TETRA TECH

August 28, 2024

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

Re: Remediation Closure and Reclamation Report
ConocoPhillips (Heritage COG Operating, LLC)
West Brushy 8 Federal SWD #001 Release
Unit Letter A, Section 08, Township 26 South, Range 29 East
Eddy County, New Mexico
Incident ID# nAB1715742101
2RP-4240

Ms. Hall,

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips Company (ConocoPhillips) to evaluate a historical Heritage COG Operating, LLC (COG) release and subsequent remedial actions performed at the West Brushy 8 Federal SWD #001 release site (API No. 30-015-31675). The release footprint is located in Public Land Survey System (PLSS) Unit Letter A, Section 08, Township 26 South, Range 29 East, in Eddy County, New Mexico (Site). The release point coordinates reported in the initial spill notification are 32.063037°, -103.997621°, as shown on Figures 1 and 2. The release extent provided in prior reporting is located approximately 300 feet north of the reported coordinates. The Site is located on federal lands managed by the Bureau of Land Management (BLM). The release occurred from a COG flowline on a facility operated by a third party.

BACKGROUND

According to the State of New Mexico Oil Conservation Division (NMOCD) C-141 Initial Report, the release was discovered on May 27, 2017. The release was caused by a hole in the bottom of a fitting in a flowline. The fitting was replaced, and a vacuum truck was dispatched to remove all freestanding fluids. Approximately 30 bbls of produced water were released to pasture and along the ditch south of the lease road, of which approximately 20 bbls were recovered. The approximate release extent is shown in Figure 3.

The NMOCD approved the initial C-141 on June 5, 2017, and subsequently assigned the release the Incident ID nAB1715742101 and the remediation permit (RP) number 2RP-4240. This incident is included in an Agreed Compliance Order-Releases (ACO-R) between COG and the NMOCD signed on November 20 and 26, 2018, respectively. The initial C-141 form is included in Appendix A.

2017 BBC SITE ASSESSMENT

From July 3, 2017 to October 11, 2017 BBC International (BBC) conducted assessment activities at the nAB1715742101 release site on behalf of COG. Assessment activities consisted of advancing fifteen (15) hand auger borings (SP1 through SP10, and 1-P through 5-P) and two (2) soil borings (SB1 and SB2) to various depths to delineate the release extent horizontally and vertically. The BBC sampling locations are presented in Figure 3.

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A total of forty-one (41) soil samples were collected from the seventeen (17) sampling locations and submitted to Cardinal Laboratories in Hobbs, New Mexico (Cardinal) for analysis. Analytical results were above the reclamation limit for chloride (600 mg/kg) in surface (0-4 feet bgs) soils at seven (7) of the sampling locations. Analytical results associated with samples collected during the 2017 BBC assessment activities are summarized in Table 1.

2017 NMOCD-APPROVED WORKPLAN

A Delineation Workplan was prepared by BBC based on the results of the 2017 BBC assessment activities. The Delineation Workplan was submitted to the NMOCD and the BLM via email on November 22, 2017. In the report, BBC proposes the following:

- *The leak area near SP1 – SP3 will be excavated to a depth of 1 foot.*
- *The leak area near SP4 – SP7, SB1, and SB2 will be excavated to a depth of 4 feet with an impermeable liner placed in the bottom of the excavation.*
- *The leak area near SP8 – SP10 will require zero remediation.*
- *The entire site will then be backfilled with clean soil and revegetated (if warranted) to the standards of the appropriate regulatory agency or private surface owner.*

A copy of the Delineation Workplan is included in the OCD Online Imaging files. The proposed excavation extents are indicated in Figure 3.

The Delineation Workplan was conditionally approved by Crystal Weaver of the NMOCD via email on February 16, 2018. Ms. Weaver states:

"Due to the amount of time this work plan has sat in OCD's que I will go ahead and approve it, however, delineation on this is not Complete and it will need to be Completed during the excavation process.

- *In the area of the spill that is demarked as the pink area (according to the site map in the work plan) recommended action proposed by BBC is 4ft excavation and a liner placed, however, sampling for all of that area only goes down to either a max of 3ft depth in some places (SP-6 & SP-7) and 4ft depth in other places (SP-4 & SP-5) and then has follow up delineation effort via soil boring that starts at Sft depth (SB-i & SB-2). Now I understand that there is a road along the pink demarked area but if able to delineate why was a gap made in the data? OCD factors vertical cumulations of chlorides in the soil column when determining where liner placement will be ideal to set if indeed a liner is the most appropriate measure that can be taken for remediation. So, without a full delineation liner placement cannot be determined. Please collect delineation data near the SB-1 and SB-2 areas, starting SB-1 at 5ft and SB-2 at 4ft. thru the 8ft interval. Upon receipt of data for delineation completion please contact OCD and mention that the project has an urgent need for liner placement determination to be able to backfill.*
- *I measured on my map that this release has a proximity of 1400÷/- to the bank of the Pecos River and is on a steep elevational raise that appears to have a seamless downgrade starting from the boundary area of the release going to the river, because this release has sat for some time and because it has a sister release that has some overlap (2RP-3774) and that release has sat for even longer OCD would like to request a prompt submission of work plan be remitted for the older 2RP-3774 release (since one was never received) and requests that if practicable the two releases be remediated at the same time.*
- *The site ranking is never stated out right in this work plan, but it can be inferred. So based on data OCD has referenced we will concur with the inferred ranking of 10 based on depth to ground water data cited in the work plan and cross checked by OCD. Since site ranking is not applicable for target delineation and clean up levels on chlorides, chlorides will need to be remediated (if practicable) and delineated to 600ppm or less both vertically and horizontally.*
- *Confirmation side wall lab tested samples will be required for all excavated areas."*

Follow-up email correspondence from Mike Bratcher of the NMOCD on February 22, 2018 removed the conditions of the prior NMOCD approval and approved the remediation proposal as written.

Mr. Bratcher states:

"After consulting with Ms. Weaver and going over the previous releases at this site, this proposal (2RP-4240) is approved as submitted. Some of the data and information from the previous releases was not available to Ms. Weaver when she reviewed this proposal and was my fault. Since there are several releases to be addressed relative to this site, OCD notes the open RP numbers, and status, as follows:

- *2RP-3353 and 2RP-3774 releases cover basically the same area and have approved remediation proposals.*
- *2RP-4094 has an approved remediation proposal.*
- *2RP-4330 has an approved remediation proposal.*
- *2RP-4240 now has an approved remediation proposal.*

It is OCD's understanding that all the releases associated with this site, as listed above, will be addressed upon mobilization to the site, and that mobilization will occur in the very near future. Please advise once that has been scheduled. Also, please advise if this information is not as reflected in COG records.

In addition, for future reference, when performing vertical delineation and transitioning from conventional delineation to utilizing boring equipment, please attempt where possible, to obtain samples in a manner that does not leave gaps in the analytical data. OCD would prefer to see uniform data throughout the delineation process.

Federal sites will require like approval from BLM, if not previously obtained."

Copies of the regulatory correspondence are included in the Remediation Work Plan dated January 29, 2024, available on the NMOCD permitting website.

REMEDIAL ACTION, 2019 CLOSURE REPORT, AND NMOCD REJECTION

The West Brushy 8 Federal SWD #001 facility was subject to numerous releases in the period between 2015 and 2017. Based on available correspondence, BBC bundled several incidents into one remedial action. Post-assessment, BBC began the excavation of impacted soils in pasture. A Closure Report prepared by BBC states that excavation activities were completed in accordance with the approved work plan for each release. The northern area of the nAB1715742101 release extent was reportedly excavated to1 foot bgs, and the middle portion was reportedly excavated to 4 feet bgs with a liner placed as the bottom of the excavation, in accordance with the approved Delineation Workplan. Photographs of the excavated and backfilled areas were included in the Closure Report. The figure provided in the Closure Report for Incident nAB1715742101 was identical to that provided in the Delineation Workplan. A copy of the 2019 BBC Closure Report is included in the Remediation Work Plan dated January 29, 2024, available on the NMOCD permitting website.

The Closure Report for four separate releases that occurred at the West Brushy 8 Federal SWD #001 Site, including Incident nAB1715742101, was submitted on January 22, 2019. The Closure Report was rejected by NMOCD for Incident nAB1715742101 on December 12, 2022 with the following comments:

- *"In the email dated 02/16/2018 found in the incident files, conditions of approval included confirmation side walls lab tested samples were required. No laboratory analytical results included in the report.*
- *2RP-4240 closed. Refer to incident #nAB1715742101 in all future communication.*
- *Submit a complete report through the OCD Permitting website by 3/17/2023."*

Copies of the NMOCD correspondence are included in the Remediation Work Plan dated January 29, 2024, available on the NMOCD permitting website.

EVALUATION OF REMEDIAL ACTION

Following receipt of the Closure Report rejection, ConocoPhillips engaged Tetra Tech to review all available historical documentation for all release incidents associated with the West Brushy 8 Federal SWD #001 facility, and to perform visual site inspections of the numerous release incidents in order to ascertain the extent of the remedial actions taken by BBC. No laboratory analytical data or other evidence of confirmation sampling was discovered during the file review.

Tetra Tech personnel visited the release site in February and August 2023 in order to geolocate the photographs of excavated and backfilled areas included in the Closure Report and to determine current site conditions. Photographic documentation of the 2018 remedial activities and the 2023 site conditions is presented in the Remediation Work Plan dated January 29, 2024, available on the NMOCD permitting website.

The area reported by BBC as remediated to 4 feet bgs with a liner at the base of the excavation, as presented in Figure 3, was identified in the field based on the figure included in the approved Delineation Workplan and BBC Closure Report and was corroborated by the photographs included in the BBC Closure Report as well as observations made during the 2023 visual site inspections. The remediated area is located in a third-party right-of-way on the south side of the lease road. Vegetative growth was observed in portions of the remediated extent, and no staining or other visible evidence of the release were present at the time of the site inspections.

The area reported by BBC as remediated to 1 foot bgs on the north side of the lease road was identified in the field as a natural drainage area adjacent to a third-party pipeline right-of-way. Sparse vegetation was observed in this area.

SITE CHARACTERIZATION

The Site Characterization performed by BBC at the time of the assessment (and ensuing proposed Delineation Workplan) established a depth to groundwater at 75 feet bgs based on the New Mexico Office of the State Engineer (NMOSE) reporting system. This Site Characterization was accepted when the Delineation Workplan was approved.

Given the age of the release and the associated actions, a contemporized site characterization was performed and no sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, playa lakes, streams, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.29 New Mexico Administrative Code (NMAC). The Site is in an area of medium karst potential. The Pecos River is located approximately 1,800 feet northwest of the Site. Two NMOSE stream bodies are located approximately 600 and 1,000 feet from the release areas, respectively.

There are no water wells listed in the NMOSE database located within approximately ½ mile (800 meters) of the site. According to data from two (2) wells listed in the NMOSE database located approximately 1.5 miles (2,400 meters) from the Site, groundwater was encountered at a minimum depth of 75 feet below ground surface (bgs). The Site characterization data is presented in Appendix B.

REGULATORY FRAMEWORK

Based upon the lack of groundwater data within a ½ mile radius and the proximity to the Pecos River and stream bodies, in accordance with Subsection E of 19.15.29.12 NMAC, per 19.15.29.11 NMAC, the site characterization data was used to determine recommended remedial action levels (RRALs) for benzene,

toluene, ethylbenzene, and xylene (collectively referred to as BTEX), total petroleum hydrocarbons (TPH), and chlorides in soil.

Based on the previously-approved Delineation Workplan and the contemporized site characterization, and in accordance with Table I of 19.15.29.12 NMAC, the recommended remedial action levels (RRALs) for the Site are as follows:

Constituent	Site RRALs
Chloride	10,000 mg/kg
TPH	2,500 mg/kg
BTEX	50 mg/kg

Additionally, in accordance with the NMOCD guidance *Procedures for Implementation of the Spill Rule (19.15.29 NMAC)* (September 6, 2019), the following reclamation requirements for surface soils (0-4 ft bgs) outside of active oil and gas operations are as follows:

Constituent	Reclamation Requirements
Chloride	600 mg/kg
TPH	100 mg/kg

2023-2024 ADDITIONAL ASSESSMENT ACTIVITIES

Tetra Tech conducted additional assessment sampling at the Site on behalf of ConocoPhillips in order to evaluate current soil concentrations and confirm the reported remedial actions performed at the nAB1715742101 release Site. On September 21, 2023 Tetra Tech installed fifteen (15) hand auger borings (AH-23-1 through AH-23-15) to depths ranging from 1 to 4 feet bgs in a cross section pattern across the release extent.

Tetra Tech personnel returned to the Site on November 30, 2023 to install two (2) soil trenches (T-1 and T-5) in the northern drainage area in an attempt to vertically delineate the release in this area, as well as two (2) hand auger borings (AH-23-16 and AH-23-17) to further delineate the release horizontally. Due to the proximity of a buried Energy Transfer pipeline, these soil trenches were placed 25 feet east of the buried line and were not centered within the release extent.

In coordination with all third-party utility operators in the area, Tetra Tech personnel returned to the Site on January 4-5, 2024 to install an additional sixteen (16) soil trenches (T-24-1 through T-24-16) and four (4) hand auger borings (H-24-1 through H-24-4). The 2024 sampling efforts were expanded to delineate two adjacent and overlapping historical releases (incident IDs nAB1619432451 and nAB1529948530).

Tetra Tech personnel returned to the Site on January 10, 2024 to oversee the installation of six (6) borings with an air rotary drill rig. Boring locations were chosen based on all previous sampling results in order to vertically delineate soil impacts from the various historical releases.

The 2023-2024 sampling locations pertaining to the nAB1715742101 incident alone are shown on Figure 4. All 2023-2024 sampling locations are presented along with the nAB1619432451 and nAB1529948530 release incident extents in Figure 5.

A total of ninety-seven (97) soil samples were collected from forty-five (45) sampling locations during the four (4) mobilizations and submitted to Cardinal under five (5) separate chain-of-custody and analysis requests to be analyzed for chloride via EPA Method 300.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8261B. A copy of the laboratory analytical reports and chain-of-custody documentation for the 2023-2024 sampling events are included in the Remediation Work Plan dated January 29, 2024, available on the NMOCD permitting website.

Analytical results from the 2023-2024 soil assessment efforts are summarized in Table 2. The analytical results associated with the 0-1 foot bgs soil interval at trench location T-24-6 exceeded the reclamation limit of 100 mg/kg for TPH. There were no other TPH or BTEX results which exceeded the applicable reclamation limits or RRALs in any of the analyzed samples.

Chloride concentrations were detected in surface soils (0-4 feet bgs) at levels above the reclamation limit of 600 mg/kg at seventeen (17) of the sample locations. There were no analytical results associated with subsurface (greater than 4 feet bgs) soils which exceeded the chloride RRAL of 10,000 mg/kg.

The sampling locations associated with the nAB1715742101 incident which exceeded the reclamation limits were those associated with the drainage feature in the portion of the release extent located north of the lease road. The analytical results associated with the portion of the release extent located south of the lease road (AH-10 through AH-15) were all below the reclamation limits for all constituents. These sampling locations also correspond geographically with the photographic documentation provided in the 2019 BBC Closure Report. Horizontal and vertical delineation of the release extent was achieved in accordance with 19.15.29.11(5) NMAC as a result of the 2023-2024 sampling events. The 2023-2024 sampling locations pertaining to the nAB1715742101 incident alone are shown on Figure 4.

The analytical results associated with the two adjacent and overlapping historical releases (incident IDs nAB1619432451 and nAB1529948530) will be discussed in further detail in separate reports prepared for those incidents.

REMEDIATION WORK PLAN AND REGULATORY APPROVAL

Tetra Tech, on behalf of ConocoPhillips, prepared a Remediation Work Plan dated January 29, 2024 and submitted it to the NMOCD and the BLM for approval. The Remediation Work Plan described the results of the assessment activities and proposed to remove soils that exceeded the Site reclamation limits and RRALs as determined by the results of the assessment activities. The proposed remedial action addressed the nAB1715742101 incident, which is the subject of this report, as well as the two adjacent and overlapping historical releases (incident IDs nAB1619432451 and nAB1529948530).

The Remediation Work Plan was approved via email by Brittany Hall of the NMOCD on January 31, 2024, with the following conditions:

- *"Remediation plan approved. Sidewall confirmation samples in the immediate vicinity of any pressurized lines and the "exclusion zone" on Figure 6 must be collected. Confirmation bottom and sidewall samples representative of no more than 400 square feet is approved. A complete and accurate remediation closure report will need to be submitted by April 30, 2024."*

A series of extensions were requested for the remedial activities and associated reporting. The final extension was approved by Brittany Hall on July 30, 2024, and the new due date is August 30, 2024. Copies of the regulatory correspondence are included in Appendix C.

CULTURAL SURVEY

In associated correspondence, the BLM conditionally approved the proposed remedial action upon the condition that a full archeological survey be conducted to include any areas that will be disturbed in order to access the release area. An extension request for reporting was submitted to the NMOCD via email on April 30, 2024 to allow time for the cultural survey and to get concurrent approval from the BLM. The extension request was approved via email on May 1, 2024 for a new due date of July 30, 2024. Copies of the regulatory correspondence are included in Appendix C.

Tetra Tech subcontracted SWCA Environmental Consultants (SWCA) to conduct an intensive pedestrian cultural resources survey for the West Brushy 8 Federal SWD #1- Proposed Remediation Project in Eddy County, New Mexico. The survey included the pipe location encompassed by the release remediation area and a 30-meter (m) (100-foot) cultural resources buffer as well as a portion of LA 66112. Portions of the

proposed project are covered by three previous qualifying surveys, surveyed within the past 10 years (New Mexico Cultural Resource Information System [NMCRIS] Activity Numbers 132233, 137329, and 145263); these areas were not resurveyed at this time. The total survey area is 6.08 acres (2.46 hectare [ha]). No new historic cultural properties, archaeological sites, or isolated occurrences were identified during the investigation. One previously recorded archaeological site, LA 66112, was visited due to its proximity to the inadvertent release. The western third of the site was updated based on communication with Aaron Whaley at the BLM Carlsbad Field Office (CFO) (2/26/2024).

In accordance with Section 106 of the National Historic Preservation Act (Public Law 89-665), as amended, a cultural resources inventory was completed to locate, identify, and record any cultural resources that may be affected within the area of potential effects (APE) of the proposed project, and provide recommendations regarding their eligibility for listing in the National Register of Historic Places (NRHP).

LA 66112 was determined eligible for the NRHP. The observed portion of the site does not contribute to the eligibility. The inadvertent release area does not extend into the site, and no remediation activities will take place within 100 feet of the site. No additional investigation or treatment is recommended regarding the current undertaking. If subsurface cultural materials are encountered during remediation, all work should cease, and the BLM CFO should be notified immediately.

The BLM approved ConocoPhillips to proceed with the remedial action following the completion of the cultural survey in an email dated June 26, 2024. Copies of the regulatory correspondence are included in Appendix C.

REMEDIAL ACTIVITIES AND CONFIRMATION SAMPLING

From July 10 through August 7, 2024, Tetra Tech personnel were onsite to supervise the remedial activities proposed in the approved Remediation Work Plan, including excavation, disposal, and confirmation sampling. Prior to confirmation sampling, on July 11, 2024, the NMOCD district office was first notified via the OCD Portal in accordance with Subsection D of 19.15.29.12 NMAC. As mentioned, a second extension request was submitted to the NMOCD on July 30, 2024 and was approved for a new due date of August 30, 2024. Regulatory correspondence, including the approved extension request and release notifications and variance requests are documented in Appendix C.

Impacted soils were excavated as indicated in Figure 6. The areas within the release footprint were excavated to a maximum depth of 4 feet below surrounding grade. Due to safety concerns associated with working around pressurized lines, impacted soils were excavated by hand or hydro-excavation within 4 feet of subsurface lines. Heavy machinery remained outside this buffer zone to avoid any associated risk or disturbance. The remediated surface area associated with incident nAB1715742101 was comprised of approximately 17,650 square feet. Photographs from the excavated areas prior to backfill are provided in Appendix D.

Following excavation, confirmation floor and sidewall samples were collected from the entire remediated area and submitted for laboratory analysis to verify efficacy of remediation activities. Per the NMOCD approved confirmation sampling plan, confirmation samples were collected such that each discrete sample (sidewall and floor) was representative of no more than 400 square feet of excavated area. The combined remediated extent had a surface area of approximately 19,890 square feet. A total of fifty-one (51) confirmation floor sample locations and twenty-two (22) confirmation sidewall sample locations were collected for laboratory analysis during remedial activities. Confirmation sidewall sample locations were categorized with the cardinal direction (N, E, S, W) followed by SW-#. Confirmation floor sample locations were labeled with FS-#. Internal sidewall samples were collected from the vertical faces of the excavation between the 1-ft and 4-ft areas and labeled with ISW-#.

At select sidewall locations where the initial confirmation soil sampling analytical results exceeded the reclamation limits, the sidewalls were expanded, and iterative confirmation samples were collected to encompass the original sample locations that triggered removal (nomenclature defined in Table 3) post-

additional excavation. Final excavated areas, depths and confirmation sample locations are indicated in Figure 6.

Collected confirmation samples were placed into laboratory-provided sample containers, transferred under chain-of-custody, and analyzed within appropriate holding times by Cardinal. The soil samples were analyzed for TPH (GRO+DRO+MRO) by EPA Method 8015M, BTEX by EPA Method 8021B, and chlorides by SM4500Cl-B. The analytical results were directly compared to the reclamation limits and established Site RRALs to demonstrate compliance.

The results of the July and August 2024 confirmation sampling events are summarized in Table 3. All final confirmation soil samples (floor and sidewall) were below applicable cleanup levels for chloride, TPH, and BTEX. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E.

All excavated material was transported offsite for proper disposal. Approximately 1,850 cubic yards of material were transported to the R360 Red Bluff Facility in Orla, Texas.

RECLAMATION ACTIVITIES

Based on 19.15.29.13 NMAC, all areas disturbed by the remediation have been reclaimed. Collected confirmation samples were placed into laboratory-provided sample containers, transferred under chain-of-custody, and analyzed within appropriate holding times by Cardinal. The soil samples were analyzed for TPH (GRO+DRO+MRO) by EPA Method 8015M, BTEX by EPA Method 8021B, and chlorides by SM4500Cl-B. The analytical results were directly compared to the reclamation requirements and established Site RRALs to demonstrate compliance. All final confirmation soil samples (floor and sidewall) were below the reclamation limits for chloride, TPH, and BTEX. Excavated areas, depths and confirmation sample locations are indicated in Figure 6. The results of the July and August 2024 confirmation sampling events are summarized in Table 3.

Once acceptable confirmation sample results were received, the excavation was backfilled with clean material to pre-release grade. In accordance with 19.15.29.12 NMAC, the reclaimed area contained a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0. The soil cover included a top layer consisting of one foot of suitable material to establish vegetation at the site. The backfilled areas in the pasture were seeded following backfilling, to aid in revegetation. Based on the soils of the site, the BLM Seed Mix #2 was used for seeding and was planted in the amount specified in the pounds pure live seed (PLS) per acre.

The backfill material was sourced from the R360 Red Bluff Facility. Twenty-one (21) representative soil samples were collected by R360 from the backfill material used for the reclamation of the project site on July 22, 2024 and sent to Eurofins in Carlsbad, New Mexico to be analyzed for chlorides by EPA Method 300.0. Tetra Tech collected one additional backfill sample from the R360 Red Bluff facility on August 22, 2024 and submitted to Cardinal to be analyzed for TPH (GRO+DRO+MRO) by EPA Method 8015M, BTEX by EPA Method 8021B, and chlorides by SM4500Cl-B. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E. The analytical results associated with the backfill sample collected by Tetra Tech are summarized in Table 4.

Site inspections will be performed annually to assess the revegetation progress and evaluate the site for the presence of primary or secondary noxious weeds. If noxious weeds are identified, the NMSLO will be contacted to determine an effective method for eradication. If the site does not show revegetation after one growing season, the area will be reseeded as appropriate. Reclamation activities have been implemented in consultation with the BLM.

CONCLUSION

ConocoPhillips respectfully requests closure of the incident based on the confirmation sampling results and remedial activities performed. The final C-141 forms are enclosed in Appendix A.

If you have any questions concerning the remediation activities for the Site, please call me at (512) 739-7874 or Christian at (512) 338-2861.

Sincerely,
Tetra Tech, Inc.

Samantha K. Abbott, P.G
Project Manager

Christian M. Llull, P.G.
Program Manager

cc:
Mr. Ike Tavarez – ConocoPhillips
Ms. Shelly Taylor, BLM

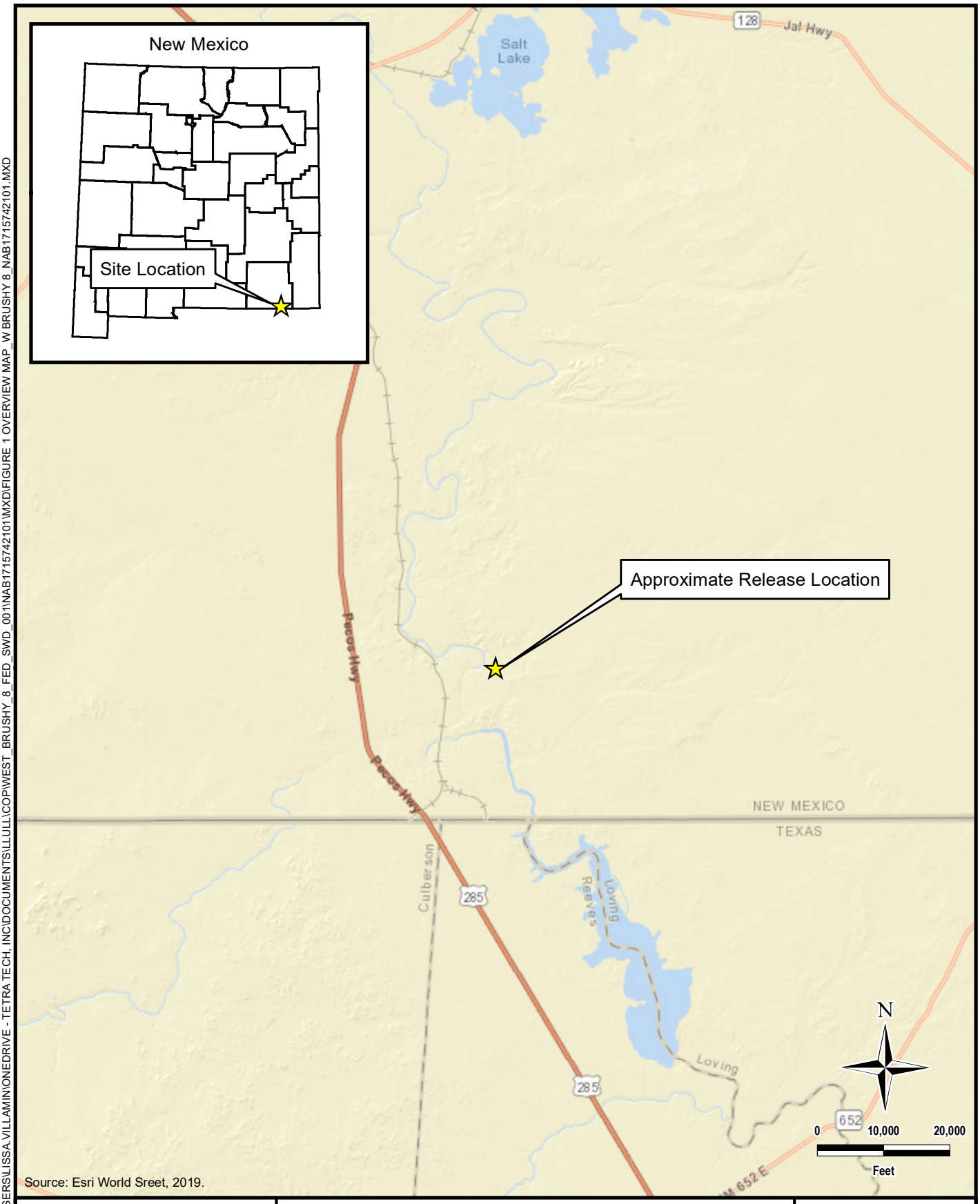
LIST OF ATTACHMENTS

Figures:

Tables:

Appendices:

FIGURES



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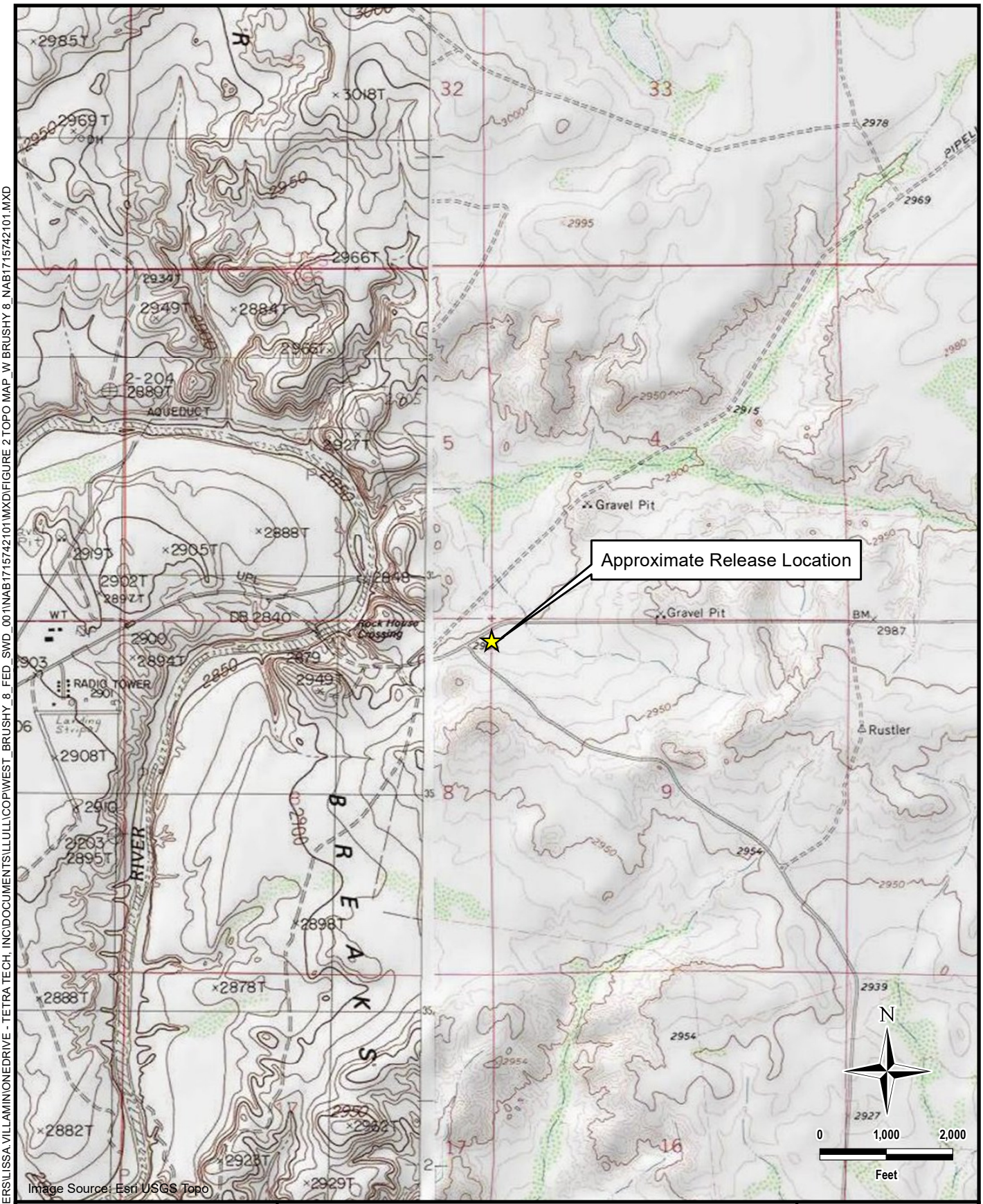
CONOCOPHILLIPS

NAB1715742101
(32.063500°, -103.997560°)
EDDY COUNTY, NEW MEXICO

WEST BRUSHY 8 FEDERAL SWD #001
OVERVIEW MAP

PROJECT NO.:	212C-MD-02997A
DATE:	NOVEMBER 27, 2023
DESIGNED BY:	LMV

Figure No.
1



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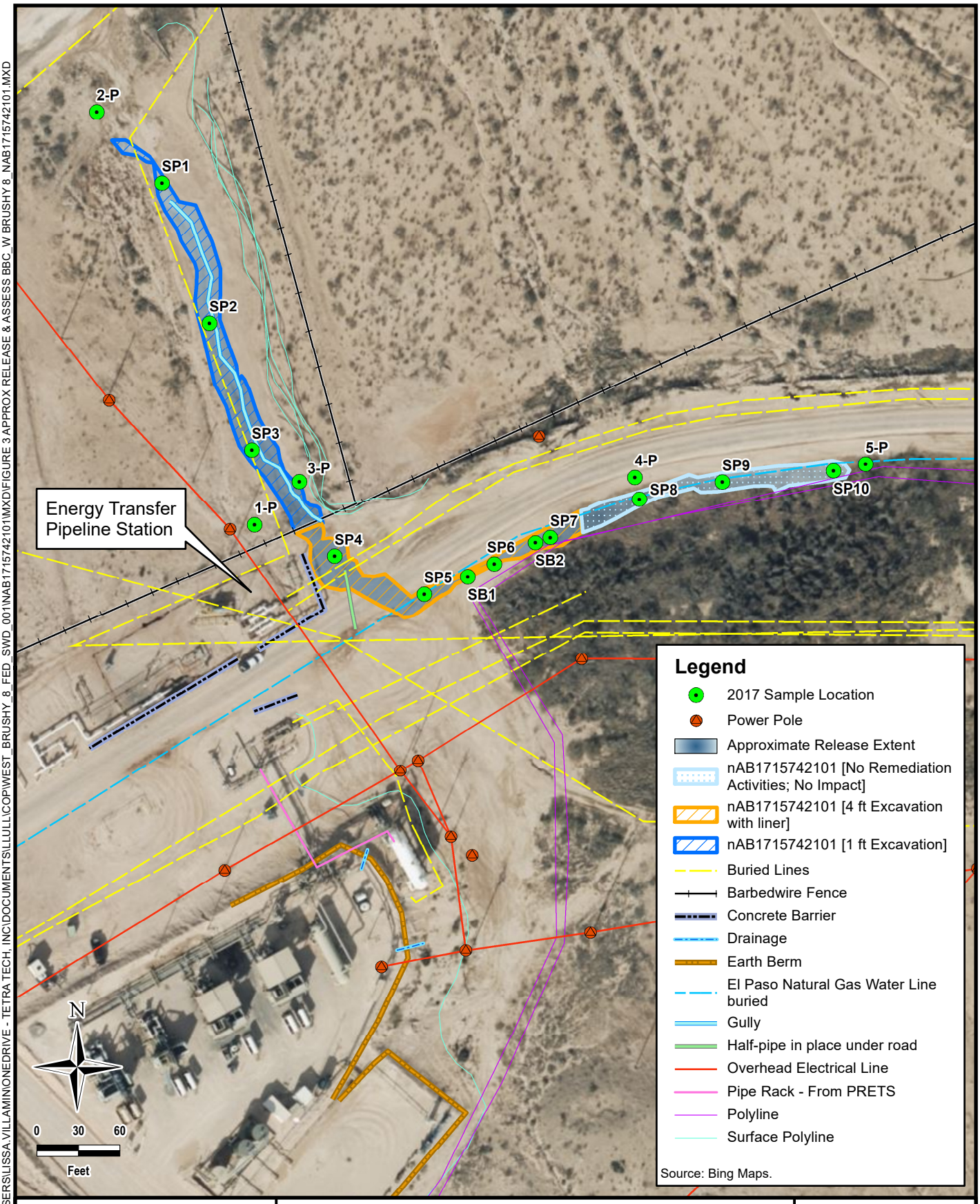
CONOCOPHILLIPS

NAB1715742101
(32.063500°, -103.997560°)
EDDY COUNTY, NEW MEXICO

WEST BRUSHY 8 FEDERAL SWD #001
TOPOGRAPHIC MAP

PROJECT NO.:	212C-MD-02997A
DATE:	NOVEMBER 27, 2023
DESIGNED BY:	LMV

Figure No.
2



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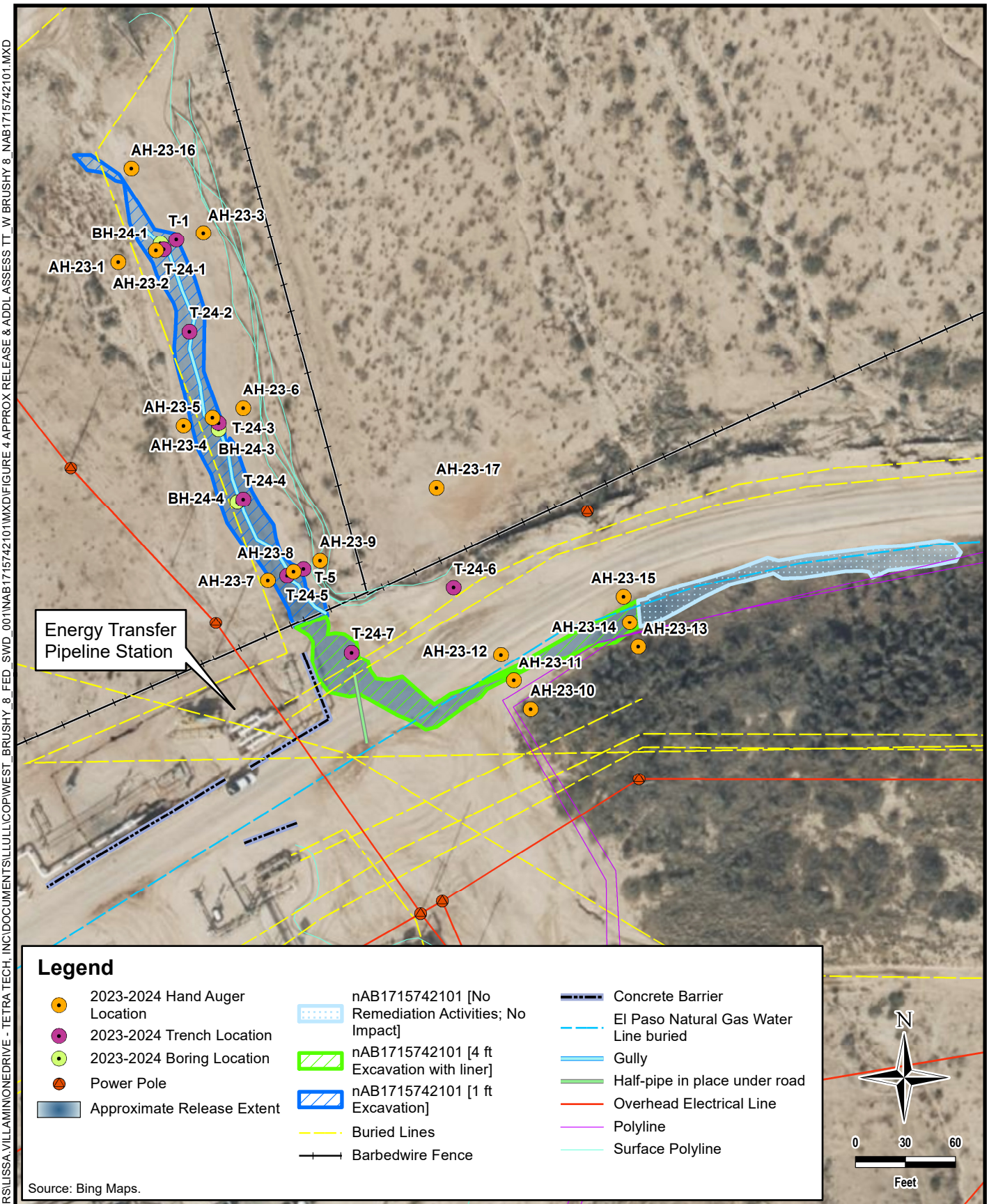
CONOCOPHILLIPS

NAB1715742101
(32.063037°, -103.997621°)
EDDY COUNTY, NEW MEXICO

WEST BRUSHY 8 FEDERAL SWD #001
APPROXIMATE RELEASE EXTENT AND ASSESSMENT (BBC)

PROJECT NO.:	212C-MD-02997A
DATE:	JANUARY 18, 2024
DESIGNED BY:	LMV

Figure No.
3



DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\WEST_BRUSHY_8_FED_SWD_001\NAB1715742101\MXD\FIGURE 4 APPROX RELEASE & ADDL ASSESS TT_W BRUSHY 8_NAB1715742101.MXD

TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

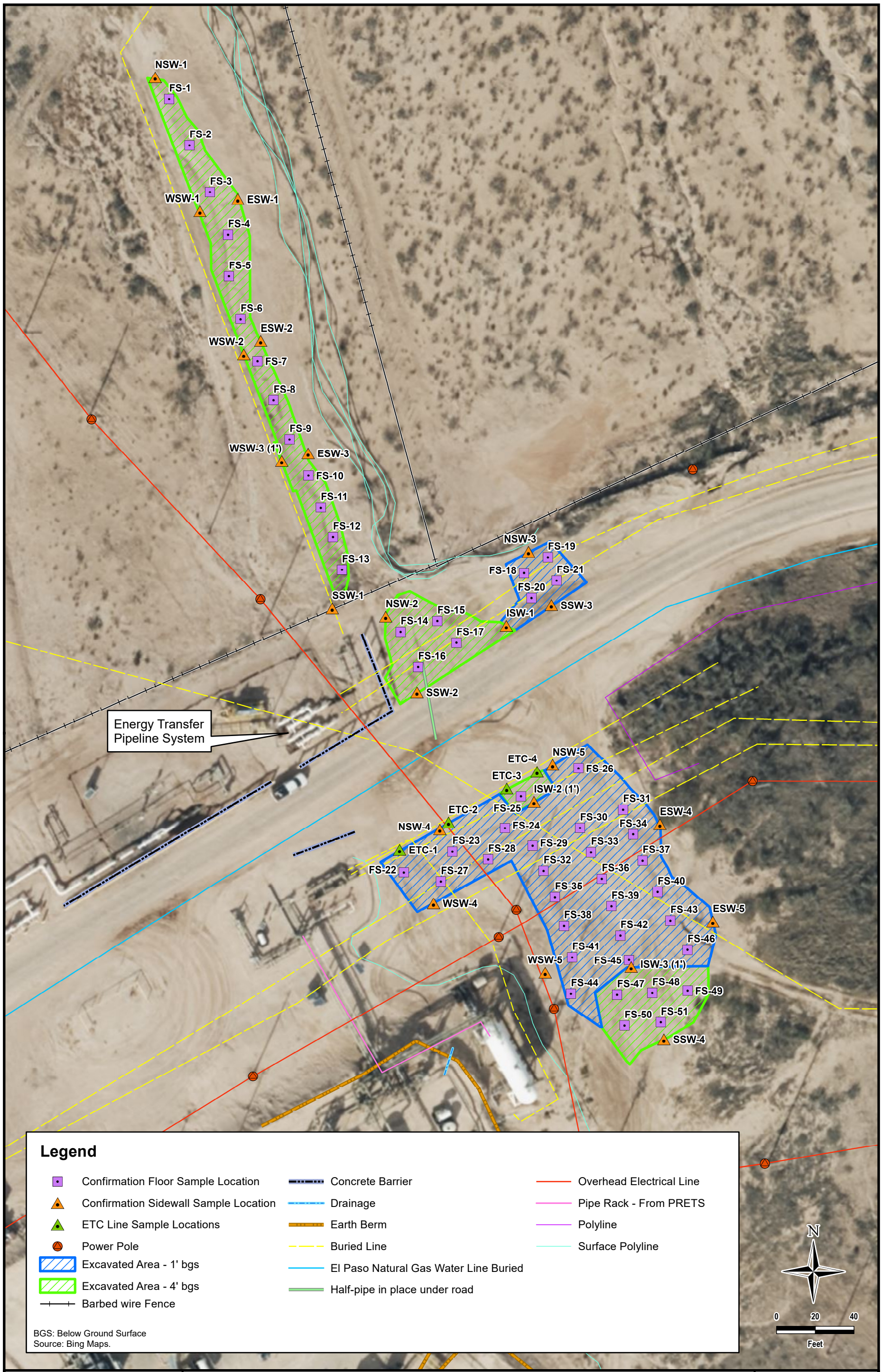
CONOCOPHILLIPS (HERITAGE COG OPERATING, LLC)

NAB1715742101
(32.063037°, -103.997621°)
EDDY COUNTY, NEW MEXICO

WEST BRUSHY 8 FEDERAL SWD #001
APPROXIMATE RELEASE EXTENT AND ADDITIONAL ASSESSMENT (TT)

PROJECT NO.:	212C-MD-02997A
DATE:	JANUARY 18, 2024
DESIGNED BY:	LMV

Figure No.
4



DOCUMENT PATH: Y:\CONOCOPHILLIPS\WEST_BRUSHY_8_FED_SWD_001\NAB1715742101\MXD\FIGURE 5 REMEDI & CONFIRM_W BRUSHY 8_NAB1715742101.MXD

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Phone: (432) 682-4559
Fax: (432) 682-3946

CONOCOPHILLIPS (HERITAGE COG OPERATING, LLC)

NAB1715742101
(32.063037°, -103.997621°)
EDDY COUNTY, NEW MEXICO

WEST BRUSHY 8 FEDERAL SWD #1
REMEDIATION EXTENTS AND CONFIRMATION SAMPLING LOCATIONS

PROJECT NO.:	212C-MD-02997A
DATE:	AUGUST 19, 2024
DESIGNED BY:	LMV

Figure No.
5

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
2017 BBC SOIL ASSESSMENT- (nAB1715742101/2RP-4240)
CONOCOPHILLIPS
WEST BRUSHY 8 FEDERAL SWD #001 RELEASE
DOR: 5/17/2017
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth	Chloride[1]		BTEX[2]										TPH[3]						
					Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH
															C_6 - C_{10}		> C_{10} - C_{28}		> C_{28} - C_{36}		(GRO+DRO+EXT DRO)
		ft. bgs	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
SP-1	7/3/2017	1	***2920***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		-		<20.0
		2	112		-		-		-		-		-		-		-		-		-
		7	96		-		-		-		-		-		-		-		-		-
SP-2	7/3/2017	1	***2960***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		-		<20.0
		2	112		-		-		-		-		-		-		-		-		-
		7	64		-		-		-		-		-		-		-		-		-
SP-3	7/3/2017	1	***2840***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		-		<20.0
		2	16		-		-		-		-		-		-		-		-		-
		7	32		-		-		-		-		-		-		-		-		-
SP-4	7/3/2017	1	***9460***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		-		<20.0
		3	***4400***		-		-		-		-		-		-		-		-		-
		4	***624***		-		-		-		-		-		-		-		-		-
SP-5	7/3/2017	1	***7330***		<0.050		0.315		0.071		0.428		0.814		<10.0		<10.0		-		<20.0
		3	***7330***		-		-		-		-		-		-		-		-		-
		4	***5200***		-		-		-		-		-		-		-		-		-
SP-6	7/3/2017	1	***8000***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		-		<20.0
		3	***5860***		-		-		-		-		-		-		-		-		-
SP-7	7/3/2017	1	***7200***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		-		<20.0
		3	***3480***		-		-		-		-		-		-		-		-		-
SP-8	7/19/2017	Surface	124		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		125		-		***125***
SP-9	7/19/2017	Surface	176		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		78.3		-		78.3
SP-10	7/19/2017	Surface	96		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		35.7		-		35.7
1-P	7/19/2017	Surface	112		-		-		-		-		-		-		-		-		-
2-P	7/19/2017	Surface	64		-		-		-		-		-		-		-		-		-
3-P	7/19/2017	Surface	48		-		-		-		-		-		-		-		-		-
4-P	7/19/2017	Surface	64		-		-		-		-		-		-		-		-		-
5-P	7/19/2017	Surface	48		-		-		-		-		-		-		-		-		-

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
2017 BBC SOIL ASSESSMENT- (nAB1715742101/2RP-4240)
CONOCOPHILLIPS
WEST BRUSHY 8 FEDERAL SWD #001 RELEASE
DOR: 5/17/2017
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth	Chloride[1]		BTEX[2]										TPH[3]						
					Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH
															C_6 - C_{10}		> C_{10} - C_{28}		> C_{28} - C_{36}		(GRO+DRO+EXT DRO)
		ft. bgs	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
SB-1	10/11/2017	8	1260		-		-		-		-		-		-		-		-		-
		10	3680		-		-		-		-		-		-		-		-		-
		15	752		-		-		-		-		-		-		-		-		-
		20	944		-		-		-		-		-		-		-		-		-
		25	928		-		-		-		-		-		-		-		-		-
		30	688		-		-		-		-		-		-		-		-		-
		35	592		-		-		-		-		-		-		-		-		-
		40	544		-		-		-		-		-		-		-		-		-
		45	416																		
SB-2	10/11/2017	8	2920		-		-		-		-		-		-		-		-		-
		10	176		-		-		-		-		-		-		-		-		-
		15	144		-		-		-		-		-		-		-		-		-
		20	304		-		-		-		-		-		-		-		-		-
		25	544		-		-		-		-		-		-		-		-		-

NOTES:

ft. Feet
bgs Below ground surface
mg/kg Milligrams per kilogram
TPH Total Petroleum Hydrocarbons
GRO Gasoline range organics
DRO Diesel range organics
1 Method SM4500Cl-B
2 Method 8021B
3 Method 8015M
- Not analyzed for parameter

Bold and italicized values indicate exceedance of proposed Remediation RRALs and/or Reclamation Requirements.

QUALIFIERS:

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
2023-2024 ADDITIONAL SOIL ASSESSMENT
nAB1715742101 AND nAB1619432451 AND nAB1529948530
CONOCOPHILLIPS
WEST BRUSHY 8 FEDERAL SWD #001
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride		BTEX[2]										TPH[3]								
							Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		(GRO+DRO)	Total TPH
			ExStik	Titration													C_6 - C_{10}		> C_{10} - C_{28}		> C_{28} - C_{36}			(GRO+DRO+EXT DRO)
		ft. bgs	ppm		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	mg/kg
		Reclamation Limit for Soils 0-4' bgs:	--		*600 mg/kg*		*10 mg/kg*		--		--		--		*50 mg/kg*		--		--		--		--	*100 mg/kg*
		RRAL for Soils >4' bgs (GW 50-100 ft):	--		*10,000 mg/kg*		*10 mg/kg*		--		--		--		*50 mg/kg*		--		--		--		*1,000 mg/kg*	*2,500 mg/kg*
AH-23-1	9/21/2023	0-1	392	-	48		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		19.1		-	19.1
AH-23-2	9/21/2023	0-1	2230	-	***2,400***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	2690	-	***2,080***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		27.5		<10.0		27.5	27.5
T-1	11/30/2023	0-1	627	-	304		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-1	1/4/2024	3-4	2,080	-	***1,630***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		5-6	1,130	-	928		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		6-7	1,110		1,020		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
BH-24-1	1/10/2024	7-8	-	500	512		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		8-9	1,130	600	912		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		9-10	1,080	400	1,090		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
AH-23-3	9/21/2023	0-1	267	-	48		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-2	1/4/2024	0-1	4,670	-	***4,120***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	1,840	-	***1,700***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		3-4	2,950	-	***2,440***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		5-5.5	1,660	-	768		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
AH-23-4	9/21/2023	0-1	369	-	32		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
AH-23-5	9/21/2023	0-1	1560	-	928		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	4950	-	***3,760***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-3	1/4/2024	3-4	3,940	-	***4,080***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		5-6	3,060	-	3,360		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		6-7	2,420	-	2,400		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		7-7.5	1,670	-	1,140		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
BH-24-3	1/10/2024	8-9	1,620	900	976		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		9-10	1,550	600	768		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		90.7		98.1		90.7	188.8
		10-11	958	400	656		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
AH-23-6	9/21/2023	0-1	284	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-4	1/4/2024	0-1	1,950	-	***1,090***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	1,990	-	***1,550***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		3-4	2,730	-	***3,200***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		5-6	2,420	-	2,240		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		6-7	2,210	-	1,150		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		8-8.5	2,060	-	1,380		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
BH-24-4	1/10/2024	9-10	1,280	800	1,120		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		10-11	1,170	400	608		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
2023-2024 ADDITIONAL SOIL ASSESSMENT
nAB1715742101 AND nAB1619432451 AND nAB1529948530
CONOCOPHILLIPS
WEST BRUSHY 8 FEDERAL SWD #001
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride		BTEX[2]										TPH[3]								
							Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		(GRO+DRO)	Total TPH
			ExStik	Titration													C_6 - C_{10}		> C_{10} - C_{28}		> C_{28} - C_{36}			(GRO+DRO+EXT DRO)
		ft. bgs	ppm		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	mg/kg
		Reclamation Limit for Soils 0-4' bgs:	--		*600 mg/kg*		*10 mg/kg*		--		--		--		*50 mg/kg*		--		--		--		--	*100 mg/kg*
		RRAL for Soils >4' bgs (GW 50-100 ft):	--		*10,000 mg/kg*		*10 mg/kg*		--		--		--		*50 mg/kg*		--		--		--		*1,000 mg/kg*	*2,500 mg/kg*
AH-23-7	9/21/2023	0-1	465	-	48		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
AH-23-8	9/21/2023	0-1	2530	-	***2,000***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		43.1		<10.0		43.1	43.1
		2-3	3420	-	***2,400***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		3-4	4380	-	***3,600***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-5	11/30/2023	0-1	-	-	176		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
AH-23-9	9/21/2023	0-1	468	-	144		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-6	1/5/2024	0-1	-	-	144		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		211		<10.0		211	***211***
		1-2	404	-	48		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		11.2		<10.0		11.2	11.2
T-24-7	1/5/2024	0-1	4,520	-	***2,000***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	-	-	***4,280***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		3-4	-	-	***1,800***		<0.050		<0.050		<0.050	GC-NC	0.271	GC-NC1	<0.300		21.2		45.9		<10.0		67.1	67.1
		5-6	669	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		6-7	407	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
AH-23-10	9/21/2023	0-1	580	-	320		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
AH-23-11	9/21/2023	0-1	416	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	353	-	96		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
AH-23-12	9/21/2023	0-1	792	-	240		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
AH-23-13	9/21/2023	0-1	216	-	48		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
AH-23-14	9/21/2023	0-1	198	-	16		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	286	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
AH-23-15	9/21/2023	0-1	392	-	64		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
AH-23-16	11/30/2023	0-1	379	-	160		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
AH-23-17	11/30/2023	0-1	-	-	192		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-5	1/4/2024	3-4	1,750	-	***1,140***	QM-07	<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		5-6	1,770	-	736		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		6-7	1,040	-	800		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-8	1/5/2024	0-1	1,510	-	496		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	1,110	-	464		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		3-4	469	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-9	1/5/2024	0-1	857	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	415	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-10	1/5/2024	0-1	1,140	-	***640***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	310	-	112		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
2023-2024 ADDITIONAL SOIL ASSESSMENT
nAB1715742101 AND nAB1619432451 AND nAB1529948530
CONOCOPHILLIPS
WEST BRUSHY 8 FEDERAL SWD #001
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride		BTEX[2]										TPH[3]								
							Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		(GRO+DRO)	Total TPH
			ExStik	Titration													C_6 - C_{10}		> C_{10} - C_{28}		> C_{28} - C_{36}			(GRO+DRO+EXT DRO)
		ft. bgs	ppm		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	mg/kg
		Reclamation Limit for Soils 0-4' bgs:	--		600 mg/kg		10 mg/kg		--		--		--		50 mg/kg		--		--		--		--	100 mg/kg
		RRAL for Soils >4' bgs (GW 50-100 ft):	--		10,000 mg/kg		10 mg/kg		--		--		--		50 mg/kg		--		--		--		1,000 mg/kg	2,500 mg/kg
T-24-11	1/5/2024	0-1	1,260	-	***784***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	2,410	-	***1,200***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		3-4	1,310	-	***608***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
BH-24-11	1/10/2024	4-5	1,820	600	1,710		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		5-6	2,160	800	1,460		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		8-9	1,300	575	1,070		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-12	1/5/2024	0-1	536	-	144		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-13	1/5/2024	0-1	3,690	-	***4,000***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	248	-	48		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-14	1/5/2024	0-1	1,030	-	944		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0	QM-07	<10.0		<10.0		-	<10.0
		2-3	252	-	64		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-15	1/5/2024	0-1	1500	-	***1,470***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		1-2	1,050	-	304		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
BH-24-15	1/10/2024	2-3	873	300	272		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		3-4	1,230	350	416		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		5-6	1,040	200	288		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		6-7	898	200	352		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-16	1/5/2024	0-1	2,470	-	***2,160***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	3,730	-	***3,240***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		3-4	3,390	-	***3,040***		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		5-6	1,940	-	1,010		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
B-24-16	1/10/2024	6-7	1,890	800	1,090		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		7-8	2,040	600	1,010		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		8-9	1,690	840	1,020		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		9-10	1,470	580	896		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		14-15	1,580	400	1,100		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
H-24-1	1/5/2024	0-1	334	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
H-24-2	1/5/2024	0-1	1,760	-	416		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
H-24-3	1/5/2024	0-1	1,180	-	304		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
H-24-4	1/5/2024	0-1	310	-	96		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0

NOTES:

ft. Feet

bgs Below ground surface

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

1 Method SM4500Cl-B

2 Method 8021B

3 Method 8015M

Bold and italicized values indicate exceedance of proposed RRALs and/or Reclamation Requirements.

QUALIFIERS:

QM-07 The spike recovery was outside of lab established statistical control limits but still within method limits. Data is not adversley affected.

GC-NC 8620 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND (not detected at or above the reporting limit).

GC-NC1 8620 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.

TABLE 3
SUMMARY OF ANALYTICAL RESULTS
SOIL REMEDIATION
nAB1529948530, nAB1619432451, and nAB1715742101
CONOCOPHILLIPS
WEST BRUSHY 8 SWD #001 RELEASE
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride[1]	BTEX[2]					TPH[3]			
			Chloride	PID		Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	GRO C_6 - C_{10}	DRO > C_{10} - C_{28}	EXT DRO > C_{28} - C_{36}	Total TPH (GRO+DRO+EXT DRO)
		ft bgs	ppm		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Reclamation Closure Criteria for Soils 0-4 ft bgs:					*600 mg/kg*	*10 mg/kg*	--	--	--	*50 mg/kg*	--	--	--	*100 mg/kg*
Site RRALs for Soils >4 ft bgs (GW >50 ft):					*10,000 mg/kg*	*10 mg/kg*	--	--	--	*50 mg/kg*	--	--	--	*2,500 mg/kg*
FS-1	7/22/2024	4			320	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-2	7/22/2024	4			1,010	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-3	7/22/2024	4			2720	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-4	7/22/2024	4			2,120	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-5	7/22/2024	4			1,800	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-6	7/22/2024	4			2,320	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-7	7/22/2024	4			992	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-8	7/22/2024	4			2270	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-9	7/22/2024	4			2080	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-10	7/22/2024	4			1660	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-11	7/22/2024	4			720	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-12	7/22/2024	4			4120	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-13	7/22/2024	4			384	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-14	7/26/2024	4			1170	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-15	7/26/2024	4			832	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-16	7/26/2024	4			1040	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-17	7/26/2024	4			1020	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-18	7/31/2024	1			48.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-19	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-20	7/31/2024	1			<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-21	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-22	7/26/2024	1			192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-23	7/26/2024	1			192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-24	7/26/2024	1			176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-25	8/5/2024	4			832	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-26	8/5/2024	1			112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-27	7/26/2024	1			224	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-28	7/26/2024	1			192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-29	7/26/2024	1			176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-30	7/26/2024	1			208	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-31	7/26/2024	1			160	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	10.4	<10.0	10.4
FS-32	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-33	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-

TABLE 3
SUMMARY OF ANALYTICAL RESULTS
SOIL REMEDIATION
nAB1529948530, nAB1619432451, and nAB1715742101
CONOCOPHILLIPS
WEST BRUSHY 8 SWD #001 RELEASE
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride[1]	BTEX[2]					TPH[3]			
			Chloride	PID		Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	GRO C_6 - C_{10}	DRO > C_{10} - C_{28}	EXT DRO > C_{28} - C_{36}	Total TPH (GRO+DRO+EXT DRO)
		ft bgs	ppm		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Reclamation Closure Criteria for Soils 0-4 ft bgs:					*600 mg/kg*	*10 mg/kg*	--	--	--	*50 mg/kg*	--	--	--	*100 mg/kg*
Site RRALs for Soils >4 ft bgs (GW >50 ft):					*10,000 mg/kg*	*10 mg/kg*	--	--	--	*50 mg/kg*	--	--	--	*2,500 mg/kg*
FS-34	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-35	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-36	7/31/2024	1			64.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-37	7/31/2024	1			80.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-38	7/31/2024	1			48.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-39	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-40	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-41	7/31/2024	1			64.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-42	7/31/2024	1			48.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-43	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-44	7/31/2024	1			16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-45	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-46	7/31/2024	1			16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-47	7/31/2024	4			1490	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-48	7/31/2024	4			1100	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-49	7/31/2024	4			1100	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-50	7/31/2024	4			1170	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-51	7/31/2024	4			1230	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
NSW-1	7/22/2024	-			128	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
NSW-2	7/26/2024	-			384	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
NSW-3	7/31/2024	-			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
NSW-4	7/31/2024	-			64.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
NSW-5	7/31/2024	-			64.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
SSW-1	7/22/2024	-			208	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
SSW-2	7/26/2024	-			480	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
SSW-3	7/31/2024	-			16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
SSW-4	7/31/2024	-			16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
WSW-1	7/22/2024	-			144	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
WSW-2	7/22/2024	-			160	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
WSW-3	7/22/2024	-			***640***	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
WSW-3 (1')	7/26/2024	-			336	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
WSW-4	7/26/2024	-			176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-

TABLE 3
SUMMARY OF ANALYTICAL RESULTS
SOIL REMEDIATION
nAB1529948530, nAB1619432451, and nAB1715742101
CONOCOPHILLIPS
WEST BRUSHY 8 SWD #001 RELEASE
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride[1]	BTEX[2]					TPH[3]			
			Chloride	PID		Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	GRO C_6 - C_{10}	DRO > C_{10} - C_{28}	EXT DRO > C_{28} - C_{36}	Total TPH (GRO+DRO+EXT DRO)
		ft bgs	ppm		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Reclamation Closure Criteria for Soils 0-4 ft bgs:					*600 mg/kg*	*10 mg/kg*	--	--	--	*50 mg/kg*	--	--	--	*100 mg/kg*
Site RRALs for Soils >4 ft bgs (GW >50 ft):					*10,000 mg/kg*	*10 mg/kg*	--	--	--	*50 mg/kg*	--	--	--	*2,500 mg/kg*
WSW-5	7/31/2024	-			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ESW-1	7/22/2024	-			48.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ESW-2	7/22/2024	-			80.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ESW-3	7/22/2024	-			144	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ESW-4	7/26/2024	-			176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ESW-5	7/31/2024	-			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ISW-1	7/26/2024	-			368	<0.050	0.124	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ISW-2	8/1/2024	-			***624***	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	12.1	<10.0	12.1
ISW-2 (1')	8/5/2024	-			96.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ISW-3	8/1/2024	-			***720***	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	17.2	<10.0	17.2
ISW-3 (1')	8/5/2024	-			112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-

NOTES:

ft	Feet
bgs	Below ground surface
mg/kg	Milligrams per kilogram
TPH	Total Petroleum Hydrocarbons
GRO	Gasoline range organics
DRO	Diesel range organics
1	Method SM4500Cl-B
2	Method 8021B
3	Method 8015M

Bold and italicized values indicate exceedance of proposed Remediation RRALs and/or Reclamation Requirements.

Gold highlight represents soil horizons that were removed during deepening of excavation floors.

Green highlight represents soil horizons that were removed during horizontal expansion of excavation sidewalls.

* These iterative samples are located to encompass the original sample location that triggered removal, with further excavation in each area indicated in ().

** These sample results are below the Site RRALs, but are elevated above the Merchant SUCA requirements.

*** These samples were collected outside of the excavation extents as additional delineation points.

TABLE 4
SUMMARY OF ANALYTICAL RESULTS
SOIL BACKFILL - R360 RED BLUFF FACILITY
CONOCOPHILLIPS
WEST BRUSHY 8 SWD #001
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Chloride[1]		BTEX[2]										TPH[3]							
				Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH	
														C_6 - C_{10}		> C_{10} - C_{28}		> C_{28} - C_{36}		(GRO+DRO+EXT DRO)	
		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	
BACKFILL - COMPOSITE	8/22/2024	128		<0.025		<0.050		<0.050		<0.150		<0.2.75		<10.0		<10.0		<10.0		-	

NOTES:

bgs Below ground surface

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

1 Method SM4500Cl-B

2 Method 8021B

3 Method 8015M

APPENDIX A
C-141 Forms

NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 01 2017
RECEIVED

District I
1625 N. French Dr., Hobbs, NM 88240
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

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1715742101

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company:	COG Operating LLC 229137	Contact:	Robert McNeill
Address:	600 West Illinois Avenue, Midland TX 79701	Telephone No.	432-683-7443
Facility Name:	West Brushy 8 Federal SWD #001	Facility Type:	SWD

Surface Owner: Federal	Mineral Owner:	API No. 30-015-31675

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	08	26S	29E	660	North	330	East	Eddy

Latitude 32.063037 **Longitude** -103.997621

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 30 bbls	Volume Recovered: 20 bbls
Source of Release: Flowline	Date and Hour of Occurrence: May 27, 2017 4:00 pm	Date and Hour of Discovery: May 27, 2017 4:00 pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Ms. Weaver – NMOCD / Shelly Tucker - BLM	
By Whom? Rebecca Haskell	Date and Hour: May 27, 2017 7:41 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The release was due to a hole in the bottom of a fitting in a flowline. The fitting was replaced

Describe Area Affected and Cleanup Action Taken.*

The release was within a pasture. A vacuum truck was dispatched to remove all freestanding fluids. Concho will have the spill area sampled to delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Rebecca Haskell		OIL CONSERVATION DIVISION	
Printed Name:	Rebecca Haskell	Approved by Environmental Specialist: Crystal Weaver	
Title:	Senior HSE Coordinator	Approval Date: 6/5/17	Expiration Date: N/A
E-mail Address:	rhaskell@concho.com	Conditions of Approval: See attached	Attached ☒
Date: June 1, 2017	Phone: 432-683-7443		

* Attach Additional Sheets If Necessary

3RP-424D

New forms can be found in the New Mexico State Website in forms: http://www.emnrd.state.nm.us/OCD/forms.html

Operator/Responsible Party,

The OCD has received the form C-141 you provided on **6/1/17** regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4246 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District II office in Artesia on or before 7/1/17. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

●Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

● If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

● Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Nai _____ Title: _____

Signature:  _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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 (electronic submittals in .pdf format are preferred) 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.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☐ Description of remediation activities

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.

Printed Name: _____ Title: _____

Signature:  _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

APPENDIX B
Site Characterization

OCD - Land Ownership

9/26/2023, 10:14:09 AM

Mineral Ownership

A-All minerals are owned by U.S.

Land Ownership

BLM

1:564

0 0 0.01 0.02 mi

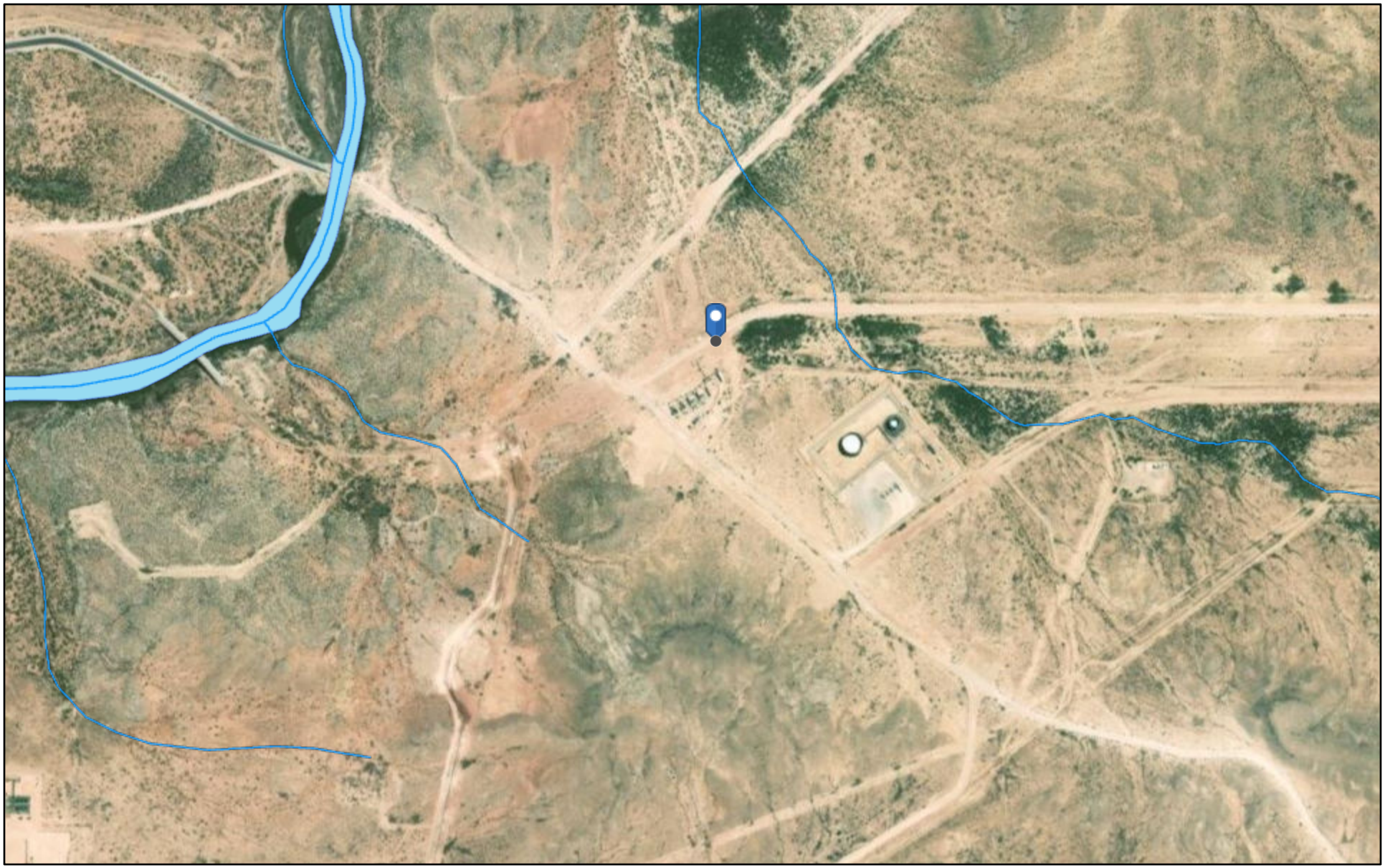
0 0.01 0.01 0.02 km

U.S. BLM, Maxar, Microsoft, Esri, HERE, Garmin, iPC

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75: New Mexico Oil Conservation Division

OCD Waterbodies



1/25/2024, 9:30:55 AM

OSW Water Bodys

OSE Streams

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Esri, HERE, Garmin, iPC, Maxar, NM OSE

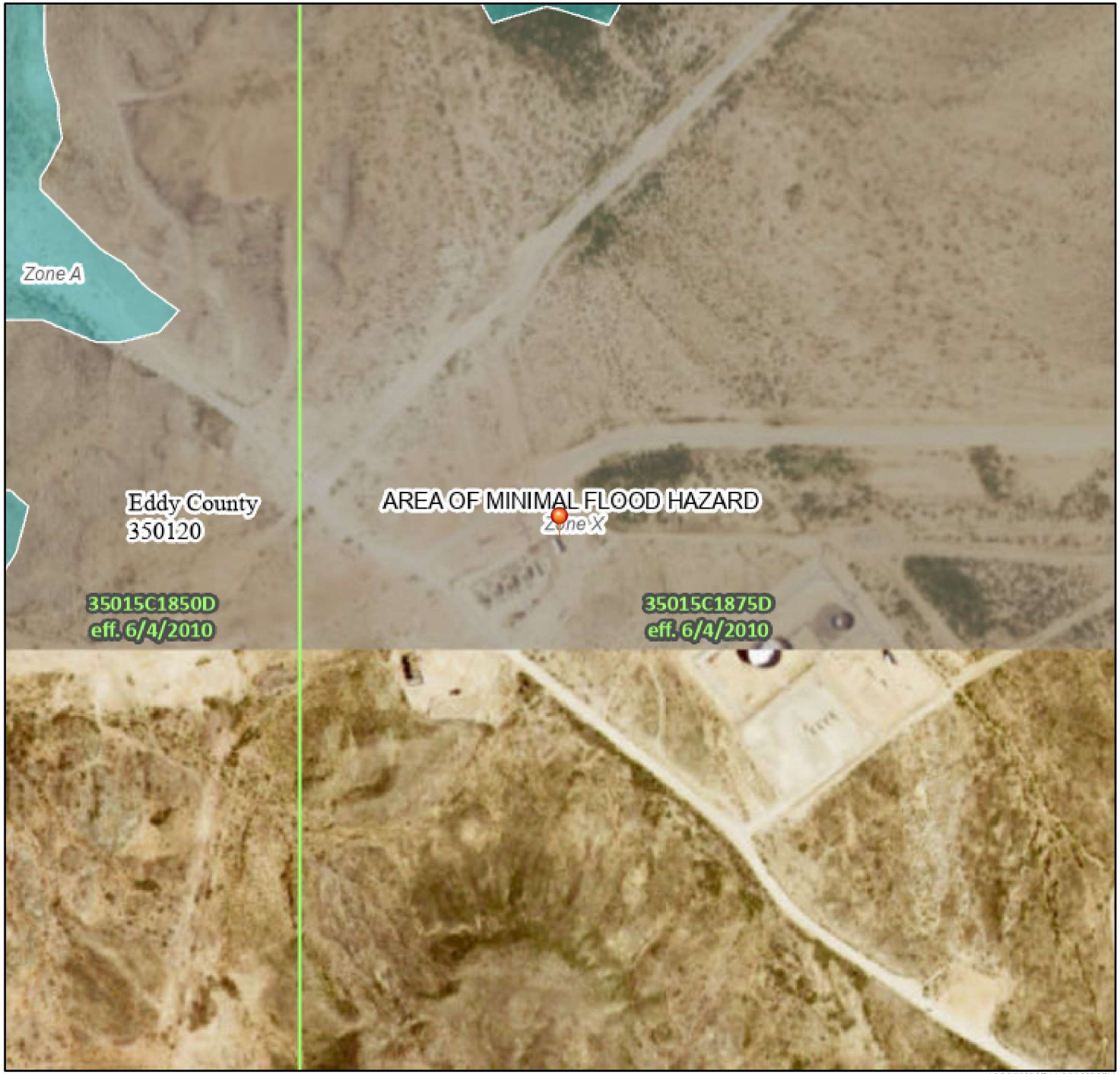
New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75: New Mexico Oil Conservation Division

National Flood Hazard Layer FIRMette

FEMA

104°0'10"W 32°4'4"N



103°59'33"W 32°3'33"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/26/2023 at 10:39 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

OCD - Karst Areas

9/26/2023, 10:23:19 AM

Karst Occurrence Potential

Medium

1:4,514

0 0.03 0.07 0.13 mi

0 0.05 0.1 0.2 km

BLM, OCD, New Mexico Tech, Esri, HERE, Garmin, iPC, Maxar, BLM

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75: New Mexico Oil Conservation Division

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03507 POD1	C	ED	1	3	3	05	26S	29E	593064	3548313	1611	140	78	62
C 03508 POD1	C	ED	1	3	3	05	26S	29E	593063	3548361	1624	140	75	65

Average Depth to Water: **76 feet**

Minimum Depth: **75 feet**

Maximum Depth: **78 feet**

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 594622.15 **Northing (Y):** 3547903.47 **Radius:** 1700

APPENDIX C
Regulatory Correspondence

Chama, Sam

From: OCDOnline@state.nm.us
Sent: Wednesday, January 31, 2024 9:00 AM
To: Llull, Christian
Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 309139

To whom it may concern (c/o Christian Llull 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#) nAB1715742101,
with the following conditions:

- **Remediation plan approved. Sidewall confirmation samples in the immediate vicinity of any pressurized lines must be collected. Confirmation bottom and sidewall samples representative of no more than 400 square feet is approved.**
- **A complete and accurate remediation closure report will need to be submitted by April 30, 2024.**

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,
Brittany Hall
Projects Environmental Specialist - A
505-517-5333
Brittany.Hall@emnrd.nm.gov

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

From: Hall, Brittany, EMNRD
To: Abbott, Sam; Enviro, OCD, EMNRD
Cc: Llull, Christian
Subject: RE: [EXTERNAL] Extension Request - West Brushy 8 Federal SWD #001 Remediation (Incident IDs nAB1715742101 and nAB1619432451)
Date: Wednesday, May 1, 2024 8:37:44 AM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Sam,

The extension request is approved. This will be the final extension approved for nAB1715742101 and nAB1619432451. The new due date is July 30, 2024.

Please include a copy of this email in the remediation closure reports for nAB1715742101 and nAB1619432451.

Thank you,

Brittany Hall ● Environmental Specialist
Environmental Bureau Projects Group
EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87110
505.517.5333 | Brittany.Hall@emnrd.nm.gov
http://www.emnrd.nm.gov/ocd/

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMRND Website prior to submitting any C-141s. The guidance documents can be found at https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/ or https://www.emnrd.nm.gov/ocd/ocd-forms/.

From: Abbott, Sam <Sam.Abbott@tetratech.com>
Sent: Tuesday, April 30, 2024 3:30 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Llull, Christian <Christian.Llull@tetratech.com>; Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Subject: [EXTERNAL] Extension Request - West Brushy 8 Federal SWD #001 Remediation (Incident IDs nAB1715742101 and nAB1619432451)

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

To Whom it May Concern,

On behalf of ConocoPhillips, Tetra Tech is requesting a 90-day extension (until July 30, 2024) to complete remedial activities and associated reporting for the **West Brushy 8 Federal SWD #001 combined release (Incident IDs nAB1715742101 and nAB1619432451)**.

The remediation action plan was approved separately for each of the 2 release incidents on January 1, 2024. The plans were sent to the BLM for concurrence. In an email dated February 29, 2024, Shelly Taylor of the BLM wrote via email that a full archeological survey is required at the site.

The archeological field survey was completed by SWCA on behalf of Tetra Tech and ConocoPhillips on April 9, 2024. Due to the scope of the survey and associated reporting required by the BLM, the survey report is still in draft and is anticipated to be submitted to the BLM by May 9, 2024.

The remedial action will commence upon final approval by the BLM.

Thank you in advance.
Sam

Samantha Abbott, PG | Project Manager
Direct Mobile **+1 (512) 739-7874** | Business **+1 (512) 338-1667** | Sam.Abbott@tetratech.com

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8911 N Capital of Texas Hwy #2310 | Austin, TX 78759 | tetratech.com

From: Taylor, Shelly J
To: Abbott, Sam
Cc: Llull, Christian
Subject: Re: [EXTERNAL] RE: WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 - Remediation Work Plan
Date: Wednesday, June 26, 2024 10:32:13 AM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
image011.png
image012.png
image013.png
image014.png
image015.png
image016.png
Outlook-v2hu0l1w.png

BLM approves for you to proceed with remedial actions.

Respectfully,
Shelly J Taylor
Assistant Field Manager
Lands & Minerals - Acting

Bureau of Land Management
Pecos District/Roswell Field Office
2909 W 2nd St
Roswell, NM 88201

Direct 575.627.0250
Mobile 575.200.0614
sjtaylor@blm.gov

From: Abbott, Sam <Sam.Abbott@tetratech.com>
Sent: Tuesday, June 25, 2024 2:43 PM
To: Taylor, Shelly J <sjtaylor@blm.gov>
Cc: Llull, Christian <Christian.Llull@tetratech.com>
Subject: RE: [EXTERNAL] RE: WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 - Remediation Work Plan

Good afternoon Shelly,

I am writing to follow up on this Remediation Work Plan conditional approval. We hope to begin this remediation project on Monday, July 1st, and continue through most of July.

Tetra Tech subcontracted SWCA to complete the archeological survey in April 2024. The attached report (redacted) was submitted to the BLM and NMCRIS by SWCA.

If subsurface cultural materials are encountered during remediation, all work should cease, and the BLM will be notified immediately. No work will be performed within 100 feet of the known site (LA 66112).

Can you confirm that Tetra Tech and ConocoPhillips are cleared to proceed with the proposed work without the presence of a cultural monitor?

Thank you,
Sam

Samantha Abbott, PG | Project Manager
Direct Mobile **+1 (512) 739-7874** | Business **+1 (512) 338-1667** | Sam.Abbott@tetratech.com

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---

From: Taylor, Shelly J <sjtaylor@blm.gov>
Sent: Thursday, February 29, 2024 1:23 PM
To: Llull, Christian <Christian.Llull@tetratech.com>
Cc: Allen, Samantha <SAMANTHA.ALLEN@tetratech.com>; Abbott, Sam <Sam.Abbott@tetratech.com>
Subject: Re: [EXTERNAL] RE: WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 - Remediation Work Plan

archeological survey, *a full survey will be required including any areas that will be disturbed in order to access the release area. Based on survey results, an archeological monitor maybe required.*

5. The release **did not** impact any known archaeological areas based on available data.
6. This area **is** located within a **Medium karst zone;** a karst survey **will not be required.**
7. This site is located within hydrological feature.
8. Site **is** located within a **Special Status Plant Species** area.
9. The site **is not** located within a wildlife T&E species habitat. No survey will be required.
10. Area **is not** located within *Shinnery Oak PDO.*
11. Soils are within the **Pajarito-Dune Land**
12. BLM Seed Mix**: #2**.
13. Area is noted to be within N/A.
14. Site **is not** located within a *Special Area of concern*:
15. Site **is not** located within **ACEC**.
16. Site **is not** located within a Potash buffer area.

You will be cleared to proceed upon the completion of the archeological survey.

Sincerely,

Shelly J Taylor
Environmental Protection Specialist
Realty - Compliance

Bureau of Land Management/Carlsbad Field Office
620 E. Greene St
Carlsbad, NM 88220
Direct 575.234.5706
Mobile 575.200.0614
sjtaylor@blm.gov

Spill/Release email: **BLM_NM_CFO_REALTY_SPILL@BLM.GOV**

From: Taylor, Shelly J <sjtaylor@blm.gov>
Sent: Thursday, February 29, 2024 10:11 AM
To: Llull, Christian <Christian.Llull@tetratech.com>
Cc: Allen, Samantha <SAMANTHA.ALLEN@tetratech.com>; Abbott, Sam <Sam.Abbott@tetratech.com>
Subject: Re: [EXTERNAL] RE: WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 -

Remediation Work Plan

Apologies… thought I replied. You are cleared to proceed with remedial activities.

Respectfully,

Shelly J Taylor
Assistant Field Manager
Lands & Minerals - Acting

Bureau of Land Management
Pecos District/Roswell Field Office
2909 W 2nd St
Roswell, NM 88201

Direct 575.627.0250
Mobile 575.200.0614
sjtaylor@blm.gov

From: Llull, Christian <Christian.Llull@tetratech.com>
Sent: Tuesday, February 27, 2024 11:36 AM
To: Taylor, Shelly J <sjtaylor@blm.gov>
Cc: Allen, Samantha <SAMANTHA.ALLEN@tetratech.com>; Abbott, Sam <Sam.Abbott@tetratech.com>
Subject: [EXTERNAL] RE: WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 - Remediation Work Plan

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hey Shelly, we are still looking for the BLM response re: these aggregate WPs.
Please advise.

Christian

From: Abbott, Sam <Sam.Abbott@tetratech.com>
Sent: Wednesday, February 21, 2024 1:54 PM
To: Llull, Christian <Christian.Llull@tetratech.com>; Tucker, Shelly J <stucker@blm.gov>
Cc: Allen, Samantha <SAMANTHA.ALLEN@tetratech.com>
Subject: RE: WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 - Remediation Work

Plan

Here is the KML.

Samantha Abbott, PG | Project Manager
Direct Mobile **+1 (512) 739-7874** | Business **+1 (512) 338-1667** | Sam.Abbott@tetratech.com

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---

From: Abbott, Sam
Sent: Wednesday, February 21, 2024 1:49 PM
To: Llull, Christian <Christian.Llull@tetratech.com>; Tucker, Shelly J <stucker@blm.gov>
Cc: Allen, Samantha <SAMANTHA.ALLEN@tetratech.com>
Subject: RE: WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 - Remediation Work Plan

Attached is a KMZ with the release extent, assessment sampling locations, and proposed remedial extents. Mapped utilities are also included.

This is the same remedial action proposed for the other West Brushy 8 Federal SWD #001 release (nAB1715742101).

Samantha Abbott, PG | Project Manager
Direct Mobile **+1 (512) 739-7874** | Business **+1 (512) 338-1667** | Sam.Abbott@tetratech.com

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Please consider the environment before printing. Read more

From: Llull, Christian <Christian.Llull@tetratech.com>

Sent: Wednesday, January 31, 2024 1:23 PM
To: Taylor, Shelly J <sjtaylor@blm.gov>
Cc: Abbott, Sam <Sam.Abbott@tetratech.com>; Allen, Samantha <SAMANTHA.ALLEN@tetratech.com>
Subject: WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 - Remediation Work Plan

Shelly:

Attached for your review is the Remediation Work Plan for the West Brushy 8 Federal SWD #001 Release - **nAB1619432451 (DOR 7/3/2016)**.

- *This WP has been approved by NMOCD.*
- Approval attached.
- There are three similar WPs that you will receive, the remedial action is the same for all 3 sites based on the combined assessment.

WEST BRUSHY 8 FEDERAL SWD #001
Eddy County, NM
GPS Coordinates: 32.063500°, -103.997560°
Incident ID: nAB1619432451

BACKGROUND:

- According to the Form C-141, the release was discovered on July 3, 2016.
  - The release consisted of 25 bbls of produced water, of which 0 bbls were recovered.
  - The cause of the release was noted as a damaged poly flowline.
- BBC conducted a site assessment from January 2017.
  - Soil samples were collected from twelve (12) locations within the extent of the release and four (4) locations along the perimeter of the extent.
  - A total of forty-three (43) soil samples were collected from the sixteen (16) sampling locations and submitted to Cardinal Laboratories in Hobbs, New Mexico (Cardinal) for analysis.
  - Analytical results were above the reclamation limit for chloride (600 mg/kg) in surface (0-4 feet bgs) soils at eight (8) of the sampling locations (SP5 through SP12).
- A Delineation Workplan was prepared by BBC based on the results of the 2017 BBC assessment activities.
  - A copy of the approved remediation proposal Mr. Bratcher refers to in an email from February 22, 2018, could not be located.
- A Closure Report for four separate releases that occurred at the West Brushy 8 Federal SWD #001 Site, including Incident nAB1619432451, was rejected by NMOCD on May 1, 2023, with the following comments:
    - *"Email correspondence provided by operator stated that an email dated 2/22/2018 an email from OCD personnel stated "2RP-3353 and 2RP-3774 releases cover basically the same area and have approved remediation proposals". Based on the information found under 2RP-3353 (NAB1529948530) closed was not approved in 2016.*
    - *The closure report is not clear as to what activities occurred for remediation of*

this site.

- *Submit a complete report though the OCD Permitting website by 8/1/2023.*
- *2RP-3774 closed. Refer to incident #NAB1619432451 in all future communication."*

ADDITIONAL ASSESSMENT:

- Tetra Tech personnel were onsite to conduct additional assessment sampling on September 21, 2023.
  - Fifteen (15) hand auger borings (AH-23-1 through AH-23-15) were installed to depths ranging from 1 to 4 feet bgs in a cross-section pattern across the release extent.
- Tetra Tech remobilized to the site on November 30, 2023, and January 4-5, 2024, and January 10, 2024, to achieve delineation.
  - Two (2) soil trenches (T-1 and T-5) and two (2) hand auger borings (AH-23-16 and AH-23-17) were installed in the northern drainage area.
  - Sixteen (16) soil trenches (T-24-1 through T-24-16) and four (4) hand auger borings (H-24-1 through H-24-4) were installed near the release area.
  - Six (6) borings with an air rotary drill rig were installed near the release area.
  - A total of ninety-seven (97) soil samples were collected analyzed for chloride via EPA Method 300.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8261B.
  - Analytical results associated with the 0–1-foot bgs soil interval at trench location T-24-6 exceeded the reclamation limit of 100 mg/kg for TPH.
  - Chloride concentrations were detected in surface soils (0-4 feet bgs) at levels above the reclamation limit of 600 mg/kg at seventeen (17) of the sample locations.

WORK PLAN:

Based on the analytical results from the assessment, impacted material within the release extent is proposed to be removed to a maximum depth of 4'.

- The total proposed volume to be removed and disposed of is 1,920 cubic yards.
- Confirmation floor samples and confirmation sidewall samples will be collected for verification of remedial activities.
  - Confirmation sidewall and floor samples will be representative of no more than approximately 400 square feet of excavated area.
- Once acceptable confirmation sample results are received the excavation will then be backfilled with clean material to surface grade.
- The seed mixture for LPC Sand/Shinnery Sites will be used for seeding.
- Remediation activities at the Site are proposed to begin within **120** days.

Let me know what you think,

Christian

Christian Llull, P.G. | Program Manager
Mobile **+1 (512) 565-0190** | christian.llull@tetratech.com

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From: Hall, Brittany, EMNRD
To: Abbott, Sam
Cc: Llull, Christian; Enviro, OCD, EMNRD; Bratcher, Michael, EMNRD
Subject: RE: [EXTERNAL] Extension Request - West Brushy 8 Federal SWD #001 Remediation (Incident IDs nAB1715742101 and nAB1619432451)
Date: Tuesday, July 30, 2024 2:26:14 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png

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Sam,

A final 30-day extension nAB1715742101 and nAB1619432451 is approved. The new due date is August 30, 2024.

Please include a copy of this email in both incidents' next submittals.

Thank you,

Brittany Hall ● Environmental Specialist
Environmental Bureau Projects Group
EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87110
505.517.5333 | Brittany.Hall@emnrd.nm.gov
http://www.emnrd.nm.gov/ocd/

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMRND Website prior to submitting any C-141s. The guidance documents can be found at https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/ or https://www.emnrd.nm.gov/ocd/ocd-forms/.

From: Abbott, Sam <Sam.Abbott@tetratech.com>
Sent: Tuesday, July 30, 2024 11:23 AM
To: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>; Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Llull, Christian <Christian.Llull@tetratech.com>
Subject: [EXTERNAL] Extension Request - West Brushy 8 Federal SWD #001 Remediation (Incident IDs nAB1715742101 and nAB1619432451)

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

Good morning Brittany,

On behalf of ConocoPhillips, Tetra Tech is requesting a final 30-day extension (until August 30, 2024)

to complete remedial activities and associated reporting for the **West Brushy 8 Federal SWD #001 combined release (Incident IDs nAB1715742101 and nAB1619432451)**.

The remediation action plan was approved separately for each of the 2 release incidents on January 1, 2024. The plans were sent to the BLM for concurrence. In an email dated February 29, 2024, Shelly Taylor of the BLM wrote via email that a full archeological survey is required at the site. The archeological field survey was completed by SWCA on behalf of Tetra Tech and ConocoPhillips on April 9, 2024. A previous extension request was made on April 30, 2024, while BLM approval of the remedial action was pending.

The remedial action received approval from the BLM on June 26, 2024. Tetra Tech began remedial activities at the Site on behalf of COP on July 10, 2024, following additional coordination with the facility operator and multiple operators of pipelines coinciding with the remedial footprint. The first 5 days of the project were spent daylighting buried pipelines using hydrovac trucks.

The remedial action is ongoing, with confirmation sampling events occurring on July 22nd, July 26th, and continuing today, July 30th, and tomorrow, July 31st. More confirmation sampling may be required past July 31st depending on excavation progress and initial confirmation sampling results. The attached map and photographs indicate the progress of the remedial action up to present. Remedial extents and confirmation sampling frequency intervals are based on the approved work plans. The remedial action is expected to be completed by the end of next week, and the remediation closure reports will be submitted soon thereafter.

Thank you in advance,
Sam

Samantha Abbott, PG | Project Manager
Direct Mobile **+1 (512) 739-7874** | Business **+1 (512) 338-1667** | Sam.Abbott@tetratech.com

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From: OCDOnline@state.nm.us
To: Llull, Christian
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 363485
Date: Thursday, July 11, 2024 4:25:12 PM

To whom it may concern (c/o Christian LLuLL for COG OPERATING LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAB1715742101.

The sampling event is expected to take place:

When: 07/16/2024 @ 10:00
Where: A-08-26S-29E 660 FNL 330 FEL (32.0625267,-103.9986572)

Additional Information: Contact
Samantha Abbott, PG | Project Manager
Direct Mobile +1 (512) 739-7874

Additional Instructions: WEST BRUSHY 8 FEDERAL SWD #001
Eddy County, NM
GPS Coordinates: 32.063500°, -103.997560°

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

From: Wells, Shelly, EMNRD
To: Abbott, Sam
Cc: Hall, Brittany, EMNRD; Llull, Christian
Subject: RE: [EXTERNAL] C-141N Variance Request - nAB1715742101
Date: Friday, August 2, 2024 11:37:13 AM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png

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Good morning Sam,

A variance to the two business day sampling notice is approved for AB1715742101 WEST BRUSHY 8 FEDERAL SWD #001 for 8/5/24. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Kind regards,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520|Shelly.Wells@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Abbott, Sam <Sam.Abbott@tetratech.com>
Sent: Friday, August 2, 2024 9:58 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>; Llull, Christian <Christian.Llull@tetratech.com>
Subject: [EXTERNAL] C-141N Variance Request - nAB1715742101

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Good morning,

I am requesting a variance to continue confirmation sampling outside of the initial notice period with less than 48 hours' notice.

Due to an oversight, two samples that were meant to be collected on 7/31/2024 were not sent to the lab. These samples will be collected and submitted to the lab on Monday, 8/5/2024.

Thank you,
Sam

Samantha Abbott, PG | Project Manager
Direct Mobile **+1 (512) 739-7874** | Business **+1 (512) 338-1667** | Sam.Abbott@tetratech.com

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---

From: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Sent: Monday, July 29, 2024 12:44 PM
To: Abbott, Sam <Sam.Abbott@tetratech.com>; Llull, Christian <Christian.Llull@tetratech.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Subject: RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has accepted the application, Application ID: 363485

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMRND Website prior to submitting any C-141s. The guidance documents can be found at https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/ or https://www.emnrd.nm.gov/ocd/ocd-forms/.

From: Abbott, Sam <Sam.Abbott@tetratech.com>
Sent: Friday, July 26, 2024 4:22 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; ocdonline, emnrd, EMNRD <emnrd.ocdonline@emnrd.nm.gov>
Cc: Llull, Christian <Christian.Llull@tetratech.com>
Subject: [EXTERNAL] RE: The Oil Conservation Division (OCD) has accepted the application, Application ID: 363485

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

Good afternoon,

I am requesting a variance to continue confirmation sampling outside of the initial notice period. We experienced delays at the beginning of our remedial action due to pipeline daylighting activities and coordination efforts with various pipeline operators.

We initially planned to begin sampling activities on 7/16/2024 at 10 am. Following the delays mentioned, we were not able to begin final confirmation sampling until 7/22/2024. We also collected confirmation samples today, 7/26/2024.

The remediation activities are ongoing, and we will be collecting additional confirmation samples next week, likely on 7/30 and/or 7/31. We will submit an additional C-141N today for the additional sampling planned for next week.

Thank you,
Sam

Samantha Abbott, PG | Project Manager
Direct Mobile **+1 (512) 739-7874** | Business **+1 (512) 338-1667** | Sam.Abbott@tetratech.com

Tetra Tech, Inc. | *Leading with Science*® | OGA
8911 N Capital of Texas Hwy #2310 | Austin, TX 78759 | tetratech.com

TETRA TECH

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Thursday, July 11, 2024 4:25 PM
To: Llull, Christian <christian.llull@tetratech.com>
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 363485

From: OCDOnline@state.nm.us
To: Llull, Christian
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 367769
Date: Friday, July 26, 2024 6:19:06 PM

To whom it may concern (c/o Christian LLuLL for COG OPERATING LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAB1715742101.

The sampling event is expected to take place:

When: 07/31/2024 @ 10:00
Where: A-08-26S-29E 660 FNL 330 FEL (32.0625267,-103.9986572)

Additional Information: Additional information: sampling previously collected on 7/22 and 7/26. Sampling may continue through 8/1. Please contact Samantha Abbott, PG / Project Manager at 512-739-7874

Additional Instructions: Navigation Info: WEST BRUSHY 8 FEDERAL SWD #001 Eddy County, NM GPS Coordinates: 32.063500°, -103.997560°

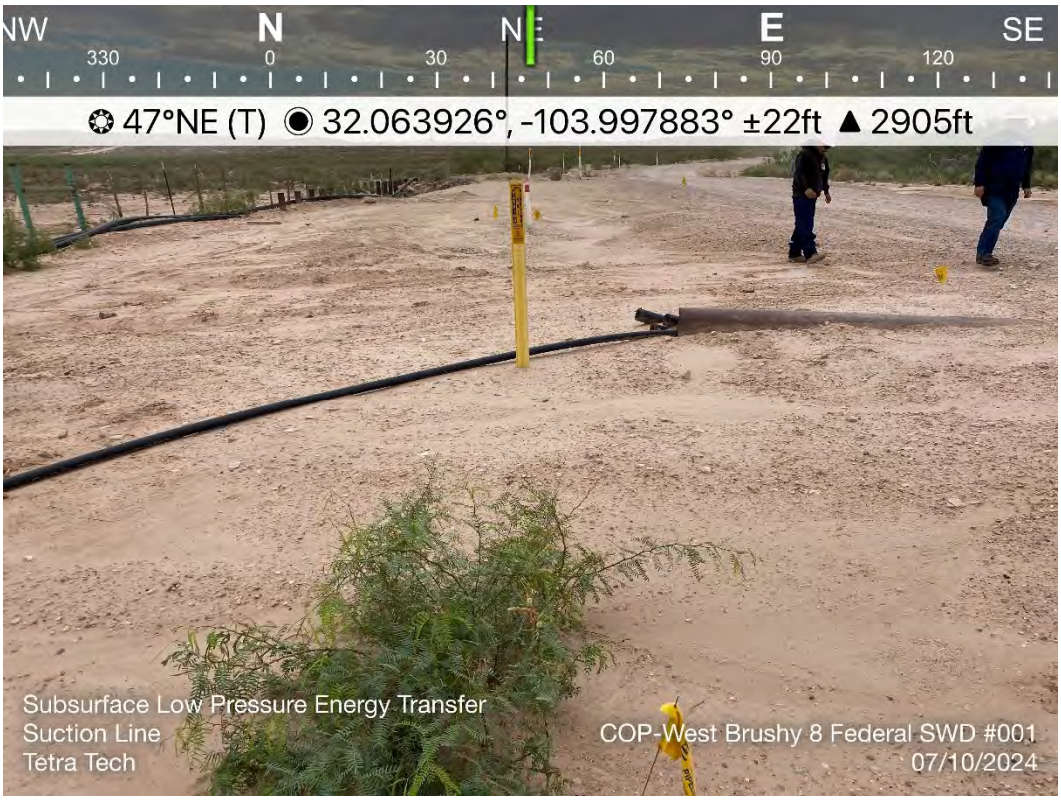
An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

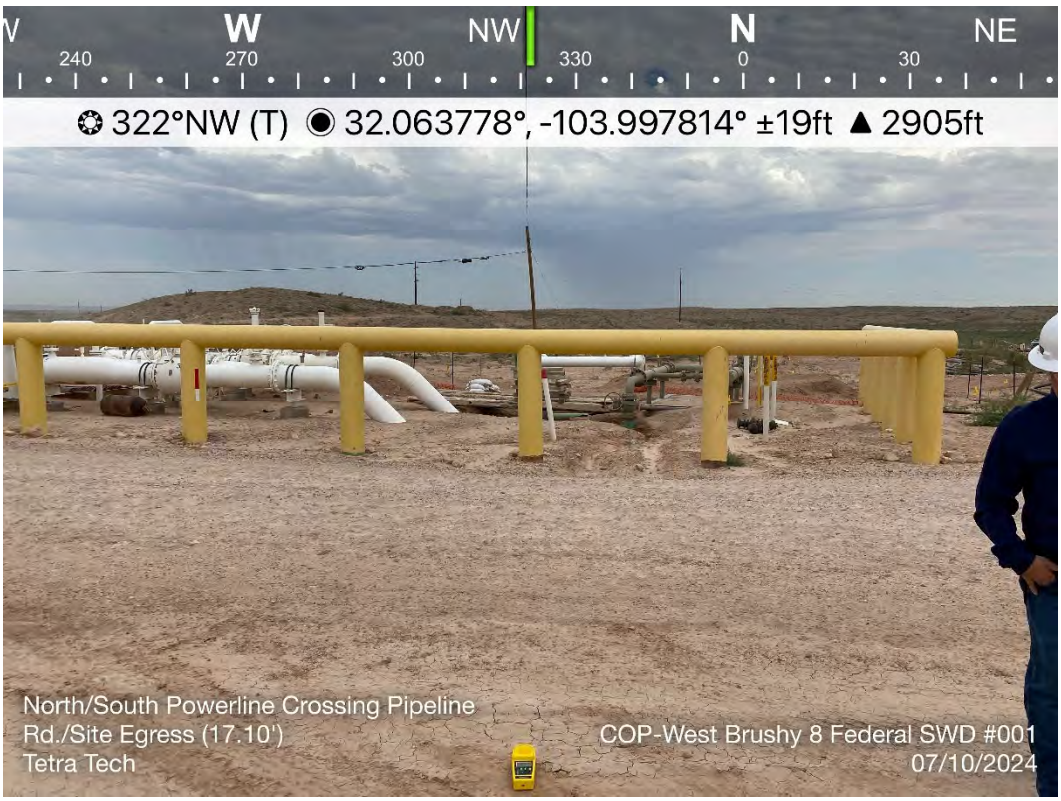
If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

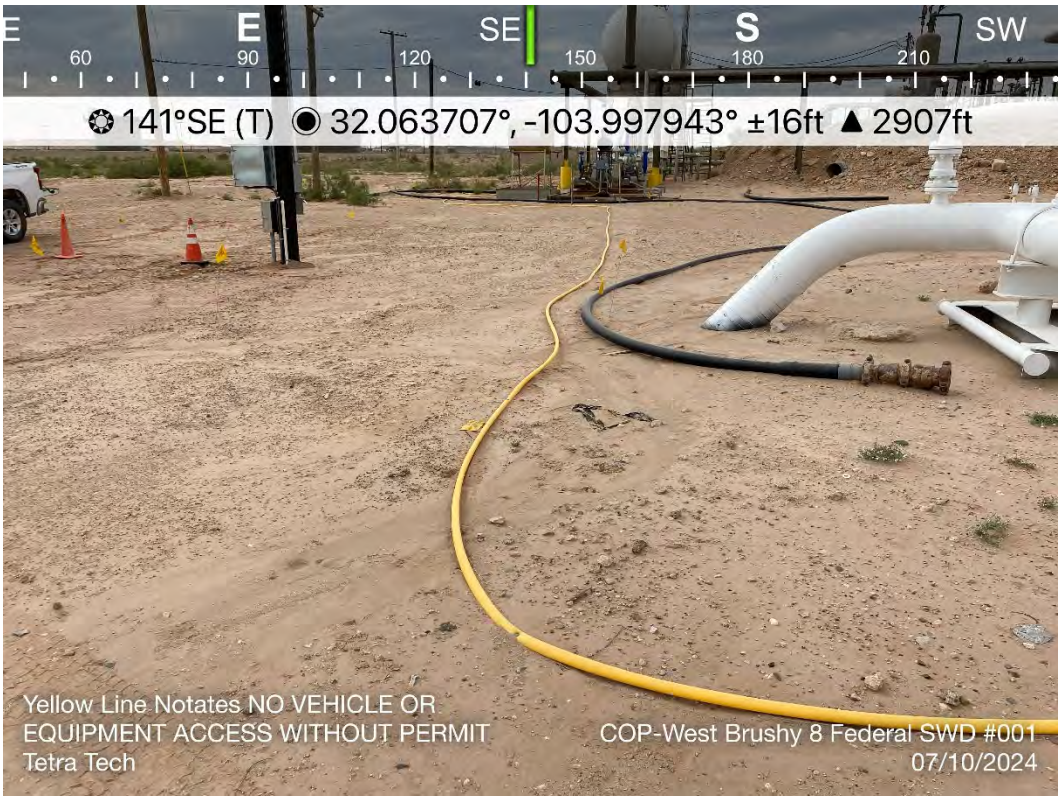
APPENDIX D
Photographic Documentation



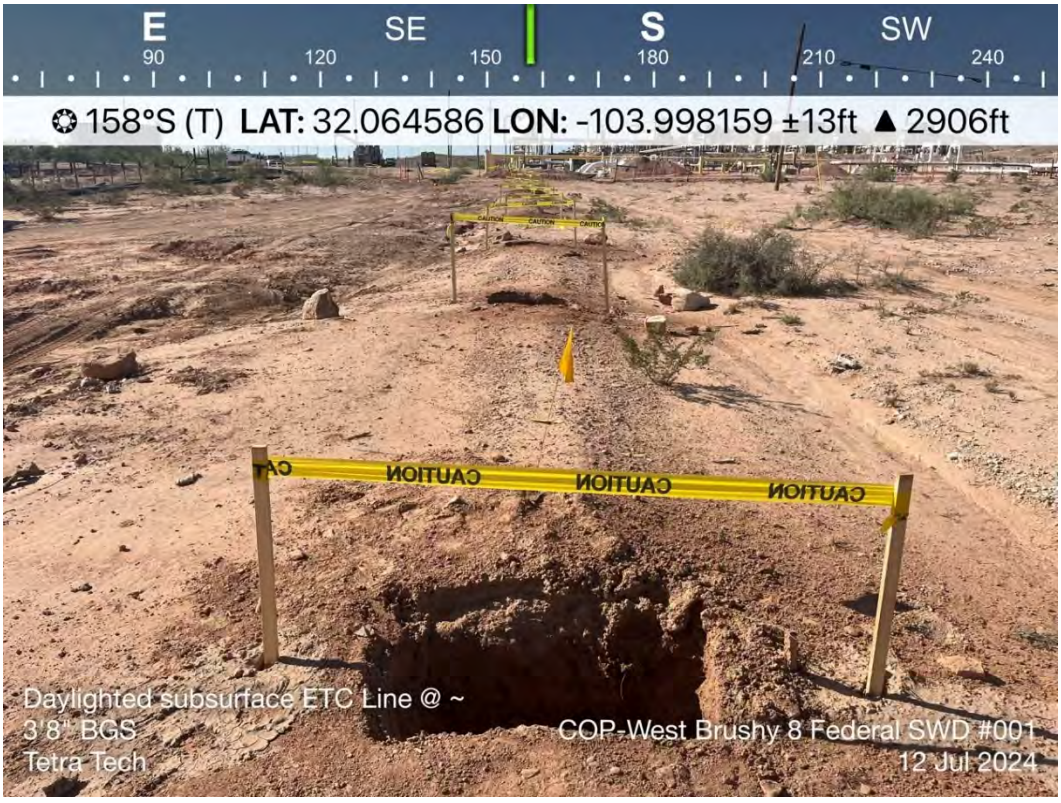
TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View northeast, site walk and review of utility lines and associated markings prior to excavation.	1
	SITE NAME	West Brushy 8 SWD #001	7/10/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View northwest, confirming powerline height for safety walk ahead of excavation.	2
	SITE NAME	West Brushy 8 SWD #001	7/10/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View southeast, setting safety boundary for vehicle access around critical infrastructure.	3
	SITE NAME	West Brushy 8 SWD #001	7/10/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View south-southeast, hydrovac of subsurface to confirm location. Potholes indicate intervals of spotted location.	4
	SITE NAME	West Brushy 8 SWD #001	7/12/2024

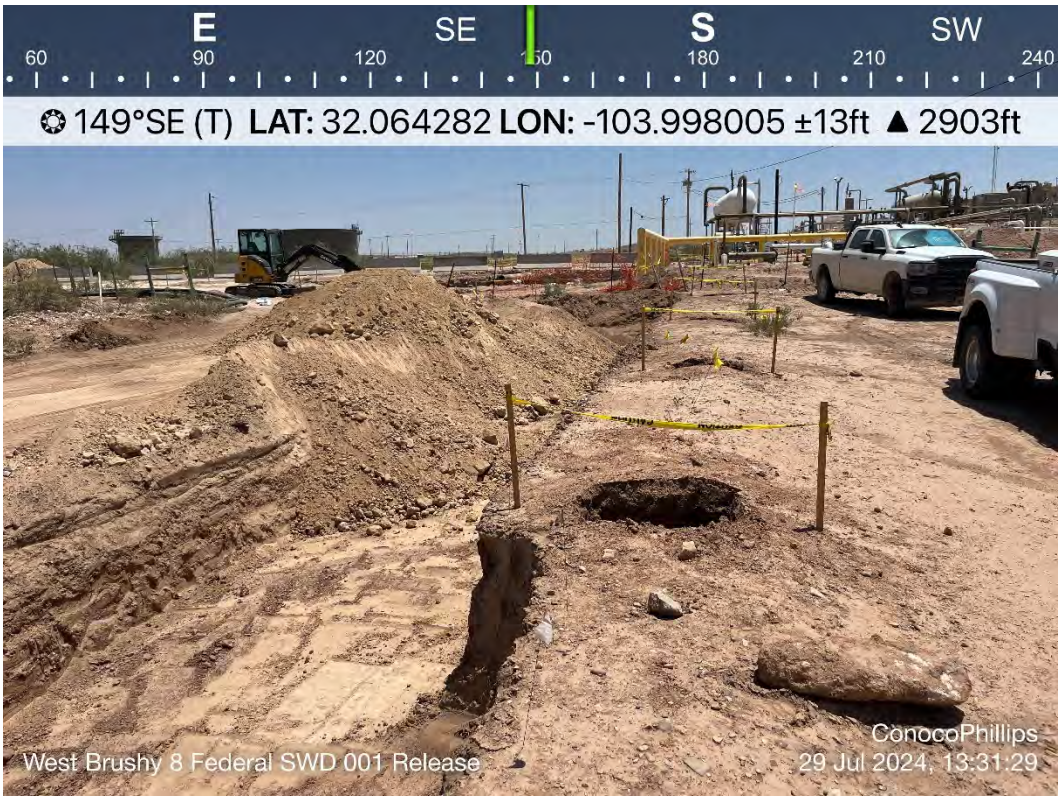
TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View southwest, 4-foot excavation surrounding area with subsurface line stemming from pipe in background.	5
	SITE NAME	West Brushy 8 SWD #001	7/26/2024

TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View south, 4-foot excavation with adjacent area containing subsurface line.	6
	SITE NAME	West Brushy 8 SWD #001	7/26/2024

TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View northwest, 4-foot excavation as per approved work plan.	7
	SITE NAME	West Brushy 8 SWD #001	7/26/2024

TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View northwest, 4-foot excavation adjacent to subsurface line running parallel.	8
	SITE NAME	West Brushy 8 SWD #001	7/26/2024

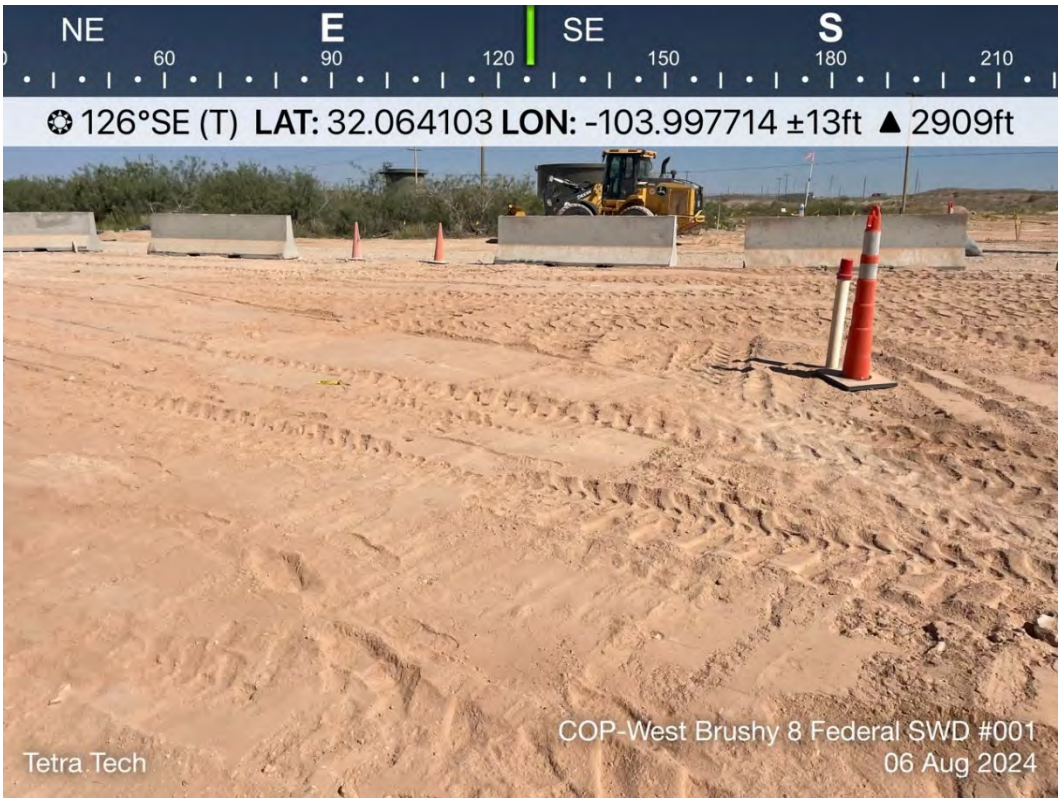
TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View south, 4-foot excavation running roughly north-south, extending towards east-west lease road.	9
	SITE NAME	West Brushy 8 SWD #001	7/26/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View southeast, backfill of 4-foot excavation with potholes of adjacent subsurface line.	10
	SITE NAME	West Brushy 8 SWD #001	7/29/2024

TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View north, backfill of 4-foot excavation.	11
	SITE NAME	West Brushy 8 SWD #001	8/6/2024

TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View northeast, excavated areas backfilled with like materials.	12
	SITE NAME	West Brushy 8 SWD #001	8/6/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View southeast, excavated extent backfilled with clean materials.	13
	SITE NAME	West Brushy 8 SWD #001	8/6/2024

APPENDIX E
Laboratory Analytical Data

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 24, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WEST BRUSHY 8 FED SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 07/23/24 8:56.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: NSW - 1 (H244359-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *110 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	07/23/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *100 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *105 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: ESW - 1 (H244359-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *115 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	07/23/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *113 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *116 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: ESW - 2 (H244359-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *114 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	07/23/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *107 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *109 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: ESW - 3 (H244359-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *111 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	07/23/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *110 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *114 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: SSW - 1 (H244359-05)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**208**	16.0	07/23/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *115 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *118 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: WSW - 1 (H244359-06)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *113 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	07/23/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *102 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *108 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: WSW - 2 (H244359-07)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *113 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	07/23/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *92.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: WSW - 3 (H244359-08)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**640**	16.0	07/23/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *106 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *109 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 1 (H244359-09)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**320**	16.0	07/23/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *120 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *125 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 2 (H244359-10)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1010**	16.0	07/23/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *108 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *109 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 3 (H244359-11)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *110 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2720**	16.0	07/23/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *119 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *125 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 4 (H244359-12)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *109 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2120**	16.0	07/23/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *105 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *108 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 5 (H244359-13)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1800**	16.0	07/23/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *112 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *117 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 6 (H244359-14)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *110 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2320**	16.0	07/23/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *109 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *113 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 7 (H244359-15)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *109 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**992**	16.0	07/23/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *109 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *111 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 8 (H244359-16)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2270**	16.0	07/23/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *118 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *129 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 9 (H244359-17)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2080**	16.0	07/23/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *110 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *112 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 10 (H244359-18)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1660**	16.0	07/23/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *114 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *114 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 11 (H244359-19)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**720**	16.0	07/23/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *113 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *119 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 12 (H244359-20)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *109 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4120**	16.0	07/23/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *117 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *119 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/23/2024	Sampling Date:	07/22/2024
Reported:	07/24/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 13 (H244359-21)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.00	99.9	2.00	1.74	
Toluene*	<0.050	0.050	07/23/2024	ND	1.98	99.1	2.00	2.47	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.00	99.9	2.00	2.44	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	5.89	98.1	6.00	2.54	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.6 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**384**	16.0	07/23/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	180	89.9	200	0.447	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	171	85.6	200	0.339	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane *95.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *89.2 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Notes and Definitions

BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

page 1 of 3

Company Name:	ConocoPhillips
Project Manager:	Sam Abbott
Address:	
City:	State: Zip:
Phone #:	Fax #:
Project #:	212C-MD-02997 Project Owner:
Project Name:	West Brushy 8 Federal SWD #001
Project Location:	Eddy Co, NM
Sampler Name:	Andrew Garcia

BILL TO

P.O. #:	
Company:	Tetra Tech
Attn:	Sam Abbott
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING DATE (2024)	TIME	ANALYSIS REQUEST: TPH	BTEX	Chloride
H244359-1	NSW-1	C	1			X					X		7/22	0800	X	X	X
-2	ESW-1													0815			
-3	ESW-2													0830			
-4	ESW-3													0845			
-5	SSW-1													0900			
-6	WSW-1													0915			
-7	WSW-2													0930			
-8	WSW-3													0945			
-9	FS-1													1000			
-10	FS-2													1015			

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Relinquished By:	Date: 7/23/24	Received By:	
Andrew Garcia	Time: 0856	Received By:	
Relinquished By:	Date:		
	Time:		

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
Sam.Abbott@Tetratech.com
REMARKS:
Andrew.Garcia@tetratech.com

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Observed Temp. °C -8.1
Corrected Temp. °C

Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No
CHECKED BY: (Initials) SR

Turnaround Time: #140
Thermometer ID #113
Correction Factor -0.9°C
Standard ☐ Rush ☑ 24 HR

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No
Observed Temp. °C
Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

FORM-006 R 3.3 07/18/22

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

page 2 of 3

Company Name: Conoco Phillips
Project Manager: Sam Abbott
Address:
City: State: Zip:
Phone #: Fax #:
Project #: 212C-MD-02997 Project Owner:
Project Name: West Brushy 8 Federal SWD #001
Project Location: Eddy Co, NM
Sampler Name: Andrew Garcia

BILL TO
P.O. #:
Company: Tetra Tech
Attn: Sam Abbott
Address:
City:
State: Zip:
Phone #:
Fax #:

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING DATE	TIME	TPH	BTEX	Chlorides
H249359													2024				
11	FS-3	C	1			X					X		7/22	1030	X	X	X
12	FS-4													1045			
13	FS-5													1100			
14	FS-6													1115			
15	FS-7													1130			
16	FS-8													1145			
17	FS-9													1200			
18	FS-10													1215			
19	FS-11													1230			
20	FS-12													1245			

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Relinquished By: Andrew Garcia Date: 7/23/24 Time: 0856 Received By: Rodriguez
Relinquished By: Date: Time: Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
Sam.Abbott@Tetratech.com
REMARKS:
Andrew.Garcia@tetratech.com

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:
Observed Temp. °C -8.1c
Corrected Temp. °C
Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No
CHECKED BY: (Initials) SR

Turnaround Time: #140 Standard ☐ Rush ☒ 24 HR
Thermometer ID #113
Correction Factor ~~0.0~~ °C
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

FORM-006 R 3.3 07/18/22

CARDINAL Laboratories

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

page 3 of 3

Company Name: Conoco Phillips
Project Manager: Sam Abbott
Address:
City: State: Zip:
Phone #: Fax #:
Project #: 212C-MD-02997 Project Owner:
Project Name: West Brushy 8 Federal SWD #001
Project Location: Eddy Co, NM
Sampler Name: Andrew Garcia

BILL TO

P.O. #:
Company: Tetra Tech
Attn: Sam Abbott
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	TPH	BTEX	Chlorides
H244359-21	FS-13	C	1			X					X		2024 7/22	1300	X	X	X

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Relinquished By: Andrew Garcia Date: 7/23/24 Time: 0856 Received By: Brodrick Gruy

Relinquished By: Date: Time: Received By:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:

Observed Temp. °C -8.1 Corrected Temp. °C

Sample Condition: Cool Yes / No; Intact Yes / No

CHECKED BY: (Initials) BK

Verbal Result: ☐ Yes ☐ No Add'l Phone #:

All Results are emailed. Please provide Email address:
Sam.Abbott@Tetratech.com

REMARKS:
Andrew.Garcia@tetratech.com

Turnaround Time: #140 Standard ☐ Rush ☒ 24 HR

Thermometer ID #113 Correction Factor -0.6°C

Bacteria (only) Sample Condition: Cool Yes / No; Intact Yes / No; Observed Temp. °C; Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

FORM-006 R 3.3 07/13/22

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 26, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WEST BRUSHY 8 FED SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 07/24/24 16:57.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/24/2024	Sampling Date:	07/23/2024
Reported:	07/26/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: ETC-1 (H244412-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/26/2024	ND	1.95	97.4	2.00	6.30	
Toluene*	<0.050	0.050	07/26/2024	ND	1.90	94.9	2.00	6.09	
Ethylbenzene*	<0.050	0.050	07/26/2024	ND	1.90	95.2	2.00	5.46	
Total Xylenes*	<0.150	0.150	07/26/2024	ND	5.67	94.5	6.00	5.09	
Total BTEX	<0.300	0.300	07/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.4 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**656**	16.0	07/26/2024	ND	448	112	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/26/2024	ND	195	97.7	200	0.931	
DRO >C10-C28*	<10.0	10.0	07/26/2024	ND	184	91.8	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	07/26/2024	ND					

Surrogate: 1-Chlorooctane *75.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *73.2 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/24/2024	Sampling Date:	07/23/2024
Reported:	07/26/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: ETC-2 (H244412-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/26/2024	ND	1.95	97.4	2.00	6.30	
Toluene*	<0.050	0.050	07/26/2024	ND	1.90	94.9	2.00	6.09	
Ethylbenzene*	<0.050	0.050	07/26/2024	ND	1.90	95.2	2.00	5.46	
Total Xylenes*	<0.150	0.150	07/26/2024	ND	5.67	94.5	6.00	5.09	
Total BTEX	<0.300	0.300	07/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.4 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**944**	16.0	07/26/2024	ND	448	112	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/26/2024	ND	195	97.7	200	0.931	
DRO >C10-C28*	<10.0	10.0	07/26/2024	ND	184	91.8	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	07/26/2024	ND					

Surrogate: 1-Chlorooctane *83.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *81.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/24/2024	Sampling Date:	07/23/2024
Reported:	07/26/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: ETC-3 (H244412-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/26/2024	ND	1.95	97.4	2.00	6.30	
Toluene*	<0.050	0.050	07/26/2024	ND	1.90	94.9	2.00	6.09	
Ethylbenzene*	<0.050	0.050	07/26/2024	ND	1.90	95.2	2.00	5.46	
Total Xylenes*	<0.150	0.150	07/26/2024	ND	5.67	94.5	6.00	5.09	
Total BTEX	<0.300	0.300	07/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.4 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4000**	16.0	07/26/2024	ND	448	112	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/26/2024	ND	195	97.7	200	0.931	
DRO >C10-C28*	<10.0	10.0	07/26/2024	ND	184	91.8	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	07/26/2024	ND					

Surrogate: 1-Chlorooctane *85.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *90.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/24/2024	Sampling Date:	07/23/2024
Reported:	07/26/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: ETC-4 (H244412-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/26/2024	ND	1.95	97.4	2.00	6.30	
Toluene*	<0.050	0.050	07/26/2024	ND	1.90	94.9	2.00	6.09	
Ethylbenzene*	<0.050	0.050	07/26/2024	ND	1.90	95.2	2.00	5.46	
Total Xylenes*	<0.150	0.150	07/26/2024	ND	5.67	94.5	6.00	5.09	
Total BTEX	<0.300	0.300	07/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.7 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**640**	16.0	07/26/2024	ND	448	112	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/26/2024	ND	195	97.7	200	0.931	
DRO >C10-C28*	<10.0	10.0	07/26/2024	ND	184	91.8	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	07/26/2024	ND					

Surrogate: 1-Chlorooctane *92.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *94.7 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901 W Wall Street, Ste 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: Conoco Phillips
Site Manager: Sam Abbott
Project Name: West Brushy 8 Federal SWD #001
Project Location: (county, state) Eddy ~~Lea~~ County, NM
Project #: 212C-MD-02997
Invoice to: Attn: Sam.Abbott@tetratech.com
Receiving Laboratory: Cardinal Labs
Sampler Signature: Andrew Garcia ~~Jorge Fernadez~~ AG
Comments: Include: Andrew.Garcia@tetratech.com

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY) H2414412	SAMPLE IDENTIFICATION	SAMPLING DATE (~~YEAR: 2020~~ AG)	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	Hold
1	ETC-1	7/23/2024	800		x			x	1	N	x		x												x				x
2	ETC-2	7/23/2024	900		x			x	1	N	x		x												x				x
3	ETC-3	7/23/2024	1000		x			x	1	N	x		x												x				x
4	ETC-4	7/23/2024	1100		x			x	1	N	x		x												x				x

Removed @ 1106 AM 7/25/24

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Andrew Garcia	7/24/24		[signature]	7/24/24	
[signature]	7/24/24	17:00	[signature]	7-24-24	1657

LAB USE ONLY
Sample Temperature: 3.4°C #140

REMARKS: Standard TAT

☑ RUSH: Same Day (24 hr) 48 hr 72 hr
☐ Rush Charges Authorized
☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 30, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WEST BRUSHY 8 FED SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 07/29/24 9:51.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: ESW - 4 (H244486-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	07/29/2024	ND	464	116	400	7.14	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *71.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *72.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: WSW - 4 (H244486-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	07/29/2024	ND	464	116	400	7.14	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *83.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *84.2 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 14 (H244486-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *113 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1170**	16.0	07/29/2024	ND	464	116	400	7.14	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *94.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.2 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 15 (H244486-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**832**	16.0	07/29/2024	ND	464	116	400	7.14	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *92.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *94.3 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 16 (H244486-05)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1040**	16.0	07/29/2024	ND	464	116	400	7.14	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *82.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *82.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 17 (H244486-06)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *111 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1020**	16.0	07/29/2024	ND	464	116	400	7.14	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *86.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *87.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: WSW - 3 (1') (H244486-07)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**336**	16.0	07/29/2024	ND	464	116	400	7.14	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *95.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *96.6 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: NSW - 2 (H244486-08)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *110 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**384**	16.0	07/29/2024	ND	464	116	400	7.14	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *99.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *102 %* *49.1-148*

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CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: SSW - 2 (H244486-09)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**480**	16.0	07/29/2024	ND	464	116	400	7.14	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *96.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *98.1 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: ISW - 1 (H244486-10)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	**0.124**	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**368**	16.0	07/30/2024	ND	448	112	400	7.41	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *95.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *97.1 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 22 (H244486-11)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *111 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	07/30/2024	ND	448	112	400	7.41	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *80.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *81.5 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 23 (H244486-12)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *117 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	07/30/2024	ND	448	112	400	7.41	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *74.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *74.7 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 24 (H244486-13)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *111 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	07/30/2024	ND	448	112	400	7.41	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *84.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *86.0 %* *49.1-148*

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 27 (H244486-14)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *115 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	07/30/2024	ND	448	112	400	7.41	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *89.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *90.4 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 28 (H244486-15)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	07/30/2024	ND	448	112	400	7.41	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *91.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *92.8 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 29 (H244486-16)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	07/30/2024	ND	448	112	400	7.41	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *94.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *96.8 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 30 (H244486-17)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**208**	16.0	07/30/2024	ND	448	112	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	220	110	200	2.35	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	190	94.9	200	4.02	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *97.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *118 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 31 (H244486-18)

BTEX 8021B mg/kg **Analyzed By: JH**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *120 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	07/30/2024	ND	448	112	400	7.41	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	220	110	200	2.35	
DRO >C10-C28*	**10.4**	10.0	07/29/2024	ND	190	94.9	200	4.02	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane *103 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *127 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: ConocoPhillips / Tetratech
Project Manager: Sam Abbott / Brittany Long
Address:
City: State: NM Zip:
Phone #: Fax #:
Project #: 212C-MD-02947 Project Owner:
Project Name: West Bronco 8 federal 4WD #001
Project Location: Eddy County
Sampler Name: Andrew Garcia

BILL TO
P.O. #:
Company: ConocoPhillips
Attn: Sam.Abbott@Tetratech.com
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	BTEX 8021B BTEX8260B	TPH 8015M (GRO-DRO-OBG-MRO)	Chloride
H044482																	
1	ESW-4					X					X		7/26		X	X	X
2	WSW-4																
3	FS-14																
4	FS-15																
5	FS-16																
6	FS-17																
7	WSW-3(1')																
8	NSW-2																
9	SSW-2																
10	ISW-1																

Relinquished By: Andrew Garcia 7/26/24
Date: 7.29.24
Time: 0951
Received By: S Rodriguez
Relinquished By:
Date:
Time:
Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
REMARKS:

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:
Observed Temp. °C 3.0c
Corrected Temp. °C
Sample Condition: Cool Yes ☐ Intact Yes ☐
☐ No ☐ No
CHECKED BY: (Initials) SR

Turnaround Time: Standard ☐ Rush ☑ 24hr
Thermometer ID #140
Correction Factor 0°C
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.4 07/11/23

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901 W Wall Street, Ste 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: Conoco Phillips

Site Manager: Sam Abbott

Project Name: West Brushy 8 Federal SWD #001

Project Location (county, state): Eddy ~~Lea~~ AG County, NM

Project #: 212C-MD-02997

Invoice to: Attn: Sam.Abbott@TetraTech.com

Receiving Laboratory: Cardinal Labs

Sampler Signature: Andrew Garcia

Comments: Include: Andrew.Garcia@Tetratech.com

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance		Hold
H244486		YEAR: 2024																														
11	FS-22	7/26	1145		x				x		1		x		x												x					
12	FS-23		1200																													
13	FS-24		1230																													
14	FS-27		1245																													
15	FS-28		1300																													
16	FS-29		1330																													
17	FS-30		1345																													
18	FS-31		1400																													

Relinquished by: Andrew Garcia Date: 7/26/24 Time:

Received by: S Rodriguez Date: 7.29.24 Time: 0951

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

LAB USE ONLY

Sample Temperature 3.0

#140

REMARKS: Standard TAT

☒ RUSH: Same Day (24 hr) 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

August 01, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WEST BRUSHY 8 FED SWD #1R

Enclosed are the results of analyses for samples received by the laboratory on 07/31/24 16:58.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: NSW - 3 (H244569-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.1 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/01/2024	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *87.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.3 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: NSW - 4 (H244569-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.5 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *106 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *111 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: NSW - 5 (H244569-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.9 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *118 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *129 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: SSW - 3 (H244569-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.5 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *105 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *111 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: SSW - 4 (H244569-05)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.3 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *121 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *129 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: WSW - 5 (H244569-06)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.5 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *118 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *128 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: ESW - 5 (H244569-07)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.9 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *120 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *130 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 18 (H244569-08)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.4 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *100 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *106 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 19 (H244569-09)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.2 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *118 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *126 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 20 (H244569-10)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.1 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *121 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *131 %* *49.1-148*

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Analytical Results For:

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SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 21 (H244569-11)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.3 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *87.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *89.0 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
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MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 32 (H244569-12)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41	
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *92.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.5 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 33 (H244569-13)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41	
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *89.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *90.5 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 34 (H244569-14)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41	
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *92.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *94.2 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 35 (H244569-15)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41	
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *115 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *89.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *93.7 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 36 (H244569-16)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41	
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *119 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *91.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.5 %* *49.1-148*

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Analytical Results For:

TETRA TECH
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MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 37 (H244569-17)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41	
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *90.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *93.8 %* *49.1-148*

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Analytical Results For:

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SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 38 (H244569-18)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41	
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *108 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *109 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 39 (H244569-19)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41	
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *119 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *102 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *103 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 40 (H244569-20)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41	
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *114 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *99.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *102 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 41 (H244569-21)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41	
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *91.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *94.7 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 42 (H244569-22)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44	
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *122 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	08/01/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *107 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *111 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 43 (H244569-23)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44	
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/01/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *103 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *107 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 44 (H244569-24)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44	
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	08/01/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *97.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *101 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 45 (H244569-25)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44	
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *120 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/01/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *111 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *116 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 46 (H244569-26)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44	
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *128 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	08/01/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *81.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *83.4 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 47 (H244569-27)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44	
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1490**	16.0	08/01/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *107 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *111 %* *49.1-148*

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Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 48 (H244569-28)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44	
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1100**	16.0	08/01/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *96.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *100 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 49 (H244569-29)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44	
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1100**	16.0	08/01/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *104 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *108 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 50 (H244569-30)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44	
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *117 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1170**	16.0	08/01/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *93.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 51 (H244569-31)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44	
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1230**	16.0	08/01/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane *94.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *100 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	ConocoPhillips
Project Manager:	Sam Abbott
Address:	
City:	State: Zip:
Phone #:	Fax #:
Project #:	2125-MD-02997 Project Owner:
Project Name:	West Bronby 8 Federal SWD #001R
Project Location:	Eddy Co, NM
Sampler Name:	Andrew Garcia

BILL TO

P.O. #:	
Company:	Tetra Tech
Attn:	Sam Abbott
Address:	
City:	
State: Zip:	
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING DATE (2024)	TIME	BTEX	TPH	Chlorides
H214569 1	NSW-3	G	1			X					X		7/31	800	X	X	X
2	NSW-4													815			
3	NSW-5													830			
4	SSW-3													845			
5	SSW-4													900			
6	WSW-5													915			
7	ESW-5													930			
8	FS-18													945			
9	FS-19													1000			
10	FS-20													1015			

Relinquished By:	Date: 7/31/24	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Andrew Garcia	Time: 1658		All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	Sam.Abbott@Tetratech.com
	Time:		REMARKS: Andrew.Garcia@Tetratech.com

Delivered By: (Circle One)	Observed Temp. °C 2.4°C	Sample Condition Cool Intact	CHECKED BY: (Initials)	Turnaround Time: Standard ☐ Rush ☒
Sampler - UPS - Bus - Other:	Corrected Temp. °C	☒ Yes ☐ Yes ☐ No ☐ No	KAD	Thermometer ID #140 Correction Factor 0°C 24 HR TAT

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

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CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Conoco Phillips
Project Manager:	Sam Abbott
Address:	
City:	State: Zip:
Phone #:	Fax #:
Project #:	2125-MD-02997 Project Owner:
Project Name:	West Bronby 8 Federal SWD #001R
Project Location:	Eddy Co, NM
Sampler Name:	Andrew Garcia

BILL TO

P.O. #:	
Company:	Tetra Tech
Attn:	Sam Abbott
Address:	
City:	
State: Zip:	
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING DATE	TIME	BTEX	TPH	Chlorides
H24529													2024				
11	FS-21	G	1			X					X		7/31	1030	X	X	X
12	FS-32													1045			
13	FS-33													1050			
14	FS-34													1100			
15	FS-35													1130			
16	FS-36													1145			
17	FS-37													1200			
18	FS-38													1215			
19	FS-39													1230			
20	FS-40													1245			

Relinquished By:	Date: 7/31/24	Received By:	
Andrew Garcia	Time: 1658		
Relinquished By:	Date:	Received By:	
	Time:		

Verbal Result: ☐ Yes ☐ No Add'l Phone #:

All Results are emailed. Please provide Email address:

Sam.Abbott@Tetratech.com

REMARKS:

Andrew.Garcia@Tetratech.com

Delivered By: (Circle One)	Observed Temp. °C 2.4	Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No	CHECKED BY: (Initials) AP
Sampler - UPS - Bus - Other:	Corrected Temp. °C		

Turnaround Time: Standard ☐ Rush ☑ 24 HR TAT

Thermometer ID #140 Correction Factor 0°C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No; Observed Temp. °C; Corrected Temp. °C

FORM-006 R 3.4 07/11/23

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CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	ConocoPhillips
Project Manager:	Sam Abbott
Address:	
City:	State: Zip:
Phone #:	Fax #:
Project #:	2125-MD-02997 Project Owner:
Project Name:	West Bronby 8 Federal SWD #001R
Project Location:	Eddy Co, NM
Sampler Name:	Andrew Garcia

BILL TO

P.O. #:	
Company:	Tetra Tech
Attn:	Sam Abbott
Address:	
City:	
State: Zip:	
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING DATE	SAMPLING TIME	BTEX	TPH	Chlorides
H244569													2024				
21	FS-41	G	1			X					X		7/31	1300	X	X	X
22	FS-42													1315			
23	FS-43													1320			
24	FS-44													1330			
25	FS-45													1340			
26	FS-46													1350			
27	FS-47													1400			
28	FS-48													1415			
29	FS-49													1430			
30	FS-50													1445			

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Relinquished By:	Date: 7/31/24	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Andrew Garcia	Time: 1656		All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	Sam.Abbott@Tetratech.com
	Time:		REMARKS: Andrew.Garcia@Tetratech.com

Delivered By: (Circle One) Sampler - UPS - Bus - Other:

Observed Temp. °C 2.4c
Corrected Temp. °C

Sample Condition: Cool ☑ Yes ☐ No; Intact ☐ Yes ☐ No

CHECKED BY: (Initials) AP

Turnaround Time: Standard ☐ Rush ☑
Thermometer ID #140
Correction Factor 0°C
24 HR TAT

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No
Observed Temp. °C
Corrected Temp. °C

FORM-006 R 3.4 07/11/23

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CARDINAL Laboratories

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(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 4 of 4

Company Name:	ConocoPhillips
Project Manager:	Sam Abbott
Address:	
City:	State: Zip:
Phone #:	Fax #:
Project #:	2125-MD-02997 Project Owner:
Project Name:	West Bronhy 8 Federal SWD #001R
Project Location:	Eddy Co, NM
Sampler Name:	Andrew Garcia

BILL TO

P.O. #:	
Company:	Tetra Tech
Attn:	Sam Abbott
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	BTEX	TPH	Chlorides
H24509-31	FS-51	G	1			X					X		7/31/2024	1500	X	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors, arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 7/31/24 Time: 1656	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Andrew Garcia			All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	Sam.Abbott@Tetratech.com
			REMARKS: Andrew.Garcia@Tetratech.com

Delivered By: (Circle One)	Observed Temp. °C	Sample Condition	CHECKED BY:	Turnaround Time: Standard ☐ Rush ☒
Sampler - UPS - Bus - Other:	Corrected Temp. °C 2.4°C	Cool: ☒ Yes ☐ No Intact: ☐ Yes ☐ No	(Initials) AP	Thermometer ID #140 Correction Factor 0°C 24 HR TAT

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.4 07/11/23

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CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

August 05, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WEST BRUSHY 8 FED SWD #1R

Enclosed are the results of analyses for samples received by the laboratory on 08/02/24 9:27.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	08/02/2024	Sampling Date:	08/01/2024
Reported:	08/05/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: ISW - 2 (H244634-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/02/2024	ND	2.03	102	2.00	1.02	
Toluene*	<0.050	0.050	08/02/2024	ND	2.18	109	2.00	0.147	
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.29	115	2.00	0.347	
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.03	117	6.00	0.191	
Total BTEX	<0.300	0.300	08/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**624**	16.0	08/05/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/02/2024	ND	223	112	200	4.15	
DRO >C10-C28*	**12.1**	10.0	08/02/2024	ND	217	108	200	14.7	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane *88.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *87.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	08/02/2024	Sampling Date:	08/01/2024
Reported:	08/05/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: ISW - 3 (H244634-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/02/2024	ND	2.03	102	2.00	1.02	
Toluene*	<0.050	0.050	08/02/2024	ND	2.18	109	2.00	0.147	
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.29	115	2.00	0.347	
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.03	117	6.00	0.191	
Total BTEX	<0.300	0.300	08/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *113 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**720**	16.0	08/05/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/02/2024	ND	223	112	200	4.15	
DRO >C10-C28*	**17.2**	10.0	08/02/2024	ND	217	108	200	14.7	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane *91.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *92.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901 W Wall Street, Ste 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: ConocoPhillips	**Site Manager:** Sam Abbott
Project Name: West Brushy 8 Federal SWD #001 R	
Project Location: (county, state) Eddy County, NM	**Project #:** 212C-MD-02997
Invoice to: Attn: Sam.Abbott@tetratech.com	
Receiving Laboratory: Cardinal Labs	**Sampler Signature:** Andrew Garcia
Comments: Include: Andrew.Garcia@tetratech.com	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)
H244634		YEAR: 2024										
1	ISW-2	8/1/2024	1200		x				x		1	N
2	ISW-3	8/1/2024	1230		x				x		1	N

ANALYSIS REQUEST
(Circle or Specify Method No.)

BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
x		x												x							
x		x												x							

Relinquished by: Andrew Garcia	Date: 8/2/24	Time:	Received by: Amaros 8-2-24 927
Relinquished by:	Date:	Time:	Received by: Date: Time:
Relinquished by:	Date:	Time:	Received by: Date: Time:

LAB USE ONLY
Sample Temperature 3.6c/CF
3.0c
#140

REMARKS: Standard TAT

☒ RUSH: Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

August 06, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WEST BRUSHY 8 FED SWD #1R

Enclosed are the results of analyses for samples received by the laboratory on 08/05/24 16:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	08/05/2024	Sampling Date:	08/05/2024
Reported:	08/06/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: ISW - 2 (1') (H244695-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/05/2024	ND	1.94	97.1	2.00	0.552	
Toluene*	<0.050	0.050	08/05/2024	ND	1.89	94.6	2.00	0.971	
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	1.99	99.4	2.00	1.38	
Total Xylenes*	<0.150	0.150	08/05/2024	ND	5.88	98.0	6.00	1.05	
Total BTEX	<0.300	0.300	08/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.8 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	08/06/2024	ND	432	108	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	210	105	200	2.65	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	217	109	200	6.95	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane *84.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *100 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	08/05/2024	Sampling Date:	08/05/2024
Reported:	08/06/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: ISW - 3 (1') (H244695-02)

BTEX 8021B mg/kg **Analyzed By: JH**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/05/2024	ND	1.94	97.1	2.00	0.552	
Toluene*	<0.050	0.050	08/05/2024	ND	1.89	94.6	2.00	0.971	
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	1.99	99.4	2.00	1.38	
Total Xylenes*	<0.150	0.150	08/05/2024	ND	5.88	98.0	6.00	1.05	
Total BTEX	<0.300	0.300	08/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.8 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	08/06/2024	ND	432	108	400	3.64	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	210	105	200	2.65	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	217	109	200	6.95	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane *87.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *103 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	08/05/2024	Sampling Date:	08/05/2024
Reported:	08/06/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 25 (H244695-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/05/2024	ND	2.06	103	2.00	12.3	
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8	
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7	
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9	
Total BTEX	<0.300	0.300	08/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *110 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**832**	16.0	08/06/2024	ND	432	108	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	210	105	200	2.65	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	217	109	200	6.95	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane *80.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	08/05/2024	Sampling Date:	08/05/2024
Reported:	08/06/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: FS - 26 (H244695-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/05/2024	ND	2.06	103	2.00	12.3	
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8	
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7	
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9	
Total BTEX	<0.300	0.300	08/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *120 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	08/06/2024	ND	432	108	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	210	105	200	2.65	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	217	109	200	6.95	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane *72.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *88.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Conoco Phillips
Project Manager: Sam Abbott
Address:
City: State: Zip:
Phone #: Fax #:
Project #: 212C-MD-02997 Project Owner:
Project Name: West Bronchy 8 Federal SWD #001R
Project Location: Eddy Co, NM.
Sampler Name: Andrew Garcia

BILL TO
P.O. #:
Company: Tetra Tech
Attn: Sam Abbott
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL ✓	OTHER :	SAMPLING: 2024 DATE	TIME	TPH	BTEX	Chlorides
H244695-1	ISW-2 (1')	C	1				X				X		08/06	1000	X	X	X
2	ISW-3 (1')													1100			
3	FS-25													1200			
4	FS-26													1300			

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Andrew Garcia Date: 8.5.24 Time: 1055
Received By:
Relinquished By: Date: Time:
Received By:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 3.0 Corrected Temp. °C 2.4
Sample Condition: Cool Yes No / Intact Yes No
CHECKED BY: (Initials) AD

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
Sam.Abbott@Tetratech.com
REMARKS:
Andrew.Garcia@Tetratech.com

Turnaround Time: Standard ☐ Rush ☑ 24 HR
Thermometer ID #140
Correction Factor -0.6°C
Bacteria (only) Sample Condition: Cool Yes No / Intact Yes No
Observed Temp. °C
Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

FORM-006 R 3.3 08/05/24

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Luis Rivera
R360 ES Holdings Inc
507 N Marienfield
Midland, Texas 79701

Generated 7/26/2024 8:29:26 AM

JOB DESCRIPTION

R360 -backfill

JOB NUMBER

890-6947-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

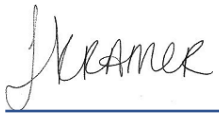
Eurofins Carlsbad

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
7/26/2024 8:29:26 AM

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

Client: R360 ES Holdings Inc
Project/Site: R360 -backfill

Laboratory Job ID: 890-6947-1

Table of Contents

Definitions/Glossary

Client: R360 ES Holdings Inc
Project/Site: R360 -backfill

Job ID: 890-6947-1

Qualifiers

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: R360 ES Holdings Inc
Project: R360 -backfill

Job ID: 890-6947-1

Job ID: 890-6947-1 Eurofins Carlsbad

Job Narrative
890-6947-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/22/2024 11:07 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 3.0°C.

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-86374 and analytical batch 880-86423 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: R360 ES Holdings Inc
Project/Site: R360 -backfill

Job ID: 890-6947-1

Client Sample ID: E#88
Lab Sample ID: 890-6947-1
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	155		5.04	0.398	mg/Kg			07/26/24 00:36	1

Client Sample ID: E#89
Lab Sample ID: 890-6947-2
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.6		5.03	0.397	mg/Kg			07/26/24 00:52	1

Client Sample ID: E#90
Lab Sample ID: 890-6947-3
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	48.7		4.99	0.394	mg/Kg			07/26/24 00:57	1

Client Sample ID: E#91
Lab Sample ID: 890-6947-4
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	65.0		4.98	0.393	mg/Kg			07/26/24 01:13	1

Client Sample ID: E#92
Lab Sample ID: 890-6947-5
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.6		5.00	0.395	mg/Kg			07/26/24 01:18	1

Client Sample ID: E#93
Lab Sample ID: 890-6947-6
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.8		5.00	0.395	mg/Kg			07/26/24 01:23	1

Client Sample ID: E#94
Lab Sample ID: 890-6947-7
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.4		4.99	0.394	mg/Kg			07/26/24 01:28	1

Client Sample Results

Client: R360 ES Holdings Inc
Job ID: 890-6947-1
Project/Site: R360 -backfill

Client Sample ID: E#95
Lab Sample ID: 890-6947-8
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.0		5.04	0.398	mg/Kg			07/26/24 01:34	1

Client Sample ID: E#96
Lab Sample ID: 890-6947-9
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.6		5.02	0.397	mg/Kg			07/26/24 01:39	1

Client Sample ID: E#97
Lab Sample ID: 890-6947-10
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.4		4.98	0.393	mg/Kg			07/26/24 01:44	1

Client Sample ID: E#98
Lab Sample ID: 890-6947-11
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.5		4.96	0.392	mg/Kg			07/25/24 17:16	1

Client Sample ID: E#99
Lab Sample ID: 890-6947-12
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	94.2		4.98	0.393	mg/Kg			07/25/24 17:32	1

Client Sample ID: E#100
Lab Sample ID: 890-6947-13
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.7		4.99	0.394	mg/Kg			07/25/24 17:37	1

Client Sample ID: E#101
Lab Sample ID: 890-6947-14
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.3		5.02	0.397	mg/Kg			07/25/24 17:42	1

Client Sample Results

Client: R360 ES Holdings Inc
Project/Site: R360 -backfill

Job ID: 890-6947-1

Client Sample ID: E#102
Lab Sample ID: 890-6947-15
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	120		5.01	0.396	mg/Kg			07/25/24 17:47	1

Client Sample ID: E#103
Lab Sample ID: 890-6947-16
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	159		5.01	0.396	mg/Kg			07/25/24 18:03	1

Client Sample ID: E#104
Lab Sample ID: 890-6947-17
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	221		5.04	0.398	mg/Kg			07/25/24 18:08	1

Client Sample ID: E#105
Lab Sample ID: 890-6947-18
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	274		5.03	0.397	mg/Kg			07/25/24 18:14	1

Client Sample ID: E#106
Lab Sample ID: 890-6947-19
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	161		5.05	0.399	mg/Kg			07/25/24 18:19	1

Client Sample ID: E#107
Lab Sample ID: 890-6947-20
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	197		4.99	0.394	mg/Kg			07/25/24 18:24	1

Client Sample ID: E#108
Lab Sample ID: 890-6947-21
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	263	F1	4.96	0.392	mg/Kg			07/25/24 18:30	1

Client Sample Results

Client: R360 ES Holdings Inc
Job ID: 890-6947-1
Project/Site: R360 -backfill

Client Sample ID: E#109
Lab Sample ID: 890-6947-22
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	284		4.97	0.393	mg/Kg			07/25/24 18:45	1

Client Sample ID: E#110
Lab Sample ID: 890-6947-23
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	111		4.95	0.391	mg/Kg			07/25/24 18:50	1

Client Sample ID: E#111
Lab Sample ID: 890-6947-24
Date Collected: 07/22/24 07:00
Matrix: Solid
Date Received: 07/22/24 11:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	198		4.99	0.394	mg/Kg			07/25/24 19:06	1

QC Sample Results

Client: R360 ES Holdings Inc
Project/Site: R360 -backfill

Job ID: 890-6947-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-86373/1-A
Matrix: Solid
Analysis Batch: 86421

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	0.395	mg/Kg			07/25/24 23:07	1

Lab Sample ID: LCS 880-86373/2-A
Matrix: Solid
Analysis Batch: 86421

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	254.2		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-86373/3-A
Matrix: Solid
Analysis Batch: 86421

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	255.4		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-6947-1 MS
Matrix: Solid
Analysis Batch: 86421

Client Sample ID: E#88
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	155		252	398.4		mg/Kg		97	90 - 110

Lab Sample ID: 890-6947-1 MSD
Matrix: Solid
Analysis Batch: 86421

Client Sample ID: E#88
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	155		252	398.9		mg/Kg		97	90 - 110	0	20

Lab Sample ID: MB 880-86374/1-A
Matrix: Solid
Analysis Batch: 86423

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	0.395	mg/Kg			07/25/24 17:00	1

Lab Sample ID: LCS 880-86374/2-A
Matrix: Solid
Analysis Batch: 86423

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	248.7		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-86374/3-A
Matrix: Solid
Analysis Batch: 86423

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	250.8		mg/Kg		100	90 - 110	1	20

QC Sample Results

Client: R360 ES Holdings Inc
Project/Site: R360 -backfill

Job ID: 890-6947-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-6947-11 MS
Matrix: Solid
Analysis Batch: 86423

Client Sample ID: E#98
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	14.5		248	272.7		mg/Kg		104	90 - 110

Lab Sample ID: 890-6947-11 MSD
Matrix: Solid
Analysis Batch: 86423

Client Sample ID: E#98
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	14.5		248	273.0		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-6947-21 MS
Matrix: Solid
Analysis Batch: 86423

Client Sample ID: E#108
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	263	F1	248	539.4	F1	mg/Kg		111	90 - 110

Lab Sample ID: 890-6947-21 MSD
Matrix: Solid
Analysis Batch: 86423

Client Sample ID: E#108
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	263	F1	248	541.1	F1	mg/Kg		112	90 - 110	0	20

QC Association Summary

Client: R360 ES Holdings Inc
Project/Site: R360 -backfill

Job ID: 890-6947-1

HPLC/IC

Leach Batch: 86373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6947-1	E#88	Soluble	Solid	DI Leach	
890-6947-2	E#89	Soluble	Solid	DI Leach	
890-6947-3	E#90	Soluble	Solid	DI Leach	
890-6947-4	E#91	Soluble	Solid	DI Leach	
890-6947-5	E#92	Soluble	Solid	DI Leach	
890-6947-6	E#93	Soluble	Solid	DI Leach	
890-6947-7	E#94	Soluble	Solid	DI Leach	
890-6947-8	E#95	Soluble	Solid	DI Leach	
890-6947-9	E#96	Soluble	Solid	DI Leach	
890-6947-10	E#97	Soluble	Solid	DI Leach	
MB 880-86373/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-86373/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-86373/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6947-1 MS	E#88	Soluble	Solid	DI Leach	
890-6947-1 MSD	E#88	Soluble	Solid	DI Leach	

Leach Batch: 86374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6947-11	E#98	Soluble	Solid	DI Leach	
890-6947-12	E#99	Soluble	Solid	DI Leach	
890-6947-13	E#100	Soluble	Solid	DI Leach	
890-6947-14	E#101	Soluble	Solid	DI Leach	
890-6947-15	E#102	Soluble	Solid	DI Leach	
890-6947-16	E#103	Soluble	Solid	DI Leach	
890-6947-17	E#104	Soluble	Solid	DI Leach	
890-6947-18	E#105	Soluble	Solid	DI Leach	
890-6947-19	E#106	Soluble	Solid	DI Leach	
890-6947-20	E#107	Soluble	Solid	DI Leach	
890-6947-21	E#108	Soluble	Solid	DI Leach	
890-6947-22	E#109	Soluble	Solid	DI Leach	
890-6947-23	E#110	Soluble	Solid	DI Leach	
890-6947-24	E#111	Soluble	Solid	DI Leach	
MB 880-86374/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-86374/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-86374/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6947-11 MS	E#98	Soluble	Solid	DI Leach	
890-6947-11 MSD	E#98	Soluble	Solid	DI Leach	
890-6947-21 MS	E#108	Soluble	Solid	DI Leach	
890-6947-21 MSD	E#108	Soluble	Solid	DI Leach	

Analysis Batch: 86421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6947-1	E#88	Soluble	Solid	300.0	86373
890-6947-2	E#89	Soluble	Solid	300.0	86373
890-6947-3	E#90	Soluble	Solid	300.0	86373
890-6947-4	E#91	Soluble	Solid	300.0	86373
890-6947-5	E#92	Soluble	Solid	300.0	86373
890-6947-6	E#93	Soluble	Solid	300.0	86373
890-6947-7	E#94	Soluble	Solid	300.0	86373
890-6947-8	E#95	Soluble	Solid	300.0	86373
890-6947-9	E#96	Soluble	Solid	300.0	86373

QC Association Summary

Client: R360 ES Holdings Inc
Project/Site: R360 -backfill

Job ID: 890-6947-1

HPLC/IC (Continued)

Analysis Batch: 86421 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6947-10	E#97	Soluble	Solid	300.0	86373
MB 880-86373/1-A	Method Blank	Soluble	Solid	300.0	86373
LCS 880-86373/2-A	Lab Control Sample	Soluble	Solid	300.0	86373
LCSD 880-86373/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	86373
890-6947-1 MS	E#88	Soluble	Solid	300.0	86373
890-6947-1 MSD	E#88	Soluble	Solid	300.0	86373

Analysis Batch: 86423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6947-11	E#98	Soluble	Solid	300.0	86374
890-6947-12	E#99	Soluble	Solid	300.0	86374
890-6947-13	E#100	Soluble	Solid	300.0	86374
890-6947-14	E#101	Soluble	Solid	300.0	86374
890-6947-15	E#102	Soluble	Solid	300.0	86374
890-6947-16	E#103	Soluble	Solid	300.0	86374
890-6947-17	E#104	Soluble	Solid	300.0	86374
890-6947-18	E#105	Soluble	Solid	300.0	86374
890-6947-19	E#106	Soluble	Solid	300.0	86374
890-6947-20	E#107	Soluble	Solid	300.0	86374
890-6947-21	E#108	Soluble	Solid	300.0	86374
890-6947-22	E#109	Soluble	Solid	300.0	86374
890-6947-23	E#110	Soluble	Solid	300.0	86374
890-6947-24	E#111	Soluble	Solid	300.0	86374
MB 880-86374/1-A	Method Blank	Soluble	Solid	300.0	86374
LCS 880-86374/2-A	Lab Control Sample	Soluble	Solid	300.0	86374
LCSD 880-86374/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	86374
890-6947-11 MS	E#98	Soluble	Solid	300.0	86374
890-6947-11 MSD	E#98	Soluble	Solid	300.0	86374
890-6947-21 MS	E#108	Soluble	Solid	300.0	86374
890-6947-21 MSD	E#108	Soluble	Solid	300.0	86374

Lab Chronicle

Client: R360 ES Holdings Inc
Project/Site: R360 -backfill

Job ID: 890-6947-1

Client Sample ID: E#88
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 00:36	CH	EET MID

Client Sample ID: E#89
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 00:52	CH	EET MID

Client Sample ID: E#90
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 00:57	CH	EET MID

Client Sample ID: E#91
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 01:13	CH	EET MID

Client Sample ID: E#92
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.00 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 01:18	CH	EET MID

Client Sample ID: E#93
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.00 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 01:23	CH	EET MID

Lab Chronicle

Client: R360 ES Holdings Inc
Project/Site: R360 -backfill

Job ID: 890-6947-1

Client Sample ID: E#94
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 01:28	CH	EET MID

Client Sample ID: E#95
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 01:34	CH	EET MID

Client Sample ID: E#96
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 01:39	CH	EET MID

Client Sample ID: E#97
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 01:44	CH	EET MID

Client Sample ID: E#98
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 17:16	CH	EET MID

Client Sample ID: E#99
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 17:32	CH	EET MID

Lab Chronicle

Client: R360 ES Holdings Inc
Project/Site: R360 -backfill

Job ID: 890-6947-1

Client Sample ID: E#100
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 17:37	CH	EET MID

Client Sample ID: E#101
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 17:42	CH	EET MID

Client Sample ID: E#102
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 17:47	CH	EET MID

Client Sample ID: E#103
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:03	CH	EET MID

Client Sample ID: E#104
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:08	CH	EET MID

Client Sample ID: E#105
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-18
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:14	CH	EET MID

Lab Chronicle

Client: R360 ES Holdings Inc
Project/Site: R360 -backfill

Job ID: 890-6947-1

Client Sample ID: E#106
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:19	CH	EET MID

Client Sample ID: E#107
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-20
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:24	CH	EET MID

Client Sample ID: E#108
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-21
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:30	CH	EET MID

Client Sample ID: E#109
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-22
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:45	CH	EET MID

Client Sample ID: E#110
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-23
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:50	CH	EET MID

Client Sample ID: E#111
Date Collected: 07/22/24 07:00
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-24
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 19:06	CH	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: R360 ES Holdings Inc
Job ID: 890-6947-1
Project/Site: R360 -backfill

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-25

Method Summary

Client: R360 ES Holdings Inc
Project/Site: R360 -backfill

Job ID: 890-6947-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: R360 ES Holdings Inc
Project/Site: R360 -backfill

Job ID: 890-6947-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-6947-1	E#88	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-2	E#89	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-3	E#90	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-4	E#91	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-5	E#92	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-6	E#93	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-7	E#94	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-8	E#95	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-9	E#96	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-10	E#97	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-11	E#98	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-12	E#99	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-13	E#100	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-14	E#101	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-15	E#102	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-16	E#103	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-17	E#104	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-18	E#105	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-19	E#106	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-20	E#107	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-21	E#108	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-22	E#109	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-23	E#110	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-24	E#111	Solid	07/22/24 07:00	07/22/24 11:07

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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

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Luis Rivera	Bill to: (if different)	
Company Name:	R360 Environmental Solutions	Company Name:	
Address:	5053 US Hwy 285	Address:	
City, State ZIP:	Orla TX 79770	City, State ZIP:	
Phone:	(405) 351-2694 Email:	luisr@R360es.com	

Work Order Comments

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

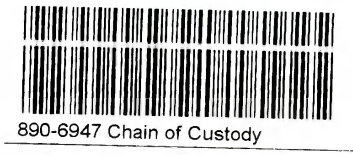
Project Name:	Backfill	Turn Around	☑ Routine ☐ Rush
Project Number:		Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:			
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TMW#01	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	3.2	
Total Containers:		Corrected Temperature:	3.0	

ANALYSIS REQUEST

Pres. Code

Parameters: Chlorides



Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Chlorides	Sample Comments
E#88		7/22/24	7:00Am			1	X	
E#89						1	X	
E#90						1	X	
E#91						1	X	
E#92						1	X	
E#93						1	X	
E#94						1	X	
E#95						1	X	
E#96						1	X	
E#97						1	X	

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		7/22/24	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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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

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Luis Rivera	Bill to: (if different)	
Company Name:	R360 Environmental Solutions	Company Name:	
Address:	5057 US Hwy 285	Address:	
City, State ZIP:	Orla TX 79770	City, State ZIP:	
Phone:	(405) 351-2694	Email:	luisr@R360es.com

Work Order Comments

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

Project Name:	Backfill	Turn Around	
Project Number:		☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:		TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	
Total Containers:		Corrected Temperature:	

Preservative Codes

None: NO — DI Water: H_2O
Cool: Cool — MeOH: Me
HCL: HC — HNO_3: HN
H_2SO_4: H_2 — NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Chlorides	Sample Comments
EH98		7/22/24	7:24 AM			1		X	
EH99						1		X	
EH100						1		X	
EH101						1		X	
EH102						1		X	
EH103						1		X	
EH104						1		X	
EH105						1		X	
EH106						1		X	
EH107						1		X	

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		7/22/24	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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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

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Luis Rivera	Bill to: (if different)	
Company Name:	R360 Environmental Solutions	Company Name:	
Address:	5053 US Hwy 285	Address:	
City, State ZIP:	Orla TX 79770	City, State ZIP:	
Phone:	(405) 351-2694	Email:	luis@R360es.com

Work Order Comments

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

Project Name:	Backfill	Turn Around	
Project Number:		☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:		TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Chlorides	Sample Comments
E108		7/22/24	7:41 AM			X		X	
E#109		"	"			X		X	
E#110		"	"			X		X	
E#111		"	"			X		X	

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 Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 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			7/22/24	2		
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: R360 ES Holdings Inc Job Number: 890-6947-1

Login Number: 6947 **List Source: Eurofins Carlsbad**
List Number: 1
Creator: Lopez, Abraham

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: R360 ES Holdings Inc

Job Number: 890-6947-1

Login Number: 6947
List Number: 2
Creator: Vasquez, Julisa

List Source: Eurofins Midland
List Creation: 07/23/24 08:17 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	

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

August 26, 2024

NICHOLAS POOLE

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: R360 RED BLUFF

Enclosed are the results of analyses for samples received by the laboratory on 08/23/24 8:37.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
NICHOLAS POOLE
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	08/23/2024	Sampling Date:	08/22/2024
Reported:	08/26/2024	Sampling Type:	Soil
Project Name:	R360 RED BLUFF	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02878	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - ORLA, TX		

Sample ID: BACKFILL COMPOSITE (H245141-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/23/2024	ND	2.23	112	2.00	6.88	
Toluene*	<0.050	0.050	08/23/2024	ND	2.13	106	2.00	6.28	
Ethylbenzene*	<0.050	0.050	08/23/2024	ND	2.10	105	2.00	5.95	
Total Xylenes*	<0.150	0.150	08/23/2024	ND	6.23	104	6.00	6.09	
Total BTEX	<0.275	0.275	08/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.5 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	08/23/2024	ND	400	100	400	7.69	

TPH TX1005 mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/23/2024	ND	227	113	200	3.24	
DRO >C12-C28	<25.0	25.0	08/23/2024	ND	205	103	200	6.54	
DRO >C28-C35	<25.0	25.0	08/23/2024	ND					
Total TPH C6-C35*	<25.0	25.0	08/23/2024	ND	438	110	400	6.27	

Surrogate: 1-Chlorooctane *68.1 %* *48.6-153*

Surrogate: 1-Chlorooctadecane *77.3 %* *41.9-170*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

Company Name:	Conoco Phillips	**BILL TO** P.O. #:	
Project Manager:	Nicholas Poole	Company:	Tetra Tech
Address:		Attn:	Nicholas Poole
City:	State: Zip:	Address:	
Phone #:	Fax #:	City:	
Project #:	212C-MD-02878 Project Owner:	State: Zip:	
Project Name:	R360 Red Bluff - Orla, TX	Phone #:	
Project Location:	~~Eddy Co, NM~~ AG Orla, TX	Fax #:	
Sampler Name:	Andrew Garcia		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	2024 DATE	TIME	BTEX	TPH	Chlorides									
H245141																									
1	Backfill Composite	C	1			X					X		22 Aug	1500	X	X	X								

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Andrew Garcia	Date: ~~23~~ 22 Aug 24 Time: 0837	Received By: Rodriguez	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	All Results are emailed. Please provide Email address: Nicholas.Poole@tetratech.com
			REMARKS: Andrew.Garcia@tetratech.com

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C -2.7	Sample Condition Cool Intact ~~Yes~~ ~~Yes~~ ☐ No ☐ No	CHECKED BY: (Initials) SR	Turnaround Time: #140 Standard ☐ Rush ☒ 24 HR TAT
	Corrected Temp. °C -3.3			Thermometer ID ~~#113~~ Correction Factor -0.6°C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C ____ Corrected Temp. °C ____

FORM-006 R 3.3 07/18/22

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

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QUESTIONS

Action 379384

QUESTIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 379384
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAB1715742101**
Incident Name	**NAB1715742101 WEST BRUSHY 8 FEDERAL SWD #001 @ 30-015-31675**
Incident Type	**Produced Water Release**
Incident Status	**Reclamation Report Received**
Incident Well	**[30-015-31675] WEST BRUSHY 8 FEDERAL SWD #001**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	WEST BRUSHY 8 FEDERAL SWD #001
Date Release Discovered	05/27/2017
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water 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	*Not answered.*
Produced Water Released (bbls) Details	Cause: Corrosion | Flow Line - Injection | Produced Water | Released: 30 BBL | Recovered: 20 BBL | Lost: 10 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
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 (continued)

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	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**
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	*Not answered.*
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: Christian LLuLL Title: Project Manager Email: christian.llull@tetratech.com Date: 08/29/2024

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QUESTIONS (continued)

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	Action Number: 379384
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Site Characterization	
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.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (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 500 and 1000 (ft.)
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	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Greater than 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between ½ and 1 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1000 (ft.) and ½ (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
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.	
Requesting a remediation plan approval with this submission	Yes
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.	
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)	9460
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	211
GRO+DRO (EPA SW-846 Method 8015M)	211
BTEX (EPA SW-846 Method 8021B or 8260B)	0.3
Benzene (EPA SW-846 Method 8021B or 8260B)	0
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.	
On what estimated date will the remediation commence	08/01/2024
On what date will (or did) the final sampling or liner inspection occur	08/01/2024
On what date will (or was) the remediation complete(d)	08/15/2024
What is the estimated surface area (in square feet) that will be reclaimed	20700
What is the estimated volume (in cubic yards) that will be reclaimed	1920
What is the estimated surface area (in square feet) that will be remediated	20700
What is the estimated volume (in cubic yards) that will be remediated	1920
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.	
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.	

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QUESTIONS (continued)

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	Action Number: 379384
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Remediation Plan (continued)	
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.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(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	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
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
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 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: Christian LLuLL Title: Project Manager Email: christian.llull@tetratech.com Date: 08/29/2024
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.	

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QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 379384
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

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 (continued)

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	Action Number: 379384
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**367769**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**07/31/2024**
What was the (estimated) number of samples that were to be gathered	**75**
What was the sampling surface area in square feet	**20865**

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	19890
What was the total volume (cubic yards) remediated	1850
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	19890
What was the total volume (in cubic yards) reclaimed	1850
Summarize any additional remediation activities not included by answers (above)	Following excavation, confirmation floor and sidewall samples were collected from the entire remediated area and submitted for laboratory analysis to verify efficacy of remediation activities. Per the NMOCD approved confirmation sampling plan, confirmation samples were collected such that each discrete sample (sidewall and floor) was representative of no more than 400 square feet of excavated area. The combined remediated extent had a surface area of approximately 19,890 square feet. A total of fifty-one (51) confirmation floor sample locations and twenty-two (22) confirmation sidewall sample locations were collected for laboratory analysis during remedial activities.
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: Christian LLuLL Title: Project Manager Email: christian.llull@tetratech.com Date: 08/29/2024

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QUESTIONS (continued)

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	Action Number: 379384
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	19890
What was the total volume of replacement material (in cubic yards) for this site	1850
Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeding commence(d)	08/07/2024
Summarize any additional reclamation activities not included by answers (above)	Once acceptable confirmation sample results were received, the excavation was backfilled with clean material to pre-release grade. In accordance with 19.15.29.12 NMAC, the reclaimed area contained a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0. The soil cover included a top layer consisting of one foot of suitable material to establish vegetation at the site. The backfilled areas in the pasture were seeded following backfilling, to aid in revegetation.
The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeding plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 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: Christian LLuLL Title: Project Manager Email: christian.llull@tetratech.com Date: 08/29/2024

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QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 379384
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Revegetation Report	
Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.	
Requesting a restoration complete approval with this submission	No
Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.	

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CONDITIONS

Action 379384

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Operator:	OGRID:
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	Action Number: 379384
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

CONDITIONS

Created By	Condition	Condition Date
bhall	Remediation closure and reclamation report approved.	9/6/2024
bhall	A revegetation report will not be accepted until revegetation of the release area, including areas reasonably needed for production or drilling activities, is complete and meet the requirements of 19.15.29.13 NMAC. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable.	9/6/2024
bhall	All revegetation activities will need to be documented and included in the revegetation report. The revegetation report will need to include: An executive summary of the revegetation activities including: Seed mix, Method of seeding, dates of when the release area was reseeded, information pertinent to inspections, information about any amendments added to the soil, information on how the vegetative cover established meets the life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds per 19.15.29.13 D.(3) NMAC, and any additional information; a scaled Site Map including area that was revegetated in square feet; and pictures of the revegetated areas during reseeding activities, inspections, and final pictures when revegetation is achieved.	9/6/2024
bhall	Per 19.15.29.13 E. NMAC, if a reclamation and revegetation report has been submitted to the surface owner, it may be used if the requirements of the surface owner provide equal or better protection of freshwater, human health, and the environment. A copy of the approval of the reclamation and revegetation report from the surface owner and a copy of the approved reclamation and revegetation report will need to be submitted to the OCD via the Permitting website.	9/6/2024