	< 2.24 U	< 2.24 U	276	1370
MW-9	3/16/2021	REG	0.00631	< 0.00400 U	< 0.0100 U X	--	11.6 D	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	2.49 B	< 2.24 U	2.49 B	241	1,430
MWD-1	4/6/2017	REG	0.0715	< 0.0500 U	< 0.0100 U	< 1.00 U	--	< 0.100 U	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	629	1,700
MWD-1	9/13/2017	REG	0.0514	0.00479	< 0.0100 U	--	0.0455	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	635	1,910
MWD-1	3/14/2018	REG	0.0483	0.00475	< 0.0100 U	--	0.0447	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	547	1,500
MWD-1	9/25/2018	REG	0.0485	0.00485	0.00360 J	--	0.0581	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	567	1,580
MWD-1	4/3/2019	REG	0.0544	0.00612	< 0.0100 U	--	0.0503	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	501	1,640
MWD-1	10/3/2019	REG	0.0501	0.00388 J	< 0.0100 U	--	0.0483	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.34 U	< 1.34 U	< 1.34 U	469	1,540
MWD-1	10/3/2019	FD	0.0507	0.00404	< 0.0100 U	--	0.0482	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.38 U	< 1.38 U	< 1.38 U	475	1,530
MWD-1	3/19/2020	REG	0.0543	0.00389 J	< 0.0100 U	--	0.0454	--	0.000840 J	0.000390 J	< 0.00200 U	< 0.00200 U	< 2.20 U	< 2.20 U	< 2.20 U	479	1590
MWD-1	3/18/2021	REG	0.0431	0.00330 J	< 0.0100 U	--	0.0554	--	< 0.00200 U	0.00127 J	< 0.00200 U	< 0.00200 U	< 2.26 UB	< 2.26 U	< 2.26 UB	536	1,590
MWD-11	4/5/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	< 1.00 U	--	< 0.100 U	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	91.6	722
MWD-11	9/15/2017	REG	0.0157 J	0.00142 J	0.00580 J	--	0.0520 J	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	101 J	758 J
MWD-11	9/15/2017	FD	0.0276 J	< 0.00400 U	< 0.0100 U	--	0.155 J	--	< 0.00200 U	0.00335	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,190 J	2,560 J
MWD-11	3/15/2018	REG	0.0142	0.00121 J	< 0.0100 U	--	0.0632	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	121	937

GROUNDWATER ANALYTICAL RESULTS
EUNICE SOUTH GAS PLANT

		Parameter Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Barium	Manganese	Benzene	Toluene	Ethylbenzene	Xylene (total)	Petroleum Hydrocarbons (C6-C10)-GRO	Petroleum Hydrocarbons (C10-C28)-DRO	C6-C35 Petroleum Hydrocarbon Summary	Chloride	Total Dissolved Solids
		Report Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Domestic	0.01	0.05	0.05	1.0	2.0	0.2	0.005	1	0.7	0.62	--	--	--	250	1000
Location ID	Date Sampled	Sample Purpose															
MWD-11	9/25/2018	REG	0.0184	0.00107 J	< 0.0100 U	--	0.0667	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	145	981
MWD-11	4/5/2019	REG	0.0198	0.00113 J	< 0.0100 U	--	0.0466	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	80.2	736
MWD-11	10/4/2019	REG	0.016	0.00135 J	0.00550 J	--	0.0486	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.38 U	< 1.38 U	< 1.38 U	112	801
MWD-11	3/18/2020	REG	0.0169	0.00151 J	< 0.0100 U	--	0.0488	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.31 U	< 2.31 U	< 2.31 U	96.6	753
MWD-11	3/17/2021	REG	0.0214	0.00145 J	< 0.0100 U	--	0.0496	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.24 U	< 2.24 U	< 2.24 U	90.2	683
MWD-12	4/6/2017	REG	0.0375 J	< 0.0500 U	0.00280 J	0.161 J	--	0.0977 J	0.048	< 0.00150 U	0.0745	0.00592	1.61	3.07	4.68	962	2,780
MWD-12	9/13/2017	REG	0.037	< 0.00400 U	< 0.0100 U	--	0.275	--	0.0271	< 0.00200 U	0.0834	0.00233	< 1.50 U	< 1.50 U	< 1.50 U	793	2,740
MWD-12	3/19/2018	REG	0.0321	< 0.00400 U	< 0.0100 U	--	0.245	--	0.00204	< 0.00200 U	0.0325	< 0.00200 U	1.04 J	< 1.50 U	1.04 J	1,020	2,480
MWD-12	9/27/2018	REG	0.0391	< 0.00400 U	< 0.0100 U	--	0.346	--	0.0049	0.000380 J	0.06	0.00176 J	1.01 J	1.15 J	2.16	1,080	2,760
MWD-12	4/3/2019	REG	0.0443	0.000870 J	< 0.0100 U	--	0.38	--	0.000460 J	< 0.00200 U	0.0109	< 0.00200 U	< 1.50 U	1.20 J	1.20 J	901	3,120
MWD-12	10/4/2019	REG	0.035	< 0.00400 U	< 0.0100 U	--	0.371	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.38 U	< 1.38 U	< 1.38 U	914	2,840
MWD-12	3/19/2020	REG	0.0389	< 0.00400 U	< 0.0100 U	--	0.296	--	0.00886	0.000500 J	0.0424	0.00428	< 2.17 U	1.70 J	1.70 J	1390	3280
MWD-12	9/22/2020	REG	0.0352	< 0.00400 U	< 0.0100 U	--	0.298 J	--	< 0.00200 U	< 0.00200 U	0.0516	0.00346	1.15 J	< 2.26 UJ	1.15 J	1550	3730
MWD-12	3/17/2021	REG	0.0429	< 0.00400 U	< 0.0100 U	--	0.314	--	0.00160 J	< 0.00200 U	0.0301	0.00636	< 2.23 U	0.930 J	0.930 J	918	3,070
MWD-12	9/22/2021	REG	0.044	< 0.00400 U	< 0.0100 U	--	0.374	--	< 0.0400 U	0.04 U	0.0952	< 0.00800 U	< 4.34 U	< 4.42 U	< 4.42 U	1,570	4,260
MWD-13	4/4/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	< 1.00 U	--	0.269	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,930	5,150
MWD-13	9/12/2017	REG	0.0294	0.000896 J	< 0.0100 U	--	0.0615	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,620	6,280
MWD-13	9/13/2017	REG	0.0145	< 0.00400 U	< 0.0100 U	--	0.12	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	331	1,170
MWD-13	3/15/2018	REG	0.0366	0.000814 J	< 0.0100 U	--	0.0555	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,450	5,470
MWD-13	9/27/2018	REG	0.0622	0.00149 J	< 0.0100 U	--	0.0885	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,410	6,330
MWD-13	4/3/2019	REG	0.0349	0.0102	< 0.0100 U	--	0.0781	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,880	5,180
MWD-13	10/3/2019	REG	0.062	0.00285 J	< 0.0100 U	--	0.0726	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.35 U	< 1.35 U	< 1.35 U	1,290	4,610
MWD-13	3/19/2020	REG	0.0359	0.00158 J	< 0.0100 U	--	0.0625	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.18 U	< 2.18 U	< 2.18 U	2230	5300
MWD-13	9/22/2020	REG	0.0670	0.00337 J	< 0.0100 U	--	0.0878 J	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.24 U	< 2.24 U	< 2.24 U	2250	6430
MWD-13	3/17/2021	REG	0.0526	0.00168 J	< 0.0100 U	--	0.0877	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.22 U	< 2.22 U	< 2.22 U	1,120	5,450
MWD-13	9/22/2021	REG	0.0693	0.00216 J	< 0.0100 U	--	0.112	--	< 0.0200 U	0.02 U	0.00657 U	< 0.00400 U	0.869 J	< 4.37 U	0.869 J	2,000	5,680
MWD-14	4/6/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	0.212 J	--	0.161 J	1.32	< 0.0150 U	0.337	0.0865	< 1.50 U	2.02	2.02	2,980	5,760
MWD-14	9/14/2017	REG	0.00292	0.000812 J	< 0.0100 U	--	0.532	--	2.6	0.0117	0.369	0.0303	1.59	< 1.50 U	1.59	1,210	4,090
MWD-14	3/19/2018	REG	0.00254	0.000705 J	< 0.0100 U	--	0.342	--	0.363	< 0.00200 U	0.0184	< 0.00200 U	3.18	< 1.50 U	3.18	8,000	11,400
MWD-14	9/28/2018	REG	0.000750 J	0.000714 J	< 0.0100 U	--	0.747	--	1.86 D	0.00177 J	0.306	0.0137	4.68	2.02	6.7	1,280	4,130
MWD-14	4/5/2019	REG	0.000809 J	0.000762 J	< 0.0100 U	--	0.436	--	0.981	< 0.0200 U	0.0709	< 0.0200 U	4.01	1.82	5.83	974	3,820
MWD-14	10/4/2019	REG	0.000588 J	0.000883 J	< 0.0100 U	--	0.808	--	1.18 DJ	< 0.00200 U	0.136 J	0.00904 J	3.43	< 1.35 U	3.43	595	2,900
MWD-14	3/19/2020	REG	0.000667 J	0.000833 J	< 0.0100 U	--	0.605	--	1.98 D	< 0.00200 U	0.152	0.00539	3.00	2.03 J	5.03	742	3410
MWD-14	9/23/2020	REG	0.000558 J	0.000723 J	< 0.0100 UJ	--	1.09	--	0.780 D	< 0.00200 U	0.0504	0.00496	3.07	< 2.19 U	3.07	426	3140
MWD-14	3/19/2021	REG	0.000648 J	0.00105 J	< 0.0100 U	--	0.982	--	0.845 D	0.000820 J	0.00184 J	0.00646	4.70 B	< 2.26 U	4.70 B	430	3,450
MWD-14	9/22/2021	REG	0.000558 J	0.000690 J	< 0.0100 U	--	0.807	--	0.701	0.04 U	0.0365 J	< 0.00800 U	< 4.53 U	< 4.53 U	< 4.53 U	586	2,670
MWD-15	4/6/2017	REG	< 0.0500 U	< 0.0500 U	0.00610 J	0.199 J	--	0.0899 J	0.0177	< 0.00150 U	0.0244	0.0585	2.2	< 1.50 U	2.2	< 25.0 U	3,390
MWD-15	9/14/2017	REG	0.0258	0.000651 J	0.00250 J	--	1.51	--	0.00598	< 0.00200 U	0.00262	0.0102	1.24 J	< 1.50 U	1.24 J	1,450	4,010
MWD-15	3/15/2018	REG	0.0182	< 0.00400 U	< 0.0100 U	--	1.26	--	0.00123 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	1.03 J	< 1.50 U	1.03 J	1,480	4,140
MWD-15	9/27/2018	REG	0.00653	< 0.00400 U	< 0.0100 U	--	2.41	--	0.00417 J	< 0.00200 U	0.00437 J	0.00479 J	1.43 J	< 1.50 U	1.43 J	1,440	3,200
MWD-15	4/4/2019	REG	0.00799	0.00207 J	< 0.0100 U	--	1.83	--	0.0132 J	< 0.00200 U	0.0179 J	0.0263 J	1.67	< 1.50 U	1.67	604 J	3,210
MWD-15	10/3/2019	REG	0.018	< 0.00400 U	< 0.0100 U	--	1.19	--	0.00443 J	< 0.00200 U	0.0146 J	0.0342 J	1.77	1.6	3.37	1,300	3,570
MWD-15	3/19/2020	REG	0.0117	< 0.0200 U	< 0.0100 U	--	1.79	--	< 0.00200 U	0.000470 J	< 0.00200 U	< 0.00200 U	< 2.14 U	0.834 J	0.834 J	1470	3470
MWD-15	9/22/2021	REG	0.00583	< 0.00400 U	< 0.0500 U	--	2.51	--	0.0138 J	0.04 U	< 0.00400 U	0.0167 J	< 4.46 U	< 4.46 U	< 4.46 U	1,250	3,230
MWD-17	4/4/2017	REG	0.0765	< 0.0500 U	--	0.0942 J	--	0.118	0.79	< 0.00750 U	0.145	0.0173	< 1.50 U	< 1.50 U	< 1.50 U	7,460	13,300
MWD-17	4/7/2017	REG	--	--	< 0.0100 U	--	--	--	--	--	--	--	--	--	--	--	--
MWD-17	3/15/2018	REG	0.0491	< 0.00400 U	< 0.0100 U	--	1.55	--	0.529	< 0.0100 U	0.0928	0.00450 J	2.3	< 1.50 U	2.3	8,690	14,600
MWD-17	4/3/2019	REG	0.0593	0.00396 J	< 0.0100 U	--	1.89	--	0.179	< 0.00200 U	0.014	0.0041	1.10 J	< 1.50 U	1.10 J	3,810	12,500
MWD-17	3/19/2020	REG	0.0490	< 0.0200 U	< 0.0500 U	--	2.23 D	--	0.0885	< 0.00200 U	0.00864	0.00331	< 2.14 U	0.974 J	0.974 J	5340	11600
MWD-17	3/18/2021	REG	0.0447	0.000810 J	< 0.0100 U	--	0.422	--	0.0120 J	0.000740 J	0.000970 J	0.00862 J	< 2.27 UB	< 2.27 U	< 2.27 UB	3,350	11,900
MWD-2	4/5/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	< 1.00 U	--	0.105	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,200	2,370
MWD-2	3/15/2018	REG	0.0102	< 0.00400 U	< 0.0100 U	--	0.0456	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,140	3,120
MWD-2	4/4/2019	REG	0.0088	0.00119 J	< 0.0100 U	--	0.0500	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	796 J	2,730
MWD-2	3/19/2020	REG	0.0100	0.000565 J	< 0.0100 U	--	0.0431	--	0.000410 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.24 U	< 2.24 U	< 2.24 U	857	2660
MWD-2	3/18/2021	REG	0.0104	< 0.00400 U	< 0.0100 U	--	0.0437	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	1.74 B J	<2.23 U	1.74 B J	711	2,600
MWD-3	2/28/2018	REG	--	--	--	--	--	--	--	--	--	--	--	--	--	38,700	45,900
MWD-3	3/15/2018	REG	0.0358	0.00196 J	< 0.0100 U	--	0.755	--	2.13	0.00770 J	0.0677	0.025	5.35	< 1.50 U	5.35	35,900	49,300
MWD-3	3/30/2018	REG	--	--	--	--	--	--	--	--	--	--	--	--	--	37,000	51,200
MWD-3	8/8/2018	REG	--	--	--	--	--	--	--	--	--	--	--	--	--	34,500	54,700
MWD-3	8/31/2018	REG	--	--	--	--	--	--	--	--	--	--	--	--	--	40,800	60,300
MWD-3	9/28/2018	REG	0.0335	0.00307 J	< 0.0100 U	--	0.671	--	2.40 D	0.0062	0.0575	0.0224	4.62	< 1.50 U	4.62	41,100	86,700
MWD-3	10/4/2019	REG	0.0297	0.00194 J	< 0.0100 U	--	0.753	--	1.97 D	0.00558	0.0662 J	0.033	5.55	< 1.34 U	5.55	44,800	57,700
MWD-3	3/19/2020	REG	0.0348 D	< 0.0200 U	< 0.0100 U	--	0.936 D	--	4.62 DJ	0.00533 J	0.0630 J	0.0249 J	4.61	0.942 J	5.55	36000	52000
MWD-3	9/22/2020	REG	0.0469	< 0.00400 U	< 0.0100 U	--	4.50 J	--	0.137	< 0.00200 U	< 0.00200 U	< 0.00200 U	1.32 J	< 2.23 UJ	1.32 J	7110	13000
MWD-3	3/18/2021	REG	0.0490	0.000579 J	< 0.0100 U	--	3.24 D	--	0.824 D	0.00127 J	0.000720	0.00578	3.80 B	<2.19 U	3.80 B	16,300	31,500
MWD-3	9/22/2021	REG	0.0985	0.000533 J	< 0.0100 U	--	5.79	--	1.29	0.04 U	< 0.00400 U	< 0.00800 U	< 4.25 U	< 4.25 U	< 4.53 U	19,300	34,300
MWD-4	4/4/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	0.105 J	--	0.608	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	45.5	872
MWD-4	9/12/2017	REG	0.00158 J	< 0.00400 U	0.00390 J	--	0.0522	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	48.4	1,290
MWD-4	3/15/2018	REG	0.00147 J	< 0.00400 U	< 0.0100 U	--	0.0573	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	29.4	1,110
MWD-4	9/27/2018	REG	0.00152 J	< 0.00400 U	< 0.0100 U	--	0.0698	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	56.3	992
MWD-4	4/3/2019	REG	0.00154 J	< 0.00400 U	< 0.0100 U	--	0.0655	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	57.1	1,360 J
MWD-4	4/3/2019	FD	0.00147 J	< 0.00400 U	< 0.0100 U	--	0.0655	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	59.9	5,610 J
MWD-4	10/3/2019	REG	0.00139 J	< 0.00400 U	< 0.0100 U	--	0.0593	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.38 U	< 1.38 U	< 1.38 U	49.5	1,220
MWD-4	3/19/2020	REG	0.00127 J	< 0.00400 U	< 0.0100 U	--	0.0554	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.14 U	< 2.14 U	< 2.14 U	39.6	1260
MWD-4	3/17/2021	REG	0.00212 J	< 0.00400 U	< 0.0100 U	--	0.0742	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.27 U	< 2.27 U	< 2.27 U	44.3	1,020
MWD-5	1/31/2017	REG	--	--	--	--	5.28	--	--	--	--	--	--	--	--	512	1,980
MWD-5	4/5/2017	REG	< 0.0500 U	< 0.0500 U	--	0.200 J	--	0.248 J	5.05	< 0.0750 U	< 0.100 U	0.0625 J	3.73	5.36	9.09	448	1,840
MWD-5	4/7/2017	REG	--	--	0.00480 J	--	--	--	--	--	--	--	--	--	--	--	--
MWD-5	3/15/2018	REG	0.0175	0.00649	< 0.0100 U	--	0.0728	--	0.0122	< 0.00200 U	< 0.00200 U	0.000710 J	< 1.50 U	< 1.50 U	< 1.50 U	16,700	28,500
MWD-5	4/3/2019	REG	0.0165	0.00105 J	< 0.0100 U	--	7.71	--	3.46	< 0.0500 U	< 0.0500 U	< 0.0500 U	12.9	1.7	14.6	708	2,090

GROUNDWATER ANALYTICAL RESULTS
EUNICE SOUTH GAS PLANT

		Parameter Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Barium	Manganese	Benzene	Toluene	Ethylbenzene	Xylene (total)	Petroleum Hydrocarbons (C6-C10)-GRO	Petroleum Hydrocarbons (C10-C28)-DRO	C6-C35 Petroleum Hydrocarbon Summary	Chloride	Total Dissolved Solids
		Report Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Domestic	0.01	0.05	0.05	1.0	2.0	0.2	0.005	1	0.7	0.62	--	--	--	250	1000
Location ID	Date Sampled	Sample Purpose															
MWD-5	3/18/2020	REG	0.0148	< 0.0400 U	< 0.0100 U	--	7.58 D	--	6.82 D	0.00158 J	0.0103	0.0100	10.5	3.30	13.8	598	7900
MWD-5	3/16/2021	REG	0.0154	< 0.00400 U	< 0.0100 U	--	8.10 D	--	6.02 D	< 0.00200 U	0.00724	0.00601	12.80 B	2.07 J	14.87 B J	502	2,140
MWD-6	4/5/2017	REG	< 0.0500 U	< 0.0500 U	--	0.106 J	--	0.239 J	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	< 5.00 U	1,260
MWD-6	4/7/2017	REG	--	--	< 0.0100 U	--	--	--	--	--	--	--	--	--	--	--	--
MWD-6	9/13/2017	REG	0.00345	< 0.00400 U	< 0.0100 U	--	1.5	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	183	1,310
MWD-6	3/16/2018	REG	0.0069	< 0.00400 U	< 0.0100 U	--	2.45	--	0.00112 J	< 0.00200 UJ	< 0.00200 UJ	0.000680 J	< 1.50 U	< 1.50 U	< 1.50 U	172	1,370
MWD-6	9/27/2018	REG	0.00238 J	< 0.00400 U	< 0.0100 U	--	3.74	--	0.0043	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	209	1,250
MWD-6	4/2/2019	REG	0.00474	< 0.00400 U	< 0.0100 U	--	3.77	--	0.00214	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	202	1,220
MWD-6	10/2/2019	REG	0.00234 J	< 0.00400 U	< 0.0100 U	--	2.87	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	0.966 J	< 1.35 U	0.966 J	184	1,250
MWD-6	3/18/2020	REG	0.00757	< 0.00400 U	< 0.0100 U	--	1.75	--	0.00766	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.25 U	< 2.25 U	< 2.25 U	193	1240
MWD-6	3/16/2021	REG	0.00623	< 0.00400 U	< 0.0100 U	--	0.838	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	1.82 B J	<2.21 U	1.82 B J	160	1,100
MWD-7	4/4/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	< 1.00 U	--	0.324	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	5,130	9,590
MWD-7	9/13/2017	REG	0.0146	0.00116 J	< 0.0100 U	--	0.0381	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	5,900	10,400
MWD-7	3/14/2018	REG	0.0146	< 0.00400 U	< 0.0100 U	--	0.0393	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	6,080	11,000
MWD-7	9/25/2018	REG	0.0158	0.000919 J	< 0.0100 U	--	0.0405	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	6,740	10,600
MWD-7	4/3/2019	REG	0.015	0.00339 J	< 0.0100 U	--	0.0442	--	0.000410 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	3,970	9,440
MWD-7	10/3/2019	REG	0.0153	0.00169 J	< 0.0100 U	--	0.0429	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.38 U	< 1.38 U	< 1.38 U	6,470	9,590
MWD-7	3/19/2020	REG	0.0156	< 0.0200 U	< 0.0100 U	--	0.0409	--	0.000510 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.16 U	< 2.16 U	< 2.16 U	5590	10600
MWD-7	3/17/2021	REG	0.0153	0.000562 J	< 0.0100 U	--	0.0474	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.17 U	<2.17 U	< 2.17 U	3,870	10,900
MWD-8	4/4/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	< 1.00 U	--	< 0.100 U	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	177	540
MWD-8	9/13/2017	REG	0.0141	0.000796 J	< 0.0100 U	--	0.0503	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	220	884
MWD-8	3/15/2018	REG	0.0155	0.000951 J	< 0.0100 U	--	0.0498	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	136	663
MWD-8	9/25/2018	REG	0.0159	0.000875 J	< 0.0100 U	--	0.0527	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	103	658
MWD-8	4/4/2019	REG	0.0171	0.00173 J	< 0.0100 U	--	0.047	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	118 J	933
MWD-8	10/3/2019	REG	0.0181	0.00111 J	< 0.0100 U	--	0.0433	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.37 U	< 1.37 U	< 1.37 U	105	565
MWD-8	3/19/2020	REG	0.0185	0.000971 J	< 0.0100 U	--	0.0463	--	< 0.00200 U	0.000450 J	< 0.00200 U	< 0.00200 U	< 2.21 U	0.845 J	0.845 J	95.4	690
MWD-8	3/18/2021	REG	0.0230	0.00154 J	< 0.0100 U	--	0.0435	--	0.000750 J	0.00330	<0.00200 U	0.00389	< 2.25 UB	<2.25 U	< 2.25 UB	363	683
MWD-9	4/4/2017	REG	< 0.0500 U	< 0.0500 U	--	< 1.00 U	--	0.629	0.0201	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	18,700	33,300
MWD-9	4/7/2017	REG	--	--	< 0.0100 U	--	--	--	--	--	--	--	--	--	--	--	--
MWD-9	9/14/2017	REG	0.0172	0.00738	< 0.0100 U	--	0.0675	--	0.0533	0.000670 J	0.00207	0.00218	< 1.50 U	< 1.50 U	< 1.50 U	19,300	32,800
MWD-9	2/28/2018	REG	--	--	--	--	--	--	--	--	--	--	--	--	--	18,000	21,200
MWD-9	3/19/2018	REG	0.0112	< 0.00400 U	< 0.0100 U	--	4.73	--	1.19	< 0.0100 U	0.00465 J	0.00690 J	5.62	3.94	9.56	635	2,160
MWD-9	8/8/2018	REG	--	--	--	--	--	--	--	--	--	--	--	--	--	14,700	26,500
MWD-9	8/31/2018	REG	--	--	--	--	--	--	--	--	--	--	--	--	--	15,700	27,800
MWD-9	9/28/2018	REG	0.0207	0.00694	< 0.0100 U	--	0.0705	--	0.0179	< 0.00200 U	< 0.00200 U	0.000930 J	< 1.50 U	< 1.50 U	< 1.50 U	16,400	28,100
MWD-9	4/4/2019	REG	0.0192	0.00931	0.00760 J	--	0.0717	--	0.0161	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	17,000	28,800
MWD-9	10/4/2019	REG	0.0184	0.00569	< 0.0100 U	--	0.0755	--	0.0119 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.33 U	< 1.33 U	< 1.33 U	15,000	26,800
RW-6	4/6/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	0.203 J	--	0.111 J	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	396	2,040
RW-6	9/14/2017	REG	0.0652	0.000638 J	< 0.0100 U	--	1.5	--	3.09	0.0158	0.104	0.0899	2.91	4.86	7.77	337	1,600
RW-6	3/15/2018	REG	0.00233	< 0.00400 U	< 0.0100 U	--	0.498	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	675	2,540
RW-6	9/27/2018	REG	0.00266 J	< 0.00400 U	< 0.0100 U	--	0.713	--	0.000470 J	< 0.00200 U	< 0.00200 U	0.000740 J	< 1.50 U	< 1.50 U	< 1.50 U	790	2,150
RW-6	4/4/2019	REG	0.00211 J	0.00216 J	< 0.0100 U	--	0.927	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	0.00215	< 1.50 U	< 1.50 U	< 1.50 U	715	2,470
RW-6	10/4/2019	REG	0.00266 J	0.000681 J	< 0.0100 U	--	1.53	--	0.00986 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	1.23 J	< 1.38 U	1.23 J	876	2,360
RW-6	3/19/2020	REG	0.00358 J	< 0.00400 U	< 0.0100 U	--	1.74	--	0.00270	0.000410 J	< 0.00200 U	0.00550	1.03 J	< 2.12 U	1.03 J	1040	2720
RW-6	3/19/2020	REG	0.0100	0.00136 J	< 0.0100 U	--	0.0870	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.04 U	< 2.04 U	< 2.04 U	4820	9060
RW-6	9/22/2020	REG	0.00287 J	< 0.00400 U	< 0.0100 U	--	1.71 J	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	0.00485	1.61 J	< 2.22 UJ	1.61 J	1070	2660
RW-6	3/17/2021	REG	0.00300 J	< 0.00400 U	< 0.0100 U	--	1.75	--	0.0424 J	0.00122 J	0.001000 J	0.0143 J	2.36	<2.31 U	2.36	929	2,570
RW-6	9/21/2021	REG	0.00358 J	< 0.00400 U	< 0.0100 U	--	1.58	--	< 0.0200 U	0.002 U	< 0.00400 U	< 0.00400 U	1.83 J	1.38 J	1.38 J	872	2,450
RW-7	4/6/2017	REG	< 0.0500 U	< 0.0500 U	< 0.0100 U	< 1.00 U	--	0.610 J	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	5,180 J	10,000 J
RW-7	4/6/2017	FD	< 0.0500 U	< 0.0500 U	0.00540 J	< 1.00 U	--	0.0547 J	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,730 J	5,750 J
RW-7	9/14/2017	REG	0.00754	0.000949 J	< 0.0100 U	--	0.0738	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	4,740	9,050
RW-7	3/15/2018	REG	0.00955	0.000882 J	< 0.0100 U	--	0.0712	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	4,780 J	7,340 J
RW-7	3/15/2018	FD	0.00874	0.00120 J	< 0.0100 U	--	0.0651	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,400 J	4,890 J
RW-7	9/27/2018	REG	0.0104	0.00125 J	< 0.0100 U	--	0.0692	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	5,250	9,190
RW-7	4/4/2019	REG	0.0106	0.00225 J	< 0.0100 U	--	0.0914	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,750	8,390 J
RW-7	4/4/2019	FD	0.00909	0.00212 J	< 0.0100 U	--	0.0723	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	2,080	4,740 J
RW-7	10/4/2019	REG	0.00847	0.00105 J	< 0.0100 U	--	0.083	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.40 U	< 1.40 U	< 1.40 U	4,400	5,270
RW-7	3/19/2021	REG	0.00892	0.000823 J	< 0.0100 U	--	0.104 D	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	1.82 B J	<2.22 U	1.82 B J	1,620	8,590
RW-8	4/4/2017	REG	< 0.0500 U	< 0.0500 U	--	0.26 J	--	0.369	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,220	2,510
RW-8	4/7/2017	REG	--	--	< 0.0100 U	--	--	--	--	--	--	--	--	--	--	--	--
RW-8	3/15/2018	REG	0.0409	< 0.00400 U	< 0.0100 U	--	0.0938	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	1,260	3,530
RW-8	4/4/2019	REG	0.0139	0.00167 J	< 0.0100 U	--	0.0981	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	0.000990 J	< 1.50 U	< 1.50 U	< 1.50 U	756 J	2,690
RW-8	3/19/2020	REG	0.0284	< 0.00400 U	< 0.0100 U	--	0.219	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	0.00164 J	< 2.23 U	< 2.23 U	< 2.23 U	1190	2660
RW-8	3/18/2021	REG	0.0319	< 0.00400 U	< 0.0100 U	--	0.126	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	2.08 B J	<2.23 U	2.08 B J	977 X	2,460
TMW-1	4/7/2017	REG	< 0.0500 U	< 0.0500 U	0.0125	0.442 J	--	1.18	0.00559	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	757	1,970
TMW-1	4/7/2017	FD	< 0.0500 U	0.00707 J	0.0116	0.342 J	--	1.15	0.00529	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	712	1,720
TMW-1	9/13/2017	REG	0.0195	0.000722 J	< 0.0100 U	--	2.83	--	0.0316	< 0.00200 U	0.00142 J	0.00353	< 1.50 U	< 1.50 U	< 1.50 U	685	1,600
TMW-1	3/15/2018	REG	0.0212	< 0.00400 U	< 0.0100 U	--	2.61	--	0.00186 J	< 0.00200 U	< 0.00200 U	0.00131 J	< 1.50 U	< 1.50 U	< 1.50 U	608	1,450
TMW-1	9/27/2018	REG	0.0183	< 0.00400 U	0.0107	--	2.19	--	0.108	< 0.00200 U	0.00356	0.0208	< 1.50 U	< 1.50 U	< 1.50 U	600	1,320
TMW-1	4/5/2019	REG	0.0167	< 0.00400 U	< 0.0100 U	--	2.03	--	0.032	< 0.00200 U	0.00524	0.0123	< 1.50 U	< 1.50 U	< 1.50 U	450	1,320
TMW-1	4/5/2019	FD	0.0169	< 0.00400 U	< 0.0100 U	--	2.08	--	0.0308	< 0.00200 U	0.00475	0.0119	< 1.50 U	< 1.50 U	< 1.50 U	503	1,310
TMW-1	10/4/2019	REG	0.0184	< 0.00400 U	< 0.0100 U	--	1.14	--	0.00589 J	< 0.00200 U	< 0.00200 U	0.00557 J	< 1.41 U	< 1.41 U	< 1.41 U	537	1,430
TMW-1	3/19/2020	FD	0.0187	< 0.00400 U	< 0.0100 U	--	1.12	--	0.0186	< 0.00200 U	0.00501	0.00916	< 2.22 U	< 2.22 U	< 2.22 U	531	1480
TMW-1	3/19/2020	REG	0.0178	< 0.00400 U	< 0.0100 U	--	1.14	--	0.0188	< 0.00200 U	0.00525	0.00985	< 2.18 U	< 2.18 U	< 2.18 U	518	1430
TMW-1	3/17/2021	REG	0.0228	< 0.00400 U	< 0.0100 U	--	1.22	--	0.00291	0.000970 J	0.0117	0.00861	< 2.24 U	<2.24 U	< 2.24 U	533	1,370
TMW-1	3/17/2021	FD	0.0234	< 0.00400 U	< 0.0100 U	--	1.24	--	0.00292	0.000910 J	0.0104	0.00756	< 2.26 U	<2.26 U	< 2.26 U	536	1,780
TMW-3	4/6/2017	REG	< 0.0500 U	< 0.0500 U	0.00630 J	0.470 J	--	0.491 J	0.00689	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	325	1,130
TMW-6	4/6/2017	REG	0.0460 J	0.00768 J	0.00780 J	0.280 J	--	0.0301 J	0.446	< 0.00750 U	< 0.0100 U	< 0.0100 U	1.53	3.18	4.71	318	1,260
TMW-6	9/14/2017	REG	0.00275	< 0.00400 U	< 0.0100 U	--	0.515	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	519	2,640
TMW-6	3/19/2018	REG	0.0453	< 0.00400 U	< 0.0100 U	--	1.02	--	0.111	0.00235	0.00112 J	< 0.00200 U	3.58	2.71	6.29	332	1,490

GROUNDWATER ANALYTICAL RESULTS
EUNICE SOUTH GAS PLANT

		Parameter Name	Arsenic	Chromium	Chromium, Hexavalent	Iron	Barium	Manganese	Benzene	Toluene	Ethylbenzene	Xylene (total)	Petroleum Hydrocarbons (C6-C10)-GRO	Petroleum Hydrocarbons (C10-C28)-DRO	C6-C35 Petroleum Hydrocarbon Summary	Chloride	Total Dissolved Solids
		Report Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		NMWQCC Domestic	0.01	0.05	0.05	1.0	2.0	0.2	0.005	1	0.7	0.62	--	--	--	250	1000
Location ID	Date Sampled	Sample Purpose															
TMW-6	4/5/2018	REG	0.0606	< 0.00400 U	< 0.0100 U	5.18	--	0.0466	0.23	0.00427	0.00221	< 0.00200 U	2.9	3.52	6.42	336	1,670
TMW-6	9/28/2018	REG	0.0779	< 0.00400 U	< 0.0100 U	--	1.23	--	0.22	0.00642	0.011	0.00707	3.86	2.86	6.72	356	1,490
TMW-6	9/28/2018	FD	0.0748	< 0.00400 U	< 0.0100 U	--	1.36	--	0.208	0.00468	0.00915	0.00688	3.64	2.2	5.84	351	1,450
TMW-6	4/5/2019	REG	0.0647	< 0.00400 U	< 0.0100 U	--	1.98	--	0.104	< 0.0200 U	0.0425	< 0.0200 U	3.72	2.5	6.22	236	1,430
TMW-6	10/4/2019	REG	0.0671	< 0.00400 U	< 0.0100 U	--	1.1	--	0.0381	< 0.00200 U	0.00828 J	0.0056	2.71	2.05	4.76	312	1,450
TMW-6	3/20/2020	REG	0.0711	0.000609 J	< 0.0100 U	--	1.09	--	0.0221	< 0.00200 U	0.000960 J	0.00129 J	1.48 J	1.93 J	3.41	305	1400
TMW-6	3/19/2021	REG	0.0741	0.000700 J	< 0.0100 U	--	0.744	--	0.0367	0.000420 J	0.00446	0.00550	3.86 UB	1.23 J	5.09 B J	163	1,340
WW-2	4/5/2017	REG	< 0.0500 U	< 0.0500 U	--	< 1.00 U	--	0.0806 J	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	352 J	546
WW-2	4/7/2017	REG	--	--	< 0.0100 U	--	--	--	--	--	--	--	--	--	--	--	--
WW-2	3/16/2018	REG	0.00100 J	< 0.00400 U	< 0.0100 U	--	1.5	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	351	616
WW-2	4/4/2019	REG	0.000970 J	0.000822 J	< 0.0100 U	--	0.418	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	125 J	477
WW-2	3/19/2020	REG	0.000628 J	< 0.00400 U	< 0.0100 U	--	1.86	--	0.000970 J	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.15 U	< 2.15 U	< 2.15 U	2450	3640
WW-2	3/16/2021	REG	0.000734 J	< 0.00400 U	< 0.0100 U	--	2.05 D	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	2.04 B J	<2.24 U	2.04 B J	2,460	3,340
WW-3	4/7/2017	REG	< 0.0500 U	< 0.0500 U	0.0105	0.240 J	--	0.211	0.0403	< 0.00150 U	0.00501	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	207	468
WW-7	4/4/2017	REG	< 0.0500 U	< 0.0500 U	--	< 1.00 U	--	0.389	< 0.00200 U	< 0.00150 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	270 J	458
WW-7	4/7/2017	REG	--	--	< 0.0100 U	--	--	--	--	--	--	--	--	--	--	--	--
WW-7	3/16/2018	REG	0.000628 J	< 0.00400 U	< 0.0100 U	--	0.368	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	251	500
WW-7	4/4/2019	REG	0.000970 J	0.00127 J	< 0.0100 U	--	1.51	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 1.50 U	< 1.50 U	< 1.50 U	332 J	640
WW-7	3/18/2020	REG	0.000661 J	< 0.00400 U	< 0.0100 U	--	0.448	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 2.17 U	< 2.17 U	< 2.17 U	238	459
WW-7	3/16/2021	REG	0.000637 J	< 0.00400 U	< 0.0100 U	--	0.489	--	< 0.00200 U	< 0.00200 U	< 0.00200 U	< 0.00200 U	2.10 B J	<2.23 U	2.10 B J	257	410

APPENDIX G

2021 Mann-Kendall Analysis

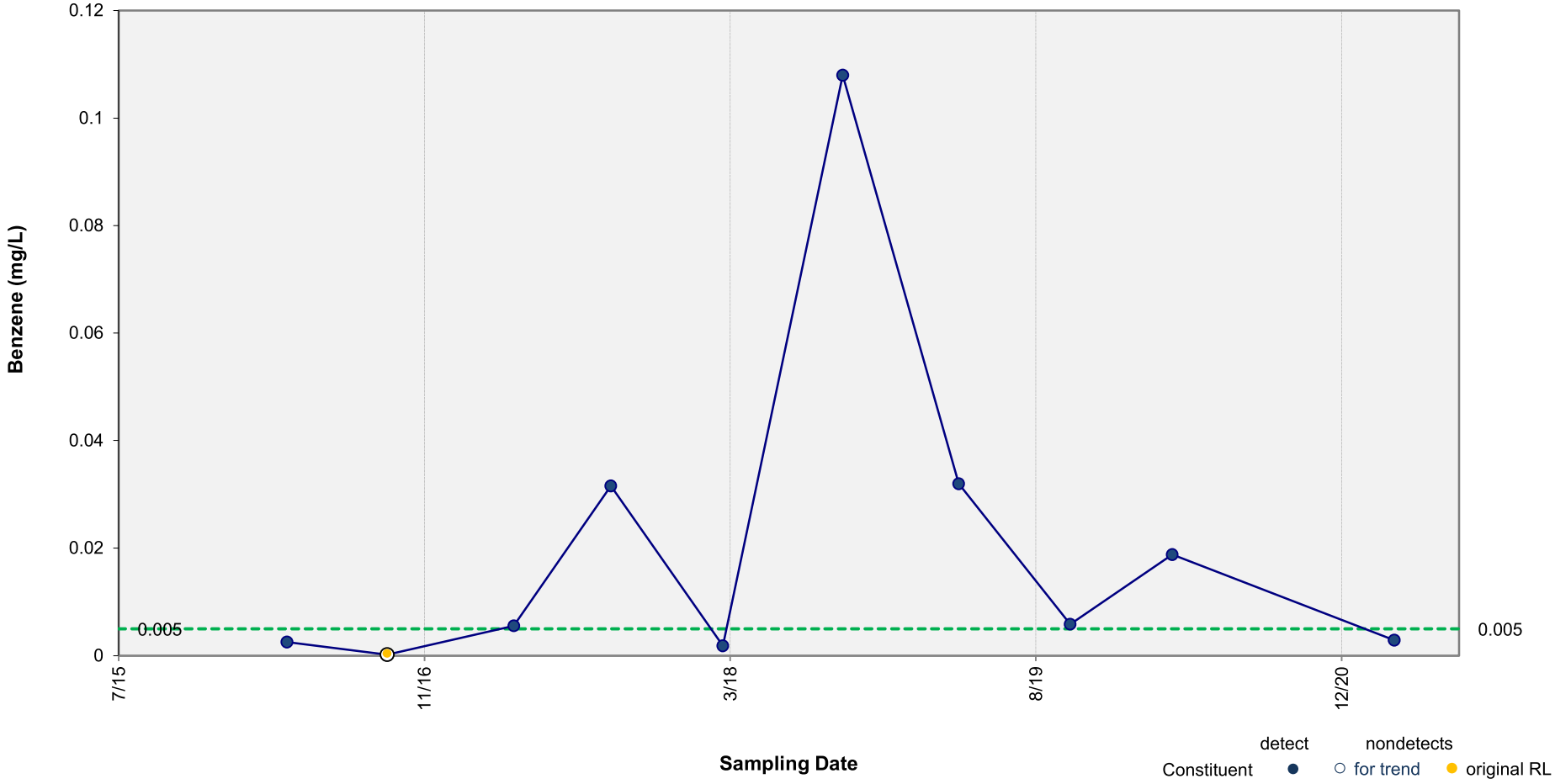
Table G-1. Mann-Kendall Trend Analysis Summary
Appendix G. 2021 Mann-Kendall Analysis
2021 Annual Groundwater Monitoring Report
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

ARCADIS Design & Consultancy for natural and built assets

Constituent	Monitoring Well	NMWQCC Standard (mg/L)	Start Date	End Date	Summary Statistics						Mann-Kendall			
					n	% ND	Minimum Concentration (mg/L)	Maximum Concentration (mg/L)	Most Recent Concentration (mg/L)	CV[1]	S-Statistic	p-value	Trend Determination	Significance[2]
Benzene	**Northern Plume Fringe (onsite)**													
	TMW-1	0.005	4/1/2016	3/17/2021	10	11	< 0.000408	0.108	0.00291	1.6	11	0.19	No Trend	NS
	Central Plume (onsite)													
	MW-26	0.005	4/1/2016	9/22/2021	12	0	0.577	1.79	0.766	0.3	-28	0.032	Decreasing	Significant
	Eastern Plume (onsite)													
	MWD-14	0.005	4/1/2016	9/22/2021	12	0	0.363	2.6	0.701	0.5	-12	0.23	Stable	NS
	MWD-17	0.005	3/31/2016	3/18/2021	7	0	0.012	0.957	0.012	0.8	-17	< 0.01	Decreasing	Significant
	Southern Plume Fringe (onsite)													
	MW-32 (since 2017)	0.005	9/13/2017	9/22/2021	9	0	0.34	14.7	0.638	0.9	-28	< 0.01	Decreasing	Significant
	MW-29 (since 2017)	0.005	9/12/2017	9/22/2021	9	0	0.0584	1.6	0.0584	1.4	-24	< 0.01	Decreasing	Significant
Chloride	**Western Plume Fringe (offsite)**													
	MW-35	250	4/12/2017	9/23/2021	10	0	133	1,810	133	1.1	-44	< 0.01	Decreasing	Significant
	Western Plume (onsite)													
	TMW-1	250	4/1/2016	3/17/2021	10	0	450	761	533	0.2	-35	< 0.01	Decreasing	Significant
	MW-26	250	4/1/2016	9/22/2021	12	0	139	285	160	0.2	-18	0.12	Stable	NS
	Central Plume (onsite)													
	MWD-14	250	4/1/2016	9/22/2021	12	0	426	8,000	586	1.1	-46	< 0.01	Decreasing	Significant
	MW-32	250	3/31/2016	9/22/2021	12	0	435	1,120	613	0.4	-34	0.011	Decreasing	Signficant
	MW-29	250	3/31/2016	9/22/2021	12	0	101	352	317	0.5	58	< 0.01	Increasing	Significant
	Eastern Plume Fringe (offsite)													
	MWD-7	250	3/31/2016	3/17/2021	10	0	3,870	7,210	3,870	0.2	-7	0.30	Stable	NS
	MW-15	250	3/30/2016	9/21/2021	12	0	968	2,320	1,440	0.2	-19	0.11	Stable	NS
	MW-15 (since 2018)	250	9/25/2018	9/21/2021	7	0	968	2,320	1,440	0.3	-17	< 0.01	Decreasing	Significant
	Southern Plume Fringe (offsite)													
	MW-38	250	3/14/2018	9/23/2021	8	0	52.7	772	52.7	0.4	0	0.55	Stable	NS
	MW-36	250	4/12/2017	3/16/2021	8	0	391	453	439 X	0.1	22	< 0.01	Increasing	Significant
	MW-37	250	3/14/2018	3/16/2021	6	0	314	357	357	0.05	4	0.30	Stable	NS

Notes:
[1] Non-detect values taken at the reporting limit for CV calculation
[2] p-value <0.1 indicates a statistically significant trend (90% confidence level).

Acronyms:
< - less than
% - percent
CV - coefficient of variation
mg/L - milligrams per liter
ND - nondetect
NMWQCC - New Mexico Water Quality Control Commission
NS - not significant
X - QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical



Results of Mann-Kendall Test for Trend: **No Significant Trend**

p value = 0.190 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

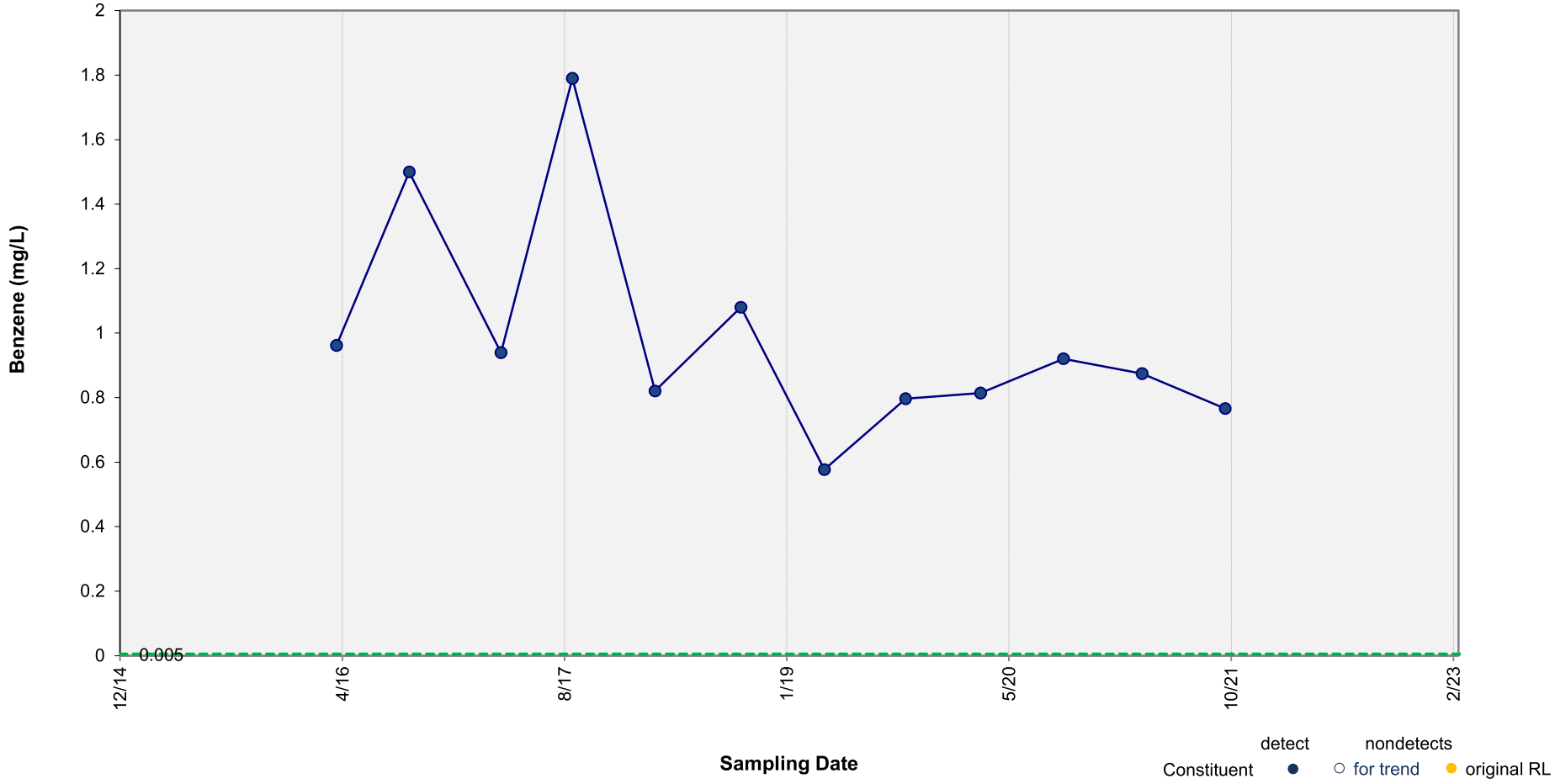
ARCADIS

Concentration vs. Time Plot - Benzene in TMW-1

Eunice South

Figure G-1

MK Trends_TMW-1_Benzene_HS



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

p value = 0.032 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

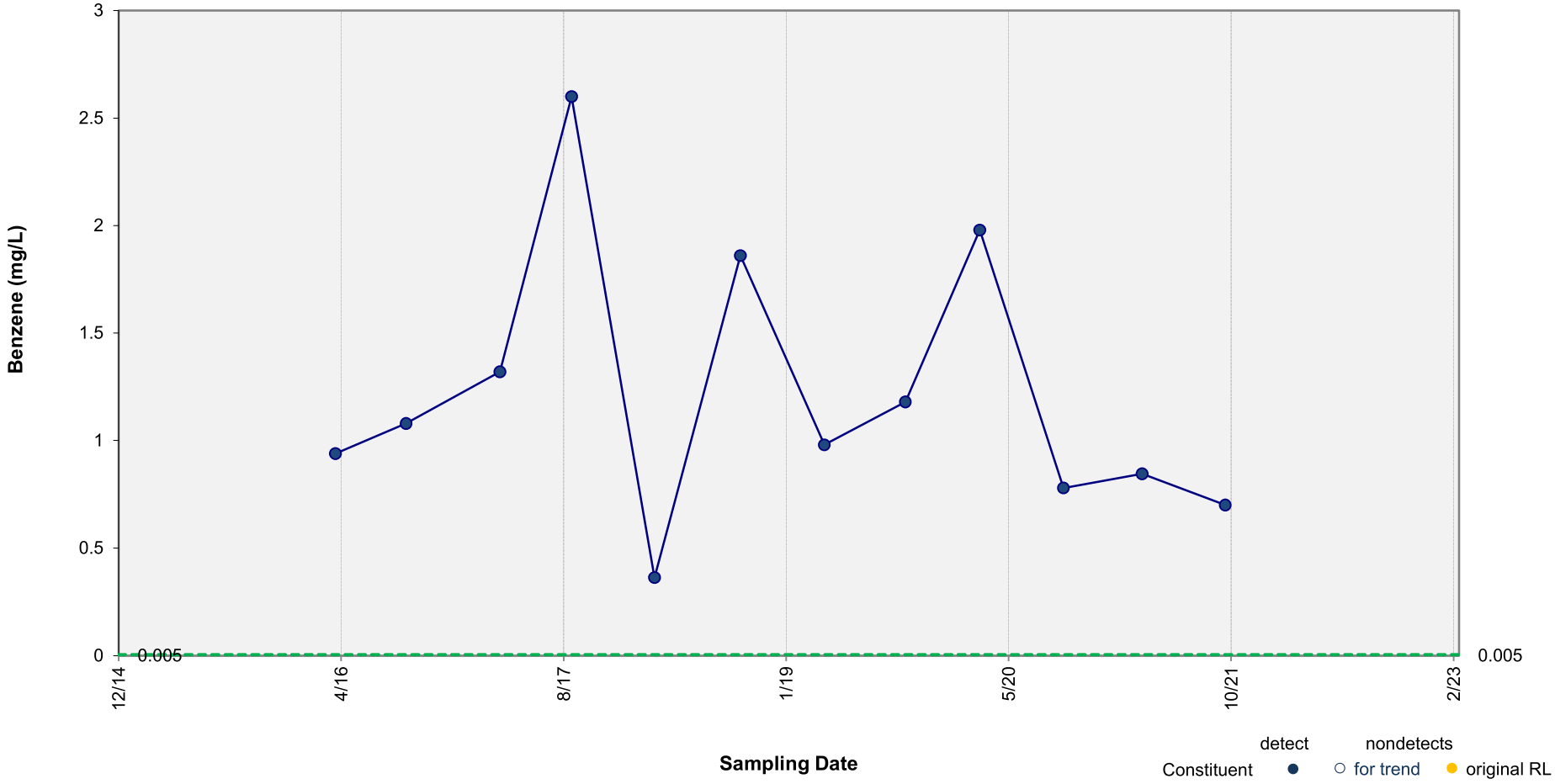
ARCADIS

Concentration vs. Time Plot - Benzene in MW-26

Eunice South

Figure G-2

MK Trends_MW-26_Benzene_HS



Results of Mann-Kendall Test for Trend: **Stable**

p value = 0.225 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

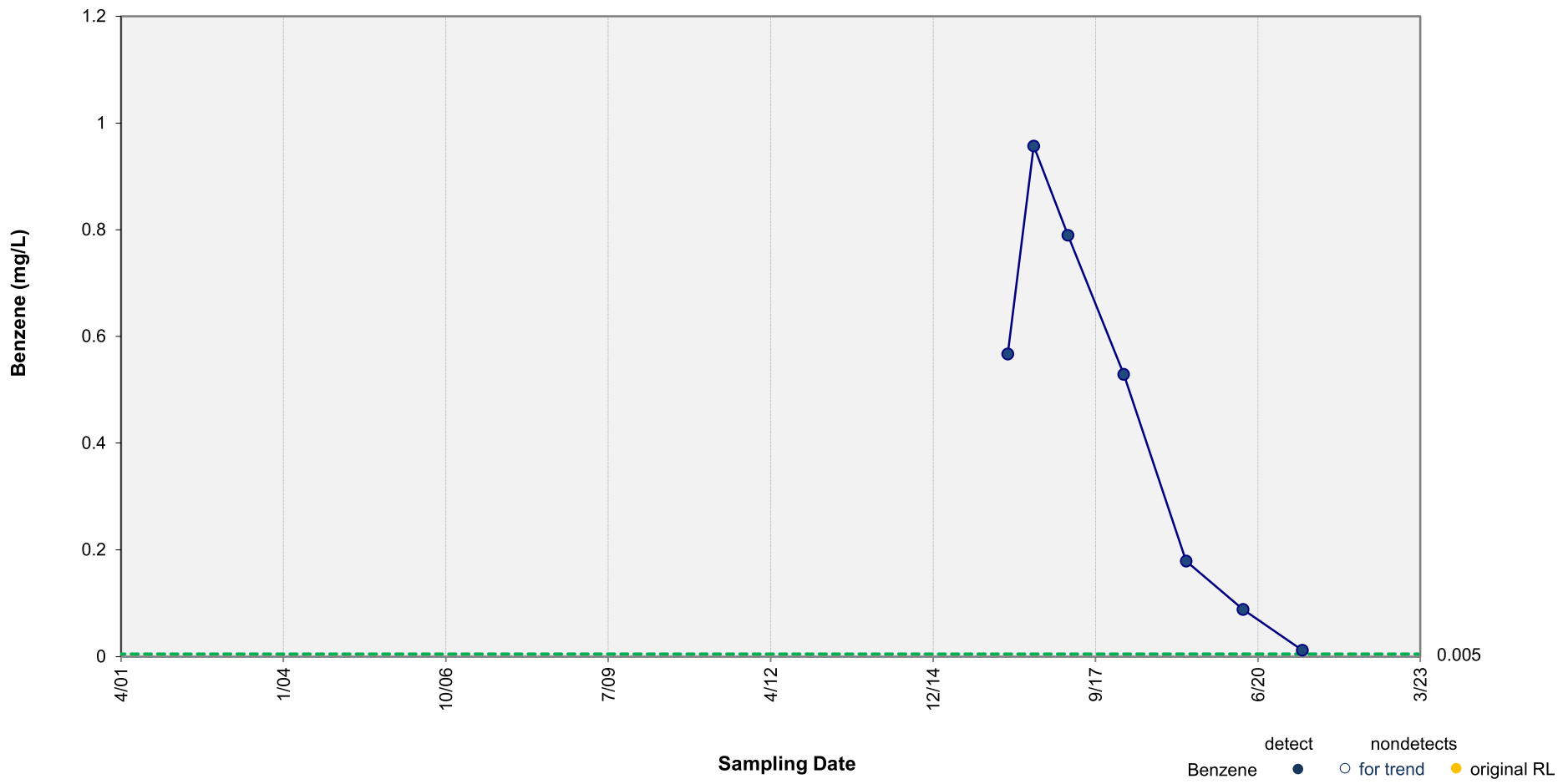
ARCADIS

Concentration vs. Time Plot - Benzene in MWD-14

Eunice South

Figure G-3

MK Trends_MWD-14_Benzene_HS



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

p value = 0.005 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

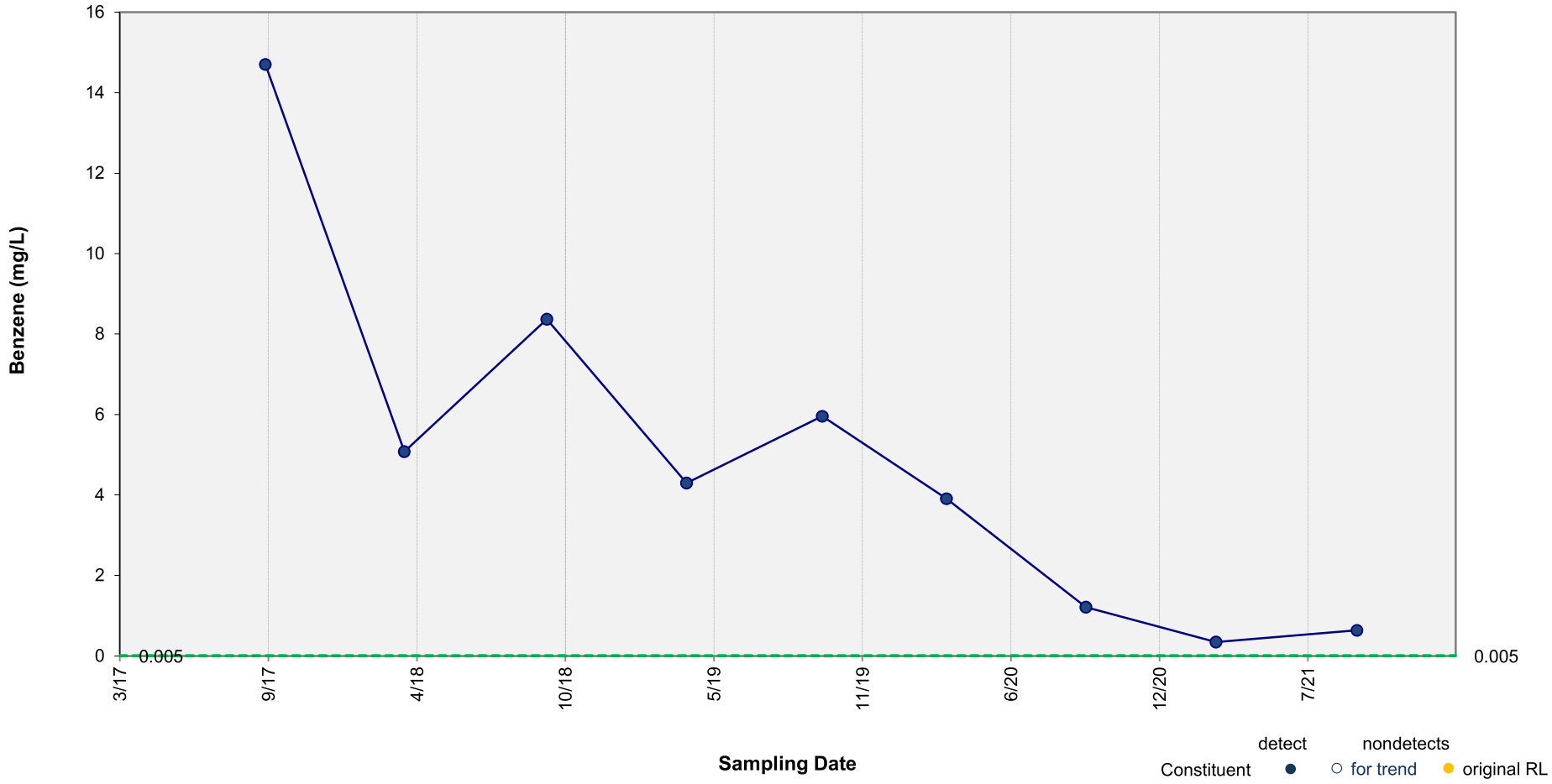
ARCADIS

Concentration vs. Time Plot – Benzene in Well MWD-17

Eunice South

Figure G-4

MK Trends_MWD-17_Benzene_HS



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

p value = 0.001 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

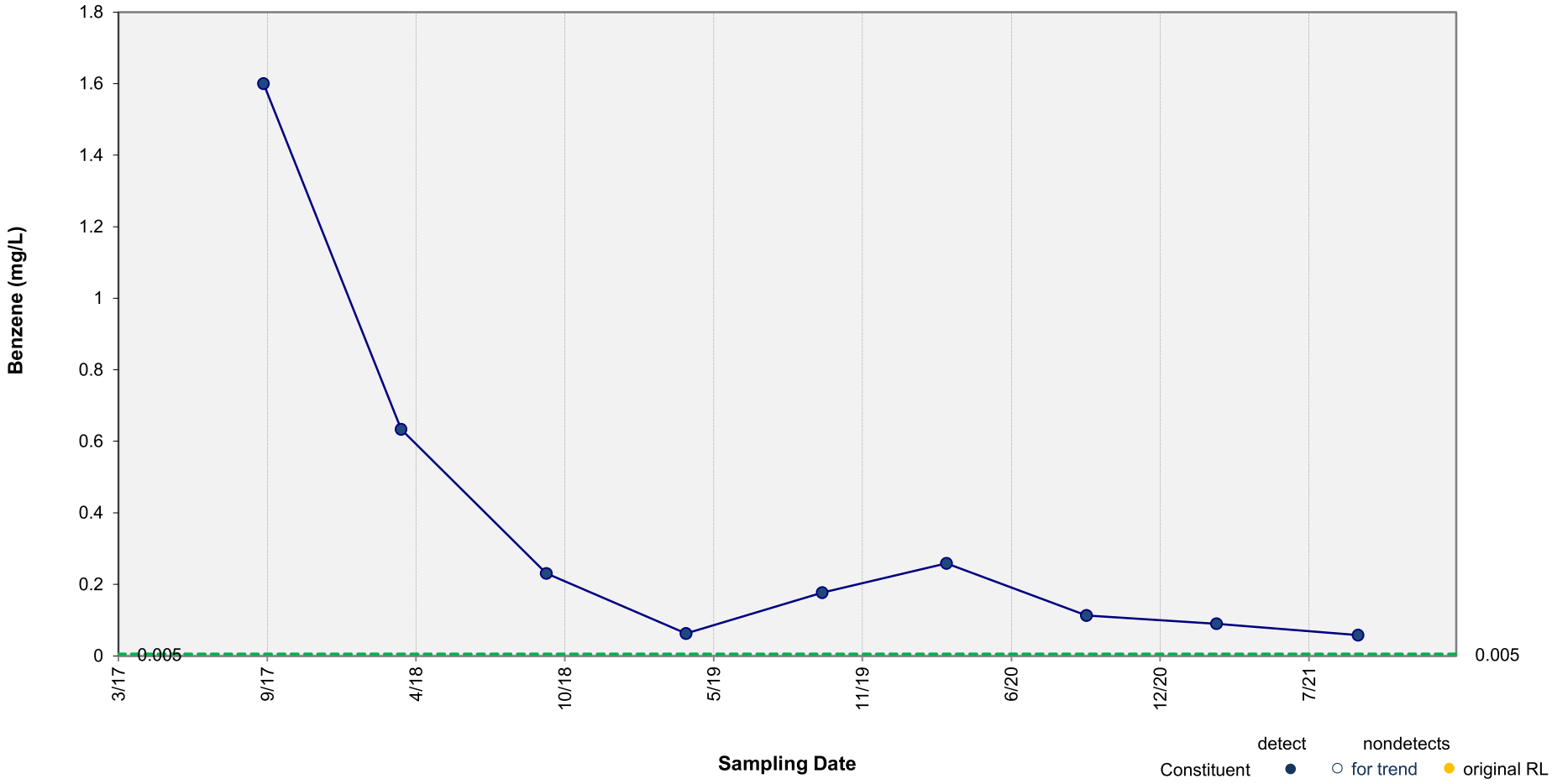
ARCADIS

Concentration vs. Time - Benzene in MW-32 (since 2017)

Eunice South

Figure G-5

MK Trends_MW-32_Benzene_HS_2017



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

p value = 0.006 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

ARCADIS

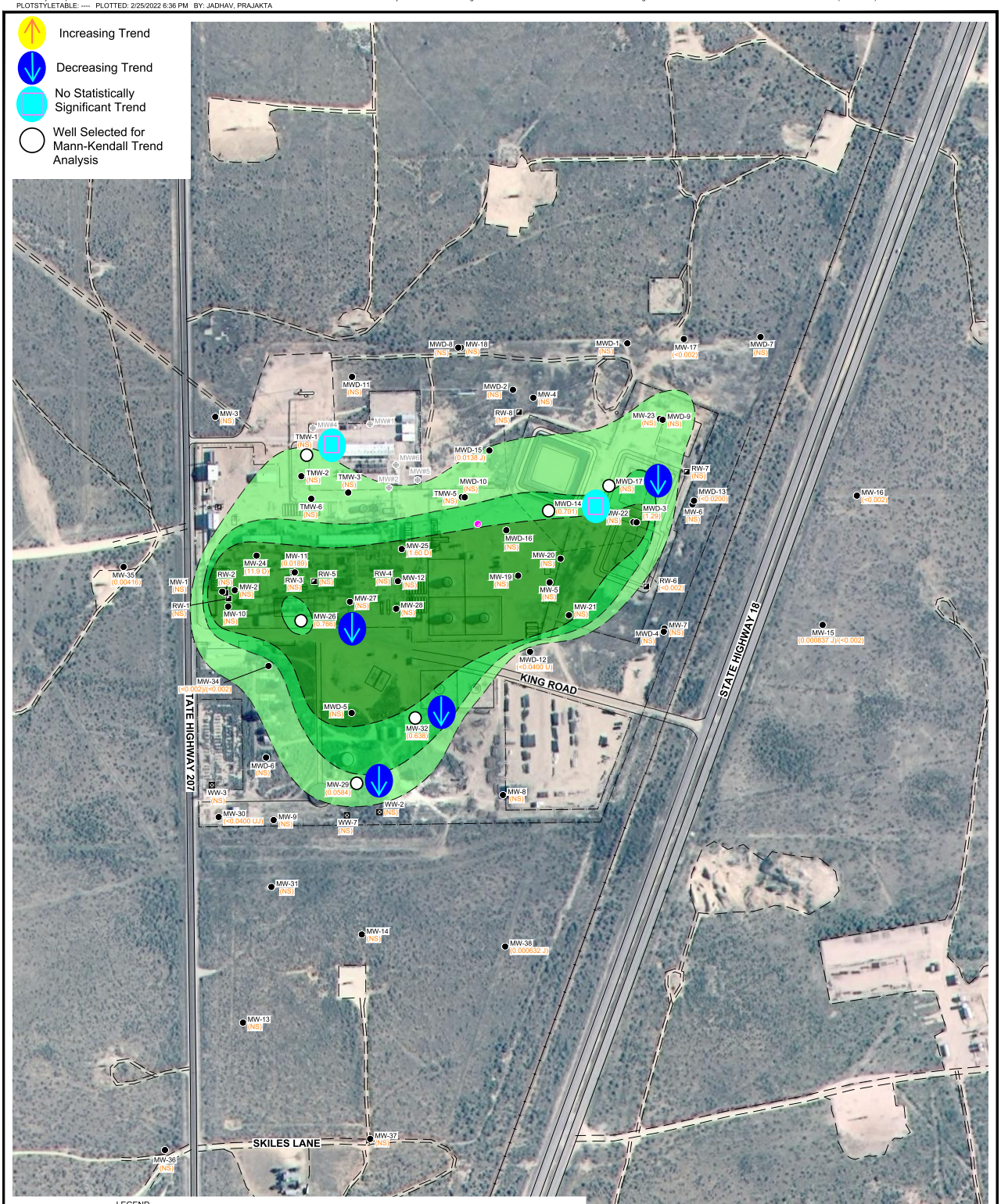
Concentration vs. Time Plot - Benzene in MW-29 (since 2017)

Eunice South

Figure G-6

MK Trends_MW-29_Benzene_HS_2017

C:\Users\jadhavp8954\ACCDocs\Arcadis\AUS-CHEVRON-FORMER EUNICE SOUTH GAS PLANT-EUNICE New Mexico\Project Files\2022\01-In Progress\01-DWG\GWM-2021Q3-F08-BENEZENE FALL.dwg LAYOUT: 6 SAVED: 2/25/2022 6:35 PM ACADVER: 23.1S (LMS TECH) PAGESETUP: ----
PLOTSTYLETABLE: ---- PLOTTED: 2/25/2022 6:36 PM BY: JADHAV, PRAJAKTA



LEGEND

- MONITORING WELL
- TARGA'S ONSITE INJECTION WELL
- RECOVERY WELL
- INACTIVE WATER WELL
- OFFSITE PROPERTY WELL (NOT SAMPLED)
- (0.000837 J)/(<0.002) BENZENE CONCENTRATION/DUPLICATE RESULT IN MILLIGRAMS PER LITER (mg/L)
- (NS) NOT SAMPLED
- J THE TARGET ANALYTE WAS POSITIVELY IDENTIFIED BELOW THE QUANTITATION LIMIT AND ABOVE THE DETECTION LIMIT
- D CONCENTRATION IS BASED ON A DILUTED SAMPLE ANALYSIS
- U ANALYTE WAS NOT DETECTED
- UJ THE COMPOUND WAS NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT. HOWEVER, THE REPORTED LIMIT IS APPROXIMATE AND MAY OR MAY NOT REPRESENT THE ACTUAL LIMIT OF QUANTITATION
- <0.002 NOT DETECTED ABOVE METHOD QUANTITATION LIMIT (MQL)

BENZENE ISOCONCENTRATION CONTOUR (mg/L; DASHED WHERE INFERRED)

- >0.005
- >0.1
- >1.0

NOTES:

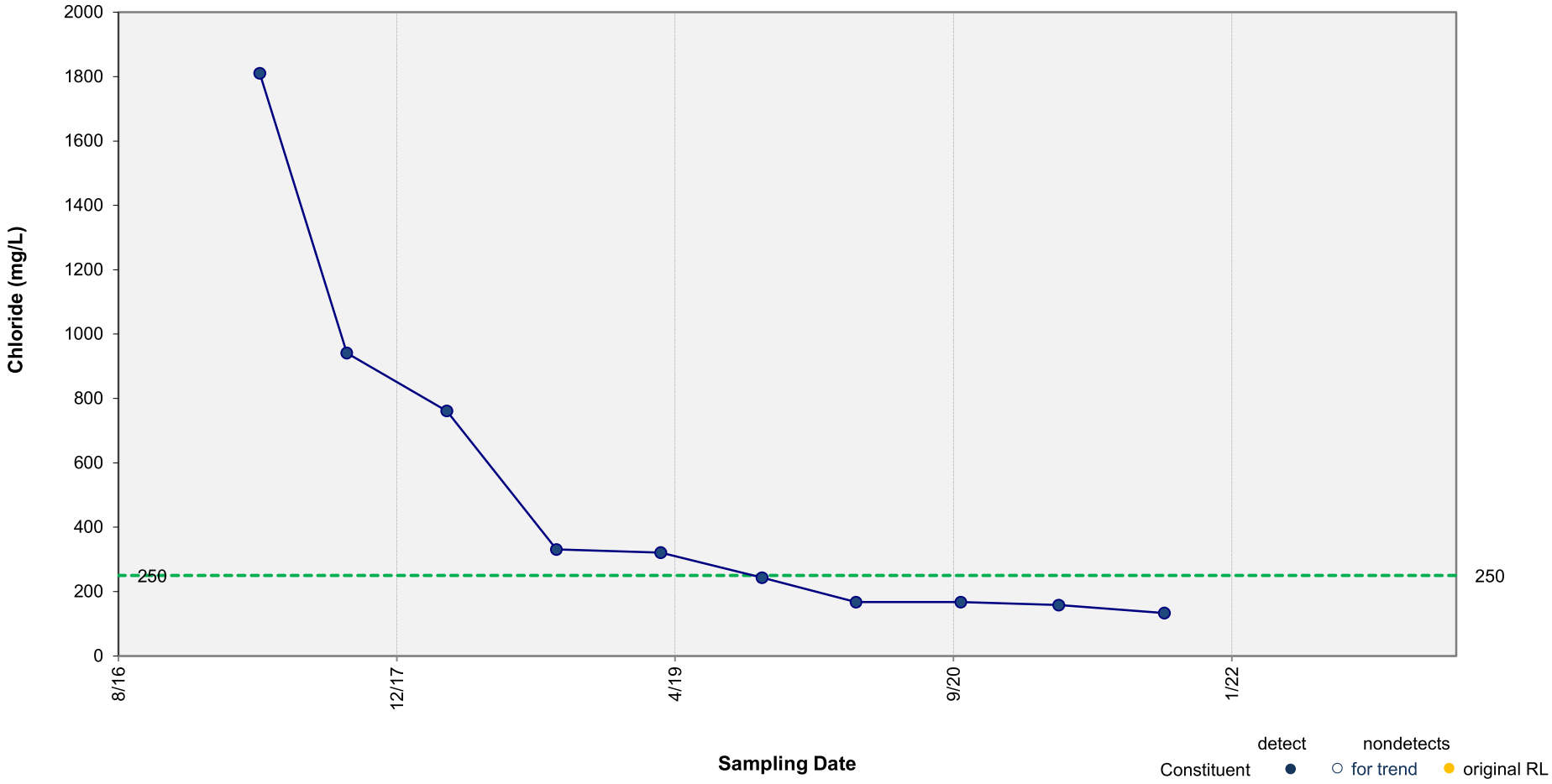
1. MAP PROJECTED TO NAD83 NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, FEET.
2. AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER, ACCESSED APRIL 2016.
3. WELLS SURVEYED 1998, 2000, 2001, 2002, AND 2006 BY PIPER SURVEYING COMPANY. NAD27 NM S.P. EAST, FEET.
4. SITE FEATURES PROVIDED BY CRA
5. WELLS SAMPLED SEPTEMBER 21-23, 2021.
6. ONLY DATA POSTED IN FALL 2021 WERE POSTED. CONTOURS ARE BASED ON HISTORICAL DATA DATING BACK TO 2018 WHERE CURRENT DATA ARE NOT AVAILABLE.

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER EUNICE SOUTH GAS PLANT
EUNICE, LEA COUNTY, NEW MEXICO

BENZENE 2021 MANN-KENDALL TREND SUMMARY

ARCADIS

FIGURE
G-7



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

p value = <0.001 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

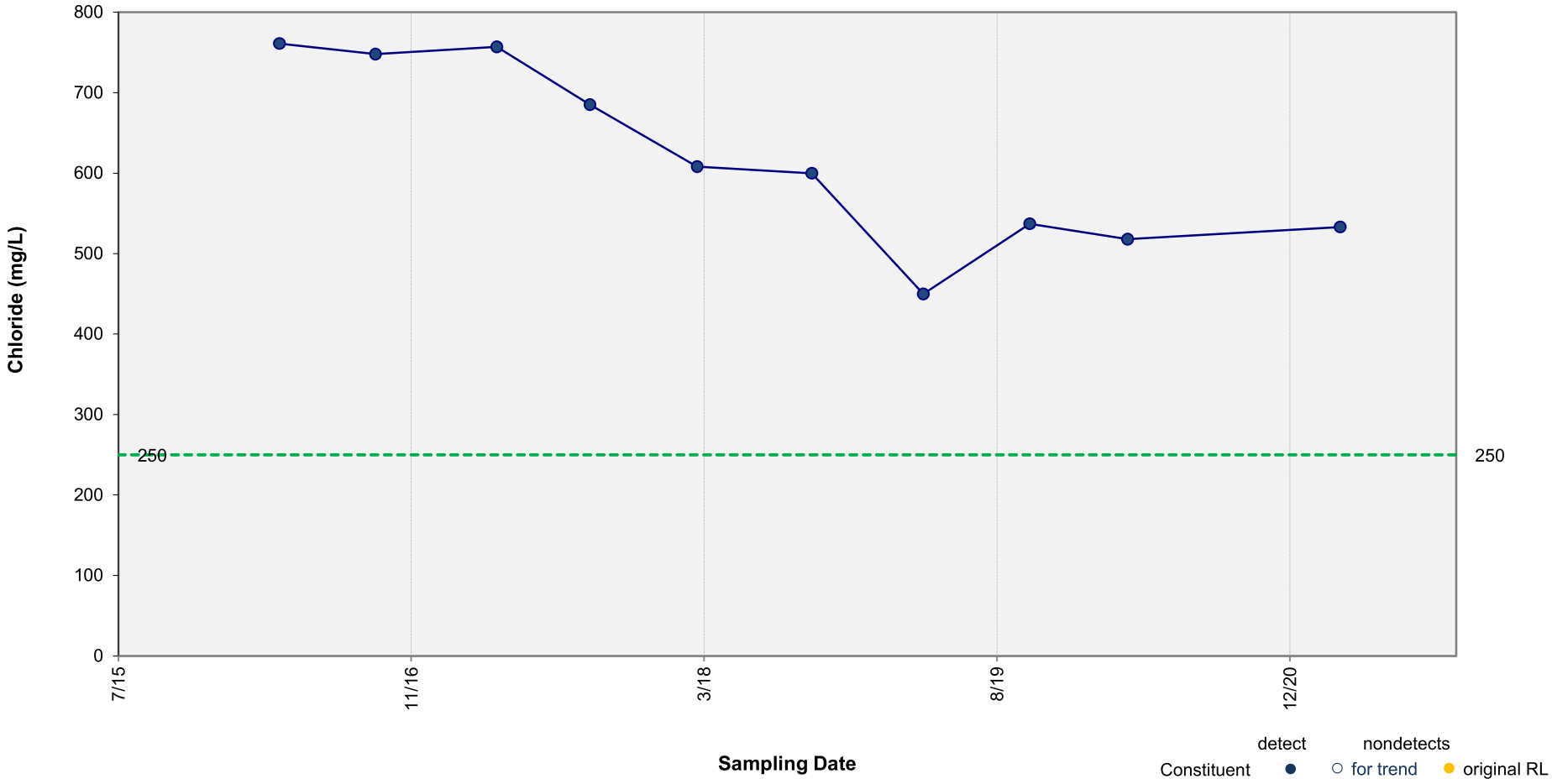
ARCADIS

Concentration vs. Time Plot - Chloride in MW-35

Eunice South

Figure G-8

MK Trends_MW-35_Chloride_HS



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

p value = <0.001 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

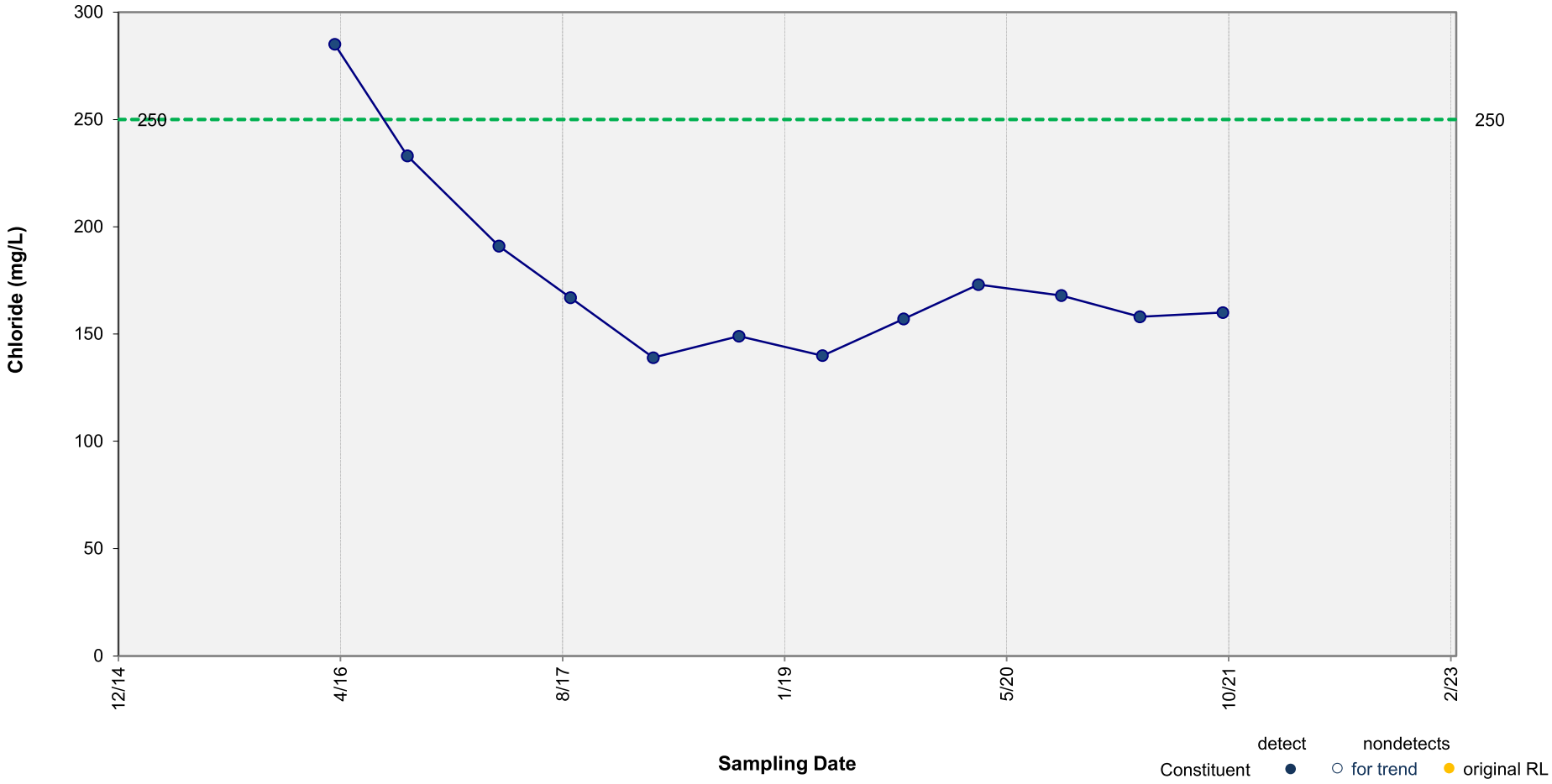
ARCADIS

Concentration vs. Time Plot - Chloride in TMW-1

Eunice South

Figure G-9

MK Trends_TMW-1_Chloride_HS



Results of Mann-Kendall Test for Trend: **Stable**

p value = 0.122 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

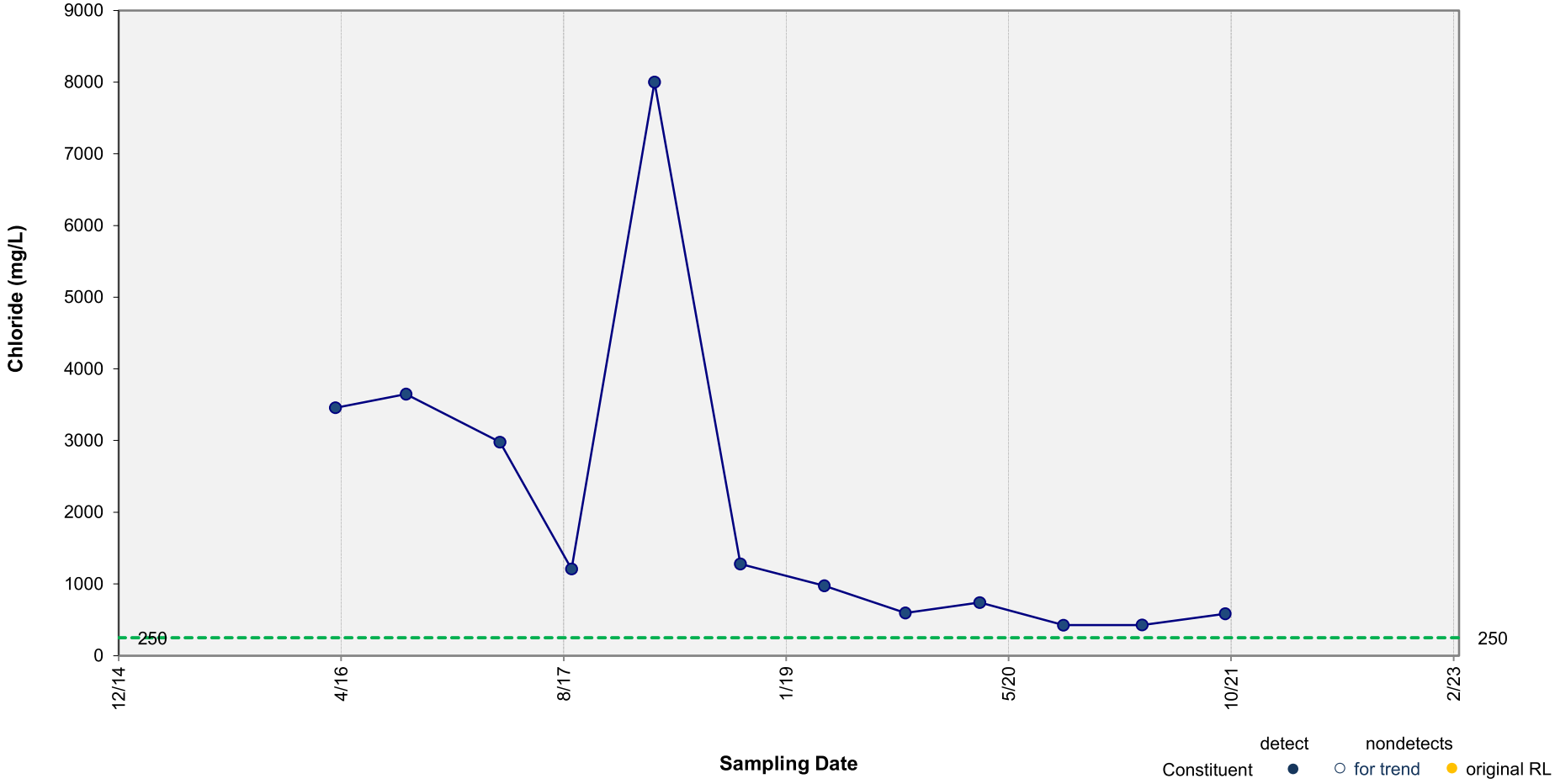
ARCADIS

Concentration vs. Time Plot - Chloride in MW-26

Eunice South

Figure G-10

MK Trends_MW-26_Chloride_HS



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

p value = 0.001 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

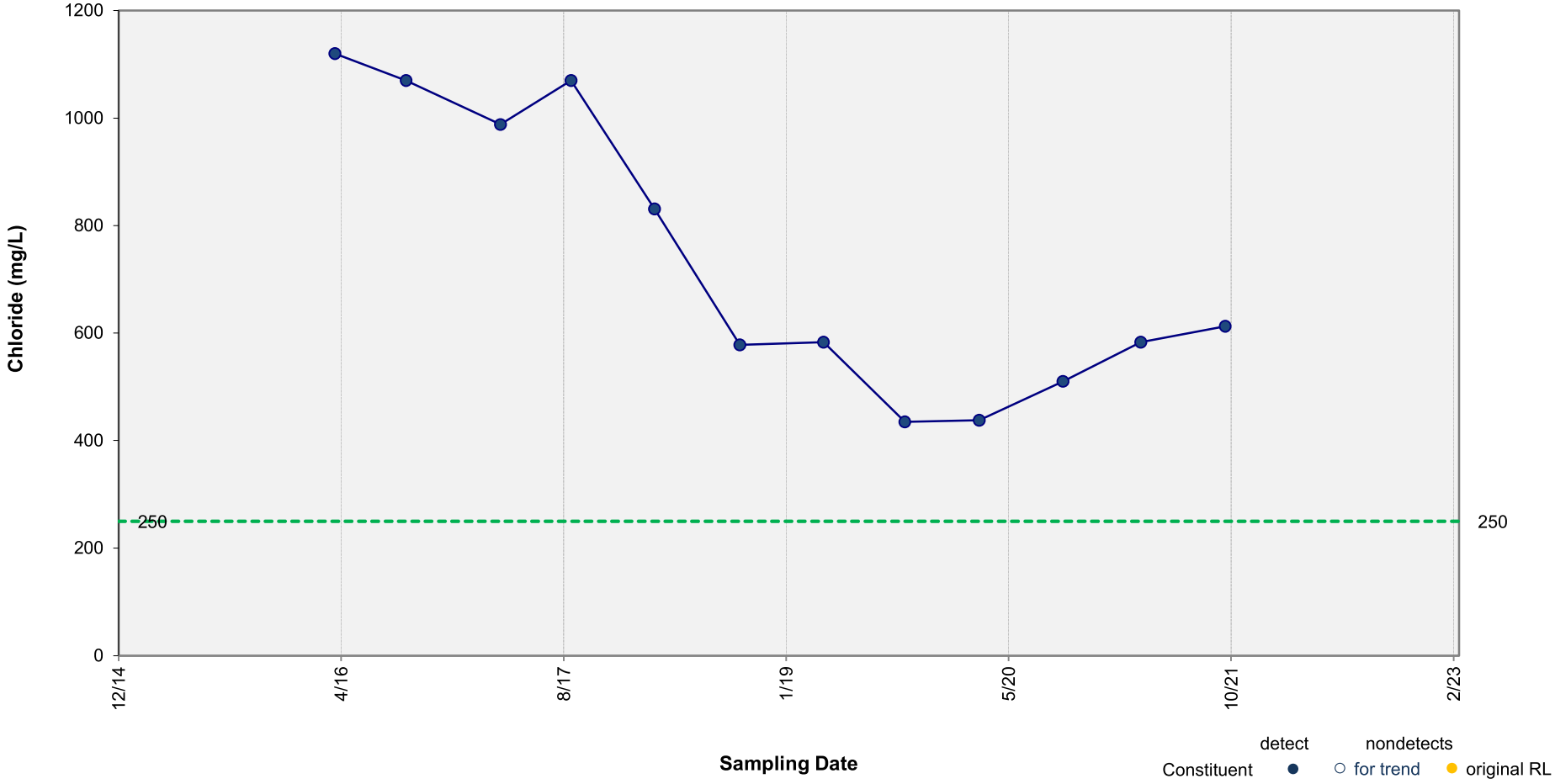
ARCADIS

Concentration vs. Time Plot - Chloride in MWD-14

Eunice South

Figure G-11

MK Trends_MWD-14_Chloride_HS



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

p value = 0.011 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

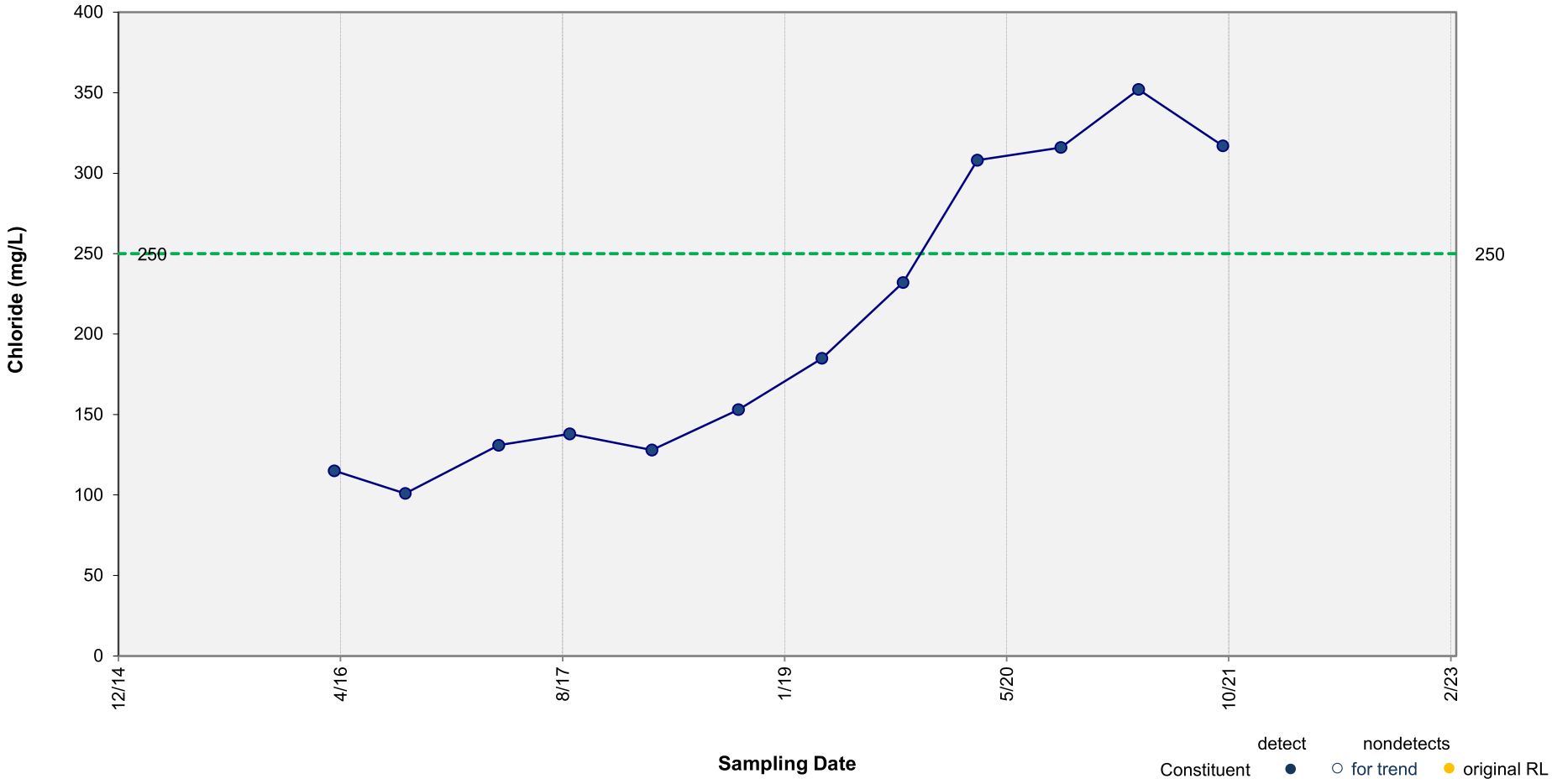
ARCADIS

Concentration vs. Time Plot - Chloride in MW-32

Eunice South

Figure G-12

MK Trends_MW-32_Chloride_HS



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = <0.001 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

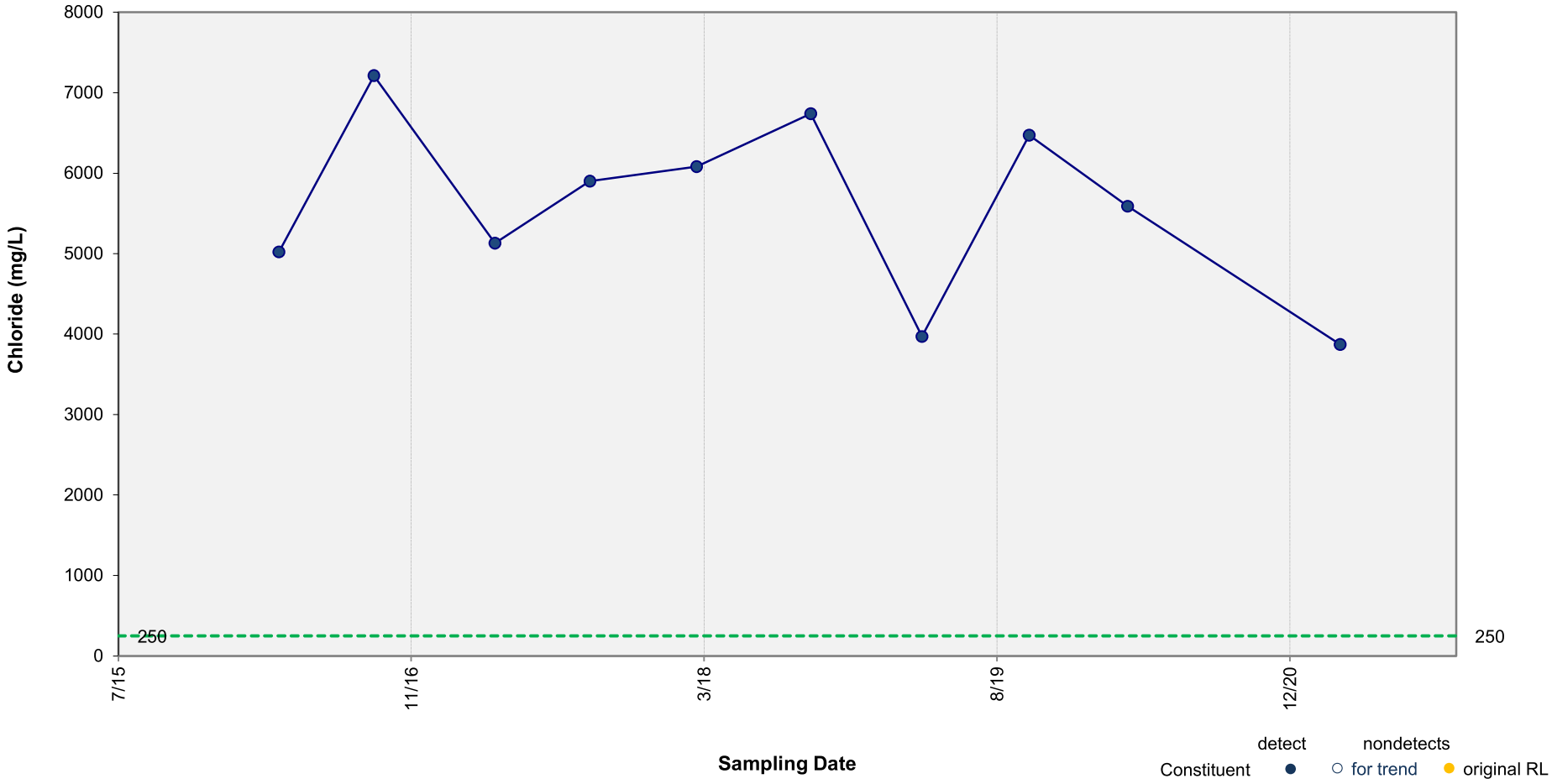
ARCADIS

Concentration vs. Time Plot - Chloride in MW-29

Eunice South

Figure G-13

MK Trends_MW-29_Chloride_HS



Results of Mann-Kendall Test for Trend: **Stable**

p value = 0.300 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

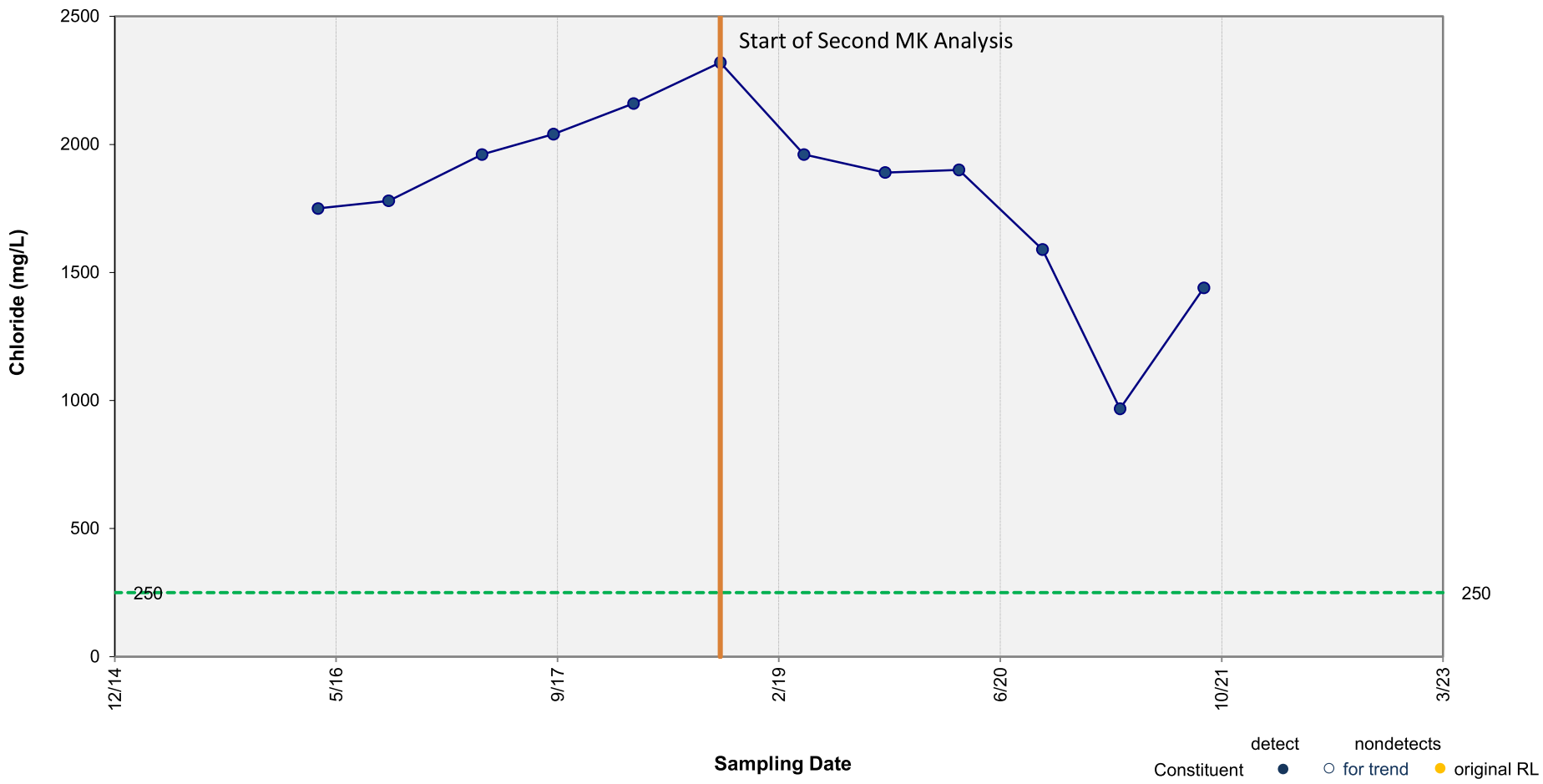
ARCADIS

Concentration vs. Time Plot - Chloride in MWD-7

Eunice South

Figure G-14

MK Trends_MWD-7_Chloride_HS



Results of Mann-Kendall Test for Trend: **Stable**

p value = 0.108 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

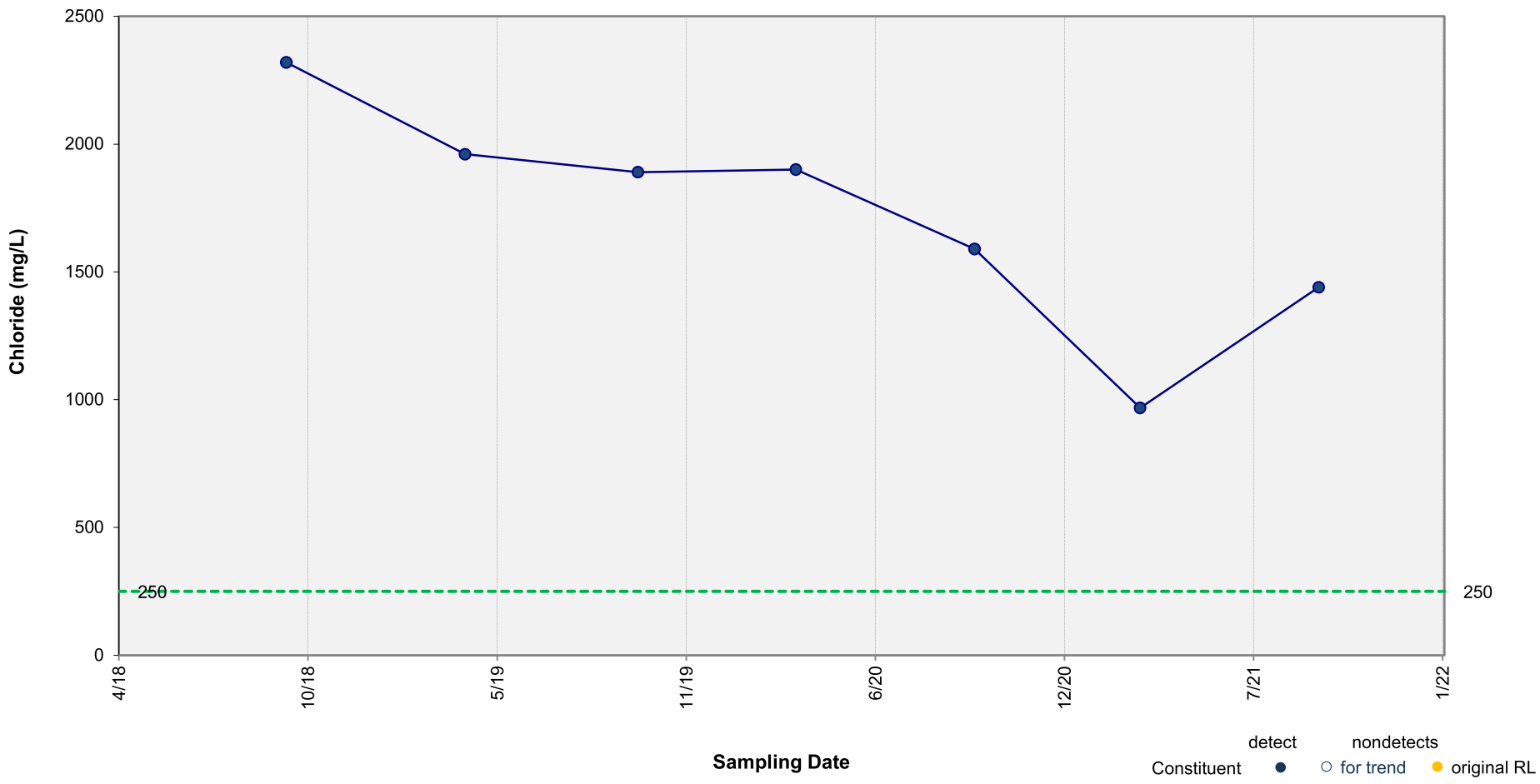
ARCADIS

Concentration vs. Time Plot - Chloride in MW-15

Eunice South

Figure G-15

MK Trends_MW-15_Chloride_HS



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

p value = 0.005 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

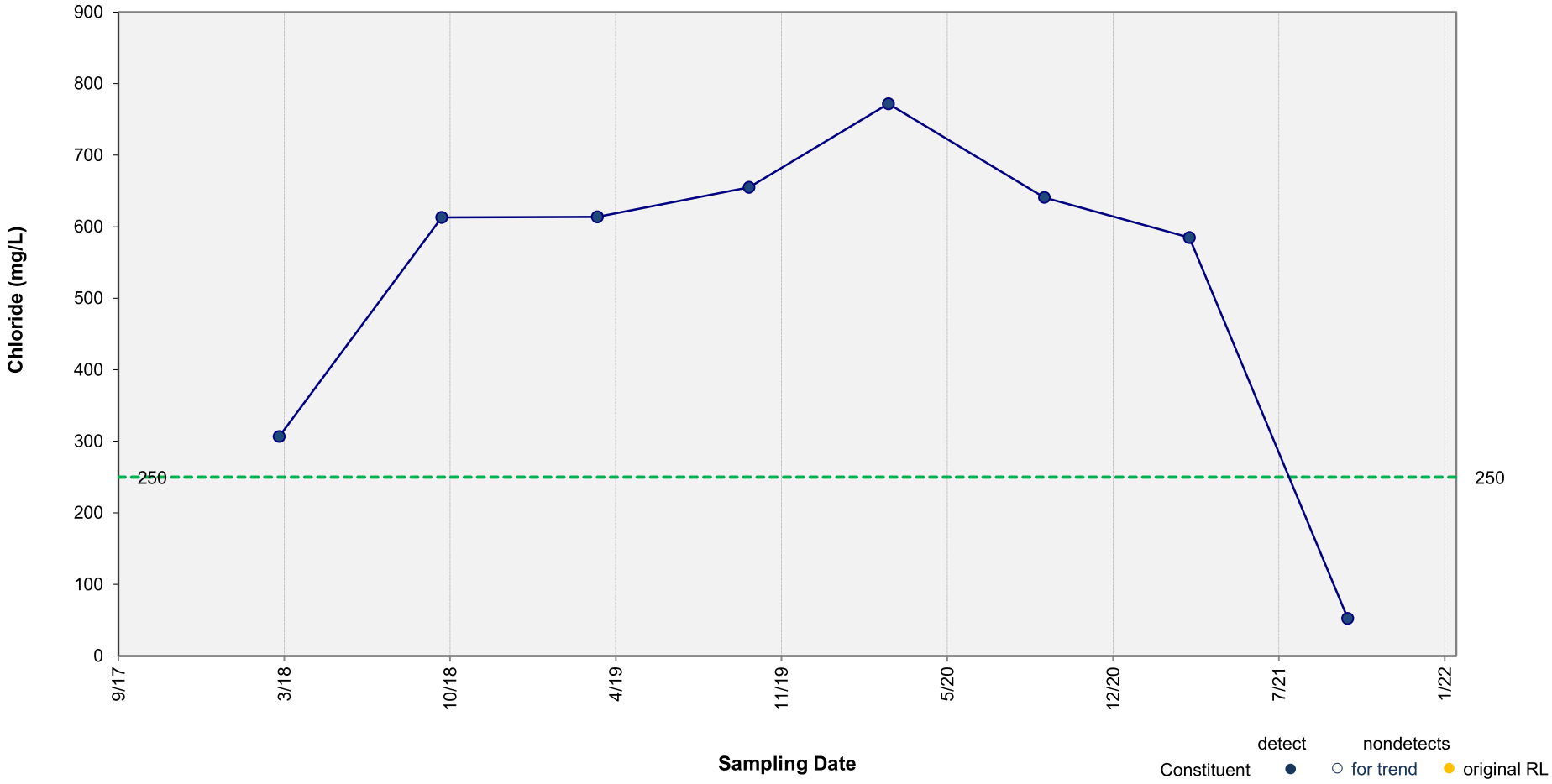
ARCADIS

Concentration vs. Time Plot - Chloride in MW-15

Eunice South

Figure G-16

MK Trends_MW-15_Chloride_HS1



Results of Mann-Kendall Test for Trend: **Stable**

p value = 0.548 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

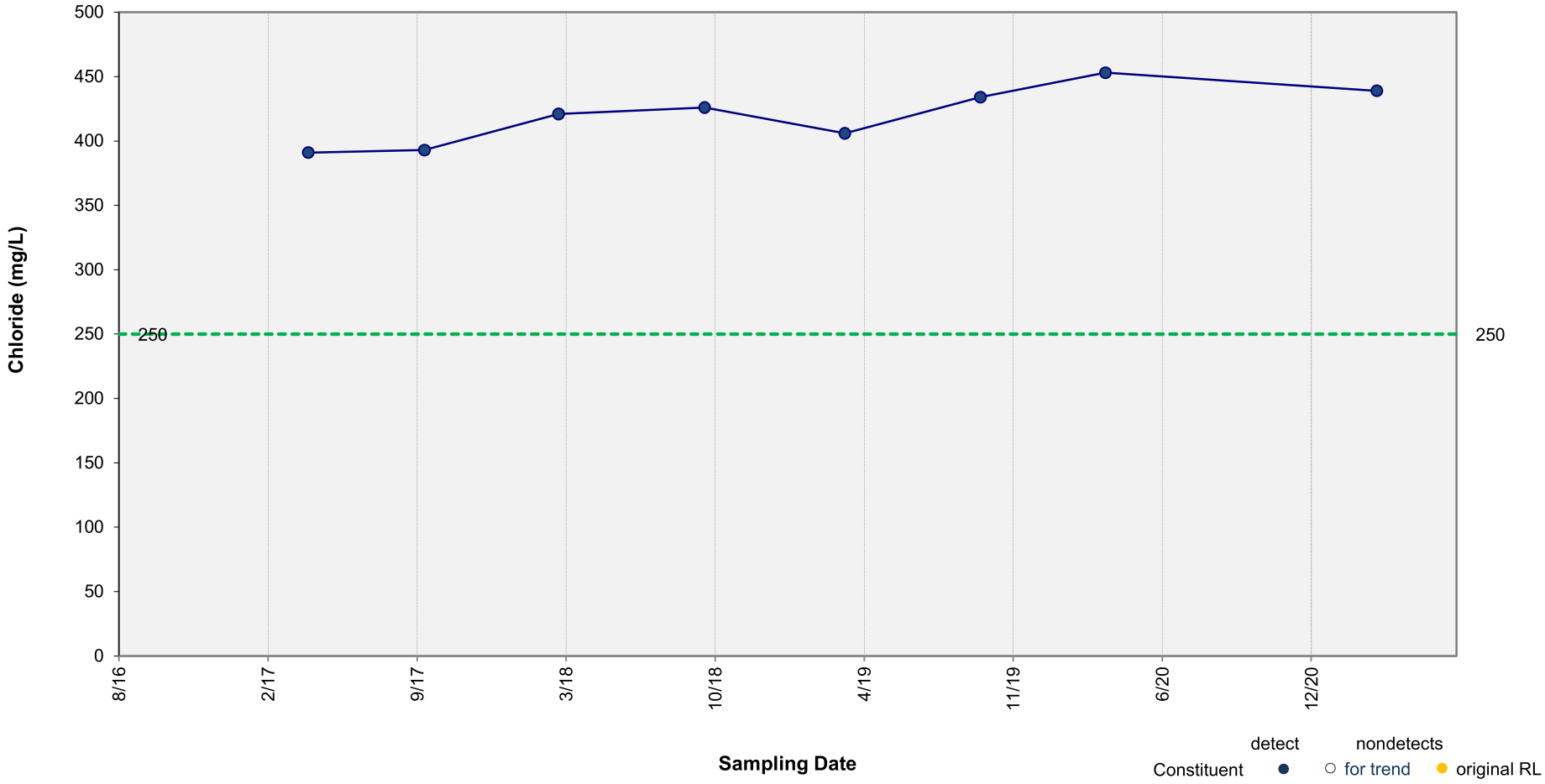
ARCADIS

Concentration vs. Time Plot - Chloride in MW-38

Eunice South

Figure G-17

MK Trends_MW-38_Chloride_HS



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = 0.003 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

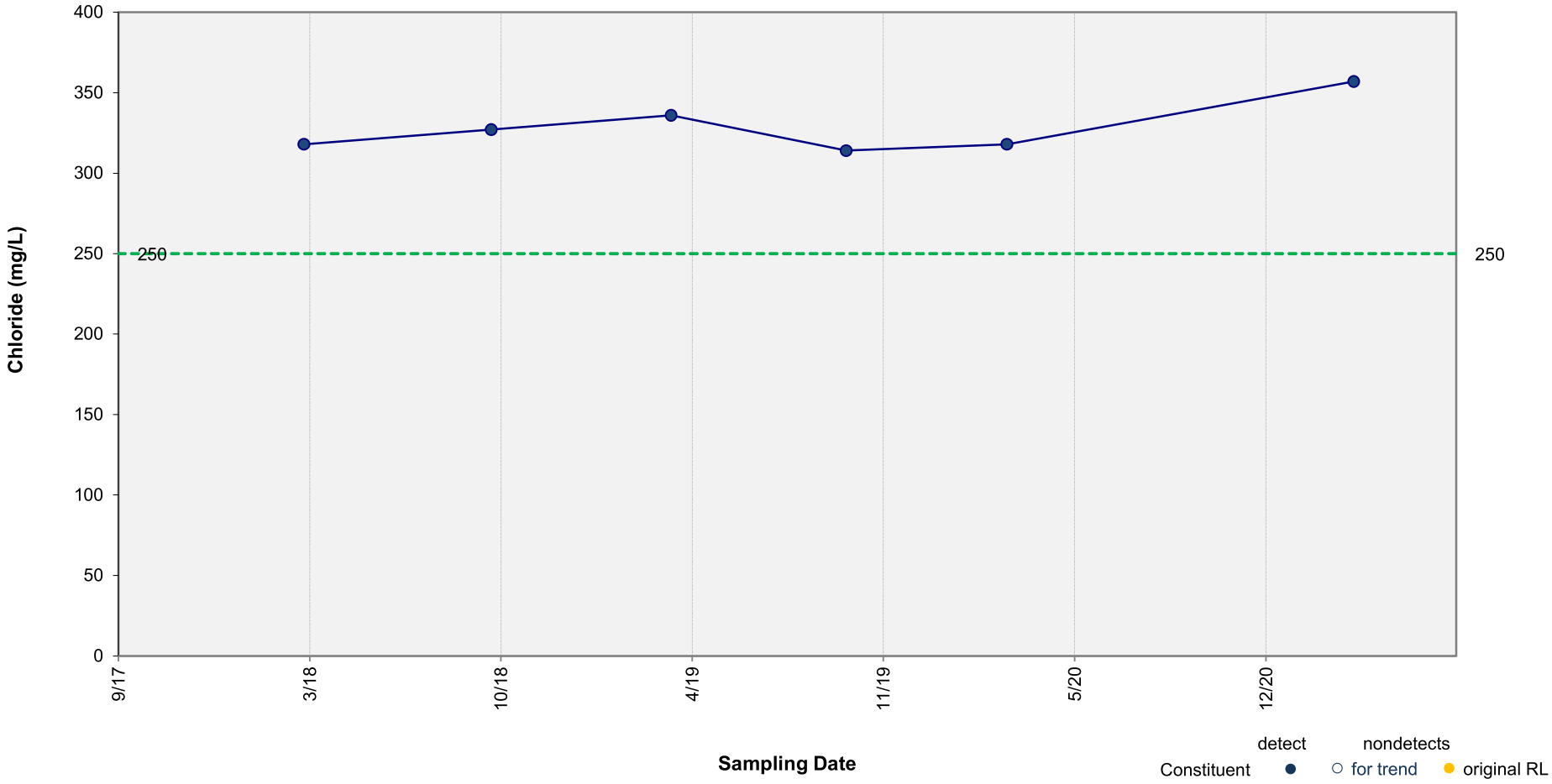
ARCADIS

Concentration vs. Time Plot - Chloride in MW-36

Eunice South

Figure G-18

MK Trends_MW-36_Chloride_HS



Results of Mann-Kendall Test for Trend: **Stable**

p value = 0.298 Note: p value < 0.1 indicates a statistically significant trend (90% confidence level).

ARCADIS

Concentration vs. Time Plot - Chloride in MW-37

Eunice South

Figure G-19

MK Trends_MW-37_Chloride_HS

C:\Users\jadhavp8954\ACCDocs\Arcadis\AUS-CHEVRON-FORMER EUNICE SOUTH GAS PLANT-EUNICE New Mexico\Project Files\2022\01-In Progress\01-DWG\GWM-2021Q3-F10-CHLORIDE FALL.dwg LAYOUT: 8 SAVED: 2/24/2022 5:58 PM ACADVER: 23.1S (LMS TECH) PAGESETUP: ----
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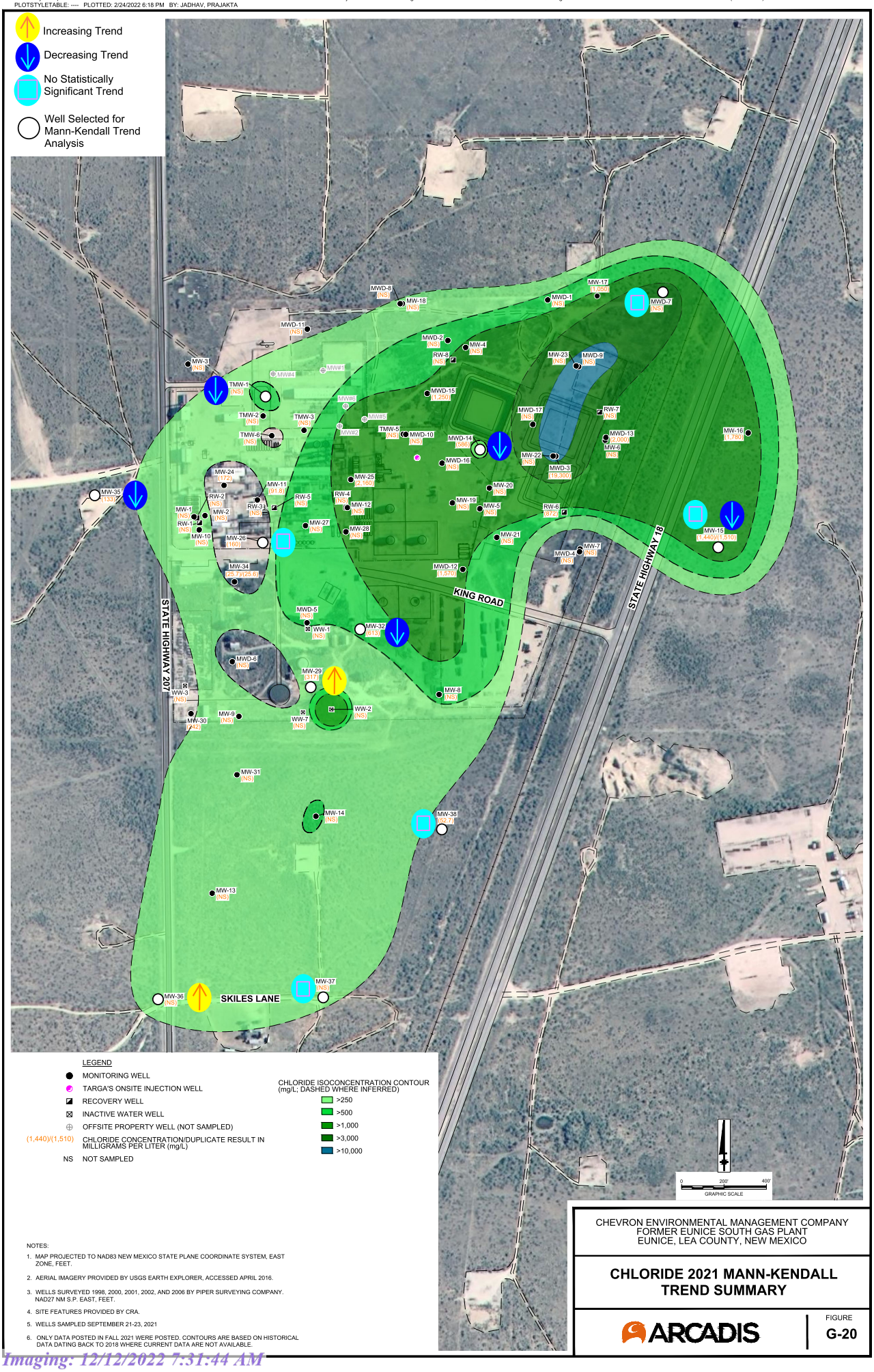

NOTES:

1. MAP PROJECTED TO NAD83 NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, FEET.
2. AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER, ACCESSED APRIL 2016.
3. WELLS SURVEYED 1998, 2000, 2001, 2002, AND 2006 BY PIPER SURVEYING COMPANY. NAD27 NM S.P. EAST, FEET.
4. SITE FEATURES PROVIDED BY CRA.
5. WELLS SAMPLED SEPTEMBER 21-23, 2021
6. ONLY DATA POSTED IN FALL 2021 WERE POSTED. CONTOURS ARE BASED ON HISTORICAL DATA DATING BACK TO 2018 WHERE CURRENT DATA ARE NOT AVAILABLE.

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER EUNICE SOUTH GAS PLANT
EUNICE, LEA COUNTY, NEW MEXICO

CHLORIDE 2021 MANN-KENDALL TREND SUMMARY

ARCADIS

FIGURE
G-20

APPENDIX H

Bioventing and Natural Source Zone Depletion Memo

MEMO

ARCADIS Design & Consultancy for natural and built assets

To:
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From:
Sonja Zabienski

Date:
March 2022

Arcadis Project No.:
30049612

Subject:

Bioventing and Natural Source Zone Depletion Evaluation Memo

Former Eunice South Gas Plant

Lea County, Eunice, New Mexico

Arcadis U.S., Inc. (Arcadis) prepared this Bioventing and Natural Source Zone Depletion Evaluation Memo on behalf of Chevron Environmental Management Company (CEMC) to present the results associated with bioventing operation and natural source zone depletion (NSZD) monitoring at the Former Eunice South Gas Plant (Site).

BIOVENTING OPERATION SUMMARY

Design Objectives and Approach

Bioventing is a remedial process in which oxygen is circulated through contaminated vadose zone soils via applied air flow for stimulation of microbial degradation of contaminants. Design of the bioventing system was based upon the following objectives:

- Achieve measurable light non-aqueous phase liquid (LNAPL) reduction at target wells using a cost-effective technology,
- Utilize mobile bioventing units for flexible use at wellheads, and
- Limit reliance on permanent infrastructure to the extent practicable (e.g., mobile power source).

Three mobile wellhead bioventing units were designed to accommodate simultaneous but independent operation at three individual wells. Wellhead units were designed to be transferable between wells as

remediation progressed. Since wells with observed historic measurable LNAPL vary in diameter from 2-inch to 6-inch, bioventing units were designed with appropriate fittings to accommodate different well casing diameters. The bioventing units became operational in May 2017.

The bioventing units consist of a small blower connected to the wellhead to induce vacuum from the well. A 1/2-inch diameter vertical exhaust stack is connected to the pump outlet. Solar panels provide charge to one 12V battery per unit, which powers the pump. Because no additional power backup is supplied, the solar panels and battery have the capacity to allow for approximately six hours of operation per day with efficiency varying with the solar cycle in the area. The bioventing units do not operate when sufficient solar energy is not present.

Upon determination that bioventing has succeeded in remediation of LNAPL at the current locations, the units will be relocated to operate at additional wellhead locations within the Site. It is anticipated that relocations will be made approximately every two to four years. The bioventing units are currently located at MW-27, MW-28, and RW-2. The unit originally operating at MW-1 was moved to monitoring well MW-27 in July 2020 based on recommendations from the 2019 Annual Groundwater Monitoring Report (Arcadis 2020).

Permitting

While the intent of bioventing is to provide oxygen via circulation of air through the vadose zone at a rate that is supportive of biodegradation, rather than volatilization, it is possible that some volatilization may occur and vapors may be extracted through the bioventing units at levels requiring an air permit. Therefore, regular emission measurements from the bioventing units have been collected since startup in 2017 based on grab air samples collected from each well and submitted for analysis by US Environmental Protection Agency (US EPA) Method TO-15. Exhaust flow rates are approximately 1 cubic foot per minute (CFM) from each unit. Constituents monitored include total petroleum hydrocarbons (gasoline range) along with the applicable US EPA Hazardous Air Pollutants and New Mexico Toxic Air Pollutants (TAP).

On December 21, 2018, a request for concurrence on a no permit required (NPR) designation was sent to New Mexico Environmental Department Air Quality Bureau (AQB) based on the combined bioventing emission rates since startup in 2017. Emission rates were calculated with a conservative operational assumption of 14 hours per day, 365 days per year even though actual operation is closer to six hours per day based on the limitations of the solar panels and battery to provide power to the system. Under this assumption, bioventing emissions have been below the 10 tons per year VOC maximum limit for an NPR designation. The AQB approved the NPR designation on March 12, 2019.

The following section summarizes additional monitoring details.

System Operation and Natural Source Zone Depletion Monitoring

Wellhead bioventing units were installed on wells with observed historic measurable LNAPL for individual well treatment. Wells MW-1, RW-2, and MW-28 were initially identified for bioventing. Performance monitoring data for the unit installed at MW-1 indicated that remedial objectives had been achieved at this well, making the bioventing unit available for installation elsewhere on site. On July 27, 2020, the unit operating at MW-1 was moved to monitoring well MW-27. On July 29, 2020, field parameters (VOCs, CO_2, H_2S, and O_2) were collected, recorded, and evaluated against existing bioventing operational data to confirm that emissions did not exceed New Mexico TAP standards. After the first month of operation, an effluent air sample was collected from well MW-27 on August 28, 2020 and was analyzed for US EPA Method TO-15 using a Summa canister. Following startup and continuous operation, field parameters

were collected at the new bioventing unit at MW-27 monthly for the first quarter, then quarterly thereafter. The two other bioventing units at existing locations were also monitored at this schedule. In 2021, effluent air samples were collected from wells MW-27 and MW-28 on September 28; the biovent at well RW-2 was not in operation at that time so a sample was not collected.

The calculated average total VOCs potential emissions rate was 8.9 tons per year (tpy) from August 2020 to September 2021. The calculated average total hazardous air pollutants emissions rate was 0.1 tpy for the same period. The results from the samples collected over the past year indicate that emissions did not exceed TAP standards (10 tpy) based on the conservative operational assumption of 14 hours per day, 365 days per year.

Well locations are presented in **Figure 1**. The following NSZD monitoring activities have been conducted to assess system operation and in-situ biodegradation at the Site:

- LNAPL baildown (transmissivity) testing
- Bioventing effluent vapor sampling at bioventing wells

LNAPL baildown testing has been conducted at wells containing LNAPL on a semiannual or annual basis to assess LNAPL transmissivity and the effectiveness of the system operation over time. LNAPL transmissivity was identified as a metric for system performance because it correlates to LNAPL recoverability and LNAPL saturation. In contrast, other potential metrics (like in-well thickness over time) are not well-correlated to recoverability or saturation. LNAPL transmissivity can track reductions in LNAPL saturation via mass removal or mass degradation in situ. The transmissivity results are used to assess the remedial effect of targeted efforts at higher-transmissivity wells and guide potential relocation of the bioventing systems to alternate wells once the desired saturation reductions have been reached at a specific well location. In 2021, the LNAPL baildown test coincided with the fall semi-annual groundwater monitoring event.

Bioventing effluent air samples for analysis of VOCs and NSZD indicators were collected on a monthly basis, when possible, from the startup of the bioventing units in 2017 to 2019. Quarterly sampling was initiated in 2019 and continued into the third quarter of 2020. In 2021, sampling was conducted on an annual basis, with field readings conducted quarterly.

ANALYSIS

The section below provides further description and analysis of the NSZD monitoring activities.

LNAPL Transmissivity

LNAPL transmissivity represents the volumetric rate of LNAPL flow through a unit width of porous media per unit time under a hydraulic gradient, and is presented in units of area per time, such as square feet per day (ft^2/d). LNAPL transmissivity is well-suited for assessing LNAPL recoverability, inherently accounting for the combined effects of aquifer matrix permeability, LNAPL physical properties, and the relative proportion of pore space occupied by LNAPL within a specified vertical interval of aquifer material. LNAPL transmissivity values in the range of 0.1 to 0.8 ft^2/d are generally associated with the lower limits of practical hydraulic LNAPL recovery (ITRC 2009 and 2018), and several jurisdictions have adopted LNAPL transmissivity values within or below this range as an indication that LNAPL recovery to the extent practicable has been completed.

An ASTM International (ASTM) standard for LNAPL transmissivity measurement (ASTM E2856, 2013) provides standardized methods for LNAPL transmissivity measurement. The ASTM standard is intended to establish consistency between practitioners for field data collection and analysis procedures, facilitating wider adoption of LNAPL transmissivity as a metric for assessing practicality of LNAPL recovery. The Site activities conducted as part of this assessment were completed in accordance with the ASTM standard practices.

LNAPL Baildown Testing

LNAPL transmissivity was evaluated at the Site through analysis of LNAPL baildown tests at monitoring wells. LNAPL baildown tests are analogous to rising-head slug tests that are typically used to estimate the average hydraulic conductivity of saturated geologic formation materials proximal to the screened portion of a groundwater well under prevailing ambient test conditions. LNAPL is removed during a single event from the test well, in a relatively short period of time, and then fluid levels within the well are monitored to measure LNAPL recharge to the well and track LNAPL drawdown. LNAPL transmissivity values calculated from baildown testing are representative of the LNAPL transmissivity of the formation in the vicinity of the well being tested, under the conditions existing at the time of the test.

The LNAPL transmissivity values calculated from baildown test data were used to quantitatively characterize LNAPL transport conditions at the Site and to characterize LNAPL recoverability. Low LNAPL transmissivity values are indicative of conditions not conducive to practical hydraulic recovery. High LNAPL transmissivity values are indicative of higher LNAPL saturation and locally drainable/flowable LNAPL, and of locations ideal for bioventing in order to accelerate long-term reductions in LNAPL saturation and LNAPL mass.

Following the recommendation from 2019 to continue annual LNAPL baildown testing at wells with bioventing units and biennial LNAPL baildown testing at the remaining LNAPL wells (Arcadis 2020), testing was completed at the following wells in September 2021

September 23-28, 2021
MW-2
MW-5
MW-12
MW-19
MW-20
MW-21
MW-27
MW-28
RW-1
RW-4

Three wells that were intended to be tested, MW-1, MW-10, and RW-2, were not tested in 2021 due to the absence of measured LNAPL in the well at the time of testing. MW-5, MW-12, and MW-21 were instead

tested due to the presence of LNAPL in those wells at that time. LNAPL transmissivity tests have been completed annually since 2016. Data from these tests are presented in **Tables 1 and 2** and **Figures 2 and 3**.

LNAPL baildown tests were analyzed using the API Transmissivity Workbook (API 2012) and in accordance with the recommendations of ASTM E-2856 (2013), using the Bouwer & Rice, Cooper & Jacob/Jacob & Lohmann, and Cooper-Bredhoeft-Papadopulos solutions contained within the API workbook.

Results

LNAPL transmissivity results are summarized in **Table 1**. LNAPL transmissivity values have remained relatively consistent over six transmissivity testing events from August 2016 to September 2021. Findings and conclusions from LNAPL transmissivity data include the following:

- Results for bioventing well MW-28 indicate a decrease in LNAPL transmissivity from approximately 2.9 ft^2/d in 2020 to approximately 0.3 ft^2/d in 2021.
- Results for bioventing well MW-27 indicate an increase in LNAPL transmissivity from approximately 0.4 ft^2/d in 2020 to approximately 0.9 ft^2/d in 2021.
- An LNAPL transmissivity test was not conducted at bioventing well RW-2 in 2021. Transmissivity values from 2016 to 2020 range between 4.2 ft^2/d to 8.6 ft^2/d and appear relatively stable over multiple testing events.
- Results for well MW-2 indicate an increase in LNAPL transmissivity from approximately 1.2 ft^2/d in 2019 to approximately 4.9 ft^2/d in 2021.
- Results for well MW-12 indicate an increase in LNAPL transmissivity from approximately 0.4 ft^2/d in 2018 to approximately 1.0 ft^2/d in 2021.
- Results for well MW-20 indicate a decrease in LNAPL transmissivity from approximately 2.5 ft^2/d in 2019 to approximately 0.6 ft^2/d in 2021.
- Results for well MW-21 indicate a decrease in LNAPL transmissivity from approximately 0.4 ft^2/d in 2018 to approximately 0.1 ft^2/d in 2021.
- Results for well RW-1 indicate a decrease in LNAPL transmissivity from approximately 1.2 ft^2/d in 2019 to approximately 0.9 ft^2/d in 2021.
- Results for well RW-4 indicate a decrease in LNAPL transmissivity from approximately 3.9 ft^2/d in 2019 to approximately 1.8 ft^2/d in 2021.
- LNAPL transmissivity results for wells MW-5 and MW-19 have remained relatively stable since the previous transmissivity tests at the wells.

A moderate increase in LNAPL transmissivity was observed in bioventing well MW-27 from 2020 to 2021. This well has historically contained measurable in-well LNAPL and the increase in transmissivity does not necessarily imply large-scale migration or movement of the LNAPL body. The increased transmissivity value observed at this location may be the result of small-scale redistribution of mobile LNAPL within the LNAPL body as regional water levels rise. In addition, the increased transmissivity value still remains within the ITRC range of lower limits of practical hydraulic LNAPL recovery.

Bioventing Performance

As described in previous submittals, bioventing is a remedial process in which oxygen is circulated through contaminated vadose zone soils via applied air flow for stimulation of microbial degradation of contaminants. The system installation and startup processes are described below, along with results of performance monitoring conducted to date.

System Installation and Startup

As discussed above, wellhead bioventing units were initially installed on wells MW-1, RW-2 and MW-28. The units ran intermittently through 2017 while troubleshooting was conducted, then consistently in 2018 and 2019 with limited unscheduled downtime for maintenance and repairs. The wellhead bioventing unit installed on well MW-1 was moved to MW-27 on July 27, 2020. Bioventing units ran through 2020 and 2021 with intermittent, unscheduled downtime for maintenance and repairs. The biovent at RW-2 was down during the second through fourth quarter monitoring events (including the emissions sampling event) due to battery issues that have been troubleshooted and will be resolved in the first quarter of 2022. The biovent at MW-28 was down during the fourth quarter monitoring event for an unknown reason but has been restarted.

Performance Monitoring

The wellhead bioventing units are not intended to act like soil vapor extraction systems and remove total petroleum hydrocarbon mass; although TPH concentrations were measured during performance monitoring, the key performance indicators are CO_2, O_2, and temperature. Effluent gas monitoring was conducted to determine the volume of VOCs that have been removed and the rate of LNAPL degradation that has been achieved.

Effluent gas samples were collected from each bioventing unit for analysis of VOCs, total petroleum hydrocarbons (TPH), and CH_4, CO_2, oxygen and hydrogen sulfide. Gas samples were collected generally one to two hours after the bioventing systems started up. Grab samples were collected for measurement of CH_4, CO_2, oxygen and hydrogen sulfide in the field and summa canisters were sent to a laboratory for analytical testing of VOCs and TPH. The flow rate and measured concentration of CO_2 and CH_4 were used to calculate an emission rate in pounds per hour and tons per year (**Table 2**). When petroleum hydrocarbon molecules are converted to the end products of methane and carbon dioxide (CO_2 and CH_4 are both generated in anaerobic conditions, while only CO_2 is generated under aerobic conditions) each carbon atom will correspond to one molecule of either CO_2 or CH_4. Assuming a hydrocarbon compound of octane (C_8H_{18}), eight moles of CO_2 or CH_4 correspond to one mole of C_8H_{18}. Following this relationship and assuming an LNAPL density of 0.8 grams per mole (g/mol), the following approximate equivalents can be calculated:

- 1 pound per hour (lb/hr) of CH_4 is generated from 1.6 gallons per day (gal/day) of C_8H_{18}
- 1 lb/hr of CO_2 is generated from 0.58 gal/day of C_8H_{18}

The calculated depletion rates at MW-28 ranged from less than 0.1 gal/day to 8.8 gal/day since startup at this well in 2017; in 2021, the average depletion rate was approximately 0.6 gal/day. At RW-2, the rates since startup ranged from less than 0.1 gal/day to 5.2 gal/day; in 2021, an average rate was not determined based on limited data collected. At MW-27, the rates since startup ranged from less than 0.1 gal/day to 4.2 gal/day with an average depletion rate of 1.1 gal/day in 2021. Using an average degradation rate for each well and the runtimes discussed above, the total volume of LNAPL that has been degraded

from startup through September 28, 2021 has been calculated as approximately 3,672 gallons based on measurement of CO_2 and CH_4 generation.

Biodegradation and Performance Summary

LNAPL transmissivity data indicate that LNAPL recoverability has remained relatively consistent at the bioventing locations. While it is expected to see decreases in LNAPL transmissivity at bioventing wells as LNAPL degradation progresses, it is likely that transmissivity values will continue to vary with fluctuating water levels but will follow a generally declining trend as LNAPL mass continues to biodegrade and LNAPL saturation is accordingly reduced.

Based on the bioventing air emissions tracking data reviewed above, bioventing is having an observable positive impact on LNAPL degradation rates at the Site relative to ambient conditions, with approximately 3,672 gallons of LNAPL degraded over the course of system operation through September 2021.

Following this evaluation, Arcadis recommends the following:

- Continued operation of bioventing systems at MW-27, MW-28, and RW-2 for further LNAPL degradation.
  - Quarterly collection of effluent field readings
  - Annual analytical gas sample collection in the third quarter of 2022
  - Re-evaluation of the systems using field and analytical results to determine if removal rates become asymptotic.
- Continued annual LNAPL baildown testing in 2022 at wells with bioventing units (MW-27, MW-28, and RW-2).
- Based on data collected in 2022, potential relocation of the biovents at MW-27 and/or MW-28 to alternate wells if 2022 LNAPL transmissivity and emissions data confirm that practical bioventing remediation has been achieved at these wells.
- Continued biennial LNAPL baildown testing at wells MW-1, MW-2, MW-10, MW-19, MW-20, MW-27, MW-28, RW-1, RW-2, and RW-4 in 2023.

Arcadis will provide CEMC an update on performance on an annual basis.

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ITRC (Interstate Technology & Regulatory Council), 2009. Evaluating LNAPL Remedial Technologies for Achieving Project Goals. LNAPL-2. Washington, D.C.: Interstate Technology & Regulatory Council, LNAPLs Team. www.itrcweb.org.

ITRC, 2018. LNAPL-3: LNAPL Site Management: LCSM Evolution, Decision Process, and Remedial Technologies. Washington, D.C.: Interstate Technology & Regulatory Council, LNAPLs Team. https://lnapl-3.itrcweb.org/

Sweeney, R.E., and G.T. Ririe. 2014. Temperature as a Tool to Evaluate Aerobic Biodegradation in Hydrocarbon Contaminated Soil. Groundwater Monitoring and Remediation. 34:41-50.

FIGURES

TABLES

FIGURES

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LEGEND

- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- TARGA'S ONSITE INJECTION WELL
- RECOVERY WELL
- INACTIVE WATER WELL
- OFFSITE PROPERTY WELL (NOT SAMPLED)
- BIOVENTING WELL

NOTES:

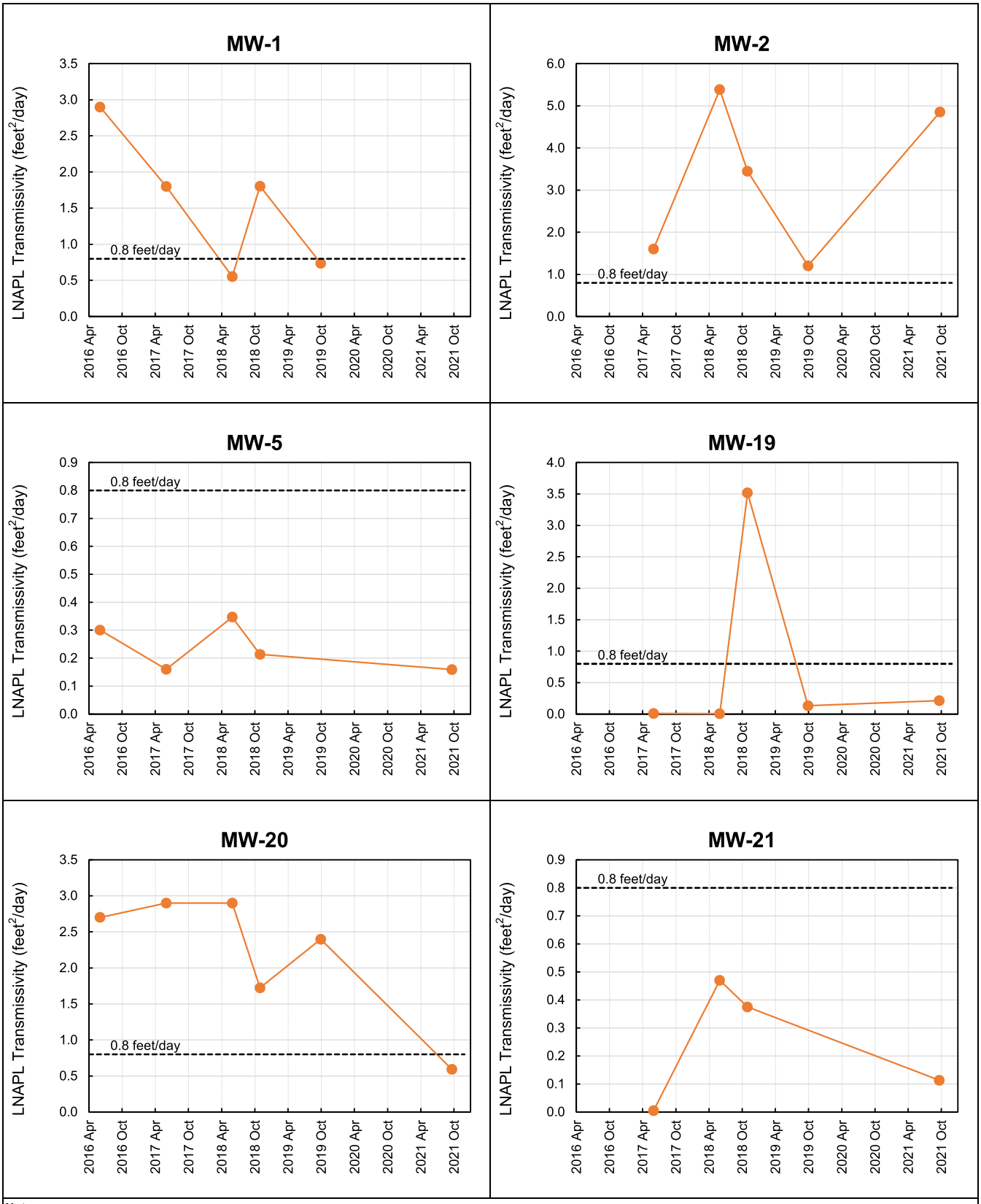
1. MAP PROJECTED TO NAD83 NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, FEET.
2. AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER, ACCESSED APRIL 2016.
3. WELLS SURVEYED 1998, 2000, 2001, 2002, AND 2006 BY PIPER SURVEYING COMPANY. NAD27 NM S.P. EAST, FEET.
4. SITE FEATURES PROVIDED BY CRA.

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER EUNICE SOUTH GAS PLANT
EUNICE, LEA COUNTY, NEW MEXICO

SITE LAYOUT MAP WITH BIOVENTING SYSTEM LOCATIONS

ARCADIS

FIGURE 1



Notes:

Plots were not developed for wells with three or less transmissivity test results.

● LNAPL Transmissivity (feet²/day)

▬ 0.8 feet²/day is the lower limit of practical hydraulic LNAPL recovery

ARCADIS

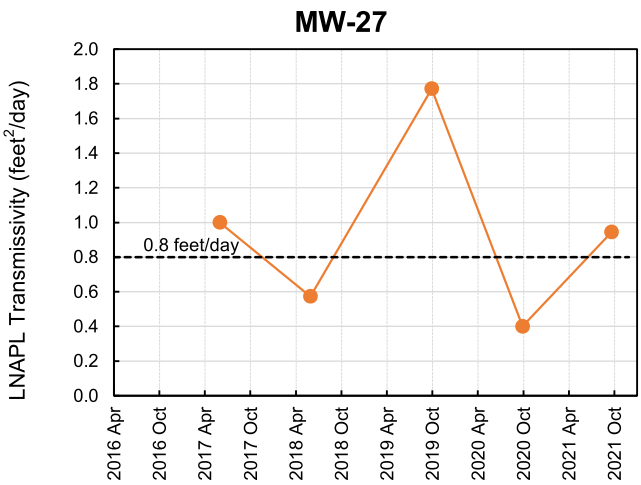
LNAPL Transmissivity Results for MW-1, MW-2, MW-5, MW-19, MW-20, and MW-21

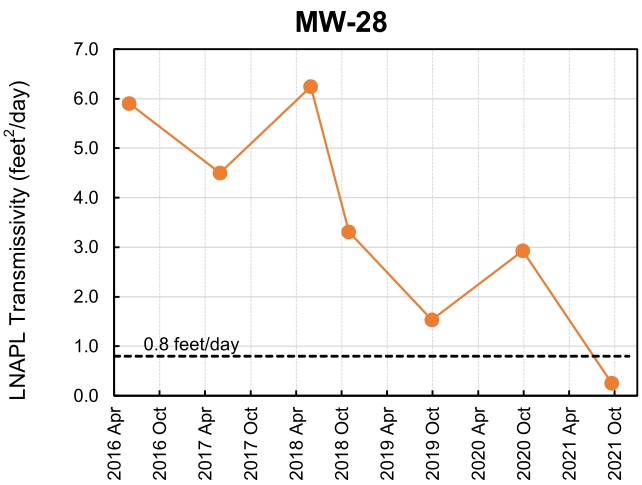
Bioventing and Natural Source Zone Depletion Evaluation Memo

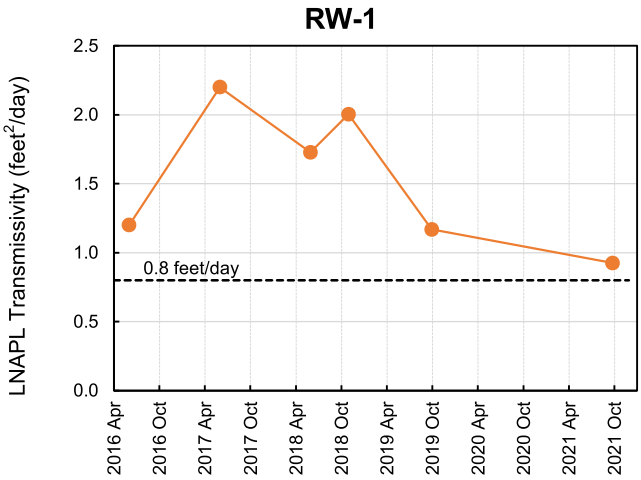
Former Eunice South Gas Plant, Lea County, Eunice, New Mexico

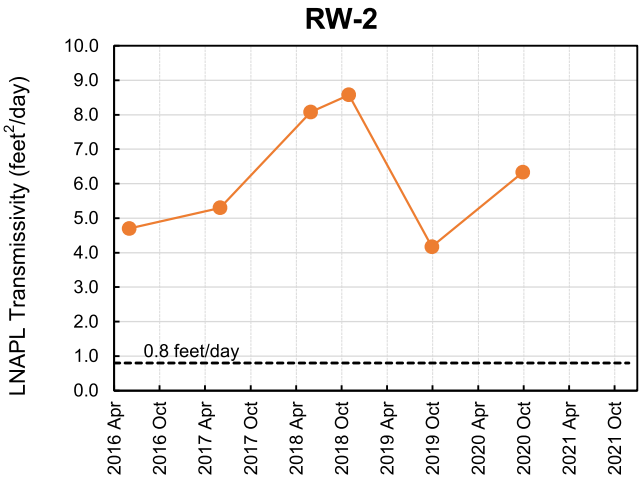
FIGURE

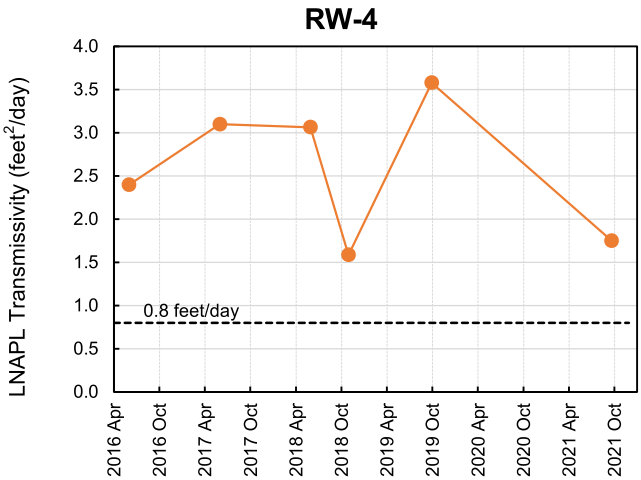
2











Notes:

Plots were not developed for wells with three or less transmissivity test results.

● LNAPL Transmissivity (feet²/day)

▬ 0.8 feet²/day is the lower limit of practical hydraulic LNAPL recovery

ARCADIS

LNAPL Transmissivity Results for MW-27, MW-28, RW-1, RW-2, and RW-4

Bioventing and Natural Source Zone Depletion Evaluation Memo

Former Eunice South Gas Plant, Lea County, Eunice, New Mexico

FIGURE

3

TABLES

Table 1
LNAPL Transmissivity Test Summary
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

ARCADIS Design & Consultancy for natural and built assets

Well ID	Test Date	Time Cut (minutes)	Initial LNAPL Thickness (feet)	Test Duration (minutes)	Final LNAPL Thickness (feet)	Percent Recovery	LNAPL Transmissivity (ft^2/day)								
							Bouwer and Rice	Cooper and Jacob/Jacob and Lohman	Cooper, Bredehoeft, and Papadopoulos	Geometric Mean	*2020 Geometric Mean*	*2019 Geometric Mean*	*2018 Geometric Mean*	*2017 Geometric Mean*	*2016 Geometric Mean*
MW-1	---[a]	---	---	---	---	---	---	---	---	---	---	0.7	0.6 **1.8**	**1.8**	**2.9**
MW-2	9/28/2021	19	1.45	1,151	1.49	103%	**3.9**	**5.6**	**5.3**	**4.9**	---	**1.2**	**5.4** **3.4**	**1.6**	---
MW-5	9/24/2021	29	1.93	379	0.88	46%	0.2	0.2	0.1	0.2	---	---	0.3 0.2	0.2	0.3
MW-10	---[a]	---	---	---	---	---	---	---	---	---	---	0.03	---	---	---
MW-12	9/24/2021	12	1.04	107	0.72	69%	0.3	**1.8**	**1.8**	**1.0**	---	---	0.04 0.4	---	---
MW-19	9/23/2021	19	1.57	1,343	0.42	27%	0.2	0.2	0.3	0.2	---	0.2	0.01 **3.5**	0.01	---
MW-20	9/24/2021	24	2.54	109	1.23	48%	0.6	**1.0**	0.4	0.6	---	**2.5**	**2.9** **1.7**	**2.9**	**2.7**
MW-21	9/24/2021	38	2.89	288	0.78	27%	0.1	0.1	0.2	0.1	---	---	0.5 0.4	0.005	---
MW-27	9/24/2021	12	1.34	255	1.31	98%	**1.0**	**1.0**	**0.9**	**0.9**	0.4	**2.0**	0.6	**1.0**	---
MW-28	9/24/2021	32	4.68	441	1.58	34%	0.3	0.3	0.2	0.3	**2.9**	**1.6**	**6.2** **3.3**	**4.5**	**5.9**
RW-1	9/28/2021	39	1.69	1,403	1.66	98%	0.6	**1.7**	0.8	**0.9**	---	**1.2**	**1.7** **2.0**	**2.2**	**1.2**
RW-2	---[a]	---	---	---	---	---	---	---	---	---	**6.3**	**4.8**	**8.1** **8.6**	**5.3**	**4.7**
RW-4	9/23/2021	139	1.61	1,066	1.56	97%	---[b]	**1.8**	---[b]	**1.8**	---	**3.9**	**3.1** **1.6**	**3.1**	**2.4**

Notes:
[a]LNAPL baildown testing was not conducted at this well in 2021 due to the absence of sufficient LNAPL at the time of testing.
[b]Transmissivity result from this model was rejected due to unrealistic result.

Acronyms and Abbreviations:
bold = values greater than the Interstate Technology & Regulatory Commission (ITRC [2009]) recommended threshold for practical recoverability of LNAPL (0.8 ft^2/day)
ft^2/day = square foot (feet) per day
LNAPL = light nonaqueous phase liquid
--- = data not available
% = percent

Table 2
Bioventing Emissions Summary
Former Eunice South Gas Plant
Eunice, Lea County, New Mexico

ARCADIS Design & Consultancy for natural and built assets

Well ID	Date	Flow Rate	Temperature	CH_4					CO_2					Total Hydrocarbon Depletion Rate
				Field-Measured Concentration	Molecular Weight	Potential Emission Rate		Rate of Hydrocarbon Depletion	Concentration	Molecular Weight	Potential Emission Rate		Rate of Hydrocarbon Depletion	
		acfm	°F	ppmv	g/mol	lb/hr	tpy	gal-LNAPL/day	ppmv	g/mol	lb/hr	tpy	gal-LNAPL/day	gal-LNAPL/day
MW-1	5/22/2017	1.30	100.0	160,000	16.04	0.43	1.89	0.69	130,000	44.01	0.96	4.21	0.56	1.25
	5/23/2017	1.30	100.0	30,000	16.04	0.08	0.35	0.13	94,000	44.01	0.70	3.05	0.41	0.53
	5/25/2017	1.10	100.0	0	16.04	0.00	0.00	0.00	53,000	44.01	0.33	1.45	0.19	0.19
	7/11/2017	1.05	100.0	5,000	16.04	0.01	0.05	0.02	81,000	44.01	0.48	2.12	0.28	0.30
	7/31/2017	1.05	100.0	0	16.04	0.00	0.00	0.00	13,000	44.01	0.08	0.34	0.05	0.05
	8/31/2017	1.12	66.0	1,000,000	16.04	2.47	10.83	3.95	240,000	44.01	1.63	7.13	0.95	4.90
	10/31/2017	1.12	50.3	300,000	16.04	0.76	3.35	1.22	115,000	44.01	0.80	3.52	0.47	1.69
	2/12/2018	0.70	35.4	40,000	16.04	0.07	0.29	0.10	152,000	44.01	0.68	3.00	0.40	0.50
	3/8/2018	0.49	47.3	40,000	16.04	0.04	0.20	0.07	141,000	44.01	0.43	1.90	0.25	0.32
	4/5/2018	0.28	57.0	0	16.04	0.00	0.00	0.00	112,000	44.01	0.19	0.85	0.11	0.11
	4/30/2018	0.21	64.2	0	16.04	0.00	0.00	0.00	140,000	44.01	0.18	0.78	0.10	0.10
	5/30/2018	0.28	58.8	15,000	16.04	0.01	0.04	0.02	19,000	44.01	0.03	0.14	0.02	0.03
	6/29/2018	0.21	66.2	0	16.04	0.00	0.00	0.00	22,000	44.01	0.03	0.12	0.02	0.02
	8/8/2018	0.21	66.0	10,000	16.04	0.00	0.02	0.01	24,000	44.01	0.03	0.13	0.02	0.03
	8/31/2018	0.03	69.6	10,000	16.04	0.00	0.00	0.00	0	44.01	0.00	0.00	0.00	0.00
	10/1/2018	0.03	67.8	430,000	16.04	0.03	0.12	0.04	24,000	44.01	0.00	0.02	0.00	0.04
	11/1/2018	0.14	51.6	1,263	16.04	0.00	0.00	0.00	0	44.01	0.00	0.00	0.00	0.00
	12/3/2018	0.01	46.2	693	16.04	0.00	0.00	0.00	6	44.01	0.00	0.00	0.00	0.00
	6/28/2019	0.98	66.0	--	16.04	--	--	--	0	44.01	0.00	0.00	0.00	0.00
	7/31/2019	0.95	64.2	50,000	16.04	0.10	0.46	0.17	0	44.01	0.00	0.00	0.00	0.17
	8/29/2019	1.02	66.0	50,000	16.04	0.11	0.49	0.18	0	44.01	0.00	0.00	0.00	0.18
	10/10/2019	0.98	41.0	--	16.04	--	--	--	0	44.01	0.00	0.00	0.00	0.00
	4/30/2020	0.25	46.9	990,000	16.04	0.63	2.76	1.01	490,000	44.01	0.86	3.75	0.50	1.51
	6/30/2020	0.81	60.6	--	16.04	--	--	--	0	44.01	0.00	0.00	0.00	0.00
RW-2	5/22/2017	1.30	100.0	300,000	16.04	0.81	3.54	1.29	127,000	44.01	0.94	4.12	0.55	1.84
	5/23/2017	1.30	100.0	45,000	16.04	0.12	0.53	0.19	94,000	44.01	0.70	3.05	0.41	0.60
	5/25/2017	1.10	100.0	0	16.04	0.00	0.00	0.00	82,000	44.01	0.51	2.25	0.30	0.30
	7/11/2017	1.30	100.0	15,000	16.04	0.04	0.18	0.06	19,000	44.01	0.14	0.62	0.08	0.15
	7/31/2017	1.05	100.0	45,000	16.04	0.10	0.43	0.16	30,000	44.01	0.18	0.79	0.10	0.26
	8/31/2017	0.98	67.8	1,000,000	16.04	2.16	9.45	3.44	460,000	44.01	2.72	11.92	1.59	5.03
	10/31/2017	1.26	51.6	55,000	16.04	0.16	0.69	0.25	146,000	44.01	1.15	5.02	0.67	0.92
	2/12/2018	0.91	37.4	50,000	16.04	0.11	0.47	0.17	133,000	44.01	0.78	3.40	0.45	0.62
	3/8/2018	0.14	51.6	45,000	16.04	0.01	0.06	0.02	136,000	44.01	0.12	0.52	0.07	0.09
	4/5/2018	1.05	53.4	0	16.04	0.00	0.00	0.00	23,000	44.01	0.15	0.66	0.09	0.09
	4/30/2018	0.98	64.2	30,000	16.04	0.07	0.29	0.10	154,000	44.01	0.92	4.02	0.53	0.64
	5/30/2018	1.12	53.6	0	16.04	0.00	0.00	0.00	127,000	44.01	0.88	3.87	0.51	0.51
	6/29/2018	1.05	66.0	30,000	16.04	0.07	0.30	0.11	151,000	44.01	0.96	4.21	0.56	0.67
	8/8/2018	0.98	66.0	0	16.04	0.00	0.00	0.00	73,000	44.01	0.43	1.90	0.25	0.25
	8/31/2018	1.05	67.8	31,000	16.04	0.07	0.31	0.11	209,000	44.01	1.33	5.80	0.77	0.89
	10/1/2018	0.84	69.6	33,000	16.04	0.06	0.27	0.10	1,000	44.01	0.01	0.02	0.00	0.10
	11/1/2018	0.42	49.8	10,260	16.04	0.01	0.04	0.02	0	44.01	0.00	0.00	0.00	0.02
	12/3/2018	0.01	44.4	5,744	16.04	0.00	0.00	0.00	230	44.01	0.00	0.00	0.00	0.00
	12/28/2018	0.00	29.8	--	--	--	--	--	0	44.01	0.00	0.00	0.00	0.00
	4/30/2019	1.02	51.8	--	--	--	--	--	270,000	44.01	1.71	7.47	0.99	0.99
	5/30/2019	1.05	62.0	42,500	16.04	0.10	0.43	0.16	80,000	44.01	0.51	2.25	0.30	0.46
	6/28/2019	1.02	69.6	--	--	--	--	--	10,000	44.01	0.06	0.27	0.04	0.04
	7/31/2019	0.98	64.2	50,000	16.04	0.11	0.48	0.17	200,000	44.01	1.19	5.22	0.69	0.87
	8/29/2019	1.05	64.2	50,000	16.04	0.12	0.51	0.19	220,000	44.01	1.40	6.15	0.82	1.00
	10/10/2019	0.98	42.6	--	--	--	--	--	650,000	44.01	4.04	17.69	2.35	2.35
	12/30/2019	0.98	44.4	810,000	16.04	2.08	9.09	3.31	460,000	44.01	3.23	14.16	1.89	5.20
	2/28/2020	0.98	43.1	0	16.04	0.00	0.00	0.00	0	44.01	0.00	0.00	0.00	0.00
	4/2/2020	0.91	51.6	990,000	16.04	2.32	10.17	3.71	18	44.01	0.00	0.00	0.00	3.71
	4/30/2020	0.25	46.9	990,000	16.04	0.63	2.76	1.01	49	44.01	0.00	0.00	0.00	1.01
	6/30/2020	0.84	62.4	--	--	--	--	--	0	44.01	0.00	0.00	0.00	0.00
	7/29/2020	0.77	60.0	--	--	--	--	--	1,000,000	44.01	5.36	23.48	3.12	3.12
	8/28/2020	0.63	59.3	--	--	--	--	--	40,000	44.01	0.18	0.77	0.10	0.10
	9/28/2020	1.05	40.6	--	--	--	--	--	410,000	44.01	3.11	13.63	1.81	1.81
	3/30/2021	0.53	83.4	--	--	--	--	--	10,000	44.01	0.03	0.13	0.02	0.02
MW-27	7/29/2020	0.77	61.1	--	--	--	--	--	250,000	44.01	1.34	5.87	0.78	0.78
	8/28/2020	1.03	60.4	--	--	--	--	--	160,000	44.01	1.15	5.03	0.67	0.67
	3/30/2021	0.91	98.6	--	--	--	--	--	40,000	44.01	0.21	0.91	0.12	0.12
	6/29/2021	1.02	63.5	--	--	--	--	--	499	44.01	0.00	0.01	0.00	0.00
	9/28/2021	0.98	61.1	--	--	--	--	--	1,200,000	44.01	7.19	31.50	4.19	4.19
	12/15/2021	0.91	46.2	--	--	--	--	--	0	44.01	0.00	0.00	0.00	0.00
MW-28	5/22/2017	1.30	100.0	325,000	16.04	0.88	3.84	1.40	43,000	44.01	0.32	1.39	0.19	1.58
	5/23/2017	1.20	100.0	75,000	16.04	0.19	0.82	0.30	16,000	44.01	0.11	0.48	0.06	0.36
	7/11/2017	1.00	100.0	30,000	16.04	0.06	0.27	0.10	1,000	44.01	0.01	0.02	0.00	0.10
	8/31/2017	1.05	66.0	710,000	16.04	1.65	7.21	2.63	120,000	44.01	0.76	3.34	0.45	3.07
	10/31/2017	1.12	48.0	0	16.04	0.00	0.00	0.00	9,000	44.01	0.06	0.28	0.04	0.04
	2/12/2018	1.05	33.8	5,000	16.04	0.01	0.05	0.02	0	44.01	0.00	0.00	0.00	0.02
	3/8/2018	0.98	48.0	0	16.04	0.00	0.00	0.00	130,000	44.01	0.80	3.50	0.47	0.47
	4/5/2018	0.98	57.0	0	16.04	0.00	0.00	0.00	10,000	44.01	0.06	0.26	0.04	0.04
	4/30/2018	0.91	66.0	15,000	16.04	0.03	0.13	0.05	7,000	44.01	0.04	0.17	0.02	0.07
	5/30/2018	1.05	55.0	45,000	16.04	0.11	0.47	0.17	67,000	44.01	0.44	1.91	0.25	0.42
	6/29/2018	0.98	66.0	10,000	16.04	0.02	0.09	0.03	12,000	44.01	0.07	0.31	0.04	0.08
	8/8/2018	0.98	66.0	0	16.04	0.00	0.00	0.00	17,000	44.01	0.10	0.44	0.06	0.06
	8/31/2018	1.05	67.8	10,000	16.04	0.02	0.10	0.04	14,000	44.01	0.09	0.39	0.05	0.09
	10/1/2018	1.12	67.8	13,000	16.04	0.03	0.14	0.05	0	44.01	0.00	0.00	0.00	0.05
	11/1/2018	2.80	51.6	1,922	16.04	0.01	0.05	0.02	80,000	44.01	1.40	6.11	0.81	0.83
	12/3/2018	0.98	45.6	4,901	16.04	0.01	0.05	0.02	120	44.01	0.00	0.00	0.00	0.02
	12/28/2018	0.98	30.5	--	--	--	--	--	0	44.01	0.00	0.00	0.00	0.00
	4/30/2019	1.05	73.2	--	--	--	--	--	80,000	44.01	0.50	2.20	0.29	0.29
	5/28/2019	1.12	62.4	50,000	16.04	0.12	0.55	0.20	0	44.01	0.00	0.00	0.00	0.20
	6/28/2019	1.12	67.1	--	--	--	--	--	440,000	44.01	2.98	13.05	1.74	1.74
	7/31/2019	1.12	66.0	50,000	16.04	0.12	0.54	0.20	590,000	44.01	4.00	17.54	2.33	2.53
	8/29/2019	1.33	56.0	50,000	16.04	0.15	0.66	0.24	520,000	44.01	4.27	18.71	2.49	2.73
	10/10/2019	1.12	43.8	--	--	--	--	--	350,000	44.01	2.48	10.86	1.45	1.45
	12/30/2019	0.63	44.4	850,000	16.04	1.40	6.13	2.23	2,500,000	44.01	11.30	49.48	6.59	8.82
	2/28/2020	0.84	43.7	50,000	16.04	0.11	0.48	0.18	0	44.01	0.00	0.00	0.00	0.18
	4/2/2020	0.42	55.2	990,000	16.04	1.06	4.66	1.70	--	--	--	--	--	1.70
	4/30/2020	0.26	52.5	990,000	16.04	0.67	2.93	1.07	--	--	--	--	--	1.07
	6/30/2020	0.77	62.4	--	--	--	--	--	10,000	44.01	0.05	0.23	0.03	0.03
	7/29/2020	0.91	62.7	--	--	--	--	--	1,000,000	44.01	6.30	27.59	3.67	3.67
	8/28/2020	0.91	60.2	--	--	--	--	--	80,000	44.01	0.51	2.22	0.30	0.30
	9/28/2020	0.98	43.3	--	--	--	--	--	20,000	44.01	0.14	0.62	0.08	0.08
	3/30/2021	0.88	106.5	--	--	--	--	--	60,000	44.01	0.30	1.29	0.17	0.17
	6/29/2021	0.91	69.6	--	--	--	--	--	499	44.01	0.00	0.01	0.00	0.00
	9/28/2021	0.88	60.0	--	--	--	--	--	489,000	44.01	2.62	11.49	1.53	1.53

Notes:
-- = Data was not collected
acfm = actual cubic-foot per meter
CH_4 = methane
CO_2 = carbon dioxide
°F = degrees Fahrenheit
gal-LNAPL/day = gallons of light non-aqueous phase liquid per day
g/mol = grams per mole
ppmv = parts per million by volume
tpy = tons per year

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
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CONDITIONS

Action 91731

CONDITIONS

Operator:	OGRID:
CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	4323
	Action Number: 91731
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Review of 2021 Annual GW Monitoring Report: Content satisfactory 1. Continue semi-annual groundwater monitoring 2. Continue bioventing units on wells MW-27, MW-28, and RW-2 in 2023 3. Submit the Annual Monitoring Report to the OCD no later than March 31, 2023.	12/9/2022