



**Jason Michelson**  
Project Manager

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October 23, 2019

New Mexico Oil Conservation Division, District 1  
1625 N. French Drive  
Hobbs, NM 88240

**Re: Vacuum Glorieta West Unit O-40 Trunk Line  
Remedial Plan #: 1RP-3259 and 1RP-3252  
2019 Work Plan  
Lea County, New Mexico**

Dear whom it concerns,

Please find enclosed for your files, copies of the following report:

- Vacuum Glorieta West Unit O-40 Trunk Line 2019 Work Plan

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

Please do not hesitate to call Scott Foord with Arcadis at 713-953-4853 or myself at 832-854-5601, should you have any questions.

Sincerely,

Jason Michelson

Encl. Vacuum Glorieta West Unit O-40 Trunk Line 2019 Work Plan

C.C. Amy Barnhill, Chevron/MCBU



New Mexico Oil Conservation Division – District I  
Upstream Business Unit  
1625 N. French Drive  
Hobbs, New Mexico 88240

Arcadis U.S., Inc.  
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Subject:  
**Remediation Work Plan**  
2019 Remediation Activities  
HES Transfer Site – Vacuum Glorieta West Unit O-40 Trunk Line  
1RP-3259 and 1RP-3252  
Lea County, New Mexico

ENVIRONMENT

Date:  
October 23, 2019

Contact:  
Scott Foord

Phone:  
713.953.4853

Email:  
william.foord@arcadis.com

Our ref:  
N/A

**ARCADIS U.S., Inc.**  
TX Engineering License # F-533  
Geoscientist License # 50158

Dear New Mexico Oil Conservation Division:

### PROJECT SUMMARY

According to the submitted New Mexico Oil Conservation Division (NMOCD) Notification of Release and Correction Action (Form C141), a release of approximately 149 barrels (bbls) of produced water occurred at the site (primarily pastureland) on December 5, 2012 due to a leak from an underground fiberglass line. Chevron personnel from the Mid-Continent Business Unit (MCBU) stopped the release and recovered approximately 35 bbls of fluids using a vacuum truck. On December 5, 2012, Chevron MCBU personnel excavated visually impacted soil in the area to a depth of approximately 2 feet below ground surface (bgs).

Chevron collected six discrete confirmation soil samples from the base of the excavation on January 22, 2013 that showed chloride was in excess of the historical New Mexico Administrative Code Closure Criteria (NMAC CC) of 500 milligrams per kilogram (mg/kg) confirming continued soil assessment efforts were necessary to fully delineate the impacted area.

### Soil and Groundwater Investigations

In October 2013, Arcadis advanced nine soil borings to a depth of 30 feet bgs in an effort to delineate the vertical and horizontal impacts to the soil. Six soil samples were collected from each boring. Chloride was detected in 23 of the 26 soil samples above the 2009 NMAC CC of 500 mg/kg in 5 of the 26 soil samples.

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In September 2016, Arcadis conducted subsequent site assessment activities to further delineate chloride-impacted soil at the site. Arcadis advanced 10 soil borings to depths of two-four feet bgs. A total of 26 soil samples were collected and submitted for chloride analysis. Chloride was detected above the 2009 NMAC CC of 500 mg/kg in 5 of the 26 soil samples.

The additional soil delineation sampling and chloride field screening activities conducted in 2016 suggested potential impacts to groundwater at VGWU O-40. Arcadis installed a groundwater monitoring well (VGWUO40-MW1) to a total depth of 150 feet bgs on December 4, 2017 to evaluate to groundwater conditions at the Site. Chloride was detected at a concentration of 470 milligrams per liter (mg/L) in VGWUO40-MW1 during the December 2017 sampling, 556 mg/L in July 2018, and 630 mg/L in October 2018. Detected chloride concentrations during each groundwater sampling event exceeded the New Mexico Quality Control Commission (NMWQCC) groundwater standard set forth in NMAC Section 20.6.2.3103B of 250 mg/L.

On October 25, 2018, Arcadis performed an electromagnetic conductivity (EM) survey over accessible areas of the site covering approximately 4 acres. Elevated electrical conductivity responses across the area of the release were detected.

In conjunction with the geophysical survey, and for correlation purposes as well as to provide site specific laboratory data, Arcadis collected 5 surface soil samples using a hand auger from a depth of 0.5 feet bgs. Chloride was detected in 3 of the 5 surface soil samples collected. Chloride concentrations detected in two of the surface soil samples exceeded the revised 2018 NMAC CC of 600 mg/kg for soil within the first 4 feet bgs.

Historical analytical results for soil and groundwater can be found in **Table 1** and **Table 2**, respectfully.

## SCOPE OF WORK

### Task 1 – Utility Locate

Prior to initiating any intrusive work, the presence of subsurface and overhead utilities will be investigated in accordance with Arcadis Utility Location and Clearance Standard (Health and Safety Standard No. ARCHSFS019) and CEMC Ground Disturbance Standard and supplemental Subsurface Line Strike Prevention Guidance, requiring a minimum of three lines of evidence including the following:

- Notify New Mexico 811 a minimum of 48 hours in advance of commencing intrusive activities at the Site. The notification will allow its member utilities to review proposed sample locations at the Site and identify potential subsurface utility conflicts.
- Contract a licensed private utility locating service to complete a geophysical survey of the proposed boring locations at the Site. The private utility locating service will utilize ground penetrating radar and electromagnetic equipment, among other utility locating techniques, to identify any subsurface utilities near proposed boring locations. Located utilities will be surveyed using Trimble GeoExplorer 6000 series global positioning system equipment, or equivalent.
- Arcadis will prepare and submit a dig plan to the Chevron MCBU Functional Operations Team for approval.

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- Attempt to clear all boring and monitoring well locations utilizing air knifing equipment to at least 5 feet bgs if soil/site conditions allow. In the event clearance is not feasible, the subcontractor will follow variance requirements.

### **Task 2 – Monitoring Well Installation**

Further investigation activities will be conducted at the site inclusive of the installation of two additional monitoring wells. Arcadis will acquire well installation permits from New Mexico State of Engineers before commencing fieldwork. Arcadis will coordinate the utility clearance activities (e.g. New Mexico State One Call, private locating service, and Dig Plan process). The New Mexico Licensed drilling company will complete the following tasks with oversight provided by Arcadis field personnel:

- Clear all locations utilizing air knifing equipment to at least 5 feet bgs. In the event clearance to 5 feet bgs is not feasible, Arcadis will follow CEMC's variance process.
- Two monitoring wells will be installed into the groundwater bearing unit. Arcadis anticipates that both monitoring wells will be advanced to approximately 150 feet bgs based on previous groundwater investigations in the vicinity, although the total depth will be determined by field observations under the supervision of a field geologist. The monitoring wells will be constructed with four-inch diameter schedule 80 poly vinyl chloride (PVC) casing and 0.010-inch machine-slotted PVC screen. The well will have four feet of stick up casing above ground surface and will be properly secured with a locking monitoring well cap. The well will be purged and developed 24 hours after installation.
- The two monitoring well borings will be logged on Arcadis boring logs according to USGS guidelines. Arcadis will collect soil samples during the well installation process at ten-foot intervals for laboratory analysis of chloride by EPA Method 300. Chloride field testing will also be conducted at ten-foot intervals to help guide soil sample analyses.
- Investigative derived waste (IDW), which includes soil cuttings from drilling and purge water from well development, will be drummed in 55-gallon drums, properly labeled, and stored onsite. The drums will be sampled to determine disposal classification. Arcadis will arrange for a licensed disposal company to transfer the drums to an approved disposal facility.
- All samples will be collected in clean, laboratory-supplied sample containers, labeled, placed on ice, cooled to approximately 4 degrees Celsius, and transported to a State of New Mexico-certified laboratory, under chain-of-custody protocol.
- Monitoring wells will also be surveyed by a State of New Mexico surveyor.

### **Task 3 – Semi-annual Groundwater Sampling**

Two rounds of groundwater sampling from the monitoring wells will be conducted to determine current chloride concentrations in groundwater. Groundwater samples will be analyzed for chloride by USEPA Method 300.1 (or an equivalent method) with a standard (10-day) turnaround time. The groundwater samples will be collected in clean, laboratory-supplied sample containers, labeled, placed on ice, cooled to approximately 4 degrees Celsius, and transported to a State of New Mexico-certified laboratory, under chain-of-custody protocol.

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#### Task 4 – Data Evaluation and Reporting

The results of the well installation and semi-annual sampling activities will be summarized in an annual report for submittal to the NMOCD. The report will include tabulated gauging and analytical data, figures showing locations and results, and laboratory analytical data sheets. Recommendations for site closure and/or additional work to move the site towards closure will also be included. The report will be submitted prior to the end of the third quarter 2020.

If you have any questions or comments, please contact either Scott Foord by phone at 713 953 4853 or by e-mail at [william.foord@arcadis.com](mailto:william.foord@arcadis.com) or Greg Cutshall by phone at 859 327 4626 or by email at [greg.cutshall@arcadis.com](mailto:greg.cutshall@arcadis.com).

Sincerely,

Arcadis U.S., Inc.



Greg Cutshall  
Program Manager



Scott Foord  
Project Manager

Copies:  
File

Enclosures:  
**Tables**

- 1 Historical Soil Analytical Results
- 2 Historical Groundwater Results

**Figures**

- 1 Proposed Monitoring Well Locations Map

**Table 1**  
**Soil Analytical Results**  
**Chevron EMC**  
**Vacuum Glorieta West Unit O-40 Trunk Line**  
**Lea County, New Mexico**



| Boring Location ID                          | Sample Date | Sample Depth (feet bgs) | Benzene (mg/kg) | Toluene (mg/kg) | Ethylbenzene (mg/kg) | Total Xylenes (mg/kg) | Total BTEX (mg/kg) | TPH-GRO (mg/kg) | TPH-DRO (mg/kg) | Chloride (mg/kg) | % Moisture |
|---|-------------|-------------------------|-----------------|-----------------|----------------------|-----------------------|--------------------|-----------------|-----------------|------------------|------------|
| <i>NMAC Closure Criteria <sup>(a)</sup></i> |             |                         | 10              | ---             | ---                  | ---                   | 50                 | 1,000           | 20,000          | ---              |            |
| VGWU #040 Sample #1                         | 1/22/2013   | 2                       | <0.050          | <0.050          | <0.050               | <0.150                | --                 | <10.0           | <10.0           | 11,000           | --         |
| VGWU #040 Sample #2                         | 1/22/2013   | 2                       | <0.050          | <0.050          | <0.050               | <0.150                | --                 | <10.0           | <10.0           | 9,760            | --         |
| VGWU #040 Sample #3                         | 1/22/2013   | 2                       | <0.050          | <0.050          | <0.050               | <0.150                | --                 | <10.0           | <10.0           | 11,600           | --         |
| VGWU #040 Sample #4                         | 1/22/2013   | 2                       | <0.050          | <0.050          | <0.050               | <0.150                | --                 | <10.0           | <10.0           | 6,480            | --         |
| VGWU #040 Sample #5                         | 1/22/2013   | 2                       | <0.050          | <0.050          | <0.050               | <0.150                | --                 | <10.0           | <10.0           | 9,920            | --         |
| VGWU #040 Sample #6                         | 1/22/2013   | 2                       | <0.050          | <0.050          | <0.050               | <0.150                | --                 | <10.0           | <10.0           | 12,000           | --         |
| VGWU 40- 01                                 | 10/23/2013  | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 1,000            | 5          |
|   | 10/23/2013  | 5                       | --              | --              | --                   | --                    | --                 | --              | --              | 2,100            | 4          |
|   | 10/23/2013  | 10                      | --              | --              | --                   | --                    | --                 | --              | --              | 400              | 6          |
|   | 10/23/2013  | 15                      | --              | --              | --                   | --                    | --                 | --              | --              | 350              | 5          |
|   | 10/23/2013  | 20                      | --              | --              | --                   | --                    | --                 | --              | --              | 33               | 8          |
|   | 10/23/2013  | 25                      | --              | --              | --                   | --                    | --                 | --              | --              | 15               | 4          |
|   | 10/23/2013  | 30                      | --              | --              | --                   | --                    | --                 | --              | --              | 180              | 3          |
| VGWU 40- 02                                 | 10/22/2013  | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 2,600            | 6          |
|   | 10/22/2013  | 5                       | --              | --              | --                   | --                    | --                 | --              | --              | 4,300            | 10         |
|   | 10/22/2013  | 10                      | --              | --              | --                   | --                    | --                 | --              | --              | 4,700            | 3          |
|   | 10/22/2013  | 15                      | --              | --              | --                   | --                    | --                 | --              | --              | 3,900            | 6          |
|   | 10/22/2013  | 20                      | --              | --              | --                   | --                    | --                 | --              | --              | 2,600            | 7          |
|   | 10/23/2013  | 25                      | --              | --              | --                   | --                    | --                 | --              | --              | 3,100            | 3          |
|   | 10/23/2013  | 30                      | --              | --              | --                   | --                    | --                 | --              | --              | 3,600            | 4          |
| VGWU 40- 03                                 | 10/23/2013  | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 3,600            | 5          |
|   | 10/23/2013  | 5                       | --              | --              | --                   | --                    | --                 | --              | --              | 910              | 3          |
|   | 10/23/2013  | 10                      | --              | --              | --                   | --                    | --                 | --              | --              | 37               | 3          |
|   | 10/23/2013  | 15                      | --              | --              | --                   | --                    | --                 | --              | --              | 23               | 3          |
|   | 10/23/2013  | 20                      | --              | --              | --                   | --                    | --                 | --              | --              | 14               | 1          |
|   | 10/23/2013  | 25                      | --              | --              | --                   | --                    | --                 | --              | --              | 8                | 2          |
|   | 10/23/2013  | 30                      | --              | --              | --                   | --                    | --                 | --              | --              | 27               | 2          |
| VGWU 40- 04                                 | 10/22/2013  | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 1,700            | 6          |
|   | 10/22/2013  | 5                       | --              | --              | --                   | --                    | --                 | --              | --              | 5,200            | 9          |
|   | 10/22/2013  | 10                      | --              | --              | --                   | --                    | --                 | --              | --              | 360              | 6          |
|   | 10/22/2013  | 15                      | --              | --              | --                   | --                    | --                 | --              | --              | 93               | 8          |
|   | 10/22/2013  | 20                      | --              | --              | --                   | --                    | --                 | --              | --              | 23               | 6          |
|   | 10/22/2013  | 25                      | --              | --              | --                   | --                    | --                 | --              | --              | 71               | 12         |
|   | 10/22/2013  | 30                      | --              | --              | --                   | --                    | --                 | --              | --              | 21               | 8          |
| VGWU 40- 05                                 | 10/23/2013  | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 54               | 1          |
|   | 10/23/2013  | 5                       | --              | --              | --                   | --                    | --                 | --              | --              | 53               | 8          |
|   | 10/23/2013  | 10                      | --              | --              | --                   | --                    | --                 | --              | --              | 10               | 2          |
|   | 10/23/2013  | 15                      | --              | --              | --                   | --                    | --                 | --              | --              | 6                | 1          |
|   | 10/23/2013  | 20                      | --              | --              | --                   | --                    | --                 | --              | --              | 6                | 2          |
|   | 10/23/2013  | 25                      | --              | --              | --                   | --                    | --                 | --              | --              | 7                | 3          |
|   | 10/23/2013  | 30                      | --              | --              | --                   | --                    | --                 | --              | --              | 7                | 5          |
| VGWU 40- 06                                 | 10/23/2013  | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 51               | 2          |
|   | 10/23/2013  | 5                       | --              | --              | --                   | --                    | --                 | --              | --              | 27               | 6          |
|   | 10/23/2013  | 10                      | --              | --              | --                   | --                    | --                 | --              | --              | 7                | 4          |
|   | 10/23/2013  | 15                      | --              | --              | --                   | --                    | --                 | --              | --              | <4.4             | 9          |
|   | 10/23/2013  | 20                      | --              | --              | --                   | --                    | --                 | --              | --              | 6                | 4          |
|   | 10/23/2013  | 25                      | --              | --              | --                   | --                    | --                 | --              | --              | 7                | 4          |
|   | 10/23/2013  | 30                      | --              | --              | --                   | --                    | --                 | --              | --              | 10               | 4          |
| VGWU 40- 07                                 | 10/23/2013  | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 2,400            | 4          |
|   | 10/23/2013  | 5                       | --              | --              | --                   | --                    | --                 | --              | --              | 130              | 2          |
|   | 10/23/2013  | 10                      | --              | --              | --                   | --                    | --                 | --              | --              | 33               | 3          |
|   | 10/23/2013  | 15                      | --              | --              | --                   | --                    | --                 | --              | --              | 96               | 5          |
|   | 10/23/2013  | 20                      | --              | --              | --                   | --                    | --                 | --              | --              | 14               | 3          |
|   | 10/23/2013  | 25                      | --              | --              | --                   | --                    | --                 | --              | --              | 8                | 4          |
|   | 10/23/2013  | 30                      | --              | --              | --                   | --                    | --                 | --              | --              | 9                | 3          |

**Table 1**  
**Soil Analytical Results**  
**Chevron EMC**  
**Vacuum Glorieta West Unit O-40 Trunk Line**  
**Lea County, New Mexico**



| Boring Location ID               | Sample Date | Sample Depth (feet bgs) | Benzene (mg/kg) | Toluene (mg/kg) | Ethylbenzene (mg/kg) | Total Xylenes (mg/kg) | Total BTEX (mg/kg) | TPH-GRO (mg/kg) | TPH-DRO (mg/kg) | Chloride (mg/kg) | % Moisture |
|----------------------------------|-------------|-------------------------|-----------------|-----------------|----------------------|-----------------------|--------------------|-----------------|-----------------|------------------|------------|
| <i>NMAC Closure Criteria (a)</i> |             |                         | 10              | ---             | ---                  | ---                   | 50                 | 1,000           |                 | 20,000           | ---        |
| VGWU 40- 08                      | 10/23/2013  | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 2,000            | 3          |
|                                  | 10/23/2013  | 5                       | --              | --              | --                   | --                    | --                 | --              | --              | 700              | 6          |
|                                  | 10/23/2013  | 10                      | --              | --              | --                   | --                    | --                 | --              | --              | 2,600            | 8          |
|                                  | 10/23/2013  | 15                      | --              | --              | --                   | --                    | --                 | --              | --              | 11               | 13         |
|                                  | 10/23/2013  | 20                      | --              | --              | --                   | --                    | --                 | --              | --              | 46               | 5          |
|                                  | 10/23/2013  | 25                      | --              | --              | --                   | --                    | --                 | --              | --              | 130              | 4          |
|                                  | 10/23/2013  | 30                      | --              | --              | --                   | --                    | --                 | --              | --              | 61               | 7          |
| VGWU 40- 09                      | 10/23/2013  | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 2,500            | 5          |
|                                  | 10/23/2013  | 5                       | --              | --              | --                   | --                    | --                 | --              | --              | 1,800            | 2          |
|                                  | 10/23/2013  | 10                      | --              | --              | --                   | --                    | --                 | --              | --              | 900              | 4          |
|                                  | 10/23/2013  | 15                      | --              | --              | --                   | --                    | --                 | --              | --              | 2,300            | 10         |
|                                  | 10/23/2013  | 20                      | --              | --              | --                   | --                    | --                 | --              | --              | 580              | 9          |
|                                  | 10/23/2013  | 25                      | --              | --              | --                   | --                    | --                 | --              | --              | 70               | 7          |
|                                  | 10/23/2013  | 30                      | --              | --              | --                   | --                    | --                 | --              | --              | 130              | 5          |
| VGWUO40-10                       | 9/12/2016   | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 1,980            | --         |
|                                  | 9/12/2016   | 4                       | --              | --              | --                   | --                    | --                 | --              | --              | 428              | --         |
|                                  | 9/12/2016   | 7                       | --              | --              | --                   | --                    | --                 | --              | --              | 259              | --         |
|                                  | 9/12/2016   | 70                      | --              | --              | --                   | --                    | --                 | --              | --              | 920              | --         |
| VGWUO40-11                       | 9/12/2016   | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 44.2             | --         |
|                                  | 9/12/2016   | 4                       | --              | --              | --                   | --                    | --                 | --              | --              | <10.0            | --         |
| VGWUO40-12                       | 9/13/2016   | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 87               | --         |
|                                  | 9/13/2016   | 4                       | --              | --              | --                   | --                    | --                 | --              | --              | 54               | --         |
| VGWUO40-13                       | 9/12/2016   | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 753              | --         |
|                                  | 9/12/2016   | 4                       | --              | --              | --                   | --                    | --                 | --              | --              | 714              | --         |
|                                  | 9/12/2016   | 10                      | --              | --              | --                   | --                    | --                 | --              | --              | 10.1             | --         |
| VGWUO40-14                       | 9/12/2016   | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 87               | --         |
|                                  | 9/12/2016   | 4                       | --              | --              | --                   | --                    | --                 | --              | --              | 101              | --         |
| VGWUO40-15                       | 9/12/2016   | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | <10.0            | --         |
|                                  | 9/12/2016   | 4                       | --              | --              | --                   | --                    | --                 | --              | --              | <10.0            | --         |
| VGWUO40-16                       | 9/13/2016   | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 329.00           | --         |
|                                  | 9/13/2016   | 4                       | --              | --              | --                   | --                    | --                 | --              | --              | 881.00           | --         |
|                                  | 9/13/2016   | 50                      | --              | --              | --                   | --                    | --                 | --              | --              | 16.40            | --         |
| VGWUO40-17                       | 9/13/2016   | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 52.8             | --         |
|                                  | 9/13/2016   | 4                       | --              | --              | --                   | --                    | --                 | --              | --              | 34.8             | --         |
| VGWUO40-18                       | 9/13/2016   | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 65.30            | --         |
|                                  | 9/13/2016   | 4                       | --              | --              | --                   | --                    | --                 | --              | --              | 318.00           | --         |
|                                  | 9/13/2016   | 70                      | --              | --              | --                   | --                    | --                 | --              | --              | 142.00           | --         |
| VGWUO40-19                       | 9/13/2016   | 2                       | --              | --              | --                   | --                    | --                 | --              | --              | 54.2             | --         |
|                                  | 9/13/2016   | 4                       | --              | --              | --                   | --                    | --                 | --              | --              | 59.6             | --         |
| VGWUO40-20                       | 10/25/2018  | 0.5                     | --              | --              | --                   | --                    | --                 | --              | --              | <4.95            | --         |
| VGWUO40-21                       | 10/25/2018  | 0.5                     | --              | --              | --                   | --                    | --                 | --              | --              | 938.0            | --         |
| VGWUO40-22                       | 10/25/2018  | 0.5                     | --              | --              | --                   | --                    | --                 | --              | --              | 27.5             | --         |
| VGWUO40-23                       | 10/25/2018  | 0.5                     | --              | --              | --                   | --                    | --                 | --              | --              | 972              | --         |
| VGWUO40-24                       | 10/25/2018  | 0.5                     | --              | --              | --                   | --                    | --                 | --              | --              | <5.01            | --         |

**Legend:**  
 % Percent  
 mg/kg Milligram(s) per kilogram  
 < Analyte was not detected above the specified method reporting limit  
 -- Not Analyzed/Not Listed  
 bgs Below ground surface  
 BTEX Benzene, toluene, ethylbenzene, and total xylenes  
 NMAC New Mexico Administrative Code  
 TPH-GRO Total Petroleum Hydrocarbons as Gasoline Range Organics  
 TPH-DRO Total Petroleum Hydrocarbons as Diesel Range Organics

**Notes:**  
 (a) Title 19, Chapter 15 of the NMAC for Natural Resources and Wildlife, Oil and Gas, and Releases, 19.15.29 NMAC. August.

**Table 2**  
**Groundwater Gauging Data and Analytical Results**  
**Chevron EMC**  
**Vacuum Glorieta West Unit O-40 Trunk Line**  
**Lea County, New Mexico**



| Monitoring Well ID                | Date             | DTW (ft btoc) | Chloride <sup>1</sup> (mg/L) |
|-----------------------------------|------------------|---------------|------------------------------|
| <i>NMAC Standards<sup>2</sup></i> |                  |               | 250                          |
| <b>VGWUO40-MW1</b>                | 12/7/2017        | 149.3         | <b>470</b>                   |
|                                   | 12/7/2017 (DUP)  | --            | <b>459</b>                   |
|                                   | 7/31/2018        | 134.8         | <b>556</b>                   |
|                                   | 7/31/2018 (DUP)  | --            | <b>526</b>                   |
|                                   | 10/25/2018       | 135.0         | <b>630</b>                   |
|                                   | 10/25/2018 (DUP) | --            | <b>628</b>                   |

Notes:

1. Chloride analyzed by EPA Method 300/300.1.
2. Title 20, Chapter 6 of the NMAC for Environmental Protection, Water Quality, Ground and Surface Water Protection, 20.6.2 NMAC. December.

Legend:

|      |  |
|------|--|
| ###  | Analytical value is greater than or equal to NMAC closure criteria |
| --   | Not applicable or not measured                                     |
| NMAC | New Mexico Administrative Code                                     |
| DUP  | Field duplicate sample   |
| DTW  | Depth to Water   |
| mg/L | Miligram(s) per liter  |
| BTOC | Below top of casing  |
| ft   | Feet   |

*Bradford Billings*

Monitor wells approved for completion, should attempt to define background value for Cl in GW. Proceed with development and submittal of excavation plan for soils. Can use one report for two incident numbers but must be SUBMITTED to portal for BOTH incdet numbers



**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 2076

**CONDITIONS**

|  |   |
|--|---|
| Operator:<br>Arcadis U.S., Inc<br>630 Plaza Drive<br>Highlands Ranch, CO 80129 | OGRID:<br>329073  |
|  | Action Number:<br>2076                                    |
|  | Action Type:<br>[C-141] Release Corrective Action (C-141) |

**CONDITIONS**

| Created By | Condition   | Condition Date |
|------------|---|----------------|
| bbillings  | Monitor wells approved for completion, should attempt to define background value for Cl in GW. Proceed with development and submittal of excavation plan for soils. Can use one report for two incident numbers but must be SUBMITTED to portal for BOTH incident numbers | 7/8/2021       |