

Incident ID	NCLB0525655219
District RP	NA
Facility ID	NA
Application ID	NA

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>46</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

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## Remediation Plan


**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Gene ChoquetteTitle: MCBU Sr. Environmental SpecialistSignature: Date: 07/14/2023email: gchoquette@chevron.comTelephone: 713-372-2100**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral ApprovedSignature: Date: 07/14/2023



Mr. Nelson Velez  
Environmental Specialist  
EMNRD - Oil Conservation Division  
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Date: April 18, 2023  
Subject: Soil Remediation Work Plan/Variance Request  
Old Indian Draw Gathering Line Northern Area  
Incident# NCLB0525655219  
Eddy County, New Mexico

TX Engineering License # F-533  
TX Geoscientist License # 50158

Mr. Velez  
NMOCD  
April 18, 2023

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Appendices

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- Appendix C.     Laboratory Analytical Reports

Mr. Velez  
NMOCD  
April 18, 2023

Dear Mr. Velez,

Arcadis U.S., Inc. (Arcadis) has prepared this Soil Remediation Work Plan/Variance Request on behalf of Chevron U.S.A. Inc., for soil remediation activities at the Old Indian Draw Gathering Line Northern Area (Site), located in Eddy County, New Mexico.

## Background

The Site is located approximately 8-miles southeast of the City of Carlsbad in Unit Letter J, Section 18, Township 22 South, Range 28 East. Old Indian Draw Gathering Line Site is an inactive pasture location improved with pipelines and right-of-ways as of March 17, 2023. The Site is located on land owned by the United States Department of the Interior and administered by the Bureau of Land Management (BLM). The site location map is depicted on **Figure 1**.

On September 6, 2005, a fiberglass high pressure line (3-inch diameter) was leaking produced water at the collar releasing approximately 30 barrels (bbls) of produced water, with 6 bbls recovered. Approximately 7,020 square feet of surface area was impacted by the release. A C-141 Form was not located for this incident, but limited information pertaining to this incident was found on the New Mexico Oil Conservation Division (NMOCD) database. The release was assigned Incident Number NCLB0525655219; no remediation permit number was assigned. The information available from the NMOCD database for this release is included in **Appendix A**.

## Initial Site Investigation

On June 14-15, 2021, Larson & Associates, Inc. (Larson) began assessing the release area to depths of approximately 10 feet below ground surface (bgs) at 3 locations within the release area boundaries and at 4 additional locations surrounding the release area utilizing air rotary drilling methods to evaluate the horizontal extent of the release area.

Soil samples were submitted to Eurofins/Xenco Laboratories in Midland, Texas, for analyses of chloride; benzene, toluene, ethylbenzene, and xylenes (BTEX); and total petroleum hydrocarbons (Total TPH). Analytical results were reported below the applicable NMOCD regulatory limits for a site with groundwater less than 50 feet bgs for Total TPH (100 milligrams per kilogram (mg/kg)); BTEX (50 mg/kg); and benzene (10 mg/kg) from all soil samples collected. Analytical results indicated chloride concentrations ranged from 9.07 mg/kg in S-10 at 0.5 feet bgs to 1,060 mg/kg in S-6 at 5 feet bgs.

Larson returned to the Site on March 10, 2022, to continue vertical delineation activities utilizing air rotary drilling methods at the previously drilled S-6 location. Soil samples collected previously from this location were reported above the NMOCD regulatory limit of 600 mg/kg for chloride at a depth of 10 feet bgs. The subsequent boring was installed to approximately 15 feet bgs. Laboratory analytical results indicated chloride concentrations were reported at 458 mg/kg in soil sample S-6 at 15 feet bgs. Vertical delineation of the release area was completed during this assessment, but additional horizontal delineation assessment activities were determined warranted.

Analytical results from the Larson assessment are depicted in **Table 1**. Soil boring locations completed by Larson are depicted on **Figure 2**.

Mr. Velez  
NMOCD  
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## Additional Field Activities Summary

Arcadis began additional horizontal delineation assessment activities on January 31, 2023, with a stainless-steel hand auger at the Site. During the assessment, a resilient rock layer was encountered approximately 1-foot bgs at all locations. Arcadis collected 8 soil samples (L-1 through L-8) at depths of approximately six inches bgs. Only one soil sample (L-2) from that assessment was reported above the applicable NMOCD regulatory limit for chloride at a concentration of 909 mg/kg. Sample location L-4 was field screened for chloride but was not submitted for laboratory analyses. Field screening from L-4 indicated an estimated chloride concentration of 1,140 mg/kg. Evaluation of soil data collected to date confirmed horizontal and vertical delineation of the northern release area was accomplished in conjunction with the initial Larson assessment activities.

On February 13, 2023, Arcadis oversaw installation of a temporary monitoring well (TW-2) approximately 0.1 mile east of the Site (see **Figure 2**). During the installation of the temporary monitoring well, soil samples were collected from the surface to the top of the groundwater bearing unit at 5-foot intervals to conduct field screening for chloride utilizing Hach testing strips and for volatile organic compounds (VOCs) utilizing a photoionization detector (PID). Field screening results from soil samples collected during the installation of the temporary monitoring well indicated no chloride or VOC impacts in soil from the ground surface down to the groundwater bearing unit encountered at approximately 47.5 feet bgs. No soil samples were submitted for laboratory analysis.

On February 16, 2023, the temporary monitoring well was developed utilizing Environmental Protection Agency (EPA) Standard Methods. Following development activities on the temporary monitoring well, a groundwater sample was collected and submitted to the laboratory for analysis of chloride and total dissolved solids (TDS) concentrations. Laboratory analytical results indicated chloride and TDS concentrations were below the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards of 250 milligrams per liter (mg/L) for chloride and 1,000 mg/L for TDS. Chloride was reported at 37.6 mg/L and TDS was reported at 328 mg/L. A copy of the Temporary Monitoring Well Boring Log is provided as **Appendix B**.

Evaluation of soil data collected to date confirm horizontal and vertical delineation of the release area were accomplished in conjunction with the initial Larson soil assessment activities, and that there is no chloride or TDS impact to groundwater proximate to the release area.

Analytical results from the subsequent Arcadis soil assessments can be found in **Table 2**, groundwater analytical results from groundwater samples collected from the temporary monitoring well can be found in **Table 3**. The soil sample locations completed by Arcadis are depicted on **Figure 2**. Laboratory analytical reports for soil and groundwater data collected are included in **Appendix C**.

## Remediation Activities Summary

On March 8, 2023, Arcadis began excavation activities within the impacted area assuming the most stringent NMOCD closure criteria for soil. A resilient calcrete rock layer was encountered across the release area at depths of approximately 1-foot bgs to 2.5 feet bgs. Repeated attempts to break through the resilient calcrete rock layer utilizing an excavator equipped with a trenching bucket and "rock teeth" yielded limited results.

Arcadis collected composite confirmation soil samples from the excavation area in accordance with Table I of part 19.15.29.12 NMAC. Sidewall and base composite confirmation soil samples were collected within 200 square feet sampling areas throughout the excavation area. Composite confirmation base samples were collected from the calcrete rock layer. A total of 24 composite confirmation soil samples were collected.

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- All sidewall composite confirmation soil samples were reported below the applicable NMOCD closure criteria stipulated in Table I of part 19.15.29.12 for a site with depth to groundwater less than 50 feet bgs for chloride, Total TPH, BTEX, and benzene.
- 11 of the 21 base composite confirmation soil samples were reported below the applicable NMOCD closure criteria for chloride. Reported chloride concentrations above the applicable NMAC closure criteria of 600 mg/kg ranged from 671 mg/kg in soil sample B-20 up to 2,210 mg/kg in soil sample B-21. No base composite confirmation soil samples were reported above the applicable NMOCD closure criteria for a site with depth to groundwater less than 50 feet bgs for Total TPH, BTEX, or benzene.

Five-point composite sidewall sample locations are depicted on **Figure 2**, and the five-point composite base sample locations are depicted on **Figure 3**. Current site conditions and the resilient rock layer encountered are documented in the attached **Photographic Log**. Impacted soil excavated to date has been transported to a NMOCD approved disposal facility. Waste manifests are available upon request.

## Variance Request

Repeated attempts to break through the resilient calcrete rock layer utilizing an excavator equipped with a trenching bucket and "rock teeth" yielded limited results. Continued excavation activities are believed not practicable based on the site's geologic conditions. Analytical data collected during assessment activities confirm the release area has been horizontally and vertically defined. As such, Arcadis is requesting approval of the following Variance:

- Due to the resilient calcrete rock layer encountered at shallow depths across the release area, Arcadis is requesting a variance to limit excavation activities to include only removing impacted soil affected above the NMOCD Reclamation Standards present within the release area to the maximum extent practicable (to the surface of the calcrete layer).
- Following excavation of impacted soil affected above the NMOCD closure criteria, a layer of gypsum and/or a desalination product will be installed on the floor of the excavated area. This control is designed to inhibit the downward migration of chloride remaining in-situ.
- Arcadis requests approval to install a geosynthetic liner atop impacted areas exhibiting BTEX, TPH, and/or chloride concentrations above the NMOCD Closure Criteria remaining in-situ. The liner will be installed atop the resilient calcrete rock layer. This engineering control is designed to inhibit the vertical migration of chloride in soil to groundwater along with the upward migration of chloride to further support revegetation of the remediated area.
- Upon installing the geosynthetic liner, the excavated area will be backfilled with locally sourced, non-impacted "like" material.
- Upon completion of remediation activities, the area will be reseeded with a BLM approved seed mixture during the first favorable growing season following closure of the Site.

Upon completion of the remediation and reclamation activities, a *Remediation Summary and Soil Closure Request* will be submitted to the NMOCD, containing a detailed summary of the field activities and laboratory analytical results.

Mr. Velez  
NMOCD  
April 18, 2023

If you have any questions or comments with regards to this work plan and variance request, please do not hesitate to contact Scott Foord at 713.953.4853 or by e-mail at [William.Foord@arcadis.com](mailto:William.Foord@arcadis.com).

Sincerely,  
Arcadis U.S., Inc.

A handwritten signature in blue ink, appearing to read "Scott Foord", is positioned above the printed name.

Scott Foord, PG  
Program Manager



# Tables

**Table 1**  
**2021/2022 Soil Analytical Results - Larson Associates**  
**Old Indian Gathering Line Northern Area**  
**Eddy County, New Mexico**  
**32° 23' 34.90" North, 104° 07' 31.40" West**

Page 1 of 1

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
<b>Remediation Level:</b>				<b>10</b>	<b>50</b>	<b>100</b>				<b>600</b>
<b>S-4</b>	1	6/15/2021	In-Situ	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	245
	3	6/15/2021	In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	467
	5	6/15/2021	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	9.79
	10	6/15/2021	In-Situ	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	239
<b>S-5</b>	1	6/15/2021	In-Situ	<0.00200	<0.00399	<49.7	<49.7	<49.7	<49.7	194
	3	6/15/2021	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	495
	5	6/15/2021	In-Situ	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<b>854</b>
	10	6/15/2021	In-Situ	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	481
<b>S-6</b>	1	6/15/2021	In-Situ	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	286
	3	6/15/2021	In-Situ	<0.00198	<0.00397	<49.7	<49.7	<49.7	<49.7	203
	5	6/15/2021	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<b>1,060</b>
	10	6/15/2021	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<b>724</b>
	15	3/10/2022	In-Situ	--	--	--	--	--	--	458
<b>S-7</b>	1	6/15/2021	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	549
	3	6/15/2021	In-Situ	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	239
	5	6/15/2021	In-Situ	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	590
	10	6/15/2021	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	347
<b>S-8</b>	0.5	6/14/2021	In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	24.6
<b>S-9</b>	0.5	6/14/2021	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	276
<b>S-10</b>	0.5	6/14/2021	In-Situ	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	9.07

Laboratory Notes: Analysis performed by Xenco Laboratories (Xenco) in Midland, Texas by EPA SW-846 8021B (BTEX), 8015M (TPH), and 300E (Chloride)  
 Depth in feet below ground surface (bgs)  
 mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)  
 <: denotes concentration less than analytical method reporting limit

**Bold and Highlighted exceeds OCD remediation action limits**

Table 2  
2023 Soil Analytical Results  
Old Indian Draw Gathering Line Northern  
Incident No NCLB0525655219

Location ID	Depth (Feet)	Date Collected	Sample Name	Soil Status	BTEX					TPH				Gen Chem
					Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylenes, Total mg/kg	Total BTEX mg/kg	Gasoline Range Organics (GRO)-C6-C10 mg/kg	Diesel Range Organics (Over C10-C28) mg/kg	Oil Range Organics (Over C28-C36) mg/kg	Total TPH mg/kg	Chloride, Dissolved mg/kg
NMOCD					10	--	--	--	50	--	--	--	100	600
B-01	2	03/07/2023	B-1-S-2'-20230307	In-Situ	<0.000383	<0.000453	<0.000562	<0.00100	<0.00100	23.3J	<15.0	<15.0	23.3J	133
B-02	2	03/07/2023	B-2-S-2'-20230307	In-Situ	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	<15.0	<15.0	<15.0	<15.0	97.5
B-03	2	03/07/2023	B-3-S-2'-20230307	In-Situ	0.000428J	<0.000453	<0.000562	<0.00100	<0.00100	<15.0	<15.0	<15.0	<15.0	55.9
B-04	2	03/07/2023	B-4-S-2'-20230307	In-Situ	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	19.7J	19.0J	<15.0	38.7J	444
B-05	1	03/07/2023	B-5-S-1'-2-20230307	In-Situ	<0.000387	<0.000459	<0.000568	<0.00102	<0.00102	<15.0	<15.0	<15.0	<15.0	332
B-06	1	03/07/2023	B-6-S-1'-2'-20230307	In-Situ	<0.000386	<0.000457	<0.000566	<0.00101	<0.00101	<15.0	<15.0	<15.0	<15.0	308
B-07	1	03/07/2023	B-7-S-1'-2-20230307	In-Situ	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	17.9J B	27.1J	<15.0	45.0J	1470
B-08	1	03/07/2023	B-8-S-1'-2-20230307	In-Situ	0.000532J	0.00151J	0.00157J	0.00669	0.0103	24.1J B	27.3J	<15.0	51.4	1160
B-09	1	03/07/2023	B-9-S-1'-2-20230307	In-Situ	<0.000383	<0.000453	<0.000562	<0.00100	<0.00100	24.5J B	<15.0	<15.0	24.5J	1130
B-10	1	03/07/2023	B-10-S-1'-20230307	In-Situ	0.000973J	0.00170J	0.00170J	0.00706	0.0114	46.6J B	<15.0	<15.0	46.6J	1050
B-11	1	03/07/2023	B-11-S-1'-20230307	In-Situ	<0.000386	0.000487J	<0.000566	<0.00101	0.00105J	25.7J B	16.0J	<15.0	41.7J	581
B-12	1	03/07/2023	B-12-S-1'-20230307	In-Situ	<0.000383	<0.000454	<0.000563	<0.00101	<0.00101	28.8J B	34.6J	<15.0	63.4	1190
B-13	1	03/07/2023	B-13-S-1'-20230307	In-Situ	<0.000383	<0.000453	<0.000562	<0.00100	<0.00100	18.9J B	<15.0	<15.0	18.9J	364
B-14	1	03/07/2023	B-14-S-1'-20230307	In-Situ	<0.000383	<0.000454	<0.000563	<0.00101	<0.00101	45.3J B	<15.0	<15.0	45.3J	768
B-15	1	03/07/2023	B-15-S-1'-20230307	In-Situ	<0.000383	<0.000453	<0.000562	<0.00100	<0.00100	27.0J B	<14.9	<14.9	27.0J	177
B-16	1	03/07/2023	B-16-S-1'-20230307	In-Situ	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	37.7J B	<15.0	<15.0	37.7J	575
B-17	1	03/07/2023	B-17-S-1'-20230307	In-Situ	<0.000387	<0.000458	<0.000567	<0.00101	<0.00101	<15.0	<15.0	<15.0	<15.0	393
B-18	1	03/07/2023	B-18-S-1'-20230307	In-Situ	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	34.8J B	<15.0	<15.0	34.8J	1320F1
B-19	1	03/07/2023	B-19-S-1'-20230307	In-Situ	0.000468J	<0.000459	<0.000568	<0.00102	<0.00102	37.9J B	<15.0	<15.0	37.9J	1280
B-20	1	03/07/2023	B-20-S-1'-20230307	In-Situ	<0.000389	<0.000461	<0.000571	<0.00102	<0.00102	30.9J B	19.9J	<15.0	50.8	671
B-21	1	03/07/2023	B-21-S-1'-20230307	In-Situ	<0.000383	<0.000454	<0.000563	<0.00101	<0.00101	24.4J B	<15.0	<15.0	24.4J	2210
L-01	6	01/31/2023	L-1-S-0-6' 20230131	In-Situ	--	--	--	--	--	--	--	--	--	<4.96
L-02	6	01/31/2023	L-2-S-0-6' 20230131	In-Situ	--	--	--	--	--	--	--	--	--	909
L-03	6	01/31/2023	L-3-S-0-6' 20230131	In-Situ	--	--	--	--	--	--	--	--	--	12.0
L-05	6	01/31/2023	L-5-S-0-6' 20230131	In-Situ	--	--	--	--	--	--	--	--	--	204
L-06	6	01/31/2023	L-6-S-0-6' 20230131	In-Situ	--	--	--	--	--	--	--	--	--	57.7
L-07	6	01/31/2023	L-7-S-0-6' 20230131	In-Situ	--	--	--	--	--	--	--	--	--	<4.97
L-08	6	01/31/2023	L-8-S-0-6' 20230131	In-Situ	--	--	--	--	--	--	--	--	--	<5.00
SW-1B	2	03/20/2023	SW-1B-S-0-2'-20230320	In-Situ	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	38.8	19.2	<50.0	58.0	46.5
SW-1	2	03/07/2023	SW-1-S-0-2'- 20230307	Removed	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	31.1	126	<50.0	157	85.5
SW-2	2	03/07/2023	SW-2-S-0-2'- 20230307	In-Situ	<0.00199	0.000708 J	<0.00199	<0.00398	<0.00398	<49.9	39.6	<49.9	39.6	135
SW-3B	1	03/14/2023	SW-3B-S-0-1'-20230314	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	32.7	51.4	<50.0	84.1	77.6
SW-3	2	03/07/2023	SW-3-S-0-2'- 20230307	Removed	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	25.9	<49.9	<49.9	25.9	756

Legend:  
Analytes exceedng NMAC standards are indicated in **bold** and grey  
J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value  
'<' indicates the analyte was not detected at or above the Method Detection Limit (MDL)  
mg/kg: Milligram per Kilogram  
NMAC : New Mexico Administration Code  
bgs: Below ground surface  
B-Base sample  
L-shallow soil sample  
SW : Sidewall sample  
Notes:  
1. Chloride analyzed by EPA Method 300  
2. TPH analyzed by EPA Method 8015 M  
3. BTEX analyzed by EPA Method 8260B  
4. Closure Criteria New Mexico Administrative Code 19.15.29.12.E(2)  
NMOCD: New Mexico Oild Conservation Division  
--: No individual standard

Chevron  
Table 3  
2023 Groundwater Analytical Results  
Old Indian Draw Gathering Line Northern  
Incident# NCLB0525655219  
Eddy County, New Mexico



Sample ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Chloride	Total Dissolved Solids
New Mexico Water Quality Control Commission Groundwater Standard							
		0.005 <sup>1</sup>	1.0 <sup>1</sup>	0.7 <sup>1</sup>	0.62 <sup>1</sup>	250 <sup>2</sup>	1,000
TW-2	2/16/23	NA	NA	NA	NA	37.6	328

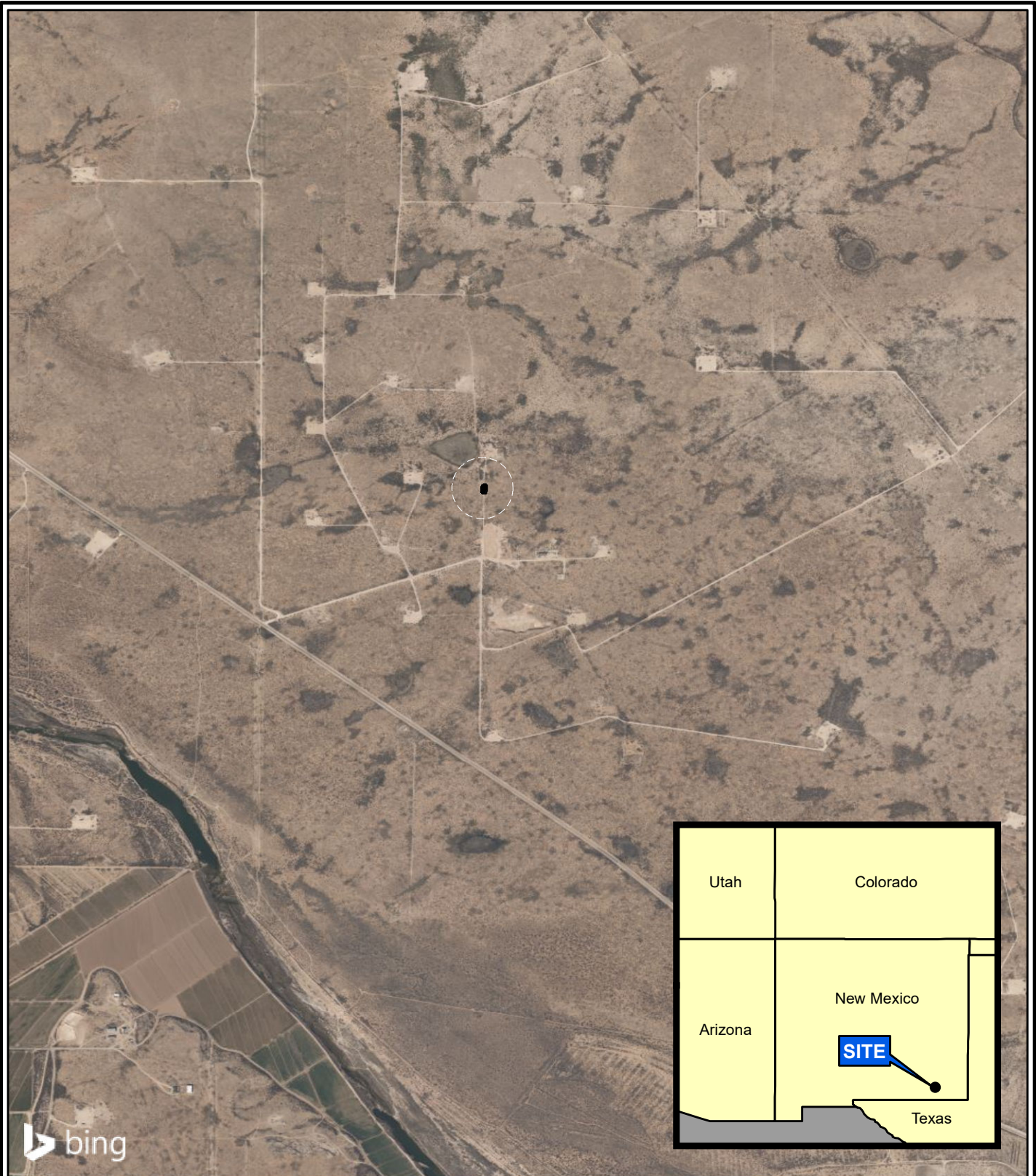
**Notes:**

Results shown in mg/L.  
<sup>1</sup>Human Health Standards for Groundwater.  
<sup>2</sup>Other Standards for Domestic Water Supply.  
NA = Not Analyzed

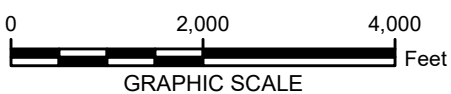
# Figures



City: Houston Div/Group: Remediation West-Air Group Created By: W Berry Last Saved By: wberry ; Client (Project #)  
D:\Arcadis\Land Services\Chevron\Old Indian Draw\GISMXD\_Confirmation\OLD GL-N\_Fig1.mxd 3/15/2023 11:55:31 AM



NOTES:  
Datum: D\_WGS\_1984  
Source: Google Earth Map  
Site Location: 32.3932°, -104.1252°



**LEGEND:**

 Site Boundary

MCBU  
OLD INDIAN DRAW ~ GATHERING LINE NORTH  
INCIDENT NUMBER: NCLB0525655219  
EDDY COUNTY, NEW MEXICO








**SITE LOCATION MAP**

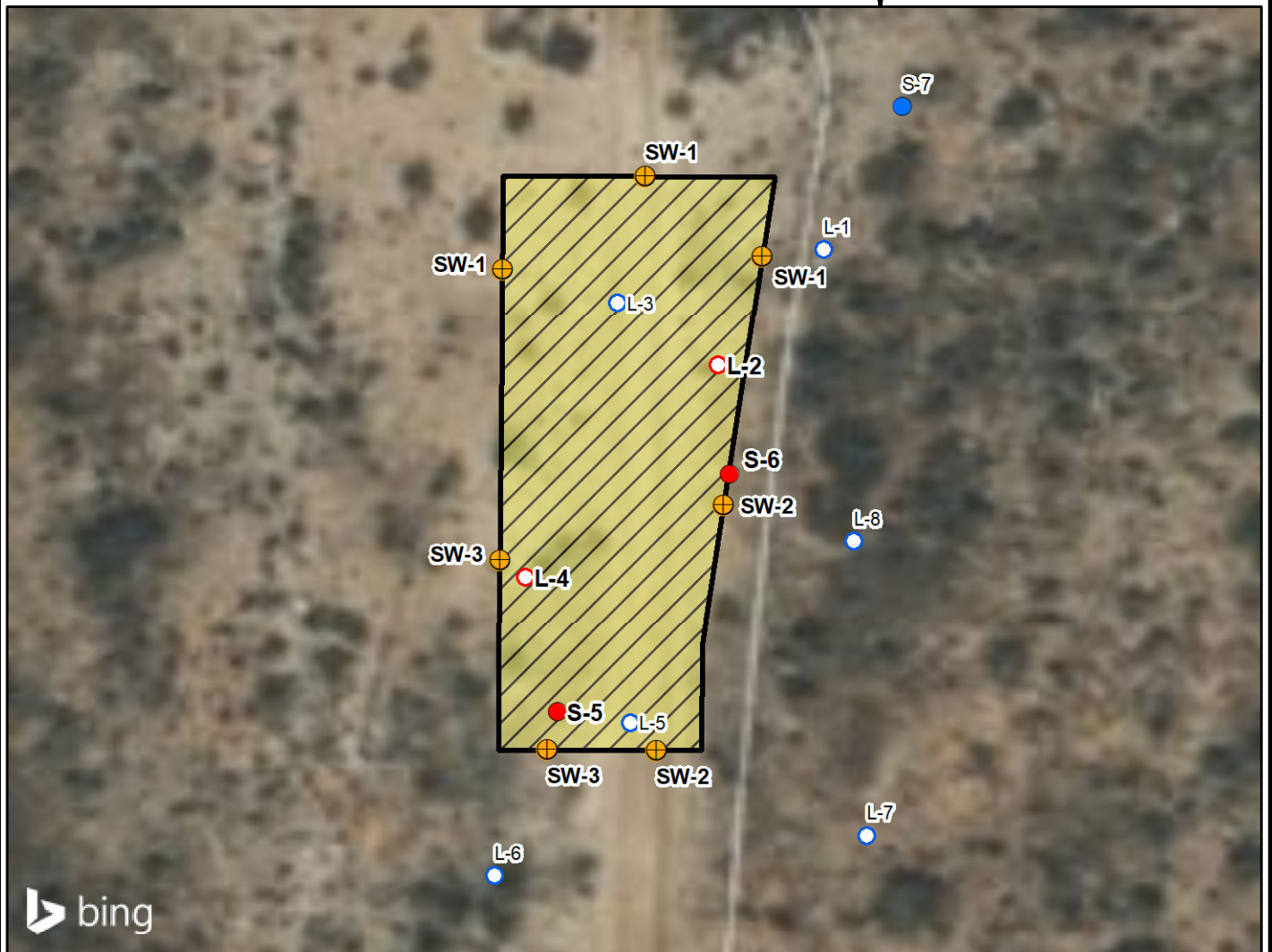
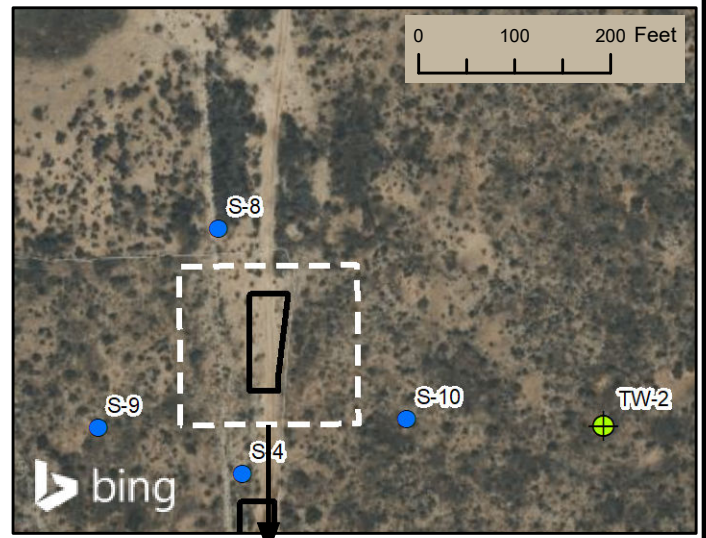


FIGURE  
**1**

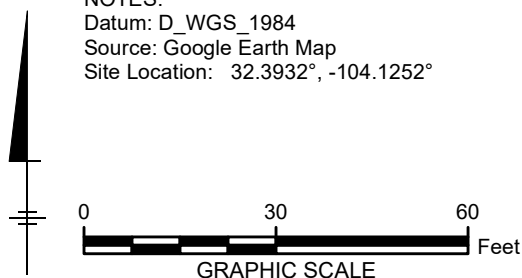


**Legend**

-  Sidewall Sample Location
-  Excavated Area
-  2021/2022 Sample Locations (above 600 mg/kg chloride)
-  2021/2022 Sample Locations (below 600 mg/kg chloride)
-  2023 Field Screening Sample locations (above 600 mg/kg chloride)
-  2023 Sample locations (below 600 mg/kg chloride)
-  Temporary Monitor Well



NOTES:  
 Datum: D\_WGS\_1984  
 Source: Google Earth Map  
 Site Location: 32.3932°, -104.1252°



MCBU  
 OLD INDIAN DRAW ~ GATHERING LINE NORTH  
 INCIDENT NUMBER: NCLB0525655219  
 EDDY COUNTY, NEW MEXICO

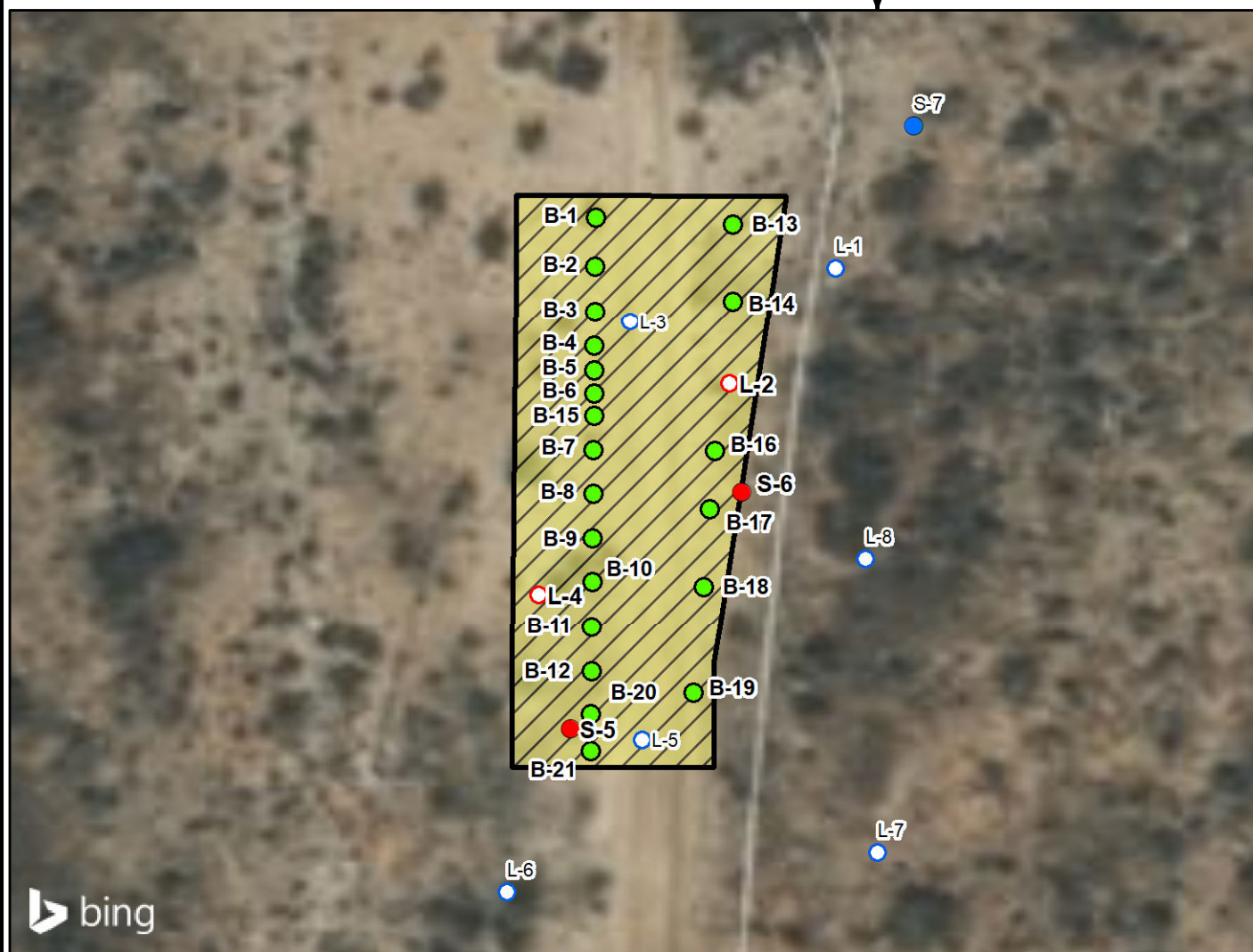
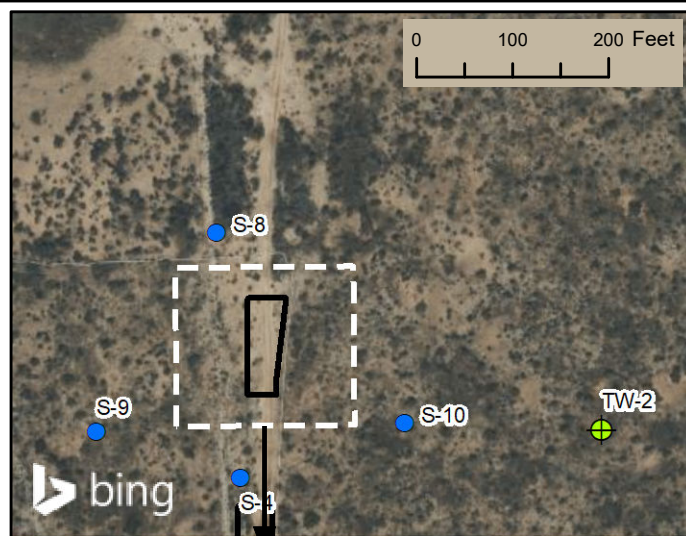
### EXCAVATION SIDEWALL SOIL SAMPLE LOCATIONS

 **ARCADIS**

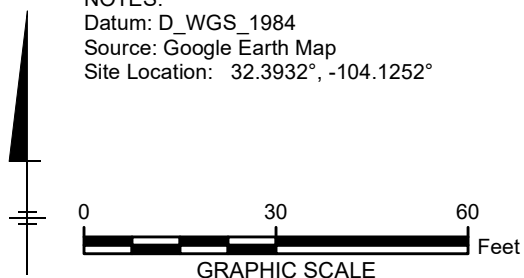
FIGURE  
**2**

## Legend

- Base Sample Location
- Excavated Area
- 2021/2022 Sample Locations (above 600 mg/kg chloride)
- 2021/2022 Sample Locations (below 600 mg/kg chloride)
- 2023 Field Screening Sample locations (above 600 mg/kg chloride)
- 2023 Sample locations (below 600 mg/kg chloride)
- + Temporary Monitor Well



NOTES:  
 Datum: D\_WGS\_1984  
 Source: Google Earth Map  
 Site Location: 32.3932°, -104.1252°



MCBU  
 OLD INDIAN DRAW ~ GATHERING LINE NORTH  
 INCIDENT NUMBER: NCLB0525655219  
 EDDY COUNTY, NEW MEXICO


## EXCAVATION BASE SOIL SAMPLE LOCATIONS




FIGURE  
3





# Photographic Log

ARCADIS		PHOTOGRAPHIC LOG	
<b>Property Name:</b> Old Indian Draw Gathering Line Northern Area		<b>Location:</b> Eddy County, NM	<b>Case No.</b> NCLB0525655219
<b>Photo No.</b> 1	<b>Date:</b> 02/23/2023		
<b>Direction Photo Taken:</b> Facing N			
<b>Description:</b> View calcrete rock layer within the release area.			

ARCADIS		PHOTOGRAPHIC LOG	
<b>Property Name:</b> Old Indian Draw Gathering Line Northern Area		<b>Location:</b> Eddy County, NM	<b>Case No.</b> NCLB0525655219
<b>Photo No.</b> 2	<b>Date:</b> 02/23/2023		
<b>Direction Photo Taken:</b> Facing NW			
<b>Description:</b> Additional view of calcrete rock layer.			



ARCADIS		PHOTOGRAPHIC LOG	
<b>Property Name:</b> Old Indian Draw Gathering Line Northern Area		<b>Location:</b> Eddy County, NM	<b>Case No.</b> NCLB0525655219
<b>Photo No.</b> 3	<b>Date:</b> 02/23/2023		
<b>Direction Photo Taken:</b>  N			
<b>Description:</b>  Solid rock layer in release area around 1 feet bgs.			

ARCADIS		PHOTOGRAPHIC LOG	
<b>Property Name:</b> Old Indian Draw Gathering Line Northern Area		<b>Location:</b> Eddy County, NM	<b>Case No.</b> NCLB0525655219
<b>Photo No.</b> 4	<b>Date:</b> 02/23/2023		
<b>Direction Photo Taken:</b>  N			
<b>Description:</b>  Area excavated to solid rock layer at 1 to 2 feet bgs.			

# Appendix A

## **Incident #NCLB0525655219 NMOCD Database Information**

## NCLB0525655219 2005 MAJOR A OS @ FCLB0525651320

### General Incident Information

Site Name:

Well:

Facility: [fCLB0525651320](#) Chesapeake Old Indian Draw Gaterhing Line

Operator: [147179](#) CHESAPEAKE OPERATING, INC.

Status: Closure Not Approved

Type: Oil Release

District: Artesia

Severity: Major

Surface Owner:

County: Eddy (15)

Incident Location: G-18-22S-28E 0 FL 0 FL

Lat/Long: 32.393027,-104.125388

Directions:

---

### Notes

Source of Referral: Industry Rep

Resulted In Fire: ☐

Endangered Public Health: ☐

Fresh Water Contamination: ☐

Action / Escalation: Referred to Environmental Inspector

Will or Has Reached Watercourse: ☐

Property Or Environmental Damage: ☐

---

### Contact Details

Contact Name:

Contact Title:

---

### Event Dates

Date of Discovery: 09/06/2005

Extension Date: 11/15/2018

Initial C-141 Received:

Characterization Report Received:

Remediation Plan Received:

Closure Report Received:

OCD Notified of Major Release: 09/06/2005

Cancelled Date:

Characterization Report Approved:

Remediation Plan Approved:

Remediation Due:

Closure Report Approved:

#### Incidents Materials

Cause	Source	Material	Volume				Units
			Unk.	Spilled	Recovered	Lost	
Equipment Failure	Flow Line - Production	Produced Water	<input type="checkbox"/>	30	6	24	BBL

#### Incident Events

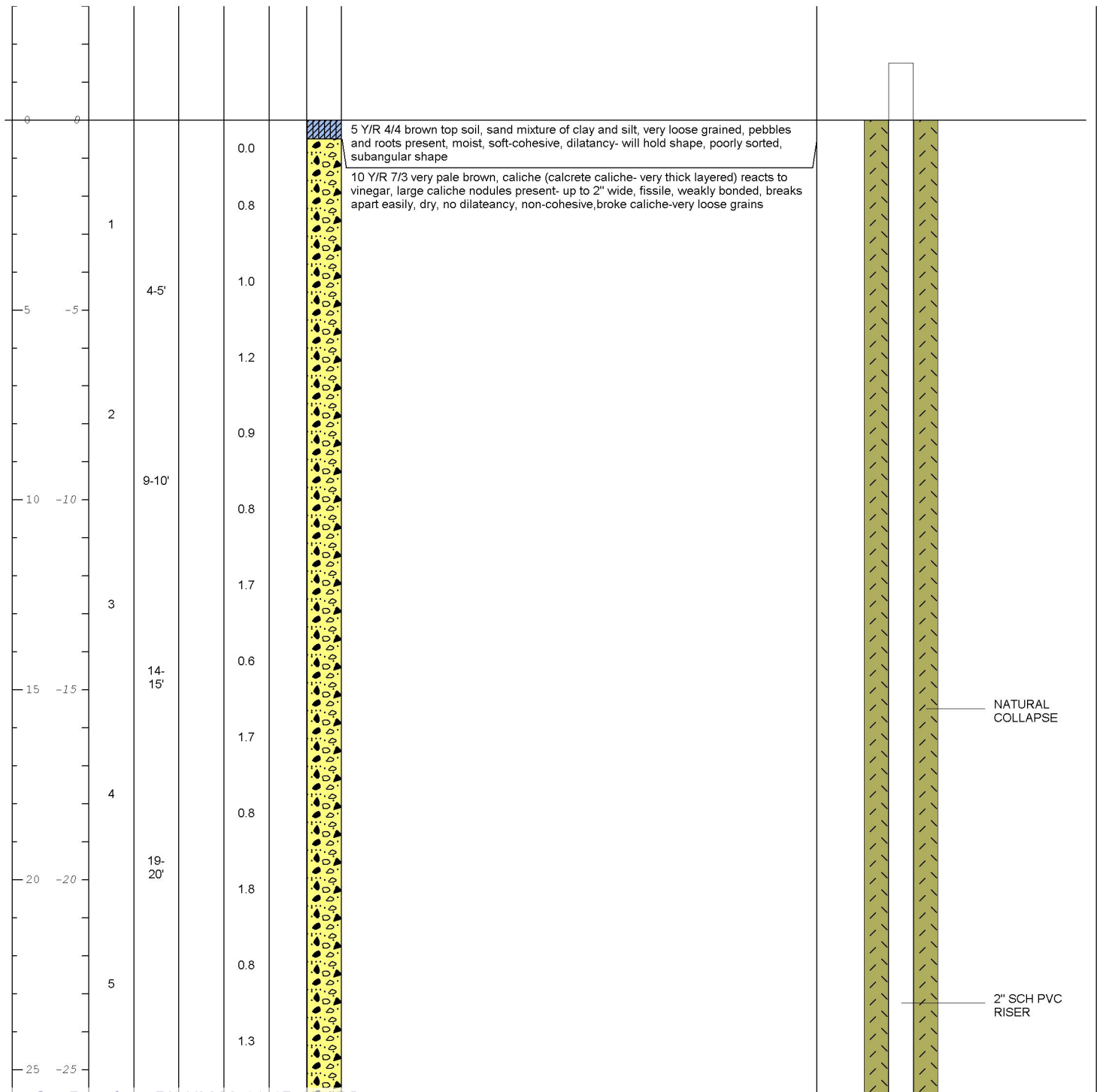
Date	Detail
02/05/2007	C-141: Fiberglass high pressure line (3-inch diameter) leaking produced water at collar. Approximately 7,020 square feet of surface area was impacted by the release. Saturated soil has been excavated and stockpiled on plastic on site until a remediation plan is developed. Once initial excavation activities are complete, samples will be collected to delineate the lateral and vertical extents of impacts associated with this release. Upon receipt of analytical results, the remediation plan will be developed and submitted to the NMOCD for approval. The excavated soil will be transported to an approved land treatment facility or blended with clean soil and returned to the excavation.

# Appendix B

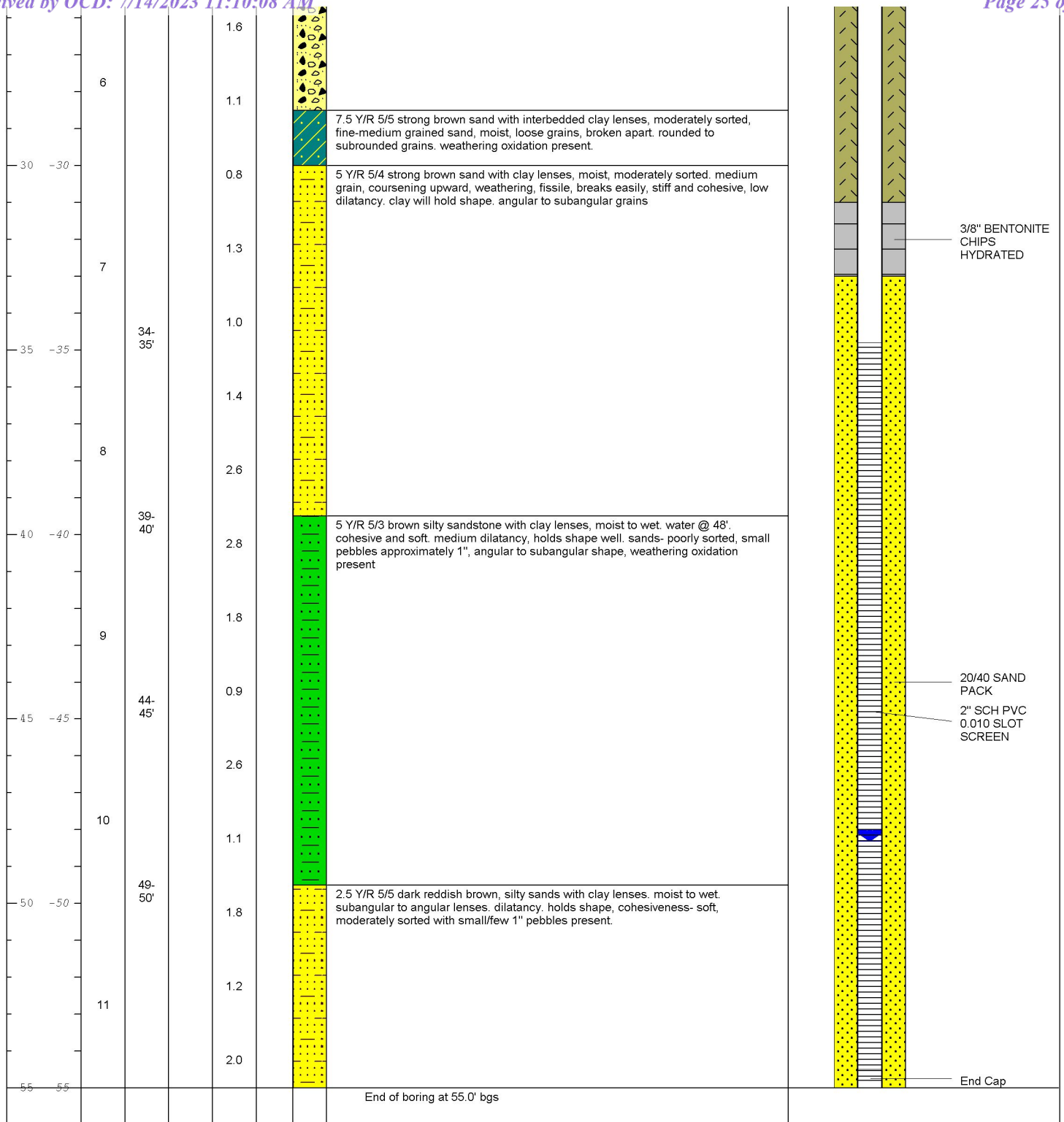
## Temporary Monitoring Well Boring Log

<b>Date Start/Finish:</b> 2/13/2023 <b>Drilling Company:</b> White Drilling Company, Inc. <b>Driller's Name:</b> Bo Atkins <b>Drilling Method:</b> Air Rotary/ Split Spoon <b>Sampling Method:</b> Grab	<b>Latitude:</b> 32.392848 <b>Longitude:</b> -104.124242 <b>Casing Elevation:</b> NS  <b>Borehole Depth:</b> 55' <b>Surface Elevation:</b> NS  <b>Descriptions By:</b> Heather Dudley	<b>Well/Boring ID:</b> TW-2  <b>Client:</b> Chevron-MCBU  <b>Location:</b> Old Indian Draw Unit #001 Carlsbad, New Mexico
---	--	---

DEPTH	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
-------	-------------------	-----------------	-----------------	-----	-----------	-----------------	---------------------------	--------------------------







**Remarks:** bgs= below ground surface; TD= total depth; DTW= depth to water; ppm= parts per million; NS=not surveyed, N/A=not applicable/available, btoc= below top of casing

Project: 30166791

Template: LPTemplate\_Well\_Construction\_Final

Page: 2 of 2

Data File: Old Indian Draw

Date: 2/21/2023

Created/Edited by: Trang Pham

**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 240389

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 240389
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
nvelez	1. Remediation plan is approved as written. Document can be found under NKMW1105550129 and within the incident file. 2. 90-day Remediation Due date updated to October 12, 2023. Chevron is required to submit a final closure report or a time extension request along with providing a status update of all remedial activities by this date.	7/14/2023