



Remediation Summary and Site Closure Request

May 12, 2026

Federal 29 Z 002H

NMOCD Reference Number:
NAPP2221331648

Prepared For:

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A handwritten signature in black ink, reading "Jared E. Stoffel", written over a horizontal blue line.

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1.0 Introduction and Background Information

TRC Environmental Corporation (TRC), on behalf of ConocoPhillips, has prepared this Revised Former Drilling Pit Delineation and Reclamation Plan for the Release Site known as the Federal 29 Z 002H (the Site). The legal description of the Site is Unit Letter "L", Section 29, Township 20 South, Range 27 East, in Eddy County, New Mexico. The subject property is owned by the United States government and administered by Bureau of Land Management (BLM). The GPS coordinates for the Site are N 32.5425, W 104.3108. A topographic map is provided as **Figure 1**.

On July 16, 2022, ConocoPhillips (COP) discovered a crude oil release had occurred at the Site. The Release was attributed to a packing blowout. On the discovery date, COP notified the New Mexico Oil Conservation Division (NMOCD) and New Mexico State Land Office (NMSLO) of the Release. The Release was assigned an NMOCD Reference number of NAPP2221331648. On August 01, 2022, the initial Release Notification and Corrective Action (Form C-141) was submitted to the NMOCD. The Form C-141 indicated 1.5 barrels (bbls) of crude oil was released and zero (0) bbls of crude oil was recovered. The crude oil was oversprayed primarily to the west with a minor component to the north and east. The Release affected an area measuring approximately 10,800 square feet (sq. ft.). The C-141 indicated the impacted area was located on and off the location pad. The Site location is depicted in **Figure 1**. **Figure 2** and **Figure 3** reflect the characterization parameters of the Site.

Following the release and prior to approved remedial activities, COP has sold the property to Permian Resources Operating, LLC (OGrid Number 372165). COP retained liability for this release following the transaction.

2.0 Site Characterization

Based on a review of the New Mexico Office of State Engineers and United States Geological Survey (USGS) databases, there is no known water source within a 0.50-mile radius of the location. The nearest identified well is located approximately 0.68 miles east of the site in S29, T20S, R27E and was drilled in 2023. The well has a reported depth to groundwater of 132 feet below ground surface (ft bgs). The screened interval is between 139 and 159 feet bgs. Additionally, multiple soil borings onsite have been advanced to approximately 80 feet bgs, confirming depth to water is greater than fifty (50) feet bgs.

Based on the inferred depth to groundwater at the Federal 29 Z 002H Release Site, the NMOCD Closure Criteria for Soils Impacted by a Release does not warrant the most stringent closure criteria listed based on depth to groundwater. The Federal 29 Z 002H is within 300 feet of a significant watercourse and/or wetland denoted as a riverine on **Figure 2**. However, a negative wetland delineation findings report signed by a PWS indicated that the riverine feature depicted in the public data is not present based on their site walk. Additionally, the Federal 29 Z 002H is located in the 'high karst' area as outlined in Bureau of Land Management (BLM) publicly available Karst Potential Map and is provided as **Figure 3**. In an effort to determine if karst features exist at the Site that may require more stringent guidelines than inferred groundwater requires (greater than 100 feet bgs based on nearest well in NMOSE database; greater than 50 feet based on onsite drill



borings), a karst survey was requested to be conducted by a BLM approved karst surveying firm. Southwest Geophysical Consulting, LLC has indicated that no karst features are within 200 feet of the spill delineation boundary, the site is on stable ground, the strata underlying the site are flat lying and subsurface air or water filled voids were not observed. The wetland delineation findings report and karst findings report is provided as part of the approved workplan (**Appendix B**). Based on depth to groundwater, lack of water or hydric soils and plants in the nearby riverine depicted in the public data, and lack of karst features (and associated stable ground underlying the site), the remediation standard for the site are as follows:

- Benzene – 10 mg/kg
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) – 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) – 2,500 mg/kg
- TPH Gasoline Range Organics (GRO) + Diesel Range Organics (DRO) – 1,000 mg/kg
- Chloride – 10,000 mg/kg

The upper four (4) feet of soil is subject to the more stringent reclamation standards as follows:

- Benzene – 10 mg/kg
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) – 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) – 100 mg/kg
- Chloride – 600 mg/kg

3.0 Chronology and Discussions with the NMOCD

July 16, 2022 – The release occurs and is incorrectly reported to NMOCD due to volume (1.5 barrels of crude oil; no produced water).

December 15, 2022 – The Initial Remediation Workplan is submitted to the NMOCD by Carmona Resources.

March 17, 2023 – The initial Remediation Workplan is approved by the NMOCD.

June 21, 2023 – An extension request is submitted by TRC prior to remediation enactment. The extension request is approved by the NMOCD.

July 13, 2023 – TRC provides a notification to NMOCD that workplan enactment will begin the following week to comply with the required 48-hour confirmation sampling notice.

July 17, 2023 – TRC is onsite for preparation of site remediation and notes ubiquitous elevated chloride concentrations in the former drilling pit area. The area to be remediated appears to be contained within the former drilling pit footprint. TRC is unable to differentiate between elevated chloride concentrations related to the former drilling pit and those caused by the release. Remediation activities are not initiated pending discussion with the NMOCD.

July 25, 2023 – TRC provides a notification to NMOCD via email of comingled former drilling pit footprint and release area footprint. TRC also notes the release was of a non-reportable volume (1.5 bbl crude oil



and no produced water) and no TPH or BTEX concentrations exceeded NMOCD standards. TRC requests a meeting with the NMOCD to discuss path forward.

August 2, 2023 – NMOCD, COP, and TRC virtually meet to discuss comingled areas. The NMOCD indicates a variance request will be considered to avoid excavating the entirety of the former drilling pit, but the C-141 cannot be retracted despite the non-reportable release volume as a workplan has already been generated and approved.

August 20, 2023 – A second Remediation Workplan And Variance Request is submitted to NMOCD by TRC. The proposed workplan is to excavate the footprint of the release to four (4) feet bgs. The requested variance is to omit confirmation soil samples to avoid chloride concentrations sourced from the former drilling pit driving excavation extents beyond the spill footprint and previously delineated depths.

March 5, 2024 – The NMOCD approves Remediation Workplan conditionally but denies variance request to omit confirmation sampling. The denial of the variance request would result in the excavation of elevated chloride concentrations in the full former drilling pit footprint.

March 7, 2024 - TRC requests a smaller sampling variance in which confirmation soil samples would be collected but only run for TPH and BTEX. No response from the NMOCD.

April 8, 2024 – TRC re-submits the March 7, 2024 request for a smaller sampling variance. No response from the NMOCD.

April 25, 2024 – TRC requests a meeting to discuss the smaller sampling variance submitted on March 7 and April 8. The NMOCD proposes a virtual meeting on May 21, 2024 meeting based on their availability.

May 21, 2024 – The NMOCD, COP and TRC meet virtually to discuss the denial of the variance requests and potential alternative options to avoid excavating the full extent of the former drilling pit, which is unrelated to the surface release of hydrocarbons. The NMOCD indicates that no variance requests or alternative options will be approved for the site and all chlorides above 600 mg/kg will require removal regardless of source. COP indicates delineation will be required internally to begin an excavation of this scale outside the scope of remediation related to the small overspray release. NMOCD and COP agree that a workplan documenting the delineation of elevated chloride concentrations in the former drilling pit area was an acceptable path forward.

July 6, 2024 – TRC attempts delineation of former drilling pit chlorides with backhoe. Vertical delineation is not achieved in all locations to below 600 mg/kg. In response, TRC begins the NMOSE drilling permit process as required by the NMOSE in borings deeper than 30 feet bgs. Additionally, BLM concurrence for the borings is required.

October 4, 2024 – The NMOSE issues the executed drilling permits.

October 8, 2024 – TRC attempts delineation of former drilling pit chlorides with air rotary rig. Vertical delineation is not achieved in all locations to below 600 mg/kg.

October 22, 2024 – TRC requests an extension to further investigate former drilling pit chlorides as the 2 delineation events had not yet resulted in full vertical delineation in each sampled location. The NMOCD denies the extension request despite an explanation that COP continues to comply with the NMOCD requests.



October 25, 2024 – A Former Drilling Pit Delineation and Reclamation Plan is submitted to the NMOCD by TRC. The plan documents the chloride delineation to below the most stringent standards and proposes reclamation of the upper four (4) feet for vegetative regrowth.

November 6, 2025 – TRC attempts delineation of former drilling pit chlorides with air rotary rig at the three locations that previously were not defined. Vertical delineation is achieved in all locations to below 600 mg/kg.

January 27, 2025 – The Former Drilling Pit Delineation and Reclamation plan is conditionally approved without approval of any variances, effectively denying the October 25, 2024 proposed work.

April 21, 2025 – A Revised Former Drilling Pit Delineation and Reclamation plan is submitted to the NMOCD documenting the negative karst survey and requesting reconsideration of the reclamation of the former drilling pit area.

August 8, 2025 – The Revised Former Drilling Pit Delineation and Reclamation plan is denied by the NMOCD. The close proximity to a designated riverine can only be overturned by a Professional Wetland Scientist.

September 22, 2025 – A Second Revised Former Drilling Pit Delineation and Reclamation plan is submitted to the NMOCD documenting the negative wetland delineation findings report and requesting reconsideration of the reclamation of the former drilling pit area. The fourth workplan is provided as **Appendix B**.

November 14, 2025 – The Second Revised Former Drilling Pit Delineation and Reclamation plan is approved by the NMOCD.

February 11, 2026 – A 90-day extension to complete remediation and submit the closure report is submitted and approved by the NMOCD. The NMOCD correspondence is provided in **Appendix C**.

4.0 Final Approved Workplan – Second Revision of the Former Drilling Pit Delineation and Reclamation Plain in Association With Release NAPP2221331648

Groundwater onsite was shown to be deeper than 80 feet bgs based on onsite borings. A BLM karst surveyor has determined that the site does not exhibit karst features and is on stable ground. A Professional Wetland Scientist conducted a Wetland Delineation Survey following the Corps of Engineers Wetlands Delineation Manual and utilizing the Army Corps of Engineers Wetland Determination Data Sheets, Arid West Region. The results of the wetland survey indicated there is not a riverine feature within 300 feet of the Site. Based on the depth to groundwater, lack of karst features, and lack of riverine features within 300 feet of the Site, COP asserts the remediation standard for the site are not the most stringent. However, each soil boring location has been delineated to below the most stringent regulatory guidelines. Each submitted soil sample exhibited concentrations of BTEX constituents, TPH, and chlorides below



the remediation standards of the Site. The upper four feet of the former pit area did exceed reclamation standards.

COP proposed to:

- Excavate the footprint of the former drilling pit to four (4) feet bgs.
- Reclaim the pit to the NMOCD reclamation standard.
- Collect confirmation soil samples from the floor and sidewalls of the excavation on a 400 square foot basis as a variance from the 200 square feet outlined in NMAC 19.15.29.
- Transport excavated soil to an NMOCD approved disposal facility.
- Backfill with locally sourced 'like' material to near original grade and reseeded in accordance with BLM requirements.

5.0 Approved Workplan Enactment

On January 13, 2026, remediation activities commenced at the Release Site. The former reserve pit, which was demarcated by a fenceline presumably to restrict access by cattle, was excavated to a depth of approximately four (4) feet bgs. The initial excavation removed each reclamation and/or remediation standard exceedance documented in the final approved workplan from the delineation phase.

The sidewalls of the excavation were expanded laterally until chloride field screen results indicated the reclamation standards had been met. Five (5) point composite soil samples were collected then submitted for TPH, BTEX, and chloride analyses by EPA 8015M, EPA 8021B, and EPA E300.0, respectively. If the soil sample exhibited constituent of concern (COC) concentrations above the reclamation standard, the sidewall was advanced laterally and a new sidewall soil sample was collected. The southern sidewall of the excavation was at the edge of the production pad, which does not require reclamation until it is no longer in use. Each of the remaining in-situ sidewall soil samples to the north, east, and west exhibited TPH, BTEX, and chloride concentrations below the reclamation standards. The resultant sidewall footprint was approximately 2,100 square feet.

The floor of the excavation was sampled to confirm adherence to the remediation criteria, as the excavation was below the 'reclamation zone'. 90 five-point composite soil samples were collected from the base of the excavation and submitted for TPH, BTEX, and chloride analysis by EPA 8015M, EPA 8021B, and EPA E300.0, respectively. The areas represented by soil samples which exhibited COC concentrations above the remediation standard were excavated to greater depth and the resultant new floor was sampled. The resultant footprint was approximately 35,800 square feet, and depth ranged from four (4) to six (6) feet bgs. Each of



the remaining in-situ soil samples exhibited COC concentrations below the NMOCD remediation standard applicable to the site. Photographic documentation of the remedial activities are provided in **Appendix D**.

Confirmation Sampling - Pasture

One (1) five-point composite sidewall and floor confirmation soil sample was collected for every four hundred (400) square feet of excavated sidewall to ensure the lateral extent of the affected soil has been removed. The final excavation consisted of approximately 2,100 square feet of excavation sidewall (not inclusive of the south wall which is on the production pad) and approximately 35,800 square feet of excavation floor. Soil samples were analyzed for TPH (EPA 8015M), BTEX (EPA 8021B) and chloride (E300.0) concentrations.

Sidewall confirmation soil samples were compared to the more stringent reclamation standard. Each sidewall sample collected exhibited TPH, BTEX, and chloride concentrations below the reclamation standard with the exception of SW-2, SW-5, SW-5A, and SW-6. The soil represented by each of the samples exceeding reclamation standards was removed, and an additional sample was collected from the resultant sidewall.

Floor confirmation soil samples were compared to the less stringent remediation standard. Each floor sample collected exhibited TPH, BTEX, and chloride concentrations below the remediation standard with the exception of Floor 46 @ 4', Floor 57 @ 4', Floor 67 @ 4', and Floor 68 @ 4'. The soil represented by each of the samples exceeding remediation standards was removed, and an additional sample was collected from the resultant floor. **Figure 4** depicts the excavation footprint and the associated soil sample locations. A summary of the analytical results can be found in **Table 1**. Laboratory analytical packages are provided in **Appendix E**.

Confirmation Sampling - Pad

The southern extent of the pasture reclamation excavation terminated at the pad boundary. Two (2) hand auger sample points were advanced immediately south of the excavation within the pad boundary (Pad 1 and Pad 2). The hand auger borings were sampled at the 0-1', 2', and 3' intervals. Hand auger refusal was met at 3 feet bgs. Additionally, lateral delineation surface samples (West Pad Lateral, South Pad Lateral, and East Pad Lateral) immediately off pad in the other cardinal directions were collected. The samples were submitted for TPH, BTEX, and chloride analyses. Each lateral sample exhibited TPH, BTEX, and chloride concentrations below NMOCD reclamation guidelines. A subset of the pad samples exceeded the reclamation standards but were below the remediation standard for chloride concentrations. As these are part of the active pad, the chloride concentrations above reclamation standards associated with the pad will be addressed when the pad is no longer active and requires reclamation. **Figure 4** depicts the excavation footprint and the associated soil sample locations. A summary of the analytical results can be found in **Table 1**. Laboratory analytical packages are provided in **Appendix E**.



Volume of Material Transported to Disposal

The total volume of material exhibiting chloride concentrations above NMOCD regulatory guidelines was approximately 7,860 cy. The soil was staged atop plastic liner adjacent to the excavation until it was transported under manifest to the R360 Halfway disposal facility.

Backfilling and Reclamation Confirmation Sampling

Following confirmation soil sampling of the excavation sidewalls and floors, and confirmation samples from the pad area, and review of analytical results, the excavated area was returned to grade with the 'clean overburden' material and locally sourced clean backfill material. A sample of the backfill material (Clean Fill) was analyzed for TPH, BTEX, and chloride concentrations. The sample was below reclamation standards for each analyzed constituent. A summary of the analytical results can be found in **Table 1**. Laboratory analytical packages are provided in **Appendix E**.

Re-Seeding the Affected Area

Following the backfilling of the excavation with clean fill, the site was re-seeded with the BLM approved BLM Seed Mixture 1 for loamy sites as approved by the BLM. Approximately 50 pounds of seed were broadcast at twice the listed live seed per acre rate as recommended as consistent with instructions for broadcasting seed instead of drilling. The approximately 2 acre area affected by remedial activities was re-seeded on May 16, 2026. The site will be monitored for re-growth until the applicable regrowth thresholds are met, at which time a revegetation report will be submitted.

6.0 Site Closure Request

Remediation activities were conducted in accordance with the NMOCD approved workplan and NMOCD regulatory guidelines. Laboratory analytical results from in-situ excavation confirmation soil samples indicated TPH, BTEX, and chloride concentrations were below the applicable NMOCD regulatory guidelines in the submitted floor and sidewall sample locations in the pasture. Soil with COC concentrations above NMOCD regulatory guidelines, approximately 7,860 cubic yards, was transported to the R360 Red Bluff facility. The Site was returned to grade with locally sourced non-impacted backfill material. The site was re-seeded according to BLM guidance. Based on laboratory analytical results and field activities conducted to date, TRC recommends COP provide copies of this Remediation Summary and Site Closure Request to the NMOCD and request closure status to the Federal 29 Z 002 Release Site.

7.0 Limitation

TRC has prepared this Remediation Summary and Site Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended.



TRC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. TRC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. TRC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. TRC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of ConocoPhillips, LLC. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of TRC and/or ConocoPhillips, LLC.

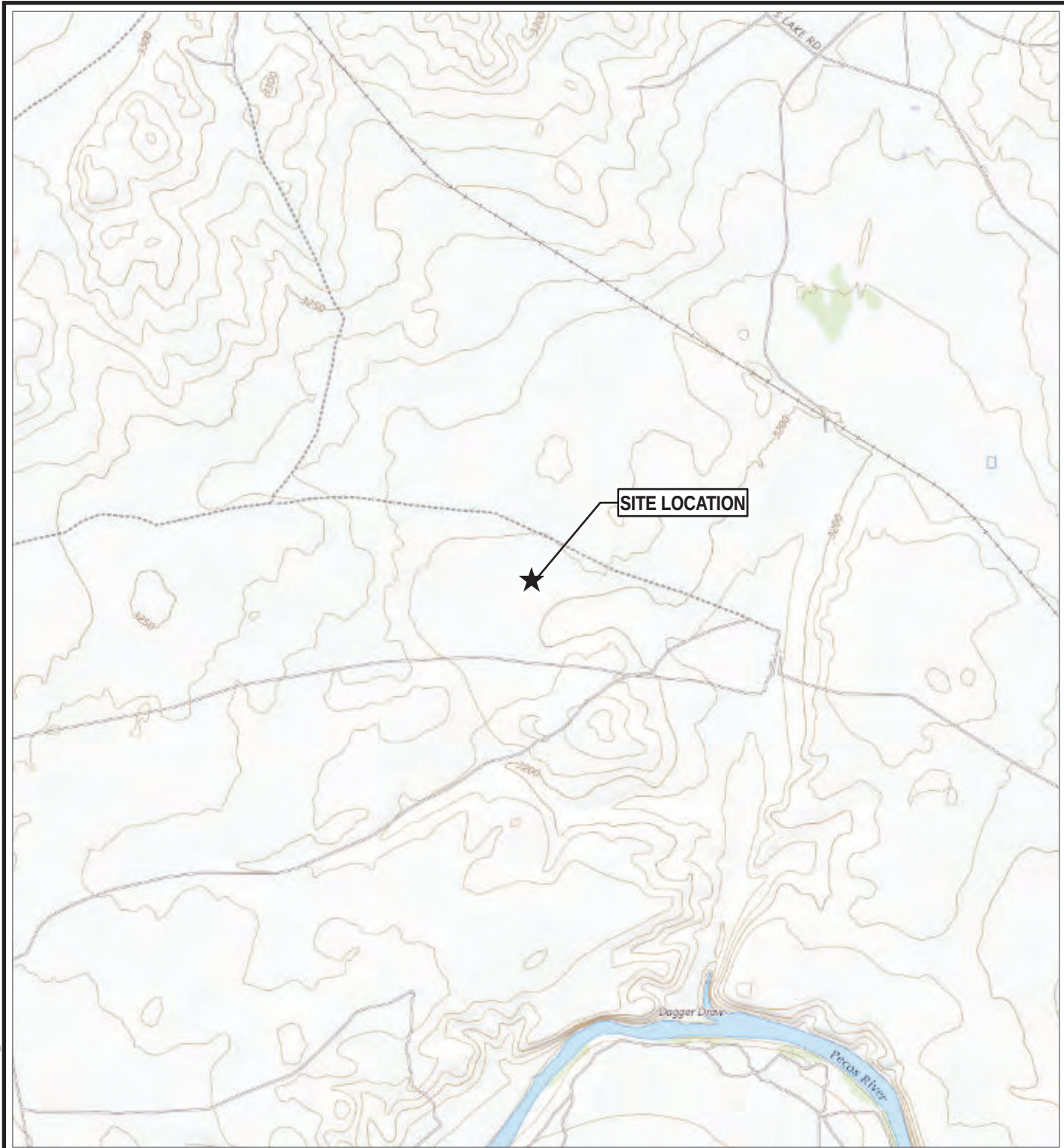
8.0 Distribution

Copy 1: Scott Rogers
EMNRD – Oil Conservation Division
5200 Oakland NE, Suite B
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Copy 2: Crisha Morgan
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520 E. Greene Street
Carlsbad, NM 88220

Copy 3: Ike Tavaréz
ConocoPhillips
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Midland, Texas 79701

Copy 4: TRC Environmental Corporation
10 Desta Dr STE 130E



COORDINATE SYSTEM: NAD 1983 STATEPLANE NEW MEXICO EAST FIPS 3001 FEET; MAP ROTATION: 0
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	TITLE: TOPOGRAPHIC MAP	
	DRAWN BY: S. RAY	PROJ. NO.: 544675.0000.0000
	CHECKED BY: M. BRYANT	FIGURE 1
	APPROVED BY: M. BRYANT	
DATE: AUGUST 2023		
 1180 NW MAPLE STREET, SUITE 310 ISSAQUAH, WA 98027 PHONE: 425.395.0010		
FILE: FEDERAL 29 Z 002H		

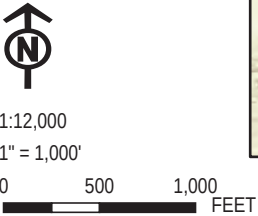
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DATA SOURCES: TRC

Coordinate System: NAD 1983 StatePlane New Mexico East FIPS 3001 Feet, Map Rotation: 0
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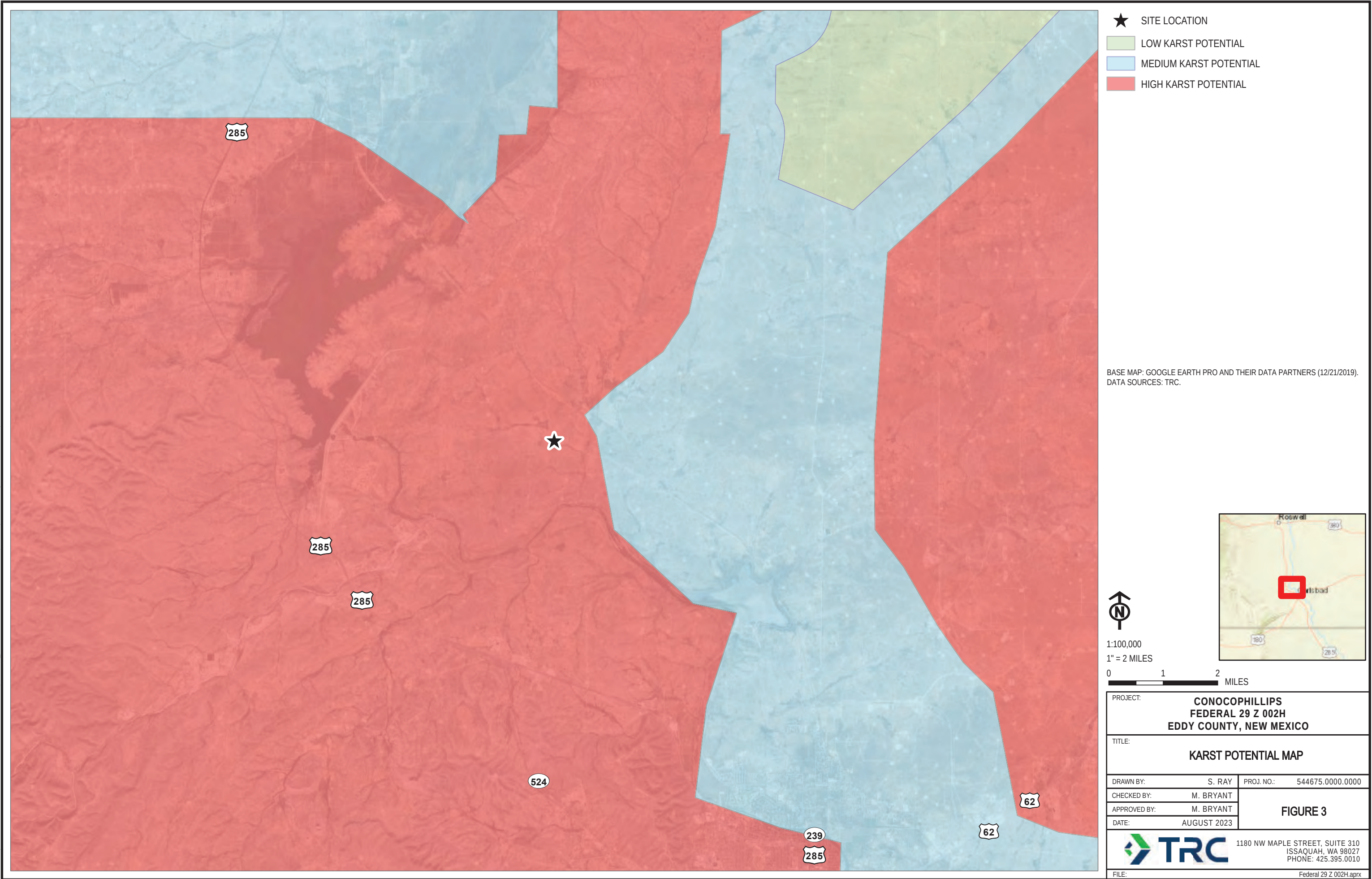
- HALF-MILE RADIUS
- SITE LOCATION
- AREA INSIDE OF 100-YEAR FLOODPLAIN
- RIVERINE

BASE MAP: GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).
DATA SOURCES: TRC, FEMA, NWI.



PROJECT:		CONOCOPHILLIPS FEDERAL 29 Z 002H EDDY COUNTY, NEW MEXICO	
TITLE:		AERIAL MAP	
DRAWN BY:	S. RAY	PROJ. NO.:	544675.0000.0000
CHECKED BY:	M. BRYANT	FIGURE 2	
APPROVED BY:	M. BRYANT		
DATE:	AUGUST 2023		
		1180 NW MAPLE STREET, SUITE 310 ISSAQUAH, WA 98027 PHONE: 425.395.0010	
FILE:		Federal 29 Z 002H.aprx	

Coordinate System: NAD 1983 StatePlane New Mexico East FIPS 3001 Feet, Map Rotation: 0
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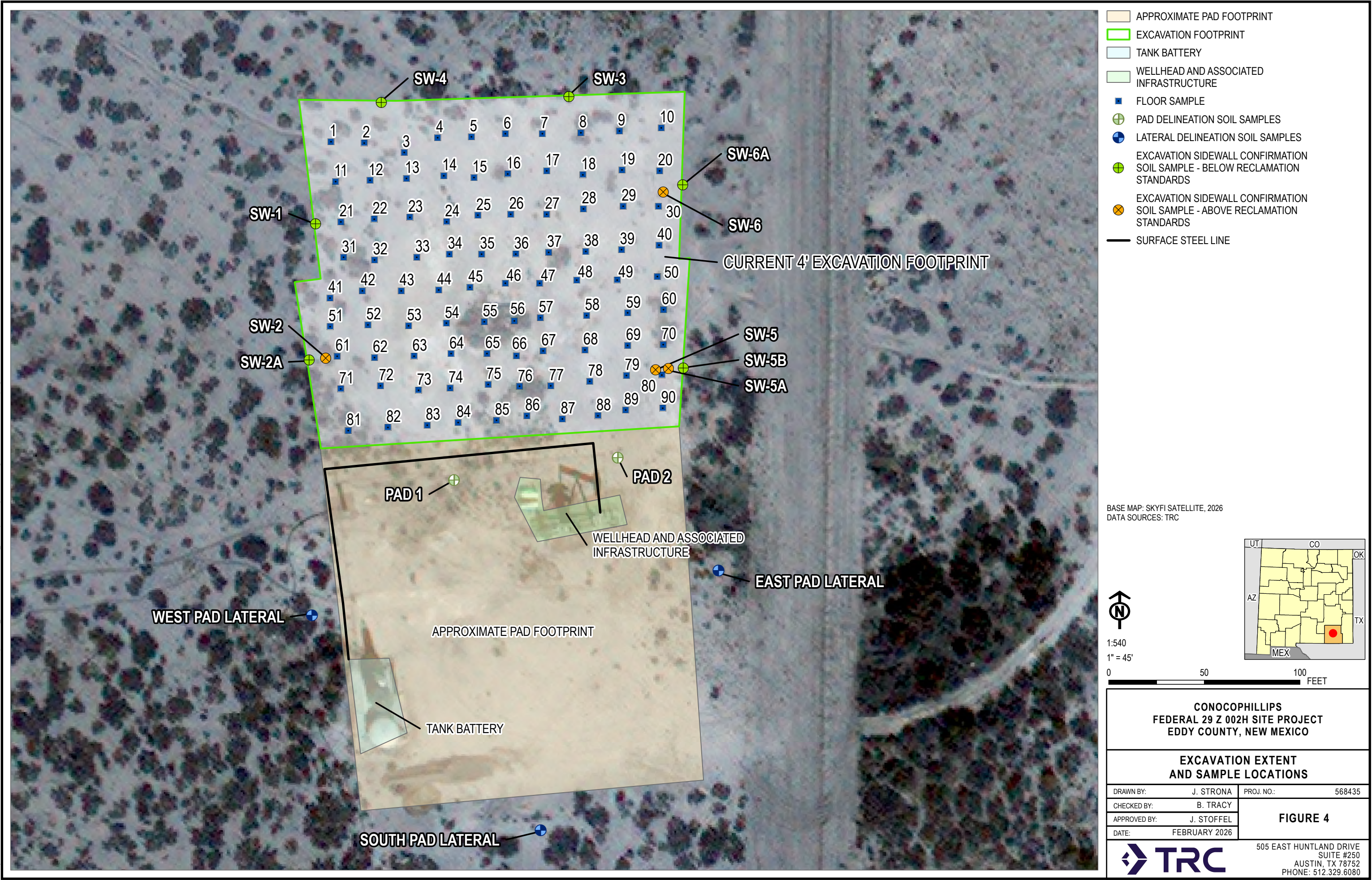


TABLE 1 COP, Federal 29 Z 002 Summary of Confirmation Sampling Analytical Results													
SAMPLE ID	Area	DATE	Soil Status	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) C29-C36 (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs Off Pad				10	-	-	-	50	-	-	-	100	600
Remediation Standard - >4' bgs and On Pad				10	-	-	-	50	1,000	-	-	2,500	10,000
Sidewall Confirmation Soil Samples													
SW-1	Pasture	1/20/2026	In-Situ	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	<49.8	<49.8	<49.8	<49.8	482
SW-2	Pasture	1/20/2026	Excavated	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.1	<50.1	<50.1	<50.1	912
SW-2A	Pasture	1/22/2026	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.8	<49.8	<49.8	<49.8	17.2
SW-3	Pasture	1/22/2026	In-Situ	<0.00199	<0.00199	<0.00199	0.00398	<0.00398	<50.5	<50.5	<50.5	<50.5	167
SW-4	Pasture	1/22/2026	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	417
SW-5	Pasture	1/22/2026	Excavated	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	1,420
SW-5A	Pasture	1/23/2026	Excavated	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	658
SW-5B	Pasture	1/27/2026	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.4	<50.4	<50.4	<50.4	541
SW-6	Pasture	1/22/2026	Excavated	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.8	<49.8	<49.8	<49.8	1,220
SW-6A	Pasture	1/23/2026	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.1	<50.1	<50.1	<50.1	513
Floor Confirmation Soil Samples													
Floor 1 @ 4'	Pasture	1/28/2026	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.6	<15.2	<15.2	<15.2	34.2
Floor 2 @ 4'	Pasture	1/28/2026	In-Situ	<0.00140	<0.00201	<0.00109	<0.00229	<0.00229	<14.5	<15.1	<15.1	<15.1	434
Floor 3 @ 4'	Pasture	1/28/2026	In-Situ	<0.00141	<0.00202	<0.00110	<0.00231	<0.00231	<14.5	<15.1	<15.1	<15.1	2,980
Floor 4 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	<14.5	<15.1	<15.1	<15.1	1,110
Floor 5 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00198	<0.00108	<0.00226	<0.00226	<14.5	<15.1	<15.1	<15.1	815

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SAMPLE ID	Area	DATE	Soil Status	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) C29-C36 (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs Off Pad				10	-	-	-	50	-	-	-	100	600
Remediation Standard - >4' bgs and On Pad				10	-	-	-	50	1,000	-	-	2,500	10,000
Floor 6 @ 4'	Pasture	1/28/2026	In-Situ	<0.00139	<0.00200	<0.00109	<0.00229	<0.00229	<14.6	<15.2	<15.2	<15.2	748
Floor 7 @ 4'	Pasture	1/28/2026	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.6	<15.2	<15.2	<15.2	441
Floor 8 @ 4'	Pasture	1/28/2026	In-Situ	<0.00140	<0.00201	<0.00109	<0.00229	<0.00229	<14.5	81.3	<15.1	81.3	1,080
Floor 9 @ 4'	Pasture	1/28/2026	In-Situ	<0.00141	<0.00202	<0.00110	<0.00231	<0.00231	<14.5	<15.1	<15.1	<15.1	787
Floor 10 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	<14.5	<15.1	<15.1	<15.1	1,240
Floor 11 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00198	<0.00108	<0.00226	<0.00226	<14.5	<15.1	<15.1	<15.1	53.3
Floor 12 @ 4'	Pasture	1/28/2026	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.5	<15.1	<15.1	<15.1	492
Floor 13 @ 4'	Pasture	1/28/2026	In-Situ	<0.00140	<0.00201	<0.00110	<0.00230	<0.00230	<14.5	<15.1	<15.1	<15.1	2,300
Floor 14 @ 4'	Pasture	1/28/2026	In-Situ	<0.00141	<0.00202	<0.00110	<0.00231	<0.00231	<14.5	<15.1	<15.1	<15.1	495
Floor 15 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	<14.5	<15.1	<15.1	<15.1	167
Floor 16 @ 4'	Pasture	1/28/2026	In-Situ	0.00316	<0.00198	<0.00108	<0.00226	0.00316J	<14.5	<15.1	<15.1	<15.1	246
Floor 17 @ 4'	Pasture	1/28/2026	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.5	<15.1	<15.1	<15.1	326
Floor 18 @ 4'	Pasture	1/28/2026	In-Situ	<0.00140	<0.00201	<0.00109	0.00651	0.00651	<14.5	35.7	<15.1	35.7	894
Floor 19 @ 4'	Pasture	1/28/2026	In-Situ	<0.00141	<0.00202	<0.00110	<0.00231	<0.00231	<14.5	<15.1	<15.1	<15.1	1,030
Floor 20 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	<14.5	<15.1	<15.1	<15.1	963

TABLE 1 COP, Federal 29 Z 002 Summary of Confirmation Sampling Analytical Results													
SAMPLE ID	Area	DATE	Soil Status	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) C29-C36 (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs Off Pad				10	-	-	-	50	-	-	-	100	600
Remediation Standard - >4' bgs and On Pad				10	-	-	-	50	1,000	-	-	2,500	10,000
Floor 21 @ 4'	Pasture	1/28/2026	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.7	<15.3	<15.3	<15.3	132
Floor 22 @ 4'	Pasture	1/28/2026	In-Situ	<0.00140	<0.00201	<0.00109	<0.00229	<0.00229	<14.6	<15.2	<15.2	<15.2	253
Floor 23 @ 4'	Pasture	1/28/2026	In-Situ	<0.00141	<0.00202	<0.00110	<0.00231	<0.00231	<14.5	<15.1	<15.1	<15.1	887
Floor 24 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	<14.5	<15.1	<15.1	<15.1	756
Floor 25 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00198	<0.00108	<0.00226	<0.00226	<14.5	<15.1	<15.1	<15.1	1,200
Floor 26 @ 4'	Pasture	1/28/2026	In-Situ	<0.00139	<0.00200	<0.00109	<0.00229	<0.00229	<14.6	<15.2	<15.2	<15.2	856
Floor 27 @ 4'	Pasture	1/28/2026	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.6	<15.2	<15.2	<15.2	687
Floor 28 @ 4'	Pasture	1/28/2026	In-Situ	<0.00140	<0.00201	<0.00109	<0.00229	<0.00229	<14.5	<15.1	101	101	1,010
Floor 29 @ 4'	Pasture	1/28/2026	In-Situ	<0.00141	<0.00202	<0.00110	<0.00231	<0.00231	<14.5	<15.1	20.9	20.9	1,110
Floor 30 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	<14.5	<15.1	<15.1	<15.1	940
Floor 31 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00198	<0.00108	<0.00226	<0.00226	<14.5	<15.1	<15.1	<15.1	178
Floor 32 @ 4'	Pasture	1/28/2026	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.5	<15.1	<15.1	<15.1	1,040
Floor 33 @ 4'	Pasture	1/28/2026	In-Situ	<0.00140	<0.00201	<0.00110	<0.00230	<0.00230	<14.5	<15.1	<15.1	<15.1	576
Floor 34 @ 4'	Pasture	1/28/2026	In-Situ	<0.00141	<0.00202	<0.00110	<0.00231	<0.00231	<14.5	<15.1	<15.1	<15.1	526

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SAMPLE ID	Area	DATE	Soil Status	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) C29-C36 (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs Off Pad				10	-	-	-	50	-	-	-	100	600
Remediation Standard - >4' bgs and On Pad				10	-	-	-	50	1,000	-	-	2,500	10,000
Floor 35 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	<14.5	<15.1	<15.1	<15.1	784
Floor 36 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00198	<0.00108	<0.00226	<0.00226	<14.5	<15.1	<15.1	<15.1	703
Floor 37 @ 4'	Pasture	1/28/2026	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.5	<15.1	<15.1	<15.1	656
Floor 38 @ 4'	Pasture	1/28/2026	In-Situ	<0.00140	<0.00201	<0.00109	<0.00229	<0.00229	<14.5	46.5	<15.1	46.5	1,330
Floor 39 @ 4'	Pasture	1/28/2026	In-Situ	<0.00141	<0.00202	0.00350	<0.00231	0.00350J	<14.5	<15.1	<15.1	<15.1	1,290
Floor 40 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	<14.5	<15.1	<15.1	<15.1	895
Floor 41 @ 4'	Pasture	1/28/2026	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.5	<15.1	<15.1	<15.1	422
Floor 42 @ 4'	Pasture	1/28/2026	In-Situ	<0.00140	<0.00201	<0.00109	<0.00229	<0.00229	<14.5	<15.1	<15.1	<15.1	983
Floor 43 @ 4'	Pasture	1/28/2026	In-Situ	<0.00141	<0.00202	<0.00110	<0.00231	<0.00231	<14.5	<15.1	<15.1	<15.1	1,090
Floor 44 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	<14.5	<15.1	<15.1	<15.1	444
Floor 45 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00198	<0.00108	<0.00226	<0.00226	<14.5	<15.1	<15.1	<15.1	243
Floor 46 @ 4'	Pasture	1/28/2026	Excavated	<0.00139	<0.00200	<0.00109	0.00861	0.00861	<14.6	2,410	102	2,510	2,950
Floor 46 @ 5'	Pasture	2/3/2026	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<50.5	<50.5	<50.5	<50.5	550
Floor 47 @ 4'	Pasture	1/28/2026	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.5	453	78.0	531	2,980
Floor 48 @ 4'	Pasture	1/28/2026	In-Situ	<0.00140	<0.00201	<0.00109	0.0283	0.0283	<14.5	287	35.2	322	2,170

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Reclamation Standard - <4' bgs Off Pad				10	-	-	-	50	-	-	-	100	600
Remediation Standard - >4' bgs and On Pad				10	-	-	-	50	1,000	-	-	2,500	10,000
Floor 49 @ 4'	Pasture	1/28/2026	In-Situ	<0.00141	<0.00202	<0.00110	<0.00231	<0.00231	<14.5	<15.1	31.2	31.2	1,610
Floor 50 @ 4'	Pasture	1/28/2026	In-Situ	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	<14.5	<15.1	19.4	19.4	1,440
Floor 51 @ 4'	Pasture	1/29/2026	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	669
Floor 52 @ 4'	Pasture	1/29/2026	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	1,030
Floor 53 @ 4'	Pasture	1/29/2026	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<49.8	<49.8	<49.8	<49.8	504
Floor 54 @ 4'	Pasture	1/29/2026	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	758
Floor 55 @ 4'	Pasture	1/29/2026	In-Situ	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<49.9	<49.9	<49.9	<49.9	538
Floor 56 @ 4'	Pasture	1/29/2026	In-Situ	<0.0400	<0.0400	<0.0400	0.168	0.168	<50.0	463	69.6	533	3,310
Floor 57 @ 4'	Pasture	1/29/2026	Excavated	<0.0399	<0.0399	<0.0399	<0.0798	<0.0798	<49.9	1,590	55.9	1,650	2,950
Floor 57 @ 5'	Pasture	2/3/2026	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.8	<49.8	<49.8	<49.8	1,180
Floor 58 @ 4'	Pasture	1/29/2026	In-Situ	<0.0402	<0.0402	<0.0402	<0.0803	<0.0803	<50.0	586	50.5	637	2,410
Floor 59 @ 4'	Pasture	1/29/2026	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<50.0	<50.0	<50.0	<50.0	1,470
Floor 60 @ 4'	Pasture	1/29/2026	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	1,330
Floor 61 @ 4'	Pasture	1/29/2026	In-Situ	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<50.0	<50.0	<50.0	<50.0	629
Floor 62 @ 4'	Pasture	1/29/2026	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.8	<49.8	<49.8	<49.8	663

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Reclamation Standard - <4' bgs Off Pad				10	-	-	-	50	-	-	-	100	600
Remediation Standard - >4' bgs and On Pad				10	-	-	-	50	1,000	-	-	2,500	10,000
Floor 63 @ 4'	Pasture	1/29/2026	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	1,290
Floor 64 @ 4'	Pasture	1/29/2026	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<50.1	<50.1	<50.1	<50.1	983
Floor 65 @ 4'	Pasture	1/29/2026	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	709
Floor 66 @ 4'	Pasture	1/29/2026	In-Situ	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<50.0	266	<50.0	266	2,070
Floor 67 @ 4'	Pasture	1/29/2026	Excavated	<0.0399	<0.0399	<0.0399	<0.0798	<0.0798	53.3	7,980	501	8,530	3,050
Floor 67 @ 5'	Pasture	2/3/2026	In-Situ	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<50.0	<50.0	<50.0	<50.0	1,230
Floor 68 @ 4'	Pasture	1/29/2026	Excavated	<0.0402	<0.0402	<0.0402	<0.0803	<0.0803	<499	5,580	960	6,540	4,470
Floor 68 @ 5'	Pasture	2/3/2026	In-Situ	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	<50.1	<50.1	<50.1	<50.1	806
Floor 69 @ 4'	Pasture	1/29/2026	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<50.2	<50.2	74.3	74.3	1,350
Floor 70 @ 4'	Pasture	1/29/2026	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	1,530
Floor 71 @ 4'	Pasture	1/29/2026	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.2	<50.2	<50.2	<50.2	915
Floor 72 @ 4'	Pasture	1/29/2026	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	1,070
Floor 73 @ 4'	Pasture	1/29/2026	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<50.1	<50.1	<50.1	<50.1	330
Floor 74 @ 4'	Pasture	1/29/2026	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	643
Floor 75 @ 4'	Pasture	1/29/2026	In-Situ	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<50.1	<50.1	<50.1	<50.1	458

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Reclamation Standard - <4' bgs Off Pad				10	-	-	-	50	-	-	-	100	600
Remediation Standard - >4' bgs and On Pad				10	-	-	-	50	1,000	-	-	2,500	10,000
Floor 76 @ 4'	Pasture	1/29/2026	In-Situ	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	<50.0	<50.0	<50.0	<50.0	646
Floor 77 @ 6'	Pasture	1/29/2026	In-Situ	<0.0399	0.0399	<0.0399	<0.0798	<0.0798	<50.2	<50.2	<50.2	<50.2	2,650
Floor 78 @ 4'	Pasture	1/29/2026	In-Situ	<0.0402	<0.0402	<0.0402	<0.0803	<0.0803	<50.5	848	177	1,030	2,420
Floor 79 @ 4'	Pasture	1/29/2026	In-Situ	<0.0404	<0.0404	0.561	0.947	1.51	<50.1	<50.1	50.6	50.6	88.0
Floor 80 @ 4'	Pasture	1/29/2026	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	1,760
Floor 81 @ 4'	Pasture	1/29/2026	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	945
Floor 82 @ 4'	Pasture	1/29/2026	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	1,150
Floor 83 @ 4'	Pasture	1/29/2026	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<50.0	<50.0	<50.0	<50.0	1,520
Floor 84 @ 4'	Pasture	1/29/2026	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.1	<50.1	<50.1	<50.1	810
Floor 85 @ 4'	Pasture	1/29/2026	In-Situ	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<50.0	<50.0	<50.0	<50.0	698
Floor 86 @ 4'	Pasture	1/29/2026	In-Situ	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	<49.9	<49.9	<49.9	<49.9	1,360
Floor 87 @ 5'	Pasture	1/29/2026	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	1,530
Floor 88 @ 4'	Pasture	1/29/2026	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.3	<50.3	<50.3	<50.3	516
Floor 89 @ 4'	Pasture	1/29/2026	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<50.0	<50.0	<50.0	<50.0	1,920
Floor 90 @ 4'	Pasture	1/29/2026	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.2	<50.2	<50.2	<50.2	1,570

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Reclamation Standard - <4' bgs Off Pad				10	-	-	-	50	-	-	-	100	600
Remediation Standard - >4' bgs and On Pad				10	-	-	-	50	1,000	-	-	2,500	10,000
Pad Delineation Soil Samples													
Pad 1 @ 0-1'	Pad	1/29/2026	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.3	<50.3	<50.3	<50.3	<10.0
Pad 1 @ 1-2'	Pad	1/29/2026	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.2	<50.2	<50.2	<50.2	807
Pad 1 @ 3-R	Pad	1/29/2026	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<50.1	<50.1	<50.1	<50.1	799
Pad 2 @ 0-1'	Pad	1/29/2026	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	922
Pad 2 @ 1-2'	Pad	1/29/2026	In-Situ	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<50.0	<50.0	<50.0	<50.0	1,430
Pad 2 @ 3-R	Pad	1/29/2026	In-Situ	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	<49.9	<49.9	<49.9	<49.9	208
West Pad Lateral	Pasture	1/29/2026	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.2	<50.2	<50.2	<50.2	12.6
South Pad Lateral	Pasture	1/29/2026	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<50.0	<50.0	<50.0	<50.0	160
East Pad Lateral	Pasture	1/29/2026	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.1	<50.1	<50.1	<50.1	<10.0
Backfill Sample													
Clean Fill	Pasture	1/29/2026	-	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	30.2

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District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☐ The source of the release has been stopped.	
☐ The impacted area has been secured to protect human health and the environment.	
☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
☐ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
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 _____	Title: _____
Signature: <u></u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: <u>Jocelyn Harimon</u>	Date: _____

L48 Spill Volume Estimate Form									
Facility Name & Number:		Federal 29 Z #2							
Asset Area:		DBWN							
Release Discovery Date & Time:		7.15.22							
Release Type:		Oil Mixture							
Provide any known details about the event:		Packing Blow out							
Spill Calculation - Subsurface Spill - Rectangle									
Was the release on pad or off-pad?				See reference table below					
Has it rained at least a half inch in the last 24 hours?				See reference table below					
Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	180.0	60.0	0.10	10.50%	16.020	1.682	50.00%	0.841	0.841
Rectangle B					0.000	0.000	50.00%	0.000	0.000
Rectangle C					0.000	0.000		0.000	0.000
Rectangle D					0.000	0.000		0.000	0.000
Rectangle E					0.000	0.000		0.000	0.000
Rectangle F					0.000	0.000		0.000	0.000
Rectangle G					0.000	0.000		0.000	0.000
Rectangle H					0.000	0.000		0.000	0.000
Rectangle I					0.000	0.000		0.000	0.000
Rectangle J					0.000	0.000		0.000	0.000
Total Volume Release:						1.682		0.841	0.841

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

CONDITIONS

Action 130057

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 130057
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	8/1/2022



Second Revision of the Former Drilling Pit Delineation and Reclamation Plan in Association With Release NAPP2221331648

**ConocoPhillips
Federal 29 Z 002H
Eddy County, New Mexico
Unit Letter "L", Section 29, Township 20 South, Range 27 East
Latitude 32.5425° North, Longitude 104.3108° West
NMOCD Reference No. NAPP2221331648**

Prepared For:

ConocoPhillips
600 W Illinois Avenue
Midland, Texas 79701

Prepared By:

TRC Environmental Corporation
10 Desta Drive, Suite 130E
Midland, Texas 79705

September 2025

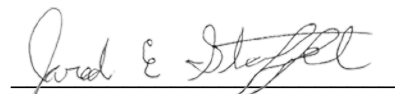

Jared E. Stoffel, PG
Senior Project Manager



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- Appendix A – Groundwater Database Results
- Appendix B – Negative Wetland Delineation Report; TRC
- Appendix C – Negative Karst Determination Report; Southwest Geophysical Consulting, LLC
- Appendix D – Previously Submitted and Conditionally Approved Workplan; Carmona Resources
- Appendix E - Previously Submitted and Conditionally Approved Workplan; TRC
- Appendix F – NMOCD Correspondence Log
- Appendix G – Previously Submitted and Conditionally Approved Workplan; TRC
- Appendix H – Previously Submitted and Denied Workplan; TRC
- Appendix I – Soil Boring Logs



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INTRODUCTION & BACKGROUND INFORMATION

TRC Environmental Corporation (TRC), on behalf of ConocoPhillips, has prepared this *Revised Former Drilling Pit Delineation and Reclamation Plan* for the Release Site known as the Federal 29 Z 002H (the Site). The legal description of the Site is Unit Letter "L", Section 29, Township 20 South, Range 27 East, in Eddy County, New Mexico. The subject property is owned by the State of New Mexico and administered by New Mexico State Land Office (NMSLO). The GPS coordinates for the Site are N 32.5425°, W 104.3108°. A topographic map is provided as **Figure 1**.

On July 16, 2022, ConocoPhillips (COP) discovered a crude oil release had occurred at the Site. The Release was attributed to a packing blowout. On the discovery date, COP notified the New Mexico Oil Conservation Division (NMOCD) and New Mexico State Land Office (NMSLO) of the Release. The Release was assigned an NMOCD Reference number of NAPP2221331648. On August 01, 2022, the initial Release Notification and Corrective Action (Form C-141) was submitted to the NMOCD. The Form C-141 indicated 1.5 barrels (bbls) of crude oil was released and zero (0) bbls of crude oil was recovered. The crude oil was oversprayed primarily to the west with a minor component to the north and east. The Release affected an area measuring approximately 10,800 square feet (sq. ft.). The C-141 indicated the impacted area was located on and off the location pad. The Site location is depicted in **Figure 1**. **Figure 2** and **Figure 3** reflect the characterization parameters of the Site. The affected area is depicted in **Figure 4**.

Based on a review of the New Mexico Office of State Engineers and United States Geological Survey (USGS) databases, there is no known water source within a 0.50-mile radius of the location. The nearest identified well is located approximately 0.68 miles east of the site in S29, T20S, R27E and was drilled in 2023. The well has a reported depth to groundwater of 132 feet below ground surface (ft bgs). The screened interval is between 139 and 159 feet bgs. A copy of the associated Point of Diversion Summary report is attached in **Appendix A**. Additionally, multiple soil borings onsite have been advanced to approximately 80 feet bgs, confirming depth to water is greater than fifty (50) feet bgs.

Based on the inferred depth to groundwater at the Federal 29 Z 002H Release Site, the NMOCD *Closure Criteria for Soils Impacted by a Release* does not warrant the most stringent closure criteria listed based on depth to groundwater. The Federal 29 Z 002H is within 300 feet of a significant watercourse and/or wetland denoted as a riverine on **Figure 2**. NMOCD's most recent workplan denial requested a Professional Wetland Scientist (PWS) conduct a wetland delineation survey to overturn a riverine designation. **Appendix B** includes the negative wetland delineation findings report signed by a PWS. Additionally, the Federal 29 Z 002H is located in the 'high karst' area as outlined in Bureau of Land Management (BLM) publicly available Karst Potential Map and is provided as **Figure 3**. In an effort to determine if karst features exist at the Site that may require more stringent guidelines than inferred groundwater requires (greater than 100 feet bgs based on nearest well in NMOSE database; greater than 50 feet based on onsite drill borings), a karst survey was requested to be conducted by a BLM approved karst surveying firm. Southwest Geophysical Consulting, LLC has indicated that no karst features are within 200 feet of the spill delineation boundary, the site is on stable ground, the strata underlying the site are flat lying and subsurface air or water filled voids were not observed. The karst findings report is provided as **Appendix C**. Based on depth to groundwater, lack of water in the nearby water feature, and lack



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of karst features (and associated stable ground underlying the site), the remediation standard for the site are as follows:

- Benzene – 10 mg/kg
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) – 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) – 2,500 mg/kg
- TPH Gasoline Range Organics (GRO) + Diesel Range Organics (DRO) – 1,000 mg/kg
- Chloride – 10,000 mg/kg

The upper four (4) feet of soil is subject to the more stringent reclamation standards as follows:

- Benzene – 10 mg/kg
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) – 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) – 100 mg/kg
- Chloride – 600 mg/kg

CHRONOLOGY AND DISCUSSIONS WITH THE NMOCD

July 16, 2022 – The release occurs and is incorrectly reported to NMOCD due to volume (1.5 barrels of crude oil; no produced water).

December 15, 2022 – The Initial Remediation Workplan is submitted to the NMOCD by Carmona Resources. The workplan is provided as **Attachment D**.

March 17, 2023 – The initial Remediation Workplan is approved by the NMOCD.

June 21, 2023 – An extension request is submitted by TRC prior to remediation enactment. The extension request is approved by the NMOCD.

July 13, 2023 – TRC provides a notification to NMOCD that workplan enactment will begin the following week to comply with the required 48-hour confirmation sampling notice.

July 17, 2023 – TRC is onsite for preparation of site remediation and notes ubiquitous elevated chloride concentrations in the former drilling pit area. The area to be remediated appears to be contained within the former drilling pit footprint. TRC is unable to differentiate between elevated chloride concentrations related to the former drilling pit and those caused by the release. Remediation activities are not initiated pending discussion with the NMOCD.

July 25, 2023 – TRC provides a notification to NMOCD via email of comingled former drilling pit footprint and release area footprint. TRC also notes the release was of a non-reportable volume (1.5 bbl crude oil and no produced water) and no TPH or BTEX concentrations exceeded NMOCD standards. TRC requests a meeting with the NMOCD to discuss path forward.



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- August 2, 2023 – NMOCD, COP, and TRC virtually meet to discuss comingled areas. The NMOCD indicates a variance request will be considered to avoid excavating the entirety of the former drilling pit, but the C-141 cannot be retracted despite the non-reportable release volume as a workplan has already been generated and approved.
- August 20, 2023 – A second Remediation Workplan And Variance Request is submitted to NMOCD by TRC. The proposed workplan is to excavate the footprint of the release to four (4) feet bgs. The requested variance is to omit confirmation soil samples to avoid chloride concentrations sourced from the former drilling pit driving excavation extents beyond the spill footprint and previously delineated depths. The second workplan is provided as **Appendix E**.
- March 5, 2024 – The NMOCD approves Remediation Workplan conditionally but denies variance request to omit confirmation sampling. The denial of the variance request would result in the excavation of elevated chloride concentrations in the full former drilling pit footprint.
- March 7, 2024 - TRC requests a smaller sampling variance in which confirmation soil samples would be collected but only run for TPH and BTEX. No response from the NMOCD.
- April 8, 2024 – TRC re-submits the March 7, 2024 request for a smaller sampling variance. No response from the NMOCD.
- April 25, 2024 – TRC requests a meeting to discuss the smaller sampling variance submitted on March 7 and April 8. The NMOCD proposes a virtual meeting on May 21, 2024 meeting based on their availability.
- May 21, 2024 – The NMOCD, COP and TRC meet virtually to discuss the denial of the variance requests and potential alternative options to avoid excavating the full extent of the former drilling pit, which is unrelated to the surface release of hydrocarbons. The NMOCD indicates that no variance requests or alternative options will be approved for the site and all chlorides above 600 mg/kg will require removal regardless of source. COP indicates delineation will be required internally to begin an excavation of this scale outside the scope of remediation related to the small overspray release. NMOCD and COP agree that a workplan documenting the delineation of elevated chloride concentrations in the former drilling pit area was an acceptable path forward.
- July 6, 2024 – TRC attempts delineation of former drilling pit chlorides with backhoe. Vertical delineation is not achieved in all locations to below 600 mg/kg. In response, TRC begins the NMOSE drilling permit process as required by the NMOSE in borings deeper than 30 feet bgs. Additionally, BLM concurrence for the borings is required.
- October 4, 2024 – The NMOSE issues the executed drilling permits.



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October 8, 2024 – TRC attempts delineation of former drilling pit chlorides with air rotary rig. Vertical delineation is not achieved in all locations to below 600 mg/kg.

October 22, 2024 – TRC requests an extension to further investigate former drilling pit chlorides as the 2 delineation events had not yet resulted in full vertical delineation in each sampled location. The NMOCD denies the extension request despite an explanation that COP continues to comply with the NMOCD requests. Email communications between the NMOCD and TRC/COP is documented as **Appendix F**.

October 25, 2024 – A Former Drilling Pit Delineation and Reclamation Plan is submitted to the NMOCD by TRC. The plan documents the chloride delineation to below the most stringent standards and proposes reclamation of the upper four (4) feet for vegetative regrowth. The third workplan is provided as **Appendix G**.

November 6, 2025 – TRC attempts delineation of former drilling pit chlorides with air rotary rig at the three locations that previously were not defined. Vertical delineation is achieved in all locations to below 600 mg/kg.

January 27, 2025 – The Former Drilling Pit Delineation and Reclamation plan is conditionally approved without approval of any variances, effectively denying the October 25, 2024 proposed work.

April 21, 2025 – A Revised Former Drilling Pit Delineation and Reclamation plan is submitted to the NMOCD documenting the negative karst survey and requesting reconsideration of the reclamation of the former drilling pit area. The fourth workplan is provided as **Appendix H**.

August 8, 2025 – The Revised Former Drilling Pit Delineation and Reclamation plan is denied by the NMOCD. The close proximity to a designated riverine can only be overturned by a Professional Wetland Scientist.

FORMER DRILLING PIT ASSESSMENT ACTIVITIES

Backhoe Delineation – Field Work

On July 6, 2024, TRC initiated a former drilling pit chloride delineation event utilizing a backhoe.

During the event, five (5) vertical trenches (Pit Trench NW, Pit Trench SW, Pit Trench Center, Pit Trench NE, and Pit Trench SE) were advanced within the former drilling pit footprint to the maximum extent of the backhoe. Soil samples were collected every two (2) feet. Each soil sample was analyzed for chloride concentrations, and surface samples were additionally analyzed for TPH and BTEX concentrations to confirm the surface soils were not affected by hydrocarbons from the release.



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Additionally, four (4) lateral soil samples (Lateral-West, Lateral-East, Lateral-North, and Lateral-South) were collected from the 0-1' interval to confirm the lateral extent of the former drilling pit.

Soil sample locations are documented in **Figure 4**.

Backhoe Delineation – Results

One (1) surface soil sample, Pit Trench SW @ 0-1', exhibited a TPH concentration of 118 mg/kg, slightly above the NMOCD standard. The soil sample underlying this soil sample, Pit Trench SW @ 2', was also run for TPH and BTEX to confirm the hydrocarbon exceedances was vertically delineated. Pit Trench SW @ 2' did not exhibit TPH or BTEX concentrations above the laboratory detection limit (RL). Only one of the backhoe trenches, Pit Trench SW, exhibited vertical delineation below 600 mg/kg for chlorides in the deepest sample (12').

Each lateral soil sample exhibited TPH, BTEX, and chloride concentrations below the NMOCD regulatory standard. Lateral delineation of the former drilling pit was achieved to below 600 mg/kg.

Soil sample analytical results are summarized in **Table 1**.

Air Rotary Drilling Rig Delineation – Field Work

Following the July 6, 2024 backhoe delineation event, COP elected to re-attempt to vertically define the extent of elevated chloride concentrations in the former drilling pit utilizing a drilling rig. The potential depth of borings necessitated NMOSE permits, which took time to procure as discussed above.

On October 8, 2024, TRC initiated a former drilling pit chloride delineation event utilizing an air rotary rig. Immediately adjacent to the five (5) trenches within the former drilling pit footprint but outside the backfilled trenches themselves, five (5) soil borings (SB-NW, SB-SW, SB-Center, SB-NE, and SB-SE) were advanced to a total depth of thirty (30) feet bgs. Soil samples were collected from the surface, 1-3, 5', 10', 15', 20', 25', and 30' intervals utilizing a 'pig's foot' sampler. Soil samples were analyzed for chloride concentrations only.

Additionally, two (2) background soil borings were advanced between 50 and 100 feet from the former drilling pit to confirm the Site is not affected by elevated background chloride concentrations. Sampled intervals in the background borings matched the vertical delineation borings.

On November 6, 2024, TRC remobilized to advance the soil borings that did not achieve vertical delineation of chloride concentrations to below 600 mg/kg. Each soil boring (SB-Center, SB-SE, and SB-NE) was advanced immediately adjacent to the respective previous boring location.

Soil sample locations are documented in **Figure 4**. Field boring logs are provided as **Appendix I**. The general lithology at the site is silty sand which transitions to a sandy clay, underlain by a red clay rich soils starting between 15 and 20 feet bgs.



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Air Rotary Drilling Rig Delineation – Results

Vertical delineation was confirmed in SB-SW in soil samples from 15' to 30' bgs, which corroborated the data collected from the adjacent trench Pit Trench SW during the backhoe delineation event. Additionally, vertical delineation to below 600 mg/kg was achieved at SB-NW in the 30-foot soil sample. Vertical delineation was achieved in SB-Center, SB-SE, and SB-NE at 35 feet, 60 feet, and 60 feet, respectively, during the remobilization event.

No background soil samples exhibited chloride concentrations above 600 mg/kg, indicating elevated chloride concentrations are unlikely to be a naturally occurring phenomenon at the site.

PROPOSED RECLAMATION OF THE FORMER DRILLING PIT AND REQUESTED SAMPLING VARIANCE

Groundwater onsite has been shown to be deeper than 80 feet bgs based on onsite borings. A BLM karst surveyor has determined that the site does not exhibit karst features and is on stable ground. A Professional Wetland Scientist conducted a Wetland Delineation Survey following the Corps of Engineers Wetlands Delineation Manual and utilizing the Army Corps of Engineers Wetland Determination Data Sheets, Arid West Region. The results of the wetland survey indicated there is not a riverine feature within 300 feet of the Site. Based on the depth to groundwater, lack of karst features, and lack of riverine features within 300 feet of the Site, COP asserts the remediation standard for the site are not the most stringent. However, each soil boring location has been delineated to below the most stringent regulatory guidelines. Each submitted soil sample exhibited concentrations of BTEX constituents, TPH, and chlorides below the remediation standards of the Site. The upper four feet of the former pit area did exceed reclamation standards.

COP proposes to excavate the footprint of the former drilling pit to four (4) feet bgs and will reclaim the pit to the NMOCD reclamation standard. The excavation would also remove the single TPH exceedance at the surface from Pit Trench SW, which potentially is related to the overspray release. COP will collect confirmation soil samples from the base of the excavation to confirm the soils above remediation standards have been removed. COP will collect confirmation soil samples from the sidewalls of the excavation to confirm the soils above reclamation standards in the upper four feet of soil column have been removed. COP proposes collection of floor and sidewall samples on a 400 square foot basis as a variance from the 200 square feet outlined in NMAC 19.15.29. The estimated volume of soil removed will be approximately 5,500 cubic yards, which will be transported to an NMOCD approved disposal facility. The Site will then be backfilled with locally sourced 'like' material to near original grade and reseeded in accordance with BLM requirements.

COP is prepared to begin the activities outlined in this *Second Revision of the Former Drilling Pit Delineation and Reclamation Plan* following NMOCD and BLM approval. On completion of reclamation activities, a Reclamation Summary and Closure Report will be prepared detailing field activities.

If you have any questions, or need any additional information, please feel free to contact myself or Ike Tavarez by phone or email.



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LIMITATION

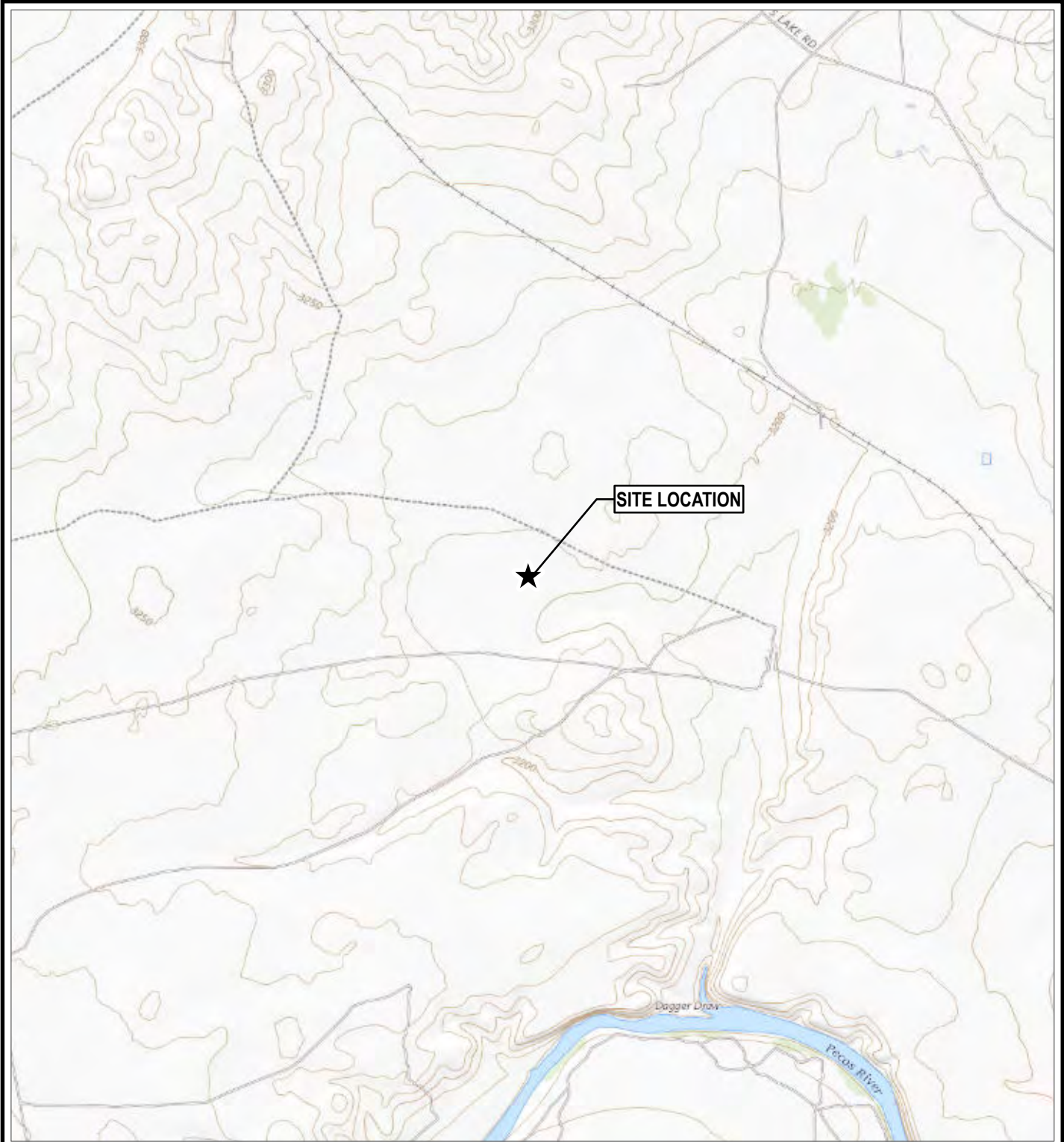
TRC has prepared this Former Drilling Pit Delineation and Reclamation Plan to the best of its ability. No other warranty, expressed or implied, is made or intended.

TRC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. TRC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. TRC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. TRC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of ConocoPhillips. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of TRC and/or ConocoPhillips.

DISTRIBUTION

- Copy 1: Mike Bratcher
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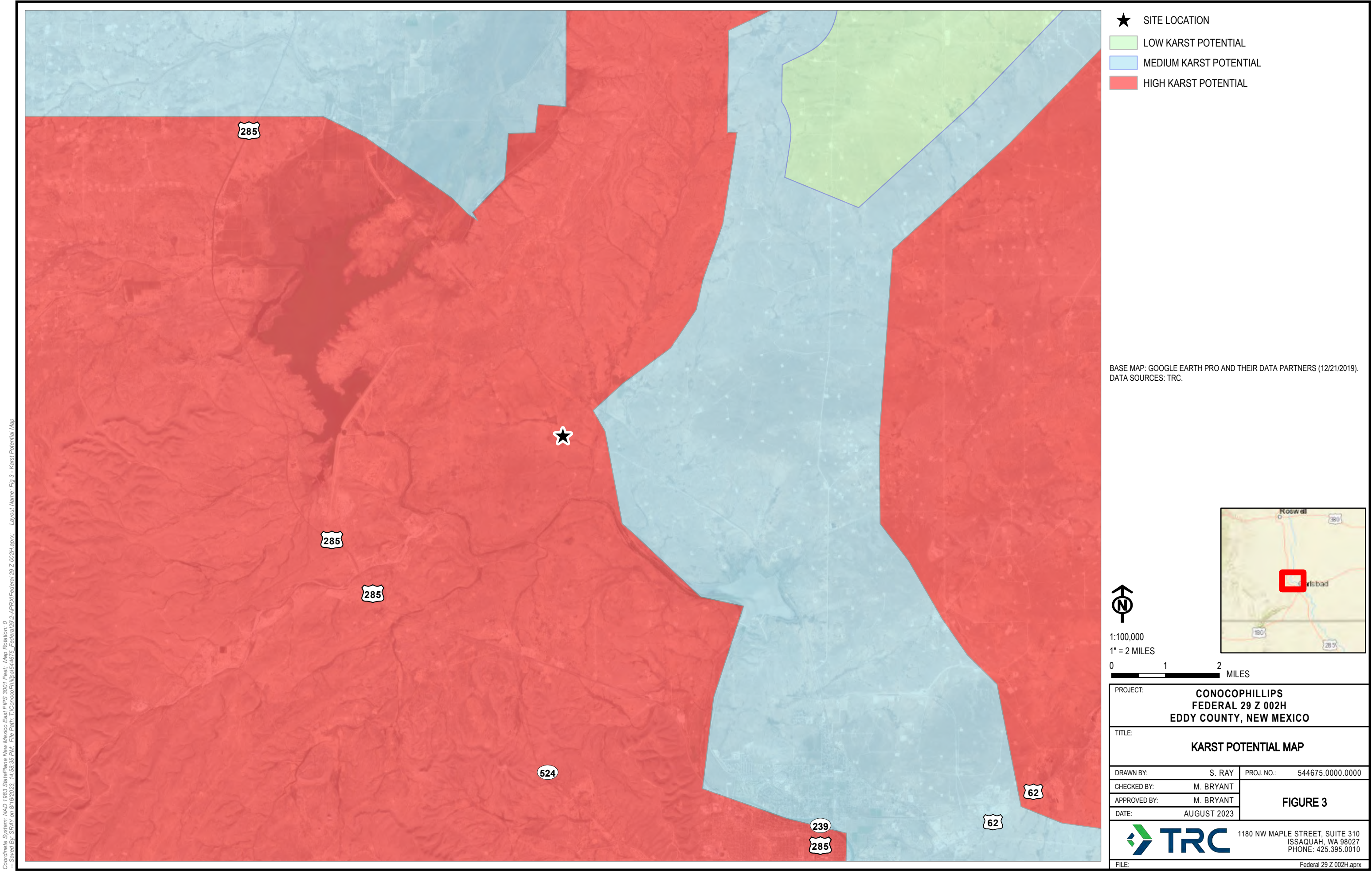


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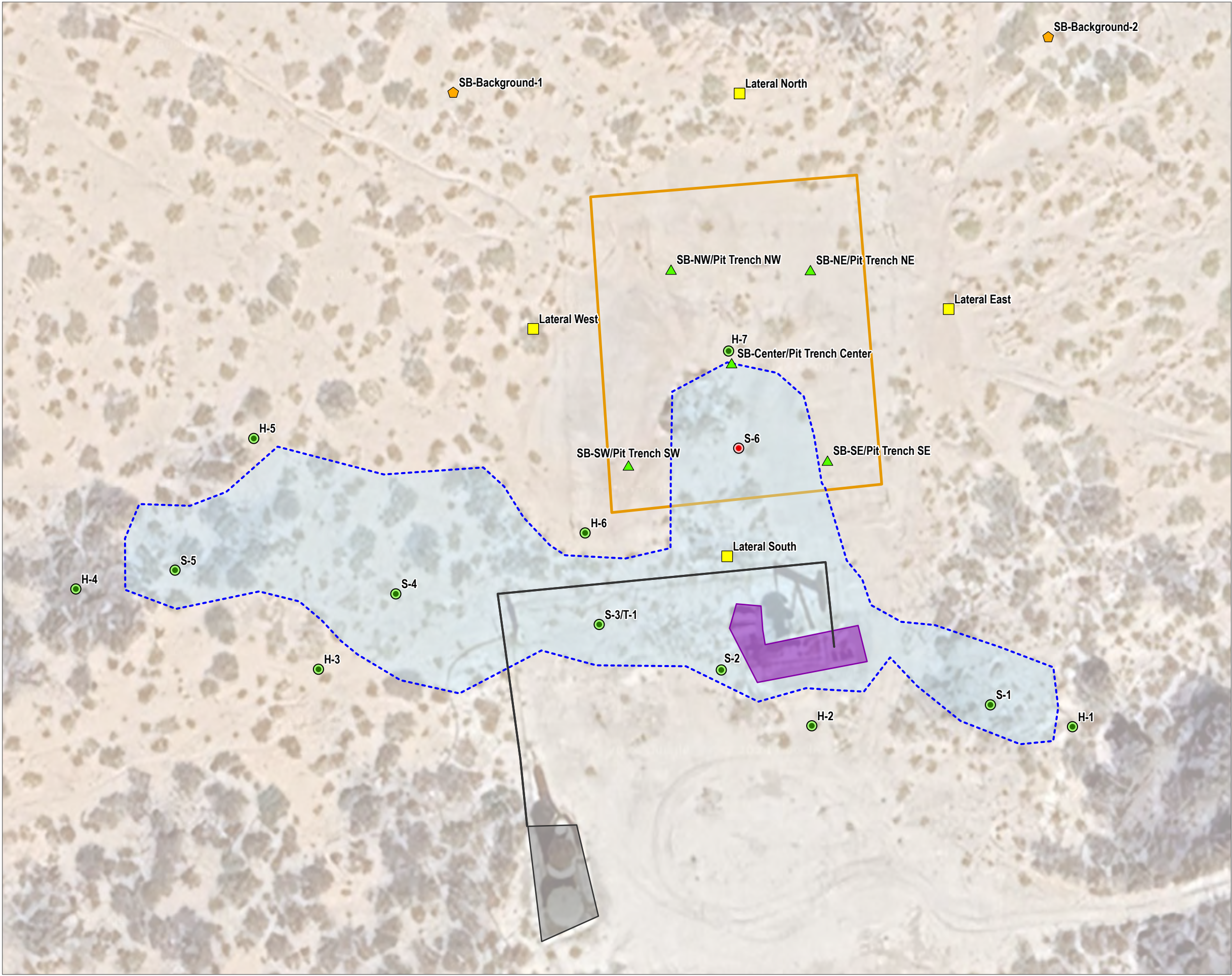
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	TITLE: TOPOGRAPHIC MAP	
	DRAWN BY: S. RAY	PROJ. NO.: 544675.0000.0000
	CHECKED BY: M. BRYANT	FIGURE 1
	APPROVED BY: M. BRYANT	
DATE: AUGUST 2023	 1180 NW MAPLE STREET, SUITE 310 ISSAQUAH, WA 98027 PHONE: 425.395.0010	
FILE:	FEDERAL 29 Z 002H	

BASE MAP: USGS COLOR ORTHO IMAGERY
 DATA SOURCES: TRC





Coordinate System: NAD 1983 StatePlane New Mexico East FIPS 3001 Feet, Map Rotation: 0
-- Saved By: BTRACY on 10/23/2024, 16:41:24 PM, File Path: T:\1-PROJECTS\ConocoPhillips\544675_Federal 29 Z 002H.aprx, Layout Name: Fig 5 - Drilling Pit Assessment Map



- PREVIOUS DELINEATION SAMPLE LOCATION BELOW NMOC STANDARDS
- PREVIOUS DELINEATION SAMPLE LOCATION EXCEEDING NMOC STANDARDS
- BACKGROUND SAMPLE LOCATION
- HORIZONTAL PIT DELINEATION SAMPLE LOCATION
- VERTICAL PIT DELINEATION SAMPLE LOCATION
- SURFACE STEEL LINE
- TANK BATTERY
- WELLHEAD AND ASSOCIATED INFRASTRUCTURE
- APPROXIMATE PIT LOCATION
- RELEASE AREA (OVERSPRAY FOOTPRINT)

BASE MAP: GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).
DATA SOURCES: TRC.

NOTES
SAMPLE LOCATIONS AND ANALYTICAL DATA FROM CARMONA RESOURCES
WORKPLAN



1:500
1" = 42'

0 25 50 FEET

PROJECT:		CONOCOPHILLIPS FEDERAL 29 Z 002H EDDY COUNTY, NEW MEXICO	
TITLE:		DRILLING PIT ASSESSMENT - SAMPLE LOCATION MAP	
DRAWN BY:	A. CLINE	PROJ. NO.:	544675.0000.0000
CHECKED BY:	B. TRACY	FIGURE 4	
APPROVED BY:	M. BRYANT		
DATE:	OCTOBER 2024		
			
FILE:		Federal 29 Z 002H.aprx	

TABLE 1 COP, Federal 29 Z Summary of Delineation Sampling Analytical Results											
SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs		10				50				100	600
Remediation Standard - >4' bgs		10				50	1,000			2,500	10,000
Lateral Delineation											
Lateral-East @ 0-1'	6/6/2024	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	63.0
Lateral-North @ 0-1'	6/6/2024	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	72.6
Lateral-South @ 0-1'	6/6/2024	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	108
Lateral-West @ 0-1'	6/6/2024	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	67.6
Veritcal Delineation											
Pit Trench Center @ 0-1'	6/6/2024	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	1,340
Pit Trench Center @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	1,520
Pit Trench Center @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	848
Pit Trench Center @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	1,020
Pit Trench Center @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	2,450
Pit Trench Center @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	3,590
Pit Trench Center @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	2,970
SB-Center @ Surface	10/8/2024	-	-	-	-	-	-	-	-	-	847
SB-Center @ 1-3'	10/8/2024	-	-	-	-	-	-	-	-	-	1,110
SB-Center @ 5'	10/8/2024	-	-	-	-	-	-	-	-	-	466
SB-Center @ 10'	10/8/2024	-	-	-	-	-	-	-	-	-	1,570
SB-Center @ 15'	10/8/2024	-	-	-	-	-	-	-	-	-	1,040
SB-Center @ 20'	10/8/2024	-	-	-	-	-	-	-	-	-	883
SB-Center @ 25'	10/8/2024	-	-	-	-	-	-	-	-	-	997
SB-Center @ 30'	10/8/2024	-	-	-	-	-	-	-	-	-	678
SB-Center @ 35'	11/6/2024	-	-	-	-	-	-	-	-	-	305

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs		10				50				100	600
Remediation Standard - >4' bgs		10				50	1,000			2,500	10,000
Pit Trench NE @ 0-1'	6/6/2024	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.9	<49.9	<49.9	<49.9	7,870
Pit Trench NE @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	2,440
Pit Trench NE @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	2,600
Pit Trench NE @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	2,580
Pit Trench NE @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	2,910
Pit Trench NE @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	3,930
Pit Trench NE @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	1,200
SB-NE @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	7,440
SB-NE @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	1,580
SB-NE @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	1,620
SB-NE @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	1,280
SB-NE @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	965
SB-NE @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	538
SB-NE @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	1,160
SB-NE @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	1,480
SB-NE @ 35'	11/6/2024	-	-	-	-	-	-	-	-	-	3,040
SB-NE @ 40'	11/6/2024	-	-	-	-	-	-	-	-	-	2,120
SB-NE @ 45'	11/6/2024	-	-	-	-	-	-	-	-	-	1,870
SB-NE @ 50'	11/6/2024	-	-	-	-	-	-	-	-	-	734
SB-NE @ 60'	11/6/2024	-	-	-	-	-	-	-	-	-	114

TABLE 1 COP, Federal 29 Z Summary of Delineation Sampling Analytical Results											
SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs		10				50				100	600
Remediation Standard - >4' bgs		10				50	1,000			2,500	10,000
Pit Trench NW @ 0-1'	6/6/2024	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	10,300
Pit Trench NW @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	4,570
Pit Trench NW @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	4,110
Pit Trench NW @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	5,530
Pit Trench NW @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	4,740
Pit Trench NW @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	7,850
Pit Trench NW @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	4,080
SB-NW @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	1,870
SB-NW @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	3,700
SB-NW @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	2,000
SB-NW @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	4,000
SB-NW @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	5,060
SB-NW @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	1,360
SB-NW @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	1,540
SB-NW @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	571

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs		10				50				100	600
Remediation Standard - >4' bgs		10				50	1,000			2,500	10,000
Pit Trench SE @ 0-1'	6/6/2024	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<49.9	<49.9	<49.9	<49.9	1,730
Pit Trench SE @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	2,140
Pit Trench SE @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	5,980
Pit Trench SE @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	10,100
Pit Trench SE @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	1,250
Pit Trench SE @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	1,210
Pit Trench SE @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	2,140
Pit Trench SE @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	2,580
SB-SE @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	7,230
SB-SE @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	1,950
SB-SE @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	1,760
SB-SE @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	1,820
SB-SE @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	1,540
SB-SE @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	796
SB-SE @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	613
SB-SE @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	1,480
SB-SE @ 35'	11/6/2024	-	-	-	-	-	-	-	-	-	2,740
SB-SE @ 40'	11/6/2024	-	-	-	-	-	-	-	-	-	2,430
SB-SE @ 45'	11/6/2024	-	-	-	-	-	-	-	-	-	2,070
SB-SE @ 50'	11/6/2024	-	-	-	-	-	-	-	-	-	1,130
SB-SE @ 60'	11/6/2024	-	-	-	-	-	-	-	-	-	429

TABLE 1 COP, Federal 29 Z Summary of Delineation Sampling Analytical Results											
SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs		10				50				100	600
Remediation Standard - >4' bgs		10				50	1,000			2,500	10,000
Pit Trench SW @ 0-1'	6/6/2024	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	118	<50.0	118	3,650
Pit Trench SW @ 2'	6/6/2024	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	2,550
Pit Trench SW @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	2,170
Pit Trench SW @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	1,660
Pit Trench SW @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	1,150
Pit Trench SW @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	1,230
Pit Trench SW @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	437
SB-SW @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	7,170
SB-SW @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	2,440
SB-SW @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	2,240
SB-SW @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	1,020
SB-SW @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	215
SB-SW @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	79.2
SB-SW @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	78.3
SB-SW @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	128

TABLE 1											
COP, Federal 29 Z											
Summary of Delineation Sampling Analytical Results											
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Reclamation Standard - <4' bgs		10				50				100	600
Remediation Standard - >4' bgs		10				50	1,000			2,500	10,000
Background Borings											
Background-1 @ Surface	10/10/2024	-	-	-	-	-	-	-	-	-	<10.0
Background-1 @ 1-3'	10/10/2024	-	-	-	-	-	-	-	-	-	31.3
Background-1 @ 5'	10/10/2024	-	-	-	-	-	-	-	-	-	25.4
Background-1 @ 10'	10/10/2024	-	-	-	-	-	-	-	-	-	<9.90
Background-1 @ 15'	10/10/2024	-	-	-	-	-	-	-	-	-	<10.0
Background-1 @ 20'	10/10/2024	-	-	-	-	-	-	-	-	-	46.2
Background-1 @ 25'	10/10/2024	-	-	-	-	-	-	-	-	-	164
Background-1 @ 30'	10/10/2024	-	-	-	-	-	-	-	-	-	141
Background-1 @ 35'	11/7/2024	-	-	-	-	-	-	-	-	-	94.2
Background-1 @ 40'	11/7/2024	-	-	-	-	-	-	-	-	-	30.7
Background-1 @ 45'	11/7/2024	-	-	-	-	-	-	-	-	-	89.4
Background-1 @ 50'	11/7/2024	-	-	-	-	-	-	-	-	-	185
Background-1 @ 60'	11/7/2024	-	-	-	-	-	-	-	-	-	68.1
Background-1 @ 70'	11/7/2024	-	-	-	-	-	-	-	-	-	<10.0
Background-1 @ 80'	11/7/2024	-	-	-	-	-	-	-	-	-	88.1

TABLE 1 COP, Federal 29 Z Summary of Delineation Sampling Analytical Results											
SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs		10				50				100	600
Remediation Standard - >4' bgs		10				50	1,000			2,500	10,000
Background-2 @ Surface	10/8/2024	-	-	-	-	-	-	-	-	-	334
Background-2 @ 1-3'	10/8/2024	-	-	-	-	-	-	-	-	-	241
Background-2 @ 5'	10/8/2024	-	-	-	-	-	-	-	-	-	271
Background-2 @ 10'	10/8/2024	-	-	-	-	-	-	-	-	-	172
Background-2 @ 15'	10/8/2024	-	-	-	-	-	-	-	-	-	50.7
Background-2 @ 20'	10/8/2024	-	-	-	-	-	-	-	-	-	13.4
Background-2 @ 25'	10/8/2024	-	-	-	-	-	-	-	-	-	14.1
Background-2 @ 30'	10/8/2024	-	-	-	-	-	-	-	-	-	7.48

Exceeds NMOCD Standard



505 East Huntland Dr.
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Austin, TX 78752

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Appendix A – Groundwater Database Results

Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE
quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
2124F	C 04728 POD1	NE	SW	SE	29	20S	27E	565794.4	3600565.0	

* UTM location was derived from PLSS - see Help

Driller License:	1348	Driller Company:	TAYLOR WATER WELL SERVICE		
Driller Name:	CLINTON E TAYLOR				
Drill Start Date:	2023-09-11	Drill Finish Date:	2023-10-10	Plug Date:	
Log File Date:	2023-10-25	PCW Rcv Date:		Source:	Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield:	100
Casing Size:		Depth Well:	159	Depth Water:	132

Water Bearing Stratifications:

Top	Bottom	Description
132	142	Limestone/Dolomite/Chalk
142	159	Limestone/Dolomite/Chalk

Casing Perforations:

Top	Bottom
139	159

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



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Appendix B – Negative Wetland Delineation Survey; TRC



Wetland and Waterbody Delineation Report

**Federal 29 Z 002H Release Site
Project, Eddy County, New Mexico**

Project Number: 544765.0000.0000

September 2025

Prepared For:

ConocoPhillips Risk Management &
Remediation
600 W. Illinois Ave
Midland, TX 79701

Prepared By:

TRC Environmental Corporation
11767 Katy Freeway
Suite 850
Houston, Texas 77079



Prepared by: Rachel Rouwenhorst

Reviewed and Approved by: Melissa Cross, PWS, CWB®



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- Appendix B.** Antecedent Precipitation Tool
- Appendix C.** Wetlands Determination Data Forms
- Appendix D.** Observation Data Sheets and Photographs
- Appendix E.** Melissa Cross CV, PWS# 3628



1. Introduction

ConocoPhillips Risk Management and Remediation (ConocoPhillips) and is proposing soil remediation within a 300-foot (ft) buffer (Survey Area) of a well pad at the Federal 29 Z 002H Release Site (Project). The Project is located in Section 29, Township 20 South (S), Range 27 East (E) in Eddy County, New Mexico (Latitude 32.5426941889°N, Longitude -104.310383711°W) (**Appendix A, Figure 1**). The Survey Area comprises of the proposed remediation site surrounded by a 300 ft buffer to accommodate temporary workspace areas. The Survey Area totals approximately 6.5 acres.

This Wetland and Waterbody Delineation Report is in response to the August 8, 2025, New Mexico Oil Conservation Division (NMOCD) denial of the "Revised Former Drilling Pit Delineation and Reclamation Plan" for incident nAPP2221331648. The NMOCD specified in the denial letter that the riverine habitat present in the publicly available dataset could only be overturned by a Professional Wetland Scientist (PWS) in a Wetland Delineation Report. The presence or absence of the riverine habitat will determine the applicable closure criteria for the Site.

The purpose of this wetland and waterbody delineation was to determine the extent of potential jurisdictional wetlands and waterbodies within the designated Survey Area. The wetland and waterbody delineation field investigation was conducted by TRC Environmental Corporation (TRC) on August 19, 2025, and the production of this report and delineation methods was overseen by TRC Natural Resources Project Manager, Melissa Cross, PWS #3628.

2. Methods

This wetland and waterbody delineation was conducted in accordance with the guidelines of the 1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the USACE Wetland Delineation Manual: Arid West Region (Version 2.0, 2008). National Wetland Indicator status and taxonomic nomenclature is referenced from the 2022 Corps of Engineers National Wetland Plant List. Indicators of hydric soil are based on the Field Indicators of Hydric Soils in the United States Guide Version 8.2 (U.S. Department of Agriculture [USDA] Natural Resources Conservation Service [NRCS], 2018).

Due to recent changes to the federal definition of the Waters of the United States (WOTUS), TRC classified wetlands and waterbodies based on the pre-2015 regulatory regime consistent with the Supreme Court's decision in Sackett, as the August 29, 2023, final rule is not currently operative in New Mexico due to ongoing litigation. Because USACE guidance had not yet been issued on the ruling, TRC recorded information on all features so that the jurisdictional status can be defined appropriately based on the USACE's interpretation. Additionally, TRC's field staff noted any potential WOTUS that may require additional discussions during USACE coordination and/or permitting.

2.1. Desktop Review

Prior to conducting fieldwork, TRC scientists reviewed several sources to identify areas likely to contain aquatic features including, but not limited to:

- United States Geological Survey (USGS) 7.5-minute Quadrangle maps;
- Historic topographic maps;
- NRCS Web Soil Survey;
- Federal Emergency Management Agency floodplain maps;
- U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps;
- National Hydrography Dataset (NHD) maps; and



- Current and historical aerial photographs.

2.2. On-Site Field Investigation

TRC qualified wetland scientist Jesse Young conducted a wetland and waterbody field delineation of the Survey Area on August 19, 2025. Sample points were collected in areas exhibiting wetland and upland characteristics to document the presence and/or absence of wetlands and to provide support for the delineated wetland boundaries. Information collected at each data point consisted of dominant vegetation, hydrophytic vegetation indicators, soil profiles, hydric soil indicators, and wetland hydrology indicators.

Plant species were identified at each sample point and their wetland indicator status: obligate wetland (OBL); facultative wetland (FACW); facultative (FAC); facultative upland (FACU); or upland (UPL) was determined by referencing the 2022 Corps of Engineers National Wetland Plant List; Arid West Region. Soil pits were dug to the depth necessary to document a field indicator of hydric soils or confirm the absence of indicators. Soil color was determined using a Munsell soil color chart (Munsell Color/X-Rite 2009). The sample points and soil pits were evaluated for presence of wetland hydrology indicators.

The Project is located within the USACE Albuquerque District; therefore, final concurrence is determined by the USACE Albuquerque District.

3. Results

3.1. Desktop Review

The USGS Eddy County, New Mexico 7.5-minute quadrangle maps showed elevations ranging from 3,208 to 3,200 feet above mean sea level. USGS and NHD maps depict an unnamed intermittent streamline intersecting the Survey Area. This stream is also depicted as a riverine wetland by NWI maps. The Survey Area is located within a FEMA Zone X area of minimal flood hazard.

The land within the Survey Area is mostly flat, and a review of Google Earth aerial imagery shows the majority of the Survey Area is desert scrub intermixed with oil and gas infrastructure. A review of Google Earth historical imagery determined that the majority of the Survey Area has been used for oil and gas production since at least 1985. The construction of well pads and dirt roads has increased within the vicinity of the Survey Area since the 1985 imagery, potentially contributing to changes in hydrology within the vicinity of the Survey Area.

3.1.1. Soils

The NRCS maps the Survey Area as underlain by two soil series (**Appendix A, Figure 2**). The soils mapped in the NRCS Web Soil Survey website (NRCS 2025) are provided in **Table 1** below.

Table 1. NRCS Soils within the Survey Area

Map Symbol	Soil Map Unit Name	Drainage Classification	Hydric?
RA	Reagan loam, 0 to 3 percent slopes	Well drained	No
SM	Simona-Bippus complex, 0 to 5 percent slopes	Well drained	No



3.1.2. Hydrology

The overall hydrology of the Survey Area flows from northwest to southeast and is influenced by the general slope of the land. The USGS identified one intermittent stream within the Survey Area (**Appendix A, Figure 3**)

In order to evaluate hydrologic conditions during the field investigation, evaluations of precipitation were conducted to determine conditions within the region using the Antecedent Precipitation Tool (APT). The APT was developed to facilitate comparison of precipitation conditions at a given location to the range of normal precipitation conditions that occurred during the preceding 30 years. In addition to providing a standardized method to evaluate normal precipitation conditions, the APT can assess the presence of drought conditions and the approximate dates of the wet and dry season for a given location. Based on the APT (**Appendix B**), on the day of the field investigation, August 19, 2025, the site was experiencing normal climactic conditions during a mild drought in the dry season.

3.2. On-Site Field Investigation

3.2.1. Vegetation

The Survey Area is primarily used for oil and gas production. Based on review of aerial imagery, the area surrounding the Project has been used for oil and gas production since at least 1985 (Google Earth Pro, 2025).

Table 2 contains a list of plant species observed to be the dominant species within the Survey Area, along with the indicator classifications for each in the Arid West Region. The Survey Area consists of desert scrub/shrub habitat.

Table 2. Dominant Vegetation Species within Survey Area

Common Name	Scientific Name	Wetland Indicator Status ¹
Sapling/Shrub Stratum (Mid- and understory)		
Honey mesquite	<i>Prosopis glandulosa</i>	FACU
Herbaceous Stratum (Groundcover)		
Purple three-awn	<i>Aristida purpurea</i>	UPL
Blue grama	<i>Bouteloua gracilis</i>	UPL
James' galleta	<i>Hilaria jamesii</i>	UPL

¹ OBL = Obligate; FAC = Facultative; FACU = Facultative Upland; UPL = Upland. Indicator status from USDA National Wetland Plant List (USACE 2022).

3.2.2. Wetlands and Waterbodies

No wetlands or waterbodies were identified within the Survey Area. The NWI mapped riverine wetland was found to not exist within the Survey Area. The field results are shown in **Figure 4 of Appendix A** and all collected data forms are provided in **Appendices C and D**.

3.2.3. Rivers, Streams, and Drainages

No streams or rivers were identified within the Survey Area. The USGS and NHD mapped intermittent stream that was supposed to intersect the Survey Area was found to not exist within the Survey Area. The field results are shown in **Figure 4 of Appendix A** and all collected data forms are provided in **Appendices C and D**.



4. Conclusions

Based on the wetland and waterbody delineation completed by TRC August 19, 2025, no wetlands, waterbodies, or streams were identified within the Survey Area. The intermittent stream and associated riverine wetland feature that was mapped within the Survey Area by NHD and NWI databases were found to not exist within the Survey Area.

The results of this field study are based on site conditions at the time of the field study, which was conducted in accordance with current regulatory policy and methods. Unknown and future conditions that affect observations of field indicators or change in interpretation of regulatory policy or methods may modify future findings.

While this report has been reviewed and approved by a PWS, the ultimate authority to determine the location of the wetland boundary and jurisdictional authority over the wetlands and other aquatic resources identified in this report resides with the USACE Albuquerque District. Decisions made by staff of these regulatory agencies may result in modifications to the location of the wetland or other aquatic resource boundaries shown in this report. Furthermore, state, municipalities, townships and counties may have local zoning authority over certain areas or types of wetlands and waterbodies.



5. References

Environmental Laboratory. (1987). Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Munsell Color/X-Rite. (2009). Munsell Soil Color Charts. Grand Rapids, Michigan.

USACE. (2008). *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

USACE. (2022). National Wetland Plant List (Web address: <http://wetland-plants.usace.army.mil/>) U.S. Army Corps of Engineers, Engineer Research and Development Center Cold Regions Research and Engineering Laboratory, Hanover, NH.

U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). (2025). (n.d.[a]). Web Soil Survey Accessed from: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.

USDA NRCS. (2018). Field Indicators of Hydric Soils in the United States, Version 8.2. L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

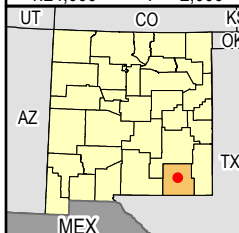
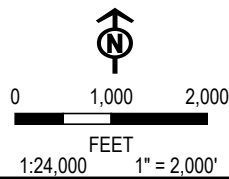


Appendix A. Figures



LEGEND

★ SITE LOCATION



BASE MAP: GOOGLR EARTH AERIAL IMAGERY SERICE LAYER
AERIAL DATE: 12/2023
DATA SOURCES: TRC

PROJECT:

**CONOCOPHILLIPS
FEDERAL 29 Z 002H SITE PROJECT
EDDY COUNTY, NEW MEXICO**

TITLE:

PROJECT OVERVIEW MAP

DRAWN BY:

A. CLINE

PROJ. NO.:

544675.0000.0000

CHECKED BY:

A. GIBSON

APPROVED BY:

M. CROSS

DATE:

SEPTEMBER 2025

FIGURE 1

11767 KATY FREEWAY
SUITE 850
HOUSTON, TX 77079
PHONE: 713.244.1000

FILE:

544675_WDR

COORDINATE SYSTEM: NAD 1983 STATEPLANE NEW MEXICO EAST FIPS 3001 FEET; MAP ROTATION: 0
- SAVED BY: A. CLINE ON 9/3/2025, 16:28:29 PM; FILE PATH: T:\PROJECTS\CONOCOPHILLIPS\544675_FEDERAL29Z002H\PROJECT LOCATION MAP; LAYOUT NAME: FIGURE 1 PROJECT LOCATION MAP

COORDINATE SYSTEM: NAD 1983 STATEPLANE NEW MEXICO EAST FIPS 3001 FEET; MAP ROTATION: 0
 - SAVED BY: ACLINE ON 9/3/2025, 16:28:29 PM; FILE PATH: T:\1-PROJECTS\CONOCOPHILLIPS\544675_FEDERAL29\2-APRX\544675_WDR.APRX; LAYOUT NAME: FIGURE 2 NRCS SOILS



LEGEND — PIPELINE □ SITE INFRASTRUCTURE --- 300-FT BUFFER SOIL TYPE RA, REAGAN LOAM, 0 TO 3 PERCENT SLOPES SM, SIMONA-BIPPUS COMPLEX, 0 TO 5 PERCENT SLOPES UG, UPTON GRAVELLY LOAM, 0 TO 9 PERCENT SLOPES BASE MAP: GOOGLR EARTH AERIAL IMAGERY SERICE LAYER AERIAL DATE: 12/2023 DATA SOURCES: TRC, NRCS	0 75 150 FEET 1:1,800 1" = 150' CHAVES EDDY LEA TX	PROJECT: CONOCOPHILLIPS FEDERAL 29 Z 002H SITE PROJECT EDDY COUNTY, NEW MEXICO TITLE: NRCS SOILS <table border="1"> <tr> <td>DRAWN BY: A. CLINE</td> <td>PROJ. NO.: 544675.0000.0000</td> </tr> <tr> <td>CHECKED BY: A. GIBSON</td> <td rowspan="2">FIGURE 2</td> </tr> <tr> <td>APPROVED BY: M. CROSS</td> </tr> <tr> <td>DATE: SEPTEMBER 2025</td> <td></td> </tr> </table> TRC 11767 KATY FREEWAY SUITE 850 HOUSTON, TX 77079 PHONE: 713.244.1000 FILE: 544675_WDR	DRAWN BY: A. CLINE	PROJ. NO.: 544675.0000.0000	CHECKED BY: A. GIBSON	FIGURE 2	APPROVED BY: M. CROSS	DATE: SEPTEMBER 2025	
DRAWN BY: A. CLINE	PROJ. NO.: 544675.0000.0000								
CHECKED BY: A. GIBSON	FIGURE 2								
APPROVED BY: M. CROSS									
DATE: SEPTEMBER 2025									

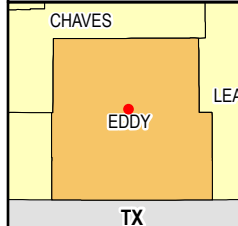
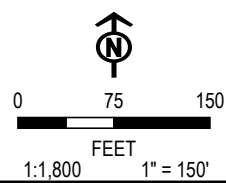
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 - SAVED BY: A. CLINE ON 9/3/2025, 16:28:29 PM; FILE PATH: T:\1-PROJECTS\CONOCOPHILLIPS\544675_FEDERAL29\2-APR\544675_WDR.APRX; LAYOUT NAME: FIGURE 3 HYDROLOGY



LEGEND

- PIPELINE
- SITE INFRASTRUCTURE
- - - 300-FT BUFFER
- NHD RIVER/ STREAM
- NWI RIVERINE

BASE MAP: GOOGLR EARTH AERIAL IMAGERY SERICE LAYER
 AERIAL DATE: 12/2023
 DATA SOURCES: TRC, NWI, NHD



PROJECT: **CONOCOPHILLIPS
 FEDERAL 29 Z 002H SITE PROJECT
 EDDY COUNTY, NEW MEXICO**

TITLE: **HYDROLOGY**

DRAWN BY: A. CLINE PROJ. NO.: 544675.0000.0000

CHECKED BY: A. GIBSON

APPROVED BY: M. CROSS

DATE: SEPTEMBER 2025

FIGURE 3



11767 KATY FREEWAY
 SUITE 850
 HOUSTON, TX 77079
 PHONE: 713.244.1000

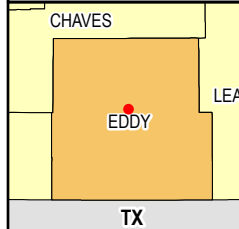
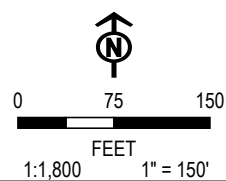
FILE: 544675_WDR

COORDINATE SYSTEM: NAD 1983 STATEPLANE NEW MEXICO EAST FIPS 3001 FEET; MAP ROTATION: 0
- SAVED BY: A. CLINE ON 9/3/2025, 16:28:29 PM; FILE PATH: T:\1-PROJECTS\CONOCOPHILLIPS\544675_FEDERAL29\2-APR\544675_WDR.APRX; LAYOUT NAME: FIGURE 4 FIELD RESULTS

**LEGEND**

-  OBSERVATION POINT
-  UPLAND POINT
-  PIPELINE
-  SITE INFRASTRUCTURE
-  300-FT BUFFER

BASE MAP: GOOGLR EARTH AERIAL IMAGERY SERICE LAYER
AERIAL DATE: 12/2023
DATA SOURCES: TRC



PROJECT: **CONOCOPHILLIPS
FEDERAL 29 Z 002H SITE PROJECT
EDDY COUNTY, NEW MEXICO**

TITLE: **FIELD RESULTS**

DRAWN BY: A. CLINE PROJ. NO.: 544675.0000.0000

CHECKED BY: A. GIBSON

APPROVED BY: M. CROSS

DATE: SEPTEMBER 2025

FIGURE 4



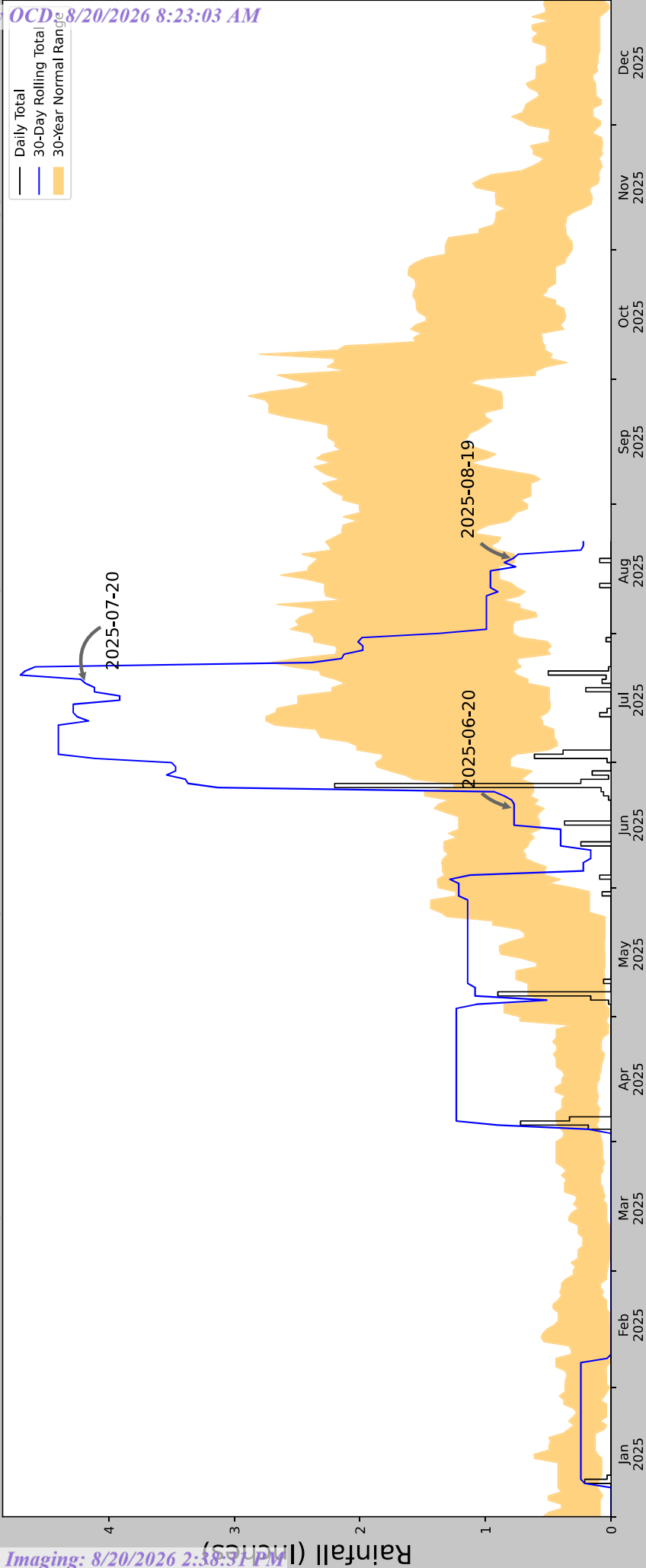
11767 KATY FREEWAY
SUITE 850
HOUSTON, TX 77079
PHONE: 713.244.1000

FILE: 544675_WDR



Appendix B. Antecedent Precipitation Tool

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	32.54269, -104.31038
Observation Date	2025-08-19
Elevation (ft)	3203.112
Drought Index (PDSI)	Mild drought (2025-07)
WebWIMP H ₂ O Balance	Dry Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-08-19	0.772047	2.332677	0.779528	Normal	2	3	6
2025-07-20	0.662598	2.11811	4.18504	Wet	3	2	6
2025-06-20	0.532283	1.405906	0.771654	Normal	2	1	2
Result							Normal Conditions - 14

US Army Corps of Engineers, ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 3.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
BRANTLEY DAM	32.5158, -104.3828	3212.927	4.61	9.815	2.12	9996	90
CARLSBAD 6.8 NW	32.4816, -104.3084	3286.089	4.938	73.162	2.583	55	0
CARLSBAD NORTH 15.5 NW	32.5979, -104.4195	3316.929	6.062	104.002	3.358	1169	0
CARLSBAD 17.1 NW (PRICE)	32.5786, -104.4461	3366.142	5.694	153.215	3.435	2	0
ARTESIA 15.5 S (LEWIS)	32.627, -104.3833	3304.134	7.683	91.207	4.158	3	0
CARLSBAD 1.9 NW	32.4216, -104.2679	3210.958	9.551	1.969	4.317	22	0
CARLSBAD 2.6 NNW	32.436, -104.261	3175.853	8.989	37.074	4.378	4	0
CARLSBAD 2.1 NNW	32.4309, -104.254	3158.137	9.528	54.79	4.81	10	0
CARLSBAD 3.4 N	32.4539, -104.2378	3138.155	9.472	76.772	4.99	61	0
CARLSBAD 2.1 NE	32.4279, -104.2701	3126.969	11.538	85.958	6.193	23	0
CAVERN CITY AP	32.3336, -104.2583	3230.0	14.533	37.073	7.079	8	0



Appendix C. Wetland Determination Data Forms

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Arid West Region See ERDC/EL TR-08-28; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
---	---

Project/Site: Federal 29 Z 002H Release Site City/County: --, Eddy County Sampling Date: 2025-8-19
 Applicant/Owner: ConocoPhillips State: NM Sampling Point: UPL-01
 Investigator(s): JJY Section, Township, Range: 29 20S 27E
 Landform (hillslope, terrace, etc): Plain Local relief (concave, convex, none): Concave Slope (%): 0 to 1
 Subregion (LRR): LRR D Lat: 32.5422713441 Long: -104.309626573 Datum: WGS84
 Soil Map Unit Name: Reagan loam, 0 to 3 percent slopes NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Covertypes is UPL. According to USACE APT, hydrologic conditions are normal during a mild drought in the dry season.	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30 ft radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
	0	= Total Cover																
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)																		
1. <u>Prosopis glandulosa</u>	20	Yes	FACU															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
	20	= Total Cover																
Herb Stratum (Plot size: <u>5 ft radius</u>)																		
1. <u>Hilaria jamesii</u>	50	Yes	UPL															
2. <u>Bouteloua gracilis</u>	20	Yes	UPL															
3. <u>Aristida purpurea</u>	20	Yes	UPL															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
	90	= Total Cover																
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
	0	= Total Cover																
% Bare Ground in Herb Stratum <u>15</u>		% Cover of Biotic Crust _____																
Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																		
Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Total % Cover of:</td> <td style="text-align: right;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>90</u></td> <td>x 5 = <u>450</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>530</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.8</u>					Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>90</u>	x 5 = <u>450</u>	Column Totals: <u>110</u> (A)	<u>530</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>20</u>	x 4 = <u>80</u>																	
UPL species <u>90</u>	x 5 = <u>450</u>																	
Column Totals: <u>110</u> (A)	<u>530</u> (B)																	
Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
Hydrophytic Vegetation Present? Yes _____ No <u>X</u>																		
Remarks: No vegetation comments.																		

SOIL

Sampling Point: UPL-01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 to 16	7.5YR 3/3	100					Silty Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|---|
| ☐ Histosol (A1) | ☐ Sandy Gleyed Matrix (S4) |
| ☐ Histic Epipedon (A2) | ☐ Sandy Redox (S5) |
| ☐ Black Histic (A3) | ☐ Stripped Matrix (S6) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Mucky Mineral (F1) |
| ☐ Stratified Layers (A5) (LRR C) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ 1 cm Muck (A9) (LRR D) | ☐ Depleted Matrix (F3) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Redox Dark Surface (F6) |
| ☐ Thick Dark Surface (A12) | ☐ Depleted Dark Surface (F7) |
| ☐ Iron Monosulfide (A18) | ☐ Redox Depressions (F8) |
| ☐ Sandy Mucky Mineral (S1) | |

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Iron-Manganese Masses (F12) (LRR D)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (F22)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Not present
Depth (inches):

Hydric Soil Present? Yes _____ No ☒

Remarks:

No soil comments.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- | | |
|--|---|
| ☐ Surface Water (A1) | ☐ Salt Crust (B11) |
| ☐ High Water Table (A2) | ☐ Biotic Crust (B12) |
| ☐ Saturation (A3) | ☐ Aquatic Invertebrates (B13) |
| ☐ Water Marks (B1) (Nonriverine) | ☐ Hydrogen Sulfide Odor (C1) |
| ☐ Sediment Deposits (B2) (Nonriverine) | ☐ Oxidized Rhizospheres on Living Roots (C3) |
| ☐ Drift Deposits (B3) (Nonriverine) | ☐ Presence of Reduced Iron (C4) |
| ☐ Surface Soil Cracks (B6) | ☐ Recent Iron Reduction in Tilled Soils (C6) |
| ☐ Inundation Visible on Aerial Imagery (B7) | ☐ Thin Muck Surface (C7) |
| ☐ Water-Stained Leaves (B9) | ☐ Other (Explain in Remarks) |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ☒ Depth (inches): _____
Water Table Present? Yes _____ No ☒ Depth (inches): _____
Saturation Present? Yes _____ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology comments.

SAMPLE PLOT PHOTOS

Plot Photo(s) - N :



Plot Photo(s) - E :



Plot Photo(s) - S :



Plot Photo(s) - W:



Plot Photo(s) - Hydrology:



Plot Photo(s) - Vegetation:



Plot Photo(s) - Soil:





Appendix D. Observation Data Sheets and Photographs



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CONOCOPHILLIPS

PROJECT: FEDERAL 29 Z 002H RELEASE SITE PROJECT

O-01

PLOT OVERVIEW

32.54371355182125, -104.31180958491679

ID	O-01-1	Plot Type	Observation
Date/Time	2025-08-19 13:18:03	Parcel	
Evaluator(s)	Antonio Molina		
Feature Detail	Photo Point		
Comments			

PLOT PHOTOS

Photo ID	O-JJY-100-1-PIC1	Photo Type	Site Overview
Direction	N	Comment	



Photo ID	O-JJY-100-1-PIC2	Photo Type	Site Overview
Direction	E	Comment	



Photo ID	O-JJY-100-1-PIC3	Photo Type	Site Overview
Direction	S	Comment	



Photo ID	O-JJY-100-1-PIC4	Photo Type	Site Overview
Direction	W	Comment	



Photo ID	O-JJY-100-1-PIC5	Photo Type	Site Overview
Direction	SE	Comment	



**ENVIRONMENTAL SURVEY PLOT REPORT**

CLIENT: CONOCOPHILLIPS

PROJECT: FEDERAL 29 Z 002H RELEASE SITE PROJECT

O-02**PLOT OVERVIEW**

32.543296428391585, -104.311111155616114

ID	O-02-1	Plot Type	Observation
Date/Time	2025-08-19 13:24:38	Parcel	
Evaluator(s)	Antonio Molina		
Feature Detail	Photo Point		
Comments			

PLOT PHOTOS

Photo ID	O-JJY-101-1-PIC1	Photo Type	Site Overview
Direction	N	Comment	



Photo ID	O-JJY-101-1-PIC2	Photo Type	Site Overview
Direction	E	Comment	



Photo ID	O-JJY-101-1-PIC3	Photo Type	Site Overview
Direction	S	Comment	



Photo ID	O-JJY-101-1-PIC4	Photo Type	Site Overview
Direction	W	Comment	



Photo ID	O-JJY-101-1-PIC5	Photo Type	Site Overview
Direction	SE	Comment	



Photo ID	O-JJY-101-1-PIC6	Photo Type	Site Overview
Direction	NW	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CONOCOPHILLIPS

PROJECT: FEDERAL 29 Z 002H RELEASE SITE PROJECT

O-03

PLOT OVERVIEW

32.542694188888888, -104.31038371111111

ID	O-03-1	Plot Type	Observation
Date/Time	2025-08-19 13:47:28	Parcel	
Evaluator(s)	Antonio Molina		
Feature Detail	Photo Point		
Comments			

PLOT PHOTOS

Photo ID	O-JJY-104-1-PIC1	Photo Type	Site Overview
Direction	N	Comment	



Photo ID	O-JJY-104-1-PIC2	Photo Type	Site Overview
Direction	E	Comment	



Photo ID	O-JJY-104-1-PIC3	Photo Type	Site Overview
Direction	S	Comment	



Photo ID	O-JJY-104-1-PIC4	Photo Type	Site Overview
Direction	W	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CONOCOPHILLIPS

PROJECT: FEDERAL 29 Z 002H RELEASE SITE PROJECT

O-04

PLOT OVERVIEW

32.54233792917343, -104.30961671899593

ID	O-04-1	Plot Type	Observation
Date/Time	2025-08-19 13:30:32	Parcel	
Evaluator(s)	Antonio Molina		
Feature Detail	Photo Point		
Comments			

PLOT PHOTOS

Photo ID	O-JJY-102-1-PIC1	Photo Type	Site Overview
Direction	N	Comment	



Photo ID	O-JJY-102-1-PIC2	Photo Type	Site Overview
Direction	E	Comment	



Photo ID	O-JJY-102-1-PIC3	Photo Type	Site Overview
Direction	S	Comment	



Photo ID	O-JJY-102-1-PIC4	Photo Type	Site Overview
Direction	W	Comment	



Photo ID	O-JJY-102-1-PIC5	Photo Type	Site Overview
Direction	NW	Comment	



Photo ID	O-JJY-102-1-PIC6	Photo Type	Site Overview
Direction	SE	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CONOCOPHILLIPS

PROJECT: FEDERAL 29 Z 002H RELEASE SITE PROJECT

O-05

PLOT OVERVIEW

32.54150650740616, -104.30876429517191

ID	O-05-1	Plot Type	Observation
Date/Time	2025-08-19 13:38:15	Parcel	
Evaluator(s)	Antonio Molina		
Feature Detail	Photo Point		
Comments			

PLOT PHOTOS

Photo ID	O-JJY-103-1-PIC1	Photo Type	Site Overview
Direction	N	Comment	



Photo ID	O-JJY-103-1-PIC2	Photo Type	Site Overview
Direction	E	Comment	



Photo ID	O-JJY-103-1-PIC3	Photo Type	Site Overview
Direction	S	Comment	



Photo ID	O-JJY-103-1-PIC4	Photo Type	Site Overview
Direction	W	Comment	



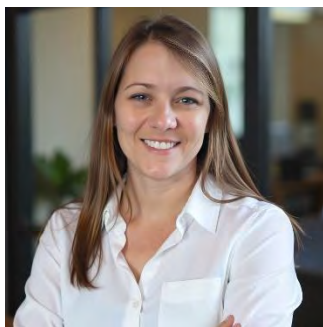
Photo ID	O-JJY-103-1-PIC5	Photo Type	Site Overview
Direction	SW	Comment	



Photo ID	O-JJY-103-1-PIC6	Photo Type	Site Overview
Direction	NW	Comment	
			



Appendix E.
Melissa Cross CV, PWS #3628



Melissa Cross
Natural Resources Project
Manager

RELEVANT TRAININGS

40-Hr Wetland Delineation Training
Advanced Hydric Soils
Plants of the Wetland Boundary-
Southeast US
Problem Soils of the Columbia
Bottomlands
Advanced Wetland Hydrology

MEMBERSHIPS

The Wildlife Society
Society of Wetland Scientists

Melissa Cross has ten years of experience in environmental consulting, specializing in planning and permitting. She has experience collecting remote biological data, with an emphasis on wildlife and habitat assessments and waters of the US delineations. She has prepared dozens of water feature delineation reports, USACE Section 404/10 permits, and USFWS biological evaluations/assessments for various clients such as TxDOT, ODOT, numerous municipalities, county governments, and private sector clients. She has also helped contractors maintain regulatory compliance with federal agencies at various stages of project development. Melissa's experience further includes preparing documentation for various other due diligence and NEPA project needs including Phase I Environmental Site Assessments (ESA), hazardous materials technical reports, public meeting planning and documentation, Environmental Information Documents, Categorical Exclusions, and Environmental Assessments.

CREDENTIALS

Education:

- M.S., Forestry - Stephen F. Austin State University
- B.S., Forest Wildlife Management, Minor in Animal Science - Stephen F. Austin State University

Professional Registrations/Certifications:

- Professional Wetland Scientist (#3628)
- Certified Wildlife Biologist®
- Protected Species Observer

EXPERIENCE

Professional Summary:

- Over 10 years' experience on broad range of projects
- Experience with both public and private sector clients
- Experience across numerous ecoregions
- Primary field investigator for over 200 individual waters features delineation efforts
- Contributed to hundreds of NEPA-cleared Projects
- Authored dozens of Section 404/10 USACE Permits
- Authored numerous USFWS Biological Assessments and Evaluations
- Performed various plant and terrestrial species presence/absence surveys
- Experience identifying and implementing mitigation measures for waters of the US and species

PROJECT EXPERIENCE

Wellborn SUD Improvements, City of Wellborn, Brazos and Robertson Counties, Texas | Lead Biologist & Deputy PM (2021-2024)

The project is intended to construct a new well site, plant site, and additional water lines for a total of approximately 15 miles across Brazos and Robertson Counties. Melissa led the field investigations and document preparation for a Waters of the US Delineation Report, USACE NWP 58 with PCN, and an Environmental Information Document (EID) with associated attachments (TWDB-funded project). The project was determined to have potential habitat for the Navasota Ladies-tresses. Melissa performed a desktop habitat delineation to guide field survey efforts. The species was not detected during presence/absence surveys, but a Biological Evaluation for the project was prepared for Section 7 consultation as only one year of surveys could be performed due to the project timeline. The USFWS issued Concurrence for the project in January 2024, and the USACE issued a NWP 58 with PCN the same month. The EID was approved by the TWDB in May 2024.

San Felipe Creek Bridge/Embankment Improvements, City of Del Rio (Sub to Bain Medina Bain as Prime), Val Verde County, Texas | Field investigator and Biological Document Reviewer (2018-2022)

Melissa led the Waters of the US delineation and threatened and endangered species habitat assessment for a bridge replacement in a public park. The project included sensitive ecosystems and critical habitat for the federally threatened Devil's River Minnow. Documents produced included a preliminary jurisdiction Waters of the US report and a Biological Assessment for the Devil's River Minnow and its associated critical habitat. A Biological Opinion was received for the project through Section 7 Consultation.



FM 1764 Improvements, TxDOT Houston District, Galveston County, Texas City, TX | Deputy Project Manager

The project included improvements along approximately 4.8 miles of FM 1764 in Texas City, Texas. Minor concrete repairs under the FM 1764 bridge between 34th St and 33rd St were proposed; thereby requiring temporary dewatering of a Section 10 stream. Melissa served as the deputy project manager for the project and QC'd all tech reports associated with the project. A PCN was not initially identified by TxDOT as a requirement on the project, but Melissa identified the concern early due to RC 10 for the Galveston District and immediately notified the TxDOT PM. To avoid scheduling delays and coordination with NMFS/USFWS, Melissa prepared a NWP 33 w/PCN instead of an NWP 14 due to the strictly temporary impacts. Melissa worked directly with TxDOT engineers to draft a dewatering and restoration plan for the tidal stream. USACE issued a jurisdiction concurrence and permit with minimal comment.

SL 288 – IH 35 to IH 35W, TxDOT Dallas District, Denton County, Texas | Lead Biologist/Wetland Delineator

Environmental Assessment of a nine-mile S&E project for the extension of SL 288 west of Denton, Texas consisting of an ultimate 4-lane freeway section, two-lane frontage roads, and interchanges with multiple direct connectors at the IH 35 and IH 35W termini. Lead field investigator for extensive Waters of the U.S. delineation that originally included the project area for the full build out of grading and drainage work. The original design would have resulted in a Standard Permit from USACE. TxRAM was completed for anticipated compensatory mitigation for Waters of the U.S. impacts. The environmental team worked extensively with the drainage design team to reduce impacts and modify the drainage design to only accommodate frontage roads, and to reduce water impacts to allow project authorization under a PCN. Melissa served as the primary preparer of the NWP 14 with PCN.

Ocean Drive Bridge Replacement, TxDOT Corpus District, Nueces County, Texas | Project Manager and Biologist

The proposed project involves replacing the bridge and approaches of the existing Ocean Drive Bridge over Cayo Del Oso Bay/Corpus Christi Bay. Melissa led the field investigations and document preparation of the Species Analysis Spreadsheet, National Marine Fisheries Service (NMFS) Essential Fish Habitat memo, United States Coast Guard Exemption Letter, and NMFS Expedited Consultation Letter for impacts to the Green Sea Turtle, Giant Manta Ray, and proposed critical habitat, and USFWS Biological Evaluation for the Piping Plover, Red Knot, West Indian manatee, and critical habitat. Melissa oversaw the preparation and completed technical reviews of all documents including, but not limited to, wetland delineation report, hazardous materials ISA, and Archeological Background Study. Melissa also prepared a NWP 14 with PCN for the project due to a regional condition on tidal water impacts. NMFS concurred with project findings in October 2024. The USACE permit was received in April 2025. USFWS concurrence and environmental clearance are anticipated summer 2025.

Solar Field Development, 5 Solar Sites Private Client, Columbia, Dutchess, and Orange Counties, New York | Biologist (2022-2023)

Melissa was the lead biologist on the project that involved traversing undeveloped tracts located in Columbia County (103.7 acres), Dutchess County (110.4 acres; 60.1 acres; & 102.5 acres), and Orange County (87.3 acres), New York to delineate for any potential waters of the U.S. and identify potential habitat for state and federally listed species. Melissa prepared both Phase I ESAs and an Environmental Due Diligence letter for each of the sites summarizing the findings and recommending any necessary federal and state agency coordination actions. For one property (110.4 acres), following completion of the Due Diligence investigations, Melissa completed additional species coordination documents for three endangered bat species that included a desktop analysis of forest cover within a 2.5-mile radius, encompassing approximately 12,566 acres. The analysis also included specifying the cover-type of the forestland on the project Site (hardwood versus conifer-dominated). The findings of this analysis were coordinated with both USFWS and the New York State Department of Environmental Conservation. Minimization measures were recommended to the client, and the project proceeded with concurrence from both regulating agencies of no take permits necessary.

FM 1488, TxDOT Houston District, Montgomery County, Texas | Lead Biologist/Wetland Scientist (2021-2022)

Lead field investigator for the waters delineation and primary preparer of the Waters Delineation Report and USACE permit application. The project involved the delineation and GPS data collection of numerous intermittent streams, ephemeral drainages, and over two dozen herbaceous wetlands. Unavoidable impacts to wetlands required iHGM calculations to determine the ecological health and function of the existing wetlands. Coordinated with a mitigation bank to form a mitigation plan for the NWP 14 with PCN. The delineation for the project was verified by USACE through the review of the prepared NWP 14 with PCN application. The PJD for the project was approved with no comments or clarifications requested from USACE and issued in June 2022. Melissa also prepared a Habitat Assessment Technical Report for the Red-cockaded Woodpecker that was determined to have habitat immediately adjacent to the project. Coordination with the Texas Forest Service was completed to help evaluate RCW impacts. The project was determined to meet the requirements of the established Programmatic Agreement (PA) for the RCW after further evaluation. The PA was used to complete informal consultation with USFWS.



Loop 360 General Engineering Consultant (GEC) W1 2018 at Spicewood/Lakewood Drive, TxDOT (Sub to HDR Engineering, Inc. as Prime), Austin, Texas | Lead Field Investigator & Biological Document Preparer

The project included Waters of the US delineation and associated impact calculations and a biological review that focused on sensitive ecosystems and threatened and endangered species. Melissa lead the Waters of the US delineation and habitat assessments. Documents produced included a Surface Waters Analysis Form, Tier I with associated documentation, and a Biological Assessment (BA) for Section 7 consultation on impacts to the federally endangered Golden-cheeked Warbler, threatened Jollyville Plateau Salamander, and two listed karst invertebrates. Melissa attended a site visit to the project with USFWS biologists to evaluate the available habitat and project methods prior to drafting the BA. Mussel surveys for state and federally listed species was required, as were two years of vegetation surveys for plant SGCN species that could potentially occur within the study area. The Biological Opinion for the project was issued by USFWS in August 2023.

Northside Collection System Improvements, City of Del Rio, Val Verde County, Texas | Lead Environmental Specialist

The proposed project is intended to construct an approximate 36,000 linear feet of 18- to 33-inch wastewater line that will connect Silver Lake WWTP to Edwards Lift Station and provide service for future development and areas currently underserved. The project will also consist of the decommissioning and elimination of the lift station at the northern end of the project. Melissa led the field investigations and preparation of the Environmental Information Documents (EID) and associated attachments since the project was being funded by TWDB. The EID was submitted to TWDB in March 2022 and was approved in October 2022.

IH 10 Navigational System Replacement at San Jacinto River, TxDOT, Harris County, Texas | Lead Field Investigator and Primary Preparer

Lead field investigator and primary preparer of the Waters Delineation Report with associated maps and documents. The field investigations involved the delineation and GPS data collection of tidal wetlands and the MHW of the San Jacinto River within the project area. Soil sample pits could not be taken due to the proximity of a Superfund Site with known soil contamination. Hydric soils were determined from a review of soil series maps and presence of other wetland indicators. Melissa also prepared a large portion of the USACE Standard Permit. The delineation for the project was verified by USACE through the review of the prepared SP application. USACE approved the PJD for the project and issued a SP in November 2020.

FM 989 Improvements, TxDOT Atlanta District, Bowie County, Texas | Lead Field Investigator and Primary Preparer

Lead field investigator and primary preparer of the Wetland Delineation Report with associated maps and documentation. The project involved the delineation of a large, forested wetland, herbaceous wetlands and an intermittent creek. Also prepared the NWP 14 with PCN and all associated attachments. Compensatory mitigation was originally going to be required due to high construction impacts, but STV was able to work with the engineers to minimize impacts and avoid mitigation. The delineation for the project was verified by USACE through the review of the prepared NWP 14 with PCN application. The project was approved with a PJD and permit issued in July 2019.

Kenney Fort Boulevard Segments 2 & 3, City of Round Rock, Williamson County | Lead Biologist/Wetland Scientist

Responsible for the preparation of biological, hazardous material and Waters of the US technical documents. The project involved field reconnaissance to evaluate potential hazardous materials, jurisdictional water determinations and species habitat determinations. Delineations of ephemeral and intermittent streams, freshwater ponds, and emergent wetlands were required. Technical reports were produced for water resources, threatened and endangered species (T&E), species habitat and hazardous materials. A Section 404 Permit was prepared for unavoidable impacts to wetlands. The delineation for the project was verified by USACE through the review of the prepared NWP 14 with PCN application and a site visit. The permit was issued in May 2021.

SH 146 EA Re-Evaluations, TxDOT Houston District, Texas | Biologist/Wetland Scientist

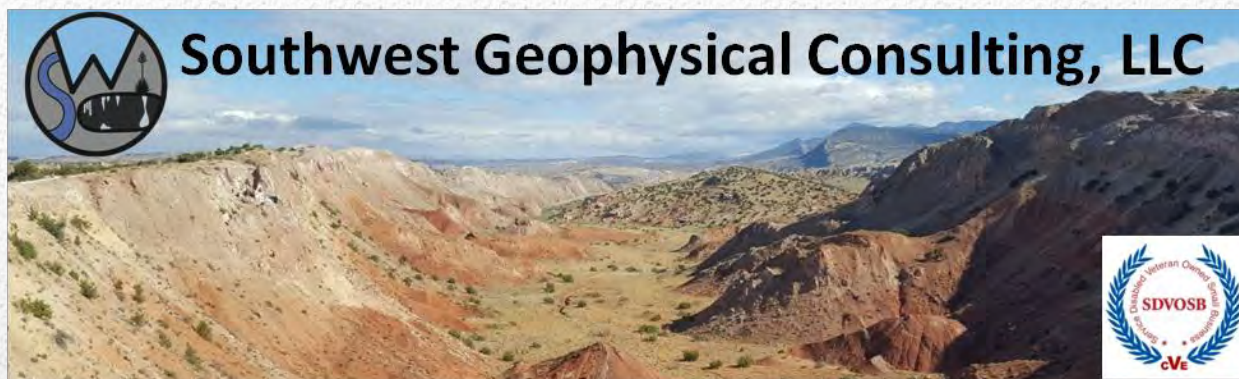
Prepared a biological review focused on sensitive ecosystems and T&E species for two portions of this roadway. No USFWS formal consultation was determined to be necessary, but TPWD was coordinated with to minimize impacts to state-listed threatened species and SGCNs. The field investigations results in the delineation of more than two dozen herbaceous wetlands. Assisted with the waters field delineations, preparation of associated documentation and QC review for the proposed project. Both sections of the project have been approved and environmentally cleared through the TxDOT Houston District, and the delineation for one portion of the project was verified by USACE through the review of the prepared NWP 14 with PCN application. The PCN was approved and has been issued, but the project design changes have resulted in additional unanticipated impacts and necessary compensatory mitigation and the need for a Standard Permit. Melissa prepared the functional assessments to evaluate wetland ecological functions and health and coordinated with mitigation banks in the area to complete a mitigation plan. The Standard Permit was issued by USACE in August 2023. Melissa also prepared a Standard Permit for the second section of roadway that was signed in Fall 2023.



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Appendix C – Negative Karst Determination Report; Southwest Geophysical Consulting, LLC



Environmental Karst Study Report Federal 29 Z #002 Eddy County, New Mexico

**Prepared For:
TRC Companies, Inc.
505 E. Huntland Dr. STE 250
Austin, TX 78752**

- ☐ Positive within 200 feet of spill delineation boundary
- ☒ Negative within 200 feet of spill delineation boundary
- ☒ Stable ☐ Unstable Ground
- ☐ Karst Monitor Recommended

March 28, 2025

TRCC-002-20250203

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MMXXV

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1.0 INTRODUCTION

This report was commissioned by TRC Companies, Inc. (hereinafter referred to as "the client"), on February 3, 2025, for the purpose of conducting an environmental karst study within an area encompassing the Federal 29 Z #002 release site (hereinafter termed "F29Z2") centered at N 32.542619° W 104.310847°

1.1 Goals of this Study

The goals of this study are to conduct a surface karst inventory and provide the client with the location and description of any surface karst features located within 200 feet (61 meters) of the spill delineation boundary (as defined by 19.15.29.12 NMAC^[1]) and to determine whether stable ground exists (as defined by 19.15.2 NMAC Definitions^[2]) within the spill boundary of the F29Z2 release using electrical resistivity imaging^[3].

1.2 Summary of Findings

- **No surface karst features exist within the 200-foot (61-meter) perimeter of the spill delineation boundary.**
- One recognized karst feature exists within the 200-meter surface karst survey boundary.
- **No anomalies consistent with subsurface air- or water-filled voids were found within the F29Z2 resistivity survey area, indicating the zone beneath the geophysical survey is not subject to collapse.**
- **Flat-lying stratigraphy is interpreted to exist beneath the area where the geophysical survey was conducted, indicating stable ground.**

1.3 Affected Environment

The F29Z2 project site is located in evaporite karst terrain, a landform that is characterized by underground drainage through solutionally enlarged conduits. Evaporite karst terrain may contain sinkholes, sinking streams, caves, and springs. Sinkholes leading to underground drainages and voids are common. These karst features, as well as occasional fissures and discontinuities in the bedrock, provide the primary sources for rapid recharge of the groundwater aquifers of the region. Additionally, karst may develop by hypogene processes involving dissolution by upwelling fluids from depth independent of recharge from the overlying or immediately adjacent surface. Hypogene karst systems may not be connected to the surface and can remain undiscovered unless encountered during drilling or excavation.

Karst features are delicate resources that are often of geological, hydrological, biological, and archeological importance, and should be protected. The four primary concerns in these types of terrain are environmental issues, worker safety, equipment damage, and infrastructure integrity.

The Bureau of Land Management (BLM) categorizes all areas within the Carlsbad Field Office (CFO) zone of responsibility as having either low, medium, high, or critical cave potential based on geology, occurrence of known caves, density of karst features, and potential impacts to freshwater aquifers^[4]. These designations are also recognized by the New Mexico State Land Office (NMSLO). This project occurs within a **HIGH** karst occurrence zone (HKOZ)^[5] (**Figure 1**).

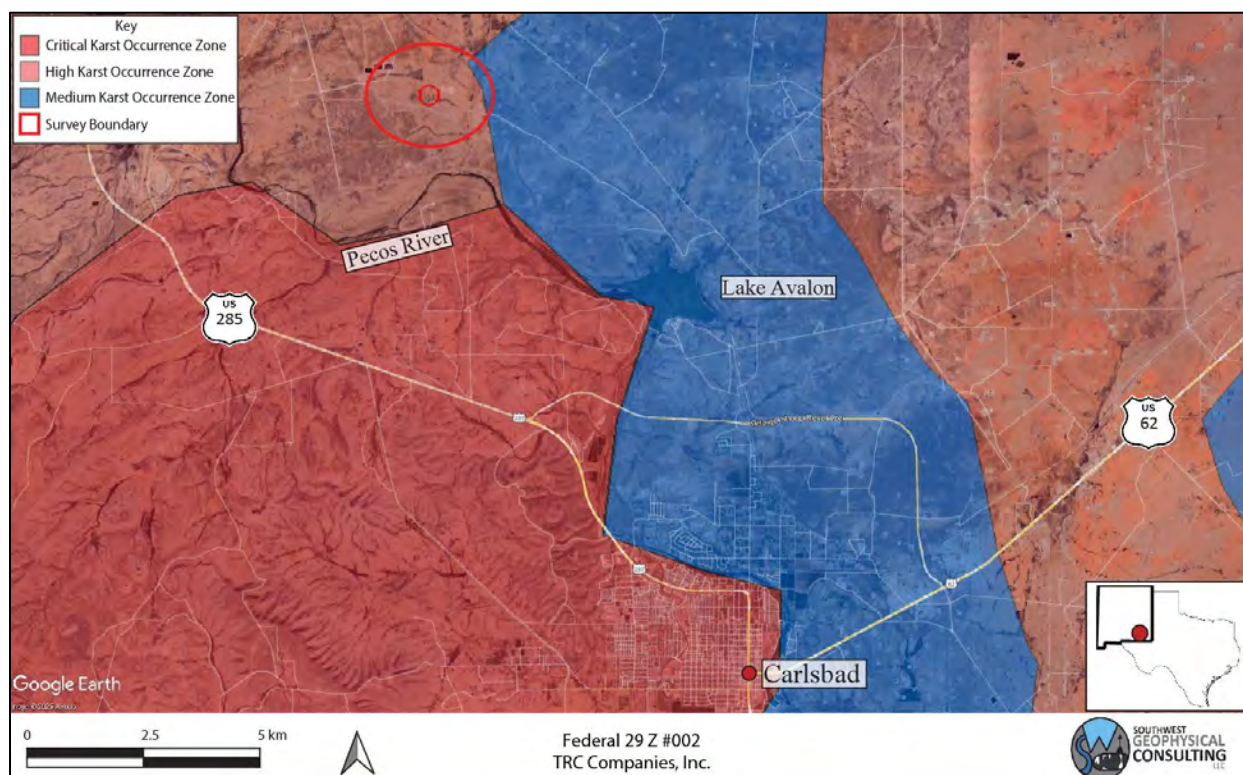


Figure 1: Karst occurrence zone overview. Background image credit: Google Earth. Image date: December 5, 2023. Image datum: WGS-84.

A high karst occurrence zone is defined as an area in known soluble rock types that contains a high frequency of significant caves and karst features such as sinkholes, bedrock fractures that provide rapid recharge of karst aquifers, and springs that provide riparian habitat^[4].

Due to the rapidity with which evaporite karst develops, each location within a CKOZ or HKOZ must be assessed on an individual basis to determine the existence of surface karst features and the possibility of sub-surface karst development each time a release occurs.

1.4 Limitations of Report

This report should be read in full. No responsibility is accepted for the use of any part of this report in any other context or for any other purpose or by third parties. This report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

This report has been prepared for the use of TRC Companies, Inc., in accordance with generally accepted consulting practices. Every effort has been made to ensure the information in this report is accurate as of the time of its writing. This report has not been prepared for use by parties other than the client, their contracting party, and their respective consulting advisors. It may not contain sufficient information for the purposes of other parties or for other uses.

This report was prepared upon completion of the associated fieldwork using a standard template prepared by Southwest Geophysical Consulting and is based on information collected prior to fieldwork, conditions encountered on site, and data collected during the fieldwork and reviewed at the time of preparation. Southwest Geophysical Consulting disclaims responsibility for any changes that might have occurred at the site after this time. The interpreted results, locations, and depths noted in this report (if applicable) should be taken as an interpretation only and no decision should be based solely on this information. Physical verification of aerial imagery analysis results in the field should be conducted prior to using this information for remediation planning. Physical verification of geophysical results using geotechnical methods should be conducted.

To the best of our knowledge, the information contained in this report is accurate at the date of issue. Due to the nature of karst terrain, the information in this report shall not be used beyond three years past the dates of the field work provided in section **2.3 Description of Survey**. Large weather events can shorten this time period as areas subject to karst development can rapidly form new features subsequent to these events.

2.0 LOCATION AND DESCRIPTION OF STUDY AREA

2.1 Description of Site

The site is located 16.0 kilometers (9.9 miles) northwest of Carlsbad, New Mexico, south of South Lake Road and north of the Pecos River within the SW ¼ section of section 29, NM T20S R27E^[6] (**Figure 1** and **Figure 2**). The region has rolling terrain with karstification occurring in the gypsite soils and underlying gypsum and dolomite bedrock^[7] (see section **2.2 Local Geology Summary** for further information). The climate in this area of southeast New Mexico is semi-arid with an average annual precipitation of approximately 13 inches, of which about two-thirds falls as rain during summer thunderstorms from June to October. Summers are hot and sunny while winters are generally mild, with an average maximum temperature of 96°F in July and an average minimum temperature of 28°F in January^[8]. This area is within the Chihuahuan Desert Thornscrub as defined by the Southwestern Regional ReGAP Vegetation map^[9] and the vegetation consists mostly of areas of blue grama, nine-awned pappus grass, burro grass and low scrub including yucca. The spill delineation boundary is located within an HKOZ^[5] (**Figure 1**) and within BLM-CFO managed land^[10] (**Figure 2**).

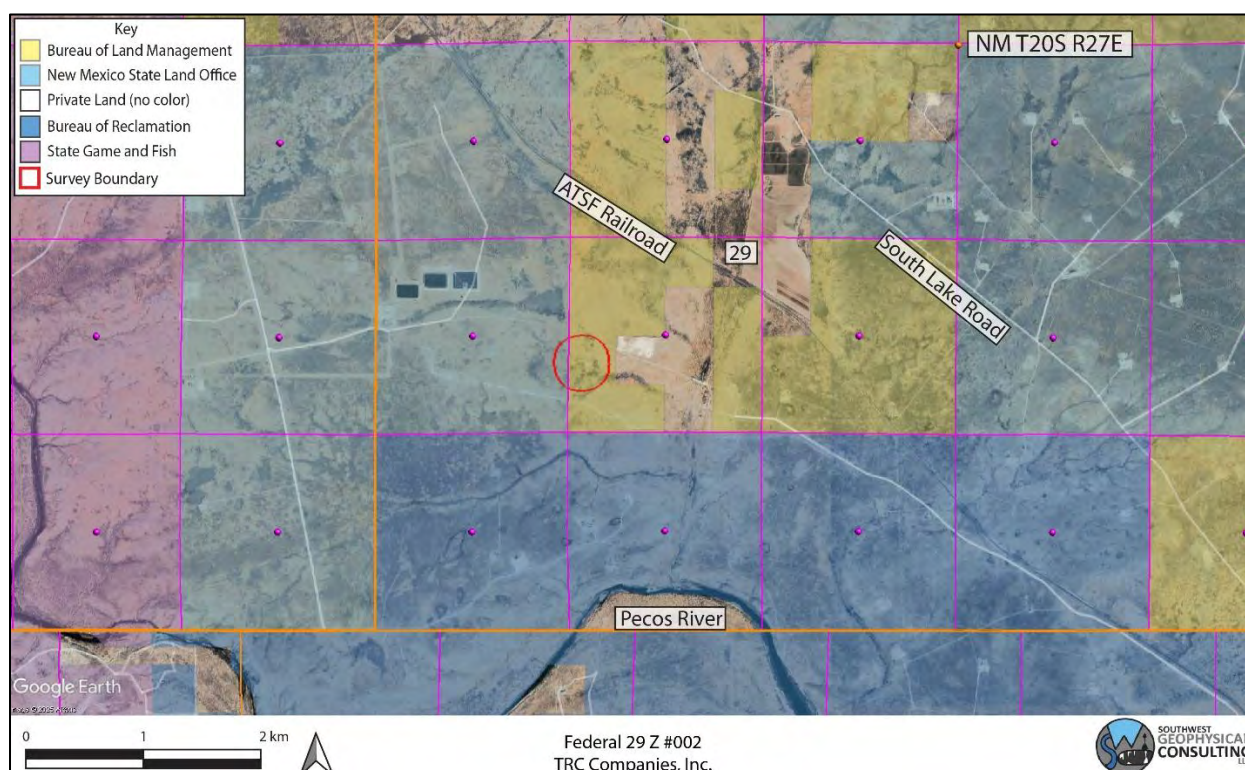


Figure 2: Land ownership and PLSS overview. Background image credit: Google Earth. Image date: December 5, 2023. Image datum: WGS-84.

2.2 Local Geology Summary

The site for the F29Z2 survey is located at an elevation of 977 meters (3,205 feet), ± 1 meter (3.3 feet), and is located within a region entirely underlain by the undivided Permian Yates and Tansill Formations (Pty). The area is mantled by thin calcareous soils (caliche) and Quaternary alluvium (Qal)^[11] up to 5 meters in depth (**Figure 3**).

The Tansill Formation is mostly carbonate with minor siltstone and anhydrite. East of Highway 285 and along the Pecos River, the Tansill is predominantly dolomite. In places where the dolomitic beds are exposed, the contact with the overlying Salado gypsum and siltstone can also be seen. Both of the dolomitic and gypsiferous facies in the Tansill are prone to karst development^[12].

The Yates Formation is dominated by a quartz-rich, frosted-sandstone facies with minor carbonate, anhydrite, and siltstone. Northwest of Carlsbad, there is a near-reef facies with inter-tongued carbonates and evaporites. The lower section of the Yates transitions with the upper portion of the Seven Rivers Formation. This area consists of dolomite interbedded with siltstone, fine-grained sandstone, and minor gypsiferous siltstone beds that are prone to karst development^[12].

The survey area is covered by the easily accessible Geologic Map of New Mexico (2003) at 1:500,000 scale^[13] and the Digital Geologic Map of New Mexico in ARC/INFO Format^[11].

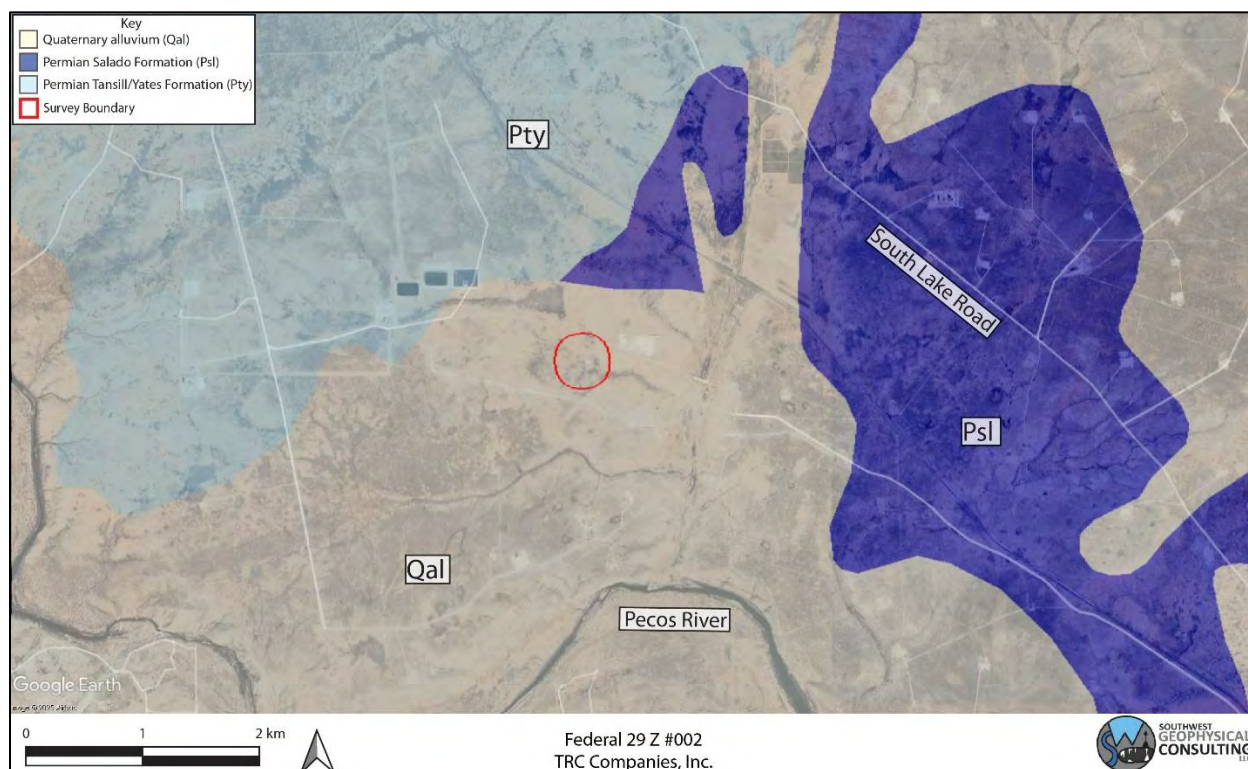


Figure 3: Geology overview. Geology map credit: The Digital Geologic Map of New Mexico in ARC/INFO Format. Background image credit: Google Earth. Image date: December 5, 2023. Image datum: WGS-84.

2.3 Description of Survey

2.3.1 Surface Karst Inventory

Southwest Geophysical Consulting, in partnership with SWCA Environmental Consultants, provides aerial karst surveys using small, uncrewed aerial systems (sUAS) that are flown by qualified, FAA licensed drone pilots and that meet the stringent Bureau of Land Management – Carlsbad Field Office requirements for both pedestrian and aerial karst surveys.

The aerial karst survey includes a surface karst desk study prior to the flight which allows us to provide client feedback in the event of any previously known karst features in the area. The desk study is performed out to 305 meters (1,000 feet) from the spill delineation boundary per New Mexico Oil Conservation Division guidance^[1] (**Figure 4**). The study was performed using satellite and aerial imagery from Google Earth Pro dated December 5, 2023 (please note features less than one meter in diameter are generally not visible using this method); the Southwest Geophysical Cave and Karst Database dated December 23, 2024^[14]; the Lake McMillan South, NM, 1:24,000 quad, 1955, USGS topographic map; and the latest lidar imagery from CalTopo.com. Please note that we use older topographic maps because newer maps have had caves removed from them. These searches and queries returned no results within the survey boundary.

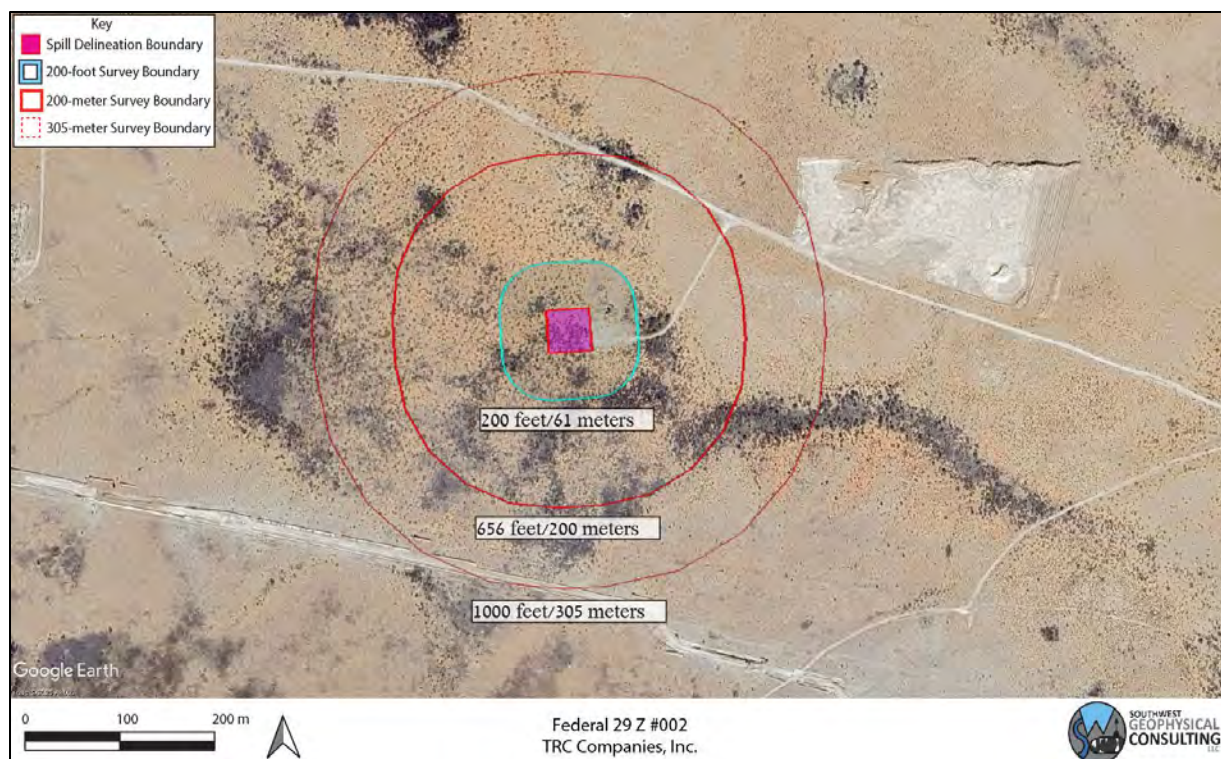


Figure 4: Surface survey overview. Background image credit: Google Earth. Image date: December 5, 2023. Datum: WGS-84.

Aerial karst surveys are conducted at low elevation within 200 meters of the spill delineation boundary^[4] (**Figure 4**) following a preplanned raster pattern flightpath designed for the purpose of generating at least 75% imagery overlap. The collected high-resolution, georeferenced imagery is stitched together to develop orthomosaic imagery which is further developed into a digital elevation model (DEM); the DEM is then processed into a local relief model (LRM) (**Figure 6**). This LRM is color coded to enhance differences in elevation of as little as five centimeters. The orthoimagery, DEM, and LRM are uploaded to a server where they are analyzed by an experienced karst geologist. Finally, the data is reviewed by a senior karst geologist for quality assurance and downloaded into a table for inclusion in a written report^[15].

The resolution of the orthoimagery is clear enough that features as small as 10 centimeters can be positively identified in most circumstances. Occasionally there are ambiguous features identified during an aerial survey that will need to be checked in the field if they are impacted by the proposed remediation efforts. Specifically, it is difficult to tell the difference between solution tubes, abandoned uncased well bores, and some burrows in drone imagery. If an ambiguous feature is located during imagery analysis, it is marked with a yellow dot in **Figure 6**. If a feature of any likelihood is subsequently verified in the field prior to publication of the report, the dot will be changed to a red triangle if confirmed as a karst feature or deleted if not.

The imagery for this study was collected via aerial survey by Pat Lagodney of SWCA on March 5, 2025. Surface karst features may have developed after this date and will not be noted in this report. Imagery analysis was completed by David Decker of Southwest Geophysical Consulting on March 6, 2025.

2.3.2 Geophysical Survey

For this survey, an Advanced Geosciences Inc. (AGI) SuperSting™ Wifi R8 with a multi-electrode switchbox, a 28-electrode array of 40-centimeter-long electrodes, and a tablet controller were used to image the subsurface. This survey consisted of two orthogonal resistivity lines in a dipole-dipole strong-gradient configuration; F29Z201 is laid out south to north and F29Z202 is laid out west to east. Both lines consisted of 28 electrodes at 6-meter spacing, resulting in 162-meter-long arrays (**Figure 5, Table 1**). A preconfigured command file was used to run the data collection (DDSG28). This electrode configuration provided a depth of investigation of 32 meters (105 feet) and a resolution of 3.0 to 3.5 meters (9.8 to 11.5 feet) within the first 8 to 10 meters (26 to 33 feet) from the surface. A Leica GS18 GPS was used to record electrode locations and elevations.

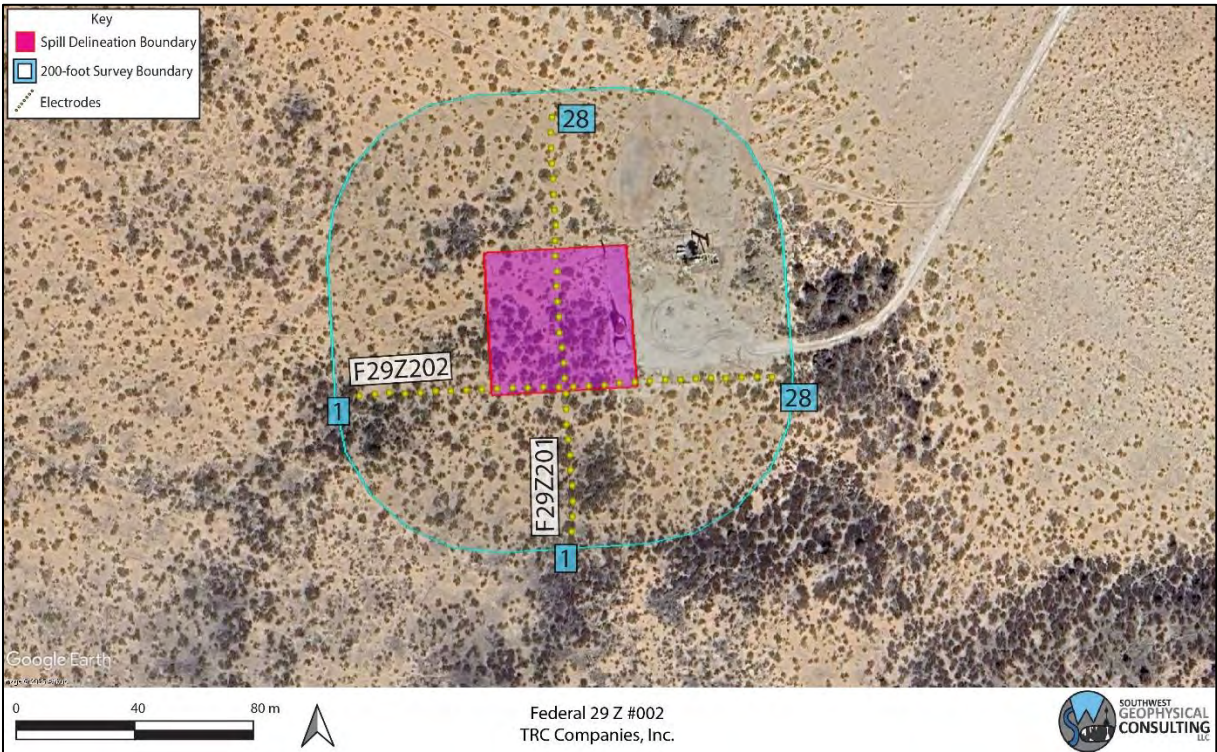


Figure 5: Geophysical survey overview. Two survey lines were conducted with 28 electrodes each at 6-meter spacing (yellow dots denoted with blue numbers). Background image credit: Google Earth. Image date: December 5, 2023. Image datum: WGS-84.

Table 1 provides basic line data. Detailed information for each line including electrode number, location in latitude/ longitude (decimal degree format), and elevation in meters can be found in the accompanying data files.

Table 1: Survey Line Data Table. The .kmz file contains all the points for the survey line listed in the file name. These data are available in the accompanying files F29Z2 _ERI_Points.xlsx and TRCC-002-20250203_F29Z2_Data_Files.kmz.

File Name:	Completed By:	Date:
F29Z201.kmz	Garrett Jorgensen Olague – Senior Field Geologist Britt Bommer – Field Geologist Steven Kesler – Field Geologist	03/6/2025
F29Z202.kmz		

EarthImager™ 2D software was used to download and process the data and to provide the model used to make our interpretations. The design of the survey and the orientation of each of the lines provides the information necessary to make the determination of “stable” or “unstable” ground at this site.

A typical starting model was used for the data processing due to the two-layer model of the geology in the area; specifically, generally high-resistivity gypsum and dolomite at the surface and low-resistivity saturated gypsum and dolomite bedrock at depth. The starting model used was “average apparent resistivity” and a default inversion setting of “surface,” with a minimum apparent resistivity set to 0.1 Ohm-meters (Ohm-m or Ω -m) and a max apparent resistivity set to 100,000 Ω -m (**Table 2**).

Table 2: Software Information and Settings

Software Name:	EarthImager™ 2D
Version:	2.4.4.649
Starting Model:	Average Apparent Resistivity
Default Inversion Settings:	Surface
Changes to Default Inversion Settings:	Max Apparent Resistivity = 100 k Ω -m Min Apparent Resistivity = 0.1 Ω -m

Note: Raw data files (.stg files for EarthImager™ 2D) and processed data (.trn files, terrain files for surface correction in EarthImager™ 2D and .out files, the processed .stg files) are available upon request.

All field work, including setup, stow, and travel, was completed by Garrett Jorgensen Olague, Britt Bommer, and Steven Kesler on March 6, 2025.

3.0 RESULTS

3.1 Surface Karst Survey

The desk study and surface karst survey showed no surface karst features within the 200-foot (61-meter)^[1] karst survey boundary.

One recognized surface karst feature is located within the 200-meter survey boundary (Figure 6, Table 3). Recognized surface karst features are features that are positively identified in either satellite or aerial imagery as karst features and the features have been visited by a qualified karst professional in the field and fully identified. Feature 250305-D01 is a suffosion sinkhole cluster and is associated with groundwater recharge. Images for the features are available on request.

No springs exist within the 1,000-foot (305-meter)^[1] survey boundary.

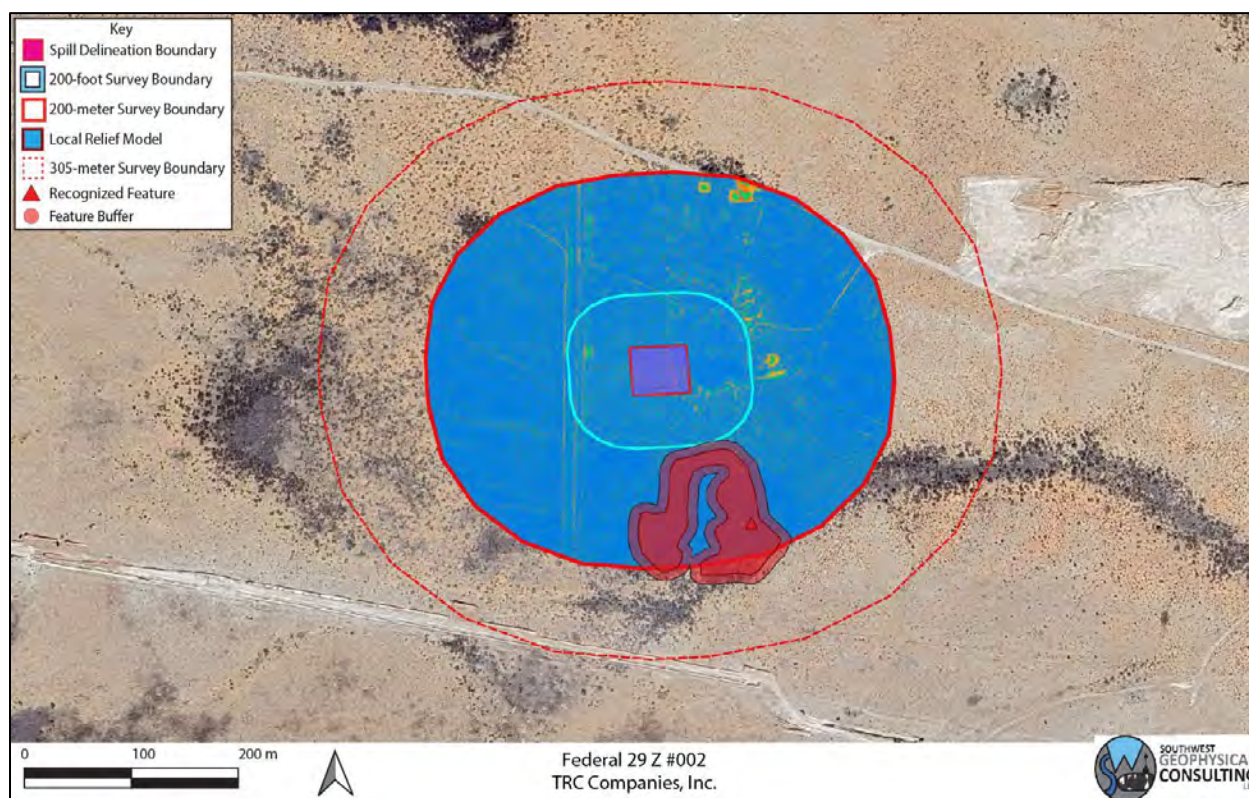


Figure 6: Aerial karst survey results. Background image credit: Google Earth. Image date: December 5, 2023. Image datum: WGS-84.

Caution should be exercised while operating in or around all karst-related features due to the possibility of near-surface voids. Employing a BLM-CFO approved karst monitor on site during these activities should be considered .

Table 3 contains a list of features identified during the aerial karst survey and subsequent imagery analysis. Each feature is identified with a feature identification number (Feature ID), the type of feature, estimated size (in meters), recommended buffer (in meters), the likelihood of this feature being a surface karst feature (modifiers H/M for high or medium likelihood, V for field verified), and its location in WGS-84/UTM-13 (EPSG: 32613).

Table 3: Surface Karst Feature Data Table

KF Status	Feature ID	Type	Size (m)	Buffer (m)	Mod	Easting	Northing
RKF	250305-D01	Suffosion sinkhole cluster	150	10	V	564799.873	3600615.505

NOTE: Location data provided in WGS-84/UTM 13N. RKF – recognized karst feature.

3.2 Geophysical Survey

Electrical resistivity tomography forms images of the subsurface by causing a current to flow through the rock and soil and then measuring the resistance of these materials as the current flows through them. This measurement is taken many times and the resulting data, once processed, is used to produce a model of the subsurface (**Figure 7**). This model is produced using "non-unique" solutions, which means that there are many models and interpretations which will satisfy the data. Using experience and knowledge of the local geology, a high-confidence model can be established and used to develop an accurate understanding of what lies below the surface. This survey was conducted with the express purpose of locating subsurface voids and does not purport to find paleokarst (old, non-active karst features that have been filled in with sand and sediment) or nascent karst features below the resolution limit of the survey.

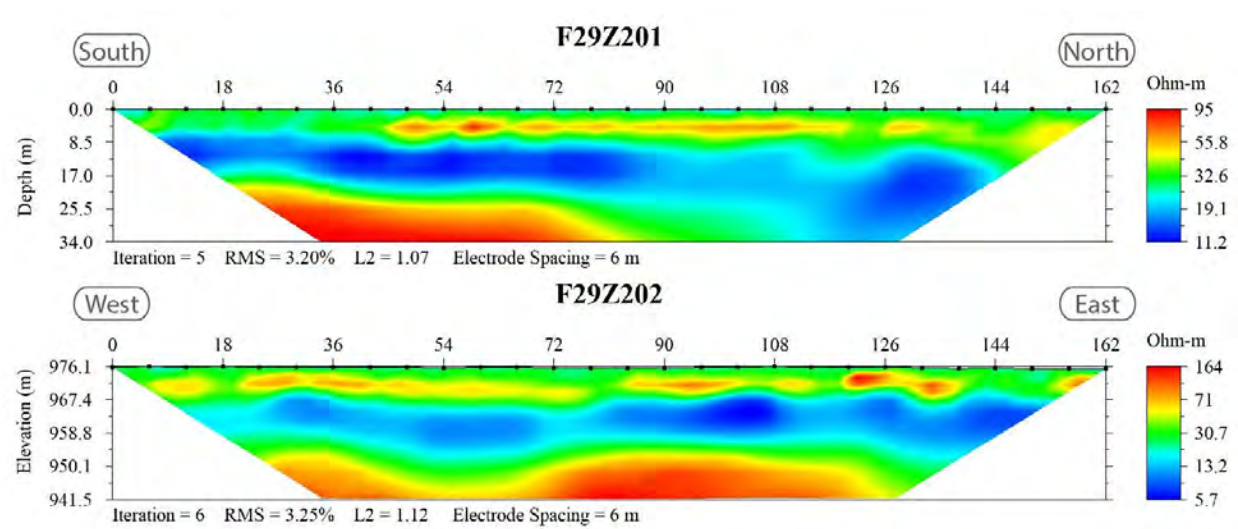


Figure 7: 2D inverted resistivity sections. Reds and oranges indicate higher resistivity values. Yellows and greens are medium-resistivity values. Blues are low-resistivity values. Please note that the color scale is relative.

The results of this study indicate a well-layered geologic system with resistivities between 5.7 and 164 Ohm-m (**Figure 7**). There are no indications of subsurface karst development along the survey lines. Please keep in mind when viewing the 2D inverted resistivity sections that color maps can be widely different for each view. Always check the color map located on the right side of the image when viewing the 2D images to ensure you understand the range of resistivities presented. Distances along the top and depths along the left side are in meters. The color map along the right side is in Ohm-m. Due to the nature of the survey, shallower zones have higher resolution between electrodes than deeper zones; therefore, small features at depth will not be visible.

4.0 DISCUSSION

No anomalies consistent with air-filled subsurface voids are found within the F2922 survey area. However, small solutionally enlarged voids or fractures at or near the resolution limit of the survey (3.0 – 3.5 meters) may be present. Slightly higher-than-average resistivity areas less than 10 meters beneath the surface are interpreted as sand, caliche, or gypsite soils. Due to their much lower resistivity values when compared with significant subsurface voids, these features should not be a concern during remediation efforts. Areas of moderate resistivity (yellows, and greens) near the surface are interpreted as sand, caliche, or dolomite of the Tansil or Yates Formations^[16] (**Figure 7** and **Figure 8**).

Very low-resistivity areas between 5.7 – 15 Ohm-m may be a layer of clay or saturated layers within the Tansil or Yates Formations (perched aquifer) (**Figure 7**).

Please remember that these are interpretations made from knowledge of the local subsurface materials and experience. **They remain interpretations until verified by geotechnical methods.** Employing a BLM-CFO approved karst monitor on site during any drilling and/or remediation activities that require excavation below four feet in depth should be considered.

Fracture sets within the subsurface can act as hydrologic pathways to the water table. Rapid dissolution of gypsum can occur along these pathways creating solution-enlarged fractures, and in some cases, voids within months to years. For this reason, this survey is valid only for this remediation event.

Within karst terrains like the project site, small air- or sediment-filled voids and/or brecciated zones and solutionally enlarged fractures that are below the resolution limit of the survey (3.0– 3.5 meters) may exist; these may be encountered during excavation, and if so, should be evaluated by a karst specialist prior to continued work.

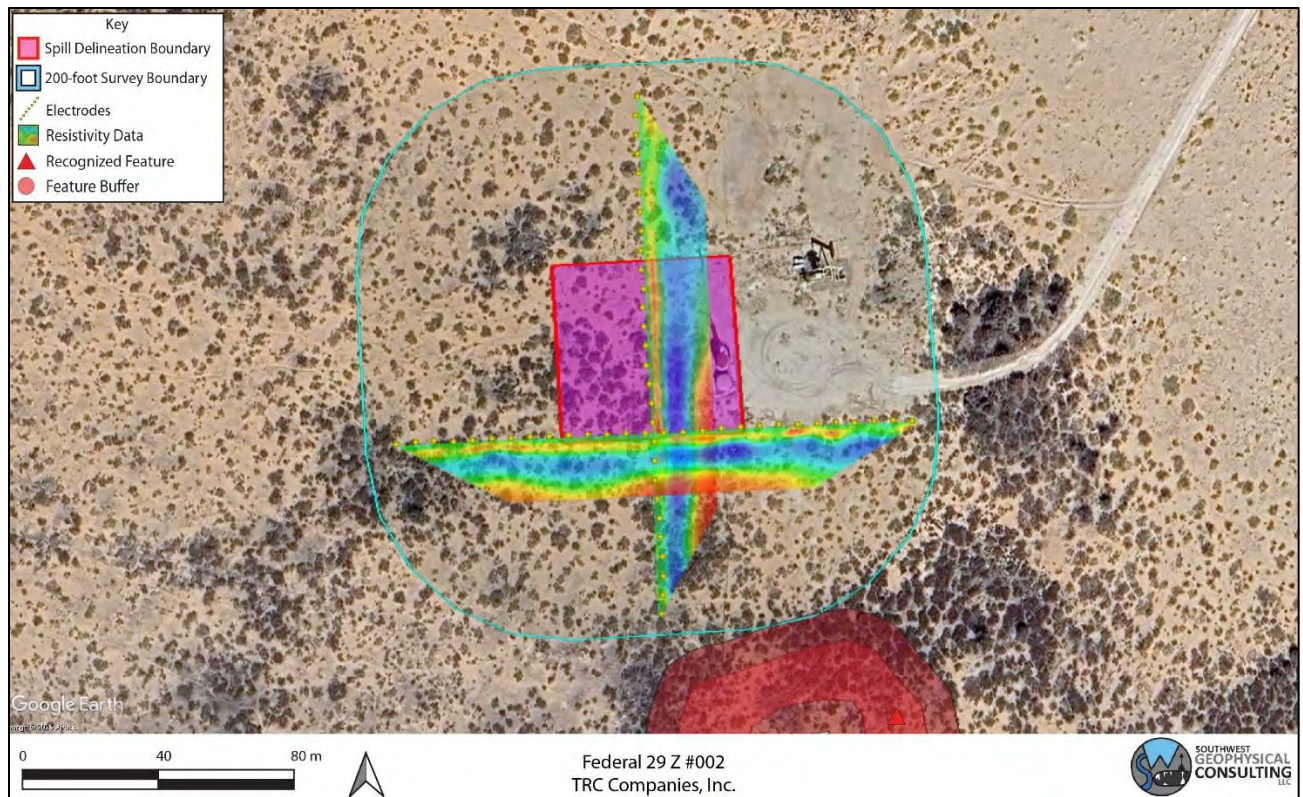


Figure 8: Data overlay. Colored trapezoids are 2D inverted resistivity lines. Background image credit: Google Earth. Image date: December 5, 2023.

5.0 SUMMARY

- **The F2922 survey contains no surface karst features within 200 feet (61 meters) of the spill delineation boundary.**
- **No shallow anomalies interpreted as large voids or related karst features that would present a danger to equipment operators are located within the survey area.**
- Intercepting a void during remediation is unlikely, but still possible. Small voids or solutionally enlarged fractures below the resolution limit of the survey may be encountered.
- **Well-layered stratigraphy is interpreted to exist beneath the area where the geophysical survey was conducted, indicating stable ground.**
- When conducting any remediation activities in this area, employing a BLM-CFO approved karst monitor on site should be considered.

6.0 DISCLOSURE STATEMENT

High karst occurrence zones are prone to rapid karst formation and warrant careful planning and engineering to mitigate karst-forming processes that could be accelerated by removal of surface cover or the vibrations associated with heavy equipment used in the remediation process.

Mitigation measures for any karst features revealed during excavation shall be approved by the Bureau of Land Management – Carlsbad Field Office and follow the Natural Resources Conservation Service Conservation Practice Standard for Karst Sinkhole Treatment, Code 527, or the Bureau of Land Management Cave and Karst Management Handbook, H-8380-1.

Vigilance during remediation activities is paramount. If voids are encountered during excavation, contact the Bureau of Land Management Karst Division at (575) 234-5972, the New Mexico State Land Office Surface Resources Division at (505) 827-5768, or a BLM-CFO approved karst contractor and request an on-site investigation from a karst expert if one is not already on site. A karst consultant can generally be available in Eddy County within five hours.

Approved karst monitors should have karst feature identification training, at least two years of supervised experience identifying karst features, wilderness first aid training, SRT training, confined space training, gas monitor training, and a minimum of SPAR cave rescue training through NCRC. They should have with them the proper gear and be prepared both physically and mentally to enter a collapse feature within minutes to perform a rescue if needed. Monitoring services with qualified karst monitors, as well as cave surveys and geophysical surveys, are available from Southwest Geophysical Consulting.

Under no circumstances should an untrained, inexperienced person enter a cave, pit, sinkhole, or collapse feature. All field employees of Southwest Geophysical Consulting have extensive caving experience and the ability to determine whether entry into a karst feature is safe or presents a hazard. In the event it is necessary to enter a karst feature, Southwest Geophysical Consulting can provide these services on request.

Cave and karst resource inventory reports, karst feature investigations, and geophysical reports commissioned at the request of the land manager should be submitted to:

BLM-CFO: blm_nm_karst@blm.gov

Cave and karst resource inventory reports for the NMSLO should be submitted to the respective project manager.

7.0 REFERENCES

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- 2 NMSLO. (ed Oil Conservation Division) (New Mexico State Land Office, Santa Fe, NM, 2018).
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- 8 W.R.C.C. *National Climate Data Center 1981-2010 Normal Climate Summary for Carlsbad, New Mexico (291469)*, 2010).
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- 10 NMSLO. Digital overlay (KML) of the surface land ownership in New Mexico (New Mexico State Land Office, Santa Fe, NM, 2024).
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- 12 Silver, B. A. & Todd, R. G. Permian Cyclic Strata, Northern Midland and Delaware Basins, West Texas and Southeastern New Mexico. *The American Association of Petroleum Geologists Bulletin* **53**, 2223 - 2251 (1969).
- 13 Scholle, P. A. *Geologic Map of New Mexico*. (2003).
- 14 Decker, D. D., Jorgensen, G. L. & Palmer, R. in *Southwest Geophysical Cave and Karst Database* (ed LLC Southwest Geophysical Consulting) (Albuquerque, NM, 2025).
- 15 Whitehead, W., Bandy, M. & Decker, D. Protocol for Using UAV Photography for Rapid Assessment of Karst Features in Southeast New Mexico. *Proceedings of the 2022 Cave and Karst Management Symposium* (2022).
- 16 Hill, C. A. *Geology of the Delaware Basin, Guadalupe, Apache and Glass Mountains, New Mexico and West Texas*. Vol. 96-39 (Permian Basin Section - SEPM, 1996).

8.0 GLOSSARY OF TERMS

AGI	Advanced Geosciences Inc.
BLM-CFO	Bureau of Land Management - Carlsbad Field Office
brecciated	Fractured rock caused by faulting or collapse.
caprock-collapse sinkhole	Collapse of roof-spanning rock into a cave or void.
cave	Natural opening at the surface large enough for a person to enter.
cover-collapse sinkhole	Collapse of roof-spanning soil or clay ground cover into a subsurface void.
ERI	Electrical Resistivity Imaging
GPS	Global Positioning System
grike	A solutionally enlarged, vertical, or sub-vertical joint or fracture.
(H)	High confidence modifier for a PKF. This is typically reserved for a feature that is definitely karst but has not been confirmed in the field.
HKOZ	High Karst Occurrence Zone
karst	A landscape containing solutional features such as caves, sinkholes, swallets, and springs.
(L)	Low confidence modifier for a PKF. This is typically a feature that cannot be ruled out as karst but is most likely NOT karst related. This modifier may also be used for pseudokarst features.
(M)	Medium confidence modifier for PKF. This is an ambiguous feature that can't be positively identified as karst without a field visit (e.g., burrows, abandoned unlined wells, solution tubes, pseudokarst).
MKOZ	Medium Karst Occurrence Zone
NCRC	National Cave Rescue Commission
NKF	Non-karst feature. Used for features originally identified as PKF that have been subsequently identified in the field as non-karst related. This term may also be used for pseudokarst features.
NMSLO	New Mexico State Land Office
Ohm-m	Ohm-meter, a unit of measurement for resistivity. Sometimes abbreviated Ω -m.
paleokarst	Previously formed karst features that have been filled in by erosion and/or deposition of minerals.
Pat	Permian Artesia Group
Pc	Permian Capitan Formation
Pcs	Permian Castile Formation

PdI	Permian Dewey Lake Formation
PKF	Possible karst feature. This term is reserved for features identified in satellite or aerial imagery that have NOT been visited in the field. Further modifiers include (H) for high confidence, (M) for medium confidence, and (L) for low confidence. These confidence levels are based on field experience.
PLSS	Public Land Survey System
Pqg	Permian Queen/Greyburg Formation
Pru	Permian Rustler Formation
pseudokarst	Karst-like features (sinkholes, conduits, voids etc.) that are not formed by dissolution. These types of features include soil piping, lava tubes, and some cover-collapse and suffosion sinkholes.
Psl	Permian Salado Formation
Psr	Permian Seven Rivers Formation
Pt	Permian Tansill Formation
Py	Permian Yates Formation
Qal	Quaternary alluvium
Qe	Quaternary eolian deposits
Qp	Quaternary piedmont deposits
Qpl	Quaternary playa lake deposits
RKF	Recognized karst feature. This term is reserved for karst features that have been physically verified in the field.
SPAR	Small Party Assisted Rescue
sUAS	Small, uncrewed aerial system
suffosion sinkhole	Raveling of soil into a pre-existing void or fracture.
swallet	A natural opening in the surface, too small for a person, that drains water to an aquifer. Some are "open," meaning a void can be seen below; some are "closed," meaning they are full of sediment.
SWG	Southwest Geophysical Consulting, LLC
UTM	Universal Transverse Mercator (projected coordinates)
(V)	Field verified modifier for a RKF. This indicates that the feature has been visited by a qualified karst professional in the field and fully identified
WGS	World Geodetic System (geographic coordinates)

9.0 ATTESTATION

David D. Decker, PhD, PG, CPG

Chief Executive Officer, Principal Geologist

Southwest Geophysical Consulting, LLC

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dave@swgeophys.com

(505) 585-2550

CERTIFICATE OF AUTHOR

I, David D. Decker, a Licensed Professional Geologist and a Certified Professional Geologist, do certify that:

- I am currently employed as a consulting geologist in the specialty of caves and karst with an office address of 5117 Fairfax Dr. NW, Albuquerque, NM, USA, 87114.
- I graduated with a Master of Science in Applied Physics with a specialization in Sensor Systems from the Naval Post Graduate School in Monterey, California, in 2003, and a Doctor of Philosophy in Earth and Planetary Sciences from the University of New Mexico, Albuquerque, New Mexico, in 2018.
- I am a Licensed Professional Geologist in the State of Texas, USA (PG-15242) and have been since 2021. I am a Certified Professional Geologist through the American Institute of Professional Geologists (CPG-12123) and have been since 2021.
- I have been employed as a geologist continuously since 2016. I was previously employed as a Fire Controlman, Naval Flight Officer, and Aerospace Engineering Duty Officer in the U.S. Navy and operated, maintained, and installed various sensor systems including magnetic, electromagnetic, radar, communications, and acoustic systems in various capacities from 1986 through 2010.
- I have been involved in various aspects of cave and karst studies continuously since 1985, including exploration, mapping, and scientific studies.
- I have read the definition of “qualified karst professional” set out in the ASTM Standard Practice for Preliminary Karst Terrain Assessment for Site Development (ASTM E-1527). I meet the definition of “qualified professional” for the purposes of this standard.
- I am responsible for the content, compilation, and editing of all sections of report number TRCC-002-20250203 entitled, “Environmental Karst Study Report, Federal 29 Z #002, Eddy County, New Mexico.” I or a duly authorized and qualified representative of Southwest Geophysical Consulting, LLC, have personally visited this site and/or reviewed the aerial imagery on the date or dates mentioned in section **2.3 Description of Survey**.

- I have no prior involvement nor monetary interest in the described property or project, save for my fee for conducting this investigation and providing the report.

Dated in Albuquerque, New Mexico, March 30, 2025.



David D. Decker
PhD, CPG-12123





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Appendix D – Previously Submitted and Conditionally Approved Workplan; Carmona Resources

CARMONA RESOURCES



SITE INFORMATION

Work Plan

Federal 29 Z 002H (07.16.22)

Incident # NAPP2221331648

Eddy County, New Mexico

Unit L Sec 29 T20S R27E

32.5425°, -104.3108°

Crude Oil Release

Point of Release: Packing blowout

Release Date: 07.16.22

Volume Released: 1.5 barrels of Crude Oil

Volume Recovered: 0 barrels of Crude Oil

CARMONA RESOURCES



Prepared for:

Concho Operating, LLC

15 West London Road

Loving, New Mexico 88256

Prepared by:

Carmona Resources, LLC

310 West Wall Street

Suite 415

Midland, Texas 79701

310 West Wall Street, Suite 415
Midland TX, 79701
432.813.1992

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APPENDIX D	SITE CHARACTERIZATION AND GROUNDWATER
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December 15, 2022

Mike Bratcher
District Supervisor
Oil Conservation Division, District 2
811 S. First Street
Artesia, New Mexico 88210

**Re: Work Plan
Federal 29 Z 002H (07.16.22)
Concho Operating, LLC
Incident # NAPP2221331648
Site Location: Unit L, S29, T20S, R27E
(Lat 32.5425°, Long -104.3108°)
Eddy County, New Mexico**

Mr. Bratcher:

On behalf of Concho Operating, LLC (COG), Carmona Resources, LLC has prepared this letter to document site activities for the Federal 29 Z 002H (07.16.22). The site is located at 32.5425°, -104.3108° within Unit L, S29, T20S, R27E, in Eddy County, New Mexico (Figures 1 and 2).

1.0 Site information and Background

Based on the initial C-141 obtained from the New Mexico Oil Conservation Division (NMOCD), the release was discovered on July 16, 2022, from a packing blowout. It resulted in the release of approximately one point five (1.5) barrels of crude oil, and zero (0) barrels were recovered. Refer to Figure 3. The initial C-141 form is attached in Appendix C.

2.0 Site Characterization and Groundwater

The site is located within a high karst area. Based on a review of the New Mexico Office of State Engineers and USGS databases, there is no known water source within a 0.50-mile radius of the location. The nearest identified well is located approximately 0.70 miles Southeast of the site in S29, T20S, R27E and was drilled in 1957. The well has a reported depth to groundwater of 83.75' below ground surface (ft bgs). A copy of the associated Point of Diversion Summary report is attached in Appendix D.

3.0 NMAC Regulatory Criteria

Per the NMOCD regulatory criteria established in 19.15.29.12 NMAC, the following criteria were utilized in assessing the site.

- Benzene: 10 milligrams per kilogram (mg/kg).
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg.
- TPH: 100 mg/kg (GRO + DRO + MRO).
- Chloride: 600 mg/kg.

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432.813.1992



4.0 Site Assessment Activities

Initial Assessment

On September 20, 2022, Carmona Resources, LLC performed site assessment activities to evaluate soil impacts stemming from the release. A total of six (6) sample points and seven (7) horizontal samples were advanced to depths ranging from the surface to 4.5' bgs inside and surrounding the release area to evaluate the vertical and horizontal extent. See Figure 3 for the soil sample locations. For chemical analysis, the soil samples were collected and placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Eurofins Laboratories in Midland, Texas. The samples were analyzed for total petroleum hydrocarbons (TPH) by EPA method 8015, modified benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B, and chloride by EPA method 300.0. The laboratory reports, including analytical methods, results, and chain-of-custody documents, are attached in Appendix E.

Vertical delineation was not achieved due to the dense layer encountered. Refer to Table 1.

Horizontal Delineation

The areas of H-1 through H-7 were below the regulatory limits for benzene, total BTEX, TPH, and chloride concentrations. Refer to Table 1.

Trenching

Based on the area having heavy rainfall events, Carmona Resources returned to the location on December 9, 2022, to vertically delineate the area of S-3 and evaluate soil impacts stemming from the release. A total of one (1) trench (T-1) was installed to a total depth from surface to 6.0 ft below the surface. Soil samples were collected and submitted to the laboratory for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E. The sample locations are shown in Figure 3.

The area of Trench-1 showed no chloride impact from surface to 6.0 ft below the surface. The rain has significantly helped dilute or migrate the chloride concentrations during the rainfall events. Vertical delineation was achieved. Refer to Table 1.

5.0 Proposed Work Plan

Based on the analytical data and the detected chloride concentrations, Concho proposes to remediate the areas shown in Figure 4 and highlighted (blue) in Table 1.

- The area of S-6 will be excavated to a depth of 4.0' below the surface and backfilled with clean material to grade. Which is on the edge of the reserve pit.
- COG requests to collect composite sidewall samples from the surface to 1' to mitigate digging into and sampling the possible impact from the reserve pit at 4.0'.
- An estimated 875 cubic yards will be removed and hauled to the nearest disposal based on the maximum depth.
- A variance is requested per 19.15.29.14. A NMAC, Five-point composite bottom floor hole, and sidewall samples will be collected every 400 square feet to represent the release area.
- Once the site activities and excavation are complete, the areas will be backfilled with clean material to surface grade. The remediation will be implemented 90 days after the work plan is approved.



- Impacted soil around the reserve pit, oil and gas equipment, structures, or lines may not be removed during remediation activities due to safety concerns for the onsite personnel. However, COG will excavate the impacted soils to the maximum extent possible.

6.0 Conclusions

Upon completion, a final closure report describing the remediation activities will be presented to the New Mexico Oil Conservation Division (NMOCD). If you have any questions regarding this report or need additional information, don't hesitate to contact us at 432-813-1992.

Sincerely,

Carmona Resources, LLC

A handwritten signature in black ink, appearing to read "Mike Carmona".

Mike Carmona
Environmental Manager

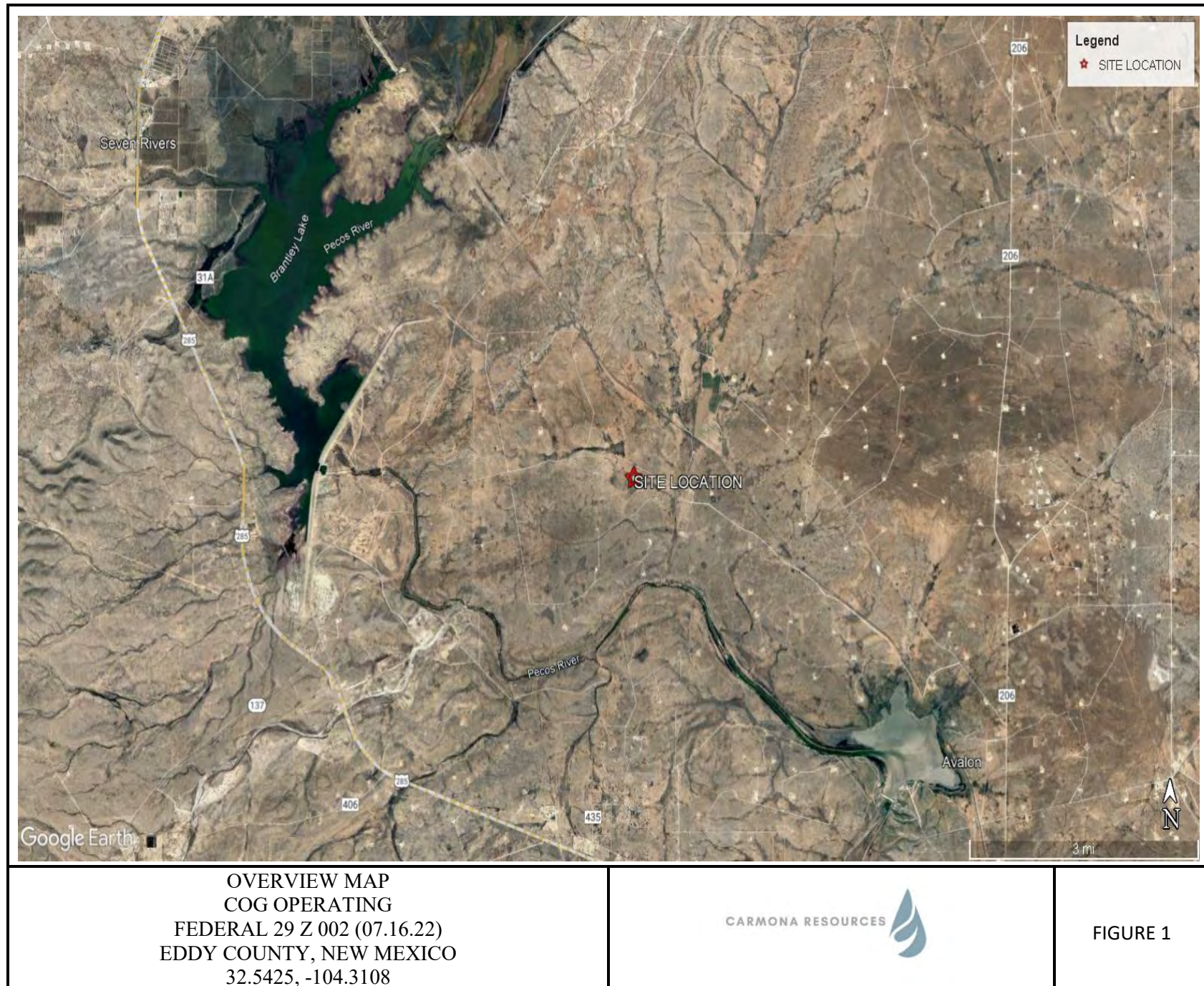
A handwritten signature in black ink, appearing to read "Conner Moehring".

Conner Moehring
Sr. Project Manager

FIGURES

CARMONA RESOURCES



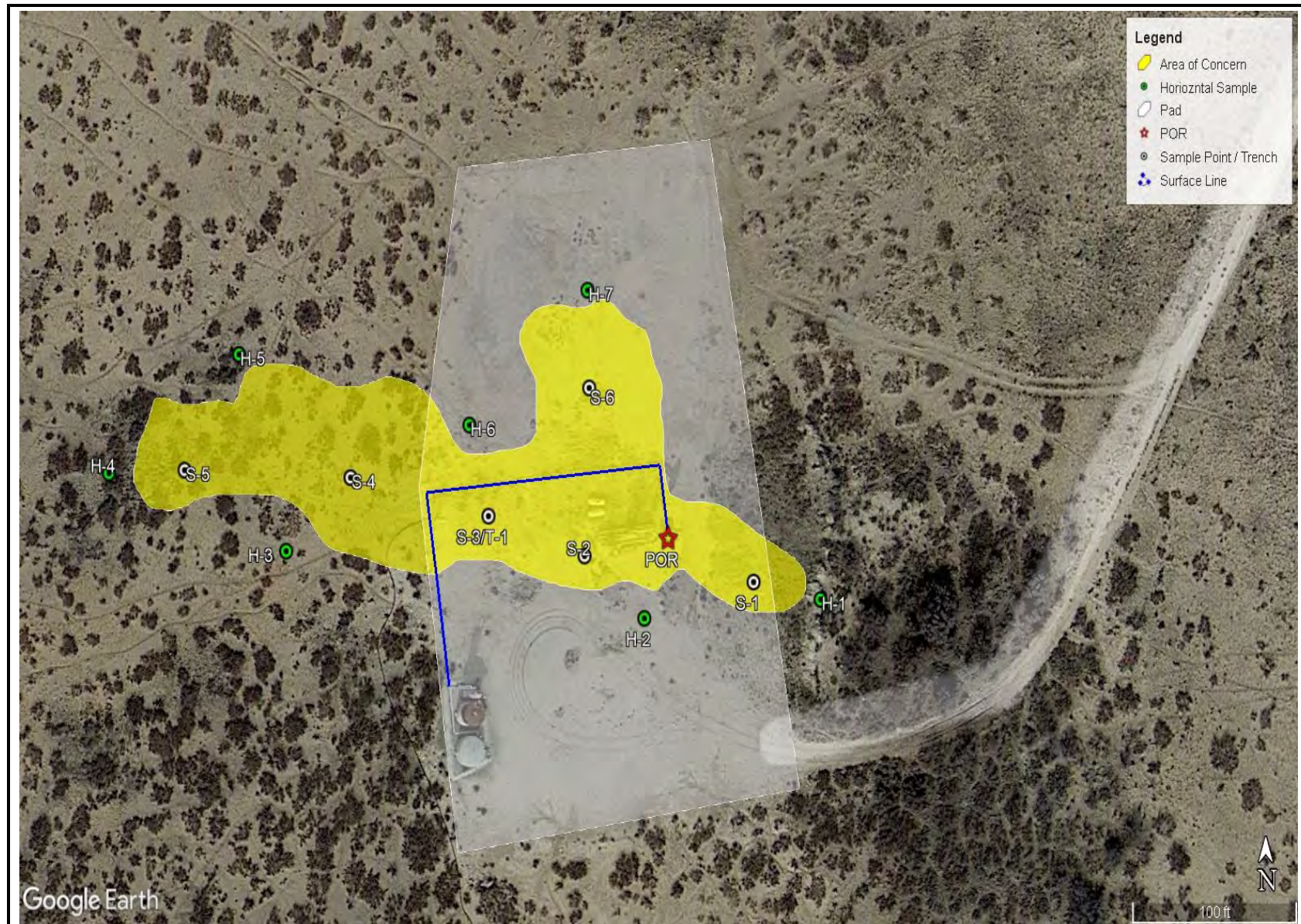




TOPOGRAPHIC MAP
COG OPERATING
FEDERAL 29 Z 002 (07.16.22)
EDDY COUNTY, NEW MEXICO
32.5425, -104.3108



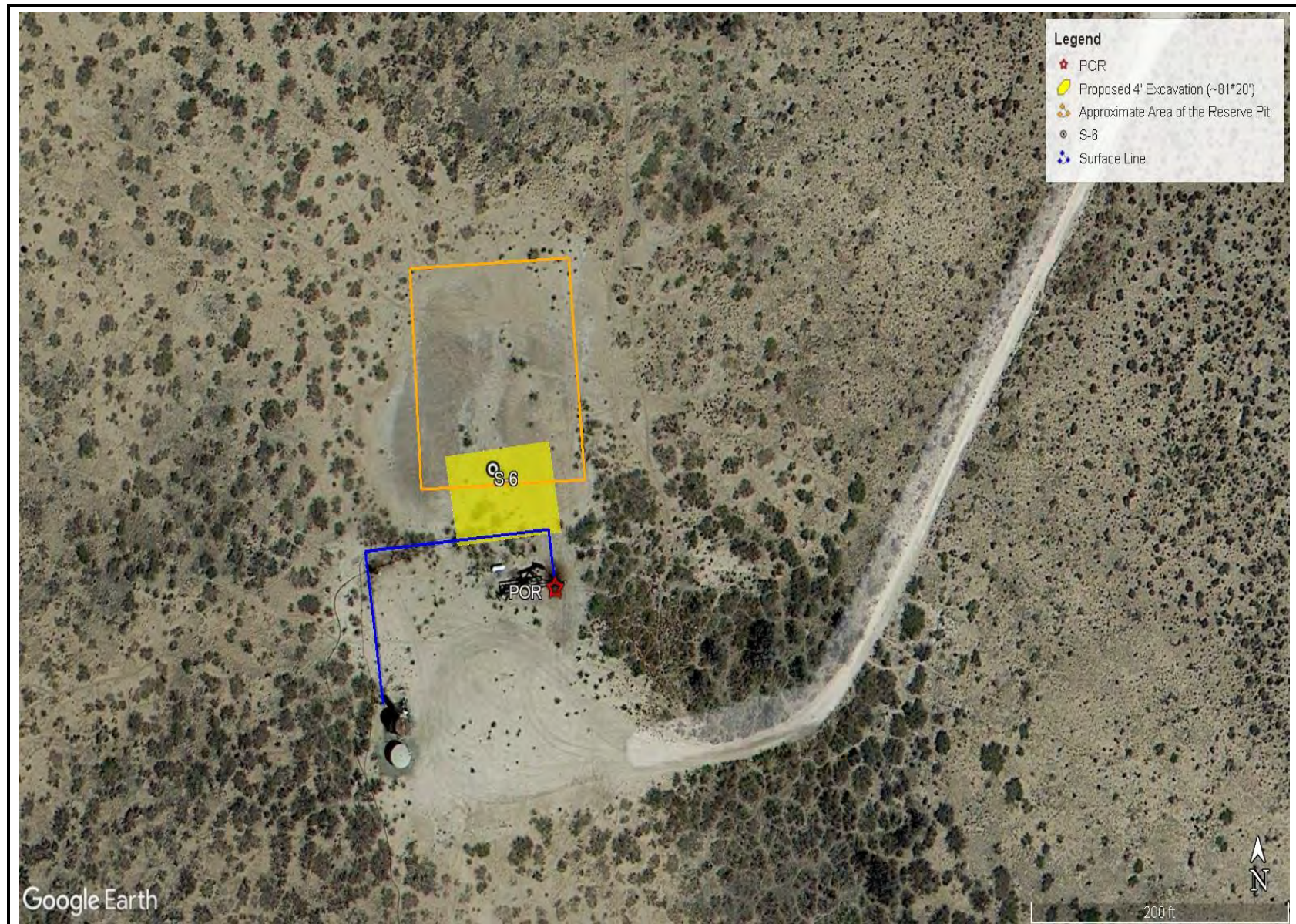
FIGURE 2



SAMPLE LOCATION MAP
COG OPERATING
FEDERAL 29 Z 002 (07.16.22)
EDDY COUNTY, NEW MEXICO
32.5425, -104.3108



FIGURE 3



PROPOSED EXCAVATION DEPTH MAP
COG OPERATING
FEDERAL 29 Z 002 (07.16.22)
EDDY COUNTY, NEW MEXICO
32.5425, -104.3108



FIGURE 4

APPENDIX A

CARMONA RESOURCES



Table 1
COG
Federal 29 Z #2 (07.16.22)
Eddy County, New Mexico

Sample ID	Date	Depth (ft)	TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			GRO	DRO	MRO	Total						
S-1	9/20/2022	0-1	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	12.0
	"	1.5	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	33.0
	"	2.0	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	60.2
S-2	9/20/2022	0-1	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	12.3
	"	1.5	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	14.7
	"	2.0	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	18.6
	"	2.5	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	14.0
S-3	9/20/2022	0-1	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	18.3
	"	1.5	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	19.6
	"	2.0	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	16.6
	"	2.5	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	815
	"	3.0	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	161
	"	3.5	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,090
	"	4.0	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	1,560
T-1	12/9/2022	0-1	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	34.0
	"	1.5	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	63.9
	"	2.0	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	344
	"	3.0	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	492
	"	4.0	<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	228
	"	5.0	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	85.6
S-4	9/20/2022	0-1	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	18.3
	"	1.5	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	19.6
	"	2.0	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	16.6
S-5	9/20/2022	0-1	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	19.1
	"	1.5	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	12.6
	"	2.0	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	16.0
S-6	9/20/2022	0-1	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	3,860
	"	1.5	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	2,320
	"	2.0	<50.0	79.1	<50.0	79.1	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	773
	"	2.5	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	1,630
	"	3.0	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	1,540
	"	3.5	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	1,170
	"	4.0	<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	291
	"	4.5	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	293
Regulatory Criteria^A						100 mg/kg	10 mg/kg	-	-	-	50 mg/kg	600 mg/kg

(-) Not Analyzed

^A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH- Total Petroleum Hydrocarbons

ft-feet

(S) Sample Point

(T) Trench

 Proposed Excavation

Table 1
COG
Federal 29 Z #2 (07.16.22)
Eddy County, New Mexico

Sample ID	Date	Depth (ft)	TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			GRO	DRO	MRO	Total						
H-1	9/20/2022	0-0.5	<50.0	76.7	<50.0	76.7	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	15.3
H-2	9/20/2022	0-0.5	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	220
H-3	9/20/2022	0-0.5	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	8.83
H-4	9/20/2022	0-0.5	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	11.3
H-5	9/20/2022	0-0.5	<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	9.39
H-6	9/20/2022	0-0.5	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	8.84
H-7	9/20/2022	0-0.5	<49.8	99.5	<49.8	99.5	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	103
Regulatory Criteria ^A						100 mg/kg	10 mg/kg	-	-	-	50 mg/kg	600 mg/kg

(-) Not Analyzed

^A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH- Total Petroleum Hydrocarbons

ft-feet

(H) Horizontal

APPENDIX B

CARMONA RESOURCES



PHOTOGRAPHIC LOG

Concho Operating, LLC

Photograph No. 1

Facility: Federal 29 Z 002H (07.16.22)

County: Eddy County, New Mexico

Description:

View South, area of sample point S-1.



Photograph No. 2

Facility: Federal 29 Z 002H (07.16.22)

County: Eddy County, New Mexico

Description:

View West, areas of sample points S-2 and S-3.



Photograph No. 3

Facility: Federal 29 Z 002H (07.16.22)

County: Eddy County, New Mexico

Description:

View West, areas of sample points S-4 and S-5.



PHOTOGRAPHIC LOG

Concho Operating, LLC

Photograph No. 4**Facility:** Federal 29 Z 002H (07.16.22)**County:** Eddy County, New Mexico**Description:**

View Northeast, area of sample point S-6.

**Photograph No. 5****Facility:** Federal 29 Z 002H (07.16.22)**County:** Eddy County, New Mexico**Description:**

View East, area of S-3 (Trench-1).





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Appendix E - Previously Submitted and Conditionally Approved Workplan; TRC



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PROPOSED VARIANCE REQUEST

ConocoPhillips
Federal 29 Z 002H
Eddy County, New Mexico
Unit Letter "L", Section 29, Township 20 South, Range 27 East
Latitude 32.5425° North, Longitude 104.3108° West
NMOCD Reference No. NAPP2221331648

Prepared For:

ConocoPhillips
600 W Illinois Avenue
Midland, Texas 79701

Prepared By:

TRC Environmental Corporation
10 Desta Drive, Suite 130E
Midland, Texas 79705

September 2023

Misti Bryant

Misti Bryant
Staff Geologist

Jared E. Stoffel
Jared E. Stoffel, PG
Project Manager



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REGULATORY FRAMEWORK.....	1
SOIL INVESTIGATION SUMMARY AND PREVIOUSLY SUBMITTED AND APPROVED WORKPLAN.....	2
PROPOSED VARIANCE FOR APPROVED REMEDIATION WORKPLAN.....	3
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FIGURES

Figure 1 – Topographic Map

Figure 2 – Sample Locations and Proposed Excavation

TABLES

Table 1 – Summary of Carmona Resources Analytical Data

APPENDICES

Appendix A – Revised Release Notification and Corrective Action (Form C-141)

Appendix B – Site Characterization Summary

Appendix C – Previously Submitted and Approved Workplan

Appendix D – Photographic Documentation



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INTRODUCTION & SITE BACKGROUND

TRC Environmental Corporation (TRC), on behalf of ConocoPhillips, has prepared this *Proposed Variance Request* for the Release Site known as the Federal 29 Z 002H (the Site). The legal description of the Site is Unit Letter "L", Section 29, Township 20 South, Range 27 East, in Eddy County, New Mexico. The subject property is owned by the State of New Mexico and administered by New Mexico State Land Office (NMSLO). The GPS coordinates for the Site are N 32.5425°, W 104.3108°. **Figure 1** is a topographic map of the Site.

SITE BACKGROUND

On July 16, 2022, ConocoPhillips (COP) discovered a crude oil release had occurred at the Site. The Release was attributed to a packing blowout. On the discovery date, COP notified the New Mexico Oil Conservation Division (NMOCD) and New Mexico State Land Office (NMSLO) of the Release. The Release was assigned an NMOCD Reference number of NAPP2221331648. On August 01, 2022, the initial Release Notification and Corrective Action (Form C-141) was submitted to the NMOCD. The Form C-141 indicated 1.5 barrels (bbls) of crude oil was released and zero (0) bbls of crude oil was recovered. The Release affected an area measuring approximately 10,800 square feet (sq. ft.). The C-141 indicated the impacted area was located on and off the location pad. A copy of the submitted Form C-141 for the Release is provided in **Appendix A**. The Site location is depicted in **Figure 1**. **Appendix B** document the characterization parameters of the Site. The affected area is depicted in **Figure 2**.

REGULATORY FRAMEWORK

Based on a review of the New Mexico Office of State Engineers and United States Geological Survey (USGS) databases, there is no known water source within a 0.50-mile radius of the location. The nearest identified well is located approximately 0.70 miles Southeast of the site in S29, T20S, R27E and was drilled in 1957. The well has a reported depth to groundwater of 83.75 feet below ground surface (ft bgs). A copy of the associated Point of Diversion Summary report is attached in **Appendix B**.

Based on the inferred depth to groundwater at the Federal 29 Z 002H Release Site, the NMOCD *Closure Criteria for Soils Impacted by a Release* may not warrant the most stringent closure criteria listed, due to the lack of definitive depth to groundwater data. However, the Federal 29 Z 002H is within 300 feet of a significant watercourse and/or wetland denoted as a riverine in **Appendix B**. Additionally, the Federal 29 Z 002H is located in the 'high karst' area as outlined in Bureau of Land Management (BLM) publicly available Karst Potential Map and is provided in **Appendix B**. The NMOCD stance on the regulation of releases at Sites adjacent to flowing or significant watercourses, wetlands, and 'high karst' areas requires that COP utilize the most stringent NMOCD Closure Criteria for Soils Impacted by a Release for the Federal 29 Z 002H as follows:

- Benzene – 10 mg/kg
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) – 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) – 100 mg/kg
- Chloride – 600 mg/kg

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SOIL INVESTIGATION SUMMARY AND PREVIOUSLY SUBMITTED AND APPROVED WORKPLAN

On September 20, 2022, Carmona Resources, LLC (Carmona Resources) performed site assessment activities to evaluate soil impacts stemming from the release. A total of six (6) sample points and seven (7) horizontal samples were advanced to depths ranging from the surface to 4.5 ft bgs inside and surrounding the release area to evaluate the vertical and horizontal extent. See **Figure 2** for the soil sample locations. For chemical analysis, the soil samples were collected and placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Eurofins Laboratories in Midland, Texas. The samples were analyzed for total petroleum hydrocarbons (TPH) by EPA method 8015, modified benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B, and chloride by EPA method 300.0. Vertical delineation was not achieved due to the dense layer encountered. Horizontal delineation was achieved. Soil sample locations H-1 through H-7 exhibited concentrations below the regulatory limits for benzene, total BTEX, TPH, and chloride. **Table 1** includes the tabulated data provided by Carmona Resources for convenience.

Due to the heavy rainfall events and lack of complete vertical delineation, Carmona Resources returned to the Site on December 9, 2022, to vertically delineate the area of S-3 and evaluate soil impacts stemming from the release. One (1) trench (T-1) was installed to a total depth from surface to 6.0 ft below ground surface. Soil samples were collected and submitted to the laboratory for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. The area of Trench-1 showed no chloride concentrations above NMOCD guidelines from surface to 6.0 ft below ground surface. The rain appears to have diluted or migrated the elevated chloride concentrations during the rainfall events.

Based on delineation data, the previously submitted and approved workplan proposed excavating the area represented by sample location S-6 to a depth of approximately 4 ft bgs, with confirmation samples on a 400 sq. ft. basis to confirm removal. The previously submitted and approved workplan is included as **Appendix C**.

The workplan was submitted to the NMOCD on December 15, 2022. The NMOCD approved the workplan on March 17, 2023 with the following conditional response:

The Remediation Plan is Conditionally Approved. This release is in a high karst area and will need to be remediated to the strictest closure criteria of <50' depth to groundwater from Table 1 of the spill rule. Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. The variance for 400 ft² confirmation samples is approved. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH. Any contaminants left in place will need to be fully delineated and require a facility deconstruction to qualify for a deferral. Please remove contaminants with alternative methods around oil/gas equipment. The work will need to occur in 90 days after the work plan has been approved.

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PROPOSED VARIANCE REQUEST FOR APPROVED REMEDIATION WORKPLAN

On June 21, 2023, TRC requested an extension on the behalf of COP to confirm Site conditions prior to initiating remediation activities. The NMOCD granted the extension to September 21, 2023.

On July 13, 2023, TRC notified the NMOCD of the intent to begin remediation on July 17th. TRC completed the pre-remediation Site kickoff on July 17th, at which time no hydrocarbon surface staining was noted in the area to be remediated – soil sample location S-6. The initial workplan assumed S-6 was at the edge of the former reserve pit footprint, but an attempt to confirm prior to initiating remediation indicated S-6 was within the former reserve pit footprint. TRC attempted to determine the lateral extents of chloride concentrations associated with soil sample location S-6, and initial field screen data showed elevated chloride concentrations across the former reserve pit area. Elevated chloride concentrations in this area appear to be related to the former reserve pit rather than the Release. Photographic documentation is provided as **Appendix D**.

TRC did not begin the remediation due to the former reserve pit findings. COP and TRC reviewed all the data and noted the Release was a non-reportable (less than 5 bbl of fluid) overspray release of crude oil only. The overspray mechanism typically limits soil impacts to surface only and there were no produced water fluids reported. The elevated chloride concentrations to approximately 3.5 ft bgs are unlikely to be resultant of this non-reportable volume overspray crude oil release. Additionally, no soil samples submitted were affected above NMOCD guidelines for benzene, BTEX, or TPH. The lack of elevated hydrocarbon concentrations across the Site corroborates this interpretation. Prior to initiating remediation according to the approved workplan, COP requested a meeting with the NMOCD with the findings of non-reportable status and elevated chloride concentrations associated with the former reserve pit to clarify the path forward.

COP, TRC, and the NMOCD met virtually on August 2, 2023 to discuss the findings at the Site. During the meeting, the NMOCD indicated that despite the release volume of less than 5 bbls, the C-141 could not be retracted. Additionally, despite the lack of produced water from the Release, the elevated chloride concentrations associated with soil sample location S-6 must be addressed. However, a variance may be requested to the sampling requirements to avoid excavating the entirety of the former reserve pit area.

In response to the meeting on August 2, 2023, COP proposes to excavate the footprint of the overspray release in the area represented by soil sample S-6 to a depth of four (4) ft bgs, which based on the delineation data provided in the formerly approved workplan will remove the documented elevated chloride concentrations above NMOCD guidelines associated with soil sample location S-6. COP would like to respectfully request a variance under NMAC 19.15.29 to the requirement for confirmation sampling for the Release site and will limit the excavation to the indicated footprint and the prescribed four (4) foot depth. COP requests that no floor or sidewall samples be required, as the indicated footprint and four (4) foot depth will remove far more soil than was affected by an overspray release of crude oil only. The estimated volume of soil removed will be approximately 1,050 cubic yards, which will be transported to an NMOCD approved disposal facility. The Site will then be backfilled with locally sourced 'like' material to near original grade.



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COP is prepared to begin the activities outlined in this *Proposed Variance Request* following NMOCD and BLM approval. On completion of remediation activities, a Remediation Summary and Closure Report will be prepared detailing field activities.

If you have any questions, or need any additional information, please feel free to contact myself or Ike Tavaréz by phone or email.

LIMITATION

TRC has prepared this Proposed Variance Request to the best of its ability. No other warranty, expressed or implied, is made or intended.

TRC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. TRC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. TRC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. TRC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of ConocoPhillips. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of TRC and/or ConocoPhillips.

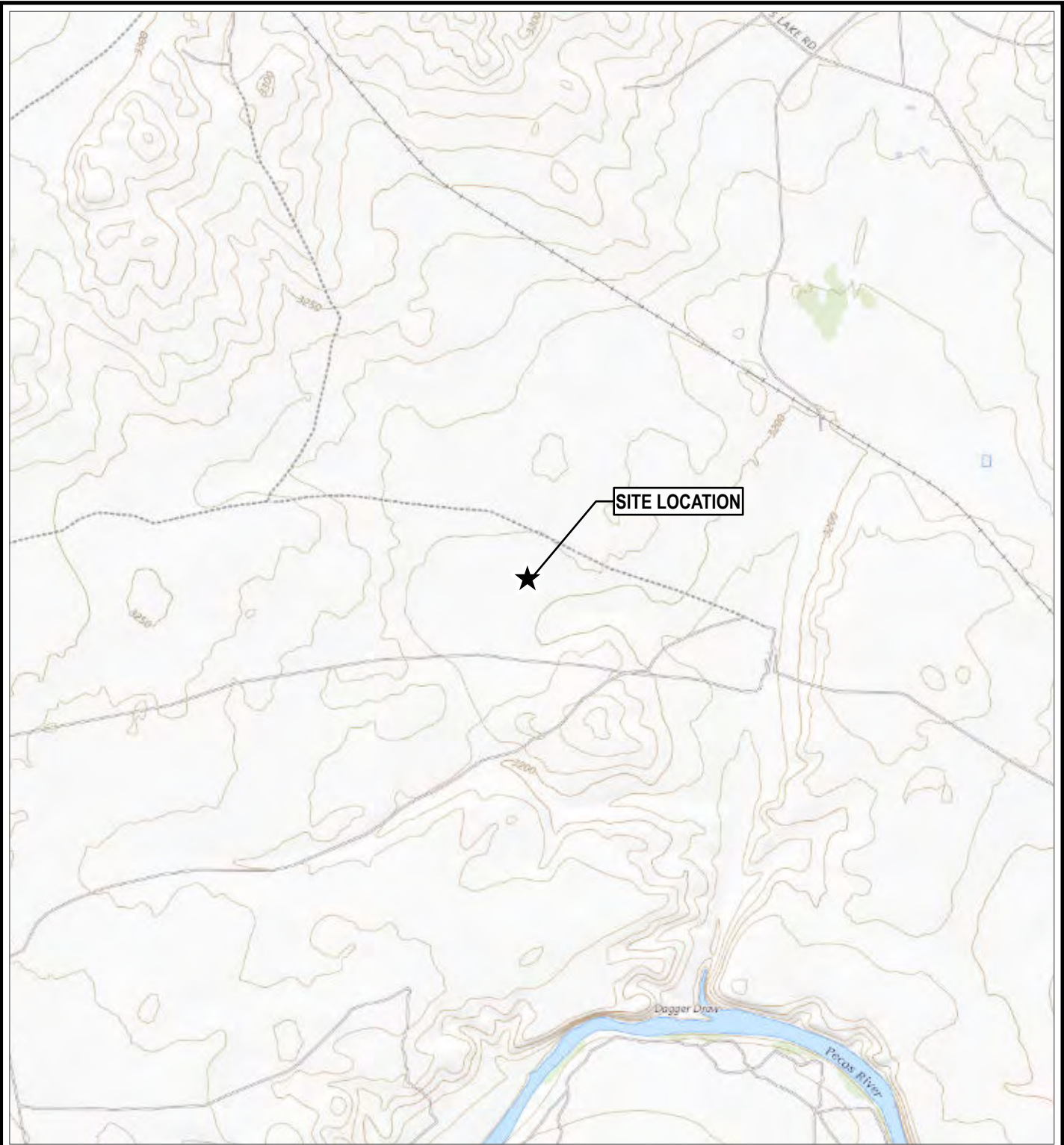


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DISTRIBUTION

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600 W. Illinois Avenue
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- Copy4: TRC Environmental Corporation
10 Desta Dr STE 130E
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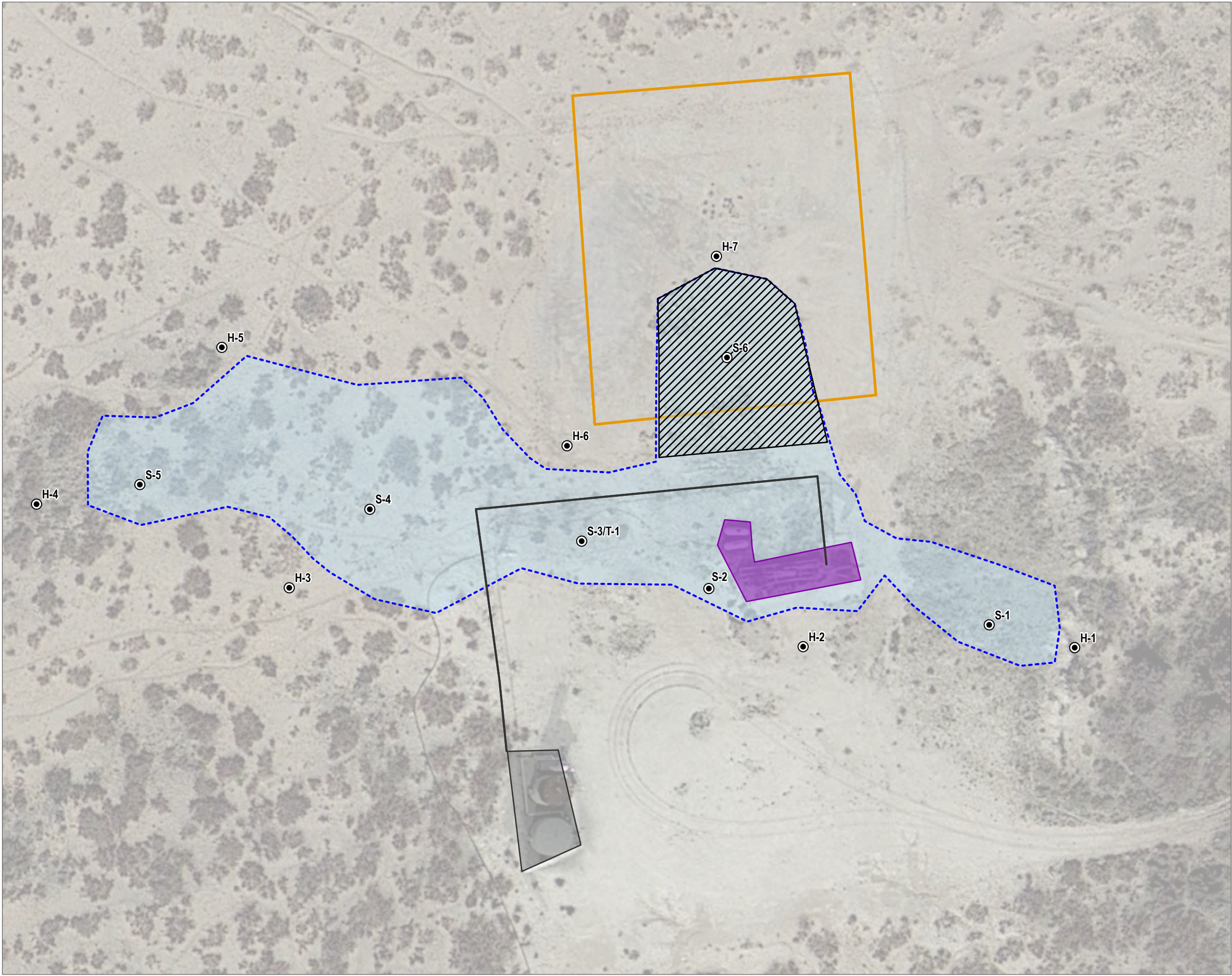


COORDINATE SYSTEM: NAD 1983 STATEPLANE NEW MEXICO EAST FIPS 3001 FEET; MAP ROTATION: 0
 - SAVED BY: S RAY ON 8/16/2023, 14:58:35 PM; FILE PATH: T:\CONOCOPHILLIPS\544675_FEDERAL\2024\APR\FEDERAL 29 Z 002H.APRX; LAYOUT NAME: FIG 1 - GVM

	PROJECT: CONOCOPHILLIPS FEDERAL 29 Z 002H EDDY COUNTY, NEW MEXICO	
	TITLE: TOPOGRAPHIC MAP	
	DRAWN BY: S. RAY	PROJ. NO.: 544675.0000.0000
	CHECKED BY: M. BRYANT	FIGURE 1
	APPROVED BY: M. BRYANT	
DATE: AUGUST 2023	 1180 NW MAPLE STREET, SUITE 310 ISSAQUAH, WA 98027 PHONE: 425.395.0010	
FILE:		FEDERAL 29 Z 002H

BASE MAP: USGS COLOR ORTHO IMAGERY
 DATA SOURCES: TRC

Coordinate System: NAD 1983 StatePlane New Mexico East FIPS 3001 Feet, Map Rotation: 0
-- Saved By: ACLINE on 8/24/2023 08:15:46 AM, File Path: T:\H-PROJECTS\Conocophillips\544675_Federal29 Z 002H.aprx, Layout Name: Fig 4 - Sample Location Map



- DELINEATION SAMPLE LOCATION
- SURFACE STEEL LINE
- PIT LOCATION
- ▨ PROPOSED 4' EXCAVATION
- ▭ RELEASE AREA
- TANK BATTERY
- WELLHEAD AND ASSOCIATED INFRASTRUCTURE

BASE MAP: GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).
DATA SOURCES: TRC.

NOTES
SAMPLE LOCATIONS AND ANALYTICAL DATA FROM CARMONA RESOURCES
WORKPLAN



1:480
1" = 40'

0 25 50
FEET



PROJECT:		CONOCOPHILLIPS FEDERAL 29 Z 002H EDDY COUNTY, NEW MEXICO	
TITLE:		SAMPLE LOCATIONS AND PROPOSED EXCAVATION MAP	
DRAWN BY:	A. CLINE	PROJ. NO.:	544675.0000.0000
CHECKED BY:	B. TRACY	FIGURE 2	
APPROVED BY:	M. BRYANT		
DATE:	AUGUST 2023		
			
FILE:		Federal 29 Z 002H.aprx	

Federal 29 Z 002H
Table 1 - Summary of Carmona Resources Analytical Data

SAMPLE ID	SAMPLE DEPTH (FT)	SAMPLE DATE	Proposed Soil Status	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl-benzene (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 (mg/Kg)
NMOCD Standards	-	-		5	-	-	-	50	-	-	-	100	600
Veritcal Delineation													
S-1 (0-1')	1'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	12.0
S-1 (1.5')	1.5	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	33.0
S-1 (2')	2'	9/20/22	In-Situ	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<50.0	<50.0	<50.0	<50.0	60.2
S-2 (0-1')	1'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	12.3
S-2 (1.5')	1.5'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	14.7
S-2 (2')	2'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	18.6
S-2 (2.5')	2.5'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.8	<49.8	<49.8	<49.8	14.0
S-3 (0-1')	1'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	43.1
S-3 (1.5')	1.5'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	59.7
S-3 (2')	2'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.9	<49.9	<49.9	<49.9	170
S-3 (2.5')	2.5'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	815
S-3 (3')	3'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	161
S-3 (3.5')	3.5'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	1,090
S-3 (4')	4'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	1,560
S-4 (0-1')	1'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.9	<49.9	<49.9	<49.9	18.3
S-4 (1.5')	1.5'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	19.6
S-4 (2')	2'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	16.6
S-5 (0-1')	1'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	19.1
S-5 (1.5')	1.5'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	12.6
S-5 (2')	2'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	16.0
S-6 (0-1')	1'	9/20/22	Excavate	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.9	<49.9	<49.9	<49.9	3,860
S-6 (1.5')	1.5'	9/20/22	Excavate	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	2,320
S-6 (2')	2'	9/20/22	Excavate	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<50.0	<50.0	<50.0	<50.0	773
S-6 (2.5')	2.5'	9/20/22	Excavate	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	1,630

Table 1 - Summary of Carmona Resources Analytical Data

SAMPLE ID	SAMPLE DEPTH (FT)	SAMPLE DATE	Proposed Soil Status	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl-benzene (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 (mg/Kg)
NMOCD Standards	-	-		5	-	-	-	50	-	-	-	100	600
S-6 (3')	3'	9/20/22	Excavate	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<50.0	<50.0	<50.0	<50.0	1,540
S-6 (3.5')	3.5'	9/20/22	Excavate	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	1,170
S-6 (4')	4'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.8	<49.8	<49.8	<49.8	291
S-6 (4.5)	4.5	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	293
T-1 (0-1')	1'	12/9/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	34.0
T-1 (1.5')	1.5'	12/9/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	63.9
T-1 (2')	2'	12/9/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	344
T-1 (3')	3'	12/9/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	492
T-1 (4')	4'	12/9/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.8	<49.8	<49.8	<49.8	228
T-1 (5')	5'	12/9/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	85.6
T-1 (6')	6'	12/9/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	177
Horizontal Delineation													
H-1 (0-0.5')	0.5'	9/20/22	In-Situ	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<50.0	<50.0	<50.0	<50.0	15.3
H-2 (0-0.5')	0.5'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	220
H-3 (0-0.5')	0.5'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	8.83
H-4 (0-0.5')	0.5'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	11.3
H-5 (0-0.5')	0.5'	9/20/22	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.8	<49.8	<49.8	<49.8	9.39
H-6 (0-0.5')	0.5'	9/20/22	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	8.84
H-7 (0-0.5')	0.5'	9/20/22	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.8	99.5	<49.8	99.5	103

Definitions

X	Analyte analytical result exceeds NMOCD regulatory guideline.
X	Analyte detected above the detection limit at a concentration equal to X.
<x	Analyte not detected at detection limit equal to x.
--	

Abbreviations

mg/Kg	Milligrams per Kilogram
TPH	Total Petroleum Hydrocarbon
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
NMOCD	New Mexico Oil Conservation District

Federal 29 Z 002H

Photographic Documentation

Photograph No. 1

Date:
7/25/2022

Direction:
South

Description:
Release area.



Photograph No. 2

Date:
7/25/2022

Direction:
West

Description:
Release area.



Federal 29 Z 002H

Photographic Documentation

Photograph No. 3

Date:
6/5/2023

Direction:
Northwest

Description:
Release area.



Photograph No. 4

Date:
6/14/2023

Direction:
Northeast

Description:
Release area.





505 East Huntland Dr.
Suite 250
Austin, TX 78752

T 512.329.6080
TRCcompanies.com

Appendix F – NMOCD Correspondence Log



Outlook

[EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 455741

From OCDOnline@state.nm.us <OCDOnline@state.nm.us>

Date Fri 8/8/2025 12:05 PM

To Stoffel, Jared <JStoffel@trccompanies.com>

This is an **External** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

To whom it may concern (c/o Jared Stoffel for COG OPERATING LLC),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2221331648, for the following reasons:

- **The remediation plan is denied. The site is located in close proximity to a designated riverine. To overturn a wetland/riverine designation, the responsible party must utilize a Professional Wetland Scientist (PWS) to conduct a Wetland Delineation Survey following the Corps of Engineers Wetlands Delineation Manual. The PWS is required to perform the review and sign off on all conducted surveys, using the Army Corps of Engineers Wetland Determination Data Sheets, Arid West Region. All parts of the wetland/riverine within 300 feet of any part of the release must be evaluated in the survey. A Wetland Delineation report is required to be included which should contain an executive summary of the survey including a description of the site location, sampling points, a scaled sampling diagram, captioned photographs of each sample point, completed Wetland Determination Data Sheets, conclusions/findings and a Curriculum Vitae from the PWS, to include their PWS Certificate Number.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 455741.

Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,

Scott Rodgers

Environmental Specialist - A

505-469-1830

scott.rodgers@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department

1220 South St. Francis Drive

Santa Fe, NM 87505

From: [Bratcher, Michael, EMNRD](#)
To: [Stoffel, Jared](#); [Rodgers, Scott, EMNRD](#); [Hamlet, Robert, EMNRD](#)
Cc: [Tavarez, Ike](#)
Subject: RE: [EXTERNAL] Extension Request for Federal 29 Z 002H - nAPP2221331648
Date: Tuesday, October 22, 2024 4:26:44 PM
Attachments: [image001.png](#)

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Jared et al.,

Due to the site being in a sensitive area, the release is over two years old with only one extension request during that time period, we are obligated, for consistency, to not approve an extension at this time. OCD appreciates the cooperation COP has shown on this one and would ask for that cooperation to continue. If this one got approved, someone down the line would point it out to us when we deny their request. That is where the consistency comes in to play. Hope you understand.

Thank you,

Mike Bratcher

Incident Supervisor
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave | Artesia, NM 88210
(575) 626-0857 |
mike.bratcher@emnrd.nm.gov
<http://www.emnrd.nm.gov/ocd>

-
-

From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Tuesday, October 22, 2024 11:07 AM
To: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Cc: Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] Extension Request for Federal 29 Z 002H - nAPP2221331648

Scott –

Thank you for taking my phone call this morning. As discussed, we met with you, Mike and Robert regarding this incident on May 21, 2024 to determine a path forward, as this was a non-reportable volume overspray release on top of a historical drilling pit. The conclusion of that meeting was that the OCD will require COP to address the chlorides in the pit area. Following the meeting, a path forward was determined internally and because our borings were going to be advanced beyond 30 feet bgs, we had to submit permits through the NMOSE. As this is on

Federal land, we had to get landowner approval through the sundry notice. After all of the proper approvals and permits were in place, we received our permits on October 4, 2024. We have actively been pushing this project forward since our meeting. Would you please reconsider our extension, as we are assessing the pit as requested in the meeting and have been held up by the front side paperwork between the BLM and NMOSE? I am available at your convenience to discuss – thank you.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
[LinkedIn](#) | [Twitter](#) | [Blog](#) | [TRCcompanies.com](#)

From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Tuesday, October 22, 2024 11:05 AM
To: Stoffel, Jared <JStoffel@trccompanies.com>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Cc: Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] Extension Request for Federal 29 Z 002H - nAPP2221331648

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Good Morning Jared,

Date of discovery for this release is listed as 7/16/2022. A 90-day extension was approved 6/21/2023 until 9/21/2023. The last submittal was rejected 3/15/2024. COP to date, has not kept up with extension requests and over two years have passed since the date of discovery. The site is situated in a High Karst area. Your current request for an extension is denied. No extensions will be approved for this incident.

Thank you,
Scott

Scott Rodgers • Environmental Specialist – Adv.
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov

<http://www.emnrd.nm.gov/ocd>



From: Stoffel, Jared <JStoffel@trccompanies.com>

Sent: Monday, October 21, 2024 3:05 PM

To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>

Cc: Tavaréz, Ike <Ike.Tavaréz@conocophillips.com>

Subject: [EXTERNAL] Extension Request for Federal 29 Z 002H - nAPP2221331648

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Mike, Robert, and Scott-

I would like to request a 90-day extension for the assessment at the Federal 29 Z 002H site – we are currently conducting further assessment of the Site as discussed in our meeting and were delayed by BLM and OSE approvals. Please let us know if you would approve an extension for us to finish our additional assessment and submit a revised workplan. Thank you.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
[LinkedIn](#) | [Twitter](#) | [Blog](#) | TRCcompanies.com

From: [Stoffel, Jared](#)
To: [Rodgers, Scott, EMNRD](#); [Bratcher, Michael, EMNRD](#); [Hamlet, Robert, EMNRD](#)
Cc: [Tavarez, Ike](#)
Subject: RE: [EXTERNAL] FW: Follow Up Request for Alternative Sampling Plan - nAPP2221331648
Date: Thursday, May 16, 2024 4:33:00 PM
Attachments: [image001.png](#)

Scott – thank you very much. I have sent you all a Teams invite for 1:30 MST (2:30 CST) next Tuesday. Please let me know if anyone didn't receive it. Have a good afternoon!

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
[LinkedIn](#) | [Twitter](#) | [Blog](#) | [TRCcompanies.com](#)

From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Thursday, May 16, 2024 4:08 PM
To: Stoffel, Jared <JStoffel@trccompanies.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] FW: Follow Up Request for Alternative Sampling Plan - nAPP2221331648

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Good Afternoon Jared,
We would like to propose a meeting time for Tuesday 5/21 @ 1:30.

Thank you,
Scott

Scott Rodgers • Environmental Specialist – Adv.
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov
<http://www.emnrd.nm.gov/ocd>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Thursday, April 25, 2024 2:11 PM
To: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Tavaréz, Ike <Ike.Tavaréz@conocophillips.com>
Subject: [EXTERNAL] FW: Follow Up Request for Alternative Sampling Plan - nAPP2221331648

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All,

I would like to propose a meeting between the NMOCD (Mike Bratcher, Robert Hamlet, and Scott Rodgers), COP (Ike Tavaréz) and TRC (Jared Stoffel) to discuss the Federal 29 Z 002H release site, NMOCD Reference number NAPP2221331648. The items of discussion center around the closed drilling pit adjacent to the release point. A brief summary of the Release is below:

- The release is a non-reportable volume (1.5 barrels of crude oil).
- There was no produced water released, only crude oil.
- The release mechanism was a packing blowout which resulted in an overspray of a large area, approximately 10,800 square feet.
- COP submitted a C-141 to the NMOCD. The site was assessed, and work plan submitted to the NMOCD. Upon further review, the release was noted to be of non-reportable volume, COP attempted to retract C-141 from the system. The NMOCD declined and discussed several options to COP (variances) which would provide a path forward for remediation but prevent additional excavation driven only by chlorides present from the closed reserve pit. The meeting occurred on August 2, 2023 between the OCD (Mike Bratcher and Robert Hamlet), COP (Ike Tavaréz), and TRC (Jared Stoffel). The OCD recommended the submission of a workplan with the proposed variance through the NMOCD portal.
- TPH and BTEX constituents were below the most stringent regulatory guidelines in each submitted soil sample.
- Chloride concentrations exceeded only in areas S-3 and S-6 (the pit area). S-3 appeared anomalous, so trench TT-1 was installed in the same location, and the chloride exceedances were not duplicated. S-6 appears in the area of the pit which is not well vegetated. Field screen results indicate elevated chloride concentrations throughout the pit footprint. S-6 was delineated vertically to below 600 mg/kg at 4 feet bgs.

Site characteristics:

- Depth to groundwater is unknown, but the nearest well (approximately 0.70 miles

southeast) indicates groundwater at approximately 83 feet bgs.

- 'High Karst' area
- Within 300 feet of a 'riverine' identified in the national wetlands inventory.

Discussion points:

- While we understand that the closure criteria modifiers of high karst and near a riverine dictate the most stringent regulatory guidelines, the chlorides are not related to the Release as evident by material released (crude oil only), release mechanism (overspray of the surface only), and release volume (1.5 barrels over an area of 10,800 square feet). There are no documented exceedances at the surface or any other interval of TPH or Benzene related to crude oil. Elevated chlorides appear isolated to the approximate drilling pit footprint.
- COP met with OCD in August of 2023, at which time the OCD indicated a variance may be utilized to avoid digging up the entirety of the pit. COP proposed to excavate 1,050 cubic yards (the entire spill footprint in the area represented by sample point S-6 to 4 feet bgs) and omit confirmation sampling which likely will drive excavation laterally beyond the spill footprint to the boundaries of the pit area. The proposed 4 feet greatly exceeded the depth of hydrocarbon impact in this area and will allow for better re-vegetation of this section of the former pit area. The NMOCD approved the excavation but denied the sampling variance which would omit all confirmation samples.
- A follow up email to the NMOCD requesting a smaller variance in which the requisite confirmation samples be collected and analyzed for TPH and BTEX only was verbally denied by the NMOCD.
- COP would like to propose to excavate to 4 feet bgs within the spill footprint, which would remove the chloride concentrations documented in the investigation phase of the project and upon backfill with imported clean fill will provide a good root zone for reclamation. Sidewall samples would be collected and analyzed for TPH and BTEX. Once the analytical results from the sidewalls indicate all hydrocarbon affected soil has been removed, COP proposes installation of a polyvinyl or geosynthetic liner at four feet bgs through the extent of the excavation to prevent rainwater from mobilizing any additional chloride concentrations at depth related to the pit from mobilizing. Floor confirmation samples at the base of the excavation would not be collected due to the installation of the liner.

Please let us know when would be agreeable for a meeting and I would be happy to send out a Teams meeting (unless you have a different preferred format for the meeting). Thank you very much.

Jared Stoffel, P.G.
Project Manager



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From: Stoffel, Jared

Sent: Monday, April 8, 2024 11:56 AM

To: scott.rodgers@emnrd.nm.gov

Cc: mike.bratcher@state.nm.us; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>;
Tavarez, Ike <Ike.Tavarez@conocophillips.com>

Subject: FW: Follow Up Request for Alternative Sampling Plan - nAPP2221331648

Scott,

Thank you for discussing the alternative sampling plan with me last week. I wanted to follow up that conversation with a request for a meeting with you, Mike, and Robert to discuss how to move forward with the Site. Our last meeting was with Mike and Robert, and the recommended variance request route did not get approved. We wanted to see what our other options are, as the release footprint overlapped with the adjacent pit. Please let me know what timing would be convenient for you all and I'd like to submit a Teams meeting for us all to discuss, if possible. I appreciate your help on this – thanks!

Jared Stoffel, P.G.
Project Manager



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From: Stoffel, Jared

Sent: Thursday, March 7, 2024 3:40 PM

To: scott.rodgers@emnrd.nm.gov

Cc: Tavarez, Ike <Ike.Tavarez@conocophillips.com>; Bratcher, Michael, EMNRD
<mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>

Subject: Follow Up Request for Alternative Sampling Plan - nAPP2221331648

Scott,

Thank you for discussing the Site with me again yesterday. I've attached the conditional approval response for project reference. In discussing the next step forward for the Site, we were curious if you would consider a different alternative sampling plan.

COP would like to follow up with a reduced variance request in which confirmation soil samples be collected on the 200 square foot basis outlined in NMAC 19.15.29. However, COP would like to propose that the soil samples be collected and analyzed for TPH and BTEX only for this hydrocarbon only overspray release. As no produced water was released, COP respectfully requests omission of chlorides as a constituent of concern as the elevated chlorides are associated with the adjacent pit and not with the Release. COP will excavate the upper four feet in the footprint as proposed in the workplan to remove all previously documented elevated chloride concentrations above the most stringent NMOCD standard. The confirmation samples analyzed for TPH and BTEX would document the removal of the hydrocarbons associated with the Release to confirm the protection of freshwater, public health, and the environment from the hydrocarbons released.

Please let us know if this route would be acceptable to the NMOCD. I am available at your convenience to discuss if this would be helpful. Thank you very much for your consideration.

Jared Stoffel, P.G.
Project Manager



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From: OCDOnline@state.nm.us
To: [Stoffel, Jared](#)
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has approved the application, Application ID: 298904
Date: Tuesday, March 5, 2024 11:56:04 AM

This is an **External** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

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To whom it may concern (c/o Jared Stoffel for COG OPERATING LLC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2221331648, with the following conditions:

- **This remediation plan is conditionally approved. The variance request to forgo confirmation sampling is denied. An alternative sampling plan would require a proposed sampling grid map and sampling statistics showing equal or better protection of fresh water, public health and the environment. The demonstration should show that depth to groundwater and karst are not an issue. Also, that it's not within a 100-year floodplain.**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,
Scott Rodgers
Environmental Specialist - A
505-469-1830
scott.rodgers@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

From: [Stoffel, Jared](#)
To: [Hamlet, Robert, EMNRD](#)
Cc: [Bratcher, Michael, EMNRD](#); [Tavarez, Ike](#)
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H
Date: Wednesday, January 3, 2024 8:34:00 AM
Attachments: [image001.png](#)

Thank you for the clarification, Robert – we won't resubmit in the future. Have a good morning!

Jared Stoffel, P.G.
Project Manager



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From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, January 3, 2024 8:20 AM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

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Jared,

The report only needs to be uploaded once. Once the remediation plan is submitted, the report goes into a cue and is assigned and reviewed in the order it is received. I can't give you an exact date on when it will be reviewed. The OCD is reviewing reports as quickly as possible. Once the report is reviewed, you will receive a notification.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave. | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Tuesday, January 2, 2024 1:35 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: FW: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

Robert –

I wanted to follow up with you on the workplan for the Federal 29 Z 002H (NAPP2221331648) and let you know that we re-submitted today through the portal (attached is the PO and receipt). Please let me know if this was the correct way to address a workplan that has been in the portal for longer than 60 days, and/or if you have any questions or concerns. Thank you very much!

Jared Stoffel, P.G.
Project Manager



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From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Tuesday, November 28, 2023 4:36 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

Robert -

I wanted to follow up with you on the workplan submitted to the NMOCD portal on 9/20/23 and re-submit to you since it has been more than 60 days since submittal. Please let me know if you have any questions or concerns on this one, and if I need to do anything further on the portal side after 60 days. Thanks!

Jared Stoffel, P.G.
Project Manager

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From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, July 26, 2023 8:25 AM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

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Jared,

You might set up a Teams Call for Wednesday August 2nd at 10:00 a.m. Mountain Time if that works for everyone. Invite Mike Bratcher and myself to the meeting and we can have a quick discussion on the site. Thanks

Robert Hamlet • Environmental Specialist - Advanced
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EMNRD - Oil Conservation Division
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575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Tuesday, July 25, 2023 3:42 PM
To: Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

Robert, Jocelyn, and Mike,

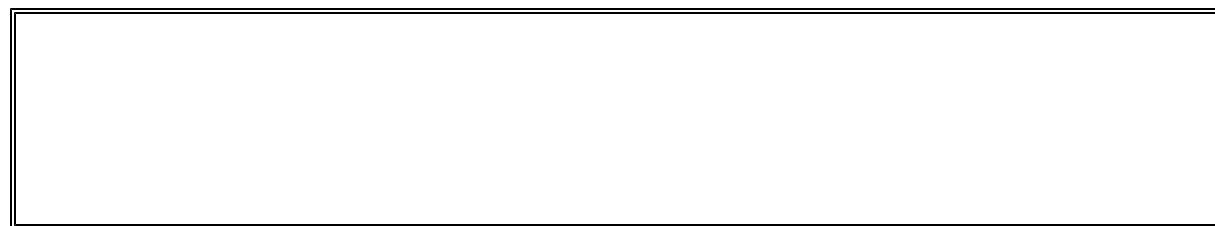
During the set-up to begin the remedial action plan at the site, TRC performed historical review and site reconnaissance. These activities uncovered the elevated chloride concentrations to be addressed in the approved remediation workplan are related to (and seemingly limited to) the former reserve pit at the Site. Additionally, the review indicated that the release was a non-reportable volume of crude oil (1.5 bbls of crude oil – no produced water reported). We would like to discuss the next steps for this remediation, as the plan as proposed will likely result in the excavation of the entirety of a reserve pit rather than as a remedial action to remove soil affected from the release of crude oil. Would you have time to discuss this issue with us? Thank you very much!

Jared Stoffel, P.G.
Project Manager



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From: Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Sent: Thursday, July 13, 2023 2:27 PM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H



Jared,

Notification requirements are **two business days**, per rule. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to ensure inclusion in the project file.

JH

Jocelyn Harimon • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov

[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Thursday, July 13, 2023 9:50 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavaréz, Ike <Ike.Tavaréz@conocophillips.com>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

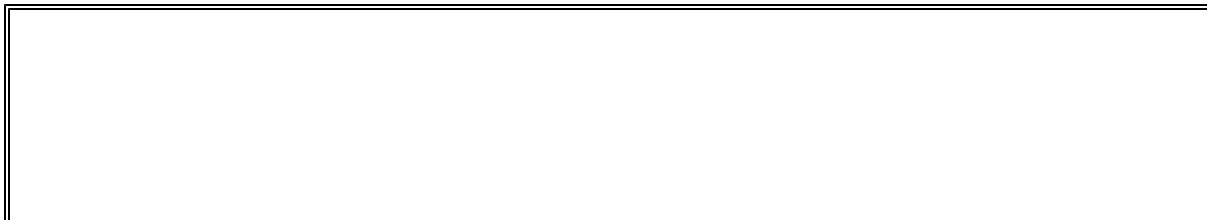
Robert – we will begin remediation at the Federal 29 Z 002H (NAPP2221331648) on Monday, July 17th, 2023. Final confirmation soil samples will be collected as the excavation progresses. The expected duration of the project is 1 week. Please let me know if you have any questions or concerns. Thank you very much!

Jared Stoffel, P.G.
Project Manager



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From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, June 21, 2023 2:26 PM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavaréz, Ike <Ike.Tavaréz@conocophillips.com>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H



RE: Incident #NAPP2221331648

Jared,

Your request for an extension to **September 21st, 2023** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced

Environmental Bureau

EMNRD - Oil Conservation Division

506 W. Texas Ave. | Artesia, NM 88210

575.909.0302 | robert.hamlet@state.nm.us

<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>

Sent: Wednesday, June 21, 2023 10:56 AM

To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>

Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>

Subject: [EXTERNAL] Extension Request - Federal 29 Z 002H

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Mr. Hamlet,

TRC, on behalf of COP, would like to request a 90-day extension for the Federal 29 Z 002H remediation project (NAPP2221331648). We are scheduled to start the remedial excavation in early to mid-July, and the 90 days would allow us time following remediation to complete the report prior to the deadline. Please let us know if this is acceptable to you – thank you very much!

Jared Stoffel, P.G.

Project Manager



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Appendix G – Previously Submitted and Conditionally Approved Workplan; TRC



Former Drilling Pit Delineation and Reclamation Plan

ConocoPhillips
Federal 29 Z 002H
Eddy County, New Mexico
Unit Letter "L", Section 29, Township 20 South, Range 27 East
Latitude 32.5425° North, Longitude 104.3108° West
NMOCD Reference No. NAPP2221331648

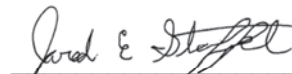
Prepared For:

ConocoPhillips
600 W Illinois Avenue
Midland, Texas 79701

Prepared By:

TRC Environmental Corporation
10 Desta Drive, Suite 130E
Midland, Texas 79705

October 25, 2024



Jared E. Stoffel, PG
Project Manager



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CHRONOLOGY AND DISCUSSIONS WITH THE NMOCD.....	2
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FIGURES

- Figure 1 – Topographic Map
- Figure 2 – Aerial Map
- Figure 3 – Karst Potential Map
- Figure 4 – Drilling Pit Assessment – Sample Location Map

APPENDICES

- Appendix A – Groundwater Database Results
- Appendix B – Previously Submitted and Conditionally Approved Workplan; Carmona Resources
- Appendix C - Previously Submitted and Conditionally Approved Workplan; TRC
- Appendix D – NMOCD Correspondence Log
- Appendix E – Soil Boring Logs



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INTRODUCTION & BACKGROUND INFORMATION

TRC Environmental Corporation (TRC), on behalf of ConocoPhillips, has prepared this *Revised Remediation Work Plan and Proposed Variance Request* for the Release Site known as the Federal 29 Z 002H (the Site). The legal description of the Site is Unit Letter “L”, Section 29, Township 20 South, Range 27 East, in Eddy County, New Mexico. The subject property is owned by the State of New Mexico and administered by New Mexico State Land Office (NMSLO). The GPS coordinates for the Site are N 32.5425°, W 104.3108°. A topographic map is provided as **Figure 1**.

On July 16, 2022, ConocoPhillips (COP) discovered a crude oil release had occurred at the Site. The Release was attributed to a packing blowout. On the discovery date, COP notified the New Mexico Oil Conservation Division (NMOCD) and New Mexico State Land Office (NMSLO) of the Release. The Release was assigned an NMOCD Reference number of NAPP2221331648. On August 01, 2022, the initial Release Notification and Corrective Action (Form C-141) was submitted to the NMOCD. The Form C-141 indicated 1.5 barrels (bbls) of crude oil was released and zero (0) bbls of crude oil was recovered. The crude oil was oversprayed primarily to the west with a minor component to the north and east. The Release affected an area measuring approximately 10,800 square feet (sq. ft.). The C-141 indicated the impacted area was located on and off the location pad. The Site location is depicted in **Figure 1**. **Figure 2** and **Figure 3** reflect the characterization parameters of the Site. The affected area is depicted in **Figure 4**.

Based on a review of the New Mexico Office of State Engineers and United States Geological Survey (USGS) databases, there is no known water source within a 0.50-mile radius of the location. The nearest identified well is located approximately 0.68 miles east of the site in S29, T20S, R27E and was drilled in 2023. The well has a reported depth to groundwater of 132 feet below ground surface (ft bgs). The screened interval is between 139 and 159 feet bgs. A copy of the associated Point of Diversion Summary report is attached in **Appendix A**.

Based on the inferred depth to groundwater at the Federal 29 Z 002H Release Site, the NMOCD *Closure Criteria for Soils Impacted by a Release* does not warrant the most stringent closure criteria listed based on depth to groundwater. However, the Federal 29 Z 002H is within 300 feet of a significant watercourse and/or wetland denoted as a riverine on **Figure 2**. Additionally, the Federal 29 Z 002H is located in the ‘high karst’ area as outlined in Bureau of Land Management (BLM) publicly available Karst Potential Map and is provided as **Figure 3**. Despite the depth to groundwater greater than 100 feet bgs, the NMOCD stance on the regulation of releases at Sites adjacent to flowing or significant watercourses, wetlands, and ‘high karst’ areas requires that COP utilize the most stringent NMOCD Closure Criteria for Soils Impacted by a Release for the Federal 29 Z 002H as follows:

- Benzene – 10 mg/kg
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) – 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) – 100 mg/kg
- Chloride – 600 mg/kg



CHRONOLOGY AND DISCUSSIONS WITH THE NMOCD

July 16, 2022 – The release occurs and is incorrectly reported to NMOCD due to volume (1.5 barrels of crude oil; no produced water).

December 15, 2022 – The Initial Remediation Workplan is submitted to the NMOCD by Carmona Resources. The workplan is provided as **Attachment B**.

March 17, 2023 – The initial Remediation Workplan is approved by the NMOCD.

June 21, 2023 – An extension request is submitted by TRC prior to remediation enactment. The extension request is approved by the NMOCD.

July 13, 2023 – TRC provides a notification to NMOCD that workplan enactment will begin the following week to comply with the required 48-hour confirmation sampling notice.

July 17, 2023 – TRC is onsite for preparation of site remediation and notes ubiquitous elevated chloride concentrations in the former drilling pit area. The area to be remediated appears to be contained within the former drilling pit footprint. TRC is unable to differentiate between elevated chloride concentrations related to the former drilling pit and those caused by the release. Remediation activities are not initiated pending discussion with the NMOCD.

July 25, 2023 – TRC provides a notification to NMOCD via email of comingled former drilling pit footprint and release area footprint. TRC also notes the release was of a non-reportable volume (1.5 bbl crude oil and no produced water) and no TPH or BTEX concentrations exceeded NMOCD standards. TRC requests a meeting with the NMOCD to discuss path forward.

August 2, 2023 – NMOCD, COP, and TRC virtually meet to discuss comingled areas. The NMOCD indicates a variance request will be considered to avoid excavating the entirety of the former drilling pit, but the C-141 cannot be retracted despite the non-reportable release volume as a workplan has already been generated and approved.

August 20, 2023 – A second Remediation Workplan And Variance Request is submitted to NMOCD by TRC. The proposed workplan is to excavate the footprint of the release to four (4) feet bgs. The requested variance is to omit confirmation soil samples to avoid chloride concentrations sourced from the former drilling pit driving excavation extents beyond the spill footprint and previously delineated depths. The second workplan is provided as **Appendix C**.

March 5, 2024 – The NMOCD approves Remediation Workplan conditionally but denies variance request to omit confirmation sampling. The denial of the variance



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request would result in the excavation of elevated chloride concentrations in the full former drilling pit footprint.

March 7, 2024 - TRC requests a smaller sampling variance in which confirmation soil samples would be collected but only run for TPH and BTEX. No response from the NMOCD.

April 8, 2024 – TRC re-submits the March 7, 2024 request for a smaller sampling variance. No response from the NMOCD.

April 25, 2024 – TRC requests a meeting to discuss the smaller sampling variance submitted on March 7 and April 8. The NMOCD proposes a virtual meeting on May 21, 2024 meeting based on their availability.

May 21, 2024 – The NMOCD, COP and TRC meet virtually to discuss the denial of the variance requests and potential alternative options to avoid excavating the full extent of the former drilling pit, which is unrelated to the surface release of hydrocarbons. The NMOCD indicates that no variance requests or alternative options will be approved for the site and all chlorides above 600 mg/kg will require removal regardless of source. COP indicates delineation will be required internally to begin an excavation of this scale outside the scope of remediation related to the small overspray release. NMOCD and COP agree that a workplan documenting the delineation of elevated chloride concentrations in the former drilling pit area was an acceptable path forward.

July 6, 2024 – TRC attempts delineation of former drilling pit chlorides with backhoe. Vertical delineation is not achieved in all locations to below 600 mg/kg. In response, TRC begins the NMOSE drilling permit process as required by the NMOSE in borings deeper than 30 feet bgs. Additionally, BLM concurrence for the borings is required.

October 4, 2024 – The NMOSE issues the executed drilling permits.

October 8, 2024 – TRC attempts delineation of former drilling pit chlorides with air rotary rig. Vertical delineation is not achieved in all locations to below 600 mg/kg.

October 22, 2024 – TRC requests an extension to further investigate former drilling pit chlorides as the 2 delineation events had not yet resulted in full vertical delineation in each sampled location. The NMOCD denies the extension request despite an explanation that COP continues to comply with the NMOCD requests. Email communications between the NMOCD and TRC/COP is documented as **Appendix D.**



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FORMER DRILLING PIT ASSESSMENT ACTIVITIES

Backhoe Delineation – Field Work

On July 6, 2024, TRC initiated a former drilling pit chloride delineation event utilizing a backhoe.

During the event, five (5) vertical trenches (Pit Trench NW, Pit Trench SW, Pit Trench Center, Pit Trench NE, and Pit Trench SE) were advanced within the former drilling pit footprint to the maximum extent of the backhoe. Soil samples were collected every two (2) feet. Each soil sample was analyzed for chloride concentrations, and surface samples were additionally analyzed for TPH and BTEX concentrations to confirm the surface soils were not affected by hydrocarbons from the release.

Additionally, four (4) lateral soil samples (Lateral-West, Lateral-East, Lateral-North, and Lateral-South) were collected from the 0-1' interval to confirm the lateral extent of the former drilling pit.

Soil sample locations are documented in **Figure 4**.

Backhoe Delineation – Results

One (1) surface soil sample, Pit Trench SW @ 0-1', exhibited a TPH concentration of 118 mg/kg, slightly above the NMOCD standard. The soil sample underlying this soil sample, Pit Trench SW @ 2', was also run for TPH and BTEX to confirm the hydrocarbon exceedances was vertically delineated. Pit Trench SW @ 2' did not exhibit TPH or BTEX concentrations above the laboratory detection limit (RL). Only one of the backhoe trenches, Pit Trench SW, exhibited vertical delineation below 600 mg/kg for chlorides in the deepest sample (12').

Each lateral soil sample exhibited TPH, BTEX, and chloride concentrations below the NMOCD regulatory standard. Lateral delineation of the former drilling pit was achieved to below 600 mg/kg.

Soil sample analytical results are summarized in **Table 1**.

Air Rotary Drilling Rig Delineation – Field Work

Following the July 6, 2024 backhoe delineation event, COP elected to re-attempt to vertically define the extent of elevated chloride concentrations in the former drilling pit utilizing a drilling rig. The potential depth of borings necessitated NMOSE permits, which took time to procure as discussed above.

On October 8, 2024, TRC initiated a former drilling pit chloride delineation event utilizing an air rotary rig. Immediately adjacent to the five (5) trenches within the former drilling pit footprint but outside the backfilled trenches themselves, five (5) soil borings (SB-NW, SB-SW, SB-Center, SB-NE, and SB-SE) were advanced to a total depth of thirty (30) feet bgs. Soil samples were collected from the surface, 1-3, 5', 10', 15', 20', 25', and 30' intervals utilizing a 'pig's foot' sampler. Soil samples were analyzed for chloride concentrations only.



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Additionally, two (2) background soil borings were advanced between 50 and 100 feet from the former drilling pit to confirm the Site is not affected by elevated background chloride concentrations. Sampled intervals in the background borings matched the vertical delineation borings.

Soil sample locations are documented in **Figure 4**. Field boring logs are provided as **Appendix E**. The general lithology at the site is silty sand which transitions to a sandy clay, underlain by a red clay rich soils starting between 15 and 20 feet bgs.

Air Rotary Drilling Rig Delineation – Results

Vertical delineation was confirmed in SB-SW in soil samples from 15' to 30' bgs, which corroborated the data collected from the adjacent trench Pit Trench SW during the backhoe delineation event. Additionally, vertical delineation to below 600 mg/kg was achieved at SB-NW in the 30-foot soil sample. However, vertical delineation was not achieved in SB-Center, SB-SE, and SB-NE with bottomhole chloride concentrations of 678 mg/kg, 2,580 mg/kg, and 1,480 mg/kg, respectively.

No background soil samples exhibited chloride concentrations above 600 mg/kg, indicating elevated chloride concentrations are unlikely to be a naturally occurring phenomenon at the site.

PROPOSED RECLAMATION OF THE FORMER DRILLING PIT

The depths of the chloride concentrations above 600 mg/kg and lateral delineation of concentrations to below 600 mg/kg outside the former drilling pit margins further indicates that the chlorides are sourced from the former drilling pit and are not related to the 1.5 barrel hydrocarbon overspray release on July 22, 2022. While COP understands the site is in a sensitive area, the small volume, material released, and lack of hydrocarbon impacts indicate the release is not a risk to the sensitive area. Based on the approximate former drilling pit footprint and chloride concentrations above 600 mg/kg to over 30 feet in multiple borings, excavation of the full pit would require removal of approximately 49,000 ex situ cubic yards. Excavations of such depth are intrinsically less safe and impractical.

COP proposes to excavate the footprint of the former drilling pit to four (4) feet bgs and will reclaim the pit to the NMOCD reclamation standard. The excavation would also remove the single TPH exceedance at the surface from Pit Trench SW, which potentially is related to the overspray release. COP proposes collection of a floor sample to document the elevated chloride concentrations at the base of the excavation and proposes installation of a geosynthetic liner to limit rainwater infiltration. COP proposes collection of sidewall samples on a 200 square foot basis (50 linear feet) as outlined in NMAC 19.15.29. The estimated volume of soil removed will be approximately 5,500 cubic yards, which will be transported to an NMOCD approved disposal facility. The Site will then be backfilled with locally sourced 'like' material to near original grade and reseeded in accordance with BLM requirements.

COP is prepared to begin the activities outlined in this *Former Drilling Pit Delineation and Reclamation Plan* following NMOCD and BLM approval. On completion of reclamation activities, a Reclamation Summary and Closure Report will be prepared detailing field activities.

If you have any questions, or need any additional information, please feel free to contact myself or Ike Tavarez by phone or email.



LIMITATION

TRC has prepared this Former Drilling Pit Delineation and Reclamation Plan to the best of its ability. No other warranty, expressed or implied, is made or intended.

TRC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. TRC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. TRC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. TRC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of ConocoPhillips. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of TRC and/or ConocoPhillips.

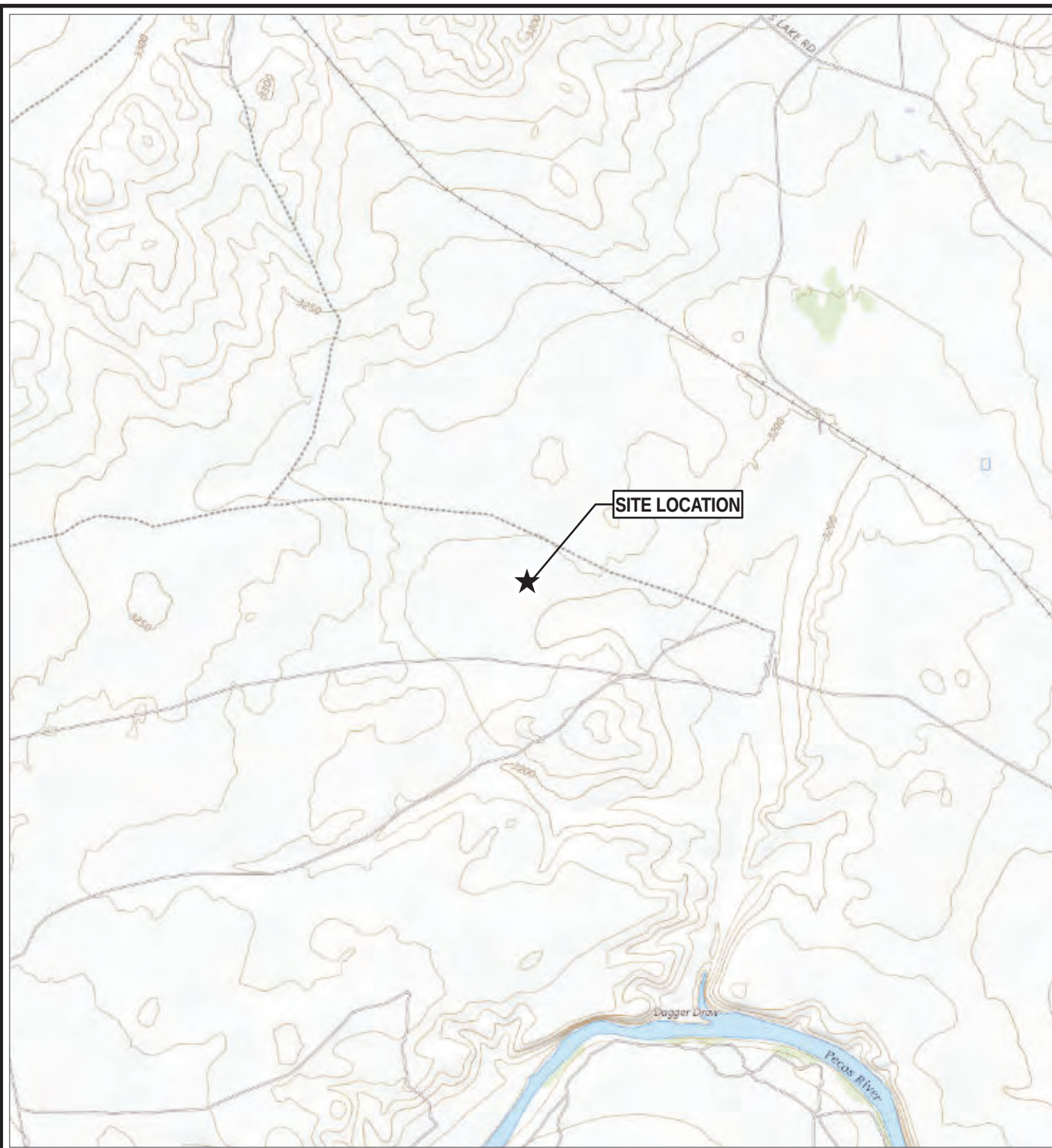


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Oil Conservation Division, District 2
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Artesia, NM 88210
- Copy 2: Jim Amos
Bureau of Land Management (BLM)
620 E Greene Street
Carlsbad, NM 88220
- Copy 3: Ike Tavaréz
ConocoPhillips
600 W. Illinois Avenue
Midland, Texas 79701
- Copy4: TRC Environmental Corporation
10 Desta Dr STE 410E
Midland, TX 79705



COORDINATE SYSTEM: NAD 1983 STATEPLANE NEW MEXICO EAST FIPS 3001 FEET; MAP ROTATION: 0
— SAVED BY: S RAY ON 8/16/2023, 14:58:35 PM; FILE PATH: T:\CONOCOPHILLIPS\544675_FEDERAL\2022-APR\FEDERAL 29 Z 002H.APRX; LAYOUT NAME: FIG 1 - GVM

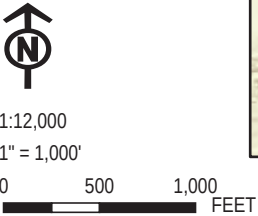
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	TITLE: TOPOGRAPHIC MAP	
	DRAWN BY: S. RAY	PROJ. NO.: 544675.0000.0000
	CHECKED BY: M. BRYANT	FIGURE 1
APPROVED BY: M. BRYANT		
	DATE: AUGUST 2023	
	 1180 NW MAPLE STREET, SUITE 310 ISSAQUAH, WA 98027 PHONE: 425.395.0010	
BASE MAP: USGS COLOR ORTHO IMAGERY DATA SOURCES: TRC		FILE: FEDERAL 29 Z 002H

Coordinate System: NAD 1983 StatePlane New Mexico East FIPS 3001 Feet, Map Rotation: 0
-- Saved By: SRAY on 8/16/2023, 4:58:35 PM, File Path: T:\ConocoPhillips\544675_Federal\29 Z 002H.aprx, Layout Name: Fig 2 -Aerial Map

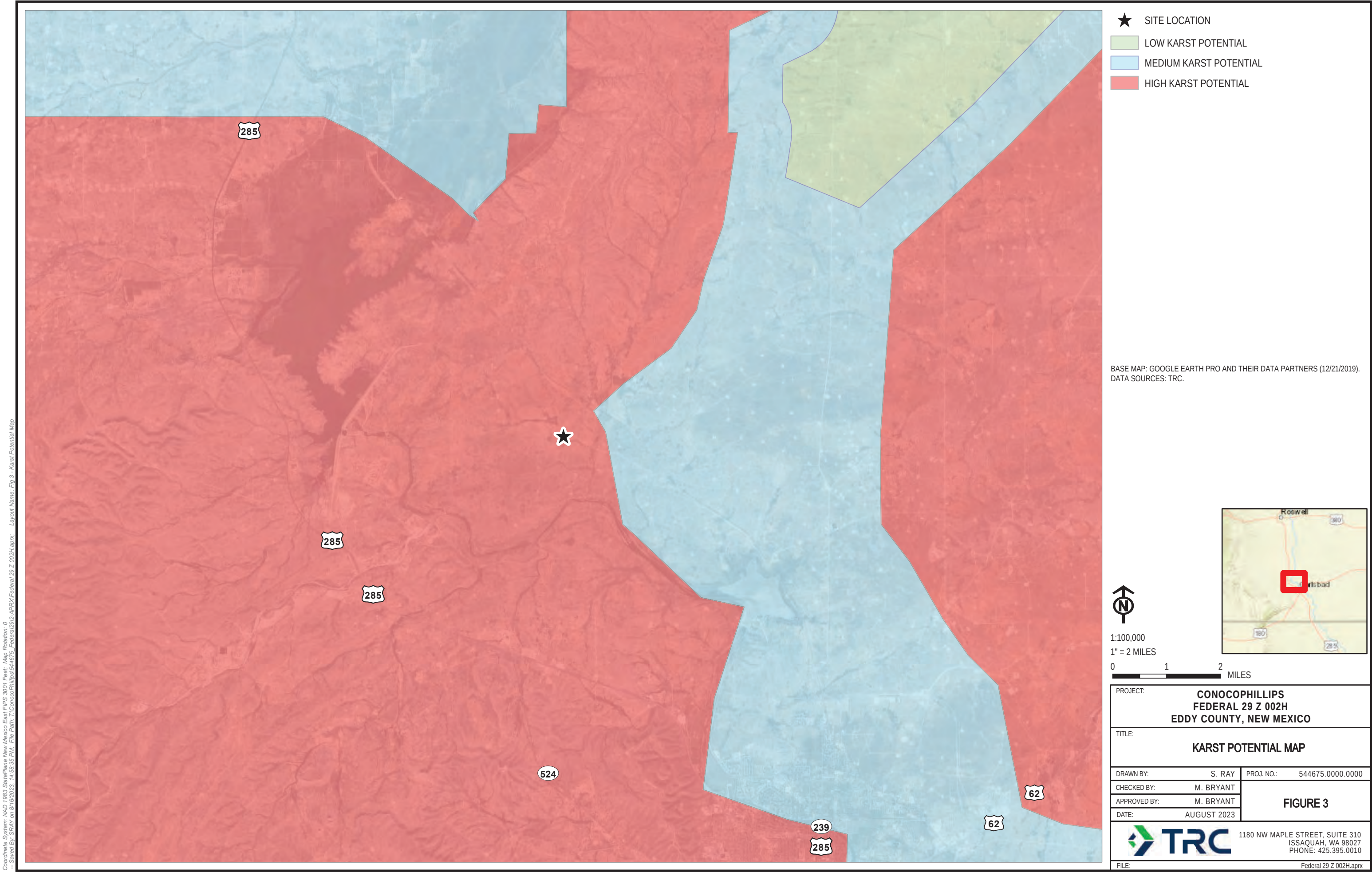


- HALF-MILE RADIUS
- SITE LOCATION
- AREA INSIDE OF 100-YEAR FLOODPLAIN
- RIVERINE

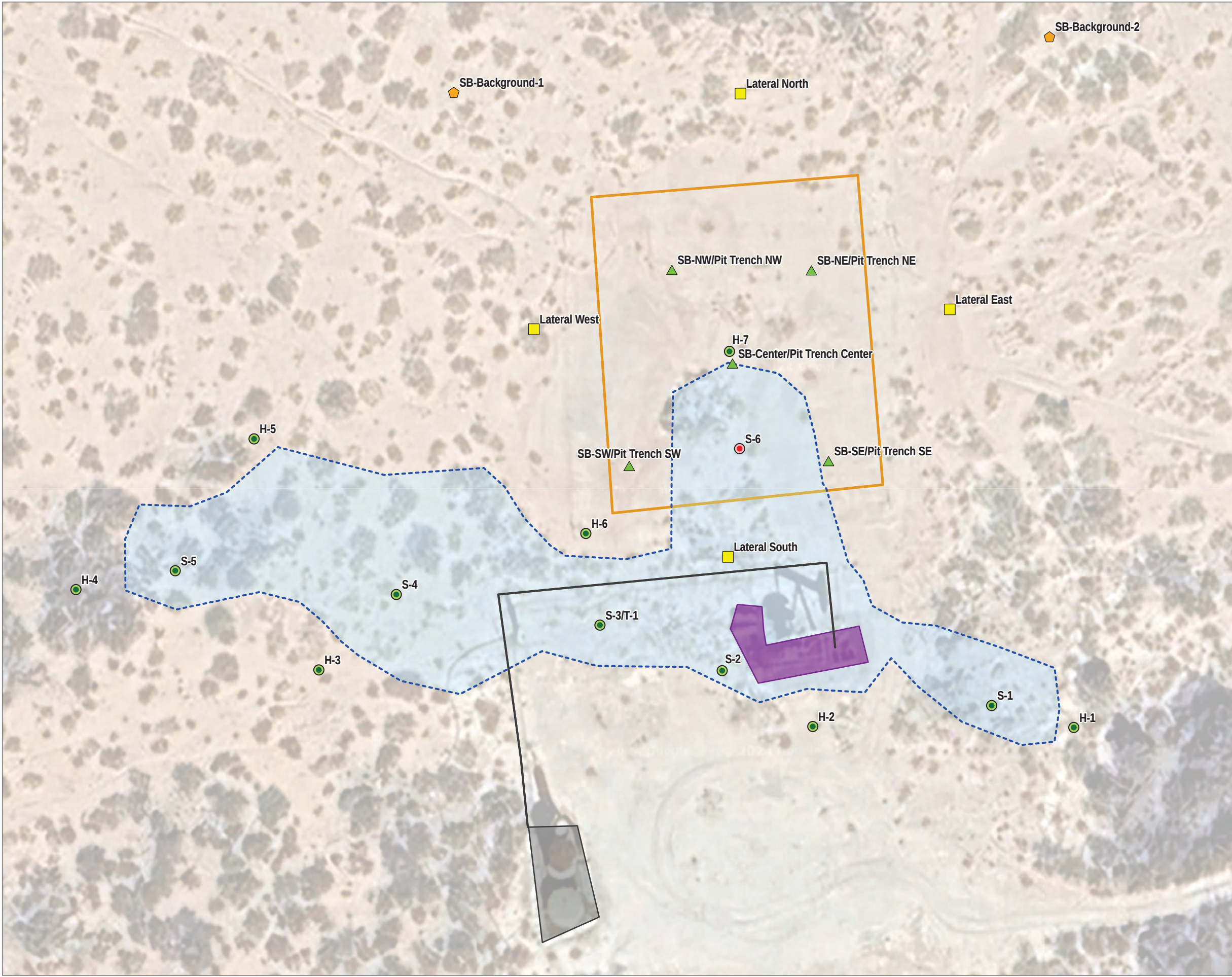
BASE MAP: GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).
DATA SOURCES: TRC, FEMA, NWI.



PROJECT:		CONOCOPHILLIPS FEDERAL 29 Z 002H EDDY COUNTY, NEW MEXICO	
TITLE:		AERIAL MAP	
DRAWN BY:	S. RAY	PROJ. NO.:	544675.0000.0000
CHECKED BY:	M. BRYANT	FIGURE 2	
APPROVED BY:	M. BRYANT		
DATE:	AUGUST 2023		
		1180 NW MAPLE STREET, SUITE 310 ISSAQUAH, WA 98027 PHONE: 425.395.0010	
FILE:		Federal 29 Z 002H.aprx	



Coordinate System: NAD 1983 StatePlane New Mexico East FIPS 3001 Feet, Map Rotation: 0
-- Saved By: BTRACY on 10/23/2024, 16:41:24 PM, File Path: T:\1-PROJECTS\ConocoPhillips\544675_Federal29Z002H.aprx, Layout Name: Fig 5 - Drilling Pit Assessment Map



- PREVIOUS DELINEATION SAMPLE LOCATION BELOW NMOC STANDARDS
- PREVIOUS DELINEATION SAMPLE LOCATION EXCEEDING NMOC STANDARDS
- BACKGROUND SAMPLE LOCATION
- HORIZONTAL PIT DELINEATION SAMPLE LOCATION
- VERTICAL PIT DELINEATION SAMPLE LOCATION
- SURFACE STEEL LINE
- TANK BATTERY
- WELLHEAD AND ASSOCIATED INFRASTRUCTURE
- APPROXIMATE PIT LOCATION
- RELEASE AREA (OVERSPRAY FOOTPRINT)

BASE MAP: GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).
DATA SOURCES: TRC.

NOTES
SAMPLE LOCATIONS AND ANALYTICAL DATA FROM CARMONA RESOURCES
WORKPLAN



PROJECT:		CONOCOPHILLIPS FEDERAL 29 Z 002H EDDY COUNTY, NEW MEXICO	
TITLE:		DRILLING PIT ASSESSMENT - SAMPLE LOCATION MAP	
DRAWN BY:	A. CLINE	PROJ. NO.:	544675.0000.0000
CHECKED BY:	B. TRACY	FIGURE 4	
APPROVED BY:	M. BRYANT		
DATE:	OCTOBER 2024		
			
FILE:		Federal 29 Z 002H.aprx	

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Guidelines		10				50				100	600
Lateral Delineation											
Lateral-East @ 0-1'	6/6/2024	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	63.0
Lateral-North @ 0-1'	6/6/2024	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	72.6
Lateral-South @ 0-1'	6/6/2024	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	108
Lateral-West @ 0-1'	6/6/2024	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	67.6
Vertical Delineation											
Pit Trench Center @ 0-1'	6/6/2024	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	1,340
Pit Trench Center @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	1,520
Pit Trench Center @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	848
Pit Trench Center @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	1,020
Pit Trench Center @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	2,450
Pit Trench Center @ 10	6/6/2024	-	-	-	-	-	-	-	-	-	3,590
Pit Trench Center @ 12	6/6/2024	-	-	-	-	-	-	-	-	-	2,970
SB-Center @ Surface	10/8/2024	-	-	-	-	-	-	-	-	-	847
SB-Center @ 1-3'	10/8/2024	-	-	-	-	-	-	-	-	-	1,110
SB-Center @ 5'	10/8/2024	-	-	-	-	-	-	-	-	-	466
SB-Center @ 10'	10/8/2024	-	-	-	-	-	-	-	-	-	1,570
SB-Center @ 15'	10/8/2024	-	-	-	-	-	-	-	-	-	1,040
SB-Center @ 20'	10/8/2024	-	-	-	-	-	-	-	-	-	883
SB-Center @ 25'	10/8/2024	-	-	-	-	-	-	-	-	-	997
SB-Center @ 30'	10/8/2024	-	-	-	-	-	-	-	-	-	678

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Guidelines		10				50				100	600
Pit Trench NE @ 0-1'	6/6/2024	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.9	<49.9	<49.9	<49.9	7,870
Pit Trench NE @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	2,440
Pit Trench NE @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	2,600
Pit Trench NE @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	2,580
Pit Trench NE @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	2,910
Pit Trench NE @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	3,930
Pit Trench NE @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	1,200
SB-NE @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	7,440
SB-NE @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	1,580
SB-NE @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	1,620
SB-NE @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	1,280
SB-NE @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	965
SB-NE @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	538
SB-NE @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	1,160
SB-NE @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	1,480

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Guidelines		10				50				100	600
Pit Trench NW @ 0-1'	6/6/2024	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	10,300
Pit Trench NW @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	4,570
Pit Trench NW @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	4,110
Pit Trench NW @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	5,530
Pit Trench NW @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	4,740
Pit Trench NW @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	7,850
Pit Trench NW @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	4,080
SB-NW @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	1,870
SB-NW @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	3,700
SB-NW @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	2,000
SB-NW @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	4,000
SB-NW @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	5,060
SB-NW @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	1,360
SB-NW @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	1,540
SB-NW @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	571

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Guidelines		10				50				100	600
Pit Trench SE @ 0-1'	6/6/2024	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<49.9	<49.9	<49.9	<49.9	1,730
Pit Trench SE @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	2,140
Pit Trench SE @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	5,980
Pit Trench SE @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	10,100
Pit Trench SE @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	1,250
Pit Trench SE @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	1,210
Pit Trench SE @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	2,140
Pit Trench SE @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	2,580
SB-SE @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	7,230
SB-SE @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	1,950
SB-SE @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	1,760
SB-SE @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	1,820
SB-SE @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	1,540
SB-SE @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	796
SB-SE @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	613
SB-SE @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	1,480

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Guidelines		10				50				100	600
Pit Trench SW @ 0-1'	6/6/2024	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	118	<50.0	118	3,650
Pit Trench SW @ 2'	6/6/2024	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	2,550
Pit Trench SW @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	2,170
Pit Trench SW @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	1,660
Pit Trench SW @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	1,150
Pit Trench SW @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	1,230
Pit Trench SW @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	437
SB-SW @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	7,170
SB-SW @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	2,440
SB-SW @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	2,240
SB-SW @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	1,020
SB-SW @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	215
SB-SW @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	79.2
SB-SW @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	78.3
SB-SW @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	128

TABLE 1 COP, Federal 29 Z Summary of Delineation Sampling Analytical Results											
SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Guidelines		10				50				100	600
Background Borings											
Background-1 @ Surface	10/10/2024	-	-	-	-	-	-	-	-	-	<10.0
Background-1 @ 1-3'	10/10/2024	-	-	-	-	-	-	-	-	-	31.3
Background-1 @ 5'	10/10/2024	-	-	-	-	-	-	-	-	-	25.4
Background-1 @ 10'	10/10/2024	-	-	-	-	-	-	-	-	-	<9.90
Background-1 @ 15'	10/10/2024	-	-	-	-	-	-	-	-	-	<10.0
Background-1 @ 20'	10/10/2024	-	-	-	-	-	-	-	-	-	46.2
Background-1 @ 25'	10/10/2024	-	-	-	-	-	-	-	-	-	164
Background-1 @ 30'	10/10/2024	-	-	-	-	-	-	-	-	-	141
Background-2 @ Surface	10/8/2024	-	-	-	-	-	-	-	-	-	334
Background-2 @ 1-3'	10/8/2024	-	-	-	-	-	-	-	-	-	241
Background-2 @ 5'	10/8/2024	-	-	-	-	-	-	-	-	-	271
Background-2 @ 10'	10/8/2024	-	-	-	-	-	-	-	-	-	172
Background-2 @ 15'	10/8/2024	-	-	-	-	-	-	-	-	-	50.7
Background-2 @ 20'	10/8/2024	-	-	-	-	-	-	-	-	-	13.4
Background-2 @ 25'	10/8/2024	-	-	-	-	-	-	-	-	-	14.1
Background-2 @ 30'	10/8/2024	-	-	-	-	-	-	-	-	-	7.48

Exceeds NMOCD Standard



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Appendix H – Previously Submitted and Denied Workplan; TRC



Revised Former Drilling Pit Delineation and Reclamation Plan

ConocoPhillips
Federal 29 Z 002H
Eddy County, New Mexico
Unit Letter "L", Section 29, Township 20 South, Range 27 East
Latitude 32.5425° North, Longitude 104.3108° West
NMOCD Reference No. NAPP2221331648

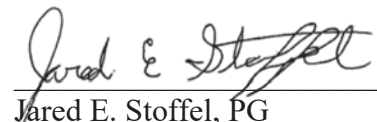
Prepared For:

ConocoPhillips
600 W Illinois Avenue
Midland, Texas 79701

Prepared By:

TRC Environmental Corporation
10 Desta Drive, Suite 130E
Midland, Texas 79705

April 2025



Jared E. Stoffel, PG
Senior Project Manager



TABLE OF CONTENTS

INTRODUCTION & BACKGROUND INFORMATION.....	1
CHRONOLOGY AND DISCUSSIONS WITH THE NMOCD.....	2
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FIGURES

- Figure 1 – Topographic Map
- Figure 2 – Aerial Map
- Figure 3 – Karst Potential Map
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APPENDICES

- Appendix A – Groundwater Database Results
- Appendix B – Negative Karst Determination Report (Southwest Geophysical Consulting, LLC)
- Appendix C – Previously Submitted and Conditionally Approved Workplan; Carmona Resources
- Appendix D - Previously Submitted and Conditionally Approved Workplan; TRC
- Appendix E – NMOCD Correspondence Log
- Appendix F – Previously Submitted and Conditionally Approved Workplan; TRC
- Appendix G – Soil Boring Logs



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INTRODUCTION & BACKGROUND INFORMATION

TRC Environmental Corporation (TRC), on behalf of ConocoPhillips, has prepared this *Revised Former Drilling Pit Delineation and Reclamation Plan* for the Release Site known as the Federal 29 Z 002H (the Site). The legal description of the Site is Unit Letter “L”, Section 29, Township 20 South, Range 27 East, in Eddy County, New Mexico. The subject property is owned by the State of New Mexico and administered by New Mexico State Land Office (NMSLO). The GPS coordinates for the Site are N 32.5425°, W 104.3108°. A topographic map is provided as **Figure 1**.

On July 16, 2022, ConocoPhillips (COP) discovered a crude oil release had occurred at the Site. The Release was attributed to a packing blowout. On the discovery date, COP notified the New Mexico Oil Conservation Division (NMOCD) and New Mexico State Land Office (NMSLO) of the Release. The Release was assigned an NMOCD Reference number of NAPP2221331648. On August 01, 2022, the initial Release Notification and Corrective Action (Form C-141) was submitted to the NMOCD. The Form C-141 indicated 1.5 barrels (bbls) of crude oil was released and zero (0) bbls of crude oil was recovered. The crude oil was oversprayed primarily to the west with a minor component to the north and east. The Release affected an area measuring approximately 10,800 square feet (sq. ft.). The C-141 indicated the impacted area was located on and off the location pad. The Site location is depicted in **Figure 1**. **Figure 2** and **Figure 3** reflect the characterization parameters of the Site. The affected area is depicted in **Figure 4**.

Based on a review of the New Mexico Office of State Engineers and United States Geological Survey (USGS) databases, there is no known water source within a 0.50-mile radius of the location. The nearest identified well is located approximately 0.68 miles east of the site in S29, T20S, R27E and was drilled in 2023. The well has a reported depth to groundwater of 132 feet below ground surface (ft bgs). The screened interval is between 139 and 159 feet bgs. A copy of the associated Point of Diversion Summary report is attached in **Appendix A**. Additionally, multiple soil borings onsite have been advanced to approximately 80 feet bgs, confirming depth to water is greater than fifty (50) feet bgs.

Based on the inferred depth to groundwater at the Federal 29 Z 002H Release Site, the NMOCD *Closure Criteria for Soils Impacted by a Release* does not warrant the most stringent closure criteria listed based on depth to groundwater. The Federal 29 Z 002H is within 300 feet of a significant watercourse and/or wetland denoted as a riverine on **Figure 2**. Of note, the riverine has been dry during each of the site visits. Additionally, the Federal 29 Z 002H is located in the ‘high karst’ area as outlined in Bureau of Land Management (BLM) publicly available Karst Potential Map and is provided as **Figure 3**. In an effort to determine if karst features exist at the Site that may require more stringent guidelines than inferred groundwater requires (greater than 100 feet bgs based on nearest well in NMOSE database; greater than 50 feet based on onsite drill borings), a karst survey was requested to be conducted by a BLM approved karst surveying firm. Southwest Geophysical Consulting, LLC has indicated that no karst features are within 200 feet of the spill delineation boundary, the site is on stable ground, the strata underlying the site are flat lying and subsurface air or water filled voids were not observed. The karst findings report is provided as **Appendix B**. Based on depth to groundwater, lack of water in the nearby water feature, and lack of karst features (and associated stable ground underlying the site), the remediation standard for the site are as follows:



- Benzene – 10 mg/kg
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) – 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) – 2,500 mg/kg
- TPH Gasoline Range Organics (GRO) + Diesel Range Organics (DRO) – 1,000 mg/kg
- Chloride – 10,000 mg/kg

The upper four (4) feet of soil is subject to the more stringent reclamation standards as follows:

- Benzene – 10 mg/kg
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) – 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) – 100 mg/kg
- Chloride – 600 mg/kg

CHRONOLOGY AND DISCUSSIONS WITH THE NMOCD

July 16, 2022 – The release occurs and is incorrectly reported to NMOCD due to volume (1.5 barrels of crude oil; no produced water).

December 15, 2022 – The Initial Remediation Workplan is submitted to the NMOCD by Carmona Resources. The workplan is provided as **Attachment C**.

March 17, 2023 – The initial Remediation Workplan is approved by the NMOCD.

June 21, 2023 – An extension request is submitted by TRC prior to remediation enactment. The extension request is approved by the NMOCD.

July 13, 2023 – TRC provides a notification to NMOCD that workplan enactment will begin the following week to comply with the required 48-hour confirmation sampling notice.

July 17, 2023 – TRC is onsite for preparation of site remediation and notes ubiquitous elevated chloride concentrations in the former drilling pit area. The area to be remediated appears to be contained within the former drilling pit footprint. TRC is unable to differentiate between elevated chloride concentrations related to the former drilling pit and those caused by the release. Remediation activities are not initiated pending discussion with the NMOCD.

July 25, 2023 – TRC provides a notification to NMOCD via email of comingled former drilling pit footprint and release area footprint. TRC also notes the release was of a non-reportable volume (1.5 bbl crude oil and no produced water) and no TPH or BTEX concentrations exceeded NMOCD standards. TRC requests a meeting with the NMOCD to discuss path forward.

August 2, 2023 – NMOCD, COP, and TRC virtually meet to discuss comingled areas. The NMOCD indicates a variance request will be considered to avoid excavating the entirety of the former drilling pit, but the C-141 cannot be retracted despite



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the non-reportable release volume as a workplan has already been generated and approved.

August 20, 2023 – A second Remediation Workplan And Variance Request is submitted to NMOCD by TRC. The proposed workplan is to excavate the footprint of the release to four (4) feet bgs. The requested variance is to omit confirmation soil samples to avoid chloride concentrations sourced from the former drilling pit driving excavation extents beyond the spill footprint and previously delineated depths. The second workplan is provided as **Appendix D**.

March 5, 2024 – The NMOCD approves Remediation Workplan conditionally but denies variance request to omit confirmation sampling. The denial of the variance request would result in the excavation of elevated chloride concentrations in the full former drilling pit footprint.

March 7, 2024 - TRC requests a smaller sampling variance in which confirmation soil samples would be collected but only run for TPH and BTEX. No response from the NMOCD.

April 8, 2024 – TRC re-submits the March 7, 2024 request for a smaller sampling variance. No response from the NMOCD.

April 25, 2024 – TRC requests a meeting to discuss the smaller sampling variance submitted on March 7 and April 8. The NMOCD proposes a virtual meeting on May 21, 2024 meeting based on their availability.

May 21, 2024 – The NMOCD, COP and TRC meet virtually to discuss the denial of the variance requests and potential alternative options to avoid excavating the full extent of the former drilling pit, which is unrelated to the surface release of hydrocarbons. The NMOCD indicates that no variance requests or alternative options will be approved for the site and all chlorides above 600 mg/kg will require removal regardless of source. COP indicates delineation will be required internally to begin an excavation of this scale outside the scope of remediation related to the small overspray release. NMOCD and COP agree that a workplan documenting the delineation of elevated chloride concentrations in the former drilling pit area was an acceptable path forward.

July 6, 2024 – TRC attempts delineation of former drilling pit chlorides with backhoe. Vertical delineation is not achieved in all locations to below 600 mg/kg. In response, TRC begins the NMOSE drilling permit process as required by the NMOSE in borings deeper than 30 feet bgs. Additionally, BLM concurrence for the borings is required.

October 4, 2024 – The NMOSE issues the executed drilling permits.

October 8, 2024 – TRC attempts delineation of former drilling pit chlorides with air rotary rig. Vertical delineation is not achieved in all locations to below 600 mg/kg.



October 22, 2024 – TRC requests an extension to further investigate former drilling pit chlorides as the 2 delineation events had not yet resulted in full vertical delineation in each sampled location. The NMOCD denies the extension request despite an explanation that COP continues to comply with the NMOCD requests. Email communications between the NMOCD and TRC/COP is documented as **Appendix E**.

October 25, 2024 – A Former Drilling Pit Delineation and Reclamation Plan is submitted to the NMOCD by TRC. The plan documents the chloride delineation to below the most stringent standards and proposes reclamation of the upper four (4) feet for vegetative regrowth. The third workplan is provided as **Appendix F**.

November 6, 2025 – TRC attempts delineation of former drilling pit chlorides with air rotary rig at the three locations that previously were not defined. Vertical delineation is achieved in all locations to below 600 mg/kg.

January 27, 2025 – The Former Drilling Pit Delineation and Reclamation plan is conditionally approved without approval of any variances, effectively denying the October 25, 2024 proposed work.

FORMER DRILLING PIT ASSESSMENT ACTIVITIES

Backhoe Delineation – Field Work

On July 6, 2024, TRC initiated a former drilling pit chloride delineation event utilizing a backhoe.

During the event, five (5) vertical trenches (Pit Trench NW, Pit Trench SW, Pit Trench Center, Pit Trench NE, and Pit Trench SE) were advanced within the former drilling pit footprint to the maximum extent of the backhoe. Soil samples were collected every two (2) feet. Each soil sample was analyzed for chloride concentrations, and surface samples were additionally analyzed for TPH and BTEX concentrations to confirm the surface soils were not affected by hydrocarbons from the release.

Additionally, four (4) lateral soil samples (Lateral-West, Lateral-East, Lateral-North, and Lateral-South) were collected from the 0-1' interval to confirm the lateral extent of the former drilling pit.

Soil sample locations are documented in **Figure 4**.

Backhoe Delineation – Results

One (1) surface soil sample, Pit Trench SW @ 0-1', exhibited a TPH concentration of 118 mg/kg, slightly above the NMOCD standard. The soil sample underlying this soil sample, Pit Trench SW @ 2', was also run for TPH and BTEX to confirm the hydrocarbon exceedances was vertically delineated. Pit Trench SW @ 2' did not exhibit TPH or BTEX concentrations above the laboratory detection limit (RL). Only one of the backhoe trenches, Pit Trench SW, exhibited vertical delineation below 600 mg/kg for chlorides in the deepest sample (12').



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Each lateral soil sample exhibited TPH, BTEX, and chloride concentrations below the NMOCD regulatory standard. Lateral delineation of the former drilling pit was achieved to below 600 mg/kg.

Soil sample analytical results are summarized in **Table 1**.

Air Rotary Drilling Rig Delineation – Field Work

Following the July 6, 2024 backhoe delineation event, COP elected to re-attempt to vertically define the extent of elevated chloride concentrations in the former drilling pit utilizing a drilling rig. The potential depth of borings necessitated NMOSE permits, which took time to procure as discussed above.

On October 8, 2024, TRC initiated a former drilling pit chloride delineation event utilizing an air rotary rig. Immediately adjacent to the five (5) trenches within the former drilling pit footprint but outside the backfilled trenches themselves, five (5) soil borings (SB-NW, SB-SW, SB-Center, SB-NE, and SB-SE) were advanced to a total depth of thirty (30) feet bgs. Soil samples were collected from the surface, 1-3, 5', 10', 15', 20', 25', and 30' intervals utilizing a 'pig's foot' sampler. Soil samples were analyzed for chloride concentrations only.

Additionally, two (2) background soil borings were advanced between 50 and 100 feet from the former drilling pit to confirm the Site is not affected by elevated background chloride concentrations. Sampled intervals in the background borings matched the vertical delineation borings.

On November 6, 2024, TRC remobilized to advance the soil borings that did not achieve vertical delineation of chloride concentrations to below 600 mg/kg. Each soil boring (SB-Center, SB-SE, and SB-NE) was advanced immediately adjacent to the respective previous boring location.

Soil sample locations are documented in **Figure 4**. Field boring logs are provided as **Appendix G**. The general lithology at the site is silty sand which transitions to a sandy clay, underlain by a red clay rich soils starting between 15 and 20 feet bgs.

Air Rotary Drilling Rig Delineation – Results

Vertical delineation was confirmed in SB-SW in soil samples from 15' to 30' bgs, which corroborated the data collected from the adjacent trench Pit Trench SW during the backhoe delineation event. Additionally, vertical delineation to below 600 mg/kg was achieved at SB-NW in the 30-foot soil sample. Vertical delineation was achieved in SB-Center, SB-SE, and SB-NE at 35 feet, 60 feet, and 60 feet, respectively, during the remobilization event.

No background soil samples exhibited chloride concentrations above 600 mg/kg, indicating elevated chloride concentrations are unlikely to be a naturally occurring phenomenon at the site.



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PROPOSED RECLAMATION OF THE FORMER DRILLING PIT AND REQUESTED SAMPLING VARIANCE

Groundwater onsite has been shown to be deeper than 80 feet bgs based on onsite borings. A BLM karst surveyor has determined that the site does not exhibit karst features and is on stable ground. The adjacent riverine has not been observed to have water in it at any visit. Based on the depth to groundwater, lack of karst features, and lack of water in the adjacent riverine COP asserts the remediation standard for the site are not the most stringent. However, each soil boring location has been delineated to below the most stringent regulatory guidelines. Each submitted soil sample exhibited concentrations of BTEX constituents, TPH, and chlorides below the remediation standards of the Site. The upper four feet of the former pit area did exceed reclamation standards.

COP proposes to excavate the footprint of the former drilling pit to four (4) feet bgs and will reclaim the pit to the NMOCD reclamation standard. The excavation would also remove the single TPH exceedance at the surface from Pit Trench SW, which potentially is related to the overspray release. COP will collect confirmation soil samples from the base of the excavation to confirm the soils above remediation standards have been removed. COP will collect confirmation soil samples from the sidewalls of the excavation to confirm the soils above reclamation standards in the upper four feet of soil column have been removed. COP proposes collection of floor and sidewall samples on a 400 square foot basis as a variance from the 200 square feet outlined in NMAC 19.15.29. The estimated volume of soil removed will be approximately 5,500 cubic yards, which will be transported to an NMOCD approved disposal facility. The Site will then be backfilled with locally sourced 'like' material to near original grade and reseeded in accordance with BLM requirements.

COP is prepared to begin the activities outlined in this **Revised Former Drilling Pit Delineation and Reclamation Plan** following NMOCD and BLM approval. On completion of reclamation activities, a Reclamation Summary and Closure Report will be prepared detailing field activities.

If you have any questions, or need any additional information, please feel free to contact myself or Ike Tavaréz by phone or email.

LIMITATION

TRC has prepared this Former Drilling Pit Delineation and Reclamation Plan to the best of its ability. No other warranty, expressed or implied, is made or intended.

TRC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. TRC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. TRC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. TRC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.



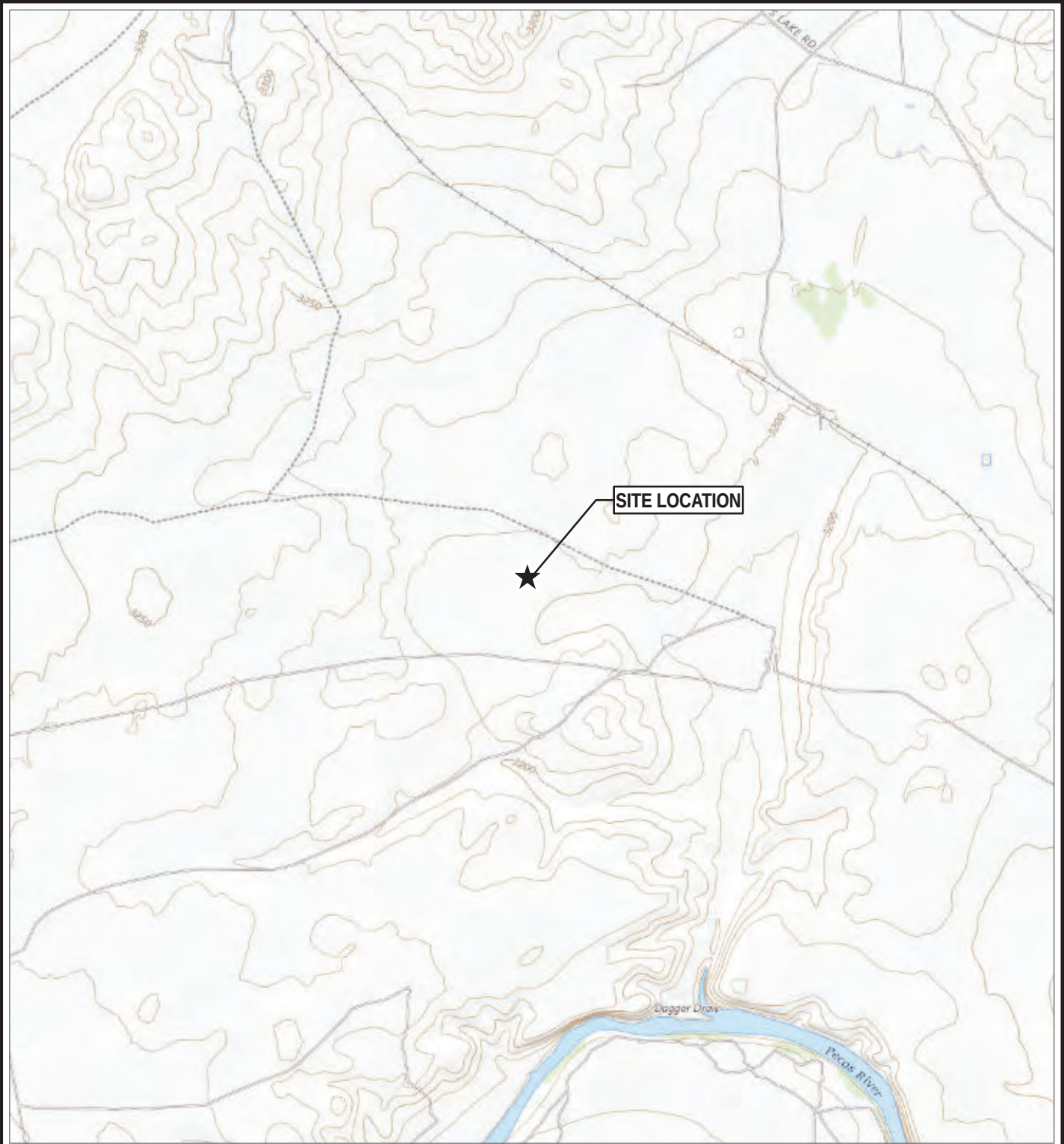
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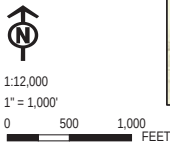
COORDINATE SYSTEM: NAD 1983 STATEPLANE NEW MEXICO EAST FIPS 3001 FEET; MAP ROTATION: 0
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	PROJECT: CONOCOPHILLIPS FEDERAL 29 Z 002H EDDY COUNTY, NEW MEXICO	
	TITLE: TOPOGRAPHIC MAP	
	DRAWN BY: S. RAY	PROJ. NO.: 544675.0000.0000
	FIGURE 1	
	CHECKED BY: M. BRYANT	1180 NW MAPLE STREET, SUITE 310 ISSAQUAH, WA 98027 PHONE: 425.395.0010
	APPROVED BY: M. BRYANT	
	DATE: AUGUST 2023	
BASE MAP: USGS COLOR ORTHO IMAGERY DATA SOURCES: TRC		FILE: FEDERAL 29 Z 002H



- HALF-MILE RADIUS
- ★ SITE LOCATION
- ▨ AREA INSIDE OF 100-YEAR FLOODPLAIN
- RIVERINE

BASE MAP: GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).
DATA SOURCES: TRC, FEMA, NWI.



PROJECT:		CONOCOPHILLIPS FEDERAL 29 Z 002H EDDY COUNTY, NEW MEXICO	
TITLE:		AERIAL MAP	
DRAWN BY:	S. RAY	PROJ. NO.:	544675.0000.0000
CHECKED BY:	M. BRYANT	FIGURE 2	
APPROVED BY:	M. BRYANT		
DATE:	AUGUST 2023		

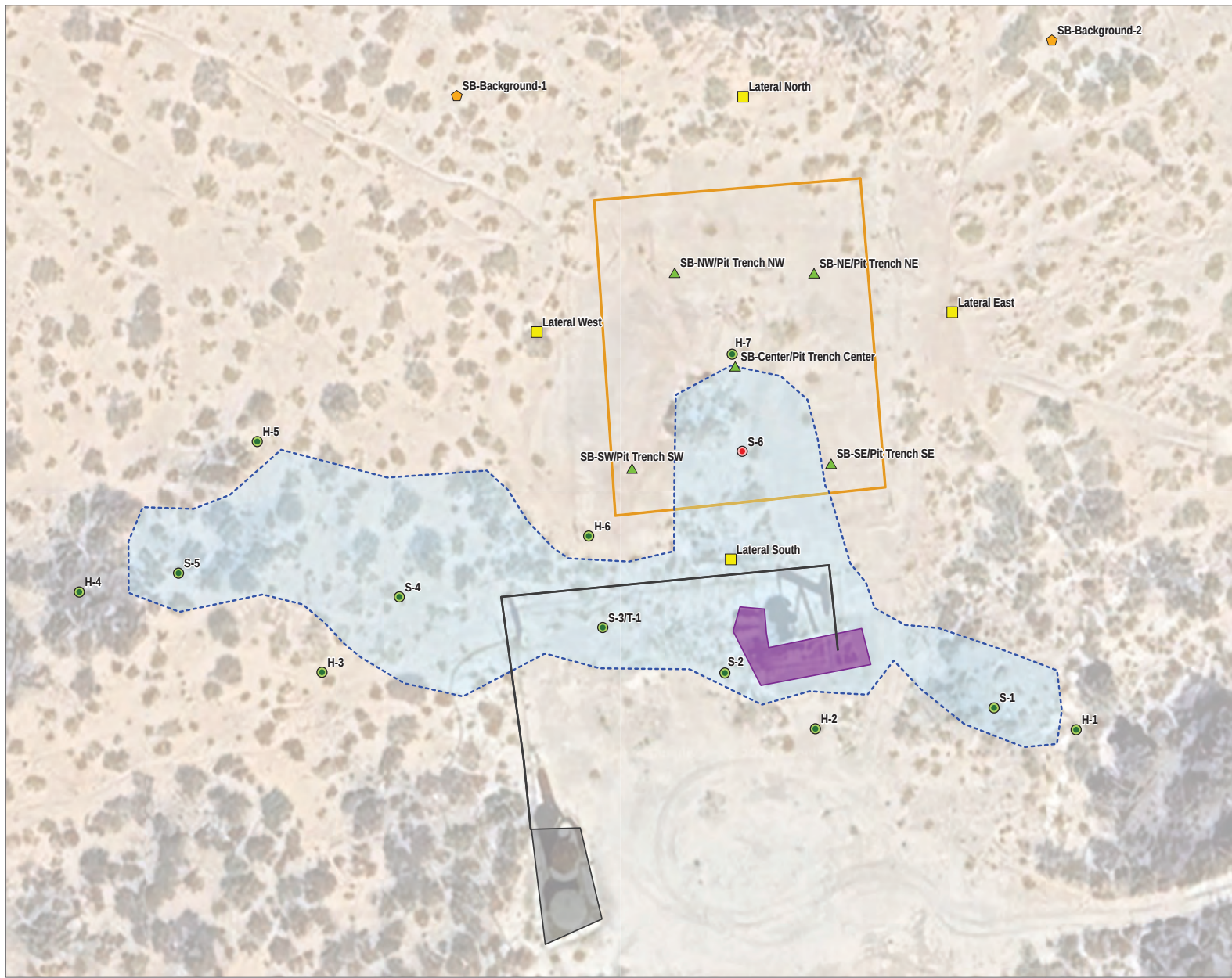


1180 NW MAPLE STREET, SUITE 310
ISSAQUAH, WA 98027
PHONE: 425.395.0010

FILE: Federal 29 Z 002H.sppx



Coordinate System: NAD 1983 StatePlane New Mexico Barro (FIPS 3001) Feet. Map Resolution: 0.5
Scale: 1" = 42'.
Source: ESRI, Google Earth Pro, 2024.09.10, 10/20/2024. Data Sources: TRC.
Lateral Name: Pit 6 - Drilling Pit Assessment Map



- PREVIOUS DELINEATION SAMPLE LOCATION BELOW NMOC STANDARDS
- PREVIOUS DELINEATION SAMPLE LOCATION EXCEEDING NMOC STANDARDS
- BACKGROUND SAMPLE LOCATION
- HORIZONTAL PIT DELINEATION SAMPLE LOCATION
- ▲ VERTICAL PIT DELINEATION SAMPLE LOCATION
- SURFACE STEEL LINE
- TANK BATTERY
- WELLHEAD AND ASSOCIATED INFRASTRUCTURE
- APPROXIMATE PIT LOCATION
- RELEASE AREA (OVERSPRAY FOOTPRINT)

BASE MAP: GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).
DATA SOURCES: TRC.

NOTES
SAMPLE LOCATIONS AND ANALYTICAL DATA FROM CARMONA RESOURCES
WORKPLAN



1:500
1" = 42'

0 25 50 FEET



PROJECT:		CONOCOPHILLIPS FEDERAL 29 Z 002H EDDY COUNTY, NEW MEXICO	
TITLE:		DRILLING PIT ASSESSMENT - SAMPLE LOCATION MAP	
DRAWN BY:	A. CLINE	PROJ. NO.:	544675.0000.0000
CHECKED BY:	B. TRACY	FIGURE 4	
APPROVED BY:	M. BRYANT		
DATE:	OCTOBER 2024		



FILE: Federal 29 Z 002H.aprx

TABLE 1 COP, Federal 29 Z Summary of Delineation Sampling Analytical Results											
SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs		10				50				100	600
Remediation Standard - >4' bgs		10				50	1,000			2,500	10,000
Lateral Delineation											
Lateral-East @ 0-1'	6/6/2024	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	63.0
Lateral-North @ 0-1'	6/6/2024	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	72.6
Lateral-South @ 0-1'	6/6/2024	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	108
Lateral-West @ 0-1'	6/6/2024	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	67.6
Veritcal Delineation											
Pit Trench Center @ 0-1'	6/6/2024	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	1,340
Pit Trench Center @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	1,520
Pit Trench Center @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	848
Pit Trench Center @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	1,020
Pit Trench Center @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	2,450
Pit Trench Center @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	3,590
Pit Trench Center @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	2,970
SB-Center @ Surface	10/8/2024	-	-	-	-	-	-	-	-	-	847
SB-Center @ 1-3'	10/8/2024	-	-	-	-	-	-	-	-	-	1,110
SB-Center @ 5'	10/8/2024	-	-	-	-	-	-	-	-	-	466
SB-Center @ 10'	10/8/2024	-	-	-	-	-	-	-	-	-	1,570
SB-Center @ 15'	10/8/2024	-	-	-	-	-	-	-	-	-	1,040
SB-Center @ 20'	10/8/2024	-	-	-	-	-	-	-	-	-	883
SB-Center @ 25'	10/8/2024	-	-	-	-	-	-	-	-	-	997
SB-Center @ 30'	10/8/2024	-	-	-	-	-	-	-	-	-	678
SB-Center @ 35'	11/6/2024	-	-	-	-	-	-	-	-	-	305

TABLE 1 COP, Federal 29 Z Summary of Delineation Sampling Analytical Results											
SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs		10				50				100	600
Remediation Standard - >4' bgs		10				50	1,000			2,500	10,000
Pit Trench NE @ 0-1'	6/6/2024	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.9	<49.9	<49.9	<49.9	7,870
Pit Trench NE @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	2,440
Pit Trench NE @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	2,600
Pit Trench NE @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	2,580
Pit Trench NE @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	2,910
Pit Trench NE @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	3,930
Pit Trench NE @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	1,200
SB-NE @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	7,440
SB-NE @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	1,580
SB-NE @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	1,620
SB-NE @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	1,280
SB-NE @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	965
SB-NE @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	538
SB-NE @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	1,160
SB-NE @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	1,480
SB-NE @ 35'	11/6/2024	-	-	-	-	-	-	-	-	-	3,040
SB-NE @ 40'	11/6/2024	-	-	-	-	-	-	-	-	-	2,120
SB-NE @ 45'	11/6/2024	-	-	-	-	-	-	-	-	-	1,870
SB-NE @ 50'	11/6/2024	-	-	-	-	-	-	-	-	-	734
SB-NE @ 60'	11/6/2024	-	-	-	-	-	-	-	-	-	114

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs		10				50				100	600
Remediation Standard - >4' bgs		10				50	1,000			2,500	10,000
Pit Trench NW @ 0-1'	6/6/2024	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	10,300
Pit Trench NW @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	4,570
Pit Trench NW @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	4,110
Pit Trench NW @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	5,530
Pit Trench NW @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	4,740
Pit Trench NW @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	7,850
Pit Trench NW @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	4,080
SB-NW @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	1,870
SB-NW @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	3,700
SB-NW @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	2,000
SB-NW @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	4,000
SB-NW @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	5,060
SB-NW @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	1,360
SB-NW @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	1,540
SB-NW @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	571

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs		10				50				100	600
Remediation Standard - >4' bgs		10				50	1,000			2,500	10,000
Pit Trench SE @ 0-1'	6/6/2024	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<49.9	<49.9	<49.9	<49.9	1,730
Pit Trench SE @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	2,140
Pit Trench SE @ 2'	6/6/2024	-	-	-	-	-	-	-	-	-	5,980
Pit Trench SE @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	10,100
Pit Trench SE @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	1,250
Pit Trench SE @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	1,210
Pit Trench SE @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	2,140
Pit Trench SE @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	2,580
SB-SE @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	7,230
SB-SE @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	1,950
SB-SE @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	1,760
SB-SE @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	1,820
SB-SE @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	1,540
SB-SE @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	796
SB-SE @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	613
SB-SE @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	1,480
SB-SE @ 35'	11/6/2024	-	-	-	-	-	-	-	-	-	2,740
SB-SE @ 40'	11/6/2024	-	-	-	-	-	-	-	-	-	2,430
SB-SE @ 45'	11/6/2024	-	-	-	-	-	-	-	-	-	2,070
SB-SE @ 50'	11/6/2024	-	-	-	-	-	-	-	-	-	1,130
SB-SE @ 60'	11/6/2024	-	-	-	-	-	-	-	-	-	429

TABLE 1
COP, Federal 29 Z
Summary of Delineation Sampling Analytical Results

SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs		10				50				100	600
Remediation Standard - >4' bgs		10				50	1,000			2,500	10,000
Pit Trench SW @ 0-1'	6/6/2024	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	118	<50.0	118	3,650
Pit Trench SW @ 2'	6/6/2024	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	2,550
Pit Trench SW @ 4'	6/6/2024	-	-	-	-	-	-	-	-	-	2,170
Pit Trench SW @ 6'	6/6/2024	-	-	-	-	-	-	-	-	-	1,660
Pit Trench SW @ 8'	6/6/2024	-	-	-	-	-	-	-	-	-	1,150
Pit Trench SW @ 10'	6/6/2024	-	-	-	-	-	-	-	-	-	1,230
Pit Trench SW @ 12'	6/6/2024	-	-	-	-	-	-	-	-	-	437
SB-SW @ Surface	10/9/2024	-	-	-	-	-	-	-	-	-	7,170
SB-SW @ 1-3'	10/9/2024	-	-	-	-	-	-	-	-	-	2,440
SB-SW @ 5'	10/9/2024	-	-	-	-	-	-	-	-	-	2,240
SB-SW @ 10'	10/9/2024	-	-	-	-	-	-	-	-	-	1,020
SB-SW @ 15'	10/9/2024	-	-	-	-	-	-	-	-	-	215
SB-SW @ 20'	10/9/2024	-	-	-	-	-	-	-	-	-	79.2
SB-SW @ 25'	10/9/2024	-	-	-	-	-	-	-	-	-	78.3
SB-SW @ 30'	10/9/2024	-	-	-	-	-	-	-	-	-	128

TABLE 1 COP, Federal 29 Z Summary of Delineation Sampling Analytical Results											
SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs		10				50				100	600
Remediation Standard - >4' bgs		10				50	1,000			2,500	10,000
Background Borings											
Background-1 @ Surface	10/10/2024	-	-	-	-	-	-	-	-	-	<10.0
Background-1 @ 1-3'	10/10/2024	-	-	-	-	-	-	-	-	-	31.3
Background-1 @ 5'	10/10/2024	-	-	-	-	-	-	-	-	-	25.4
Background-1 @ 10'	10/10/2024	-	-	-	-	-	-	-	-	-	<9.90
Background-1 @ 15'	10/10/2024	-	-	-	-	-	-	-	-	-	<10.0
Background-1 @ 20'	10/10/2024	-	-	-	-	-	-	-	-	-	46.2
Background-1 @ 25'	10/10/2024	-	-	-	-	-	-	-	-	-	164
Background-1 @ 30'	10/10/2024	-	-	-	-	-	-	-	-	-	141
Background-1 @ 35'	11/7/2024	-	-	-	-	-	-	-	-	-	94.2
Background-1 @ 40'	11/7/2024	-	-	-	-	-	-	-	-	-	30.7
Background-1 @ 45'	11/7/2024	-	-	-	-	-	-	-	-	-	89.4
Background-1 @ 50'	11/7/2024	-	-	-	-	-	-	-	-	-	185
Background-1 @ 60'	11/7/2024	-	-	-	-	-	-	-	-	-	68.1
Background-1 @ 70'	11/7/2024	-	-	-	-	-	-	-	-	-	<10.0
Background-1 @ 80'	11/7/2024	-	-	-	-	-	-	-	-	-	88.1

TABLE 1 COP, Federal 29 Z Summary of Delineation Sampling Analytical Results											
SAMPLE ID	DATE	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (GRO) C6-C10 (mg/kg)	Diesel Range Organics (DRO) C11-C28 (mg/kg)	Oil Range Organics (ORO) (C29-C36) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Reclamation Standard - <4' bgs		10				50				100	600
Remediation Standard - >4' bgs		10				50	1,000			2,500	10,000
Background-2 @ Surface	10/8/2024	-	-	-	-	-	-	-	-	-	334
Background-2 @ 1-3'	10/8/2024	-	-	-	-	-	-	-	-	-	241
Background-2 @ 5'	10/8/2024	-	-	-	-	-	-	-	-	-	271
Background-2 @ 10'	10/8/2024	-	-	-	-	-	-	-	-	-	172
Background-2 @ 15'	10/8/2024	-	-	-	-	-	-	-	-	-	50.7
Background-2 @ 20'	10/8/2024	-	-	-	-	-	-	-	-	-	13.4
Background-2 @ 25'	10/8/2024	-	-	-	-	-	-	-	-	-	14.1
Background-2 @ 30'	10/8/2024	-	-	-	-	-	-	-	-	-	7.48

Exceeds NMOCD Standard



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Appendix I – Soil Boring Logs

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LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation		SOIL BORING ID: SB-NW	
PROJECT NUMBER: 544675		LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons		32.54324, -104.31055	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM		N: E:	DATE STARTED: 10-09-24
DRILLED BY: Scarborough		DRILLER NAME: Lane	DATE COMPLETED: 10-09-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		80%	15		Surface	Silty, Sand, Poor grade gravel Loam	Om
		85%	15		2.5'	Silty, Sandy, Poor grade gravel Caliche	Om
		75%	15		5.0'	Sandy, Clay, Poor Grade Gravel	Real/Sin, Cl
		95%			7.5'		
		100%			10.0'	Clay, Sand, Coarse Clay,	ml Real
		90%	10		15'	Clay, Sand, Poor grade gravel	Cl Real
		90%	10		1.0'		
					1.5'		
					20.0'	-30ft Real Sand - fine-medium	Real - ml

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED Rebecca Pons DATE 10/14/24

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LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation		SOIL BORING ID: SB-NE	
PROJECT NUMBER: 544675		LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons		32.54323, -104.31024	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM		N: E:	DATE STARTED: 10-09-24
DRILLED BY: Scarborough		DRILLER NAME: Lane	DATE COMPLETED: 10-09-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		49/10			Surface	Silty Loam w/ Poorly Graded Gravel	Brown-Gray Gw/Bp
		50/50			2.5'	Sandy fine grain w/ Silt	Red.
		45/10/45			5.0'	Poorly graded gravel w/ Sand / Silty	tan bc
		25/25			10.0'	Poorly grade gravel, Clay, Coarse	Mh/Bm
		100			15'	Red Sand	M2
		210/10/50			20.0'	30 ft Poor Shale gravel-Clay-Red sand	CL

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

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LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation		SOIL BORING ID: SB-SE	
PROJECT NUMBER: 544675		LOCATION: 32.54308, -104.31029	SHEET 1 OF 1
LOGGED BY: Rebecca Pons		SURFACE ELEV.:	
PROJECT LOCATION: Eddy County, NM		N: E:	DATE STARTED: 10-09-24
DRILLED BY: Scarborough		DRILLER NAME: Lane	DATE COMPLETED: 10-09-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		40/60			Surface	Gravel - Poor Grade Colored Sandy Silt Loam	GW/BP Van
		40/60			2.5 3.0	Sandy - Poor grade Gravel Silt	GW/BP Van
					5.0	Sandy - Poor Grade Gravel	Reel
		40/55			10.0	Poorly Graded Gravel - Sandy Silt	Van - fl
		20/30			15	Red Clay - Sand - Gravelly	C1 - Reel
		100			20.0	30 ft Red Clay - Sand	m2

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

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LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation		SOIL BORING ID: SB-SW	
PROJECT NUMBER: 544675		LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons		32.54310, -104.31053	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM		N: E:	DATE STARTED: 10-09-24
DRILLED BY: Scarborough		DRILLER NAME: Lane	DATE COMPLETED: 10-09-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		80/10/0			Surface	Loamy - Poor Grade Gravel w/ Sand	60/10P Pink Gray
		90/10			2.5		
		90/10			5.0	Sandy w/ Poor grade Gravel	Red 5m/sc
					7.5	Poorly Graded Gravel w/ Sand	
		90/10			10.0	Clay - Sand - Gravelly	Red CL
		90/10			15	Gravelly Clay - Poor Grade	Red
					1.0		
					1.5		
		100			20.0	Sandy - fine grade 130ft Clay	Red ml

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED Rebecca Pons DATE 10-14-24

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LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation	SOIL BORING ID: SB-S-Lateral	
PROJECT NUMBER: 544675	LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons	32.54299, -104.31033	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM	N: E:	DATE STARTED: 10-09-24
DRILLED BY: Scarborough	DRILLER NAME: Lane	DATE COMPLETED: 10-09-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		30 70			Surface	Gravelly Loam Poorly Graded Gravel w/ Silty Loam	Gm/GC tan
					2.5		
					3ft	Sandy - Poorly graded gravel Silty Loam	Gm/Gm tan - Red
					5.0	"	"
					7.5		
		100	100		10.0	Gravelly Clay	ML
					15	"	
					1.0		
					1.5		
					20.0		

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

Rebecca Pons 10/14/24
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LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation	SOIL BORING ID: SB-E-Lateral	
PROJECT NUMBER: 544675	LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons	32.54311, -104.31007	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM	N: E:	DATE STARTED: 10-10-24
DRILLED BY: Scarborough	DRILLER NAME: Lane	DATE COMPLETED: 10-10-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		95/5			Surface	Silty sandy	tan - very fine
					3.0		
					5.0	Sandy - Poorly graded gravel	GC
					7.5		
		95/5			10.0	Clay, Sand, Poorly Graded Gravel	Real - CL
		95/5			15	Sand - Silt	Real - ML
					17.5		
					20.0		

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

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LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation		SOIL BORING ID: SB-N-Lateral	
PROJECT NUMBER: 544675		LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons		32.54352, -104.31027	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM		N: E:	DATE STARTED: 10-10-24
DRILLED BY: Scarborough		DRILLER NAME: Lane	DATE COMPLETED: 10-10-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		95%			Surface	Silty Sand - Rough Gravel Gravel	Rem 6m
		95%			2.5		
		95%			5.0	Silty Sand - Rough Gravel	Rem 8m
					7.5		
					10.0	Sandy Silt - Fine grain	ML Rem Real
		20%			15	Gravelly Clay	Rem
					1.0		
					1.5		
					20.0		

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

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LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation	SOIL BORING ID: SB-Background 1	
PROJECT NUMBER: 544675	LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons	32.54324, -104.31069	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM	N: E:	DATE STARTED: 10-10-24
DRILLED BY: Scarborough	DRILLER NAME: Lane	DATE COMPLETED: 10-10-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		95%			Surface	Silty Sand - Poor grade gravel	tan
		95%			2.5'		
		95%			3.0'	Silty Sand - Poor grade gravel fine grain	BW/BP
					5.0'	fine grain sand - Silty Caliche Poor grade gravel	BW-BP tan.
					7.5'		
		95%			10.0'	Silt - Sand Poor grade gravel	
					15'	Red Silty Sand	
		100					
		100			20'	LI	
					25'	Poor Grade Gravel clay Silty Sand	Red
		95%					
					30'	LI	Red

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

Rebecca Pons
SIGNED

10/14/24
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LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation		SOIL BORING ID: SBW-Lateral	
PROJECT NUMBER: 544675		LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons		32.54324, -104.31069	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM		N: E:	DATE STARTED: 10-10-24
DRILLED BY: Scarborough		DRILLER NAME: Lane	DATE COMPLETED: 10-10-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		29 3/5			Surface	Gr poorly graded gravel w/ silt sandy	tan
		100			3' 25"	Silt sand	
		56 1/5			5.0	Gr poorly graded gravel w/ fine sand	tan / Red
		95 1/5			10.0	clayey gravel w/ sand	Red / brown
		95 1/5			15	Sandy silt w/ clay	Red
					1.0		
					1.5		
					20.0		

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED Rebecca Pons DATE 10/14/24

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DATE

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LOG OF SOIL BORING

PROJECT NAME: Federal Z Delineation		SOIL BORING ID: SB-Background 2	
PROJECT NUMBER: 544675		LOCATION:	SHEET 1 OF 1
LOGGED BY: Rebecca Pons		32.54343, -104.30981	SURFACE ELEV.:
PROJECT LOCATION: Eddy County, NM		N: E:	DATE STARTED: 10-9-24
DRILLED BY: Scarborough		DRILLER NAME: Lane	DATE COMPLETED: 10-9-24

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		75/10/5			Surface	6m-6L Poorly Graded Gravel with Silt/Clay & Sand	Reddish-Tan
		75/10/10			1-30"	Silty Sand Poorly Graded Gravel Caliche	
					2.5		
					5.0	LL	
					7.5		
		85/10/5			10.0	Silt-Sand Poorly Graded Gravel	LL
		90/5/5			15	Poorly Graded Gravel w/ Silt-Sand	
		35/5/60			20	Silt, Clay w/ Poorly Graded Gravel	Red-Brown
		40/5/5			25	Poorly Graded Gravel with Sand Silt, Clay	
					30.0	Silty Sand	LL

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED Rebecca Pons DATE 10/14/24

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DATE

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LOG OF SOIL BORING

PROJECT NAME: <u>Feed E. Detention</u>		SOIL BORING ID: <u>SB-Center</u>	
PROJECT NUMBER: <u>544675</u>		LOCATION: <u>32.54319, -104.31031</u>	SHEET <u>1</u> OF <u>2</u>
LOGGED BY: <u>Rebecca Pons</u>		SURFACE ELEV.: <u></u>	
PROJECT LOCATION: <u>Edley County, NM</u>		N: <u></u>	E: <u></u>
DRILLED BY: <u>Lane</u>		DRILLER NAME: <u>Scarbrough</u>	DATE STARTED: <u>10-9-24</u>
			DATE COMPLETED: <u>10-9-24</u>

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		75			0	well poorly graded gravel and sand	fine silty
		90			1.3ft	well poorly graded gravel and sand	
		75			10	silt or clay w/ gravel	Red clay
		10/90			20.0	ML sandy silt w/ heavily clay	Reddish Brown

DRILLING METHOD <u>Split-Spoon</u>
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE: <u>NA</u>			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED RPons DATE 10-14-24

CHECKED

DATE

REVISED 06/2011

PAGE 2 OF 2

LOG OF SOIL BORING

PROJECT NAME: <u>Reel & Delineation</u>		SOIL BORING ID:	
PROJECT NUMBER: <u>544675</u>		LOCATION:	SHEET <u>1</u> OF <u>2</u>
LOGGED BY: <u>Dubson Pons</u>		SURFACE ELEV.:	
PROJECT LOCATION: <u>Emery County</u>		N: E:	DATE STARTED: <u>10-9-24</u>
DRILLED BY: <u>Lane</u>	DRILLER NAME: <u>W/ Slackborer</u>		DATE COMPLETED: <u>10-9-24</u>

NO.	TYPE	%	BLOWS	PID	DEPTH	VISUAL CLASSIFICATION AND OBSERVATIONS	COMMENT
		90			25	Gravelly Clay - with Fines	Red-Brown
		100			30	Clay	
					7.5		
					10.0		
					12.5		
					15.0		
					17.5		
					20.0		

DRILLING METHOD
DRILL RIG
BORING DIAMETER

WATER LEVEL OBSERVATIONS			
FIRST OCCURRENCE:			
DATE	TIME	DEPTH TO WATER	DEPTH TO BOTTOM

SIGNED P. Pons 10-14-24
DATE

CHECKED

DATE

REVISED 06/2011



Outlook

[EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 455741

From OCDOnline@state.nm.us <OCDOnline@state.nm.us>

Date Fri 8/8/2025 12:05 PM

To Stoffel, Jared <JStoffel@trccompanies.com>

This is an **External** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

To whom it may concern (c/o Jared Stoffel for COG OPERATING LLC),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2221331648, for the following reasons:

- **The remediation plan is denied. The site is located in close proximity to a designated riverine. To overturn a wetland/riverine designation, the responsible party must utilize a Professional Wetland Scientist (PWS) to conduct a Wetland Delineation Survey following the Corps of Engineers Wetlands Delineation Manual. The PWS is required to perform the review and sign off on all conducted surveys, using the Army Corps of Engineers Wetland Determination Data Sheets, Arid West Region. All parts of the wetland/riverine within 300 feet of any part of the release must be evaluated in the survey. A Wetland Delineation report is required to be included which should contain an executive summary of the survey including a description of the site location, sampling points, a scaled sampling diagram, captioned photographs of each sample point, completed Wetland Determination Data Sheets, conclusions/findings and a Curriculum Vitae from the PWS, to include their PWS Certificate Number.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 455741.

Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,

Scott Rodgers

Environmental Specialist - A

505-469-1830

scott.rodgers@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department

1220 South St. Francis Drive

Santa Fe, NM 87505

From: [Bratcher, Michael, EMNRD](#)
To: [Stoffel, Jared](#); [Rodgers, Scott, EMNRD](#); [Hamlet, Robert, EMNRD](#)
Cc: [Tavarez, Ike](#)
Subject: RE: [EXTERNAL] Extension Request for Federal 29 Z 002H - nAPP2221331648
Date: Tuesday, October 22, 2024 4:26:44 PM
Attachments: [image001.png](#)

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Jared et al.,

Due to the site being in a sensitive area, the release is over two years old with only one extension request during that time period, we are obligated, for consistency, to not approve an extension at this time. OCD appreciates the cooperation COP has shown on this one and would ask for that cooperation to continue. If this one got approved, someone down the line would point it out to us when we deny their request. That is where the consistency comes in to play. Hope you understand.

Thank you,

Mike Bratcher

Incident Supervisor
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave | Artesia, NM 88210
(575) 626-0857 |
mike.bratcher@emnrd.nm.gov
<http://www.emnrd.nm.gov/ocd>

-
-

From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Tuesday, October 22, 2024 11:07 AM
To: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Cc: Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] Extension Request for Federal 29 Z 002H - nAPP2221331648

Scott –

Thank you for taking my phone call this morning. As discussed, we met with you, Mike and Robert regarding this incident on May 21, 2024 to determine a path forward, as this was a non-reportable volume overspray release on top of a historical drilling pit. The conclusion of that meeting was that the OCD will require COP to address the chlorides in the pit area. Following the meeting, a path forward was determined internally and because our borings were going to be advanced beyond 30 feet bgs, we had to submit permits through the NMOSE. As this is on

Federal land, we had to get landowner approval through the sundry notice. After all of the proper approvals and permits were in place, we received our permits on October 4, 2024. We have actively been pushing this project forward since our meeting. Would you please reconsider our extension, as we are assessing the pit as requested in the meeting and have been held up by the front side paperwork between the BLM and NMOSE? I am available at your convenience to discuss – thank you.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
[LinkedIn](#) | [Twitter](#) | [Blog](#) | [TRCcompanies.com](#)

From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Tuesday, October 22, 2024 11:05 AM
To: Stoffel, Jared <JStoffel@trccompanies.com>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Cc: Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] Extension Request for Federal 29 Z 002H - nAPP2221331648

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Good Morning Jared,

Date of discovery for this release is listed as 7/16/2022. A 90-day extension was approved 6/21/2023 until 9/21/2023. The last submittal was rejected 3/15/2024. COP to date, has not kept up with extension requests and over two years have passed since the date of discovery. The site is situated in a High Karst area. Your current request for an extension is denied. No extensions will be approved for this incident.

Thank you,
Scott

Scott Rodgers • Environmental Specialist – Adv.
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov

<http://www.emnrd.nm.gov/ocd>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Monday, October 21, 2024 3:05 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Cc: Tavaréz, Ike <Ike.Tavaréz@conocophillips.com>
Subject: [EXTERNAL] Extension Request for Federal 29 Z 002H - nAPP2221331648

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Mike, Robert, and Scott-

I would like to request a 90-day extension for the assessment at the Federal 29 Z 002H site – we are currently conducting further assessment of the Site as discussed in our meeting and were delayed by BLM and OSE approvals. Please let us know if you would approve an extension for us to finish our additional assessment and submit a revised workplan. Thank you.

Jared Stoffel, P.G.
Project Manager



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From: [Stoffel, Jared](#)
To: [Rodgers, Scott, EMNRD](#); [Bratcher, Michael, EMNRD](#); [Hamlet, Robert, EMNRD](#)
Cc: [Tavarez, Ike](#)
Subject: RE: [EXTERNAL] FW: Follow Up Request for Alternative Sampling Plan - nAPP2221331648
Date: Thursday, May 16, 2024 4:33:00 PM
Attachments: [image001.png](#)

Scott – thank you very much. I have sent you all a Teams invite for 1:30 MST (2:30 CST) next Tuesday. Please let me know if anyone didn't receive it. Have a good afternoon!

Jared Stoffel, P.G.
Project Manager



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From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Thursday, May 16, 2024 4:08 PM
To: Stoffel, Jared <JStoffel@trccompanies.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] FW: Follow Up Request for Alternative Sampling Plan - nAPP2221331648

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Good Afternoon Jared,
We would like to propose a meeting time for Tuesday 5/21 @ 1:30.

Thank you,
Scott

Scott Rodgers • Environmental Specialist – Adv.
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov
<http://www.emnrd.nm.gov/oed>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Thursday, April 25, 2024 2:11 PM
To: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Tavaréz, Ike <Ike.Tavaréz@conocophillips.com>
Subject: [EXTERNAL] FW: Follow Up Request for Alternative Sampling Plan - nAPP2221331648

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All,

I would like to propose a meeting between the NMOCD (Mike Bratcher, Robert Hamlet, and Scott Rodgers), COP (Ike Tavaréz) and TRC (Jared Stoffel) to discuss the Federal 29 Z 002H release site, NMOCD Reference number NAPP2221331648. The items of discussion center around the closed drilling pit adjacent to the release point. A brief summary of the Release is below:

- The release is a non-reportable volume (1.5 barrels of crude oil).
- There was no produced water released, only crude oil.
- The release mechanism was a packing blowout which resulted in an overspray of a large area, approximately 10,800 square feet.
- COP submitted a C-141 to the NMOCD. The site was assessed, and work plan submitted to the NMOCD. Upon further review, the release was noted to be of non-reportable volume, COP attempted to retract C-141 from the system. The NMOCD declined and discussed several options to COP (variances) which would provide a path forward for remediation but prevent additional excavation driven only by chlorides present from the closed reserve pit. The meeting occurred on August 2, 2023 between the OCD (Mike Bratcher and Robert Hamlet), COP (Ike Tavaréz), and TRC (Jared Stoffel). The OCD recommended the submission of a workplan with the proposed variance through the NMOCD portal.
- TPH and BTEX constituents were below the most stringent regulatory guidelines in each submitted soil sample.
- Chloride concentrations exceeded only in areas S-3 and S-6 (the pit area). S-3 appeared anomalous, so trench TT-1 was installed in the same location, and the chloride exceedances were not duplicated. S-6 appears in the area of the pit which is not well vegetated. Field screen results indicate elevated chloride concentrations throughout the pit footprint. S-6 was delineated vertically to below 600 mg/kg at 4 feet bgs.

Site characteristics:

- Depth to groundwater is unknown, but the nearest well (approximately 0.70 miles

southeast) indicates groundwater at approximately 83 feet bgs.

- 'High Karst' area
- Within 300 feet of a 'riverine' identified in the national wetlands inventory.

Discussion points:

- While we understand that the closure criteria modifiers of high karst and near a riverine dictate the most stringent regulatory guidelines, the chlorides are not related to the Release as evident by material released (crude oil only), release mechanism (overspray of the surface only), and release volume (1.5 barrels over an area of 10,800 square feet). There are no documented exceedances at the surface or any other interval of TPH or Benzene related to crude oil. Elevated chlorides appear isolated to the approximate drilling pit footprint.
- COP met with OCD in August of 2023, at which time the OCD indicated a variance may be utilized to avoid digging up the entirety of the pit. COP proposed to excavate 1,050 cubic yards (the entire spill footprint in the area represented by sample point S-6 to 4 feet bgs) and omit confirmation sampling which likely will drive excavation laterally beyond the spill footprint to the boundaries of the pit area. The proposed 4 feet greatly exceeded the depth of hydrocarbon impact in this area and will allow for better re-vegetation of this section of the former pit area. The NMOCD approved the excavation but denied the sampling variance which would omit all confirmation samples.
- A follow up email to the NMOCD requesting a smaller variance in which the requisite confirmation samples be collected and analyzed for TPH and BTEX only was verbally denied by the NMOCD.
- COP would like to propose to excavate to 4 feet bgs within the spill footprint, which would remove the chloride concentrations documented in the investigation phase of the project and upon backfill with imported clean fill will provide a good root zone for reclamation. Sidewall samples would be collected and analyzed for TPH and BTEX. Once the analytical results from the sidewalls indicate all hydrocarbon affected soil has been removed, COP proposes installation of a polyvinyl or geosynthetic liner at four feet bgs through the extent of the excavation to prevent rainwater from mobilizing any additional chloride concentrations at depth related to the pit from mobilizing. Floor confirmation samples at the base of the excavation would not be collected due to the installation of the liner.

Please let us know when would be agreeable for a meeting and I would be happy to send out a Teams meeting (unless you have a different preferred format for the meeting). Thank you very much.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
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From: Stoffel, Jared
Sent: Monday, April 8, 2024 11:56 AM
To: scott.rodgers@emnrd.nm.gov
Cc: mike.bratcher@state.nm.us; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>;
Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: FW: Follow Up Request for Alternative Sampling Plan - nAPP2221331648

Scott,

Thank you for discussing the alternative sampling plan with me last week. I wanted to follow up that conversation with a request for a meeting with you, Mike, and Robert to discuss how to move forward with the Site. Our last meeting was with Mike and Robert, and the recommended variance request route did not get approved. We wanted to see what our other options are, as the release footprint overlapped with the adjacent pit. Please let me know what timing would be convenient for you all and I'd like to submit a Teams meeting for us all to discuss, if possible. I appreciate your help on this – thanks!

Jared Stoffel, P.G.
Project Manager



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From: Stoffel, Jared
Sent: Thursday, March 7, 2024 3:40 PM
To: scott.rodgers@emnrd.nm.gov
Cc: Tavarez, Ike <Ike.Tavarez@conocophillips.com>; Bratcher, Michael, EMNRD
<mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Subject: Follow Up Request for Alternative Sampling Plan - nAPP2221331648

Scott,

Thank you for discussing the Site with me again yesterday. I've attached the conditional approval response for project reference. In discussing the next step forward for the Site, we were curious if you would consider a different alternative sampling plan.

COP would like to follow up with a reduced variance request in which confirmation soil samples be collected on the 200 square foot basis outlined in NMAC 19.15.29. However, COP would like to propose that the soil samples be collected and analyzed for TPH and BTEX only for this hydrocarbon only overspray release. As no produced water was released, COP respectfully requests omission of chlorides as a constituent of concern as the elevated chlorides are associated with the adjacent pit and not with the Release. COP will excavate the upper four feet in the footprint as proposed in the workplan to remove all previously documented elevated chloride concentrations above the most stringent NMOCD standard. The confirmation samples analyzed for TPH and BTEX would document the removal of the hydrocarbons associated with the Release to confirm the protection of freshwater, public health, and the environment from the hydrocarbons released.

Please let us know if this route would be acceptable to the NMOCD. I am available at your convenience to discuss if this would be helpful. Thank you very much for your consideration.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
[LinkedIn](#) | [Twitter](#) | [Blog](#) | [TRCcompanies.com](#)

From: OCDOnline@state.nm.us
To: [Stoffel, Jared](#)
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has approved the application, Application ID: 298904
Date: Tuesday, March 5, 2024 11:56:04 AM

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To whom it may concern (c/o Jared Stoffel for COG OPERATING LLC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2221331648, with the following conditions:

- **This remediation plan is conditionally approved. The variance request to forgo confirmation sampling is denied. An alternative sampling plan would require a proposed sampling grid map and sampling statistics showing equal or better protection of fresh water, public health and the environment. The demonstration should show that depth to groundwater and karst are not an issue. Also, that it's not within a 100-year floodplain.**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,
Scott Rodgers
Environmental Specialist - A
505-469-1830
scott.rodgers@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

From: [Stoffel, Jared](#)
To: [Hamlet, Robert, EMNRD](#)
Cc: [Bratcher, Michael, EMNRD](#); [Tavarez, Ike](#)
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H
Date: Wednesday, January 3, 2024 8:34:00 AM
Attachments: [image001.png](#)

Thank you for the clarification, Robert – we won't resubmit in the future. Have a good morning!

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
[LinkedIn](#) | [Twitter](#) | [Blog](#) | [TRCcompanies.com](#)

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, January 3, 2024 8:20 AM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

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Jared,

The report only needs to be uploaded once. Once the remediation plan is submitted, the report goes into a cue and is assigned and reviewed in the order it is received. I can't give you an exact date on when it will be reviewed. The OCD is reviewing reports as quickly as possible. Once the report is reviewed, you will receive a notification.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave. | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Tuesday, January 2, 2024 1:35 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: FW: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

Robert –

I wanted to follow up with you on the workplan for the Federal 29 Z 002H (NAPP2221331648) and let you know that we re-submitted today through the portal (attached is the PO and receipt). Please let me know if this was the correct way to address a workplan that has been in the portal for longer than 60 days, and/or if you have any questions or concerns. Thank you very much!

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
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From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Tuesday, November 28, 2023 4:36 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

Robert -

I wanted to follow up with you on the workplan submitted to the NMOCD portal on 9/20/23 and re-submit to you since it has been more than 60 days since submittal. Please let me know if you have any questions or concerns on this one, and if I need to do anything further on the portal side after 60 days. Thanks!

Jared Stoffel, P.G.
Project Manager

505 E Huntland Dr STE 250 Austin, TX 78752



F: 512 329 8750 | C: 432 238 3003

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From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, July 26, 2023 8:25 AM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

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Jared,

You might set up a Teams Call for Wednesday August 2nd at 10:00 a.m. Mountain Time if that works for everyone. Invite Mike Bratcher and myself to the meeting and we can have a quick discussion on the site. Thanks

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave. | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Tuesday, July 25, 2023 3:42 PM
To: Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

Robert, Jocelyn, and Mike,

During the set-up to begin the remedial action plan at the site, TRC performed historical review and site reconnaissance. These activities uncovered the elevated chloride concentrations to be addressed in the approved remediation workplan are related to (and seemingly limited to) the former reserve pit at the Site. Additionally, the review indicated that the release was a non-reportable volume of crude oil (1.5 bbls of crude oil – no produced water reported). We would like to discuss the next steps for this remediation, as the plan as proposed will likely result in the excavation of the entirety of a reserve pit rather than as a remedial action to remove soil affected from the release of crude oil. Would you have time to discuss this issue with us? Thank you very much!

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
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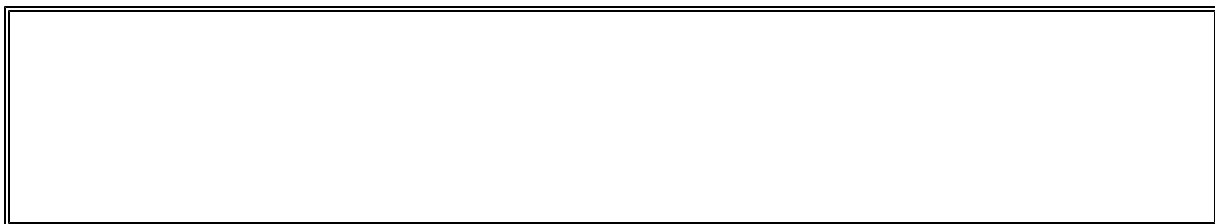
From: Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>

Sent: Thursday, July 13, 2023 2:27 PM

To: Stoffel, Jared <JStoffel@trccompanies.com>

Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>

Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H



Jared,

Notification requirements are **two business days**, per rule. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to ensure inclusion in the project file.

JH

Jocelyn Harimon • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov

[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Thursday, July 13, 2023 9:50 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavaréz, Ike <Ike.Tavaréz@conocophillips.com>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: RE: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H

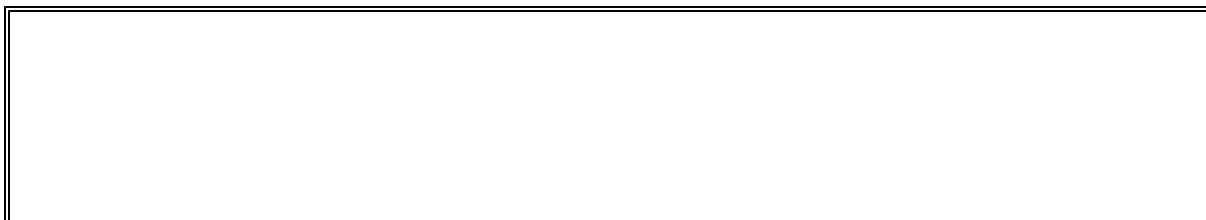
Robert – we will begin remediation at the Federal 29 Z 002H (NAPP2221331648) on Monday, July 17th, 2023. Final confirmation soil samples will be collected as the excavation progresses. The expected duration of the project is 1 week. Please let me know if you have any questions or concerns. Thank you very much!

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
[LinkedIn](#) | [Twitter](#) | [Blog](#) | TRCcompanies.com

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, June 21, 2023 2:26 PM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavaréz, Ike <Ike.Tavaréz@conocophillips.com>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: [EXTERNAL] (Extension Approval) - NAPP2221331648 FEDERAL 29 Z 002H



RE: Incident #NAPP2221331648

Jared,

Your request for an extension to **September 21st, 2023** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced

Environmental Bureau

EMNRD - Oil Conservation Division

506 W. Texas Ave. | Artesia, NM 88210

575.909.0302 | robert.hamlet@state.nm.us

<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>

Sent: Wednesday, June 21, 2023 10:56 AM

To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>

Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Tavarez, Ike <Ike.Tavarez@conocophillips.com>

Subject: [EXTERNAL] Extension Request - Federal 29 Z 002H

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Mr. Hamlet,

TRC, on behalf of COP, would like to request a 90-day extension for the Federal 29 Z 002H remediation project (NAPP2221331648). We are scheduled to start the remedial excavation in early to mid-July, and the 90 days would allow us time following remediation to complete the report prior to the deadline. Please let us know if this is acceptable to you – thank you very much!

Jared Stoffel, P.G.

Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752

F: 512 329 8750 | C: 432 238 3003

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ConocoPhillips- Federal 29 Z 002
5/11/2026

Photographic Documentation

Photograph No. 1

Date:
1/19/2026

Direction:
Southeast

Description:
View of remedial
excavation.



Photograph No. 2

Date:
1/19/2026

Direction:
Northwest

Description:
View of remedial
excavation.



ConocoPhillips- Federal 29 Z 002
5/11/2026

Photographic Documentation

Photograph No. 3

Date:
1/28/2026

Direction:
Northwest

Description:
View of remedial
excavation.



Photograph No. 4

Date:
2/26/2026

Direction:
Southeast

Description:
View of backfilled
area.



ConocoPhillips- Federal 29 Z 002
5/11/2026

Photographic Documentation

Photograph No. 5

Date:
2/26/2026

Direction:
Southwest

Description:
View of backfilled
area.



Photograph No. 6

Date:
5/6/2026

Direction:
Southwest

Description:
View of reseeding
activities.





Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Jared Stoffel
TRC Solutions, Inc.
10 Desta Drive
Suite #410E
Midland, Texas 79705

Generated 1/22/2026 11:03:15 AM

JOB DESCRIPTION

FEDERAL 2
CARLSBAD

JOB NUMBER

890-9385-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
1/22/2026 11:03:15 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 2

Laboratory Job ID: 890-9385-1
SDG: CARLSBAD

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 2

Job ID: 890-9385-1
SDG: CARLSBAD

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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)
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: TRC Solutions, Inc.
Project: FEDERAL 2

Job ID: 890-9385-1

Job ID: 890-9385-1

Eurofins Carlsbad

Job Narrative
890-9385-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 1/21/2026 12:29 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 0.0°C.

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SW - 1 (890-9385-1) and SW - 2 (890-9385-2).

GC VOA

Method 8021B: Spike compounds were inadvertently omitted during the extraction process for the matrix spike/matrix spike duplicate (MS/MSD); therefore, matrix spike recoveries are unavailable for preparation batch 880-129637 and analytical batch 880-129504. The associated laboratory control sample (LCS) met acceptance criteria.

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

Diesel Range Organics

Method 8015B NM: Surrogate recovery for the following samples were outside control limits: (880-67285-A-1-E MS) and (880-67285-A-1-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015B NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-129605/3-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

Method 300.0 - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-129606 and analytical batch 880-129617 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

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Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 2

Job ID: 890-9385-1
SDG: CARLSBAD

Client Sample ID: SW - 1

Lab Sample ID: 890-9385-1

Date Collected: 01/20/26 09:30

Matrix: Solid

Date Received: 01/21/26 12:29

Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/21/26 20:00	01/22/26 04:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/21/26 20:00	01/22/26 04:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/21/26 20:00	01/22/26 04:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/21/26 20:00	01/22/26 04:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/21/26 20:00	01/22/26 04:40	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/21/26 20:00	01/22/26 04:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	01/21/26 20:00	01/22/26 04:40	1
1,4-Difluorobenzene (Surr)	89		70 - 130	01/21/26 20:00	01/22/26 04:40	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			01/22/26 04:40	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			01/22/26 01:44	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		01/21/26 16:36	01/22/26 01:44	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		01/21/26 16:36	01/22/26 01:44	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		01/21/26 16:36	01/22/26 01:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	01/21/26 16:36	01/22/26 01:44	1
o-Terphenyl	113		70 - 130	01/21/26 16:36	01/22/26 01:44	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	482		10.1	mg/Kg			01/22/26 10:27	1

Client Sample ID: SW - 2

Lab Sample ID: 890-9385-2

Date Collected: 01/20/26 10:20

Matrix: Solid

Date Received: 01/21/26 12:29

Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/21/26 20:00	01/22/26 05:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/21/26 20:00	01/22/26 05:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/21/26 20:00	01/22/26 05:00	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/21/26 20:00	01/22/26 05:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/21/26 20:00	01/22/26 05:00	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/21/26 20:00	01/22/26 05:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	01/21/26 20:00	01/22/26 05:00	1

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Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 2

Job ID: 890-9385-1
SDG: CARLSBAD

Client Sample ID: SW - 2

Lab Sample ID: 890-9385-2

Date Collected: 01/20/26 10:20

Matrix: Solid

Date Received: 01/21/26 12:29

Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	95		70 - 130	01/21/26 20:00	01/22/26 05:00	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/22/26 05:00	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			01/22/26 01:58	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		01/21/26 16:36	01/22/26 01:58	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		01/21/26 16:36	01/22/26 01:58	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		01/21/26 16:36	01/22/26 01:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			01/21/26 16:36	01/22/26 01:58	1
o-Terphenyl	117		70 - 130			01/21/26 16:36	01/22/26 01:58	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	912		9.94	mg/Kg			01/22/26 10:32	1

Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 2

Job ID: 890-9385-1
SDG: CARLSBAD

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-67285-A-1-J MS	Matrix Spike	101	95
880-67285-A-1-K MSD	Matrix Spike Duplicate	105	93
890-9385-1	SW - 1	98	89
890-9385-2	SW - 2	97	95
LCS 880-129637/1-A	Lab Control Sample	110	95
LCSD 880-129637/2-A	Lab Control Sample Dup	107	97
MB 880-129454/5-A	Method Blank	103	88
MB 880-129637/5-A	Method Blank	105	87
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-67285-A-1-E MS	Matrix Spike	139 S1+	127
880-67285-A-1-F MSD	Matrix Spike Duplicate	139 S1+	127
890-9385-1	SW - 1	112	113
890-9385-2	SW - 2	115	117
LCS 880-129605/2-A	Lab Control Sample	124	116
LCSD 880-129605/3-A	Lab Control Sample Dup	134 S1+	123
MB 880-129605/1-A	Method Blank	88	93
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 2

Job ID: 890-9385-1
SDG: CARLSBAD

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-129454/5-A

Matrix: Solid

Analysis Batch: 129504

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129454

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/20/26 12:06	01/21/26 11:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/20/26 12:06	01/21/26 11:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/20/26 12:06	01/21/26 11:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/20/26 12:06	01/21/26 11:23	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/20/26 12:06	01/21/26 11:23	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/20/26 12:06	01/21/26 11:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	01/20/26 12:06	01/21/26 11:23	1
1,4-Difluorobenzene (Surr)	88		70 - 130	01/20/26 12:06	01/21/26 11:23	1

Lab Sample ID: MB 880-129637/5-A

Matrix: Solid

Analysis Batch: 129504

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129637

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/21/26 20:00	01/21/26 22:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/21/26 20:00	01/21/26 22:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/21/26 20:00	01/21/26 22:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/21/26 20:00	01/21/26 22:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/21/26 20:00	01/21/26 22:18	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/21/26 20:00	01/21/26 22:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	01/21/26 20:00	01/21/26 22:18	1
1,4-Difluorobenzene (Surr)	87		70 - 130	01/21/26 20:00	01/21/26 22:18	1

Lab Sample ID: LCS 880-129637/1-A

Matrix: Solid

Analysis Batch: 129504

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129637

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08662		mg/Kg		87	70 - 130
Toluene	0.100	0.08970		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.08820		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1962		mg/Kg		98	70 - 130
o-Xylene	0.100	0.09691		mg/Kg		97	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: LCSD 880-129637/2-A

Matrix: Solid

Analysis Batch: 129504

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 129637

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08598		mg/Kg		86	70 - 130	1	35

Eurofins Carlsbad

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 2

Job ID: 890-9385-1
SDG: CARLSBAD

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-129637/2-A

Matrix: Solid

Analysis Batch: 129504

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 129637

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.09111		mg/Kg		91	70 - 130	2	35
Ethylbenzene	0.100	0.08778		mg/Kg		88	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.1999		mg/Kg		100	70 - 130	2	35
o-Xylene	0.100	0.09948		mg/Kg		99	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 880-67285-A-1-J MS

Matrix: Solid

Analysis Batch: 129504

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 129637

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1	0.100	<0.00200	U F1	mg/Kg		0	70 - 130
Toluene	<0.00200	U F1	0.100	<0.00200	U F1	mg/Kg		0	70 - 130
Ethylbenzene	<0.00200	U F1	0.100	<0.00200	U F1	mg/Kg		0	70 - 130
m-Xylene & p-Xylene	<0.00399	U F1	0.200	<0.00400	U F1	mg/Kg		0	70 - 130
o-Xylene	<0.00200	U F1	0.100	<0.00200	U F1	mg/Kg		0	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 880-67285-A-1-K MSD

Matrix: Solid

Analysis Batch: 129504

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 129637

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.100	<0.00200	U F1	mg/Kg		2	70 - 130	NC	35
Toluene	<0.00200	U F1	0.100	<0.00200	U F1	mg/Kg		0	70 - 130	NC	35
Ethylbenzene	<0.00200	U F1	0.100	<0.00200	U F1	mg/Kg		0	70 - 130	NC	35
m-Xylene & p-Xylene	<0.00399	U F1	0.200	<0.00400	U F1	mg/Kg		0	70 - 130	NC	35
o-Xylene	<0.00200	U F1	0.100	<0.00200	U F1	mg/Kg		0	70 - 130	NC	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-129605/1-A

Matrix: Solid

Analysis Batch: 129501

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129605

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/21/26 16:36	01/21/26 21:15	1

Eurofins Carlsbad

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 2

Job ID: 890-9385-1
SDG: CARLSBAD

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-129605/1-A

Matrix: Solid

Analysis Batch: 129501

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129605

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/21/26 16:36	01/21/26 21:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/21/26 16:36	01/21/26 21:15	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			01/21/26 16:36	01/21/26 21:15	1
o-Terphenyl	93		70 - 130			01/21/26 16:36	01/21/26 21:15	1

Lab Sample ID: LCS 880-129605/2-A

Matrix: Solid

Analysis Batch: 129501

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129605

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	963.8		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1154		mg/Kg		115	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	124		70 - 130				
o-Terphenyl	116		70 - 130				

Lab Sample ID: LCSD 880-129605/3-A

Matrix: Solid

Analysis Batch: 129501

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 129605

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	992.5		mg/Kg		99	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	1209		mg/Kg		121	70 - 130	5	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	134	S1+	70 - 130						
o-Terphenyl	123		70 - 130						

Lab Sample ID: 880-67285-A-1-E MS

Matrix: Solid

Analysis Batch: 129501

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 129605

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1000	867.2		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U	1000	909.5		mg/Kg		91	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	139	S1+	70 - 130						
o-Terphenyl	127		70 - 130						

Eurofins Carlsbad

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 2

Job ID: 890-9385-1
SDG: CARLSBAD

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-67285-A-1-F MSD

Matrix: Solid

Analysis Batch: 129501

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 129605

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	<49.8	U	999	864.3		mg/Kg		87	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.8	U	999	915.2		mg/Kg		92	70 - 130	1	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	139	S1+	70 - 130								
o-Terphenyl	127		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-129606/1-A

Matrix: Solid

Analysis Batch: 129617

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			01/22/26 08:22	1

Lab Sample ID: LCS 880-129606/2-A

Matrix: Solid

Analysis Batch: 129617

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	239.4		mg/Kg		96	90 - 110

Lab Sample ID: LCSD 880-129606/3-A

Matrix: Solid

Analysis Batch: 129617

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	240.1		mg/Kg		96	90 - 110	0	20

Lab Sample ID: 880-67285-A-11-D MS

Matrix: Solid

Analysis Batch: 129617

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2950	F1	1250	4952	F1	mg/Kg		160	90 - 110

Lab Sample ID: 880-67285-A-11-E MSD

Matrix: Solid

Analysis Batch: 129617

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2950	F1	1250	4934	F1	mg/Kg		159	90 - 110	0	20

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QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 2

Job ID: 890-9385-1
SDG: CARLSBAD

GC VOA

Prep Batch: 129454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-129454/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 129504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9385-1	SW - 1	Total/NA	Solid	8021B	129637
890-9385-2	SW - 2	Total/NA	Solid	8021B	129637
MB 880-129454/5-A	Method Blank	Total/NA	Solid	8021B	129454
MB 880-129637/5-A	Method Blank	Total/NA	Solid	8021B	129637
LCS 880-129637/1-A	Lab Control Sample	Total/NA	Solid	8021B	129637
LCSD 880-129637/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	129637
880-67285-A-1-J MS	Matrix Spike	Total/NA	Solid	8021B	129637
880-67285-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	129637

Prep Batch: 129637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9385-1	SW - 1	Total/NA	Solid	5035	
890-9385-2	SW - 2	Total/NA	Solid	5035	
MB 880-129637/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-129637/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-129637/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-67285-A-1-J MS	Matrix Spike	Total/NA	Solid	5035	
880-67285-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 129678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9385-1	SW - 1	Total/NA	Solid	Total BTEX	
890-9385-2	SW - 2	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 129501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9385-1	SW - 1	Total/NA	Solid	8015B NM	129605
890-9385-2	SW - 2	Total/NA	Solid	8015B NM	129605
MB 880-129605/1-A	Method Blank	Total/NA	Solid	8015B NM	129605
LCS 880-129605/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	129605
LCSD 880-129605/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	129605
880-67285-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	129605
880-67285-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	129605

Prep Batch: 129605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9385-1	SW - 1	Total/NA	Solid	8015NM Prep	
890-9385-2	SW - 2	Total/NA	Solid	8015NM Prep	
MB 880-129605/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-129605/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-129605/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-67285-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-67285-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 2

Job ID: 890-9385-1
SDG: CARLSBAD

GC Semi VOA

Analysis Batch: 129665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9385-1	SW - 1	Total/NA	Solid	8015 NM	
890-9385-2	SW - 2	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 129606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9385-1	SW - 1	Soluble	Solid	DI Leach	
890-9385-2	SW - 2	Soluble	Solid	DI Leach	
MB 880-129606/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-129606/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-129606/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-67285-A-11-D MS	Matrix Spike	Soluble	Solid	DI Leach	
880-67285-A-11-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 129617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9385-1	SW - 1	Soluble	Solid	300.0	129606
890-9385-2	SW - 2	Soluble	Solid	300.0	129606
MB 880-129606/1-A	Method Blank	Soluble	Solid	300.0	129606
LCS 880-129606/2-A	Lab Control Sample	Soluble	Solid	300.0	129606
LCSD 880-129606/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	129606
880-67285-A-11-D MS	Matrix Spike	Soluble	Solid	300.0	129606
880-67285-A-11-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	129606

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 2

Job ID: 890-9385-1
SDG: CARLSBAD

Client Sample ID: SW - 1

Lab Sample ID: 890-9385-1

Date Collected: 01/20/26 09:30

Matrix: Solid

Date Received: 01/21/26 12:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	129637	01/21/26 20:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	129504	01/22/26 04:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			129678	01/22/26 04:40	SA	EET MID
Total/NA	Analysis	8015 NM		1			129665	01/22/26 01:44	SA	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10.00 mL	129605	01/21/26 16:36	JN	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	129501	01/22/26 01:44	FC	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	129606	01/21/26 16:53	SA	EET MID
Soluble	Analysis	300.0		1			129617	01/22/26 10:27	CS	EET MID

Client Sample ID: SW - 2

Lab Sample ID: 890-9385-2

Date Collected: 01/20/26 10:20

Matrix: Solid

Date Received: 01/21/26 12:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	129637	01/21/26 20:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	129504	01/22/26 05:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			129678	01/22/26 05:00	SA	EET MID
Total/NA	Analysis	8015 NM		1			129665	01/22/26 01:58	SA	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10.00 mL	129605	01/21/26 16:36	JN	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	129501	01/22/26 01:58	FC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	129606	01/21/26 16:53	SA	EET MID
Soluble	Analysis	300.0		1			129617	01/22/26 10:32	CS	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 2

Job ID: 890-9385-1
SDG: CARLSBAD

Laboratory: Eurofins 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	06-30-26
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		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 2

Job ID: 890-9385-1
SDG: CARLSBAD

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 2

Job ID: 890-9385-1
SDG: CARLSBAD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-9385-1	SW - 1	Solid	01/20/26 09:30	01/21/26 12:29	0-4'
890-9385-2	SW - 2	Solid	01/20/26 10:20	01/21/26 12:29	0-4'

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- 3
- 4
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- 9
- 10
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- 12
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- 14

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Environment Testing
Xenco



Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:		Bill to: (if different)	
Company Name:		Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:		Email:	

Project Name:		Turn Around	
Project Number:		Routine ☒ Rush ☐	
Project Location:		Due Date: 24hr	
Sampler's Name:		TAT starts the day received by the lab, if received by 4:30pm	
PO #:		Wet Ice: ☒ Yes ☐ No	

SAMPLE RECEIPT		Temp Blank: ☒ Yes ☐ No		Thermometer ID: ☒ In use		Correction Factor: -0.2		Temperature Reading: 0.3		Corrected Temperature:	
Samples Received Intact: ☒ Yes ☐ No		Cooler Custody Seals: ☒ Yes ☐ No		Sample Custody Seals: ☒ Yes ☐ No		Total Containers:					

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Pres Code	Analysis Request	Preservative Codes	Sample Comments
SW-1	Soil	1/20/76	0930	0-4'	Comp	1	TPH 8015 M				
SW-2	Soil	1/20/76	1020	0-4'	Comp	1	Chlorides F 308				

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 SiO ₂ Na Sr Ti 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 Ti U	Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins 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 Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins 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 Rowan Murphy	Rowan Murphy	1-21-2020			
3		4			6

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 890-9385-1

SDG Number: CARLSBAD

Login Number: 9385

List Number: 1

Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

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?	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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 890-9385-1

SDG Number: CARLSBAD

Login Number: 9385

List Number: 2

Creator: Laing, Edmundo

List Source: Eurofins Midland

List Creation: 01/22/26 07:35 AM

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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jared Stoffel
TRC Solutions, Inc.
10 Desta Drive
Suite #410E
Midland, Texas 79705

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JOB DESCRIPTION

FEDERAL 29Z
CARLSBAD NM

JOB NUMBER

890-9398-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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1/23/2026 4:28:27 PM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Laboratory Job ID: 890-9398-1
SDG: CARLSBAD NM

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
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.

Glossary

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

Case Narrative

Client: TRC Solutions, Inc.
Project: FEDERAL 29Z

Job ID: 890-9398-1

Job ID: 890-9398-1

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Job Narrative 890-9398-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 1/22/2026 11:56 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.6°C.

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SW - 3 (890-9398-1), SW - 4 (890-9398-2), SW - 5 (890-9398-3) and SW - 6 (890-9398-4).

GC VOA

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

Diesel Range Organics

Method 8015B NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-129744/2-A) and (LCSD 880-129744/3-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015B NM: Surrogate recovery for the following sample was outside control limits: (MB 880-129744/1-A). 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.

HPLC/IC

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

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Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Client Sample ID: SW - 3

Lab Sample ID: 890-9398-1

Date Collected: 01/22/26 10:10

Matrix: Solid

Date Received: 01/22/26 11:56

Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/22/26 20:00	01/23/26 01:42	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/22/26 20:00	01/23/26 01:42	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/22/26 20:00	01/23/26 01:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/22/26 20:00	01/23/26 01:42	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/22/26 20:00	01/23/26 01:42	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/22/26 20:00	01/23/26 01:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	01/22/26 20:00	01/23/26 01:42	1
1,4-Difluorobenzene (Surr)	95		70 - 130	01/22/26 20:00	01/23/26 01:42	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/23/26 01:42	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			01/22/26 23:08	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		01/22/26 16:26	01/22/26 23:08	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		01/22/26 16:26	01/22/26 23:08	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		01/22/26 16:26	01/22/26 23:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	01/22/26 16:26	01/22/26 23:08	1
o-Terphenyl	116		70 - 130	01/22/26 16:26	01/22/26 23:08	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	167		9.90	mg/Kg			01/23/26 09:59	1

Client Sample ID: SW - 4

Lab Sample ID: 890-9398-2

Date Collected: 01/22/26 10:15

Matrix: Solid

Date Received: 01/22/26 11:56

Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/22/26 20:00	01/23/26 02:02	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/22/26 20:00	01/23/26 02:02	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/22/26 20:00	01/23/26 02:02	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/22/26 20:00	01/23/26 02:02	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/22/26 20:00	01/23/26 02:02	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/22/26 20:00	01/23/26 02:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	01/22/26 20:00	01/23/26 02:02	1

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Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Client Sample ID: SW - 4

Lab Sample ID: 890-9398-2

Date Collected: 01/22/26 10:15

Matrix: Solid

Date Received: 01/22/26 11:56

Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	95		70 - 130	01/22/26 20:00	01/23/26 02:02	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/23/26 02:02	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/22/26 23:50	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/22/26 16:26	01/22/26 23:50	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/22/26 16:26	01/22/26 23:50	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/22/26 16:26	01/22/26 23:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130			01/22/26 16:26	01/22/26 23:50	1
o-Terphenyl	117		70 - 130			01/22/26 16:26	01/22/26 23:50	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	417		9.90	mg/Kg			01/23/26 10:06	1

Client Sample ID: SW - 5

Lab Sample ID: 890-9398-3

Date Collected: 01/21/26 14:30

Matrix: Solid

Date Received: 01/22/26 11:56

Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/23/26 09:04	01/23/26 12:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/23/26 09:04	01/23/26 12:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/23/26 09:04	01/23/26 12:18	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/23/26 09:04	01/23/26 12:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/23/26 09:04	01/23/26 12:18	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/23/26 09:04	01/23/26 12:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	01/23/26 09:04	01/23/26 12:18	1
1,4-Difluorobenzene (Surr)	91		70 - 130	01/23/26 09:04	01/23/26 12:18	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/23/26 12:18	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/23/26 00:04	1

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Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Client Sample ID: SW - 5

Lab Sample ID: 890-9398-3

Date Collected: 01/21/26 14:30

Matrix: Solid

Date Received: 01/22/26 11:56

Sample Depth: 0-4'

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/22/26 16:26	01/23/26 00:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/22/26 16:26	01/23/26 00:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/22/26 16:26	01/23/26 00:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130			01/22/26 16:26	01/23/26 00:04	1
o-Terphenyl	120		70 - 130			01/22/26 16:26	01/23/26 00:04	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1420		50.1	mg/Kg			01/23/26 10:13	5

Client Sample ID: SW - 6

Lab Sample ID: 890-9398-4

Date Collected: 01/21/26 14:40

Matrix: Solid

Date Received: 01/22/26 11:56

Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/23/26 09:04	01/23/26 12:47	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/23/26 09:04	01/23/26 12:47	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/23/26 09:04	01/23/26 12:47	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/23/26 09:04	01/23/26 12:47	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/23/26 09:04	01/23/26 12:47	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/23/26 09:04	01/23/26 12:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130			01/23/26 09:04	01/23/26 12:47	1
1,4-Difluorobenzene (Surr)	109		70 - 130			01/23/26 09:04	01/23/26 12:47	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/23/26 12:47	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			01/23/26 00:18	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		01/22/26 16:26	01/23/26 00:18	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		01/22/26 16:26	01/23/26 00:18	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		01/22/26 16:26	01/23/26 00:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			01/22/26 16:26	01/23/26 00:18	1
o-Terphenyl	112		70 - 130			01/22/26 16:26	01/23/26 00:18	1

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Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Client Sample ID: SW - 6
Date Collected: 01/21/26 14:40
Date Received: 01/22/26 11:56
Sample Depth: 0-4'

Lab Sample ID: 890-9398-4
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	1220		50.4	mg/Kg			01/23/26 10:20	5	

Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	BFB1	DFBZ1				
		(70-130)	(70-130)				
880-67371-A-21-C MS	Matrix Spike	114	94				
880-67371-A-21-D MSD	Matrix Spike Duplicate	112	92				
890-9398-1	SW - 3	128	95				
890-9398-2	SW - 4	117	95				
890-9398-3	SW - 5	121	91				
890-9398-3 MS	SW - 5	115	97				
890-9398-3 MSD	SW - 5	121	97				
890-9398-4	SW - 6	88	109				
LCS 880-129777/1-A	Lab Control Sample	115	100				
LCS 880-129781/1-A	Lab Control Sample	118	98				
LCSD 880-129777/2-A	Lab Control Sample Dup	106	101				
LCSD 880-129781/2-A	Lab Control Sample Dup	118	96				
MB 880-129656/5-A	Method Blank	109	92				
MB 880-129777/5-A	Method Blank	111	90				
MB 880-129781/5-A	Method Blank	113	92				
Surrogate Legend							
BFB = 4-Bromofluorobenzene (Surr)							
DFBZ = 1,4-Difluorobenzene (Surr)							

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	1CO1	OTPH1				
		(70-130)	(70-130)				
890-9398-1	SW - 3	101	116				
890-9398-1 MS	SW - 3	116	114				
890-9398-1 MSD	SW - 3	116	113				
890-9398-2	SW - 4	109	117				
890-9398-3	SW - 5	114	120				
890-9398-4	SW - 6	106	112				
LCS 880-129744/2-A	Lab Control Sample	147 S1+	141 S1+				
LCSD 880-129744/3-A	Lab Control Sample Dup	135 S1+	131 S1+				
MB 880-129744/1-A	Method Blank	126	131 S1+				
Surrogate Legend							
1CO = 1-Chlorooctane							
OTPH = o-Terphenyl							

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-129656/5-A

Matrix: Solid

Analysis Batch: 129597

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129656

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/22/26 11:11	01/22/26 12:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/22/26 11:11	01/22/26 12:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/22/26 11:11	01/22/26 12:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/22/26 11:11	01/22/26 12:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/22/26 11:11	01/22/26 12:26	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/22/26 11:11	01/22/26 12:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	01/22/26 11:11	01/22/26 12:26	1
1,4-Difluorobenzene (Surr)	92		70 - 130	01/22/26 11:11	01/22/26 12:26	1

Lab Sample ID: MB 880-129777/5-A

Matrix: Solid

Analysis Batch: 129597

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129777

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/22/26 20:00	01/22/26 22:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/22/26 20:00	01/22/26 22:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/22/26 20:00	01/22/26 22:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/22/26 20:00	01/22/26 22:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/22/26 20:00	01/22/26 22:36	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/22/26 20:00	01/22/26 22:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	01/22/26 20:00	01/22/26 22:36	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/22/26 20:00	01/22/26 22:36	1

Lab Sample ID: LCS 880-129777/1-A

Matrix: Solid

Analysis Batch: 129597

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1010		mg/Kg		101	70 - 130
Toluene	0.100	0.09049		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.09616		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.1850		mg/Kg		93	70 - 130
o-Xylene	0.100	0.09726		mg/Kg		97	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-129777/2-A

Matrix: Solid

Analysis Batch: 129597

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 129777

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1015		mg/Kg		101	70 - 130	0	35

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-129777/2-A

Matrix: Solid

Analysis Batch: 129597

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 129777

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.08616		mg/Kg		86	70 - 130	5	35
Ethylbenzene	0.100	0.09198		mg/Kg		92	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1803		mg/Kg		90	70 - 130	3	35
o-Xylene	0.100	0.09266		mg/Kg		93	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 880-67371-A-21-C MS

Matrix: Solid

Analysis Batch: 129597

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 129777

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.09272		mg/Kg		93	70 - 130
Toluene	<0.00200	U	0.100	0.08306		mg/Kg		83	70 - 130
Ethylbenzene	<0.00200	U	0.100	0.08784		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1707		mg/Kg		85	70 - 130
o-Xylene	<0.00200	U	0.100	0.08741		mg/Kg		87	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 880-67371-A-21-D MSD

Matrix: Solid

Analysis Batch: 129597

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 129777

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.09289		mg/Kg		93	70 - 130	0	35
Toluene	<0.00200	U	0.100	0.08215		mg/Kg		82	70 - 130	1	35
Ethylbenzene	<0.00200	U	0.100	0.08907		mg/Kg		89	70 - 130	1	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1725		mg/Kg		86	70 - 130	1	35
o-Xylene	<0.00200	U	0.100	0.08764		mg/Kg		88	70 - 130	0	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: MB 880-129781/5-A

Matrix: Solid

Analysis Batch: 129779

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129781

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/23/26 09:04	01/23/26 11:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/23/26 09:04	01/23/26 11:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/23/26 09:04	01/23/26 11:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/23/26 09:04	01/23/26 11:56	1

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 880-129781/5-A

Matrix: Solid

Analysis Batch: 129779

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129781

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/23/26 09:04	01/23/26 11:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/23/26 09:04	01/23/26 11:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	01/23/26 09:04	01/23/26 11:56	1
1,4-Difluorobenzene (Surr)	92		70 - 130	01/23/26 09:04	01/23/26 11:56	1

Lab Sample ID: LCS 880-129781/1-A

Matrix: Solid

Analysis Batch: 129779

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129781

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1145		mg/Kg		114	70 - 130
Toluene	0.100	0.1047		mg/Kg		105	70 - 130
Ethylbenzene	0.100	0.1109		mg/Kg		111	70 - 130
m-Xylene & p-Xylene	0.200	0.2177		mg/Kg		109	70 - 130
o-Xylene	0.100	0.1104		mg/Kg		110	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-129781/2-A

Matrix: Solid

Analysis Batch: 129779

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 129781

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09992		mg/Kg		100	70 - 130	14	35
Toluene	0.100	0.09136		mg/Kg		91	70 - 130	14	35
Ethylbenzene	0.100	0.09907		mg/Kg		99	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.1927		mg/Kg		96	70 - 130	12	35
o-Xylene	0.100	0.1007		mg/Kg		101	70 - 130	9	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: 890-9398-3 MS

Matrix: Solid

Analysis Batch: 129779

Client Sample ID: SW - 5

Prep Type: Total/NA

Prep Batch: 129781

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1058		mg/Kg		106	70 - 130
Toluene	<0.00200	U	0.100	0.09638		mg/Kg		96	70 - 130
Ethylbenzene	<0.00200	U	0.100	0.1020		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1983		mg/Kg		99	70 - 130
o-Xylene	<0.00200	U	0.100	0.1038		mg/Kg		104	70 - 130

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-9398-3 MS

Matrix: Solid

Analysis Batch: 129779

Client Sample ID: SW - 5

Prep Type: Total/NA

Prep Batch: 129781

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 890-9398-3 MSD

Matrix: Solid

Analysis Batch: 129779

Client Sample ID: SW - 5

Prep Type: Total/NA

Prep Batch: 129781

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.1085		mg/Kg		108	70 - 130	3	35
Toluene	<0.00200	U	0.100	0.09673		mg/Kg		97	70 - 130	0	35
Ethylbenzene	<0.00200	U	0.100	0.1055		mg/Kg		106	70 - 130	3	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.2060		mg/Kg		103	70 - 130	4	35
o-Xylene	<0.00200	U	0.100	0.1066		mg/Kg		107	70 - 130	3	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-129744/1-A

Matrix: Solid

Analysis Batch: 129618

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129744

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/22/26 16:25	01/22/26 22:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/22/26 16:25	01/22/26 22:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/22/26 16:25	01/22/26 22:26	1

	MB	MB						
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	126		70 - 130	01/22/26 16:25	01/22/26 22:26	1		
o-Terphenyl	131	S1+	70 - 130	01/22/26 16:25	01/22/26 22:26	1		

Lab Sample ID: LCS 880-129744/2-A

Matrix: Solid

Analysis Batch: 129618

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1102		mg/Kg		110	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1117		mg/Kg		112	70 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	147	S1+	70 - 130
o-Terphenyl	141	S1+	70 - 130

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-129744/3-A

Matrix: Solid

Analysis Batch: 129618

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 129744

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1060		mg/Kg		106	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	1010		mg/Kg		101	70 - 130	10	20
	LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	135	S1+	70 - 130						
o-Terphenyl	131	S1+	70 - 130						

Lab Sample ID: 890-9398-1 MS

Matrix: Solid

Analysis Batch: 129618

Client Sample ID: SW - 3

Prep Type: Total/NA

Prep Batch: 129744

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	999	940.9		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.5	U	999	829.3		mg/Kg		83	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	116		70 - 130								
o-Terphenyl	114		70 - 130								

Lab Sample ID: 890-9398-1 MSD

Matrix: Solid

Analysis Batch: 129618

Client Sample ID: SW - 3

Prep Type: Total/NA

Prep Batch: 129744

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	<50.5	U	999	908.8		mg/Kg		91	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.5	U	999	828.3		mg/Kg		83	70 - 130	0	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	116		70 - 130								
o-Terphenyl	113		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-129734/1-A

Matrix: Solid

Analysis Batch: 129786

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			01/23/26 08:22	1

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-129734/2-A

Matrix: Solid

Analysis Batch: 129786

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	247.4		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-129734/3-A

Matrix: Solid

Analysis Batch: 129786

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	249.5		mg/Kg		100	90 - 110	1	20

Lab Sample ID: 890-9398-4 MS

Matrix: Solid

Analysis Batch: 129786

Client Sample ID: SW - 6

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1220		1260	2532		mg/Kg		104	90 - 110

Lab Sample ID: 890-9398-4 MSD

Matrix: Solid

Analysis Batch: 129786

Client Sample ID: SW - 6

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1220		1260	2541		mg/Kg		105	90 - 110	0	20

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

GC VOA

Analysis Batch: 129597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9398-1	SW - 3	Total/NA	Solid	8021B	129777
890-9398-2	SW - 4	Total/NA	Solid	8021B	129777
MB 880-129656/5-A	Method Blank	Total/NA	Solid	8021B	129656
MB 880-129777/5-A	Method Blank	Total/NA	Solid	8021B	129777
LCS 880-129777/1-A	Lab Control Sample	Total/NA	Solid	8021B	129777
LCSD 880-129777/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	129777
880-67371-A-21-C MS	Matrix Spike	Total/NA	Solid	8021B	129777
880-67371-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	129777

Prep Batch: 129656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-129656/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 129777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9398-1	SW - 3	Total/NA	Solid	5035	
890-9398-2	SW - 4	Total/NA	Solid	5035	
MB 880-129777/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-129777/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-129777/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-67371-A-21-C MS	Matrix Spike	Total/NA	Solid	5035	
880-67371-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 129779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9398-3	SW - 5	Total/NA	Solid	8021B	129781
890-9398-4	SW - 6	Total/NA	Solid	8021B	129781
MB 880-129781/5-A	Method Blank	Total/NA	Solid	8021B	129781
LCS 880-129781/1-A	Lab Control Sample	Total/NA	Solid	8021B	129781
LCSD 880-129781/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	129781
890-9398-3 MS	SW - 5	Total/NA	Solid	8021B	129781
890-9398-3 MSD	SW - 5	Total/NA	Solid	8021B	129781

Prep Batch: 129781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9398-3	SW - 5	Total/NA	Solid	5035	
890-9398-4	SW - 6	Total/NA	Solid	5035	
MB 880-129781/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-129781/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-129781/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-9398-3 MS	SW - 5	Total/NA	Solid	5035	
890-9398-3 MSD	SW - 5	Total/NA	Solid	5035	

Analysis Batch: 129849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9398-1	SW - 3	Total/NA	Solid	Total BTEX	
890-9398-2	SW - 4	Total/NA	Solid	Total BTEX	
890-9398-3	SW - 5	Total/NA	Solid	Total BTEX	
890-9398-4	SW - 6	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

GC Semi VOA

Analysis Batch: 129618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9398-1	SW - 3	Total/NA	Solid	8015B NM	129744
890-9398-2	SW - 4	Total/NA	Solid	8015B NM	129744
890-9398-3	SW - 5	Total/NA	Solid	8015B NM	129744
890-9398-4	SW - 6	Total/NA	Solid	8015B NM	129744
MB 880-129744/1-A	Method Blank	Total/NA	Solid	8015B NM	129744
LCS 880-129744/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	129744
LCSD 880-129744/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	129744
890-9398-1 MS	SW - 3	Total/NA	Solid	8015B NM	129744
890-9398-1 MSD	SW - 3	Total/NA	Solid	8015B NM	129744

Prep Batch: 129744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9398-1	SW - 3	Total/NA	Solid	8015NM Prep	
890-9398-2	SW - 4	Total/NA	Solid	8015NM Prep	
890-9398-3	SW - 5	Total/NA	Solid	8015NM Prep	
890-9398-4	SW - 6	Total/NA	Solid	8015NM Prep	
MB 880-129744/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-129744/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-129744/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-9398-1 MS	SW - 3	Total/NA	Solid	8015NM Prep	
890-9398-1 MSD	SW - 3	Total/NA	Solid	8015NM Prep	

Analysis Batch: 129816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9398-1	SW - 3	Total/NA	Solid	8015 NM	
890-9398-2	SW - 4	Total/NA	Solid	8015 NM	
890-9398-3	SW - 5	Total/NA	Solid	8015 NM	
890-9398-4	SW - 6	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 129734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9398-1	SW - 3	Soluble	Solid	DI Leach	
890-9398-2	SW - 4	Soluble	Solid	DI Leach	
890-9398-3	SW - 5	Soluble	Solid	DI Leach	
890-9398-4	SW - 6	Soluble	Solid	DI Leach	
MB 880-129734/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-129734/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-129734/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-9398-4 MS	SW - 6	Soluble	Solid	DI Leach	
890-9398-4 MSD	SW - 6	Soluble	Solid	DI Leach	

Analysis Batch: 129786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9398-1	SW - 3	Soluble	Solid	300.0	129734
890-9398-2	SW - 4	Soluble	Solid	300.0	129734
890-9398-3	SW - 5	Soluble	Solid	300.0	129734
890-9398-4	SW - 6	Soluble	Solid	300.0	129734
MB 880-129734/1-A	Method Blank	Soluble	Solid	300.0	129734
LCS 880-129734/2-A	Lab Control Sample	Soluble	Solid	300.0	129734

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QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

HPLC/IC (Continued)

Analysis Batch: 129786 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-129734/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	129734
890-9398-4 MS	SW - 6	Soluble	Solid	300.0	129734
890-9398-4 MSD	SW - 6	Soluble	Solid	300.0	129734

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Client Sample ID: SW - 3

Lab Sample ID: 890-9398-1

Date Collected: 01/22/26 10:10

Matrix: Solid

Date Received: 01/22/26 11:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	129777	01/22/26 20:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	129597	01/23/26 01:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			129849	01/23/26 01:42	SA	EET MID
Total/NA	Analysis	8015 NM		1			129816	01/22/26 23:08	SA	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10.00 mL	129744	01/22/26 16:26	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	129618	01/22/26 23:08	FC	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	129734	01/22/26 16:02	SA	EET MID
Soluble	Analysis	300.0		1			129786	01/23/26 09:59	CS	EET MID

Client Sample ID: SW - 4

Lab Sample ID: 890-9398-2

Date Collected: 01/22/26 10:15

Matrix: Solid

Date Received: 01/22/26 11:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	129777	01/22/26 20:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	129597	01/23/26 02:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			129849	01/23/26 02:02	SA	EET MID
Total/NA	Analysis	8015 NM		1			129816	01/22/26 23:50	SA	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10.00 mL	129744	01/22/26 16:26	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	129618	01/22/26 23:50	FC	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	129734	01/22/26 16:02	SA	EET MID
Soluble	Analysis	300.0		1			129786	01/23/26 10:06	CS	EET MID

Client Sample ID: SW - 5

Lab Sample ID: 890-9398-3

Date Collected: 01/21/26 14:30

Matrix: Solid

Date Received: 01/22/26 11:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	129781	01/23/26 09:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	129779	01/23/26 12:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			129849	01/23/26 12:18	SA	EET MID
Total/NA	Analysis	8015 NM		1			129816	01/23/26 00:04	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10.00 mL	129744	01/22/26 16:26	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	129618	01/23/26 00:04	FC	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	129734	01/22/26 16:02	SA	EET MID
Soluble	Analysis	300.0		5			129786	01/23/26 10:13	CS	EET MID

Client Sample ID: SW - 6

Lab Sample ID: 890-9398-4

Date Collected: 01/21/26 14:40

Matrix: Solid

Date Received: 01/22/26 11:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	129781	01/23/26 09:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	129779	01/23/26 12:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			129849	01/23/26 12:47	SA	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Client Sample ID: SW - 6
Date Collected: 01/21/26 14:40
Date Received: 01/22/26 11:56

Lab Sample ID: 890-9398-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			129816	01/23/26 00:18	SA	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10.00 mL	129744	01/22/26 16:26	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	129618	01/23/26 00:18	FC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	129734	01/22/26 16:02	SA	EET MID
Soluble	Analysis	300.0		5	0 mL	1.0 mL	129786	01/23/26 10:20	CS	EET MID

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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Accreditation/Certification Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Laboratory: Eurofins 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	06-30-26
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		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29Z

Job ID: 890-9398-1
SDG: CARLSBAD NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-9398-1	SW - 3	Solid	01/22/26 10:10	01/22/26 11:56	0-4'
890-9398-2	SW - 4	Solid	01/22/26 10:15	01/22/26 11:56	0-4'
890-9398-3	SW - 5	Solid	01/21/26 14:30	01/22/26 11:56	0-4'
890-9398-4	SW - 6	Solid	01/21/26 14:40	01/22/26 11:56	0-4'

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Chain of Custody

Houston, TX (281) 240-4200; Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440; San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443; Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550; Carlsbad, NM (575) 988-3199

Environment Testing
Xenco



Environment Testing

Xenco

Work Order No:

www.xenco.com

Page 1 of 1

Project Manager: Jared Stoffel		Bill to: (if different)		Work Order Comments	
Company Name: TRC Companies		Company Name:		Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
Address: 16000 Dwyer Dr Suite 410E		Address:		State of Project: UST/PST ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	
City, State ZIP: Midland TX 79705		City, State ZIP:		Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	
Phone: (432) 238-3003		Email: JStoffel@trccompanies.com		Deliverables: EDD ☐ ADAPT ☐ Other:	
Project Name: Federal 29Z		Turn Around		Preservative Codes	
P Project Number:		☐ Routine ☒ Rush		None: NO DI Water: H ₂ O	
Project Location: Carlsbad NM		Due Date: 7/1/05		Cool: Cool MeOH: Me	
Sampler's Name: Ramon Murphy		TAT starts the day received by the lab, if received by 4:30pm		HCL: HC HNO ₃ : HN	
PO #:				H ₂ SO ₄ : H ₂	
SAMPLE RECEIPT		Parameters		H ₃ PO ₄ : HP	
Samples Received Intact:		Thermometer ID:		NaHSO ₄ : NABIS	
Cooler Custody Seals:		Correction Factor:		Na ₂ S ₂ O ₃ : NaSO ₃	
Sample Custody Seals:		Temperature Reading:		Zn Acetate+NaOH: Zn	
Total Containers:		Corrected Temperature:		NaOH+Ascorbic Acid: SAPC	
Sample Identification		Grab/Comp		Sample Comments	
SW-3		1/23/05 1010 0-4' Comp 1			
SW-4		1/23/05 1015 0-4' Comp 1			
SW-5		1/21/06 1420 0-4' Comp 1			
SW-6		1/21/06 1440 0-4' Comp 1			
Total Containers:		Total Containers			
Sample Identification		Date Sampled		Date/Time	
SW-3		1/23/05 1010		1-22-1143	
SW-4		1/23/05 1015		4	
SW-5		1/21/06 1420		6	
SW-6		1/21/06 1440			
Total Containers:		Total Containers			
Sample Identification		Date Sampled		Date/Time	
SW-3		1/23/05 1010		1-22-1143	
SW-4		1/23/05 1015		4	
SW-5		1/21/06 1420		6	
SW-6		1/21/06 1440			
Total Containers:		Total Containers			
Sample Identification		Date Sampled		Date/Time	
SW-3		1/23/05 1010		1-22-1143	
SW-4		1/23/05 1015		4	
SW-5		1/21/06 1420		6	
SW-6		1/21/06 1440			
Total Containers:		Total Containers			
Sample Identification		Date Sampled		Date/Time	
SW-3		1/23/05 1010		1-22-1143	
SW-4		1/23/05 1015		4	
SW-5		1/21/06 1420		6	
SW-6		1/21/06 1440			
Total Containers:		Total Containers			
Sample Identification		Date Sampled		Date/Time	
SW-3		1/23/05 1010		1-22-1143	
SW-4		1/23/05 1015		4	
SW-5		1/21/06 1420		6	
SW-6		1/21/06 1440			
Total Containers:		Total Containers			
Sample Identification		Date Sampled		Date/Time	
SW-3		1/23/05 1010		1-22-1143	
SW-4		1/23/05 1015		4	
SW-5		1/21/06 1420		6	
SW-6		1/21/06 1440			
Total Containers:		Total Containers			
Sample Identification		Date Sampled		Date/Time	
SW-3		1/23/05 1010		1-22-1143	
SW-4		1/23/05 1015		4	
SW-5		1/21/06 1420		6	
SW-6		1/21/06 1440			
Total Containers:		Total Containers			
Sample Identification		Date Sampled		Date/Time	
SW-3		1/23/05 1010		1-22-1143	
SW-4		1/23/05 1015		4	
SW-5		1/21/06 1420		6	
SW-6		1/21/06 1440			
Total Containers:		Total Containers			
Sample Identification		Date Sampled		Date/Time	
SW-3		1/23/05 1010		1-22-1143	
SW-4		1/23/05 1015		4	
SW-5		1/21/06 1420		6	
SW-6		1/21/06 1440			
Total Containers:		Total Containers			
Sample Identification		Date Sampled		Date/Time	
SW-3		1/23/05 1010		1-22-1143	
SW-4		1/23/05 1015		4	
SW-5		1/21/06 1420		6	
SW-6		1/21/06 1440			
Total Containers:		Total Containers			
Sample Identification		Date Sampled		Date/Time	
SW-3		1/23/05 1010		1-22-1143	
SW-4		1/23/05 1015		4	
SW-5		1/21/06 1420		6	
SW-6		1/21/06 1440			
Total Containers:		Total Containers			
Sample Identification		Date Sampled		Date/Time	
SW-3		1/23/05 1010		1-22-1143	
SW-4		1/23/05 1015		4	
SW-5		1/21/0			

Eurofins Carlsbad

1089 N Canal St.
Carlsbad, NM 88220

Phone: 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Sampler: N/A		Lab PM: Kramer, Jessica		Carrier Tracking No(s): N/A		COC No: 890-6394-1	
Client Contact:		Phone: N/A		E-Mail: Jessica.Kramer@eurofins.com		State of Origin: Texas		Page: Page 1 of 1	
Shipping/Receiving		N/A		N/A		N/A		Job #: 890-9398-1	
Company: Eurofins Environment Testing South Cent		N/A		N/A		N/A		Preservation Codes:	
Address: 1211 W. Florida Ave.		N/A		N/A		N/A		N/A	
City: Midland		N/A		N/A		N/A		N/A	
State, Zip: TX, 79701		N/A		N/A		N/A		N/A	
Phone: 432-704-5440(Tel)		N/A		N/A		N/A		N/A	
Email: N/A		N/A		N/A		N/A		N/A	
Project Name: FEDERAL 29Z		N/A		N/A		N/A		N/A	
Site: N/A		N/A		N/A		N/A		N/A	
Due Date Requested: 1/23/2026		N/A		N/A		N/A		N/A	
TAT Requested (days): N/A		N/A		N/A		N/A		N/A	
PO #: N/A		N/A		N/A		N/A		N/A	
WO #: N/A		N/A		N/A		N/A		N/A	
Project #: 89000188		N/A		N/A		N/A		N/A	
SSOW#: N/A		N/A		N/A		N/A		N/A	
Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=oil, BT=Tissue, A=Air)		Preservation Code:	
SW - 3 (890-9398-1)		1/22/26		G		Solid		SW - 3 (890-9398-1)	
SW - 4 (890-9398-2)		1/22/26		G		Solid		SW - 4 (890-9398-2)	
SW - 5 (890-9398-3)		1/21/26		G		Solid		SW - 5 (890-9398-3)	
SW - 6 (890-9398-4)		1/21/26		G		Solid		SW - 6 (890-9398-4)	
SW - 7 (890-9398-5)								SW - 7 (890-9398-5)	
SW - 8 (890-9398-6)								SW - 8 (890-9398-6)	
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SW - 115 (890-9398-113)								SW - 115 (890-9398-113)	
SW - 116 (890-9398-114)								SW - 116 (890-9398-114)	
SW - 117 (890-9398-115)								SW - 117 (890-9398-115)	
SW - 118 (890-9398-116)								SW - 118 (890-9398-116)	
SW - 119 (890-9398-117)								SW - 119 (890-9398-117)	
SW - 120 (890-9398-118)								SW - 120 (890-9398-118)	
SW - 121 (890-9398-119)								SW - 121 (890-9398-119)	
SW - 122 (890-9398-120)								SW - 122 (890-9398-120)	
SW - 123 (890-9398-121)								SW - 123 (890-9398-121)	
SW - 124 (890-9398-122)								SW - 124 (890-9398-122)	
SW - 125 (890-9398-123)								SW - 125 (890-9398-123)	
SW - 126 (890-9398-124)								SW - 126 (890-9398-124)	
SW - 127 (890-9398-125)								SW - 127 (890-9398-125)	
SW - 128 (890-9398-126)								SW - 128 (890-9398-126)	
SW - 129 (890-9398-127)								SW - 129 (890-9398-127)	
SW - 1									

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 890-9398-1

SDG Number: CARLSBAD NM

Login Number: 9398

List Number: 1

Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

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?	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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 890-9398-1

SDG Number: CARLSBAD NM

Login Number: 9398

List Number: 2

Creator: Lee, Randall

List Source: Eurofins Midland

List Creation: 01/23/26 07:44 AM

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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jared Stoffel
TRC Solutions, Inc.
10 Desta Drive
Suite #410E
Midland, Texas 79705

Generated 1/27/2026 5:48:04 PM

JOB DESCRIPTION

Federal 29 Z
Carlsbad NM

JOB NUMBER

880-67433-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jared Stoffel
TRC Solutions, Inc.
10 Desta Drive
Suite #410E
Midland, Texas 79705

Generated 2/2/2026 9:34:52 AM Revision 2

JOB DESCRIPTION

FEDERAL 29 Z
CARLSBAD

JOB NUMBER

890-9408-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Generated
2/2/2026 9:34:52 AM
Revision 2

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Laboratory Job ID: 890-9408-1
SDG: CARLSBAD

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Job ID: 890-9408-1
SDG: CARLSBAD

Qualifiers

GC VOA

Qualifier	Qualifier Description
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.

Glossary

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

Case Narrative

Client: TRC Solutions, Inc.
Project: FEDERAL 29 Z

Job ID: 890-9408-1

Job ID: 890-9408-1

Eurofins Carlsbad

Job Narrative 890-9408-1

REVISION

The report being provided is a revision of the original report sent on 1/29/2026. The report (revision 2) is being revised due to Per client email, requesting sample ID correction.

Report revision history

Revision 1 - 1/31/2026 - Reason - Per client email, requesting TPH re run.

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 1/27/2026 4:51 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.0°C.

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SW - 5B (890-9408-1).

GC VOA

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

Diesel Range Organics

Method 8015B NM: Surrogate recovery for the following sample was outside control limits: (MB 880-130048/1-A). 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.

HPLC/IC

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

Eurofins Carlsbad

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Job ID: 890-9408-1
SDG: CARLSBAD

Client Sample ID: SW - 5B

Lab Sample ID: 890-9408-1

Date Collected: 01/27/26 10:45

Matrix: Solid

Date Received: 01/27/26 16:51

Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/29/26 08:22	01/29/26 12:16	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/29/26 08:22	01/29/26 12:16	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/29/26 08:22	01/29/26 12:16	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/29/26 08:22	01/29/26 12:16	1
o-Xylene	0.00377		0.00201	mg/Kg		01/29/26 08:22	01/29/26 12:16	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/29/26 08:22	01/29/26 12:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	01/29/26 08:22	01/29/26 12:16	1
1,4-Difluorobenzene (Surr)	93		70 - 130	01/29/26 08:22	01/29/26 12:16	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/29/26 12:16	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			01/30/26 16:07	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		01/28/26 09:02	01/30/26 16:07	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		01/28/26 09:02	01/30/26 16:07	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		01/28/26 09:02	01/30/26 16:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	01/28/26 09:02	01/30/26 16:07	1
o-Terphenyl	107		70 - 130	01/28/26 09:02	01/30/26 16:07	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	541		9.98	mg/Kg			01/29/26 11:21	1

Eurofins Carlsbad

Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Job ID: 890-9408-1
SDG: CARLSBAD

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-67487-A-1-C MS	Matrix Spike	121	91
880-67487-A-1-D MSD	Matrix Spike Duplicate	120	91
890-9408-1	SW - 5B	113	93
LCS 880-130202/1-A	Lab Control Sample	116	94
LCSD 880-130202/2-A	Lab Control Sample Dup	118	95
MB 880-130202/5-A	Method Blank	114	90

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-67467-A-110-E MS	Matrix Spike	113	108
880-67467-A-110-F MSD	Matrix Spike Duplicate	113	108
890-9408-1	SW - 5B	101	107
890-9408-1 MS	SW - 5B	114	109
890-9408-1 MSD	SW - 5B	110	107
LCS 880-130048/2-A	Lab Control Sample	99	97
LCS 880-130193/2-A	Lab Control Sample	96	96
LCSD 880-130048/3-A	Lab Control Sample Dup	99	98
LCSD 880-130193/3-A	Lab Control Sample Dup	96	96
MB 880-130048/1-A	Method Blank	161 S1+	162 S1+
MB 880-130193/1-A	Method Blank	114	121

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Carlsbad

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Job ID: 890-9408-1
SDG: CARLSBAD

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-130202/5-A

Matrix: Solid

Analysis Batch: 130197

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130202

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/29/26 08:22	01/29/26 10:53	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/29/26 08:22	01/29/26 10:53	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/29/26 08:22	01/29/26 10:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/29/26 08:22	01/29/26 10:53	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/29/26 08:22	01/29/26 10:53	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/29/26 08:22	01/29/26 10:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	01/29/26 08:22	01/29/26 10:53	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/29/26 08:22	01/29/26 10:53	1

Lab Sample ID: LCS 880-130202/1-A

Matrix: Solid

Analysis Batch: 130197

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130202

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1105		mg/Kg		110	70 - 130
Toluene	0.100	0.09771		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.1035		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	0.200	0.1985		mg/Kg		99	70 - 130
o-Xylene	0.100	0.1021		mg/Kg		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: LCSD 880-130202/2-A

Matrix: Solid

Analysis Batch: 130197

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130202

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1133		mg/Kg		113	70 - 130	2	35
Toluene	0.100	0.1001		mg/Kg		100	70 - 130	2	35
Ethylbenzene	0.100	0.1056		mg/Kg		106	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2040		mg/Kg		102	70 - 130	3	35
o-Xylene	0.100	0.1052		mg/Kg		105	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 880-67487-A-1-C MS

Matrix: Solid

Analysis Batch: 130197

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130202

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.08591		mg/Kg		86	70 - 130
Toluene	<0.00200	U	0.100	0.07999		mg/Kg		80	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Job ID: 890-9408-1
SDG: CARLSBAD

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-67487-A-1-C MS

Matrix: Solid

Analysis Batch: 130197

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130202

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.08810		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	<0.00400	U	0.200	0.1734		mg/Kg		87	70 - 130
o-Xylene	<0.00200	U	0.100	0.08981		mg/Kg		90	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: 880-67487-A-1-D MSD

Matrix: Solid

Analysis Batch: 130197

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 130202

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00200	U	0.100	0.09510		mg/Kg		95	70 - 130	10	35
Toluene	<0.00200	U	0.100	0.08645		mg/Kg		86	70 - 130	8	35
Ethylbenzene	<0.00200	U	0.100	0.09197		mg/Kg		92	70 - 130	4	35
m-Xylene & p-Xylene	<0.00400	U	0.200	0.1786		mg/Kg		89	70 - 130	3	35
o-Xylene	<0.00200	U	0.100	0.09252		mg/Kg		93	70 - 130	3	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-130048/1-A

Matrix: Solid

Analysis Batch: 130388

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130048

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/28/26 09:02	01/30/26 12:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/28/26 09:02	01/30/26 12:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/28/26 09:02	01/30/26 12:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	161	S1+	70 - 130	01/28/26 09:02	01/30/26 12:03	1
o-Terphenyl	162	S1+	70 - 130	01/28/26 09:02	01/30/26 12:03	1

Lab Sample ID: LCS 880-130048/2-A

Matrix: Solid

Analysis Batch: 130388

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	840.9		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)	1000	885.3		mg/Kg		89	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Job ID: 890-9408-1
SDG: CARLSBAD

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-130048/2-A

Matrix: Solid

Analysis Batch: 130388

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130048

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: LCSD 880-130048/3-A

Matrix: Solid

Analysis Batch: 130388

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130048

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	875.6		mg/Kg		88	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	907.0		mg/Kg		91	70 - 130	2	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 880-67467-A-110-E MS

Matrix: Solid

Analysis Batch: 130388

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130048

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	856.9		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	998	815.2		mg/Kg		79	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 880-67467-A-110-F MSD

Matrix: Solid

Analysis Batch: 130388

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 130048

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	<50.0	U	998	854.1		mg/Kg		86	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	792.5		mg/Kg		77	70 - 130	3	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	108		70 - 130

Eurofins Carlsbad

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Job ID: 890-9408-1
SDG: CARLSBAD

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-130193/1-A

Matrix: Solid

Analysis Batch: 130206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130193

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/28/26 16:57	01/29/26 05:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/28/26 16:57	01/29/26 05:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/28/26 16:57	01/29/26 05:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	01/28/26 16:57	01/29/26 05:00	1
o-Terphenyl	121		70 - 130	01/28/26 16:57	01/29/26 05:00	1

Lab Sample ID: LCS 880-130193/2-A

Matrix: Solid

Analysis Batch: 130206

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130193

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	826.1		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)	1000	864.8		mg/Kg		86	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: LCSD 880-130193/3-A

Matrix: Solid

Analysis Batch: 130206

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130193

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	851.4		mg/Kg		85	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	862.5		mg/Kg		86	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: 890-9408-1 MS

Matrix: Solid

Analysis Batch: 130206

Client Sample ID: SW - 5B

Prep Type: Total/NA

Prep Batch: 130193

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	999	678.5	F1	mg/Kg		68	70 - 130
Diesel Range Organics (Over C10-C28)	78.6	F1	999	654.1	F1	mg/Kg		58	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Job ID: 890-9408-1
SDG: CARLSBAD

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-9408-1 MS

Matrix: Solid

Analysis Batch: 130206

Client Sample ID: SW - 5B

Prep Type: Total/NA

Prep Batch: 130193

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	109		70 - 130

Lab Sample ID: 890-9408-1 MSD

Matrix: Solid

Analysis Batch: 130206

Client Sample ID: SW - 5B

Prep Type: Total/NA

Prep Batch: 130193

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	<50.0	U F1	999	687.3	F1	mg/Kg		69	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	78.6	F1	999	619.1	F1	mg/Kg		54	70 - 130	5	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	107		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-130196/1-A

Matrix: Solid

Analysis Batch: 130214

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			01/29/26 09:10	1

Lab Sample ID: LCS 880-130196/2-A

Matrix: Solid

Analysis Batch: 130214

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	242.0		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-130196/3-A

Matrix: Solid

Analysis Batch: 130214

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	236.6		mg/Kg		95	90 - 110	2	20

Lab Sample ID: 880-67534-A-5-C MS

Matrix: Solid

Analysis Batch: 130214

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	214		249	467.9		mg/Kg		102	90 - 110

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Job ID: 890-9408-1
SDG: CARLSBAD

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-67534-A-5-D MSD						Client Sample ID: Matrix Spike Duplicate						
Matrix: Solid						Prep Type: Soluble						
Analysis Batch: 130214												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
Chloride	214		249	462.0		mg/Kg	-	100	90 - 110	1	20	

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Job ID: 890-9408-1
SDG: CARLSBAD

GC VOA

Analysis Batch: 130197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9408-1	SW - 5B	Total/NA	Solid	8021B	130202
MB 880-130202/5-A	Method Blank	Total/NA	Solid	8021B	130202
LCS 880-130202/1-A	Lab Control Sample	Total/NA	Solid	8021B	130202
LCSD 880-130202/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	130202
880-67487-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	130202
880-67487-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	130202

Prep Batch: 130202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9408-1	SW - 5B	Total/NA	Solid	5035	
MB 880-130202/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-130202/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-130202/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-67487-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-67487-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 130311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9408-1	SW - 5B	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 130048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9408-1	SW - 5B	Total/NA	Solid	8015NM Prep	
MB 880-130048/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-130048/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-130048/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-67467-A-110-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-67467-A-110-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 130193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-130193/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-130193/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-130193/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-9408-1 MS	SW - 5B	Total/NA	Solid	8015NM Prep	
890-9408-1 MSD	SW - 5B	Total/NA	Solid	8015NM Prep	

Analysis Batch: 130206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-130193/1-A	Method Blank	Total/NA	Solid	8015B NM	130193
LCS 880-130193/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	130193
LCSD 880-130193/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	130193
890-9408-1 MS	SW - 5B	Total/NA	Solid	8015B NM	130193
890-9408-1 MSD	SW - 5B	Total/NA	Solid	8015B NM	130193

Analysis Batch: 130304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9408-1	SW - 5B	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Job ID: 890-9408-1
SDG: CARLSBAD

GC Semi VOA

Analysis Batch: 130388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9408-1	SW - 5B	Total/NA	Solid	8015B NM	130048
MB 880-130048/1-A	Method Blank	Total/NA	Solid	8015B NM	130048
LCS 880-130048/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	130048
LCSD 880-130048/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	130048
880-67467-A-110-E MS	Matrix Spike	Total/NA	Solid	8015B NM	130048
880-67467-A-110-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	130048

HPLC/IC

Leach Batch: 130196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9408-1	SW - 5B	Soluble	Solid	DI Leach	
MB 880-130196/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-130196/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-130196/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-67534-A-5-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-67534-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 130214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9408-1	SW - 5B	Soluble	Solid	300.0	130196
MB 880-130196/1-A	Method Blank	Soluble	Solid	300.0	130196
LCS 880-130196/2-A	Lab Control Sample	Soluble	Solid	300.0	130196
LCSD 880-130196/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	130196
880-67534-A-5-C MS	Matrix Spike	Soluble	Solid	300.0	130196
880-67534-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	130196

Eurofins Carlsbad

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Job ID: 890-9408-1
SDG: CARLSBAD

Client Sample ID: SW - 5B
Date Collected: 01/27/26 10:45
Date Received: 01/27/26 16:51

Lab Sample ID: 890-9408-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	130202	01/29/26 08:22	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	130197	01/29/26 12:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			130311	01/29/26 12:16	AJ	EET MID
Total/NA	Analysis	8015 NM		1			130304	01/30/26 16:07	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10.00 mL	130048	01/28/26 09:02	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	130388	01/30/26 16:07	FC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	130196	01/28/26 17:54	SMC	EET MID
Soluble	Analysis	300.0		1			130214	01/29/26 11:21	CS	EET MID

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Job ID: 890-9408-1
SDG: CARLSBAD

Laboratory: Eurofins 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	06-30-26
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		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Job ID: 890-9408-1
SDG: CARLSBAD

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: FEDERAL 29 Z

Job ID: 890-9408-1
SDG: CARLSBAD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-9408-1	SW - 5B	Solid	01/27/26 10:45	01/27/26 16:51	0-4'

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199



Environment Testing
Xenco

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Jared Stofel	Bill to: (if different)	
Company Name:	TRC Companies	Company Name:	
Address:	10000 DFW Suite 1105	Address:	
City, State ZIP:	Midland TX 79705	City, State ZIP:	
Phone:	432-488-7864	Email:	JStofel@trccompanies.com

Project Name:	Federal 29 Z	Turn Around	☐ Routine ☒ Rush	Pres. Code	
Project Number:		Due Date:	7/4/16		
Project Location:	Carlsbad NM	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Karen Murphy				
PO #:					

Sample Identification	SW-5B	Date Sampled	1/27/16	Time Sampled	10:45	Depth	0-4' Camp	Grab/Comp		# of Cont	1
Matrix	Soil										
Temp Blank:	Yes No	Thermometer ID:	-0.2	Correction Factor:	4.2	Temperature Reading:	4.0	Corrected Temperature:			
Samples Received Intact:	Yes No										
Cooler Custody Seals:	Yes No										
Sample Custody Seals:	Yes No										
Total Containers:											

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 SiO ₂ Na Sr Ti 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 Ti U Hg: 1631/245.1/7470/7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins 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 Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>			1/27/16 51
				4
				6

Revised Date: 08/25/2020 Rev. 2020.2

[illegible]

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 890-9408-1

SDG Number: CARLSBAD

Login Number: 9408**List Number: 1****Creator: Bruns, Shannon****List Source: Eurofins Carlsbad**

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?	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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 890-9408-1

SDG Number: CARLSBAD

Login Number: 9408**List Number: 2****Creator: Saenz, Connie****List Source: Eurofins Midland****List Creation: 01/29/26 09:09 AM**

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?	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	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jared Stoffel
TRC Solutions, Inc.
10 Desta Drive
Suite #410E
Midland, Texas 79705

Generated 2/2/2026 10:28:07 AM

JOB DESCRIPTION

Federal 29 Z
Carlsbad NM

JOB NUMBER

890-9422-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
2/2/2026 10:28:07 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Laboratory Job ID: 890-9422-1
SDG: Carlsbad NM

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9422-1
SDG: Carlsbad NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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)
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: TRC Solutions, Inc.
Project: Federal 29 Z

Job ID: 890-9422-1

Job ID: 890-9422-1

Eurofins Carlsbad

Job Narrative 890-9422-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 1/30/2026 9:30 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C.

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: West pad lateral (890-9422-1).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: West pad lateral (890-9422-1). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-67328-A-47-F MSD). 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.

Diesel Range Organics

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

HPLC/IC

Method 300.0 - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-130425 and analytical batch 880-130458 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Eurofins Carlsbad

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9422-1
SDG: Carlsbad NM

Client Sample ID: West pad lateral

Lab Sample ID: 890-9422-1

Date Collected: 01/29/26 09:50

Matrix: Solid

Date Received: 01/30/26 09:30

Sample Depth: 0-1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/31/26 15:46	01/31/26 19:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/31/26 15:46	01/31/26 19:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/31/26 15:46	01/31/26 19:23	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/31/26 15:46	01/31/26 19:23	1
o-Xylene	0.00200		0.00200	mg/Kg		01/31/26 15:46	01/31/26 19:23	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/31/26 15:46	01/31/26 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	143	S1+	70 - 130	01/31/26 15:46	01/31/26 19:23	1
1,4-Difluorobenzene (Surr)	91		70 - 130	01/31/26 15:46	01/31/26 19:23	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/31/26 19:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			01/31/26 13:22	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		01/30/26 12:00	01/31/26 13:22	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		01/30/26 12:00	01/31/26 13:22	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		01/30/26 12:00	01/31/26 13:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	01/30/26 12:00	01/31/26 13:22	1
o-Terphenyl	99		70 - 130	01/30/26 12:00	01/31/26 13:22	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.6		10.1	mg/Kg			01/31/26 23:32	1

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Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9422-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-67328-A-47-E MS	Matrix Spike	129	90
880-67328-A-47-F MSD	Matrix Spike Duplicate	131 S1+	93
890-9422-1	West pad lateral	143 S1+	91
LCS 880-130426/1-A	Lab Control Sample	124	92
LCSD 880-130426/2-A	Lab Control Sample Dup	128	90
MB 880-130426/5-A	Method Blank	128	88
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-9421-A-35-B MS	Matrix Spike	101	94
890-9421-A-35-C MSD	Matrix Spike Duplicate	105	92
890-9422-1	West pad lateral	96	99
LCS 880-130381/2-A	Lab Control Sample	99	93
LCSD 880-130381/3-A	Lab Control Sample Dup	102	93
MB 880-130381/1-A	Method Blank	120	124
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9422-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-130426/5-A

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130426

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/30/26 15:46	01/31/26 11:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	01/30/26 15:46	01/31/26 11:30	1
1,4-Difluorobenzene (Surr)	88		70 - 130	01/30/26 15:46	01/31/26 11:30	1

Lab Sample ID: LCS 880-130426/1-A

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1076		mg/Kg		108	70 - 130
Toluene	0.100	0.09787		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.1004		mg/Kg		100	70 - 130
m-Xylene & p-Xylene	0.200	0.1924		mg/Kg		96	70 - 130
o-Xylene	0.100	0.1002		mg/Kg		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	124		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-130426/2-A

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1078		mg/Kg		108	70 - 130	0	35
Toluene	0.100	0.09996		mg/Kg		100	70 - 130	2	35
Ethylbenzene	0.100	0.1035		mg/Kg		104	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1992		mg/Kg		100	70 - 130	4	35
o-Xylene	0.100	0.1039		mg/Kg		104	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	128		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 880-67328-A-47-E MS

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1055		mg/Kg		106	70 - 130
Toluene	<0.00200	U	0.100	0.09608		mg/Kg		96	70 - 130

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9422-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-67328-A-47-E MS

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.1002		mg/Kg		100	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1916		mg/Kg		96	70 - 130
o-Xylene	<0.00200	U	0.100	0.1019		mg/Kg		102	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	129		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 880-67328-A-47-F MSD

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.1123		mg/Kg		112	70 - 130	6	35
Toluene	<0.00200	U	0.100	0.09972		mg/Kg		100	70 - 130	4	35
Ethylbenzene	<0.00200	U	0.100	0.1049		mg/Kg		105	70 - 130	5	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.2011		mg/Kg		101	70 - 130	5	35
o-Xylene	<0.00200	U	0.100	0.1054		mg/Kg		105	70 - 130	3	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-130381/1-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130381

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 08:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 08:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 08:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	01/30/26 12:00	01/31/26 08:14	1
o-Terphenyl	124		70 - 130	01/30/26 12:00	01/31/26 08:14	1

Lab Sample ID: LCS 880-130381/2-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130381

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1003		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1216		mg/Kg		122	70 - 130

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9422-1
SDG: Carlsbad NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-130381/2-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130381

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: LCSD 880-130381/3-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130381

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	915.1		mg/Kg		92	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	1111		mg/Kg		111	70 - 130	9	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-9421-A-35-B MS

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130381

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1010	814.8		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1010	864.7		mg/Kg		86	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-9421-A-35-C MSD

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 130381

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	<50.0	U	1010	795.6		mg/Kg		79	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	1010	830.8		mg/Kg		83	70 - 130	4	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	92		70 - 130

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9422-1
SDG: Carlsbad NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-130425/1-A
Matrix: Solid
Analysis Batch: 130458

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			01/31/26 22:01	1

Lab Sample ID: LCS 880-130425/2-A
Matrix: Solid
Analysis Batch: 130458

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	269.9		mg/Kg		108	90 - 110

Lab Sample ID: LCSD 880-130425/3-A
Matrix: Solid
Analysis Batch: 130458

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	269.5		mg/Kg		108	90 - 110	0	20

Lab Sample ID: 890-9421-A-35-E MS
Matrix: Solid
Analysis Batch: 130458

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	698	F1	249	910.5	F1	mg/Kg		86	90 - 110

Lab Sample ID: 890-9421-A-35-F MSD
Matrix: Solid
Analysis Batch: 130458

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	698	F1	249	901.0	F1	mg/Kg		82	90 - 110	1	20

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9422-1
SDG: Carlsbad NM

GC VOA

Prep Batch: 130426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9422-1	West pad lateral	Total/NA	Solid	5035	
MB 880-130426/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-130426/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-130426/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-67328-A-47-E MS	Matrix Spike	Total/NA	Solid	5035	
880-67328-A-47-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 130440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9422-1	West pad lateral	Total/NA	Solid	8021B	130426
MB 880-130426/5-A	Method Blank	Total/NA	Solid	8021B	130426
LCS 880-130426/1-A	Lab Control Sample	Total/NA	Solid	8021B	130426
LCSD 880-130426/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	130426
880-67328-A-47-E MS	Matrix Spike	Total/NA	Solid	8021B	130426
880-67328-A-47-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	130426

Analysis Batch: 130529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9422-1	West pad lateral	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 130381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9422-1	West pad lateral	Total/NA	Solid	8015NM Prep	
MB 880-130381/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-130381/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-130381/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-9421-A-35-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-9421-A-35-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 130450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9422-1	West pad lateral	Total/NA	Solid	8015B NM	130381
MB 880-130381/1-A	Method Blank	Total/NA	Solid	8015B NM	130381
LCS 880-130381/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	130381
LCSD 880-130381/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	130381
890-9421-A-35-B MS	Matrix Spike	Total/NA	Solid	8015B NM	130381
890-9421-A-35-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	130381

Analysis Batch: 130506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9422-1	West pad lateral	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 130425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9422-1	West pad lateral	Soluble	Solid	DI Leach	
MB 880-130425/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-130425/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-130425/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9422-1
SDG: Carlsbad NM

HPLC/IC (Continued)

Leach Batch: 130425 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9421-A-35-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-9421-A-35-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 130458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9422-1	West pad lateral	Soluble	Solid	300.0	130425
MB 880-130425/1-A	Method Blank	Soluble	Solid	300.0	130425
LCS 880-130425/2-A	Lab Control Sample	Soluble	Solid	300.0	130425
LCSD 880-130425/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	130425
890-9421-A-35-E MS	Matrix Spike	Soluble	Solid	300.0	130425
890-9421-A-35-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	130425

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9422-1
SDG: Carlsbad NM

Client Sample ID: West pad lateral
Date Collected: 01/29/26 09:50
Date Received: 01/30/26 09:30

Lab Sample ID: 890-9422-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	130426	01/31/26 15:46	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	130440	01/31/26 19:23	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			130529	01/31/26 19:23	SA	EET MID
Total/NA	Analysis	8015 NM		1			130506	01/31/26 13:22	SA	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10.00 mL	130381	01/30/26 12:00	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	130450	01/31/26 13:22	FC	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	130425	01/30/26 15:20	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	130458	01/31/26 23:32	CS	EET MID

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9422-1
SDG: Carlsbad NM

Laboratory: Eurofins 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	06-30-26
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		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9422-1
SDG: Carlsbad NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9422-1
SDG: Carlsbad NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-9422-1	West pad lateral	Solid	01/29/26 09:50	01/30/26 09:30	0-1

- 1
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Environment Testing
Xenco

Page 1 of 1
www.xenco.com

ANALYSIS REQUEST

[illegible]

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins 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 Eurofins Xenco. A minimum charge of \$85.00 will be applied to each vial and a charge of \$5 for each sample submitted to Eurofins Xenco but not analyzed. These terms will be enforced unless previously negotiated with Eurofins Xenco.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			1-30 930			
3						
5						
6						

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 890-9422-1

SDG Number: Carlsbad NM

Login Number: 9422

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

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?	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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 890-9422-1

SDG Number: Carlsbad NM

Login Number: 9422

List Number: 2

Creator: Saenz, Connie

List Source: Eurofins Midland

List Creation: 02/02/26 08:17 AM

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?	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	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jared Stoffel
TRC Solutions, Inc.
10 Desta Drive
Suite #410E
Midland, Texas 79705

Generated 2/2/2026 10:28:17 AM

JOB DESCRIPTION

Federal 29 Z
Carlsbad NM

JOB NUMBER

890-9423-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

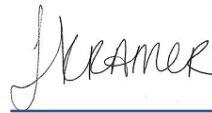
Eurofins Carlsbad

Job Notes

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

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
2/2/2026 10:28:17 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Laboratory Job ID: 890-9423-1
SDG: Carlsbad NM

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9423-1
SDG: Carlsbad NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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)
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: TRC Solutions, Inc.
Project: Federal 29 Z

Job ID: 890-9423-1

Job ID: 890-9423-1

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Job Narrative 890-9423-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 1/30/2026 9:30 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C.

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: East pad lateral (890-9423-1).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-67328-A-47-F MSD). 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.

Diesel Range Organics

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

HPLC/IC

Method 300.0 - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-130425 and analytical batch 880-130458 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

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Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9423-1
SDG: Carlsbad NM

Client Sample ID: East pad lateral

Lab Sample ID: 890-9423-1

Date Collected: 01/29/26 09:55

Matrix: Solid

Date Received: 01/30/26 09:30

Sample Depth: 0-1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/31/26 15:46	01/31/26 19:54	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/31/26 15:46	01/31/26 19:54	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/31/26 15:46	01/31/26 19:54	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/31/26 15:46	01/31/26 19:54	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/31/26 15:46	01/31/26 19:54	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/31/26 15:46	01/31/26 19:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130	01/31/26 15:46	01/31/26 19:54	1
1,4-Difluorobenzene (Surr)	88		70 - 130	01/31/26 15:46	01/31/26 19:54	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/31/26 19:54	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			01/31/26 13:36	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		01/30/26 12:00	01/31/26 13:36	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		01/30/26 12:00	01/31/26 13:36	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		01/30/26 12:00	01/31/26 13:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	01/30/26 12:00	01/31/26 13:36	1
o-Terphenyl	95		70 - 130	01/30/26 12:00	01/31/26 13:36	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			01/31/26 23:39	1

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Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9423-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-67328-A-47-E MS	Matrix Spike	129	90
880-67328-A-47-F MSD	Matrix Spike Duplicate	131 S1+	93
890-9423-1	East pad lateral	125	88
LCS 880-130426/1-A	Lab Control Sample	124	92
LCSD 880-130426/2-A	Lab Control Sample Dup	128	90
MB 880-130426/5-A	Method Blank	128	88
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-9421-A-35-B MS	Matrix Spike	101	94
890-9421-A-35-C MSD	Matrix Spike Duplicate	105	92
890-9423-1	East pad lateral	93	95
LCS 880-130381/2-A	Lab Control Sample	99	93
LCSD 880-130381/3-A	Lab Control Sample Dup	102	93
MB 880-130381/1-A	Method Blank	120	124
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9423-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-130426/5-A

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130426

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/30/26 15:46	01/31/26 11:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	01/30/26 15:46	01/31/26 11:30	1
1,4-Difluorobenzene (Surr)	88		70 - 130	01/30/26 15:46	01/31/26 11:30	1

Lab Sample ID: LCS 880-130426/1-A

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1076		mg/Kg		108	70 - 130
Toluene	0.100	0.09787		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.1004		mg/Kg		100	70 - 130
m-Xylene & p-Xylene	0.200	0.1924		mg/Kg		96	70 - 130
o-Xylene	0.100	0.1002		mg/Kg		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	124		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-130426/2-A

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1078		mg/Kg		108	70 - 130	0	35
Toluene	0.100	0.09996		mg/Kg		100	70 - 130	2	35
Ethylbenzene	0.100	0.1035		mg/Kg		104	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1992		mg/Kg		100	70 - 130	4	35
o-Xylene	0.100	0.1039		mg/Kg		104	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	128		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 880-67328-A-47-E MS

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1055		mg/Kg		106	70 - 130
Toluene	<0.00200	U	0.100	0.09608		mg/Kg		96	70 - 130

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9423-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-67328-A-47-E MS

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.1002		mg/Kg		100	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1916		mg/Kg		96	70 - 130
o-Xylene	<0.00200	U	0.100	0.1019		mg/Kg		102	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	129		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 880-67328-A-47-F MSD

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.1123		mg/Kg		112	70 - 130	6	35
Toluene	<0.00200	U	0.100	0.09972		mg/Kg		100	70 - 130	4	35
Ethylbenzene	<0.00200	U	0.100	0.1049		mg/Kg		105	70 - 130	5	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.2011		mg/Kg		101	70 - 130	5	35
o-Xylene	<0.00200	U	0.100	0.1054		mg/Kg		105	70 - 130	3	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-130381/1-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130381

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 08:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 08:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 08:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	01/30/26 12:00	01/31/26 08:14	1
o-Terphenyl	124		70 - 130	01/30/26 12:00	01/31/26 08:14	1

Lab Sample ID: LCS 880-130381/2-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130381

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1003		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1216		mg/Kg		122	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9423-1
SDG: Carlsbad NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-130381/2-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130381

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: LCSD 880-130381/3-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130381

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	915.1		mg/Kg		92	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	1111		mg/Kg		111	70 - 130	9	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-9421-A-35-B MS

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130381

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1010	814.8		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1010	864.7		mg/Kg		86	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-9421-A-35-C MSD

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 130381

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	<50.0	U	1010	795.6		mg/Kg		79	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	1010	830.8		mg/Kg		83	70 - 130	4	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	92		70 - 130

Eurofins Carlsbad

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9423-1
SDG: Carlsbad NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-130425/1-A

Matrix: Solid

Analysis Batch: 130458

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			01/31/26 22:01	1

Lab Sample ID: LCS 880-130425/2-A

Matrix: Solid

Analysis Batch: 130458

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	269.9		mg/Kg		108	90 - 110

Lab Sample ID: LCSD 880-130425/3-A

Matrix: Solid

Analysis Batch: 130458

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	269.5		mg/Kg		108	90 - 110	0	20

Lab Sample ID: 890-9421-A-35-E MS

Matrix: Solid

Analysis Batch: 130458

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	698	F1	249	910.5	F1	mg/Kg		86	90 - 110

Lab Sample ID: 890-9421-A-35-F MSD

Matrix: Solid

Analysis Batch: 130458

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	698	F1	249	901.0	F1	mg/Kg		82	90 - 110	1	20

Eurofins Carlsbad

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9423-1
SDG: Carlsbad NM

GC VOA

Prep Batch: 130426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9423-1	East pad lateral	Total/NA	Solid	5035	
MB 880-130426/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-130426/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-130426/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-67328-A-47-E MS	Matrix Spike	Total/NA	Solid	5035	
880-67328-A-47-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 130440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9423-1	East pad lateral	Total/NA	Solid	8021B	130426
MB 880-130426/5-A	Method Blank	Total/NA	Solid	8021B	130426
LCS 880-130426/1-A	Lab Control Sample	Total/NA	Solid	8021B	130426
LCSD 880-130426/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	130426
880-67328-A-47-E MS	Matrix Spike	Total/NA	Solid	8021B	130426
880-67328-A-47-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	130426

Analysis Batch: 130530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9423-1	East pad lateral	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 130381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9423-1	East pad lateral	Total/NA	Solid	8015NM Prep	
MB 880-130381/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-130381/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-130381/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-9421-A-35-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-9421-A-35-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 130450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9423-1	East pad lateral	Total/NA	Solid	8015B NM	130381
MB 880-130381/1-A	Method Blank	Total/NA	Solid	8015B NM	130381
LCS 880-130381/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	130381
LCSD 880-130381/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	130381
890-9421-A-35-B MS	Matrix Spike	Total/NA	Solid	8015B NM	130381
890-9421-A-35-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	130381

Analysis Batch: 130507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9423-1	East pad lateral	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 130425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9423-1	East pad lateral	Soluble	Solid	DI Leach	
MB 880-130425/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-130425/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-130425/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9423-1
SDG: Carlsbad NM

HPLC/IC (Continued)

Leach Batch: 130425 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9421-A-35-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-9421-A-35-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 130458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9423-1	East pad lateral	Soluble	Solid	300.0	130425
MB 880-130425/1-A	Method Blank	Soluble	Solid	300.0	130425
LCS 880-130425/2-A	Lab Control Sample	Soluble	Solid	300.0	130425
LCSD 880-130425/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	130425
890-9421-A-35-E MS	Matrix Spike	Soluble	Solid	300.0	130425
890-9421-A-35-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	130425

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9423-1
SDG: Carlsbad NM

Client Sample ID: East pad lateral
Date Collected: 01/29/26 09:55
Date Received: 01/30/26 09:30

Lab Sample ID: 890-9423-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	130426	01/31/26 15:46	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	130440	01/31/26 19:54	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			130530	01/31/26 19:54	SA	EET MID
Total/NA	Analysis	8015 NM		1			130507	01/31/26 13:36	SA	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10.00 mL	130381	01/30/26 12:00	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	130450	01/31/26 13:36	FC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	130425	01/30/26 15:20	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	130458	01/31/26 23:39	CS	EET MID

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9423-1
SDG: Carlsbad NM

Laboratory: Eurofins 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	06-30-26
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		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9423-1
SDG: Carlsbad NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9423-1
SDG: Carlsbad NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-9423-1	East pad lateral	Solid	01/29/26 09:55	01/30/26 09:30	0-1

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Environment Testing
Xenco

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
 El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199



890-9423 Chain of Custody

www.xenco.com

Project Manager:	Jared Stoffel	Bill to: (if different)	
Company Name:	TRC Companies	Company Name:	
Address:	10 Desta Dr Suite 410E	Address:	
City, State ZIP:	Midland Tx 79705	City, State ZIP:	
Phone:	432-488-7869	Email	JStoffel@trccompanies.com

Work Order Comments	
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐ State of Project: Reporting: Level I ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐ Deliverables: EDD ☐ ADA/PT ☐ Other:	

[illegible]

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 SiO ₂ Na Sr Ti Sn U V Zn	Hg: 1631 / 245.1 / 7470 / 7471
TCPL / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins 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 Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless expressly negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			1-30 930			
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Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 890-9423-1

SDG Number: Carlsbad NM

Login Number: 9423

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

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?	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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 890-9423-1

SDG Number: Carlsbad NM

Login Number: 9423

List Number: 2

Creator: Saenz, Connie

List Source: Eurofins Midland

List Creation: 02/02/26 08:17 AM

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?	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	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jared Stoffel
TRC Solutions, Inc.
10 Desta Drive
Suite #410E
Midland, Texas 79705

Generated 2/2/2026 10:28:50 AM

JOB DESCRIPTION

Federal 29 Z
Carlsbad NM

JOB NUMBER

890-9424-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
2/2/2026 10:28:50 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Laboratory Job ID: 890-9424-1
SDG: Carlsbad NM

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9424-1
SDG: Carlsbad NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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)
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: TRC Solutions, Inc.
Project: Federal 29 Z

Job ID: 890-9424-1

Job ID: 890-9424-1

Eurofins Carlsbad

Job Narrative 890-9424-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 1/30/2026 9:30 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C.

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: South pad lateral (890-9424-1).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: South pad lateral (890-9424-1). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-67328-A-47-F MSD). 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.

Diesel Range Organics

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

HPLC/IC

Method 300.0 - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-130425 and analytical batch 880-130458 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Eurofins Carlsbad

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9424-1
SDG: Carlsbad NM

Client Sample ID: South pad lateral

Lab Sample ID: 890-9424-1

Date Collected: 01/29/26 10:00

Matrix: Solid

Date Received: 01/30/26 09:30

Sample Depth: 0-1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		01/31/26 15:46	01/31/26 20:14	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/31/26 15:46	01/31/26 20:14	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/31/26 15:46	01/31/26 20:14	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		01/31/26 15:46	01/31/26 20:14	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/31/26 15:46	01/31/26 20:14	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		01/31/26 15:46	01/31/26 20:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	141	S1+	70 - 130	01/31/26 15:46	01/31/26 20:14	1
1,4-Difluorobenzene (Surr)	89		70 - 130	01/31/26 15:46	01/31/26 20:14	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			01/31/26 20:14	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/26 13:51	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 13:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 13:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 13:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	01/30/26 12:00	01/31/26 13:51	1
o-Terphenyl	104		70 - 130	01/30/26 12:00	01/31/26 13:51	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	160		9.94	mg/Kg			01/31/26 23:45	1

Eurofins Carlsbad

Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9424-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-67328-A-47-E MS	Matrix Spike	129	90
880-67328-A-47-F MSD	Matrix Spike Duplicate	131 S1+	93
890-9424-1	South pad lateral	141 S1+	89
LCS 880-130426/1-A	Lab Control Sample	124	92
LCSD 880-130426/2-A	Lab Control Sample Dup	128	90
MB 880-130426/5-A	Method Blank	128	88
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-9421-A-35-B MS	Matrix Spike	101	94
890-9421-A-35-C MSD	Matrix Spike Duplicate	105	92
890-9424-1	South pad lateral	101	104
LCS 880-130381/2-A	Lab Control Sample	99	93
LCSD 880-130381/3-A	Lab Control Sample Dup	102	93
MB 880-130381/1-A	Method Blank	120	124
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9424-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-130426/5-A

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130426

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/30/26 15:46	01/31/26 11:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	01/30/26 15:46	01/31/26 11:30	1
1,4-Difluorobenzene (Surr)	88		70 - 130	01/30/26 15:46	01/31/26 11:30	1

Lab Sample ID: LCS 880-130426/1-A

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1076		mg/Kg		108	70 - 130
Toluene	0.100	0.09787		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.1004		mg/Kg		100	70 - 130
m-Xylene & p-Xylene	0.200	0.1924		mg/Kg		96	70 - 130
o-Xylene	0.100	0.1002		mg/Kg		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	124		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-130426/2-A

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1078		mg/Kg		108	70 - 130	0	35
Toluene	0.100	0.09996		mg/Kg		100	70 - 130	2	35
Ethylbenzene	0.100	0.1035		mg/Kg		104	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1992		mg/Kg		100	70 - 130	4	35
o-Xylene	0.100	0.1039		mg/Kg		104	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	128		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 880-67328-A-47-E MS

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1055		mg/Kg		106	70 - 130
Toluene	<0.00200	U	0.100	0.09608		mg/Kg		96	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9424-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-67328-A-47-E MS

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.1002		mg/Kg		100	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1916		mg/Kg		96	70 - 130
o-Xylene	<0.00200	U	0.100	0.1019		mg/Kg		102	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	129		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 880-67328-A-47-F MSD

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.1123		mg/Kg		112	70 - 130	6	35
Toluene	<0.00200	U	0.100	0.09972		mg/Kg		100	70 - 130	4	35
Ethylbenzene	<0.00200	U	0.100	0.1049		mg/Kg		105	70 - 130	5	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.2011		mg/Kg		101	70 - 130	5	35
o-Xylene	<0.00200	U	0.100	0.1054		mg/Kg		105	70 - 130	3	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-130381/1-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130381

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 08:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 08:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 08:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	01/30/26 12:00	01/31/26 08:14	1
o-Terphenyl	124		70 - 130	01/30/26 12:00	01/31/26 08:14	1

Lab Sample ID: LCS 880-130381/2-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130381

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1003		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1216		mg/Kg		122	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9424-1
SDG: Carlsbad NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-130381/2-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130381

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: LCSD 880-130381/3-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130381

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	915.1		mg/Kg		92	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	1111		mg/Kg		111	70 - 130	9	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-9421-A-35-B MS

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130381

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1010	814.8		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1010	864.7		mg/Kg		86	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-9421-A-35-C MSD

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 130381

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	<50.0	U	1010	795.6		mg/Kg		79	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	1010	830.8		mg/Kg		83	70 - 130	4	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	92		70 - 130

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9424-1
SDG: Carlsbad NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-130425/1-A

Matrix: Solid

Analysis Batch: 130458

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			01/31/26 22:01	1

Lab Sample ID: LCS 880-130425/2-A

Matrix: Solid

Analysis Batch: 130458

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	269.9		mg/Kg		108	90 - 110

Lab Sample ID: LCSD 880-130425/3-A

Matrix: Solid

Analysis Batch: 130458

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	269.5		mg/Kg		108	90 - 110	0	20

Lab Sample ID: 890-9421-A-35-E MS

Matrix: Solid

Analysis Batch: 130458

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	698	F1	249	910.5	F1	mg/Kg		86	90 - 110

Lab Sample ID: 890-9421-A-35-F MSD

Matrix: Solid

Analysis Batch: 130458

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	698	F1	249	901.0	F1	mg/Kg		82	90 - 110	1	20

Eurofins Carlsbad

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9424-1
SDG: Carlsbad NM

GC VOA

Prep Batch: 130426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9424-1	South pad lateral	Total/NA	Solid	5035	
MB 880-130426/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-130426/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-130426/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-67328-A-47-E MS	Matrix Spike	Total/NA	Solid	5035	
880-67328-A-47-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 130440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9424-1	South pad lateral	Total/NA	Solid	8021B	130426
MB 880-130426/5-A	Method Blank	Total/NA	Solid	8021B	130426
LCS 880-130426/1-A	Lab Control Sample	Total/NA	Solid	8021B	130426
LCSD 880-130426/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	130426
880-67328-A-47-E MS	Matrix Spike	Total/NA	Solid	8021B	130426
880-67328-A-47-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	130426

Analysis Batch: 130531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9424-1	South pad lateral	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 130381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9424-1	South pad lateral	Total/NA	Solid	8015NM Prep	
MB 880-130381/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-130381/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-130381/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-9421-A-35-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-9421-A-35-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 130450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9424-1	South pad lateral	Total/NA	Solid	8015B NM	130381
MB 880-130381/1-A	Method Blank	Total/NA	Solid	8015B NM	130381
LCS 880-130381/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	130381
LCSD 880-130381/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	130381
890-9421-A-35-B MS	Matrix Spike	Total/NA	Solid	8015B NM	130381
890-9421-A-35-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	130381

Analysis Batch: 130508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9424-1	South pad lateral	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 130425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9424-1	South pad lateral	Soluble	Solid	DI Leach	
MB 880-130425/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-130425/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-130425/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9424-1
SDG: Carlsbad NM

HPLC/IC (Continued)

Leach Batch: 130425 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9421-A-35-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-9421-A-35-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 130458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9424-1	South pad lateral	Soluble	Solid	300.0	130425
MB 880-130425/1-A	Method Blank	Soluble	Solid	300.0	130425
LCS 880-130425/2-A	Lab Control Sample	Soluble	Solid	300.0	130425
LCSD 880-130425/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	130425
890-9421-A-35-E MS	Matrix Spike	Soluble	Solid	300.0	130425
890-9421-A-35-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	130425

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9424-1
SDG: Carlsbad NM

Client Sample ID: South pad lateral
Date Collected: 01/29/26 10:00
Date Received: 01/30/26 09:30

Lab Sample ID: 890-9424-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	130426	01/31/26 15:46	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	130440	01/31/26 20:14	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			130531	01/31/26 20:14	SA	EET MID
Total/NA	Analysis	8015 NM		1			130508	01/31/26 13:51	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10.00 mL	130381	01/30/26 12:00	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	130450	01/31/26 13:51	FC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	130425	01/30/26 15:20	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	130458	01/31/26 23:45	CS	EET MID

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9424-1
SDG: Carlsbad NM

Laboratory: Eurofins 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	06-30-26
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		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9424-1
SDG: Carlsbad NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9424-1
SDG: Carlsbad NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-9424-1	South pad lateral	Solid	01/29/26 10:00	01/30/26 09:30	0-1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing
Xenco

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199



Worl

890-9424 Chain of Custody

www.xenco.com

[illegible]

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 890-9424-1

SDG Number: Carlsbad NM

Login Number: 9424

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

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?	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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 890-9424-1

SDG Number: Carlsbad NM

Login Number: 9424

List Number: 2

Creator: Saenz, Connie

List Source: Eurofins Midland

List Creation: 02/02/26 08:17 AM

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?	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	



Environment Testing

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Jared Stoffel
TRC Solutions, Inc.
10 Desta Drive
Suite #410E
Midland, Texas 79705

Generated 2/2/2026 10:29:33 AM

JOB DESCRIPTION

Federal 29 Z
Carlsbad NM

JOB NUMBER

890-9425-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

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

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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2/2/2026 10:29:33 AM

Authorized for release by
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Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Laboratory Job ID: 890-9425-1
SDG: Carlsbad NM

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9425-1
SDG: Carlsbad NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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)
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: TRC Solutions, Inc.
Project: Federal 29 Z

Job ID: 890-9425-1

Job ID: 890-9425-1

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Job Narrative 890-9425-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 1/30/2026 9:30 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C.

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: Clean Fill (890-9425-1). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-67328-A-47-F MSD). 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.

Diesel Range Organics

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

HPLC/IC

Method 300.0 - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-130425 and analytical batch 880-130458 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

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Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9425-1
SDG: Carlsbad NM

Client Sample ID: Clean Fill

Lab Sample ID: 890-9425-1

Date Collected: 01/29/26 09:30

Matrix: Solid

Date Received: 01/30/26 09:30

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/31/26 15:46	01/31/26 20:35	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/31/26 15:46	01/31/26 20:35	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/31/26 15:46	01/31/26 20:35	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/31/26 15:46	01/31/26 20:35	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/31/26 15:46	01/31/26 20:35	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/31/26 15:46	01/31/26 20:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	140	S1+	70 - 130	01/31/26 15:46	01/31/26 20:35	1
1,4-Difluorobenzene (Surr)	92		70 - 130	01/31/26 15:46	01/31/26 20:35	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/31/26 20:35	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/26 14:05	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 14:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 14:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 14:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	01/30/26 12:00	01/31/26 14:05	1
o-Terphenyl	89		70 - 130	01/30/26 12:00	01/31/26 14:05	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.2		9.92	mg/Kg			01/31/26 23:52	1

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Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9425-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-67328-A-47-E MS	Matrix Spike	129	90
880-67328-A-47-F MSD	Matrix Spike Duplicate	131 S1+	93
890-9425-1	Clean Fill	140 S1+	92
LCS 880-130426/1-A	Lab Control Sample	124	92
LCSD 880-130426/2-A	Lab Control Sample Dup	128	90
MB 880-130426/5-A	Method Blank	128	88
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-9421-A-35-B MS	Matrix Spike	101	94
890-9421-A-35-C MSD	Matrix Spike Duplicate	105	92
890-9425-1	Clean Fill	86	89
LCS 880-130381/2-A	Lab Control Sample	99	93
LCSD 880-130381/3-A	Lab Control Sample Dup	102	93
MB 880-130381/1-A	Method Blank	120	124
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9425-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-130426/5-A

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130426

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/30/26 15:46	01/31/26 11:30	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/30/26 15:46	01/31/26 11:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	01/30/26 15:46	01/31/26 11:30	1
1,4-Difluorobenzene (Surr)	88		70 - 130	01/30/26 15:46	01/31/26 11:30	1

Lab Sample ID: LCS 880-130426/1-A

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1076		mg/Kg		108	70 - 130
Toluene	0.100	0.09787		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.1004		mg/Kg		100	70 - 130
m-Xylene & p-Xylene	0.200	0.1924		mg/Kg		96	70 - 130
o-Xylene	0.100	0.1002		mg/Kg		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	124		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-130426/2-A

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1078		mg/Kg		108	70 - 130	0	35
Toluene	0.100	0.09996		mg/Kg		100	70 - 130	2	35
Ethylbenzene	0.100	0.1035		mg/Kg		104	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1992		mg/Kg		100	70 - 130	4	35
o-Xylene	0.100	0.1039		mg/Kg		104	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	128		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 880-67328-A-47-E MS

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1055		mg/Kg		106	70 - 130
Toluene	<0.00200	U	0.100	0.09608		mg/Kg		96	70 - 130

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9425-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-67328-A-47-E MS

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.1002		mg/Kg		100	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1916		mg/Kg		96	70 - 130
o-Xylene	<0.00200	U	0.100	0.1019		mg/Kg		102	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	129		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 880-67328-A-47-F MSD

Matrix: Solid

Analysis Batch: 130440

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 130426

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.1123		mg/Kg		112	70 - 130	6	35
Toluene	<0.00200	U	0.100	0.09972		mg/Kg		100	70 - 130	4	35
Ethylbenzene	<0.00200	U	0.100	0.1049		mg/Kg		105	70 - 130	5	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.2011		mg/Kg		101	70 - 130	5	35
o-Xylene	<0.00200	U	0.100	0.1054		mg/Kg		105	70 - 130	3	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-130381/1-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130381

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 08:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 08:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/30/26 12:00	01/31/26 08:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	01/30/26 12:00	01/31/26 08:14	1
o-Terphenyl	124		70 - 130	01/30/26 12:00	01/31/26 08:14	1

Lab Sample ID: LCS 880-130381/2-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130381

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1003		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1216		mg/Kg		122	70 - 130

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9425-1
SDG: Carlsbad NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-130381/2-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130381

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: LCSD 880-130381/3-A

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130381

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	915.1		mg/Kg		92	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	1111		mg/Kg		111	70 - 130	9	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-9421-A-35-B MS

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130381

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1010	814.8		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1010	864.7		mg/Kg		86	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-9421-A-35-C MSD

Matrix: Solid

Analysis Batch: 130450

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 130381

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	<50.0	U	1010	795.6		mg/Kg		79	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	1010	830.8		mg/Kg		83	70 - 130	4	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	92		70 - 130

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9425-1
SDG: Carlsbad NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-130425/1-A

Matrix: Solid

Analysis Batch: 130458

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			01/31/26 22:01	1

Lab Sample ID: LCS 880-130425/2-A

Matrix: Solid

Analysis Batch: 130458

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	269.9		mg/Kg		108	90 - 110

Lab Sample ID: LCSD 880-130425/3-A

Matrix: Solid

Analysis Batch: 130458

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	269.5		mg/Kg		108	90 - 110	0	20

Lab Sample ID: 890-9421-A-35-E MS

Matrix: Solid

Analysis Batch: 130458

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	698	F1	249	910.5	F1	mg/Kg		86	90 - 110

Lab Sample ID: 890-9421-A-35-F MSD

Matrix: Solid

Analysis Batch: 130458

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	698	F1	249	901.0	F1	mg/Kg		82	90 - 110	1	20

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QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9425-1
SDG: Carlsbad NM

GC VOA

Prep Batch: 130426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9425-1	Clean Fill	Total/NA	Solid	5035	
MB 880-130426/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-130426/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-130426/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-67328-A-47-E MS	Matrix Spike	Total/NA	Solid	5035	
880-67328-A-47-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 130440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9425-1	Clean Fill	Total/NA	Solid	8021B	130426
MB 880-130426/5-A	Method Blank	Total/NA	Solid	8021B	130426
LCS 880-130426/1-A	Lab Control Sample	Total/NA	Solid	8021B	130426
LCSD 880-130426/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	130426
880-67328-A-47-E MS	Matrix Spike	Total/NA	Solid	8021B	130426
880-67328-A-47-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	130426

Analysis Batch: 130532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9425-1	Clean Fill	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 130381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9425-1	Clean Fill	Total/NA	Solid	8015NM Prep	
MB 880-130381/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-130381/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-130381/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-9421-A-35-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-9421-A-35-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 130450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9425-1	Clean Fill	Total/NA	Solid	8015B NM	130381
MB 880-130381/1-A	Method Blank	Total/NA	Solid	8015B NM	130381
LCS 880-130381/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	130381
LCSD 880-130381/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	130381
890-9421-A-35-B MS	Matrix Spike	Total/NA	Solid	8015B NM	130381
890-9421-A-35-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	130381

Analysis Batch: 130509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9425-1	Clean Fill	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 130425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9425-1	Clean Fill	Soluble	Solid	DI Leach	
MB 880-130425/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-130425/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-130425/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9425-1
SDG: Carlsbad NM

HPLC/IC (Continued)

Leach Batch: 130425 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9421-A-35-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-9421-A-35-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 130458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-9425-1	Clean Fill	Soluble	Solid	300.0	130425
MB 880-130425/1-A	Method Blank	Soluble	Solid	300.0	130425
LCS 880-130425/2-A	Lab Control Sample	Soluble	Solid	300.0	130425
LCSD 880-130425/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	130425
890-9421-A-35-E MS	Matrix Spike	Soluble	Solid	300.0	130425
890-9421-A-35-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	130425

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9425-1
SDG: Carlsbad NM

Client Sample ID: Clean Fill
Date Collected: 01/29/26 09:30
Date Received: 01/30/26 09:30

Lab Sample ID: 890-9425-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	130426	01/31/26 15:46	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	130440	01/31/26 20:35	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			130532	01/31/26 20:35	SA	EET MID
Total/NA	Analysis	8015 NM		1			130509	01/31/26 14:05	SA	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10.00 mL	130381	01/30/26 12:00	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	130450	01/31/26 14:05	FC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	130425	01/30/26 15:20	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	130458	01/31/26 23:52	CS	EET MID

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9425-1
SDG: Carlsbad NM

Laboratory: Eurofins 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	06-30-26
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		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9425-1
SDG: Carlsbad NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 890-9425-1
SDG: Carlsbad NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
890-9425-1	Clean Fill	Solid	01/29/26 09:30	01/30/26 09:30	Texas

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 890-9425-1

SDG Number: Carlsbad NM

Login Number: 9425

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

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?	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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 890-9425-1

SDG Number: Carlsbad NM

Login Number: 9425

List Number: 2

Creator: Saenz, Connie

List Source: Eurofins Midland

List Creation: 02/02/26 08:17 AM

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?	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	

Eurofins Midland

Job Notes

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

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Laboratory Job ID: 880-67433-1
SDG: Carlsbad NM

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
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.

Glossary

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

Case Narrative

Client: TRC Solutions, Inc.
Project: Federal 29 Z

Job ID: 880-67433-1

Job ID: 880-67433-1

Eurofins Midland

Job Narrative 880-67433-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 1/23/2026 3:30 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 4.3°C.

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-130000 and analytical batch 880-130001 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Diesel Range Organics

Method 8015B NM: Surrogate recovery for the following samples were outside control limits: (MB 880-129775/1-A), (880-67377-A-1-B), (880-67377-A-1-C MS) and (880-67377-A-1-D MSD). 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.

HPLC/IC

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

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Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

Client Sample ID: SW-2A

Lab Sample ID: 880-67433-1

Date Collected: 01/22/26 16:00

Matrix: Solid

Date Received: 01/23/26 15:30

Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/26/26 11:22	01/27/26 12:15	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/26/26 11:22	01/27/26 12:15	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/26/26 11:22	01/27/26 12:15	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/26/26 11:22	01/27/26 12:15	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/26/26 11:22	01/27/26 12:15	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/26/26 11:22	01/27/26 12:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	01/26/26 11:22	01/27/26 12:15	1
1,4-Difluorobenzene (Surr)	94		70 - 130	01/26/26 11:22	01/27/26 12:15	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/27/26 12:15	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			01/27/26 06:29	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		01/23/26 08:42	01/27/26 06:29	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		01/23/26 08:42	01/27/26 06:29	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		01/23/26 08:42	01/27/26 06:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	01/23/26 08:42	01/27/26 06:29	1
o-Terphenyl	109		70 - 130	01/23/26 08:42	01/27/26 06:29	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.2		10.0	mg/Kg			01/24/26 00:22	1

Client Sample ID: SW-5A

Lab Sample ID: 880-67433-2

Date Collected: 01/23/26 10:30

Matrix: Solid

Date Received: 01/23/26 15:30

Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/27/26 12:35	01/27/26 17:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/27/26 12:35	01/27/26 17:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/27/26 12:35	01/27/26 17:00	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/27/26 12:35	01/27/26 17:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/27/26 12:35	01/27/26 17:00	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/27/26 12:35	01/27/26 17:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	01/27/26 12:35	01/27/26 17:00	1

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Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

Client Sample ID: SW-5A

Lab Sample ID: 880-67433-2

Date Collected: 01/23/26 10:30

Matrix: Solid

Date Received: 01/23/26 15:30

Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	113		70 - 130	01/27/26 12:35	01/27/26 17:00	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/27/26 17:00	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/27/26 06:47	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/23/26 08:42	01/27/26 06:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/23/26 08:42	01/27/26 06:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/23/26 08:42	01/27/26 06:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			01/23/26 08:42	01/27/26 06:47	1
o-Terphenyl	101		70 - 130			01/23/26 08:42	01/27/26 06:47	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	658		9.96	mg/Kg			01/24/26 00:29	1

Client Sample ID: SW-6A

Lab Sample ID: 880-67433-3

Date Collected: 01/23/26 10:35

Matrix: Solid

Date Received: 01/23/26 15:30

Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/27/26 12:35	01/27/26 17:21	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/27/26 12:35	01/27/26 17:21	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/27/26 12:35	01/27/26 17:21	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/27/26 12:35	01/27/26 17:21	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/27/26 12:35	01/27/26 17:21	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/27/26 12:35	01/27/26 17:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	01/27/26 12:35	01/27/26 17:21	1
1,4-Difluorobenzene (Surr)	121		70 - 130	01/27/26 12:35	01/27/26 17:21	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/27/26 17:21	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			01/27/26 07:05	1

Eurofins Midland

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

Client Sample ID: SW-6A
Date Collected: 01/23/26 10:35
Date Received: 01/23/26 15:30
Sample Depth: 0-4'

Lab Sample ID: 880-67433-3
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		01/23/26 08:42	01/27/26 07:05	1	
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		01/23/26 08:42	01/27/26 07:05	1	
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		01/23/26 08:42	01/27/26 07:05	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	98		70 - 130			01/23/26 08:42	01/27/26 07:05	1	
o-Terphenyl	104		70 - 130			01/23/26 08:42	01/27/26 07:05	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	513		10.0	mg/Kg			01/24/26 00:35	1	

Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-67400-A-1-I MS	Matrix Spike	109	116
880-67400-A-1-J MSD	Matrix Spike Duplicate	101	111
880-67433-1	SW-2A	118	94
880-67433-1 MS	SW-2A	119	94
880-67433-1 MSD	SW-2A	118	98
880-67433-2	SW-5A	102	113
880-67433-3	SW-6A	111	121
LCS 880-129885/1-A	Lab Control Sample	116	92
LCS 880-130000/1-A	Lab Control Sample	101	108
LCSD 880-129885/2-A	Lab Control Sample Dup	116	97
LCSD 880-130000/2-A	Lab Control Sample Dup	104	108
MB 880-129885/5-A	Method Blank	110	92
MB 880-130000/5-A	Method Blank	95	108
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-67377-A-1-C MS	Matrix Spike	161 S1+	158 S1+
880-67377-A-1-D MSD	Matrix Spike Duplicate	161 S1+	158 S1+
880-67433-1	SW-2A	103	109
880-67433-2	SW-5A	97	101
880-67433-3	SW-6A	98	104
LCS 880-129775/2-A	Lab Control Sample	112	104
LCSD 880-129775/3-A	Lab Control Sample Dup	110	105
MB 880-129775/1-A	Method Blank	215 S1+	227 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-129885/5-A

Matrix: Solid

Analysis Batch: 129972

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129885

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/26/26 11:22	01/27/26 11:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/26/26 11:22	01/27/26 11:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/26/26 11:22	01/27/26 11:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/26/26 11:22	01/27/26 11:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/26/26 11:22	01/27/26 11:21	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/26/26 11:22	01/27/26 11:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	01/26/26 11:22	01/27/26 11:21	1
1,4-Difluorobenzene (Surr)	92		70 - 130	01/26/26 11:22	01/27/26 11:21	1

Lab Sample ID: LCS 880-129885/1-A

Matrix: Solid

Analysis Batch: 129972

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129885

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1030		mg/Kg		103	70 - 130
Toluene	0.100	0.09229		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.09802		mg/Kg		98	70 - 130
m-Xylene & p-Xylene	0.200	0.1870		mg/Kg		94	70 - 130
o-Xylene	0.100	0.09758		mg/Kg		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-129885/2-A

Matrix: Solid

Analysis Batch: 129972

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 129885

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1167		mg/Kg		117	70 - 130	13	35
Toluene	0.100	0.1016		mg/Kg		102	70 - 130	10	35
Ethylbenzene	0.100	0.1093		mg/Kg		109	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.2079		mg/Kg		104	70 - 130	11	35
o-Xylene	0.100	0.1077		mg/Kg		108	70 - 130	10	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 880-67433-1 MS

Matrix: Solid

Analysis Batch: 129972

Client Sample ID: SW-2A

Prep Type: Total/NA

Prep Batch: 129885

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1021		mg/Kg		102	70 - 130
Toluene	<0.00200	U	0.100	0.08975		mg/Kg		90	70 - 130

Eurofins Midland

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-67433-1 MS

Matrix: Solid

Analysis Batch: 129972

Client Sample ID: SW-2A

Prep Type: Total/NA

Prep Batch: 129885

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.09430		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1790		mg/Kg		90	70 - 130
o-Xylene	<0.00200	U	0.100	0.09427		mg/Kg		94	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 880-67433-1 MSD

Matrix: Solid

Analysis Batch: 129972

Client Sample ID: SW-2A

Prep Type: Total/NA

Prep Batch: 129885

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.09164		mg/Kg		92	70 - 130	11	35
Toluene	<0.00200	U	0.100	0.07888		mg/Kg		79	70 - 130	13	35
Ethylbenzene	<0.00200	U	0.100	0.08272		mg/Kg		83	70 - 130	13	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1575		mg/Kg		79	70 - 130	13	35
o-Xylene	<0.00200	U	0.100	0.08336		mg/Kg		83	70 - 130	12	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: MB 880-130000/5-A

Matrix: Solid

Analysis Batch: 130001

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130000

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/27/26 12:35	01/27/26 16:19	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/27/26 12:35	01/27/26 16:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/27/26 12:35	01/27/26 16:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/27/26 12:35	01/27/26 16:19	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/27/26 12:35	01/27/26 16:19	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/27/26 12:35	01/27/26 16:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	01/27/26 12:35	01/27/26 16:19	1
1,4-Difluorobenzene (Surr)	108		70 - 130	01/27/26 12:35	01/27/26 16:19	1

Lab Sample ID: LCS 880-130000/1-A

Matrix: Solid

Analysis Batch: 130001

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130000

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09342		mg/Kg		93	70 - 130
Toluene	0.100	0.08758		mg/Kg		88	70 - 130
Ethylbenzene	0.100	0.09538		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.200	0.1836		mg/Kg		92	70 - 130

Eurofins Midland

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 880-130000/1-A

Matrix: Solid

Analysis Batch: 130001

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130000

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.08944		mg/Kg		89	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-130000/2-A

Matrix: Solid

Analysis Batch: 130001

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130000

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09712		mg/Kg		97	70 - 130	4	35
Toluene	0.100	0.09198		mg/Kg		92	70 - 130	5	35
Ethylbenzene	0.100	0.09892		mg/Kg		99	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1941		mg/Kg		97	70 - 130	6	35
o-Xylene	0.100	0.09148		mg/Kg		91	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: 880-67400-A-1-I MS

Matrix: Solid

Analysis Batch: 130001

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130000

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1	0.100	0.06524	F1	mg/Kg		65	70 - 130
Toluene	<0.00200	U F1	0.100	0.06349	F1	mg/Kg		63	70 - 130
Ethylbenzene	<0.00200	U F1	0.100	0.06626	F1	mg/Kg		66	70 - 130
m-Xylene & p-Xylene	<0.00399	U F1	0.200	0.1277	F1	mg/Kg		64	70 - 130
o-Xylene	<0.00200	U F1	0.100	0.06481	F1	mg/Kg		65	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	116		70 - 130

Lab Sample ID: 880-67400-A-1-J MSD

Matrix: Solid

Analysis Batch: 130001

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 130000

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.100	0.08902		mg/Kg		89	70 - 130	31	35
Toluene	<0.00200	U F1	0.100	0.07996		mg/Kg		80	70 - 130	23	35
Ethylbenzene	<0.00200	U F1	0.100	0.08838		mg/Kg		88	70 - 130	29	35
m-Xylene & p-Xylene	<0.00399	U F1	0.200	0.1700		mg/Kg		85	70 - 130	28	35
o-Xylene	<0.00200	U F1	0.100	0.08126		mg/Kg		81	70 - 130	23	35

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-67400-A-1-J MSD

Matrix: Solid

Analysis Batch: 130001

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 130000

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-129775/1-A

Matrix: Solid

Analysis Batch: 129925

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129775

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/23/26 08:41	01/26/26 23:14	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/23/26 08:41	01/26/26 23:14	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/23/26 08:41	01/26/26 23:14	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil	Fac
1-Chlorooctane	215	S1+	70 - 130			01/23/26 08:41	01/26/26 23:14	1	
o-Terphenyl	227	S1+	70 - 130			01/23/26 08:41	01/26/26 23:14	1	

Lab Sample ID: LCS 880-129775/2-A

Matrix: Solid

Analysis Batch: 129925

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129775

	Spike	LCS	LCS					%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	900.7		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	819.4		mg/Kg		82	70 - 130		
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	112		70 - 130						
o-Terphenyl	104		70 - 130						

Lab Sample ID: LCSD 880-129775/3-A

Matrix: Solid

Analysis Batch: 129925

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 129775

	Spike	LCSD	LCSD				%Rec	RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	888.3		mg/Kg		89	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	780.9		mg/Kg		78	70 - 130	5	20
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	110		70 - 130						
o-Terphenyl	105		70 - 130						

Eurofins Midland

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-67377-A-1-C MS

Matrix: Solid

Analysis Batch: 129925

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 129775

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1096		mg/Kg		110	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1006		mg/Kg		101	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	161	S1+	70 - 130						
o-Terphenyl	158	S1+	70 - 130						

Lab Sample ID: 880-67377-A-1-D MSD

Matrix: Solid

Analysis Batch: 129925

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 129775

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	<49.9	U	999	1094		mg/Kg		109	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	972.7		mg/Kg		97	70 - 130	3	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	161	S1+	70 - 130								
o-Terphenyl	158	S1+	70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-129863/1-A

Matrix: Solid

Analysis Batch: 129874

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			01/23/26 22:38	1

Lab Sample ID: LCS 880-129863/2-A

Matrix: Solid

Analysis Batch: 129874

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	262.4		mg/Kg		105	90 - 110

Lab Sample ID: LCSD 880-129863/3-A

Matrix: Solid

Analysis Batch: 129874

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	259.7		mg/Kg		104	90 - 110	1	20

Eurofins Midland

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

GC VOA

Prep Batch: 129885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-67433-1	SW-2A	Total/NA	Solid	5035	
MB 880-129885/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-129885/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-129885/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-67433-1 MS	SW-2A	Total/NA	Solid	5035	
880-67433-1 MSD	SW-2A	Total/NA	Solid	5035	

Analysis Batch: 129972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-67433-1	SW-2A	Total/NA	Solid	8021B	129885
MB 880-129885/5-A	Method Blank	Total/NA	Solid	8021B	129885
LCS 880-129885/1-A	Lab Control Sample	Total/NA	Solid	8021B	129885
LCSD 880-129885/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	129885
880-67433-1 MS	SW-2A	Total/NA	Solid	8021B	129885
880-67433-1 MSD	SW-2A	Total/NA	Solid	8021B	129885

Prep Batch: 130000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-67433-2	SW-5A	Total/NA	Solid	5035	
880-67433-3	SW-6A	Total/NA	Solid	5035	
MB 880-130000/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-130000/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-130000/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-67400-A-1-I MS	Matrix Spike	Total/NA	Solid	5035	
880-67400-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 130001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-67433-2	SW-5A	Total/NA	Solid	8021B	130000
880-67433-3	SW-6A	Total/NA	Solid	8021B	130000
MB 880-130000/5-A	Method Blank	Total/NA	Solid	8021B	130000
LCS 880-130000/1-A	Lab Control Sample	Total/NA	Solid	8021B	130000
LCSD 880-130000/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	130000
880-67400-A-1-I MS	Matrix Spike	Total/NA	Solid	8021B	130000
880-67400-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	130000

Analysis Batch: 130006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-67433-1	SW-2A	Total/NA	Solid	Total BTEX	
880-67433-2	SW-5A	Total/NA	Solid	Total BTEX	
880-67433-3	SW-6A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 129775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-67433-1	SW-2A	Total/NA	Solid	8015NM Prep	
880-67433-2	SW-5A	Total/NA	Solid	8015NM Prep	
880-67433-3	SW-6A	Total/NA	Solid	8015NM Prep	
MB 880-129775/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-129775/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

GC Semi VOA (Continued)

Prep Batch: 129775 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-129775/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-67377-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-67377-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 129925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-67433-1	SW-2A	Total/NA	Solid	8015B NM	129775
880-67433-2	SW-5A	Total/NA	Solid	8015B NM	129775
880-67433-3	SW-6A	Total/NA	Solid	8015B NM	129775
MB 880-129775/1-A	Method Blank	Total/NA	Solid	8015B NM	129775
LCS 880-129775/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	129775
LCSD 880-129775/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	129775
880-67377-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	129775
880-67377-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	129775

Analysis Batch: 129989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-67433-1	SW-2A	Total/NA	Solid	8015 NM	
880-67433-2	SW-5A	Total/NA	Solid	8015 NM	
880-67433-3	SW-6A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 129863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-67433-1	SW-2A	Soluble	Solid	DI Leach	
880-67433-2	SW-5A	Soluble	Solid	DI Leach	
880-67433-3	SW-6A	Soluble	Solid	DI Leach	
MB 880-129863/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-129863/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-129863/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-67433-3 MS	SW-6A	Soluble	Solid	DI Leach	
880-67433-3 MSD	SW-6A	Soluble	Solid	DI Leach	

Analysis Batch: 129874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-67433-1	SW-2A	Soluble	Solid	300.0	129863
880-67433-2	SW-5A	Soluble	Solid	300.0	129863
880-67433-3	SW-6A	Soluble	Solid	300.0	129863
MB 880-129863/1-A	Method Blank	Soluble	Solid	300.0	129863
LCS 880-129863/2-A	Lab Control Sample	Soluble	Solid	300.0	129863
LCSD 880-129863/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	129863
880-67433-3 MS	SW-6A	Soluble	Solid	300.0	129863
880-67433-3 MSD	SW-6A	Soluble	Solid	300.0	129863

Eurofins Midland

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

Client Sample ID: SW-2A

Lab Sample ID: 880-67433-1

Date Collected: 01/22/26 16:00

Matrix: Solid

Date Received: 01/23/26 15:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	129885	01/26/26 11:22	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	129972	01/27/26 12:15	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			130006	01/27/26 12:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			129989	01/27/26 06:29	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10.00 mL	129775	01/23/26 08:42	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	129925	01/27/26 06:29	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	129863	01/23/26 15:46	SMC	EET MID
Soluble	Analysis	300.0		1			129874	01/24/26 00:22	CS	EET MID

Client Sample ID: SW-5A

Lab Sample ID: 880-67433-2

Date Collected: 01/23/26 10:30

Matrix: Solid

Date Received: 01/23/26 15:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	130000	01/27/26 12:35	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	130001	01/27/26 17:00	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			130006	01/27/26 17:00	AJ	EET MID
Total/NA	Analysis	8015 NM		1			129989	01/27/26 06:47	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10.00 mL	129775	01/23/26 08:42	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	129925	01/27/26 06:47	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	129863	01/23/26 15:46	SMC	EET MID
Soluble	Analysis	300.0		1			129874	01/24/26 00:29	CS	EET MID

Client Sample ID: SW-6A

Lab Sample ID: 880-67433-3

Date Collected: 01/23/26 10:35

Matrix: Solid

Date Received: 01/23/26 15:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	130000	01/27/26 12:35	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	130001	01/27/26 17:21	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			130006	01/27/26 17:21	AJ	EET MID
Total/NA	Analysis	8015 NM		1			129989	01/27/26 07:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10.00 mL	129775	01/23/26 08:42	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	129925	01/27/26 07:05	AJ	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	129863	01/23/26 15:46	SMC	EET MID
Soluble	Analysis	300.0		1			129874	01/24/26 00:35	CS	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Midland

Accreditation/Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

Laboratory: Eurofins 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	06-30-26
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		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Federal 29 Z

Job ID: 880-67433-1
SDG: Carlsbad NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-67433-1	SW-2A	Solid	01/22/26 16:00	01/23/26 15:30	0-4'
880-67433-2	SW-5A	Solid	01/23/26 10:30	01/23/26 15:30	0-4'
880-67433-3	SW-6A	Solid	01/23/26 10:35	01/23/26 15:30	0-4'

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



880-67433 Chain of Custody

Page 1 of 1
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Work Order Comments										
Program:		UST/PST	☐	PRP	☐	Brownfields	☐	RRC	☐	Superfund
State of Project:										
Reporting:		Level I	☐	Level II	☐	Level III	☐	PST/UST	☐	TRRP
Deliverables:		EDD	☐					AdAPT	☐	Other:

Project Manager:	Isabel Staffel		Bill to: (if different)
Company Name:	TRC Companies		Company Name:
Address:	10 Dextra Dr Suite 410E		Address:
City, State ZIP:	Midland Tx 79705		City, State ZIP:
Phone:		Email:	ISStaffel@TRCcompanies.com

[illegible]

Total	200.7 / 6010	200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed	8RCRA Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn Hg: 1631 / 245.1 / 7470 / 7471
	TCLP/SPLP 6010 : 8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins 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 Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins 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			12/26/30			
3						
4						
6						

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 880-67433-1

SDG Number: Carlsbad NM

Login Number: 67433

List Number: 1

Creator: Dyal, Erica

List Source: Eurofins 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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 616166

QUESTIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 616166
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2221331648
Incident Name	NAPP2221331648 FEDERAL 29 Z 002H @ FAPP2203544127
Incident Type	Oil Release
Incident Status	Remediation Closure Report Received
Incident Facility	[fAPP2203544127] Federal Z RB

Location of Release Source

Please answer all the questions in this group.

Site Name	FEDERAL 29 Z 002H
Date Release Discovered	07/16/2022
Surface Owner	Federal

Incident Details

Please answer all the questions in this group.

Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Cause: Equipment Failure Other (Specify) Crude Oil Released: 2 BBL Recovered: 0 BBL Lost: 2 BBL.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 616166

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 616166
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	More info needed to determine if this will be treated as a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Unavailable.
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	packing blow out - release on and off pad

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Jared Stoffel Title: Scientist Email: jstoffel@trccompanies.com Date: 08/20/2026
--	---

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QUESTIONS, Page 3

Action 616166

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 616166
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
<i>Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	None
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	10300
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	118
GRO+DRO (EPA SW-846 Method 8015M)	118
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
On what estimated date will the remediation commence	12/01/2025
On what date will (or did) the final sampling or liner inspection occur	12/04/2025
On what date will (or was) the remediation complete(d)	12/20/2025
What is the estimated surface area (in square feet) that will be reclaimed	37500
What is the estimated volume (in cubic yards) that will be reclaimed	5500
What is the estimated surface area (in square feet) that will be remediated	37500
What is the estimated volume (in cubic yards) that will be remediated	5500
<i>These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.</i>	
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 4

Action 616166

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 616166
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	fEEM0112334510 HALFWAY DISPOSAL AND LANDFILL
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	No
OR is the off-site disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
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.	
I hereby agree and sign off to the above statement	Name: Jared Stoffel Title: Scientist Email: jstoffel@trccompanies.com Date: 08/20/2026
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5

Action 616166

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 616166
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 616166

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 616166
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	545415
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	01/30/2026
What was the (estimated) number of samples that were to be gathered	81
What was the sampling surface area in square feet	29000

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	35800
What was the total volume (cubic yards) remediated	7860
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	35800
What was the total volume (in cubic yards) reclaimed	7860
Summarize any additional remediation activities not included by answers (above)	Soil above applicable reclamation and remediation standards in the pasture were excavated and transported to NMOCD approved disposal facility. Commercially sourced clean fill was utilized to backfill to near original grade.

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Jared Stoffel Title: Scientist Email: jstoffel@trccompanies.com Date: 08/20/2026
--	---

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QUESTIONS, Page 7

Action 616166

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 616166
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 616166

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 616166
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	This Remediation Closure Report is approved. Areas reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as they are no longer reasonably needed. A report for reclamation and revegetation will need to be submitted and approved prior to this incident receiving the final status of "Restoration Complete".	8/20/2026