



January 29, 2024

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

**Re: Remediation Work Plan
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 Concho 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.

Tetra Tech

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nAB1715742101 Remediation Work Plan
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ConocoPhillips

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.”*

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ConocoPhillips

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 as Appendix B.

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 to 1 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 as Appendix C.

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."*

Three extension requests have been approved for this release incident since the December 12, 2022 rejection was received. The final extension request, approved via email on October 31, 2023, extended the due date to January 30, 2024. Copies of the NMOCD correspondence are included in Appendix B.

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 D.

ConocoPhillips has initiated the permitting process to install a depth-to-water (DTW) boring in case the NMOCD and BLM determines that one is necessary to establish RRALs based on depth to groundwater in accordance with Table I of 19.15.29.12 NMAC.

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

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 Appendix E.

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.

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 taken 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. Photographic documentation from the 2023-2024 assessment activities is included as Appendix E.

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 Appendix F.

SUMMARY OF SAMPLING RESULTS

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

Based on the site characterization, the collected analytical results, and the NMOCD rejection of the 2019 closure request, ConocoPhillips proposes to remove the impacted material as indicated in Figure 5. The proposed remedial action addresses 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).

Impacted soils will be excavated to a maximum depth of 1 foot below surface grade in the areas characterized by sample locations T-24-6, T-24-10, T-24-13, T-24-14, and T-24-15 or until a representative sample from the excavation floor is below the applicable reclamation limit or RRAL for chloride. Impacted soils will be excavated to a maximum depth of 4 feet below surface grade in the areas characterized by sample locations T-24-1 through T-24-5, T-24-7, T-24-11, and T-24-16.

Heavy equipment (backhoe and trackhoe) will be utilized to excavate areas outside the immediate vicinity of pressurized lines and will come no more than 4 feet from any pressurized lines. Impacted soils within the vicinity of the surface and subsurface lines will be removed to the maximum extent practicable using non-aggressive excavation methods.

Excavated soils will be transported offsite and disposed of at an NMOCD-approved or permitted facility. In accordance with subsection D of 19.15.29.12 NMAC, the responsible party will notify the appropriate division district office prior to conducting confirmation sampling. Confirmation bottom and sidewall samples representative of no more than 400 square feet will be collected for verification of remedial activities, and analyzed for TPH, BTEX, and chlorides. Once results are received, the excavation will then be backfilled with clean material to surface grade. The estimated volume of material to be remediated is approximately 1,920 cubic yards.

nAB1715742101 Remediation Work Plan
January 29, 2024

ConocoPhillips

SITE RECLAMATION AND RESTORATION PLAN

Once acceptable confirmation sample results are received, the excavation area will then be backfilled with clean topsoil to surface grade. The backfilled areas within pasture areas will be seeded to aid in revegetation. Based on the location of the Site, the seed mixture for LPC Sand/Shinnery Sites will be used for seeding and will be planted in the amount specified in the pounds pure live seed (PLS) per acre. The seed mixture will be spread by a drill equipped with a depth regulator or a hand-held broadcaster and raked. If a hand-held broadcaster is used for dispersal, the pounds pure live seed per acre will be doubled.

Site inspections will be performed to assess the revegetation progress and evaluate the site for the presence of primary or secondary noxious weeds. If noxious weeds are identified, the BLM 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. The BLM seed mixture details and corresponding pounds pure live seed per acre are included in Appendix G.

CONCLUSION

Based on the results of the additional release delineation activities, ConocoPhillips will remediate impacted areas to 4 feet bgs, as indicated in Figure 5. 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 proposed remediation activities will be conducted within 120 days of acceptance of the proposed plan. Concurrent approval of the proposal remedial action will be obtained from the BLM and the lease holder prior to commencement of the proposed actions. If you have any questions concerning the additional assessment activities for the Site or the proposed remediation work plan, please call me 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

LIST OF ATTACHMENTS

Figures:

- Figure 1 – Overview Map
- Figure 2 – Topographic Map
- Figure 3 – Approximate Release Extent and Assessment (BBC)
- Figure 4 – Approximate Release Extent and Additional Assessment (TT)
- Figure 5 – Proposed Remediation Extent

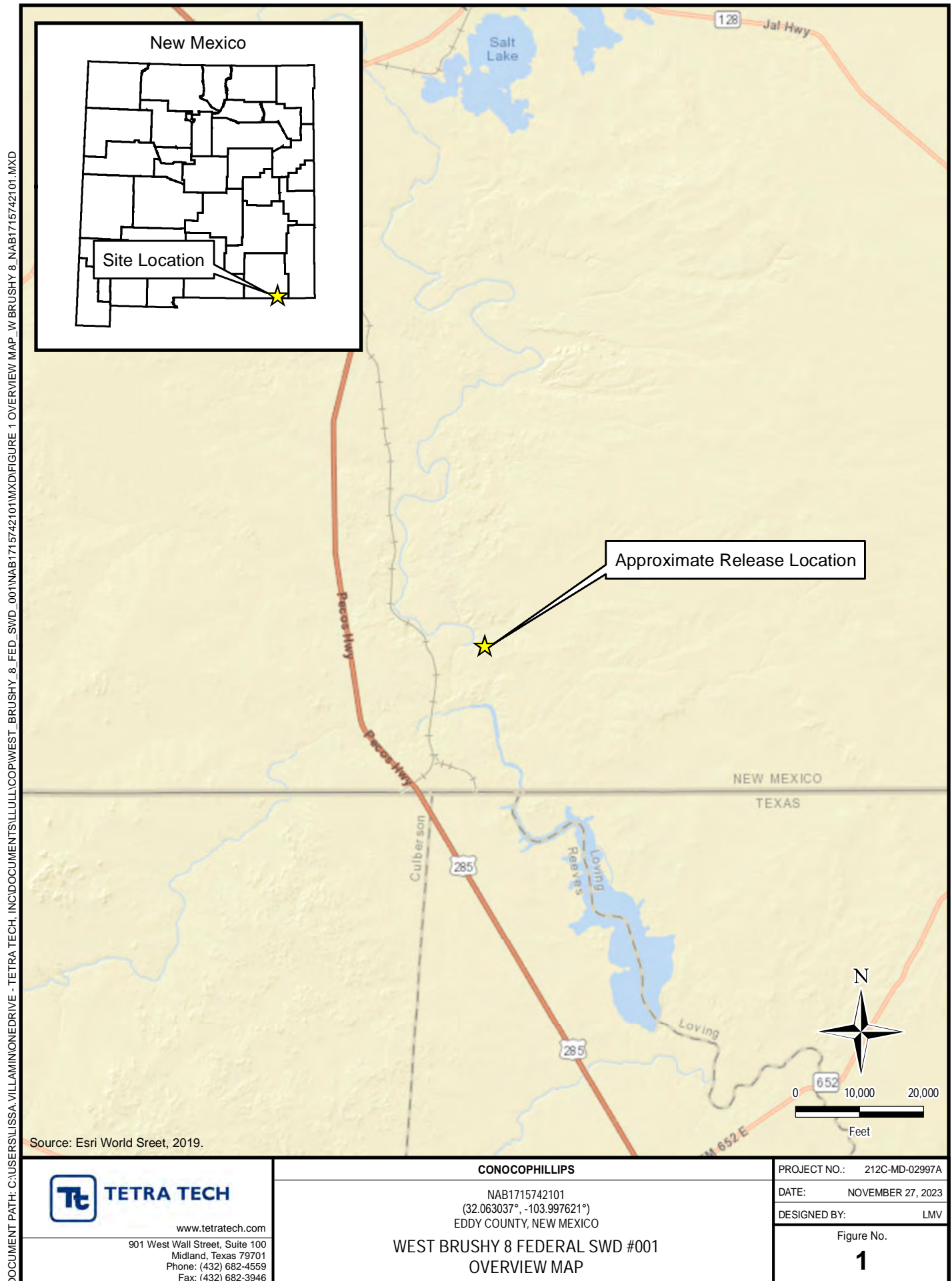
Tables:

- Table 1 – Summary of Analytical Results – 2017 BBC Soil Assessment
- Table 2 – Summary of Analytical Results – 2023-2024 TT Soil Assessment

Appendices:

- Appendix A – C-141 Forms
- Appendix B – Regulatory Correspondence
- Appendix C – BBC Closure Report (2019)
- Appendix D – Site Characterization Data
- Appendix E – Photographic Documentation
- Appendix F – Laboratory Analytical Reports
- Appendix G – BLM Seed Mixture

FIGURES



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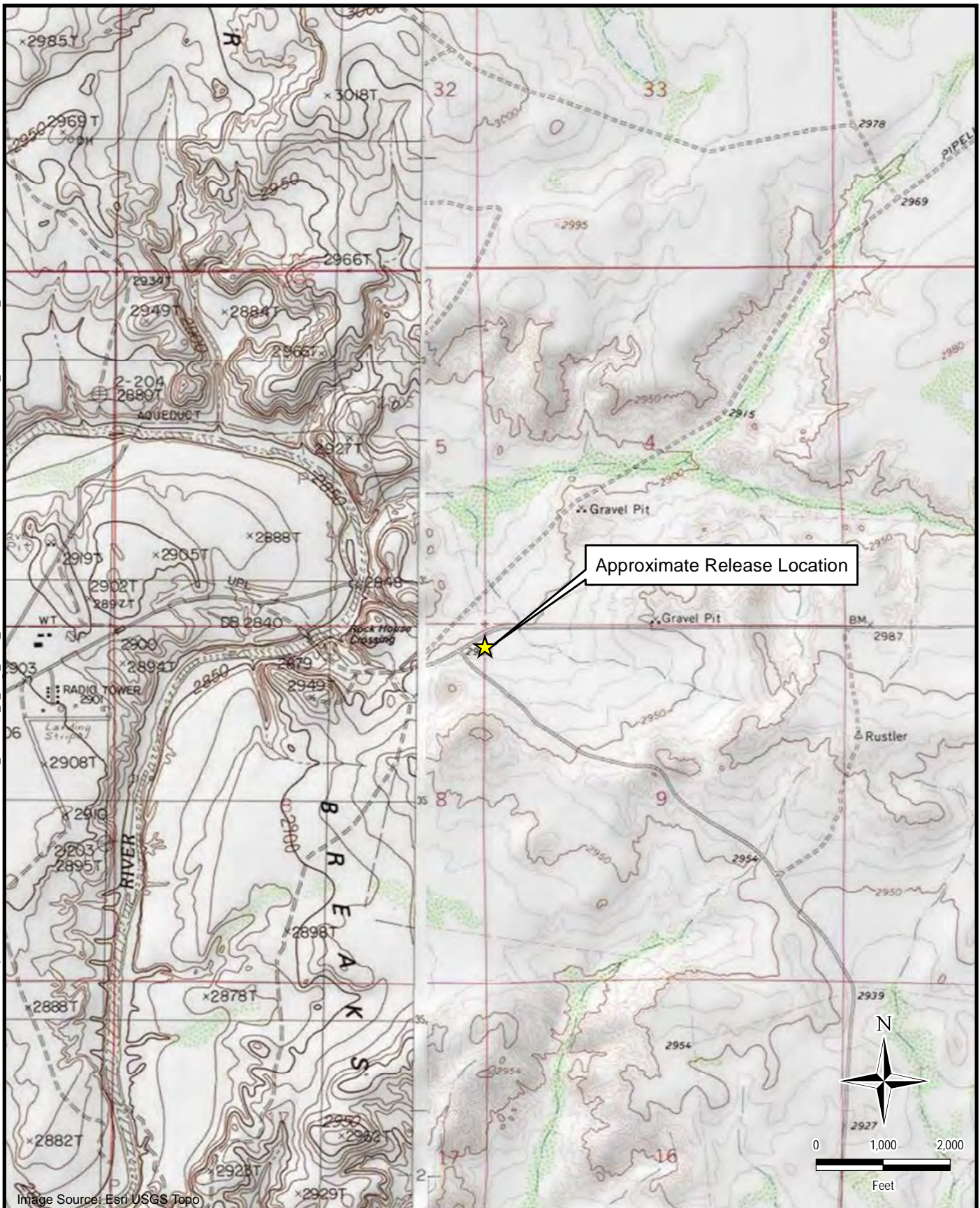


Image Source: Esri USGS Topo

**TETRA TECH**

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Phone: (432) 682-4559
Fax: (432) 682-3946**CONOCOPHILLIPS**NAB1715742101
(32.063037°, -103.997621°)
EDDY COUNTY, NEW MEXICO**WEST BRUSHY 8 FEDERAL SWD #001
TOPOGRAPHIC MAP**

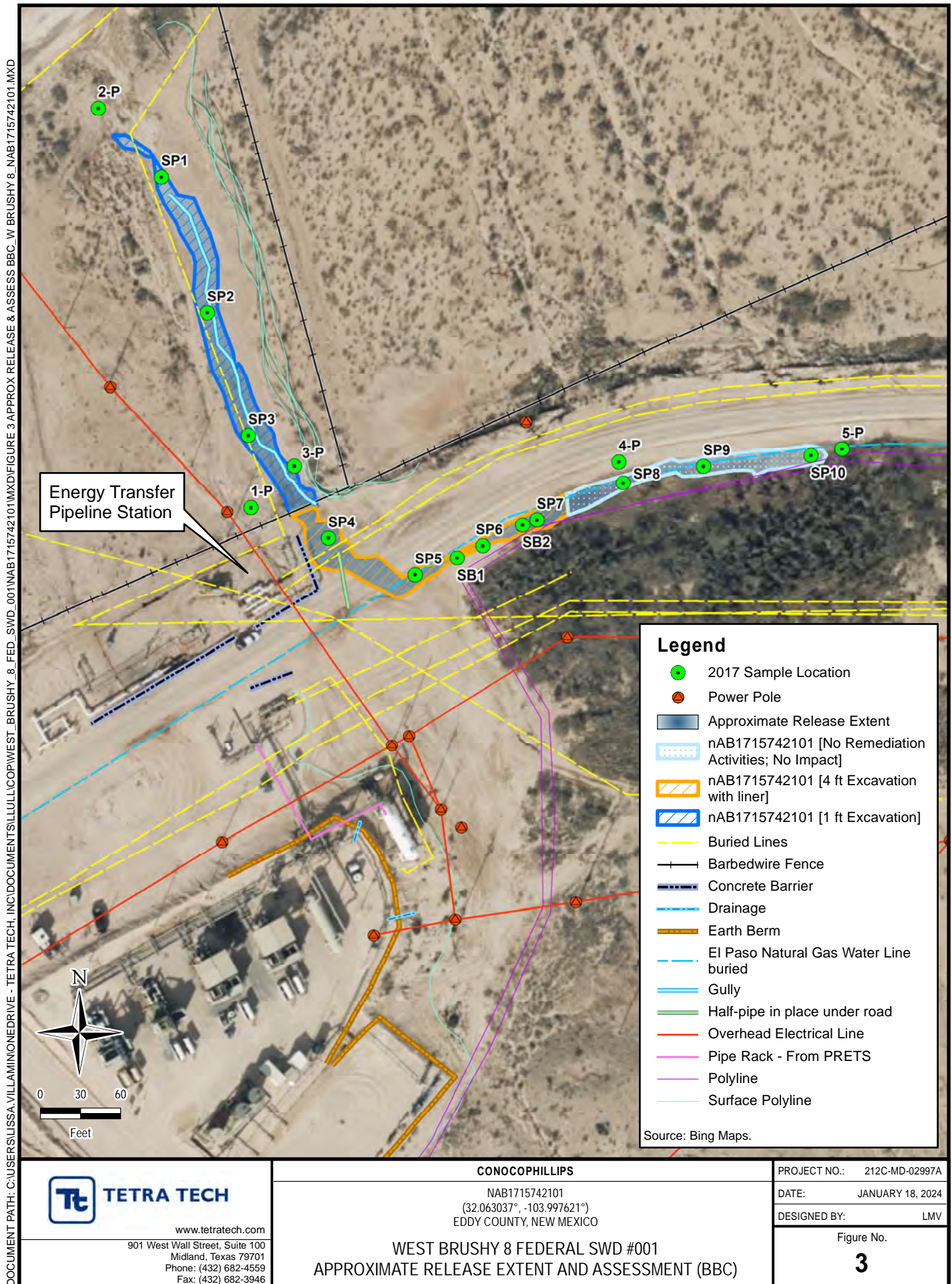
PROJECT NO.: 212C-MD-02997A

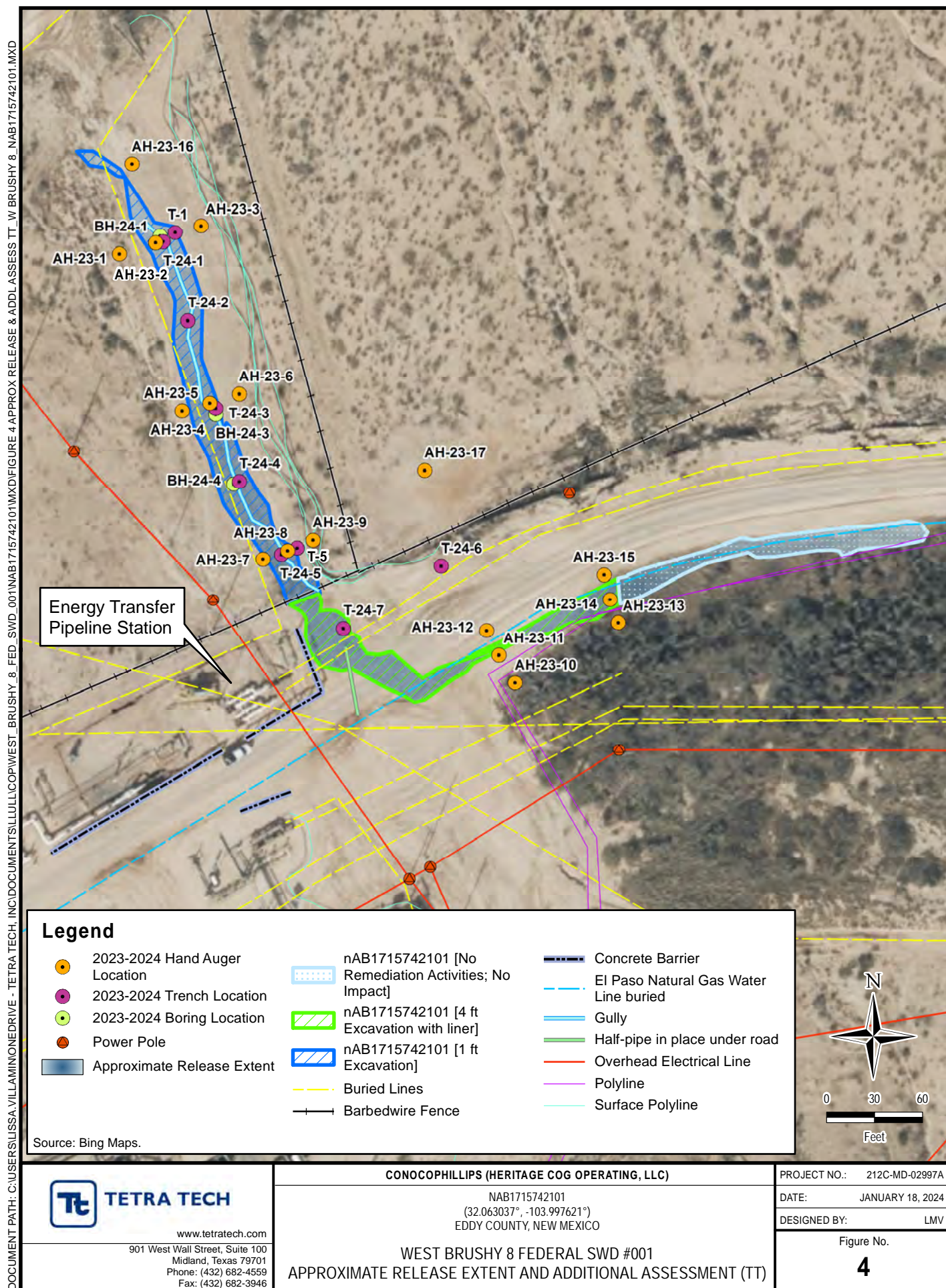
DATE: NOVEMBER 27, 2023

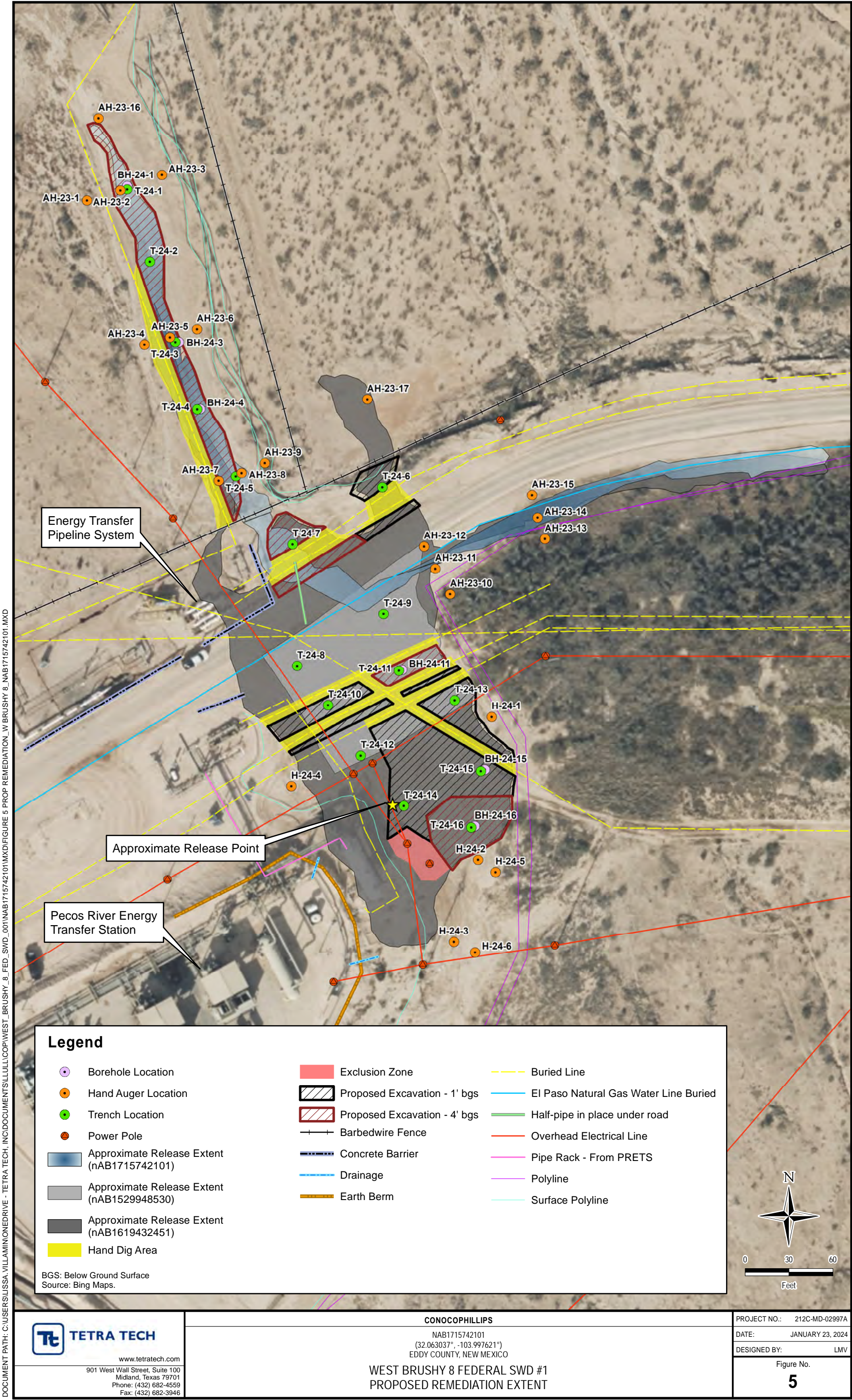
DESIGNED BY: LMV

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2







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

**WEST BRUSHY 8 FEDERAL SWD #1
PROPOSED REMEDIATION EXTENT**

PROJECT NO.:	212C-MD-02997A
DATE:	JANUARY 23, 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
					mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	C ₆ -C ₁₀	Q	> C ₁₀ -C ₂₈	Q	> C ₂₈ -C ₃₆	Q	(GRO+DRO+EXT DRO)
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 (GRO+DRO+EXT DRO)	
															C ₆ - C ₁₀		> C ₁₀ - C ₂₈		> C ₂₈ - C ₃₆			
		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			
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								
			ExStik	Titration			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		(GRO+DRO)	Total TPH (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				
																						ft. bgs			ppm
		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
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									
			ExStik	Titration			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		(GRO+DRO)	Total TPH		
		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	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		

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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									
			ExStik	Titration			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		(GRO+DRO)	Total TPH (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					
																						ft. bgs			ppm	mg/kg
		Reclamation Limit for Soils 0-4' bgs:	--	600 mg/kg	10 mg/kg	--	--	50 mg/kg	--	--	50 mg/kg	--	--	50 mg/kg	--	--	50 mg/kg	--	--	--	--	1,000 mg/kg	2,500 mg/kg			
RRAL for Soils >4' bgs (GW 50-100 ft):	--	10,000 mg/kg	10 mg/kg	--	--	50 mg/kg	--	--	50 mg/kg	--	--	50 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 SM4500CI-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 adversely 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.

APPENDIX A

C-141 Forms

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

NM OIL CONSERVATION

ARTESIA DISTRICT

JUN 01 2017

Form C-141
Revised August 8, 2011Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

RECEIVED

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
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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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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: <i>Rebecca Haskell</i>		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Rebecca Haskell		Approved by Environmental Specialist <i>Christa Owen</i>	
Title: Senior HSE Coordinator		Approval Date: <i>6/5/17</i>	Expiration Date: <i>N/A</i>
E-mail Address: <u>rhaskell@concho.com</u>		Conditions of Approval: <i>see attached</i>	Attached <input checked="" type="checkbox"/>
Date: June 1, 2017 Phone: 432-683-7443			

* Attach Additional Sheets If Necessary

New forms can be found in the
New Mexico State Website in forms:
[http://www.emnrd.state.nm.us/
oCD/forms.html](http://www.emnrd.state.nm.us/oCD/forms.html)

JRP-4240

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 ARP-4248 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; C₆ thru C₃₆), 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; C₆ thru C₃₆), 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

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

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

<p>Characterization Report Checklist: <i>Each of the following items must be included in the report.</i></p> <div><input type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.<input type="checkbox"/> Field data<input type="checkbox"/> Data table of soil contaminant concentration data<input type="checkbox"/> Depth to water determination<input type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release<input type="checkbox"/> Boring or excavation logs<input type="checkbox"/> Photographs including date and GIS information<input type="checkbox"/> Topographic/Aerial maps<input type="checkbox"/> Laboratory data including chain of custody</div>

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.

State of New Mexico
Oil Conservation Division

Page 4

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: _____

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 Name: _____ Title: _____
Signature:  _____ Date: _____
email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

APPENDIX B

Regulatory Correspondence

From: [Weaver, Crystal, EMNRD](#)
To: [Cliff Brunson](#); [Bratcher, Mike, EMNRD](#); [Shelly Tucker](#)
Cc: [Becky Haskell](#); [Ken Swinney](#); [Jennifer Gilkey](#); [Kathy Purvis](#)
Subject: RE: COG West Brushy 8 Federal SWD #1 (2RP-4240) - Delineation Workplan
Date: Friday, February 16, 2018 3:45:00 PM

Rebecca/Cliff,

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 8ft depth (SB-1 & 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 can not 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 in order 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.

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notification, please contact Mike Bratcher and/or myself in the District II Office.

Crystal Weaver

Environmental Specialist
OCD – Artesia District II
811 S. 1st Street
Artesia, NM 88210
Office: 575-748-1283 ext. 101
Cell: 575-840-5963
Fax: 575-748-9720

From: Cliff Brunson [mailto:cbrunson@bbcinternational.com]
Sent: Wednesday, November 22, 2017 4:21 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Shelly Tucker <stucker@blm.gov>
Cc: Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; Becky Haskell <rhaskell@concho.com>; Ken Swinney <kswinney@bbcinternational.com>; Jennifer Gilkey <jgilkey@bbcinternational.com>; Kathy Purvis <kathy@bbcinternational.com>
Subject: COG West Brushy 8 Federal SWD #1 (2RP-4240) - Delineation Workplan

Mike and Shelly,

Please find the attached Delineation Workplan and remediation proposal for the COG West Brushy 8 Federal SWD #1 (2RP-4240). COG is requesting that you review this plan and is looking forward to both the OCD's and BLM's approval.

If you have any questions, please let me know.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS
President
BBC International, Inc.
World-Wide Environmental Specialists
Mailing Address:
P. O. Box 805
Hobbs, NM 88241-0805 USA
Shipping Address:
1324 W. Marland St.
Hobbs, NM 88240 USA
Phone: (575) 397-6388
Fax: (575) 397-0397
E-Mail: cbrunson@bbcinternational.com



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Bratcher, Mike, EMNRD

From: Bratcher, Mike, EMNRD
Sent: Thursday, February 22, 2018 10:20 AM
To: Cliff Brunson; Shelly Tucker
Cc: Weaver, Crystal, EMNRD; Becky Haskell; Ken Swinney; Jennifer Gilkey; Kathy Purvis
Subject: RE: COG West Brushy 8 Federal SWD #1 (2RP-4240) - Delineation Workplan

RE: COG * West Brushy 8 Fed SWD 1 * **2RP-4240** * DOR: 5/27/2017

Greetings all,

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.

Thank you,

Mike Bratcher
NMOCD District 2
811 South First Street
Artesia, NM 88210
575-748-1283 Ext 108

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Cliff Brunson [mailto:cbrunson@bbcinternational.com]
Sent: Wednesday, November 22, 2017 4:21 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Shelly Tucker <stucker@blm.gov>

Cc: Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; Becky Haskell <rhaskell@concho.com>; Ken Swinney <kswinney@bbcinternational.com>; Jennifer Gilkey <jgilkey@bbcinternational.com>; Kathy Purvis <kathy@bbcinternational.com>

Subject: COG West Brushy 8 Federal SWD #1 (2RP-4240) - Delineation Workplan

Mike and Shelly,

Please find the attached Delineation Workplan and remediation proposal for the COG West Brushy 8 Federal SWD #1 (2RP-4240). COG is requesting that you review this plan and is looking forward to both the OCD's and BLM's approval.

If you have any questions, please let me know.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS
President
BBC International, Inc.
World-Wide Environmental Specialists
Mailing Address:
P. O. Box 805
Hobbs, NM 88241-0805 USA
Shipping Address:
1324 W. Marland St.
Hobbs, NM 88240 USA
Phone: (575) 397-6388
Fax: (575) 397-0397
E-Mail: cbrunson@bbcinternational.com



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From: OCDOnline@state.nm.us
To: [Beauvais, Charles R](#)
Subject: [EXTERNAL]The Oil Conservation Division (OCD) has rejected the application, Application ID: 166032
Date: Monday, December 12, 2022 11:29:50 AM

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To whom it may concern (c/o Charles Beauvais for COG OPERATING LLC),

The OCD has rejected the submitted *Internal Manual Incident File Supporting Documentation (ENV)* (IM-BNF), for incident ID (n#) nAB1715742101, for the following reasons:

- **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.**

The rejected IM-BNF can be found in the OCD Online: Permitting - Action Status, under the Application ID: 166032.

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

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

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: [Chavira, Lisbeth](#)
Cc: [Abbott, Sam](#); [Llull, Christian](#)
Subject: RE: [EXTERNAL] Extension Request - Application ID 166032 (nAB1715742101)
Date: Tuesday, April 11, 2023 2:52:06 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

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Lisbeth,

The extension request for **nAB1715742101** is approved. New due date is 6/15/2023.

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.

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/>

From: Chavira, Lisbeth <LISBETH.CHAVIRA@tetrattech.com>
Sent: Tuesday, April 11, 2023 1:43 PM
To: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Cc: Abbott, Sam <Sam.Abbott@tetrattech.com>; Llull, Christian <Christian.Llull@tetrattech.com>
Subject: [EXTERNAL] Extension Request - Application ID 166032 (nAB1715742101)

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Ms. Hall:

On behalf of ConocoPhillips, Tetra Tech is requesting a 90-day extension (until June 15, 2023) to complete the associated reporting for the West Brushy 8 Federal SWD #001 Release site (**nAB1715742101**).

ConocoPhillips recently received a large volume of NMOCD determinations related to unresolved releases from ConocoPhillips' predecessor-in-interest ("COG") via the *Internal Manual Incident File Supporting Documentation (ENV)* (IM-BNF) process.

Given the difficulties inherent with available resource allocation for several projects with similar deadlines within a short period of time, this schedule is not currently practical.

ConocoPhillips plans to conduct additional work in the coming months however, and once the data is collected, tabulated, and evaluated, a subsequent report will be submitted to the OCD.

Please let me know if you have any questions or concerns.

Thank you,

Lisbeth Chavira | Staff Geoscientist

Direct Mobile +1 (512) 596-8201 | Lisbeth.chavira@tetrattech.com

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From: [Hall, Brittany, EMNRD](#)
To: [Abbott, Sam](#)
Cc: [Llull, Christian](#); [Chavira, Lisbeth](#)
Subject: RE: [EXTERNAL] Extension Request - nAB1529948530, nAB1702748717 ,nAB1715742101, nAB1619432451
Date: Friday, September 15, 2023 2:24:50 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

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Ms. Abbott,

Thank you for the information. OCD will grant an extension until October 30, 2023, for all four releases (**nAB1529948530, nAB1702748717 ,nAB1715742101, nAB1619432451**).

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 files.

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/oecd/>

From: Abbott, Sam <Sam.Abbott@tetrattech.com>
Sent: Friday, September 15, 2023 12:18 PM
To: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Cc: Llull, Christian <Christian.Llull@tetrattech.com>; Chavira, Lisbeth <LISBETH.CHAVIRA@tetrattech.com>
Subject: RE: [EXTERNAL] Extension Request - Application ID 206727 (nAB1529948530)

Ms. Hall,

The remedial action performed by BBC was grouped over four individual release footprints and the closure report was aggregated into one combined deliverable. Although BBC did complete remedial action over several different portions of the footprint, it has been difficult to discern which portions of each individual release extent was acted upon based on the provided figures, which were not drawn to scale, and the photographs, which did not differentiate between release areas.

Considerable time and effort has been spent to review all available documentation for each of the four release incidents, including work plans and regulatory correspondence; and decipher exactly which areas were worked on by BBC as documented in the rejected closure report, while attempting to designate areas in the field with areas identified in the figures and photographs. The site is an extremely busy and active area with numerous subsurface and surface hazards which has also hampered project progress. Tetra Tech has photographic

documentation of multiple site visits conducted in 2023, which are provided here.

Tetra Tech is committed to provide a quality deliverable to the NMOCD in an attempt to close these incidents, however, the difficulties inherent with the noted matters require more time and effort.

Sam

Samantha Abbott, PG | Project Manager

Direct Mobile +1 (512) 739-7874 | Business +1 (512) 338-1667 | Sam.Abbott@tetrattech.com

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From: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>

Sent: Thursday, September 14, 2023 3:21 PM

To: Abbott, Sam <Sam.Abbott@tetrattech.com>

Cc: Llull, Christian <Christian.Llull@tetrattech.com>; Chavira, Lisbeth
<LISBETH.CHAVIRA@tetrattech.com>

Subject: RE: [EXTERNAL] Extension Request - Application ID 206727 (nAB1529948530)



From: Abbott, Sam <Sam.Abbott@tetrattech.com>
Sent: Tuesday, September 12, 2023 4:26 PM
To: Hall, Brittany, EMNRD <Brittany.Hall@emnrn.dn.gov>
Cc: Llull, Christian <Christian.Llull@tetrattech.com>; Chavira, Lisbeth <LISBETH.CHAVIRA@tetrattech.com>
Subject: [EXTERNAL] Extension Request - Application ID 206727 (nAB1529948530)

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

Ms. Hall:

On behalf of ConocoPhillips, Tetra Tech is requesting an additional 90-day extension (until October 30, 2023) to complete reporting for the West Brushy 8 Federal SWD #001 Release site (nAB1529948530).

The original closure report completed by BBC was denied by OCD for the following reasons:

- Closure/deferral was rejected for this release in 2016 based on the location of the release and the release not being fully delineated. There are numerous releases that have occurred at this site and have not been closed. If there was overlap of the releases, the approved workplans will need to be provided as stated in this closure report. Submit a complete report through the OCD Permitting website by 8/1/2023. 2RP-3353 closed. Refer to incident #NAB1529948530 in all future correspondence.

The release incident is located in the vicinity of an active battery in an area congested with active surface and subsurface lines. Given the complexities of this site, including numerous surface and subsurface utilities within the release footprint, this incident is now being handled by the risk management and remediation group at ConocoPhillips. Additionally, because the rejected closure report comprised four release incidents, interpreting the remedial actions associated with the individual release incidents has taken a higher level of effort than anticipated.

In addition to a thorough file review, ConocoPhillips has completed a site visit to evaluate current conditions and identify safety hazards present in the incident release area. The revised report will be submitted to the OCD within the requested timeframe.

Please let me know if you have any questions or concerns.

Thank you,
Sam

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

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From: [Hall, Brittany, EMNRD](#)
To: [Abbott, Sam](#)
Cc: [Llull, Christian](#); [Chavira, Lisbeth](#)
Subject: RE: [EXTERNAL] Extension Request - Application ID 166032 (nAB1715742101)
Date: Tuesday, October 31, 2023 12:43:33 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

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Sam,

Thank you for the clarification. The extension request for **nAB1715742101** is approved. This will be the last extension approved for these circumstances. The new due date is January 30, 2024.

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.

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/>

From: Abbott, Sam <Sam.Abbott@tetrattech.com>
Sent: Tuesday, October 31, 2023 10:24 AM
To: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Cc: Llull, Christian <Christian.Llull@tetrattech.com>; Chavira, Lisbeth <LISBETH.CHAVIRA@tetrattech.com>
Subject: RE: [EXTERNAL] Extension Request - Application ID 166032 (nAB1715742101)

Apologies, this was a typo. The request was intended to be a 90-day extension until January 30, 2023.

Thank you,
Sam

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

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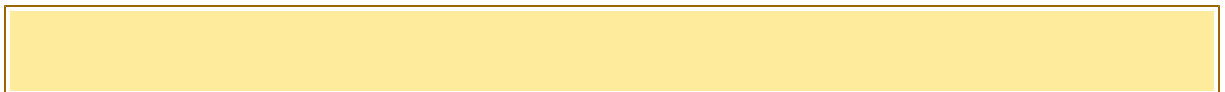
From: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>

Sent: Tuesday, October 31, 2023 11:22 AM

To: Abbott, Sam <Sam.Abbott@tetrattech.com>

Cc: Llull, Christian <Christian.Llull@tetrattech.com>; Chavira, Lisbeth
<LISBETH.CHAVIRA@tetrattech.com>

Subject: RE: [EXTERNAL] Extension Request - Application ID 166032 (nAB1715742101)



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.

The release incident is located in the vicinity of an active battery in an area congested with active surface and subsurface lines. Given the complexities of this site, including numerous surface and subsurface utilities within the release footprint, this incident is now being handled by the risk management and remediation group at ConocoPhillips. Additionally, because the rejected closure report comprised four release incidents, interpreting the remedial actions associated with the individual release incidents has taken a higher level of effort than anticipated.

The remedial action performed by BBC was grouped over four individual release footprints and the closure report was aggregated into one combined deliverable. Although BBC did complete remedial action over several different portions of the footprint, it has been difficult to discern which portions of each individual release extent was acted upon based on the provided figures, which were not drawn to scale, and the photographs, which did not differentiate between release areas.

Considerable time and effort has been spent to review all available documentation for each of the four release incidents, including work plans and regulatory correspondence; and decipher exactly which areas were worked on by BBC as documented in the rejected closure report, while attempting to designate areas in the field with areas identified in the figures and photographs. The site is an extremely busy and active area with numerous subsurface and surface hazards which has also hampered project progress. Tetra Tech has photographic documentation of multiple site visits conducted in 2023, which are provided here.

Additionally, Tetra Tech has completed additional assessment activities in the northern portion of the release site (which overlaps with a separate release incident nAB1619432451, addressed in a separate email) in September 2023. Based on the results of this sampling event, additional work is required to complete delineation of the release and to compile all findings in a report for submittal.

Revised closure reports will be submitted today for the two remaining open incidents associated with this site (nAB1529948530 and nAB1702748717).

Please let me know if you have any questions or concerns.

Thank you,
Sam

Samantha Abbott, PG | Project Manager

Direct Mobile +1 (512) 739-7874 | Business +1 (512) 338-1667 | Sam.Abbott@tetrattech.com

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APPENDIX C

BBC Closure Report (2019)

Closure Report

Site Description

Site Name:	West Brushy 8 Federal SWD #1
Company:	COG Operating LLC
Legal Description:	U/L A, Section 8, T26S, R29E
County:	Eddy County, NM
GPS Coordinates:	N 32.06422° W-103.99710°

Release Data

Date of Release:	9/13/15, 7/3/16, 1/24/17, and 5/27/17
Type of Release:	Produced water
Source of Release:	Flowline leaks
Volume of Release:	30 bbls, 25 bbls, 30 bbls, 30 bbls
Volume Recovered:	3 bbls, 0 bbls, 15 bbls, 20 bbls

Remediation Specifications

Remediation Parameters:	Remediation was conducted based on the depths approved in each work plan.	
Remediation Activities:	9/14/18 to 12/27/18	
Plan Sent to OCD:	Dates vary	Email from Cliff Brunson to Mike Bratcher
OCD Approval of Plan:	2/22/18	Email from Mike Bratcher to Cliff Brunson
Plan Sent to BLM:	Dates vary	Email from Cliff Brunson to Shelly Tucker
BLM Approval of Plan:	2/14/18	Email from Shelly Tucker to Cliff Brunson

Supporting Documentation

Initial C-141	Signed 10/24/15, 7/8/16, 1/25/17, and 6/1/17
Final C-141	Signed 1/14/19
Site Diagram	Dates vary
Pictures	Remediation, liner, and backfill 9/17/18 to 12/27/18

Request for Closure

Based on the completion of the remediation plan, BBC International, Inc. requests closure approval from NMOCD.

Cliff Brunson, President, BBC International, Inc.

01/22/2019

Form C-141

State of New Mexico
Oil Conservation Division

Page 6

Incident ID	
District RP	2RP-3353
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 OCD 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: Rebecca HaskellTitle: Senior HSE CoordinatorSignature: Rebecca HaskellDate: 1/14/2019email: rhaskell@concho.comTelephone: (432) 683-7443**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: _____

Form C-141

State of New Mexico
Oil Conservation Division

Page 6

Incident ID	
District RP	2RP-3774
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: Rebecca Haskell Title: Senior HSE Coordinator
Signature: *Rebecca Haskell* Date: 1/14/19
email: rhaskell@concho.com Telephone: (432) 683-7443

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: _____

Form C-141

State of New Mexico
Oil Conservation Division

Page 6

Incident ID	
District RP	2RP-4094
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: Rebecca Haskell Title: Senior HSE Coordinator
Signature: Rebecca Haskell Date: 1/14/19
email: rhaskell@concho.com Telephone: (432) 683-7443

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: _____

Form C-141

Page 6

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4240
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: Rebecca Haskell Title: Senior HSE Coordinator
Signature: Rebecca Haskell Date: 1/14/19
email: rhaskell@concho.com Telephone: (432) 683-7443

OCD Only

Received by: _____ Date: _____

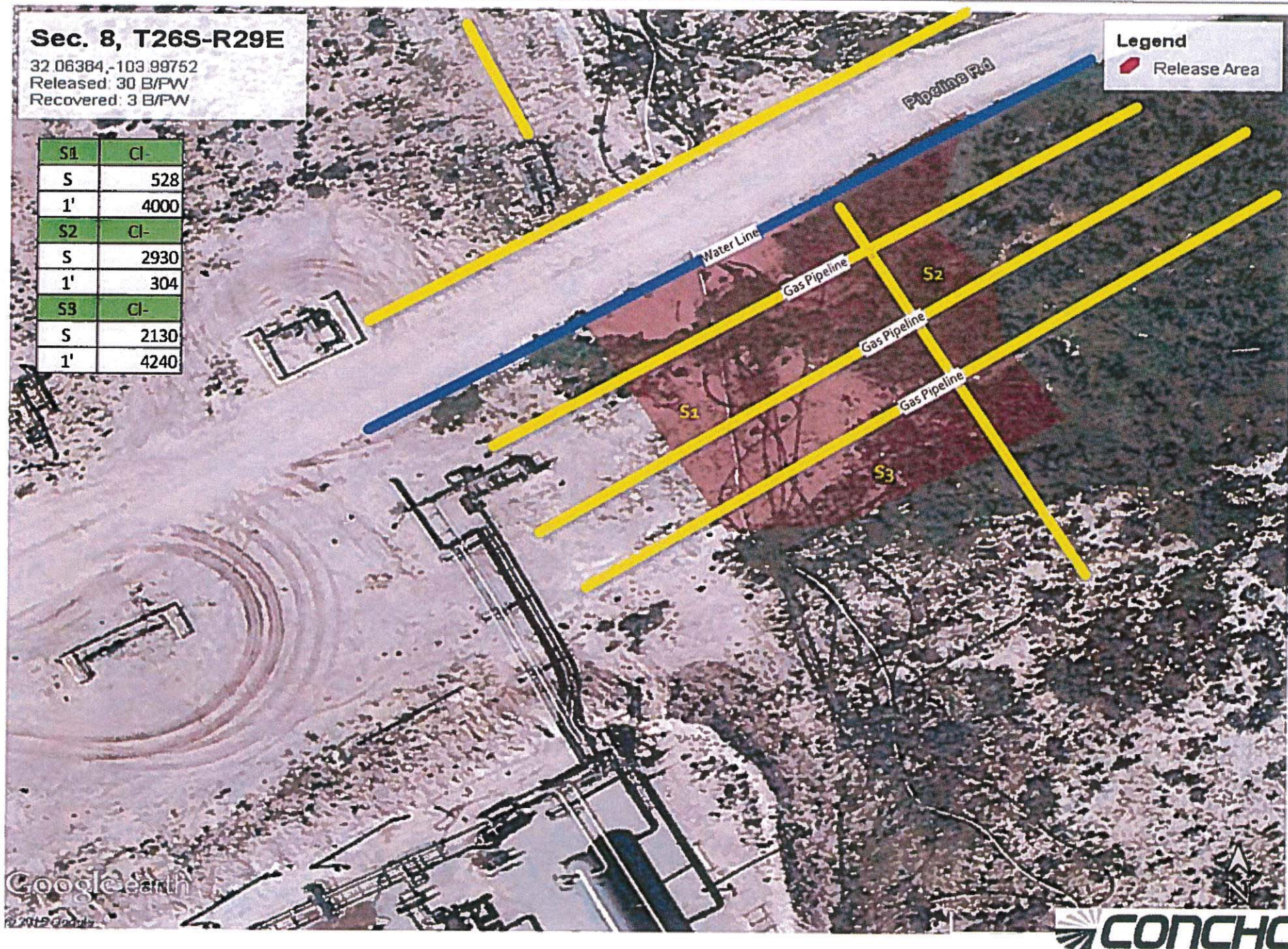
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance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

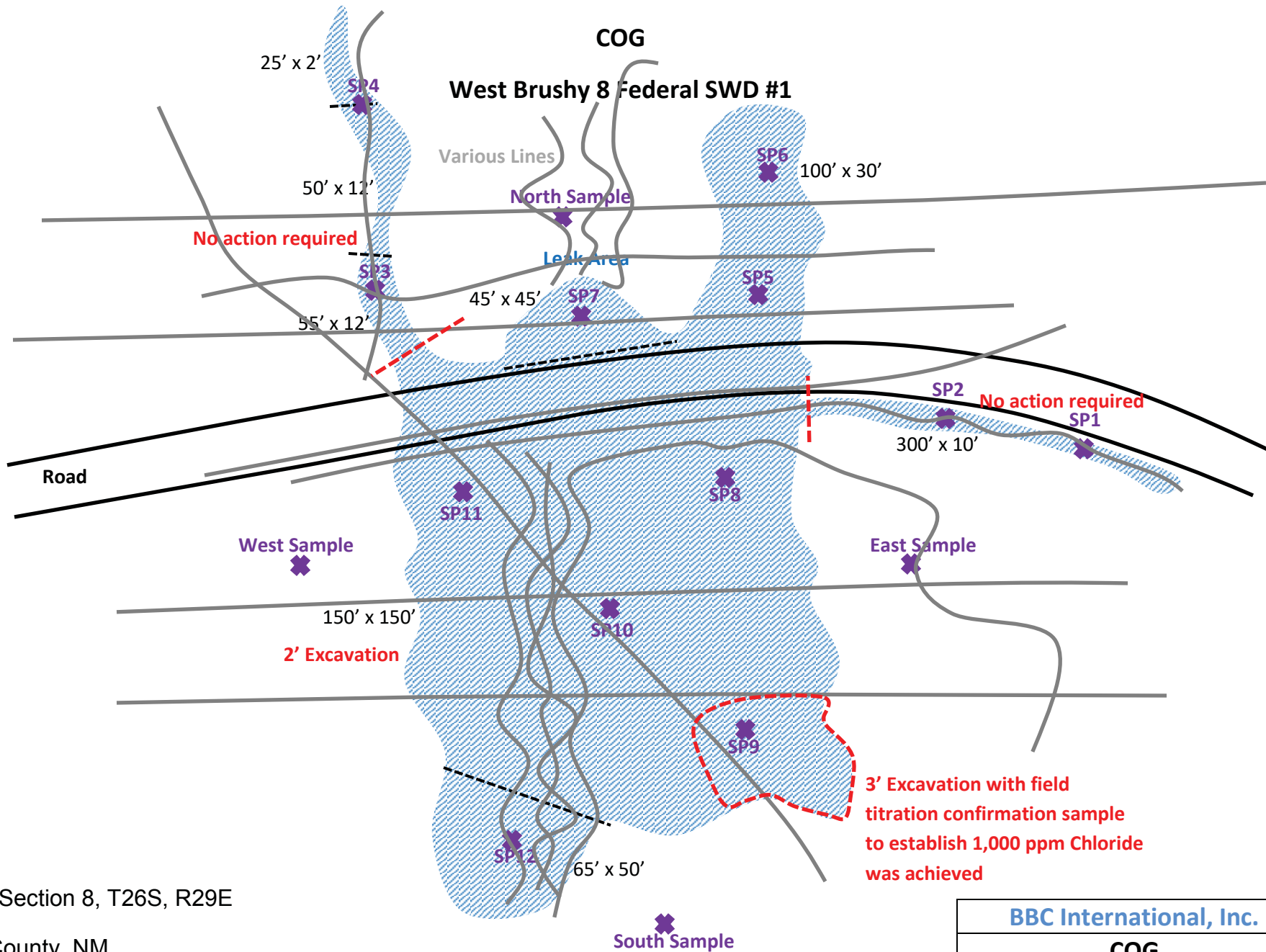
Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

September 15, 2015

West Brushy 8 SWD #1





U/L A, Section 8, T26S, R29E

Eddy County, NM

N 32.06350° W 103.99756°

API# 30-015-31675

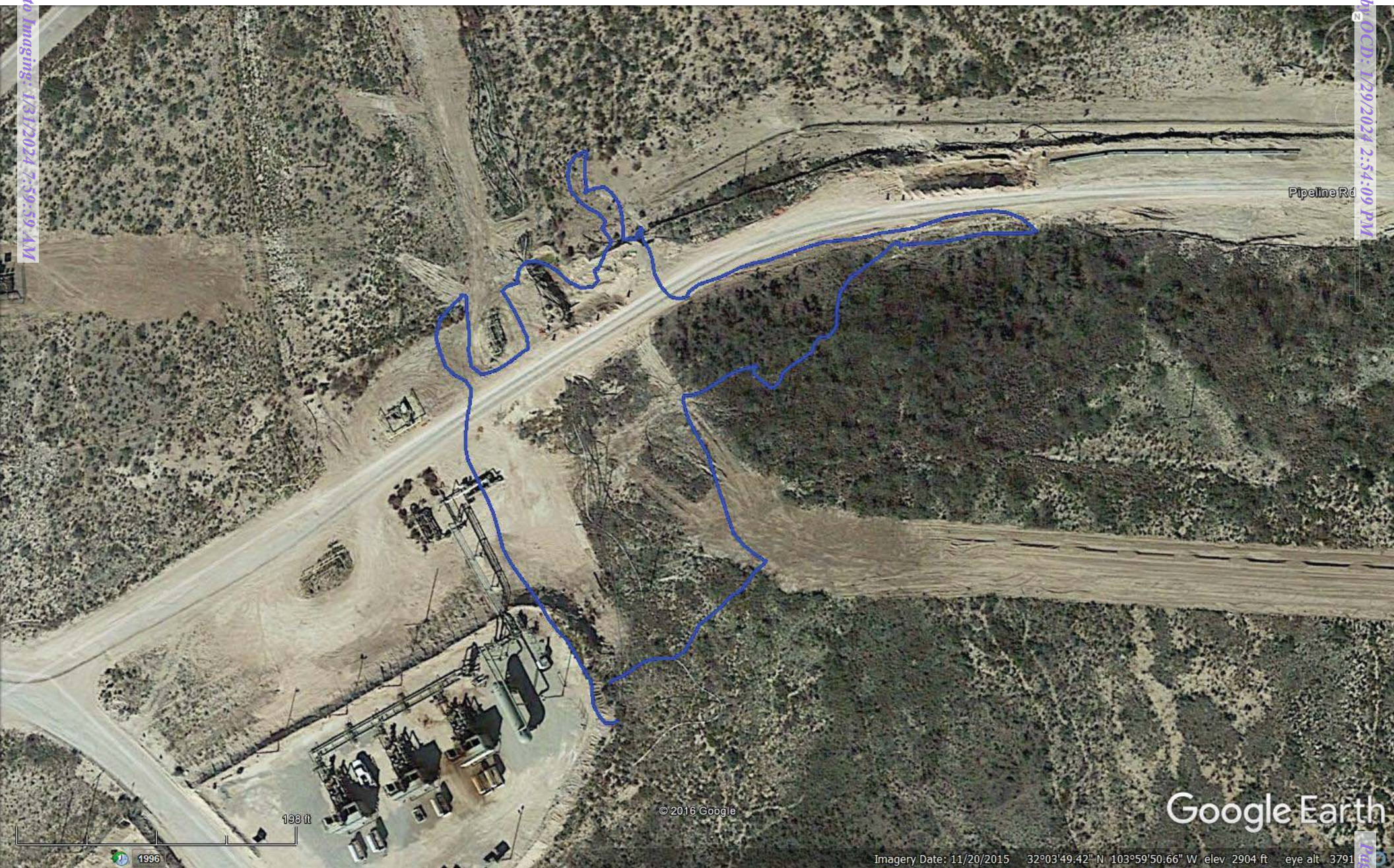
BBC International, Inc.**COG****West Brushy 8 Federal SWD #1**

Date: 01/05/2016

DRWG by: K. Purvis

NOT TO SCALE

File: COG 2017



Pipeline Rd

Google Earth

Imagery Date: 11/20/2015 32°03'49.42" N 103°59'50.66" W elev 2904 ft eye alt 3791 ft

© 2016 Google

193 ft

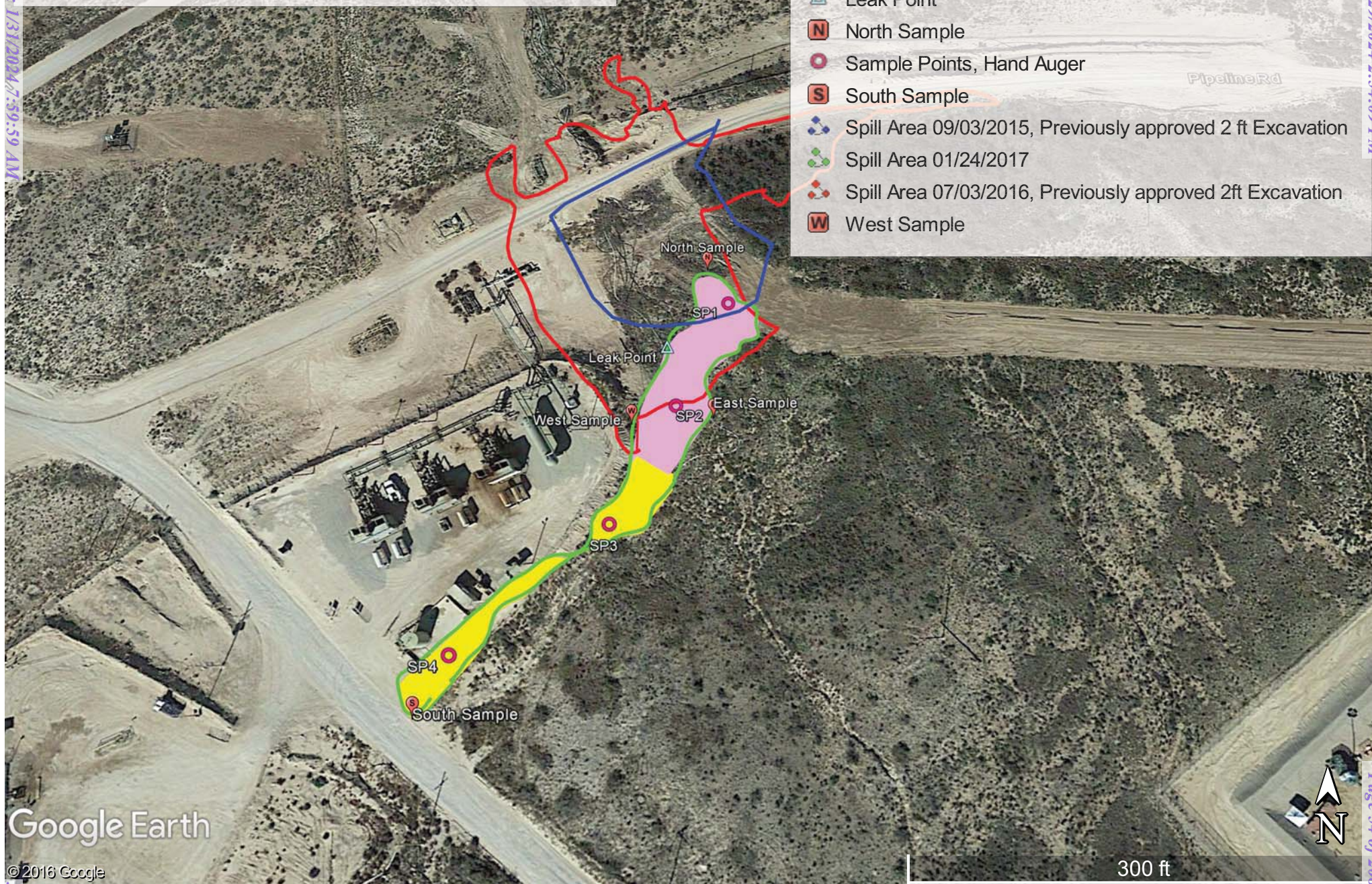
1996

COG, West Brushy 8 Federal SWD #1

Leak Date: 01/24/2017
Eddy County, NM
API# 30-015-31675
RP# 2RP-4094

Legend

- 2 ft Excavation
- 3 ft Excavation
- East Sample
- Leak Point
- North Sample
- Sample Points, Hand Auger
- South Sample
- Spill Area 09/03/2015, Previously approved 2 ft Excavation
- Spill Area 01/24/2017
- Spill Area 07/03/2016, Previously approved 2ft Excavation
- West Sample



Google Earth

© 2016 Google

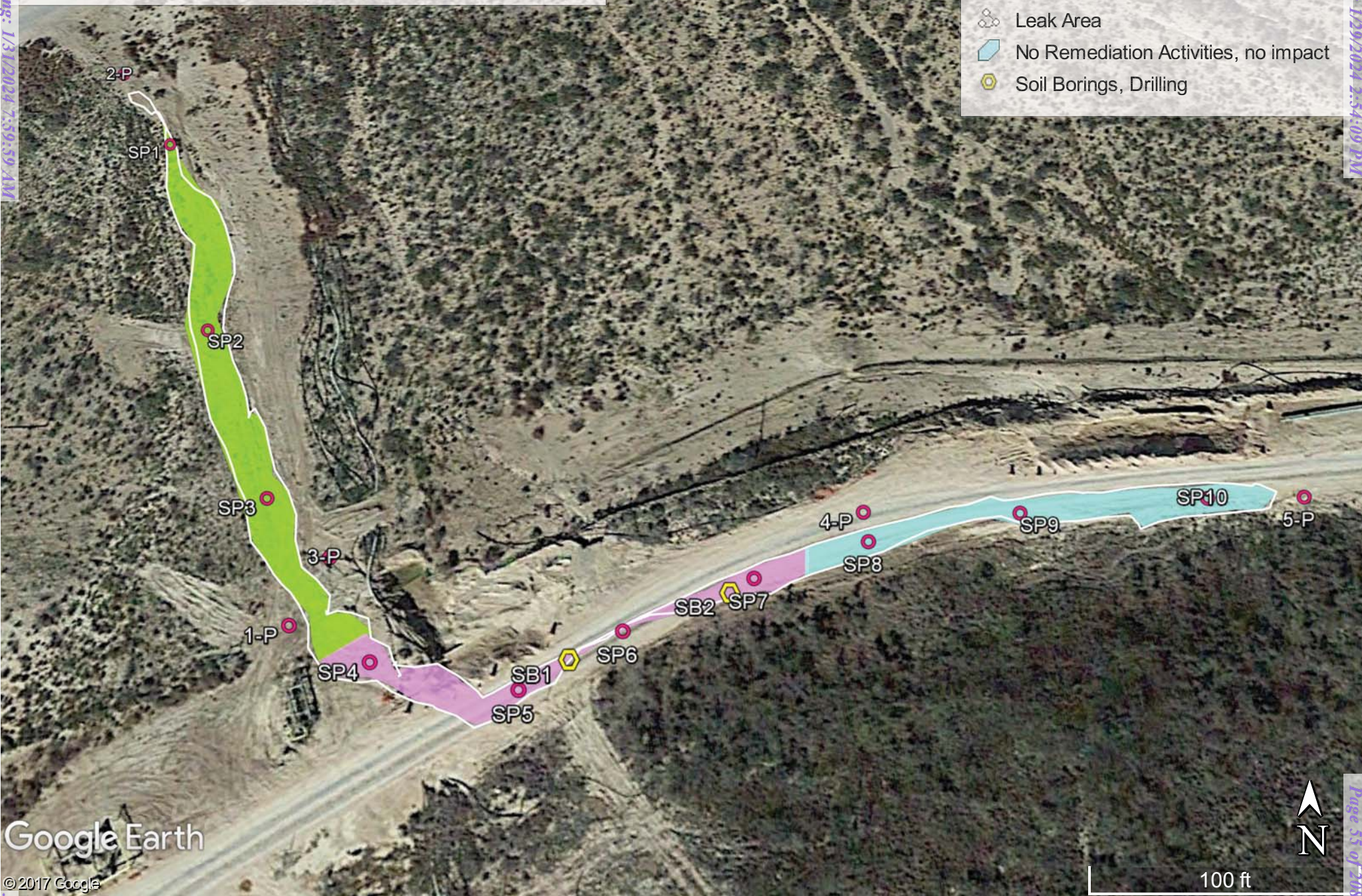
300 ft

COG, West Brushy 8 Federal SWD #1

Leak date: 05/27/2017
Eddy County, NM
API# 30-015-31675

Legend

- 1 ft Excavation
- 4 ft Excavation with liner
- Sample points
- Leak Area
- No Remediation Activities, no impact
- Soil Borings, Drilling



Google Earth

© 2017 Google

100 ft













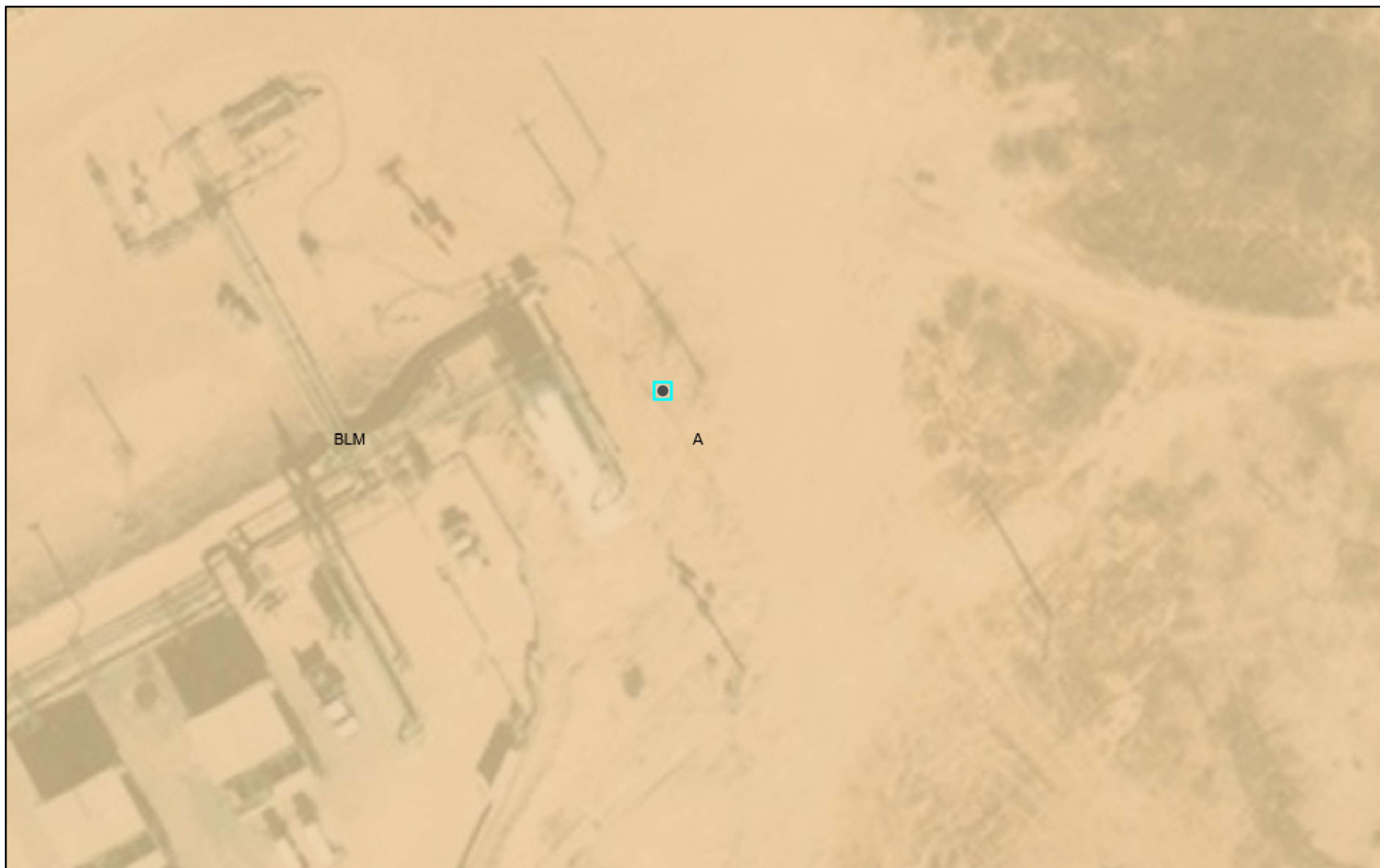




APPENDIX D

Site Characterization Data

OCD - Land Ownership



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

Mineral Ownership

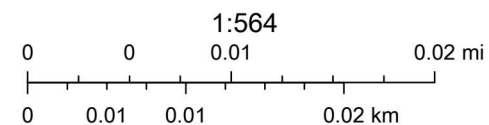


A-All minerals are owned by U.S.

Land Ownership

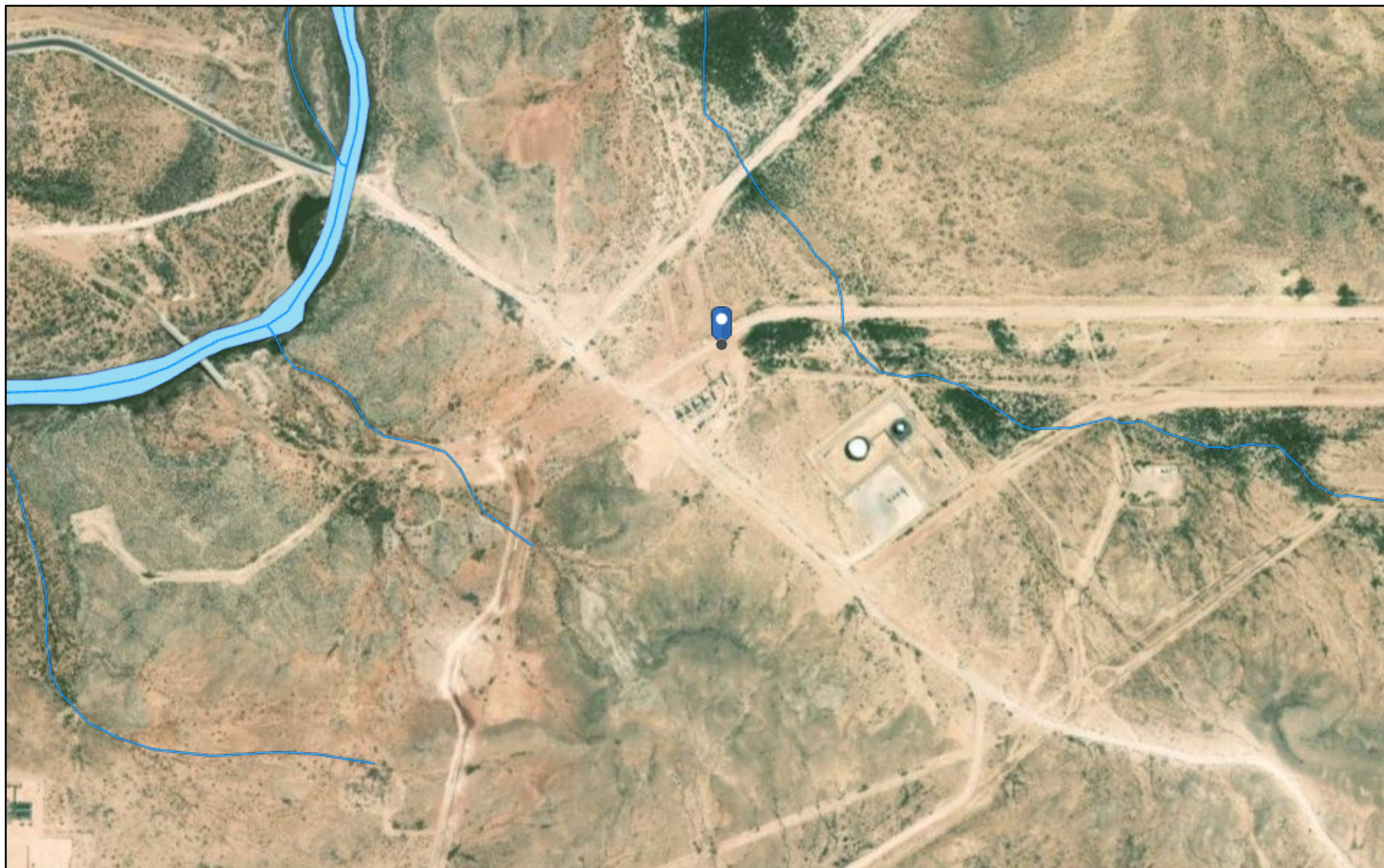


BLM





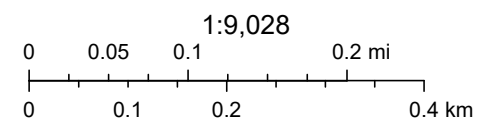
U.S. BLM, Maxar, Microsoft, Esri, HERE, Garmin, iPC

OCD Waterbodies



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

-  OSW Water Bodys
-  OSE Streams

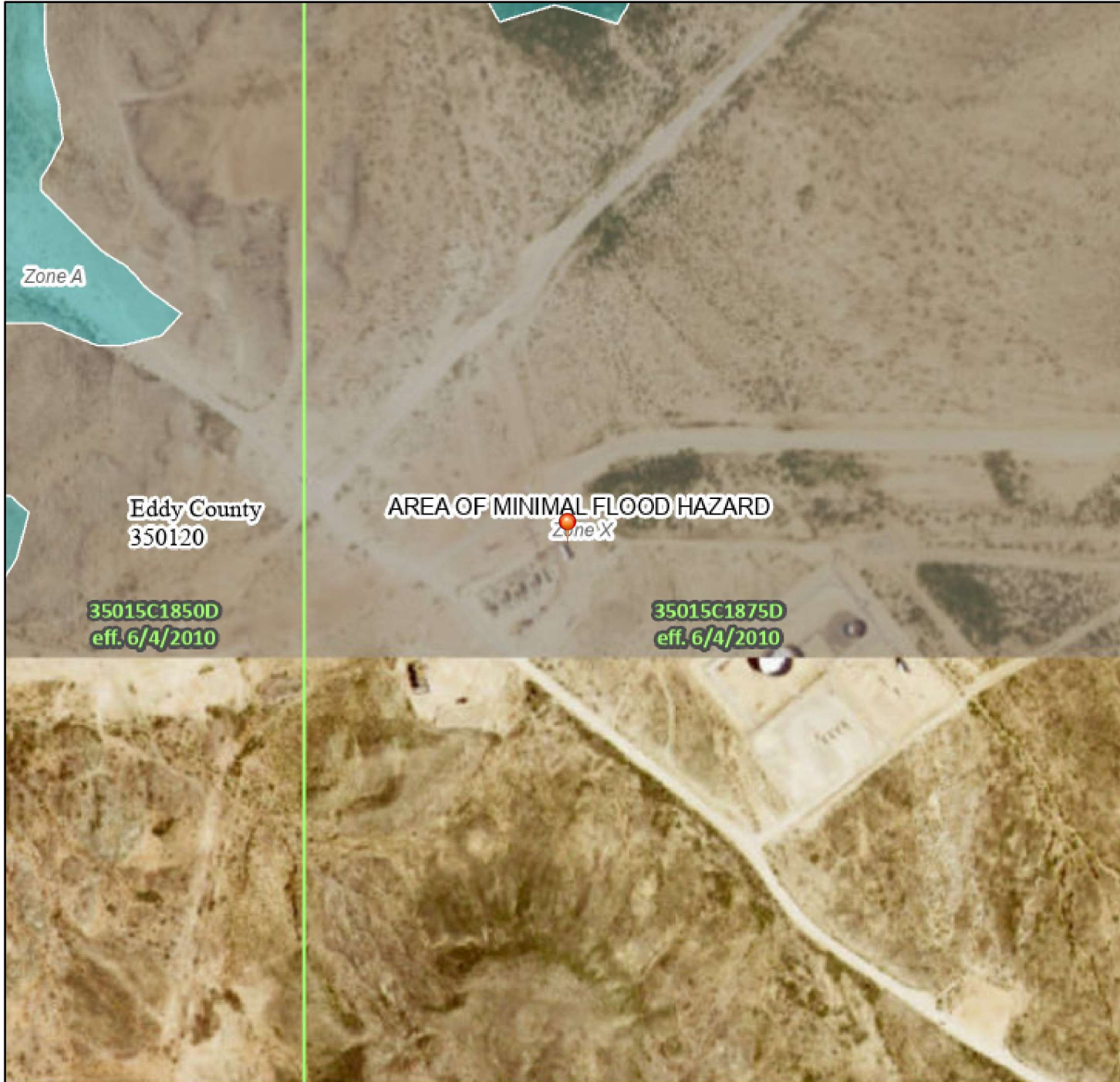


Esri, HERE, Garmin, iPC, Maxar, NM OSE

National Flood Hazard Layer FIRMMette



104°0'10"W 32°4'4"N



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

1:6,000

103°59'33"W 32°3'33"N

Released to Imaging: 1/31/2024 9:59 AM

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 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		8 Coastal Transect
		513 Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



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 unmapped areas cannot be used for regulatory purposes.

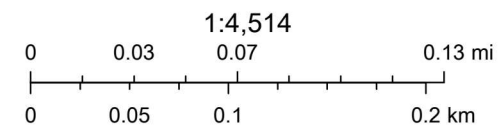
OCD - Karst Areas



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

Karst Occurrence Potential

Medium



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



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-Code	basin	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

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

APPENDIX E

Photographic Documentation



TETRA TECH, INC. PROJECT NO. 212C-MD-02997a	DESCRIPTION	View northwest of open excavation in vicinity of SP4 in ROW north of lease road.	1
	SITE NAME	WEST BRUSHY 8 FEDERAL SWD #001 Release nAB1715742101	10/8/2018



TETRA TECH, INC. PROJECT NO. 212C-MD-02997a	DESCRIPTION	View north of open excavation in vicinity of SP4 in ROW north of lease road.	2
	SITE NAME	WEST BRUSHY 8 FEDERAL SWD #001 Release nAB1715742101	10/17/2018



TETRA TECH, INC. PROJECT NO. 212C-MD-02997a	DESCRIPTION	View west of open excavation in vicinity of SP4. Trunkline and riser.	3
	SITE NAME	WEST BRUSHY 8 FEDERAL SWD #001 Release nAB1715742101	10/17/2018



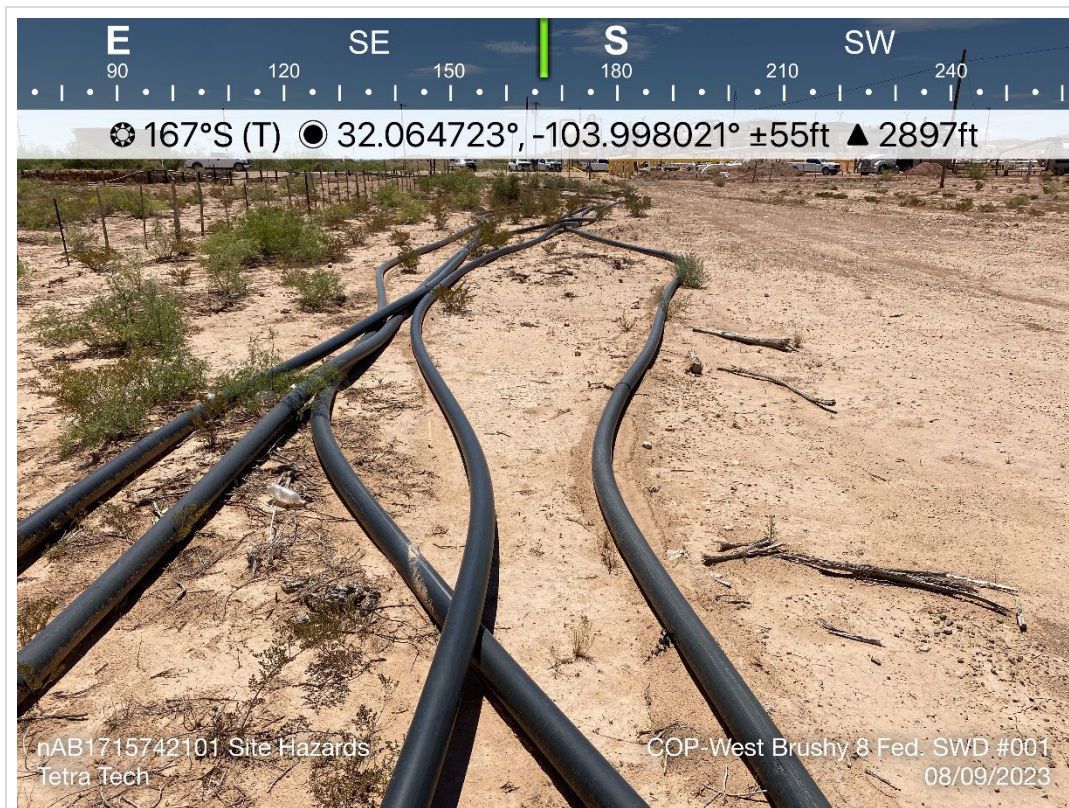
TETRA TECH, INC. PROJECT NO. 212C-MD-02997a	DESCRIPTION	View west of open excavation in vicinity of SB1.	4
	SITE NAME	WEST BRUSHY 8 FEDERAL SWD #001 Release nAB1715742101	Unknown 2018



TETRA TECH, INC. PROJECT NO. 212C-MD-02997a	DESCRIPTION	View east of open excavation of approximately 4 feet with liner feet in vicinity of SB1.	5
	SITE NAME	WEST BRUSHY 8 FEDERAL SWD #001 Release nAB1715742101	Unknown 2018



TETRA TECH, INC. PROJECT NO. 212C-MD-02997a	DESCRIPTION	View east of backfilled area with liner in vicinity of SB1.	6
	SITE NAME	WEST BRUSHY 8 FEDERAL SWD #001 Release nAB1715742101	12/27/2018



TETRA TECH, INC. PROJECT NO. 212C-MD-02997a	DESCRIPTION	View south-southeast of 2023 site conditions. Surface polylines and pasture area in vicinity of SP1.	7
	SITE NAME	WEST BRUSHY 8 FEDERAL SWD #001 Release nAB1715742101	8/9/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-02997a	DESCRIPTION	View south-southeast of 2023 site conditions. Drainage feature in pasture in vicinity of T-24-3.	8
	SITE NAME	WEST BRUSHY 8 FEDERAL SWD #001 Release nAB1715742101	8/9/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-02997a	DESCRIPTION	View northeast of previously lined and backfilled area in vicinity of AH-23-11. Vegetation growth present.	9
	SITE NAME	WEST BRUSHY 8 FEDERAL SWD #001 Release nAB1715742101	9/22/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-02997a	DESCRIPTION	View west-southwest of additional 2023 site assessment activities. Revised T-5 location 25 feet off subsurface Energy Transfer Line.	10
	SITE NAME	WEST BRUSHY 8 FEDERAL SWD #001 Release nAB1715742101	11/30/2023

APPENDIX F

Laboratory Analytical Reports



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

September 27, 2023

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 09/22/23 12:47.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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 accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

Celey D. Keene

Lab Director/Quality Manager



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:	09/22/2023	Sampling Date:	09/21/2023
Reported:	09/27/2023	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Dionica Hinojos
Project Location:	COP EDDY COUNTY, NM		

Sample ID: AH - 23 - 1 (0-1') (H235170-01)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	09/25/2023	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	09/23/2023	ND	222	111	200	0.390	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	216	108	200	1.43	
EXT DRO >C28-C36	19.1	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 87.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.1 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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:	09/22/2023	Sampling Date:	09/21/2023
Reported:	09/27/2023	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Dionica Hinojos
Project Location:	COP EDDY COUNTY, NM		

Sample ID: AH - 23 - 2 (0-1') (H235170-02)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	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	2400	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 81.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.3 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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:	09/22/2023	Sampling Date:	09/21/2023
Reported:	09/27/2023	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Dionica Hinojos
Project Location:	COP EDDY COUNTY, NM		

Sample ID: AH - 23 - 2 (2'-3') (H235170-03)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	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	2080	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	27.5	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 84.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.1 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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: 09/22/2023
 Reported: 09/27/2023
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP EDDY COUNTY, NM

Sampling Date: 09/21/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Dionica Hinojos

Sample ID: AH - 23 - 3 (0-1') (H235170-04)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	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	48.0	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 76.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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: 09/22/2023
 Reported: 09/27/2023
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP EDDY COUNTY, NM

Sampling Date: 09/21/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Dionica Hinojos

Sample ID: AH - 23 - 4 (0-1') (H235170-05)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	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	32.0	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 80.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.8 % 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: 09/22/2023
 Reported: 09/27/2023
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP EDDY COUNTY, NM

Sampling Date: 09/21/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Dionica Hinojos

Sample ID: AH - 23 - 5 (0-1') (H235170-06)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	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	928	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 80.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.9 % 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: 09/22/2023
 Reported: 09/27/2023
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP EDDY COUNTY, NM

Sampling Date: 09/21/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Dionica Hinojos

Sample ID: AH - 23 - 5 (2'-3') (H235170-07)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEx	<0.300	0.300	09/25/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3760	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 84.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.7 % 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: 09/22/2023
 Reported: 09/27/2023
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP EDDY COUNTY, NM

Sampling Date: 09/21/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Dionica Hinojos

Sample ID: AH - 23 - 6 (0-1') (H235170-08)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	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	80.0	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 77.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.8 % 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: 09/22/2023
 Reported: 09/27/2023
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP EDDY COUNTY, NM

Sampling Date: 09/21/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Dionica Hinojos

Sample ID: AH - 23 - 7 (0-1') (H235170-09)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	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	48.0	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 86.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.6 % 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:	09/22/2023	Sampling Date:	09/21/2023
Reported:	09/27/2023	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Dionica Hinojos
Project Location:	COP EDDY COUNTY, NM		

Sample ID: AH - 23 - 8 (0-1') (H235170-10)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	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	2000	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	43.1	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 81.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.7 % 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:	09/22/2023	Sampling Date:	09/21/2023
Reported:	09/27/2023	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Dionica Hinojos
Project Location:	COP EDDY COUNTY, NM		

Sample ID: AH - 23 - 8 (2'-3') (H235170-11)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEx	<0.300	0.300	09/25/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2400	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 83.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.8 % 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: 09/22/2023
 Reported: 09/27/2023
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP EDDY COUNTY, NM

Sampling Date: 09/21/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Dionica Hinojos

Sample ID: AH - 23 - 8 (3'-4') (H235170-12)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	3600	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 82.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.3 % 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: 09/22/2023
 Reported: 09/27/2023
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP EDDY COUNTY, NM

Sampling Date: 09/21/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Dionica Hinojos

Sample ID: AH - 23 - 9 (0-1') (H235170-13)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	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	144	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 76.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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:	09/22/2023	Sampling Date:	09/21/2023
Reported:	09/27/2023	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Dionica Hinojos
Project Location:	COP EDDY COUNTY, NM		

Sample ID: AH - 23 - 10 (0-1') (H235170-14)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	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	320	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 82.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.9 % 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:	09/22/2023	Sampling Date:	09/21/2023
Reported:	09/27/2023	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Dionica Hinojos
Project Location:	COP EDDY COUNTY, NM		

Sample ID: AH - 23 - 11 (0-1') (H235170-15)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	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	80.0	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 82.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.9 % 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:	09/22/2023	Sampling Date:	09/21/2023
Reported:	09/27/2023	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Dionica Hinojos
Project Location:	COP EDDY COUNTY, NM		

Sample ID: AH - 23 - 11 (2'-3') (H235170-16)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEx	<0.300	0.300	09/25/2023	ND						

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

Chloride, SM4500CI-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	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 79.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.5 % 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:	09/22/2023	Sampling Date:	09/21/2023
Reported:	09/27/2023	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Dionica Hinojos
Project Location:	COP EDDY COUNTY, NM		

Sample ID: AH - 23 - 12 (0-1') (H235170-17)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	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	240	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 79.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.1 % 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:	09/22/2023	Sampling Date:	09/21/2023
Reported:	09/27/2023	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Dionica Hinojos
Project Location:	COP EDDY COUNTY, NM		

Sample ID: AH - 23 - 13 (0-1') (H235170-18)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	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	48.0	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 83.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.7 % 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:	09/22/2023	Sampling Date:	09/21/2023
Reported:	09/27/2023	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Dionica Hinojos
Project Location:	COP EDDY COUNTY, NM		

Sample ID: AH - 23 - 14 (0-1') (H235170-19)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	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	16.0	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 82.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.4 % 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:	09/22/2023	Sampling Date:	09/21/2023
Reported:	09/27/2023	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Dionica Hinojos
Project Location:	COP EDDY COUNTY, NM		

Sample ID: AH - 23 - 14 (2'-3') (H235170-20)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.83	91.5	2.00	4.83		
Toluene*	<0.050	0.050	09/25/2023	ND	1.90	95.0	2.00	5.33		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	1.89	94.4	2.00	4.88		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	5.76	96.1	6.00	3.49		
Total BTEX	<0.300	0.300	09/25/2023	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	80.0	16.0	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 84.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.1 % 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: 09/22/2023
 Reported: 09/27/2023
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP EDDY COUNTY, NM

Sampling Date: 09/21/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Dionica Hinojos

Sample ID: AH - 23 - 15 (0-1') (H235170-21)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/25/2023	ND	1.95	97.5	2.00	4.14		
Toluene*	<0.050	0.050	09/25/2023	ND	2.05	102	2.00	5.37		
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	2.20	110	2.00	4.94		
Total Xylenes*	<0.150	0.150	09/25/2023	ND	6.00	100	6.00	5.19		
Total BTX	<0.300	0.300	09/25/2023	ND						

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

Chloride, SM4500CI-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	09/25/2023	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	09/23/2023	ND	202	101	200	0.877	
DRO >C10-C28*	<10.0	10.0	09/23/2023	ND	205	103	200	0.746	
EXT DRO >C28-C36	<10.0	10.0	09/23/2023	ND					

Surrogate: 1-Chlorooctane 85.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.0 % 49.1-148

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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

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 client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

A handwritten signature in black ink, appearing to read "C. D. Keene".

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Tetra Tech		P.O. #:		BILL TO		ANALYSIS REQUEST									
Project Manager: Sam Abbott		Company: Tetra Tech													
Address: 8911 Capital of Texas Hwy Suite 300		Attn: Sam Abbott													
City: Austin		State: TX		Zip: 78750											
Phone #:		Fax #:													
Project #: 212C-MD-0229A		Project Owner: Conaco Phillips													
Project Name: West Brushy 8 Fed SWD #1		City:		State:		Zip:									
Project Location: Eddy County, NM		Phone #:		Fax #:											
Sampler Name: Ivan Ramos															
FOR LAB USE ONLY		# CONTAINERS		MATRIX		PRESERV		SAMPLING							
				GROUNDWATER											
				WASTEWATER											
				SOIL											
				OIL											
				SLUDGE											
				OTHER :											
				ACID/BASE:											
				ICE / COOL											
				OTHER :											
Lab I.D. H25170		Sample I.D.		DATE		TIME									
1		AH-23-1 (0-1')		9/23/23		8:45		X BTEX 8021B							
2		AH-23-2 (0-1')		9:00		9:15		X TPH 8015M							
3		AH-23-3 (0-1')		9:30		9:45		X chlorides 4500							
4		AH-23-4 (0-1')		10:00		10:15									
5		AH-23-5 (0-1')		10:30		10:45									
6		AH-23-6 (0-1')		11:00											
7		AH-23-7 (0-1')													
8		AH-23-8 (0-1')													
9		AH-23-9 (0-1')													
10		AH-23-10 (0-1')													
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 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: Sam Abbott		Date: 9/23/23		Time: 12:47		Received By: Atkinson		Date: 9/23/23		Time: 12:47		REMARKS: * Sample Date changed per customer. 9/23/23			
Delivered By: (Circle One)		Observed Temp. °C 7.8°C		Sample Condition		CHECKED BY: (Initials)		Turnaround Time:		Standard		Bacteria (only) Sample Condition			
Sampler - UPS - Bus - Other:		Corrected Temp. °C		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Thermometer ID #140		Correction Factor 0°C		Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			

**BILL TO**

REMARKS: * Sample Date changed per customer Sam, about the tetrateducom



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Tetra Tech Project Manager: Sam Abbott Address: 8411 Capital of Texas Hwy, Suite 2310 City: Austin State: TX Zip: 78750 Phone #: Fax #: Project #: 02C-MD-02292A Project Owner: Conoco Phillips Project Name: West Brushy 8 Fed SMD #1 Project Location: Eddy County, NM Sample Name: Ivan Ramo				P.O. #: Company: Tetra Tech Attn: Sam Abbott Address: Email City: State: Zip: Phone #: Fax #:		BILL TO ANALYSIS REQUEST	
FOR LAB USE ONLY				LAB I.D. H25570		Sample I.D.	
21 AH-23-15(0-1)				(G)RAB OR (C)OMP.		# CONTAINERS	
MATRIX				GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :		ACID/BASE: ICE / COOL OTHER :	
PRESERV.				SAMPLING		DATE TIME	
*				9/2/13 3:30		BTEX 802LB TPH 8015M Chlorides 4500	
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 services. 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:				Received By:		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Relinquished By:				Date: 9-22-23 Time: 12:47		REMARKS: * Sample sent changed per customer 9/2/23	
Delivered By: (Circle One)				Observed Temp. °C: 28°C		Sample Condition: <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sampler - UPS - Bus - Other:				Corrected Temp. °C:		CHECKED BY: (Initials)	
Turnaround Time:				Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/>		Bacteria (only) Sample Condition: <input type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	



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

December 06, 2023

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 12/01/23 10:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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 accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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:	12/01/2023	Sampling Date:	11/30/2023
Reported:	12/06/2023	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Dionica Hinojos
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 1 (0-1') (H236457-01)

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	12/04/2023	ND	2.02	101	2.00	1.52		
Toluene*	<0.050	0.050	12/04/2023	ND	2.00	100	2.00	0.386		
Ethylbenzene*	<0.050	0.050	12/04/2023	ND	2.00	99.9	2.00	0.250		
Total Xylenes*	<0.150	0.150	12/04/2023	ND	5.90	98.3	6.00	0.317		
Total BTEX	<0.300	0.300	12/04/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 121 % 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	304	16.0	12/01/2023	ND	416	104	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	12/01/2023	ND	207	104	200	5.34	
DRO >C10-C28*	<10.0	10.0	12/01/2023	ND	194	97.0	200	7.25	
EXT DRO >C28-C36	<10.0	10.0	12/01/2023	ND					

Surrogate: 1-Chlorooctane 93.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.3 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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: 12/01/2023
 Reported: 12/06/2023
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 11/30/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Dionica Hinojos

Sample ID: T - 5 (0-1') (H236457-02)

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	12/04/2023	ND	2.02	101	2.00	1.52		
Toluene*	<0.050	0.050	12/04/2023	ND	2.00	100	2.00	0.386		
Ethylbenzene*	<0.050	0.050	12/04/2023	ND	2.00	99.9	2.00	0.250		
Total Xylenes*	<0.150	0.150	12/04/2023	ND	5.90	98.3	6.00	0.317		
Total BTEX	<0.300	0.300	12/04/2023	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	176	16.0	12/01/2023	ND	416	104	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	12/01/2023	ND	207	104	200	5.34	
DRO >C10-C28*	<10.0	10.0	12/01/2023	ND	194	97.0	200	7.25	
EXT DRO >C28-C36	<10.0	10.0	12/01/2023	ND					

Surrogate: 1-Chlorooctane 87.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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: 12/01/2023
 Reported: 12/06/2023
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 11/30/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Dionica Hinojos

Sample ID: AH-23-16 (0-1') (H236457-03)

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	12/04/2023	ND	2.02	101	2.00	1.52		
Toluene*	<0.050	0.050	12/04/2023	ND	2.00	100	2.00	0.386		
Ethylbenzene*	<0.050	0.050	12/04/2023	ND	2.00	99.9	2.00	0.250		
Total Xylenes*	<0.150	0.150	12/04/2023	ND	5.90	98.3	6.00	0.317		
Total BTEX	<0.300	0.300	12/04/2023	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	160	16.0	12/01/2023	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	12/01/2023	ND	207	104	200	5.34	
DRO >C10-C28*	<10.0	10.0	12/01/2023	ND	194	97.0	200	7.25	
EXT DRO >C28-C36	<10.0	10.0	12/01/2023	ND					

Surrogate: 1-Chlorooctane 79.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.6 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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: 12/01/2023
 Reported: 12/06/2023
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 11/30/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Dionica Hinojos

Sample ID: AH-23-17 (0-1') (H236457-04)

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	12/04/2023	ND	2.02	101	2.00	1.52		
Toluene*	<0.050	0.050	12/04/2023	ND	2.00	100	2.00	0.386		
Ethylbenzene*	<0.050	0.050	12/04/2023	ND	2.00	99.9	2.00	0.250		
Total Xylenes*	<0.150	0.150	12/04/2023	ND	5.90	98.3	6.00	0.317		
Total BTEX	<0.300	0.300	12/04/2023	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	192	16.0	12/01/2023	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	12/01/2023	ND	207	104	200	5.34	
DRO >C10-C28*	<10.0	10.0	12/01/2023	ND	194	97.0	200	7.25	
EXT DRO >C28-C36	<10.0	10.0	12/01/2023	ND					

Surrogate: 1-Chlorooctane 95.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.1 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

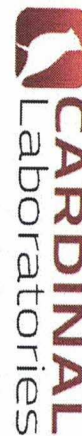
Cardinal Laboratories

*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ch

Project Manager: Sam Abbott Address: 8911 Capital o Texas Hwy, Suite 2310 City: Austin State: TX Zip: _____ Phone #: (512)565-0190 Fax #: _____ Project #: 212C-MD-02997A Project Owner: ConocoPhillips Project Name: West Brushy 8 Federal SWD #001 Project Location: Eddy County, New Mexico Sampler Name: Colton Bickertstaff Lab I.D. ONLY										BILL TO P.O. #: _____ Company: Tetra Tech Attn: Sam Abbott Address: EMAIL City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____										ANALYSIS REQUEST																			
Sample I.D. <div style="float: right; text-align: right;"> (G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER : </div>										MATRIX										PRESERV.										SAMPLING									
LABORATORY NOTE: Labile and Duplicates. Client'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 analysis. 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 events shall be deemed 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: Colton Bickertstaff Date: 12/11/23 Time: 10:50 Received By: [Signature]										Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: _____ All Results are emailed. Please provide Email address: Sam.Abbott@tetratech.com																			
										Relinquished By: [Signature] Date: _____ Time: _____ Received By: [Signature]										REMARKS:																			
										Delivered By: (Circle One) Sampler - UPS Bus Other: _____										Observed Temp. °C 41.30C Corrected Temp. °C _____ Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No										CHECKED BY: [Signature] (Initials) Turnaround Time: Standard <input checked="" type="checkbox"/> Bacteria (only) Sample Count in _____ Rush N/A <input type="checkbox"/> Cool Intact <input type="checkbox"/> Observed Temp. °C _____ Thermometer ID #445 <input checked="" type="checkbox"/> Correction Factor -0.5°C <input type="checkbox"/> Yes <input type="checkbox"/> No Corrected Temp. °C 41.30C									
										FORM-006 R 3.2 10/07/21																													



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

January 09, 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 01/08/24 8:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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 accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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:	01/08/2024	Sampling Date:	01/04/2024
Reported:	01/09/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T-24-1 (6'-7') (H240058-01)

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	01/08/2024	ND	1.90	94.8	2.00	11.6		
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 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	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 130 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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: 01/08/2024
 Reported: 01/09/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T-24-2 (5'-5.5') (H240058-02)

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	01/08/2024	ND	1.90	94.8	2.00	11.6	
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 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	768	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 122 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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:	01/08/2024	Sampling Date:	01/04/2024
Reported:	01/09/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T-24-3 (7'-7.5') (H240058-03)

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	01/08/2024	ND	1.90	94.8	2.00	11.6		
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 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	1140	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 126 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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:	01/08/2024	Sampling Date:	01/04/2024
Reported:	01/09/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T-24-4 (8'-8.5') (H240058-04)

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	01/08/2024	ND	1.90	94.8	2.00	11.6		
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 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	1380	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 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:	01/08/2024	Sampling Date:	01/04/2024
Reported:	01/09/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T-24-5 (6'-7') (H240058-05)

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	01/08/2024	ND	1.90	94.8	2.00	11.6		
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 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	800	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 129 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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: 01/08/2024
 Reported: 01/09/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T-24-16 (5'-6') (H240058-06)

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	01/08/2024	ND	1.90	94.8	2.00	11.6	
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 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	1010	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 128 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]



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

January 11, 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 01/08/24 8:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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 accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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:	01/08/2024	Sampling Date:	01/04/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 1 (3'-4') (H240059-01)

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	01/08/2024	ND	1.90	94.8	2.00	11.6	
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 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	1630	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 124 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 1 (5'-6') (H240059-02)

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	01/08/2024	ND	1.90	94.8	2.00	11.6	
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 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	928	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 110 % 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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 2 (0-1') (H240059-03)

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	01/08/2024	ND	1.90	94.8	2.00	11.6	
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 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	4120	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 2 (2'-3') (H240059-04)

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	01/08/2024	ND	1.90	94.8	2.00	11.6	
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.2 % 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	1700	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 122 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 2 (3'-4') (H240059-05)

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	01/08/2024	ND	1.90	94.8	2.00	11.6		
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 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	2440	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 123 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 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:	01/08/2024	Sampling Date:	01/04/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 3 (3'-4') (H240059-06)

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	01/08/2024	ND	1.90	94.8	2.00	11.6	
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 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	4080	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 128 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 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:	01/08/2024	Sampling Date:	01/04/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 3 (5'-6') (H240059-07)

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	01/08/2024	ND	1.90	94.8	2.00	11.6		
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 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	3360	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 124 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 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:	01/08/2024	Sampling Date:	01/04/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 3 (6'-7') (H240059-08)

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	01/08/2024	ND	1.90	94.8	2.00	11.6	
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 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	2400	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 116 % 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:	01/08/2024	Sampling Date:	01/04/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 4 (0-1') (H240059-09)

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	01/08/2024	ND	1.90	94.8	2.00	11.6		
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 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	1090	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 99.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.6 % 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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 4 (2'-3') (H240059-10)

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	01/08/2024	ND	1.90	94.8	2.00	11.6	
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 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	1550	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 4 (3'-4') (H240059-11)

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	01/08/2024	ND	1.90	94.8	2.00	11.6		
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 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	3200	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 106 % 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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Analytical Results For:

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

Received: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 4 (5'-6') (H240059-12)

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	01/08/2024	ND	1.90	94.8	2.00	11.6	
Toluene*	<0.050	0.050	01/08/2024	ND	1.86	92.8	2.00	12.2	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	1.84	92.1	2.00	12.2	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	5.37	89.4	6.00	12.4	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 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	2240	16.0	01/08/2024	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	01/08/2024	ND	176	87.8	200	0.331	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	166	83.0	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 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:	01/08/2024	Sampling Date:	01/04/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 4 (6'-7') (H240059-13)

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	01/08/2024	ND	2.02	101	2.00	8.54	
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	1150	16.0	01/08/2024	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	01/08/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 125 % 48.2-134

Surrogate: 1-Chlorooctadecane 143 % 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:	01/08/2024	Sampling Date:	01/04/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 5 (3'-4') (H240059-14)

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	01/08/2024	ND	2.02	101	2.00	8.54		
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	1140	16.0	01/08/2024	ND	448	112	400	0.00	QM-07	

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	01/08/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 128 % 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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 5 (5'-6') (H240059-15)

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	01/08/2024	ND	2.02	101	2.00	8.54	
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	736	16.0	01/08/2024	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	01/09/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	<10.0	10.0	01/09/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/09/2024	ND					

Surrogate: 1-Chlorooctane 76.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.4 % 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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/05/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 6 (0-1') (H240059-16)

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	01/08/2024	ND	2.02	101	2.00	8.54	
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63	
Total BTEX	<0.300	0.300	01/08/2024	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	144	16.0	01/08/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/08/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	211	10.0	01/08/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 124 % 48.2-134

Surrogate: 1-Chlorooctadecane 155 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 6 (1'-2') (H240059-17)

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	01/08/2024	ND	2.02	101	2.00	8.54		
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	01/08/2024	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	01/08/2024	ND	195	97.6	200	5.84		
DRO >C10-C28*	11.2	10.0	01/08/2024	ND	177	88.4	200	6.44		
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND						

Surrogate: 1-Chlorooctane 127 % 48.2-134

Surrogate: 1-Chlorooctadecane 143 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 7 (0-1') (H240059-18)

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	01/08/2024	ND	2.02	101	2.00	8.54		
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	2000	16.0	01/08/2024	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	01/08/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 133 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 7 (2'-3') (H240059-19)

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	01/08/2024	ND	2.02	101	2.00	8.54		
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	4280	16.0	01/08/2024	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	01/09/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	<10.0	10.0	01/09/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/09/2024	ND					

Surrogate: 1-Chlorooctane 88.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 7 (3'-4') (H240059-20)

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.54	
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22	GC-NC
Total Xylenes*	0.271	0.150	01/08/2024	ND	6.11	102	6.00	8.63	GC-NC1
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 176 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1800	16.0	01/08/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	21.2	10.0	01/08/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	45.9	10.0	01/08/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 135 % 48.2-134

Surrogate: 1-Chlorooctadecane 149 % 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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/05/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 7 (5'-6') (H240059-21)

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	01/08/2024	ND	2.02	101	2.00	8.54	
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63	
Total BTEX	<0.300	0.300	01/08/2024	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	80.0	16.0	01/08/2024	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	01/08/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 7 (6'-7') (H240059-22)

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	01/08/2024	ND	2.02	101	2.00	8.54		
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	01/08/2024	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	01/08/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 128 % 48.2-134

Surrogate: 1-Chlorooctadecane 144 % 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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/05/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 8 (0-1') (H240059-23)

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	01/08/2024	ND	2.02	101	2.00	8.54	
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	496	16.0	01/08/2024	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	01/09/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	<10.0	10.0	01/09/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/09/2024	ND					

Surrogate: 1-Chlorooctane 70.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 69.7 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 8 (2'-3') (H240059-24)

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	01/08/2024	ND	2.02	101	2.00	8.54		
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	464	16.0	01/08/2024	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	01/08/2024	ND	195	97.6	200	5.84		
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	177	88.4	200	6.44		
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND						

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 136 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 8 (3'-4') (H240059-25)

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	01/08/2024	ND	2.02	101	2.00	8.54		
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	01/08/2024	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	01/08/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 123 % 48.2-134

Surrogate: 1-Chlorooctadecane 140 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 9 (0-1') (H240059-26)

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	01/08/2024	ND	2.02	101	2.00	8.54		
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	01/08/2024	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	01/08/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 124 % 48.2-134

Surrogate: 1-Chlorooctadecane 140 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 9 (2'-3') (H240059-27)

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	01/08/2024	ND	2.02	101	2.00	8.54		
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	01/08/2024	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	01/09/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	<10.0	10.0	01/09/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/09/2024	ND					

Surrogate: 1-Chlorooctane 72.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.1 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 10 (0-1') (H240059-28)

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	01/08/2024	ND	2.02	101	2.00	8.54		
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	01/08/2024	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	01/08/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 111 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 10 (2'-3') (H240059-29)

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	01/08/2024	ND	2.02	101	2.00	8.54		
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	01/08/2024	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	01/09/2024	ND	195	97.6	200	5.84		
DRO >C10-C28*	<10.0	10.0	01/09/2024	ND	177	88.4	200	6.44		
EXT DRO >C28-C36	<10.0	10.0	01/09/2024	ND						

Surrogate: 1-Chlorooctane 72.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.9 % 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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/05/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 11 (0-1') (H240059-30)

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	01/08/2024	ND	2.02	101	2.00	8.54	
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	784	16.0	01/08/2024	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	01/08/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 131 % 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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/05/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 11 (2'-3') (H240059-31)

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	01/08/2024	ND	2.02	101	2.00	8.54		
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1200	16.0	01/08/2024	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	01/08/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 129 % 48.2-134

Surrogate: 1-Chlorooctadecane 148 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 11 (3'-4') (H240059-32)

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	01/08/2024	ND	2.02	101	2.00	8.54	
Toluene*	<0.050	0.050	01/08/2024	ND	2.02	101	2.00	8.68	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.00	100	2.00	9.22	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.11	102	6.00	8.63	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	608	16.0	01/08/2024	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	01/08/2024	ND	195	97.6	200	5.84	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	177	88.4	200	6.44	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 123 % 48.2-134

Surrogate: 1-Chlorooctadecane 140 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 12 (0-1') (H240059-33)

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	01/08/2024	ND	2.06	103	2.00	9.26		
Toluene*	<0.050	0.050	01/08/2024	ND	2.14	107	2.00	5.09		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.26	113	2.00	3.91		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.82	114	6.00	3.98		
Total BTEX	<0.300	0.300	01/08/2024	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	144	16.0	01/08/2024	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	01/08/2024	ND	225	113	200	1.77	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	204	102	200	3.30	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 135 % 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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/05/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 13 (0-1') (H240059-34)

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	01/08/2024	ND	2.06	103	2.00	9.26	
Toluene*	<0.050	0.050	01/08/2024	ND	2.14	107	2.00	5.09	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.26	113	2.00	3.91	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.82	114	6.00	3.98	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	4000	16.0	01/08/2024	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	01/08/2024	ND	225	113	200	1.77	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	204	102	200	3.30	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 134 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 13 (2'-3') (H240059-35)

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	01/08/2024	ND	2.06	103	2.00	9.26		
Toluene*	<0.050	0.050	01/08/2024	ND	2.14	107	2.00	5.09		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.26	113	2.00	3.91		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.82	114	6.00	3.98		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	48.0	16.0	01/08/2024	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	01/08/2024	ND	225	113	200	1.77	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	204	102	200	3.30	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 135 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 14 (0-1') (H240059-36)

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	01/08/2024	ND	2.06	103	2.00	9.26		
Toluene*	<0.050	0.050	01/08/2024	ND	2.14	107	2.00	5.09		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.26	113	2.00	3.91		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.82	114	6.00	3.98		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	944	16.0	01/08/2024	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	01/09/2024	ND	225	113	200	1.77	
DRO >C10-C28*	<10.0	10.0	01/09/2024	ND	204	102	200	3.30	
EXT DRO >C28-C36	<10.0	10.0	01/09/2024	ND					

Surrogate: 1-Chlorooctane 75.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.8 % 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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/05/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 14 (2'-3') (H240059-37)

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	01/08/2024	ND	2.06	103	2.00	9.26	
Toluene*	<0.050	0.050	01/08/2024	ND	2.14	107	2.00	5.09	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.26	113	2.00	3.91	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.82	114	6.00	3.98	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	64.0	16.0	01/08/2024	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	01/08/2024	ND	221	111	200	7.98	QM-07
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	222	111	200	5.51	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 122 % 48.2-134

Surrogate: 1-Chlorooctadecane 138 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 15 (0-1') (H240059-38)

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	01/08/2024	ND	2.06	103	2.00	9.26		
Toluene*	<0.050	0.050	01/08/2024	ND	2.14	107	2.00	5.09		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.26	113	2.00	3.91		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.82	114	6.00	3.98		
Total BTEX	<0.300	0.300	01/08/2024	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	1470	16.0	01/08/2024	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	01/08/2024	ND	221	111	200	7.98	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	222	111	200	5.51	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/05/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 15 (1'-2') (H240059-39)

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	01/08/2024	ND	2.06	103	2.00	9.26	
Toluene*	<0.050	0.050	01/08/2024	ND	2.14	107	2.00	5.09	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.26	113	2.00	3.91	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.82	114	6.00	3.98	
Total BTEX	<0.300	0.300	01/08/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	01/08/2024	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	01/08/2024	ND	221	111	200	7.98	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	222	111	200	5.51	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 110 % 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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/05/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: T - 24 - 16 (0-1') (H240059-40)

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	01/08/2024	ND	2.06	103	2.00	9.26		
Toluene*	<0.050	0.050	01/08/2024	ND	2.14	107	2.00	5.09		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.26	113	2.00	3.91		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.82	114	6.00	3.98		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	2160	16.0	01/08/2024	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	01/08/2024	ND	221	111	200	7.98	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	222	111	200	5.51	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 125 % 48.2-134

Surrogate: 1-Chlorooctadecane 140 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 16 (2'-3') (H240059-41)

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	01/08/2024	ND	2.06	103	2.00	9.26		
Toluene*	<0.050	0.050	01/08/2024	ND	2.14	107	2.00	5.09		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.26	113	2.00	3.91		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.82	114	6.00	3.98		
Total BTEX	<0.300	0.300	01/08/2024	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	3240	16.0	01/08/2024	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	01/08/2024	ND	221	111	200	7.98	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	222	111	200	5.51	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 125 % 48.2-134

Surrogate: 1-Chlorooctadecane 140 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: T - 24 - 16 (3'-4') (H240059-42)

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	01/08/2024	ND	2.06	103	2.00	9.26		
Toluene*	<0.050	0.050	01/08/2024	ND	2.14	107	2.00	5.09		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.26	113	2.00	3.91		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.82	114	6.00	3.98		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	3040	16.0	01/08/2024	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	01/09/2024	ND	221	111	200	7.98	
DRO >C10-C28*	<10.0	10.0	01/09/2024	ND	222	111	200	5.51	
EXT DRO >C28-C36	<10.0	10.0	01/09/2024	ND					

Surrogate: 1-Chlorooctane 78.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.1 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: H - 24 - 1 (0-1') (H240059-43)

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	01/08/2024	ND	2.06	103	2.00	9.26		
Toluene*	<0.050	0.050	01/08/2024	ND	2.14	107	2.00	5.09		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.26	113	2.00	3.91		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.82	114	6.00	3.98		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	80.0	16.0	01/08/2024	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	01/08/2024	ND	221	111	200	7.98	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	222	111	200	5.51	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 128 % 48.2-134

Surrogate: 1-Chlorooctadecane 144 % 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:	01/08/2024	Sampling Date:	01/05/2024
Reported:	01/11/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Tamara Oldaker
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: H - 24 - 2 (0-1') (H240059-44)

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	01/08/2024	ND	2.06	103	2.00	9.26		
Toluene*	<0.050	0.050	01/08/2024	ND	2.14	107	2.00	5.09		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.26	113	2.00	3.91		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.82	114	6.00	3.98		
Total BTEX	<0.300	0.300	01/08/2024	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	416	16.0	01/08/2024	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	01/08/2024	ND	221	111	200	7.98	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	222	111	200	5.51	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 131 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/05/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: H - 24 - 3 (0-1') (H240059-45)

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	01/08/2024	ND	2.06	103	2.00	9.26		
Toluene*	<0.050	0.050	01/08/2024	ND	2.14	107	2.00	5.09		
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.26	113	2.00	3.91		
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.82	114	6.00	3.98		
Total BTEX	<0.300	0.300	01/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	304	16.0	01/08/2024	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	01/08/2024	ND	221	111	200	7.98	
DRO >C10-C28*	<10.0	10.0	01/08/2024	ND	222	111	200	5.51	
EXT DRO >C28-C36	<10.0	10.0	01/08/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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: 01/08/2024
 Reported: 01/11/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/05/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: H - 24 - 4 (0-1') (H240059-46)

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	01/08/2024	ND	2.06	103	2.00	9.26	
Toluene*	<0.050	0.050	01/08/2024	ND	2.14	107	2.00	5.09	
Ethylbenzene*	<0.050	0.050	01/08/2024	ND	2.26	113	2.00	3.91	
Total Xylenes*	<0.150	0.150	01/08/2024	ND	6.82	114	6.00	3.98	
Total BTEX	<0.300	0.300	01/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	96.0	16.0	01/08/2024	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	01/09/2024	ND	221	111	200	7.98	
DRO >C10-C28*	<10.0	10.0	01/09/2024	ND	222	111	200	5.51	
EXT DRO >C28-C36	<10.0	10.0	01/09/2024	ND					

Surrogate: 1-Chlorooctane 94.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

S-05	The surrogate recovery is outside of lab established statistical control limits but still within method limits. Data is not adversely affected.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
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

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A handwritten signature in black ink, appearing to read "Celey D. Keene", written in a cursive style.

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Tetra Tech Project Manager: Sam Abbott Address: 8911 Capital o Texas Hwy, Suite 2310 City: Austin State: TX Zip: _____ Phone #: (512)565-0190 Fax #: _____ Project #: 212C-MD-02937A Project Owner: ConocoPhillips Project Name: West Brushy 8 Federal SWD #001 Project Location: Eddy County, New Mexico Sample Name: Colton Bickstaff FOR LAB USE ONLY										BILL TO										ANALYSIS REQUEST									
P.O. #: _____ Company: Tetra Tech Attn: Sam Abbott Address: EMAIL _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____																													
Lab I.D.										Sample I.D.																			
										(G)RAB OR (C)OMP.																			
										# CONTAINERS																			
										GROUNDWATER																			
										WASTEWATER																			
										SOIL																			
										OIL																			
										SLUDGE																			
										OTHER :																			
										ACID/BASE:																			
										ICE / COOL																			
										OTHER :																			
										DATE										TIME									
										TPH 8015M																			
										BTEX 8021B																			
										Chloride SM4500CI-B																			

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	TPH 8015M	BTEX 8021B	Chloride SM4500CI-B
1	T-24-1 (3-4)	G	1	X									1/4/2024		X	X	X
2	T-24-1 (5-6)	G	1	X									1/4/2024		X	X	X
3	T-24-2 (0-1)	G	1	X									1/4/2024		X	X	X
4	T-24-2 (2-3)	G	1	X									1/4/2024		X	X	X
5	T-24-2 (3-4)	G	1	X									1/4/2024		X	X	X
6	T-24-3 (3-4)	G	1	X									1/4/2024		X	X	X
7	T-24-3 (5-6)	G	1	X									1/4/2024		X	X	X
8	T-24-3 (6-7)	G	1	X									1/4/2024		X	X	X
9	T-24-4 (0-1)	G	1	X									1/4/2024		X	X	X
10	T-24-4 (2-3)	G	1	X									1/4/2024		X	X	X

IN CASE NOTE: Labeled containers, standard labels and client's evidence records for any claims arising within 30 days of the date of collection. 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 the date of collection. Cardinal is not responsible for any consequential damages, including without limitation, business interruptions, loss of data, 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 claims is based upon any of the above stated reasons or otherwise.

Relinquished By: Colton Bickstaff Date: 01/08/24 Received By: <i>[Signature]</i>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: _____ Remarks: All results are emailed. Please provide Email address: Sam.Abbott@tetratech.com AND ebsmith.chavira@tetratech.com	
Relinquished By: _____ Date: _____ Received By: _____		Thermometer ID: _____ Correction Factor: _____ Thermometer ID: _____ Correction Factor: _____	

Delivered By: (Circle One)
 Sampler - UPS - Bus - Other: _____
 Observed Temp. °C: 0.3
 Corrected Temp. °C: _____
 Sample Condition: ☒ Cool ☐ Hot
 Checked By: (Initials) *[Signature]*
 Thermal Time: _____
 Standard: ☒ ☐ ☐
 Bacteria (only) Sample Condition: _____
 Observed Temp. °C: _____
 Corrected Temp. °C: _____
 Yes ☐ No ☐ Yes ☐ No ☐ Corrected Temp. °C: _____

FORM-006 R 3.2 10/07/21



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Tetra Tech

Project Manager: Sam Abbott
Address: 8911 Capital o Texas Hwy, Suite 2310
City: Austin
Phone #: (512)565-0190 Fax #: State: TX Zip:
Project #: 212C-MD-02997A Project Owner: ConocoPhillips
Project Name: West Brushy 8 Federal SWD #001
Project Location: Eddy County, New Mexico
Sampler Name: Colton Bickerstaff

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

H240059

11 T-244 (3-4)
12 T-244 (5-6)
13 T-244 (6-7)
14 T-245 (3-4)
15 T-245 (5-6)
16 T-246 (0-1)
17 T-246 (1-2)
18 T-247 (0-1)
19 T-247 (2-3)
20 T-247 (3-4)

(G)RAB OR (C)OMP.

CONTAINERS

MATRIX

GROUNDWATER
WASTEWATER
SOIL
OIL
SLUDGE
OTHER :
ACID/BASE:
ICE / COOL
OTHER :

PRESERV.

SAMPLING

DATE

TIME

TPH 8015M

BTEX 8021B

Chloride SM4500Cl-B

Relinquished By: Colton Bickerstaff

Date: 01/09/24

Received By: [Signature]

Date: 1/8/24

Relinquished By:

Date:

Received By:

Date:

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

Observed Temp. °C
Corrected Temp. °C

Sample Condition
Cool ☒ Intact ☐
No ☐ No ☐

CHECKED BY: [Signature]
(Initials)

Thermometer ID: 9737
Correction Factor: -0.0

Thermometer Time: 1/8/24
Observed Temp. °C: 14.0

Backlog (only Sample Condition)
Rush ☒ Cool ☐ Intact ☐
No ☐ No ☐

REMARKS:

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

FOR LAB USE ONLY

Lab I.D.

Company Name: Tetra Tech

Project Manager: Sam Abbott

Address: 8911 Capital o Texas Hwy, Suite 2310

City: Austin

Phone #: (512)565-0190 Fax #: State: TX Zip:

Project #: 212C-MD-02997A Project Owner: ConocoPhillips

Project Name: West Brushy 8 Federal SWD #001

Project Location: Eddy County, New Mexico

Sampler Name: Colton Bickerstaff

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

H240059

11 T-244 (3-4)
12 T-244 (5-6)
13 T-244 (6-7)
14 T-245 (3-4)
15 T-245 (5-6)
16 T-246 (0-1)
17 T-246 (1-2)
18 T-247 (0-1)
19 T-247 (2-3)
20 T-247 (3-4)

(G)RAB OR (C)OMP.

CONTAINERS

MATRIX

GROUNDWATER
WASTEWATER
SOIL
OIL
SLUDGE
OTHER :
ACID/BASE:
ICE / COOL
OTHER :

PRESERV.

SAMPLING

DATE

TIME

TPH 8015M

BTEX 8021B

Chloride SM4500Cl-B

Relinquished By: Colton Bickerstaff

Date: 01/09/24

Received By: [Signature]

Date: 1/8/24

Relinquished By:

Date:

Received By:

Date:

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

Observed Temp. °C
Corrected Temp. °C

Sample Condition
Cool ☒ Intact ☐
No ☐ No ☐

CHECKED BY: [Signature]
(Initials)

Thermometer ID: 9737
Correction Factor: -0.0

Thermometer Time: 1/8/24
Observed Temp. °C: 14.0

Backlog (only Sample Condition)
Rush ☒ Cool ☐ Intact ☐
No ☐ No ☐

REMARKS:

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

FOR LAB USE ONLY

Lab I.D.

Company Name: Tetra Tech

Project Manager: Sam Abbott

Address: 8911 Capital o Texas Hwy, Suite 2310

City: Austin

Phone #: (512)565-0190 Fax #: State: TX Zip:

Project #: 212C-MD-02997A Project Owner: ConocoPhillips

Project Name: West Brushy 8 Federal SWD #001

Project Location: Eddy County, New Mexico

Sampler Name: Colton Bickerstaff

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

H240059

11 T-244 (3-4)
12 T-244 (5-6)
13 T-244 (6-7)
14 T-245 (3-4)
15 T-245 (5-6)
16 T-246 (0-1)
17 T-246 (1-2)
18 T-247 (0-1)
19 T-247 (2-3)
20 T-247 (3-4)

(G)RAB OR (C)OMP.

CONTAINERS

MATRIX

GROUNDWATER
WASTEWATER
SOIL
OIL
SLUDGE
OTHER :
ACID/BASE:
ICE / COOL
OTHER :

PRESERV.

SAMPLING

DATE

TIME

TPH 8015M

BTEX 8021B

Chloride SM4500Cl-B

Relinquished By: Colton Bickerstaff

Date: 01/09/24

Received By: [Signature]

Date: 1/8/24

Relinquished By:

Date:

Received By:

Date:

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

Observed Temp. °C
Corrected Temp. °C

Sample Condition
Cool ☒ Intact ☐
No ☐ No ☐

CHECKED BY: [Signature]
(Initials)

Thermometer ID: 9737
Correction Factor: -0.0

Thermometer Time: 1/8/24
Observed Temp. °C: 14.0

Backlog (only Sample Condition)
Rush ☒ Cool ☐ Intact ☐
No ☐ No ☐

REMARKS:

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

FOR LAB USE ONLY

Lab I.D.

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Tetra Tech

Project Manager: Sam Abbott
Address: 8911 Capital o Texas Hwy, Suite 2310
City: Austin
State: TX Zip:
Phone #: (512)565-0190 Fax #:
Project #: 212C-MD-02997A Project Owner: ConocoPhillips
Project Name: West Brushy & Federal SWD #001
Project Location: Eddy County, New Mexico
Sampler Name: Colton Bickertstaff

FOR LAB USE ONLY
Lab I.D.

Sample I.D.
H240059

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

TPH 8015M

BTEX 8021B

Chloride SM4500CI-B

Relinquished By: Colton Bickertstaff
Date: 01/08/24
Time: 0820
Received By: [Signature]
Date: [Blank]
Time: [Blank]

Relinquished By: [Blank]
Date: [Blank]
Time: [Blank]

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:
Observed Temp. °C: 0.3
Corrected Temp. °C: [Blank]

Sample Condition:
☒ Cool ☐ Hot
☐ No ☐ No

CHECKED BY: [Signature]
(Initials)

Thermometer ID: 4444
Correction Factor: 0.00
Standard: ☒ Bacteria (only) Sample Condition
Cool Inlet: ☐ Observed Temp. °C
Corrected Temp. °C: [Blank]

Verbal Result: ☐ Yes ☐ No
All Results are emailed. Please provide Email address: Sam.Abbott@tetratech.com AND Lisbeth.Chavira@tetratech.com

REMARKS:
[Blank]

FORM-006 R.3.2 10/07/21

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

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Tetra Tech

101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

Project Manager: Sam Abbott

Address: 8911 Capital o Texas Hwy, Suite 2310

City: Austin

State: TX Zip:

Phone #: (512)565-0190 Fax #:

Project #: 212C-MD-02997A Project Owner: ConocoPhillips

Project Name: West Brushy 8 Federal SWD #001

Project Location: Eddy County, New Mexico

Sampler Name: Colton Bickersstaff

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

41 T-24-16 (2-3')

42 T-24-16 (3-4')

43 H-24-1 (0-1')

44 H-24-2 (0-1')

45 H-24-3 (0-1')

46 H-24-4 (0-1')

47 T-24-13 (3-4')

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

TPH 8015M

BTEX 8021B

Chloride SM4500Cl-B

HOLD

Matrix

Preserv.

Sampling

Relinquished By: Colton Bickersstaff

Date: 01/08/24

Received By: Sam Abbott

Date: 01/08/24

Time: 0820

Time: 0820

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

Observed Temp. °C 0.3

Corrected Temp. °C

Sample Condition

Checked By: (Initials) J.E.

Turnaround Time: Standard

Thermometer ID 4493

Correction Factor 0.0

Remarks: Please HOLD sample ID T-24-13 (3-4')

Verbal Result: Yes No

Add'l Phone #:

Thermometer ID 4493

Correction Factor 0.0

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

FORM-006 R 3.2 10/07/21

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

January 16, 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 01/11/24 12:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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 accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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:	01/11/2024	Sampling Date:	01/10/2024
Reported:	01/16/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997A	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

Sample ID: BH - 24 - 1 (7'-8') (H240134-01)

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	01/13/2024	ND	2.19	110	2.00	0.774	
Toluene*	<0.050	0.050	01/13/2024	ND	2.15	107	2.00	2.74	
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.23	112	2.00	3.44	
Total Xylenes*	<0.150	0.150	01/13/2024	ND	6.71	112	6.00	3.60	
Total BTEX	<0.300	0.300	01/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	512	16.0	01/12/2024	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	01/12/2024	ND	159	79.4	200	21.7	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	165	82.6	200	20.0	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 1 (8'-9') (H240134-02)

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	01/13/2024	ND	2.19	110	2.00	0.774		
Toluene*	<0.050	0.050	01/13/2024	ND	2.15	107	2.00	2.74		
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.23	112	2.00	3.44		
Total Xylenes*	<0.150	0.150	01/13/2024	ND	6.71	112	6.00	3.60		
Total BTEX	<0.300	0.300	01/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	912	16.0	01/12/2024	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	01/12/2024	ND	159	79.4	200	21.7	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	165	82.6	200	20.0	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 92.9 % 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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Analytical Results For:

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

Received: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 1 (9'-10') (H240134-03)

BTX 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	01/13/2024	ND	2.19	110	2.00	0.774		
Toluene*	<0.050	0.050	01/13/2024	ND	2.15	107	2.00	2.74		
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.23	112	2.00	3.44		
Total Xylenes*	<0.150	0.150	01/13/2024	ND	6.71	112	6.00	3.60		
Total BTX	<0.300	0.300	01/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1090	16.0	01/12/2024	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	01/12/2024	ND	159	79.4	200	21.7	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	165	82.6	200	20.0	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 99.5 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 3 (8'-9') (H240134-04)

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	01/13/2024	ND	2.19	110	2.00	0.774		
Toluene*	<0.050	0.050	01/13/2024	ND	2.15	107	2.00	2.74		
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.23	112	2.00	3.44		
Total Xylenes*	<0.150	0.150	01/13/2024	ND	6.71	112	6.00	3.60		
Total BTEX	<0.300	0.300	01/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 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	976	16.0	01/12/2024	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	01/12/2024	ND	159	79.4	200	21.7	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	165	82.6	200	20.0	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 3 (9'-10') (H240134-05)

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	01/13/2024	ND	2.19	110	2.00	0.774	
Toluene*	<0.050	0.050	01/13/2024	ND	2.15	107	2.00	2.74	
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.23	112	2.00	3.44	
Total Xylenes*	<0.150	0.150	01/13/2024	ND	6.71	112	6.00	3.60	
Total BTEX	<0.300	0.300	01/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 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	768	16.0	01/12/2024	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	01/12/2024	ND	159	79.4	200	21.7	
DRO >C10-C28*	90.7	10.0	01/12/2024	ND	165	82.6	200	20.0	
EXT DRO >C28-C36	98.1	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 3 (10'-11') (H240134-06)

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	01/13/2024	ND	2.19	110	2.00	0.774		
Toluene*	<0.050	0.050	01/13/2024	ND	2.15	107	2.00	2.74		
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.23	112	2.00	3.44		
Total Xylenes*	<0.150	0.150	01/13/2024	ND	6.71	112	6.00	3.60		
Total BTEX	<0.300	0.300	01/13/2024	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	656	16.0	01/12/2024	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	01/12/2024	ND	159	79.4	200	21.7	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	165	82.6	200	20.0	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 94.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.6 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 4 (9'-10') (H240134-07)

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	01/12/2024	ND	2.36	118	2.00	2.92		
Toluene*	<0.050	0.050	01/12/2024	ND	2.23	111	2.00	4.00		
Ethylbenzene*	<0.050	0.050	01/12/2024	ND	2.34	117	2.00	2.87		
Total Xylenes*	<0.150	0.150	01/12/2024	ND	7.01	117	6.00	2.57		
Total BTEx	<0.300	0.300	01/12/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1120	16.0	01/12/2024	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	01/12/2024	ND	159	79.4	200	21.7	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	165	82.6	200	20.0	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 83.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.7 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 4 (10'-11') (H240134-08)

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	01/12/2024	ND	2.36	118	2.00	2.92		
Toluene*	<0.050	0.050	01/12/2024	ND	2.23	111	2.00	4.00		
Ethylbenzene*	<0.050	0.050	01/12/2024	ND	2.34	117	2.00	2.87		
Total Xylenes*	<0.150	0.150	01/12/2024	ND	7.01	117	6.00	2.57		
Total BTEX	<0.300	0.300	01/12/2024	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	608	16.0	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 80.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.2 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 11 (4'-5') (H240134-09)

BTX 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	01/13/2024	ND	2.36	118	2.00	2.92	
Toluene*	<0.050	0.050	01/13/2024	ND	2.23	111	2.00	4.00	
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.34	117	2.00	2.87	
Total Xylenes*	<0.150	0.150	01/13/2024	ND	7.01	117	6.00	2.57	
Total BTX	<0.300	0.300	01/13/2024	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	1710	16.0	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 91.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 11 (5'-6') (H240134-10)

BTX 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	01/13/2024	ND	2.36	118	2.00	2.92	
Toluene*	<0.050	0.050	01/13/2024	ND	2.23	111	2.00	4.00	
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.34	117	2.00	2.87	
Total Xylenes*	<0.150	0.150	01/13/2024	ND	7.01	117	6.00	2.57	
Total BTX	<0.300	0.300	01/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1460	16.0	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 89.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.0 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 11 (6'-7') (H240134-11)

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	01/13/2024	ND	2.36	118	2.00	2.92		
Toluene*	<0.050	0.050	01/13/2024	ND	2.23	111	2.00	4.00		
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.34	117	2.00	2.87		
Total Xylenes*	<0.150	0.150	01/13/2024	ND	7.01	117	6.00	2.57		
Total BTEx	<0.300	0.300	01/13/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1250	16.0	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 86.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.5 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 11 (8'-9') (H240134-12)

BTX 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	01/13/2024	ND	2.36	118	2.00	2.92	
Toluene*	<0.050	0.050	01/13/2024	ND	2.23	111	2.00	4.00	
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.34	117	2.00	2.87	
Total Xylenes*	<0.150	0.150	01/13/2024	ND	7.01	117	6.00	2.57	
Total BTX	<0.300	0.300	01/13/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1070	16.0	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 91.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.8 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 15 (2'-3') (H240134-13)

BTX 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	01/13/2024	ND	2.36	118	2.00	2.92	
Toluene*	<0.050	0.050	01/13/2024	ND	2.23	111	2.00	4.00	
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.34	117	2.00	2.87	
Total Xylenes*	<0.150	0.150	01/13/2024	ND	7.01	117	6.00	2.57	
Total BTX	<0.300	0.300	01/13/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 88.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.7 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 15 (3'-4') (H240134-14)

BTX 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	01/13/2024	ND	2.36	118	2.00	2.92	
Toluene*	<0.050	0.050	01/13/2024	ND	2.23	111	2.00	4.00	
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.34	117	2.00	2.87	
Total Xylenes*	<0.150	0.150	01/13/2024	ND	7.01	117	6.00	2.57	
Total BTX	<0.300	0.300	01/13/2024	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	416	16.0	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 86.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.3 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 15 (5'-6') (H240134-15)

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	01/13/2024	ND	2.36	118	2.00	2.92		
Toluene*	<0.050	0.050	01/13/2024	ND	2.23	111	2.00	4.00		
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.34	117	2.00	2.87		
Total Xylenes*	<0.150	0.150	01/13/2024	ND	7.01	117	6.00	2.57		
Total BTEx	<0.300	0.300	01/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	288	16.0	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 87.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.9 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 15 (6'-7') (H240134-16)

BTX 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	01/13/2024	ND	2.36	118	2.00	2.92	
Toluene*	<0.050	0.050	01/13/2024	ND	2.23	111	2.00	4.00	
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.34	117	2.00	2.87	
Total Xylenes*	<0.150	0.150	01/13/2024	ND	7.01	117	6.00	2.57	
Total BTX	<0.300	0.300	01/13/2024	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	352	16.0	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 79.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.3 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 16 (6'-7') (H240134-17)

BTX 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	01/13/2024	ND	2.36	118	2.00	2.92	
Toluene*	<0.050	0.050	01/13/2024	ND	2.23	111	2.00	4.00	
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.34	117	2.00	2.87	
Total Xylenes*	<0.150	0.150	01/13/2024	ND	7.01	117	6.00	2.57	
Total BTX	<0.300	0.300	01/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 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	1090	16.0	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 88.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 16 (7'-8') (H240134-18)

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	01/13/2024	ND	2.36	118	2.00	2.92		
Toluene*	<0.050	0.050	01/13/2024	ND	2.23	111	2.00	4.00		
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.34	117	2.00	2.87		
Total Xylenes*	<0.150	0.150	01/13/2024	ND	7.01	117	6.00	2.57		
Total BTEx	<0.300	0.300	01/13/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1010	16.0	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 86.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.9 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 16 (8'-9') (H240134-19)

BTX 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	01/12/2024	ND	2.21	111	2.00	3.10	
Toluene*	<0.050	0.050	01/12/2024	ND	2.21	111	2.00	3.16	
Ethylbenzene*	<0.050	0.050	01/12/2024	ND	2.21	110	2.00	3.58	
Total Xylenes*	<0.150	0.150	01/12/2024	ND	6.45	107	6.00	3.37	
Total BTX	<0.300	0.300	01/12/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 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	1020	16.0	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 86.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.4 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 16 (9'-10') (H240134-20)

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	01/12/2024	ND	2.21	111	2.00	3.10	
Toluene*	<0.050	0.050	01/12/2024	ND	2.21	111	2.00	3.16	
Ethylbenzene*	<0.050	0.050	01/12/2024	ND	2.21	110	2.00	3.58	
Total Xylenes*	<0.150	0.150	01/12/2024	ND	6.45	107	6.00	3.37	
Total BTEX	<0.300	0.300	01/12/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 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	896	16.0	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 90.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.5 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 24 - 16 (14'-15') (H240134-21)

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	01/12/2024	ND	2.21	111	2.00	3.10		
Toluene*	<0.050	0.050	01/12/2024	ND	2.21	111	2.00	3.16		
Ethylbenzene*	<0.050	0.050	01/12/2024	ND	2.21	110	2.00	3.58		
Total Xylenes*	<0.150	0.150	01/12/2024	ND	6.45	107	6.00	3.37		
Total BTEX	<0.300	0.300	01/12/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1100	16.0	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 91.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.7 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 24 - 5 (0-1') (H240134-22)

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	01/12/2024	ND	2.21	111	2.00	3.10		
Toluene*	<0.050	0.050	01/12/2024	ND	2.21	111	2.00	3.16		
Ethylbenzene*	<0.050	0.050	01/12/2024	ND	2.21	110	2.00	3.58		
Total Xylenes*	<0.150	0.150	01/12/2024	ND	6.45	107	6.00	3.37		
Total BTEX	<0.300	0.300	01/12/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 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	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 75.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.2 % 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: 01/11/2024
 Reported: 01/16/2024
 Project Name: WEST BRUSHY 8 FED SWD #1
 Project Number: 212C - MD - 02997A
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 01/10/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 24 - 6 (0-1') (H240134-23)

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	01/13/2024	ND	2.21	111	2.00	3.10		
Toluene*	<0.050	0.050	01/13/2024	ND	2.21	111	2.00	3.16		
Ethylbenzene*	<0.050	0.050	01/13/2024	ND	2.21	110	2.00	3.58		
Total Xylenes*	<0.150	0.150	01/13/2024	ND	6.45	107	6.00	3.37		
Total BTEX	<0.300	0.300	01/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	01/12/2024	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	01/12/2024	ND	181	90.3	200	1.24	
DRO >C10-C28*	<10.0	10.0	01/12/2024	ND	176	88.0	200	15.4	
EXT DRO >C28-C36	<10.0	10.0	01/12/2024	ND					

Surrogate: 1-Chlorooctane 88.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- 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

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A handwritten signature in black ink, appearing to read "C. D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ANALYSIS REQUEST

Company Name: Tetra Tech							BILL TO								ANALYSIS REQUEST					
Project Manager: Sam Abbott Address: 8911 Capital o Texas Hwy, Suite 2310 City: Austin Phone #: (512)565-0190 Fax #: Project #: 212C-MD-2997A Project Owner: ConocoPhillips Project Location: West Brushy 8 Federal SWD #001									P.O.#: Company: Tetra Tech Attn: Sam Abbott Address: EMAIL City: State: Zip:											
Sample Name: Colton Bickerstaff									Fax #:											
FOR LAB USE ONLY Lab I.D.																				
H240134 Sample I.D.									(G)RAB OR (C)OMP.											
									# CONTAINERS	MATRIX								PRESERV.	SAMPLING	
									GROUNDWATER											
									WASTEWATER											
									SOIL											
									OIL											
									SLUDGE											
									OTHER :											
									ACID/BASE:											
									ICE / COOL											
									OTHER :											
BH-24-1 (7-8")	G 1	X						DATE	TIME	TPH 8015M	BTEX 8021B	Chloride SM4500CI-B								
BH-24-1 (8-9")	G 1	X						1/10/2024		X	X	X								
BH-24-1 (9-10")	G 1	X						1/10/2024		X	X	X								
BH-24-3 (8-9")	G 1	X						1/10/2024		X	X	X								
BH-24-3 (9-10")	G 1	X						1/10/2024		X	X	X								
BH-24-3 (10-11")	G 1	X						1/10/2024		X	X	X								
BH-24-4 (9-10")	G 1	X						1/10/2024		X	X	X								
BH-24-4 (10-11")	G 1	X						1/10/2024		X	X	X								
BH-24-11 (4-5")	G 1	X						1/10/2024		X	X	X								
BH-24-11 (5-6")	G 1	X						1/10/2024		X	X	X								

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I hereby certify that the information provided herein is true and correct to the best of my knowledge and belief, and that it was obtained from reliable sources.

Signature _____ Date _____

Title _____

Company _____

Relinquished By: Colton Bickerstaff	Date: 01/10/24	Received By: Spectroscopy	Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date:	Received By:	All Results are emailed. Please provide Email address: Sam.Abbott@tetratech.com AND Labeth.Chavira@tetratech.com	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	On-arrival Temp.: °C Corrected Temp.: °C	Sample Condition Cool Intact <input checked="" type="checkbox"/> No Cool Intact <input type="checkbox"/>	CHECKED BY: (Initials)	Thermometer ID: 9113 Correction Factor: -0.50
	38°C	Spectroscopy	SRL	#140



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Tetra Tech

Project Manager: Sam Abbott

Address: 8911 Capital o Texas Hwy, Suite 2310

City: Austin

Phone #: (512)565-0190

Project #: 212C-MD-02997A

Project Name: West Brushy 8 Federal SWD #001

Project Location: Eddy County, New Mexico

Sampler Name: Colton Bickerstaff

Lab I.D.

Sample I.D.

Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					DATE	TIME	ANALYSIS REQUEST				
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE			TPH 8015M	BTEX 8021B	Chloride SM4500CI-B		
11 BH-24-11 (6-7)	G	1	X					1/10/2024		X	X	X		
12 BH-24-11 (8-9)	G	1	X					1/10/2024		X	X	X		
13 BH-24-15 (2-3)	G	1	X					1/10/2024		X	X	X		
14 BH-24-15 (3-4)	G	1	X					1/10/2024		X	X	X		
15 BH-24-15 (5-6)	G	1	X					1/10/2024		X	X	X		
16 BH-24-15 (6-7)	G	1	X					1/10/2024		X	X	X		
17 BH-24-16 (6-7)	G	1	X					1/10/2024		X	X	X		
18 BH-24-16 (7-8)	G	1	X					1/10/2024		X	X	X		
19 BH-24-16 (8-9)	G	1	X					1/10/2024		X	X	X		
20 BH-24-16 (9-10)	G	1	X					1/10/2024		X	X	X		

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Relinquished By: Colton Bickerstaff	Date: 01/10/24	Received By: Spectro	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date: 01/10/24	Received By:	REMARKS:	
Time: 1:10	Time:	Time:	Thermometer ID: #115	Thermometer ID: #115
Observed Temp. °C: 3.8	Observed Temp. °C:	Observed Temp. °C:	Correction Factor: -0.5°C	Correction Factor: -0.5°C
Sample Condition: Cool Intact	Sample Condition: Cool Intact	Sample Condition: Cool Intact	Standard: <input checked="" type="checkbox"/>	Standard: <input checked="" type="checkbox"/>
Checked By: (Initials)	Checked By: (Initials)	Checked By: (Initials)	Observed Temp. °C: #140	Observed Temp. °C: #140
Turnaround Time: Rush, VA <input type="checkbox"/>	Turnaround Time: Standard <input checked="" type="checkbox"/>	Turnaround Time: Standard <input checked="" type="checkbox"/>	Corrected Temp. °C: <input type="checkbox"/>	Corrected Temp. °C: <input type="checkbox"/>

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

FORM-006 R.3.2 10/07/21



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Tetra Tech

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

Project Manager: Sam Abbott

Address: 8911 Capital o Texas Hwy, Suite 2310

City: Austin

State: TX Zip:

Phone #: (512)565-0190 Fax #:

Project #: 212C-MD-02997A Project Owner: ConocoPhillips

Project Name: West Brushy 8 Federal SWD #001

Project Location: Eddy County, New Mexico

Sampler Name: Colton Bickerstaff

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

01 BH-24-16 (14-15)

02 H-24-5 (0-1')

02 H-24-6 (0-1')

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

TPH 8015M

BTEX 8021B

Chloride SM4500CI-B

Relinquished By: Colton Bickerstaff

Relinquished By:

Date: 01/09/24

Time: 1:10

Received By: Skodreigny

Date:

Time:

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

REMARKS:

Libeth.Chavira@tetratech.com

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

Observed Temp, °C
Corrected Temp, °C

Sample Condition
Cool Intact ☐ Yes ☒ No
No ☐ Yes ☐ No

CHECKED BY: (Initials)
8P

Turnaround Time: ☐ Rush ☒ Standard

Thermometer ID: #113

Correction Factor: -0.06

#140

☐ Yes ☐ No

☐ Yes ☐ No

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

FORM-006 R 3.2 1007/21

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

APPENDIX G

BLM Seed Mixture

(27)

BLM Serial #:

Company Reference:

3.2 Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed: Pounds of seed x percent purity x percent germination = pounds pure live seed

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

QUESTIONS

Action 309139

QUESTIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	309139
Action Type:	
[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)	

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	Remediation Plan Approved
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, Page 2

Action 309139

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	309139
Action Type:	
[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)	

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@tetrattech.com Date: 01/29/2024
--	--

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QUESTIONS, Page 3

Action 309139

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	309139
Action Type:	
[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)	

QUESTIONS

Site Characterization	
<i>Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 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	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	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
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
On what estimated date will the remediation commence	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
<i>These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.</i>	
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 4

Action 309139

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:	229137
	Action Number:	309139
	Action Type:	[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	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	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Christian LLuLL Title: Project Manager Email: christian.llull@tetrattech.com Date: 01/29/2024
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5

Action 309139

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	309139
Action Type:	
[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)	

QUESTIONS

Deferral Requests Only	
<i>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.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 309139

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	309139
Action Type:	
[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)	

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	{Unavailable.}

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	No

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CONDITIONS

Action 309139

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 309139
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
bhall	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.	1/31/2024
bhall	A complete and accurate remediation closure report will need to be submitted by April 30, 2024.	1/31/2024