

Incident ID	nAPP2222749455
District RP	
Facility ID	
Application ID	

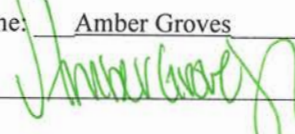
Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Amber Groves Title: Senior Environmental Specialist
Signature:  Date: 12/21/2022
email: agroves@durangomidstream.com Telephone: 575-703-7992

OCD Only

Received by: Jocelyn Harimon Date: 01/17/2023

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: Robert Hamlet Date: 5/15/2023
Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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

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

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

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

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

State of New Mexico
Oil Conservation Division

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Printed Name: Amber Groves Title: Senior Environmental Specialist

Signature:  Date: 12/21/2022

email: agroves@durangomidstream.com Telephone: (575)703-7992

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Remediation Plan

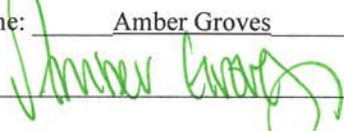
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

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

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

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

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Printed Name: Amber Groves Title: Senior Environmental Specialist
Signature:  Date: 12/21/2022
email: agroves@durangomidstream.com Telephone: (575)703-7992

OCD Only

Received by: Jocelyn Harimon Date: 01/17/2023

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

Signature: _____ Date: _____

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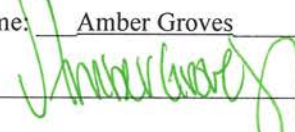
Closure

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Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Frontier Field Services
6" Vandiver Pipeline #2
NMOCD Reference # nAPP2222749455
Terracon Project # KH227013



Attn: New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Closure Report
6" Vandiver Pipeline #2
Section 18, Township 18 South, Range 26 East
32.740649°, -104.427193°
Eddy County, New Mexico
Terracon Project No. KH227013

Terracon Consultants, Inc. (Terracon) is pleased to submit this Closure Report for the site referenced above. The Closure Report was developed in accordance with the New Mexico Oil Conservation Division (NMOCD) regulations concerning clean-up actions required for releases of crude oil and produced water. Terracon developed the Closure Report in general accordance with our scope of work (KH227013) dated September 16, 2022. The following table outlines the actions that have been taken to achieve protection of fresh water and the environment in accordance with NMOCD regulations.

Action Items

Completed Actions

- 1) Conducted an initial site assessment and a series of sampling events.
- 2) Vertical and Horizontal delineation of release was achieved.
- 3) All conditions needed for approval of closure have been met.
- 4) All Maps and associated data for approval have been provided.
- 5) During the sampling events, a series of boreholes were advanced with a hand auger to determine the vertical extent of the contamination. Horizontal delineation was completed to determine the area of contamination and required sampling intervals.
- 6) Soil samples collected from the soil excavation were submitted to an approved laboratory to determine levels of impact both vertically and horizontally.
- 7) Excavation of the area was completed with the intent to remove impacted soil as determined by the Closure Criteria set by NMOCD.
- 8) All soil stockpiles onsite were placed on plastic and bermed around the edges to reduce loss.
- 9) Confirmation samples were collected every 200 square feet.
- 10) Remedial activities were terminated when confirmation samples were collected below the NMOCD RAL's for Oil and Gas impacted soils, or a competent rock layer was encountered.
- 11) Backfill of all areas of the excavation to surrounding grade and reseeded has been completed.

Durango Midstream Services
6" Vandiver Pipeline #2
NMOCD Reference # nAPP2222749455
Terracon Project # KH227013



Anticipated Actions

1) Approval by the NMOCD

Terracon appreciates this opportunity to provide environmental services to Frontier Field Services (Frontier). Should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
Terracon Consultants, Inc.

Travis L. Casey
Senior Staff Scientist
Carlsbad Office

Erin Loyd, P.G. (TX)
Principal
Office Manager – Lubbock

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General Site Characteristics	3
Regulatory Framework and Response Action Levels	4
Soil Investigation Discussion	5
Release Margins Data Evaluation	5
Release Investigation Data Summary	5
Soil Management Plan	7

Attachments:**Appendix A – Exhibits**

- Exhibit 1 – Topo Map
- Exhibit 2 – Site Map
- Exhibit 3 – Initial Site Investigation Map
- Exhibit 4 – Confirmation Soil Sampling Map
- Exhibit 5 – NMOSE POD Location Map
- Exhibit 6 – Cave Karst Public UCP Map

Appendix B – Tables, Procedures, and Figures

- Table 1 – Closure Criteria for Soils Impacted by a release
- Table 2 – Soil Sample Analytical Results

Appendix C – Photographic Log**Appendix D – Analytical Report and Chain of Custody****Appendix E – Waste Manifest****Appendix F – Terracon Standard of Care, Limitation, and Reliance**

Frontier Field Services
6" Vandiver Pipeline #2
Section: 18 Township: 18S Range: 26E
NMOCD Reference # nAPP2222749455
Terracon Project # KH227013



Incident Information

The following table provides detailed information regarding the August 12, 2022 Natural Gas release site in Eddy County, New Mexico:

Required Information	Site and Release information	
Responsible party	The facility is operated by Durango Midstream Services	
Local contact	Contact: Miss Amber Groves	P: (575) 703-7992 E: AGroves@durangomidstream.com
NMOCD Notification	Notice of the release was provided to the NMOCD web portal by Kerry Egan August 15, 2022. Incident number nAPP2222749455 was assigned to the release.	
Time of incident	August 12, 2022, discovered	
Discharge event	Pinhole leak in pipeline due to Internal and External Corrosion of bottom on pipeline.	
Type of discharge	The documented volume of gas released was 99.46 Mcf. There was evidence to indicate that 2.29bbbls. of liquid was released.	
Quantity of released material	Total Gas Volume: 99.64 Mcf	Total Fluids: 2.29 bbls
Immediate corrective actions	Replacement of the Corroded Pipeline Section. No freestanding liquids were contained or recovered. The area impacted by the gas release is within the Pipeline Right of Way (ROW) in a pasture. All precautions have been taken to ensure all wildlife within pasture do not have access to release area.	

Frontier Field Services
6" Vandiver Pipeline #2
Section: 18 Township: 18S Range: 26E
NMOCD Reference # nAPP2222749455
Terracon Project # KH227013



General Site Characteristics	
Remedial Determining Information	Site Ranking Characteristics
Facility description Site Map – (Exhibit 2 in Appendix A)	6" Vandiver Pipeline #2 is in Eddy County, New Mexico. It is an area located within Section 18, Township 18 South, Range 26 East, approximately 7.19 miles Southwest of Artesia, New Mexico. The site is predominantly ROW.
Site characteristics Topographic Map – (Exhibit 1 in Appendix A)	Semi-Flat surface within release area; Surrounding area is also semi- flat with a slight slope to the south-southeast.
Groundwater NMOSE POD Location Map – (Exhibit 6 in Appendix A)	<u>POD Number:</u> (RA-01469 POD 2) <u>Depth to Groundwater:</u> 150 ft. bgs <u>Distance to Well:</u> 0.34 miles to the northeast <u>Date Drilled:</u> April 19, 1960
	<u>Groundwater Quality:</u> Groundwater at the site is predominately used for livestock and agricultural production.
Surface Water	Pecos River (South-eastern Eddy County, NM), approximately 5.85 miles to Northeast.
Soil Characteristics	Soils at the site are mapped as Pima, Reagan, Dev (Pe)soils, 0 to 1 percent slopes, well-drained, 0 to 6 inches loamy, 6 to 60 inches Bottomland. This soil has a surface layer of loamy. Restrictive features are present at 80 inches bgs resulting in the formation being categorized with a low runoff classification.
Karst Characterization Cave Karst Public UCP Map – (Exhibit 7 in Appendix A)	Terracon evaluated data from the NMOCD Public FTP Site, Karst map designations in reference to the site location. The site appears to be within a Mid-level Karst risk area. Based on on-site observations within the extent of the release margins the potential for Karst formations in this specific area are of low potential. A layer of solid competent rock was encountered from 11 to 21 inches bgs within the release margins. The full extent of release quantities and excavation activities did extend greater than 84 inches bgs.

Frontier Field Services
6" Vandiver Pipeline #2
Section: 18 Township: 18S Range: 26E
NMOCD Reference # nAPP2222749455
Terracon Project # KH227013



Regulatory Framework and Response Action Levels

Oil and gas exploration and production facilities in New Mexico are generally regulated by the New Mexico Oil Conservation Division (NMOCD). The NMOCD has issued the *Closure Criteria for Soils Impacted by a Release, June 21, 2018*, and *Restoration, Reclamation, and Re-vegetation (19.15.29.13) NMAC – D (Reclamation of areas no longer in use)* as guidance documents for the remediation and reclamation of sites impacted by releases from oil and gas exploration and production activities. The following sections present additional details on the applicability of these guidance documents to the subject site.

Reclamation Levels (Surface to 4 ft. bgs)

The following Reclamation Limits for chlorides, TPH (GRO+DRO+MRO), BTEX (total benzene, toluene, ethylbenzene, and xylenes), and benzene are defined within New Mexico Administration Code (NMAC) *Restoration, Reclamation, and Re-vegetation (19.15.29.13) New Mexico Administration Code (NMAC) – D (Reclamation of areas no longer in use)* for soils extending to 4 ft. bgs.:

Constituent	Remediation Limits
Chloride	600 mg/kg
TPH (GRO+DRO+MRO)	100 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

Remediation Levels (> 4 ft. bgs)

Based on the site-specific characteristics, the applicable NMOCD remediation levels for Benzene, Total BTEX, chloride, and TPH within soils, exclusive of the Reclamation Zone (surface to 4 ft. bgs), are as follows:

Constituent	Remediation Limit
Chloride	20,000 mg/kg
TPH (GRO+DRO+MRO)	2,500 mg/kg
TPH (GRO+DRO)	1,000 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

Frontier Field Services
6" Vandiver Pipeline #2
Section: 18 Township: 18S Range: 26E
NMOCD Reference # nAPP2222749455
Terracon Project # KH227013



Soil Investigation Discussion

During Terracon's September 15, 2022, through September 23, 2022 release investigation activities, a total of 7 soil samples were collected from the site and analyzed for BTEX, chloride, and/or TPH. A total of 17 samples were collected for this release. 10 of those samples were from within the release margins.

Release Margins Data Evaluation

■ Reclamation Assessment Data Evaluation

A total of 4 soil samples were collected from throughout the release extent, including side walls (SW), floor samples (FS), and surface samples (SS). All samples were analyzed for the presence of BTEX, chloride, and/or TPH. Three samples exhibit concentrations of BTEX or TPH constituents above applicable laboratory Sample Detection Levels (SDLs). The detected BTEX or TPH concentrations ranged from 1,200mg/kg in soil sample BH01-1 (0 ft bgs to 1 ft bgs) to 32,200mg/kg in soil sample BH02-5 (4 ft bgs to 5 ft bgs), as summarized in Table 1.

Each of the 4 samples collected were analyzed for the presence of chloride. All of the samples exhibit concentrations of Chlorides constituents below applicable laboratory Sample Detection Levels (SDLs), as summarized in Table 1.

Confirmation Sampling Data Evaluation

■ Remediation Assessment Data Evaluation

A total of 9 soil samples were collected from throughout the release extent, including side wall samples (SW) and floor samples (FS). All samples were analyzed for the presence of BTEX, Benzene, and/or TPH. None of the samples exhibited concentrations of BTEX, Benzene, or TPH constituents above applicable laboratory SDLs, as summarized in Table 1.

A total of 9 soil samples were collected from throughout the release extent. All samples were analyzed for the presence of Chlorides. All 9 samples did not exhibit concentrations of Chlorides constituents above applicable laboratory SDLs, as summarized in Table 1.

Release Investigation Data Summary

Based on the review of the above release investigation analytical results, the presence of petroleum hydrocarbon constituents (BTEX/TPH) were not detected at concentrations above applicable NMOCD Reclamation and/or Remediation Action Limits.

Frontier Field Services
6" Vandiver Pipeline #2
Section: 18 Township: 18S Range: 26E
NMOCD Reference # nAPP2222749455
Terracon Project # KH227013



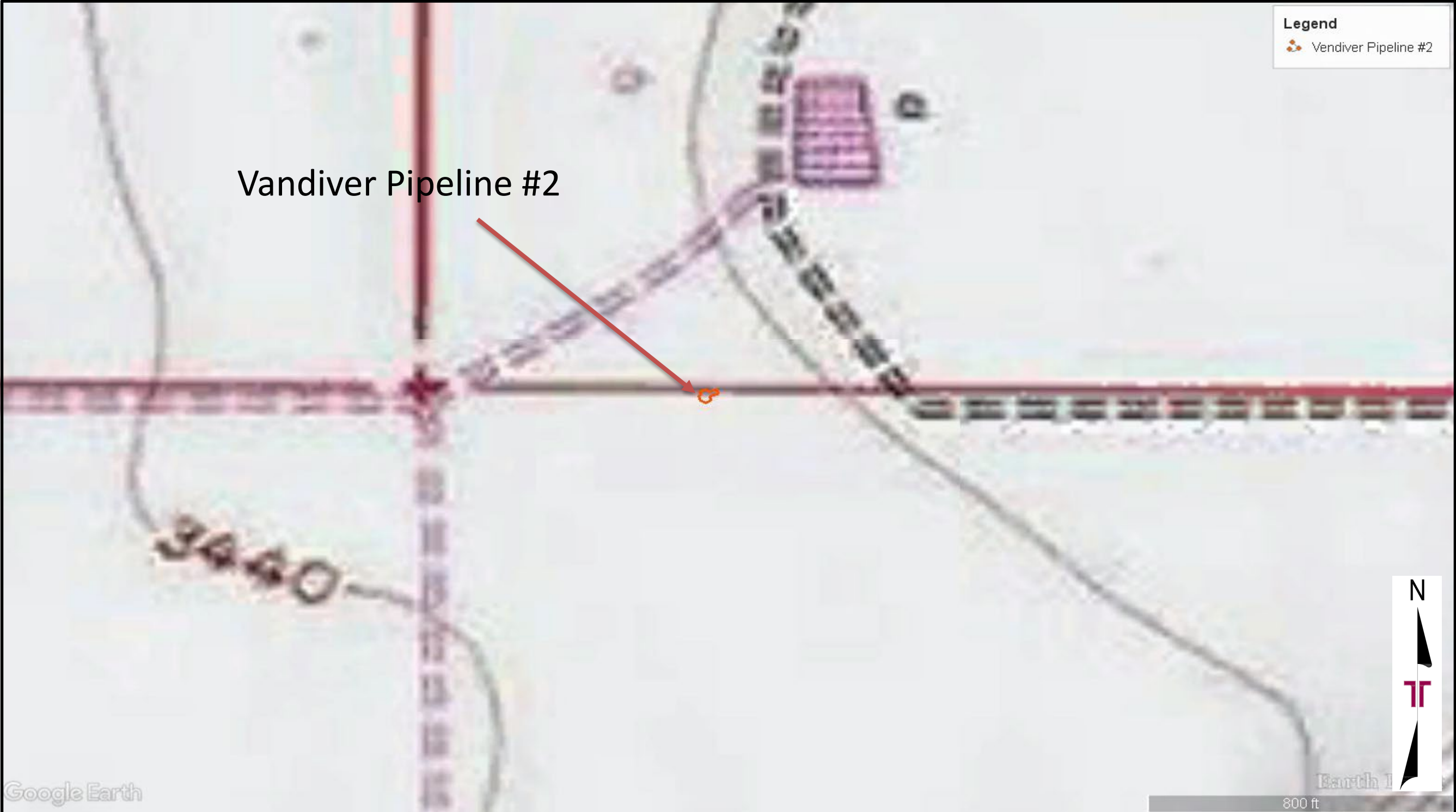
Of all the soil samples analyzed, all soil samples exhibited chloride concentrations below the applicable NMOCD Reclamation Action Limit of 600 mg/kg. None of the soil samples analyzed for chlorides exceeded the NMOCD Remediation Action Limit (RAL). Field Services respectfully requests closure of nAPP2222749455.


Frontier Field Services
6" Vandiver Pipeline #2
Section: 18 Township: 18S Range: 26E
NMOCD Reference # nAPP2222749455
Terracon Project # KH227013




Soil Management Plan	
Soil Objectives	Approach Actions
General Soil Plan	Alternative analysis indicated the most effective remedial action was excavation of all impacted materials and disposal of impacted materials at an approved oil and gas waste facility.
Reclamation Response Objectives	Removal of impacted materials from surface to 4 ft. below grade surface (bgs) that had chloride concentrations exceeding 600 mg/kg and replacement with clean fill.
Remediation Response Objectives	Ensure that all soils at depths below 4 ft. bgs. were at a chloride concentration below 600mg/kg.
Soil Management	Excavated soil was placed on a 20-mil poly liner bermed around the edges to avoid impacts to native soils.
Depth of Remediation Confirmation Soil Map – (Figure 3 in Appendix A)	The depths of remedial activities at the site were determined by titrating confirmation samples during excavation activities. The sections of the excavation from FS01 through FS03 were completed at 7ft. bgs., while sections N-SW, E-SW, S-SW, and W-SW were terminated at 0 - 7ft. bgs.
Disposal Facility Waste Manifest – (Appendix E)	Impacted soils were taken to Lealand Disposal Facility.
Quantity Disposed Waste Manifest – (Appendix E)	A total of 15 cubic yards were excavated and disposed of at the Lealand disposal facility.

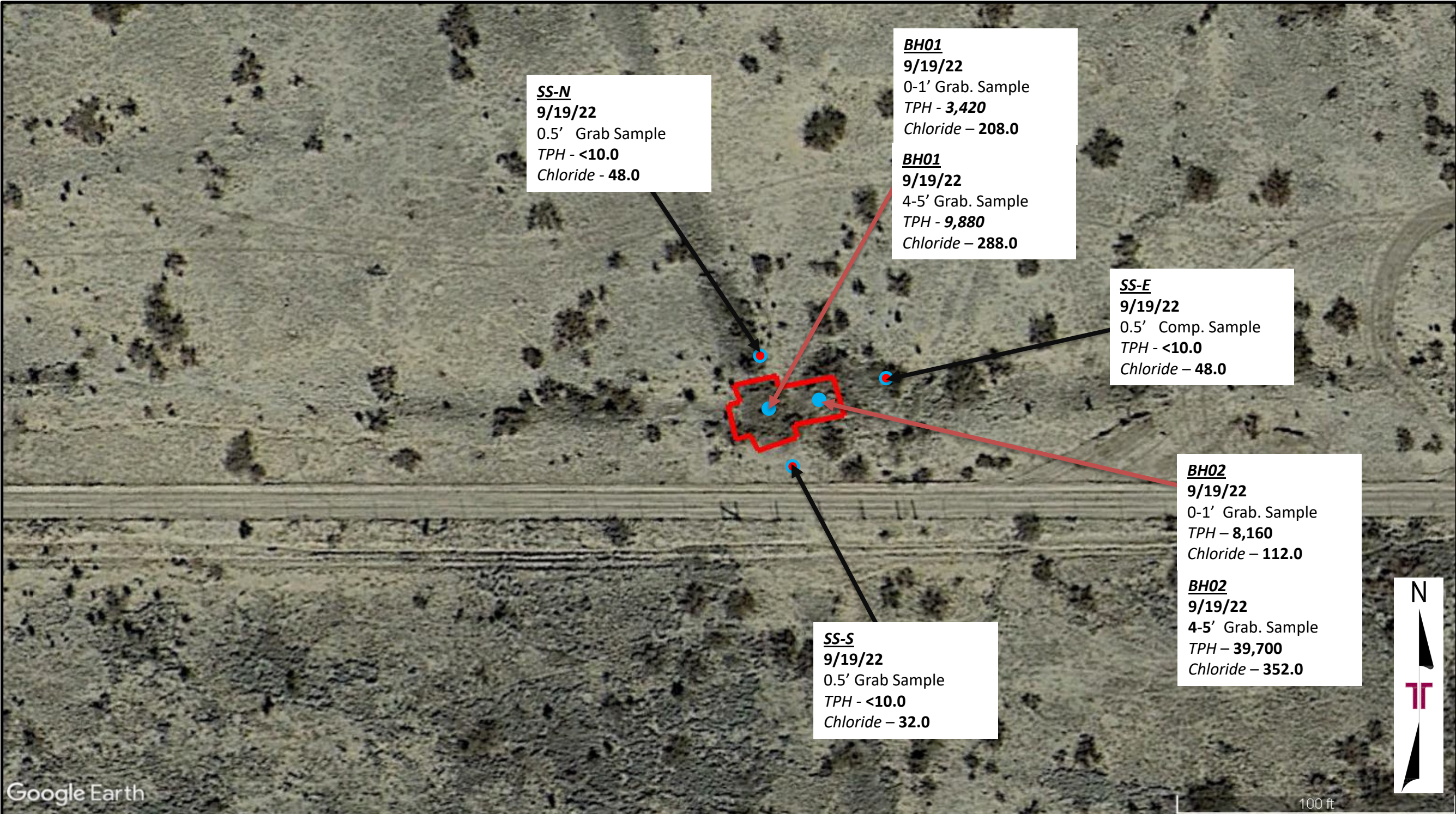
APPENDIX A – EXHIBITS




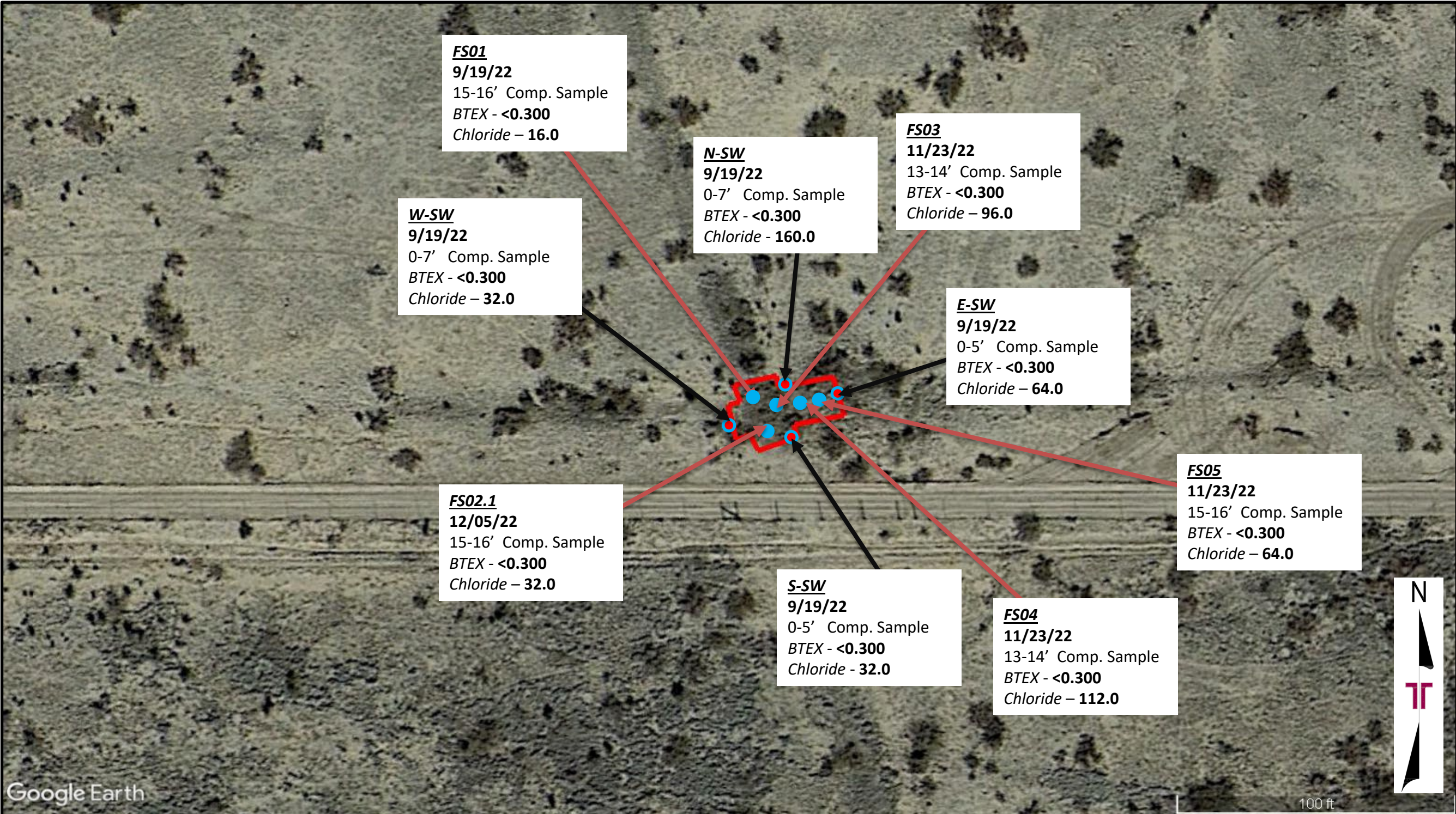
Project No.	KH227013	Topo Map	
Scale:	As Shown	Vandiver Pipeline #2 32.740649°, -104.427193° Eddy County, New Mexico	
Source:	Google Earth		
Date:	12/2019		
			
4518 West Pierce Street PH. (575) 689-4020		Carlsbad, NM 88220 FAX. (806) 797 0947	




Project No. KH227013		Exhibit 2 – Site Map	
Scale: As Shown		Vandiver Pipeline #2	
Source: Google Earth		32.740649°, -104.427193°	
Date: 12/2019		Eddy County, New Mexico	
			
4518 West Pierce Street PH. (575) 689-4020		Carlsbad, NM 88220 FAX. (806) 797 0947	




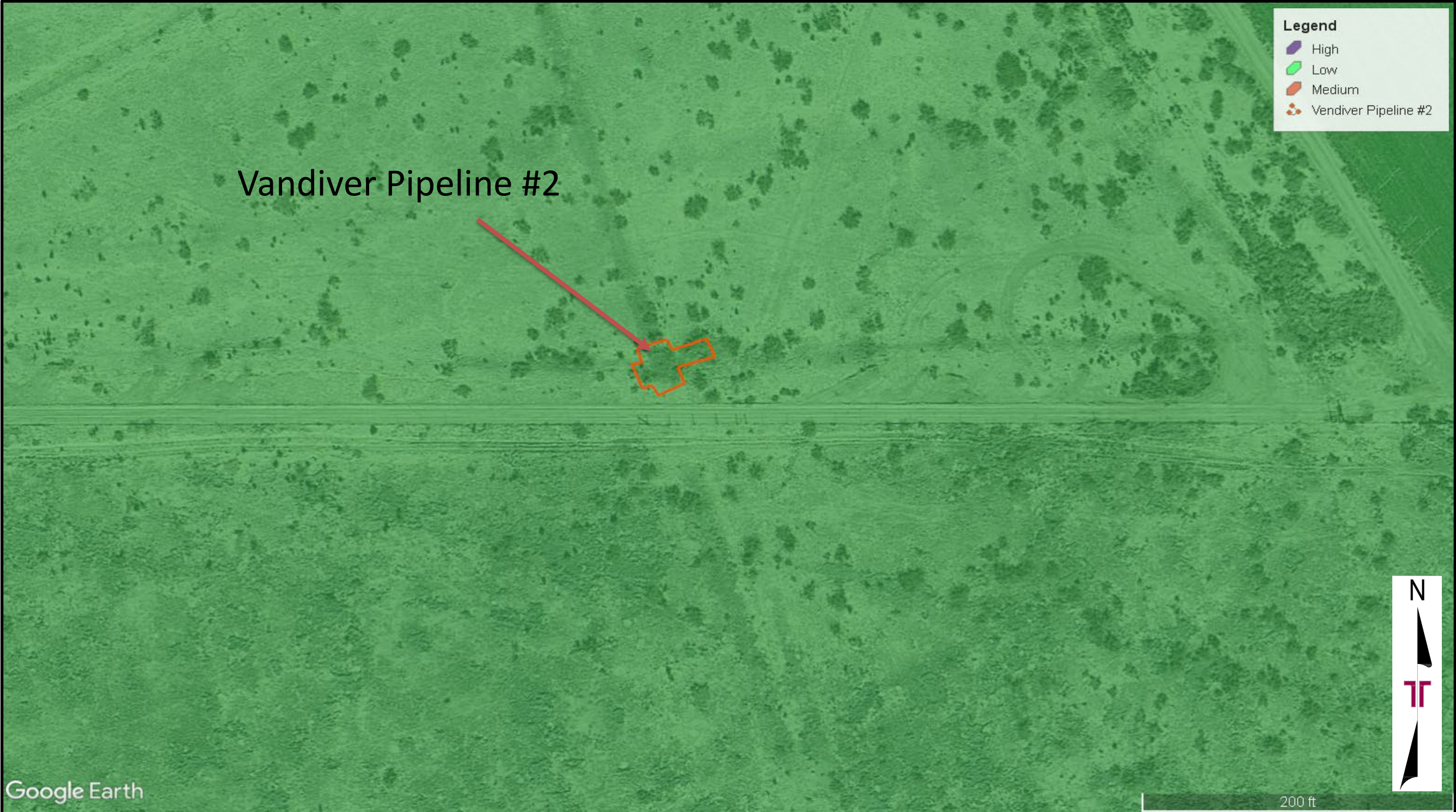
Project No.	KH227013	Exhibit 3 – Sampling Map Vandiver Pipeline #2 32.740649°, -104.427193° Eddy County, New Mexico	
Scale:	As Shown		
Source:	Google Earth		
Date:	12/2019		
			
4518 West Pierce Street PH. (575) 689-4020		Carlsbad, NM 88220 FAX. (806) 797 0947	




Project No.	KH227013	Exhibit 4 – Sampling Map Vandiver Pipeline #2 32.740649°, -104.427193° Eddy County, New Mexico	
Scale:	As Shown		
Source:	Google Earth		
Date:	12/2019		
			
4518 West Pierce Street PH. (575) 689-4020		Carlsbad, NM 88220 FAX. (806) 797 0947	



Project No. KH227013		NMOSE POD Location	
Scale: As Shown		Vandiver Pipeline #2	
Source: Google Earth		32.740649°, -104.427193°	
Date: 12/2019		Eddy County, New Mexico	
			
4518 West Pierce Street PH. (575) 689-4020		Carlsbad, NM 88220 FAX. (806) 797 0947	



Project No.	KH227013	 <div>4518 West Pierce Street PH. (575) 689-4020</div> <div>Carlsbad, NM 88220 FAX. (806) 797 0947</div>	Karst Map
Scale:	As Shown		Vandiver Pipeline #2
Source:	Google Earth		32.740649°, -104.427193°
Date:	12/2019		Eddy County, New Mexico

APPENDIX B – TABLES, PROCEDURES, AND FIGURES

Table 1			
Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/L TDS	Constituent	Method*	Limit**
≤50 feet	Chloride***	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015 M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
51 feet – 100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015 M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015 M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
>100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015 M	2,500 mg/kg
	TPH (GRO+DRO)	EPA SW-846 Method 8015 M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

*Or other methods approved by the division

**Numerical limits or natural background level, whichever is greater

***This applies to releases of produced water or other fluids, which may contain chloride

TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS - BTEX ¹ , Chloride ² , and TPH ³ Vendiver Pipeline #2 Terracon Project No. KH227013									
Sample I.D.	Sample Depth (ft. bgs)	Sample Type	Excavated/ In-Situ	Sample Date	BTEX (mg/kg)	Chloride (mg/kg)	TPH (8015M) (mg/kg)		
							GRO	DRO	EXT DRO
Initial Release Margin Samples (Off Pad)									
BH01	0-1'	Grab	Excavated	09/19/22	Benzene - 11.2 Toluene - 164 Ethylbenzene - 20.5 Total Xylenes - 402 Total BTEX - 598	208	3,420	3,550	435
BH01	4-5'	Grab	Excavated	09/19/22	Benzene - 33.1 Toluene - 384 Ethylbenzene - 78.8 Total Xylenes - 628 Total BTEX - 1120	288	9,880	6,190	700
SS-N	0.5	Grab	In-Situ	09/19/22	Benzene - <0.050 Toluene - 0.213 Ethylbenzene - <0.050 Total Xylenes - 0.241 Total BTEX - 0.454	48	<10.0	<10.0	<10.0
BH02	1'	Grab	Excavated	09/19/22	Benzene - 13 Toluene - 248 Ethylbenzene - 25.9 Total Xylenes - 535 Total BTEX - 822	112	8,160	5,380	645
BH02	4-5'	Grab	Excavated	09/19/22	Benzene - 60.2 Toluene - 695 Ethylbenzene - 148 Total Xylenes - 1,210 Total BTEX - 2,110	352	39,700	21,500	2,280
SS-S	0.5'	Grab	In-Situ	09/19/22	Benzene - 0.246 Toluene - 1.73 Ethylbenzene - 0.294 Total Xylenes - 2.76 Total BTEX - 5.06	32	<10.0	<10.0	<10.0
SS-E	0.5'	Grab	In-Situ	09/19/22	Benzene - <0.050 Toluene - 0.711 Ethylbenzene - 0.117 Total Xylenes - 1.78 Total BTEX - 2.61	48	<10.0	<10.0	<10.0
Confirmation Samples (Off Pad)									
W-SW	0-7'	Comp	In-Situ	09/19/22	Benzene - <0.050 Toluene - <0.050 Ethylbenzene - <0.050 Total Xylenes - <0.150 Total BTEX - <0.300	32	<10.0	<10.0	<10.0
N-SW	0-7'	Comp	In-Situ	09/19/22	Benzene - <0.050 Toluene - <0.050 Ethylbenzene - <0.050 Total Xylenes - <0.150 Total BTEX - <0.300	160	<10.0	<10.0	<10.0
E-SW	0-5'	Comp	In-Situ	09/19/22	Benzene - <0.050 Toluene - <0.050 Ethylbenzene - <0.050 Total Xylenes - <0.150 Total BTEX - <0.300	64	<10.0	<10.0	<10.0
S-SW	0-5'	Comp	In-Situ	09/19/22	Benzene - <0.050 Toluene - <0.050 Ethylbenzene - <0.050 Total Xylenes - <0.150 Total BTEX - <0.300	32	<10.0	<10.0	<10.0
FS01	15-16'	Comp	In-Situ	09/19/22	Benzene - <0.050 Toluene - <0.050 Ethylbenzene - <0.050 Total Xylenes - <0.150 Total BTEX - <0.300	16	<10.0	<10.0	<10.0

TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS - BTEX ¹ , Chloride ² , and TPH ³ Vendiver Pipeline #2 Terracon Project No. KH227013									
Sample I.D.	Sample Depth (ft. bgs)	Sample Type	Excavated/ In-Situ	Sample Date	BTEX (mg/kg)	Chloride (mg/kg)	TPH (8015M) (mg/kg)		
							GRO	DRO	EXT DRO
FS02	15-16'	Comp	In-Situ	11/23/22	Benzene - <0.050 Toluene - <0.050 Ethylbenzene - <0.050 Total Xylenes - <0.150 Total BTEX - <0.300	96	<10.0	119	<10.0
FS2.1	15-16'	Comp	In-Situ	12/05/22	Benzene - <0.050 Toluene - <0.050 Ethylbenzene - <0.050 Total Xylenes - <0.150 Total BTEX - <0.300	32	<10.0	<10.0	<10.0
FS03	13-14'	Comp	In-Situ	11/23/22	Benzene - <0.050 Toluene - <0.050 Ethylbenzene - <0.050 Total Xylenes - <0.150 Total BTEX - <0.300	96	<10.0	93.1	<10.0
FS04	13-14'	Comp	In-Situ	11/23/22	Benzene - <0.050 Toluene - <0.050 Ethylbenzene - <0.050 Total Xylenes - <0.150 Total BTEX - <0.300	112	<10.0	79.3	<10.0
FS05	13-14'	Comp	In-Situ	11/23/22	Benzene - <0.050 Toluene - <0.050 Ethylbenzene - <0.050 Total Xylenes - <0.150 Total BTEX - <0.300	64	<10.0	<10.0	<10.0
NMOCD Reclamation Standards ⁴ (Applicable for Soils from the Surface to 4 ft. Below Grade Surface)					Benzene - 10 Toluene - N/A Ethylbenzene - N/A Total Xylenes - N/A Total BTEX - 50	600	100		
NMOCD Remediation and Delineation Standards ⁵ (Applicable for Soils at Depths Greater than 4 ft. Below Grade Surface)					Benzene - 10 Toluene - N/A Ethylbenzene - N/A Total Xylenes - N/A Total BTEX - 50	600	100		

1. BTEX = Benzene, toluene, ethylbenzene, total xylenes analyzed by EPA Method 8021B

2. Chloride = Chloride analyzed by EPA Method 300.

3. TPH = Total petroleum hydrocarbons analyzed by EPA Method 8015M (GRO/DRO/MRO)

4. New Mexico Administration Code (NMAC) Restoration, Reclamation, and Re-vegetation (19.15.29.13) New Mexico Administration Code (NMAC) – D (Reclamation of areas no longer in use) for soils extending to 4 ft. bgs

5. New Mexico Oil Conservation Division (NMOCD) Remediation and Delineation Standards are proposed in 19.15.29.12 NMAC - N, 8/14/2018

< = Constituent not detected above the indicated laboratory SDL

NA = Not Analyzed

N/A = Not Applicable

Bold and Highlight denotes concentrations that exceed the New Mexico Oil Conservation Division (NMOCD) Reclamation and/or Remediation and Delineation Standards.

Casey, Travis

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Monday, November 14, 2022 3:32 PM
To: Amber Groves
Cc: Casey, Travis; Chad Frost; Nobui, Jennifer, EMNRD; Harimon, Jocelyn, EMNRD; Bratcher, Michael, EMNRD; Billings, Bradford, EMNRD
Subject: (Extension Approval) - nAPP2222749455 Frontier Vandiver #2

RE: Incident #NAPP2222749455

Amber,

Your request for an extension to **February 10th, 2022** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

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



From: Amber Groves <AGroves@durangomidstream.com>
Sent: Wednesday, November 9, 2022 1:32 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: Billings, Bradford, EMNRD <Bradford.Billings@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; travis.casey@terracon.com; Chad Frost <Cfrost@durangomidstream.com>
Subject: [EXTERNAL] nAPP2222749455 Frontier Vandiver #2 Extension Request

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

Good Afternoon,

Frontier Field Services would like to respectfully request a 90 extension for nAPP2222749455 Vandiver #2. Landowner contacts and approvals has been challenging on this project. Please feel free to give me a call should you have any questions.

Thank you,

Amber Groves | Sr. Environmental Specialist
Mobile 575.703.7992



<https://www.durangomidstream.com/>
agroves@durangomidstream.com

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APPENDIX C – PHOTOGRAPHIC LOG

6" Vandiver Pipeline #2 Release ■ Eddy County, New Mexico
December 20, 2022 ■ Terracon Project No. KH227013

Terracon



PHOTO 1: View of area prior to Excavation from the North looking South



PHOTO 2: View of area prior Excavation Visible Staining to the East

Responsive ■ Resourceful ■ Reliable

6" Vandiver Pipeline #2 Release ■ Eddy County, New Mexico
December 20, 2022 ■ Terracon Project No. KH227013

Terracon



PHOTO 3: View of area prior Excavation Visible Staining facing Pipeline



PHOTO 4: View of area prior Excavation Visible Staining facing North

Responsive ■ Resourceful ■ Reliable

6" Vandiver Pipeline #2 Release ■ Eddy County, New Mexico
December 20, 2022 ■ Terracon Project No. KH227013

Terracon

PHOTO 5: Excavation at 5' facing West



PHOTO 6: Excavation at 5' facing East

Responsive ■ Resourceful ■ Reliable

APPENDIX D – ANALYTICAL REPORT AND CHAIN OF CUSTODY



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

September 23, 2022

JOSEPH GUESNIER

TERRACON CONSULTANTS

5827 50TH ST. SUITE 1

LUBBOCK, TX 79424

RE: VENDIVER #2

Enclosed are the results of analyses for samples received by the laboratory on 09/19/22 16:58.

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 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:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	09/19/2022	Sampling Date:	09/16/2022
Reported:	09/23/2022	Sampling Type:	Soil
Project Name:	VENDIVER #2	Sampling Condition:	Cool & Intact
Project Number:	KH227013	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO MIDSTREAM - ARTESIA, NM		

Sample ID: BH01 - 1' (H224331-01)

BTX 8021B		mg/kg		Analyzed By: JH/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	11.2	1.00	09/22/2022	ND	1.81	90.5	2.00	6.49	
Toluene*	164	1.00	09/22/2022	ND	1.83	91.3	2.00	4.56	
Ethylbenzene*	20.5	1.00	09/22/2022	ND	1.74	87.2	2.00	5.38	
Total Xylenes*	402	3.00	09/22/2022	ND	5.41	90.1	6.00	5.77	
Total BTX	598	6.00	09/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 150 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	09/21/2022	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	3420	10.0	09/20/2022	ND	183	91.6	200	4.06	
DRO >C10-C28*	3550	10.0	09/20/2022	ND	197	98.7	200	6.11	
EXT DRO >C28-C36	435	10.0	09/20/2022	ND					

Surrogate: 1-Chlorooctane 357 % 45.3-161

Surrogate: 1-Chlorooctadecane 251 % 46.3-178

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	09/19/2022	Sampling Date:	09/16/2022
Reported:	09/23/2022	Sampling Type:	Soil
Project Name:	VENDIVER #2	Sampling Condition:	Cool & Intact
Project Number:	KH227013	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO MIDSTREAM - ARTESIA, NM		

Sample ID: BH01 - 5' (H224331-02)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	33.1	2.00	09/22/2022	ND	1.81	90.5	2.00	6.49	
Toluene*	384	2.00	09/22/2022	ND	1.83	91.3	2.00	4.56	
Ethylbenzene*	78.8	2.00	09/22/2022	ND	1.74	87.2	2.00	5.38	
Total Xylenes*	628	6.00	09/22/2022	ND	5.41	90.1	6.00	5.77	
Total BTEX	1120	12.0	09/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 139 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	09/21/2022	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	9880	10.0	09/20/2022	ND	183	91.6	200	4.06	
DRO >C10-C28*	6190	10.0	09/20/2022	ND	197	98.7	200	6.11	
EXT DRO >C28-C36	700	10.0	09/20/2022	ND					

Surrogate: 1-Chlorooctane 597 % 45.3-161

Surrogate: 1-Chlorooctadecane 351 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	09/19/2022	Sampling Date:	09/16/2022
Reported:	09/23/2022	Sampling Type:	Soil
Project Name:	VENDIVER #2	Sampling Condition:	Cool & Intact
Project Number:	KH227013	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO MIDSTREAM - ARTESIA, NM		

Sample ID: SS - N (H224331-03)

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	09/21/2022	ND	1.81	90.5	2.00	6.49		
Toluene*	0.213	0.050	09/21/2022	ND	1.83	91.3	2.00	4.56		
Ethylbenzene*	<0.050	0.050	09/21/2022	ND	1.74	87.2	2.00	5.38		
Total Xylenes*	0.241	0.150	09/21/2022	ND	5.41	90.1	6.00	5.77		
Total BTEX	0.454	0.300	09/21/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	09/21/2022	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/21/2022	ND	183	91.6	200	4.06	
DRO >C10-C28*	<10.0	10.0	09/21/2022	ND	197	98.7	200	6.11	
EXT DRO >C28-C36	<10.0	10.0	09/21/2022	ND					

Surrogate: 1-Chlorooctane 83.9 % 45.3-161

Surrogate: 1-Chlorooctadecane 86.6 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	09/19/2022	Sampling Date:	09/16/2022
Reported:	09/23/2022	Sampling Type:	Soil
Project Name:	VENDIVER #2	Sampling Condition:	Cool & Intact
Project Number:	KH227013	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO MIDSTREAM - ARTESIA, NM		

Sample ID: BH02 - 1' (H224331-04)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	13.0	2.00	09/22/2022	ND	1.81	90.5	2.00	6.49	
Toluene*	248	2.00	09/22/2022	ND	1.83	91.3	2.00	4.56	
Ethylbenzene*	25.9	2.00	09/22/2022	ND	1.74	87.2	2.00	5.38	
Total Xylenes*	535	6.00	09/22/2022	ND	5.41	90.1	6.00	5.77	
Total BTEX	822	12.0	09/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 137 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	09/21/2022	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	8160	10.0	09/20/2022	ND	183	91.6	200	4.06	
DRO >C10-C28*	5380	10.0	09/20/2022	ND	197	98.7	200	6.11	
EXT DRO >C28-C36	645	10.0	09/20/2022	ND					

Surrogate: 1-Chlorooctane 592 % 45.3-161

Surrogate: 1-Chlorooctadecane 329 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	09/19/2022	Sampling Date:	09/16/2022
Reported:	09/23/2022	Sampling Type:	Soil
Project Name:	VENDIVER #2	Sampling Condition:	Cool & Intact
Project Number:	KH227013	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO MIDSTREAM - ARTESIA, NM		

Sample ID: BH02 - 5' (H224331-05)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	60.2	5.00	09/22/2022	ND	1.81	90.5	2.00	6.49	
Toluene*	695	5.00	09/22/2022	ND	1.83	91.3	2.00	4.56	
Ethylbenzene*	148	5.00	09/22/2022	ND	1.74	87.2	2.00	5.38	
Total Xylenes*	1210	15.0	09/22/2022	ND	5.41	90.1	6.00	5.77	
Total BTEx	2110	30.0	09/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	09/21/2022	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	39700	100	09/21/2022	ND	183	91.6	200	4.06	
DRO >C10-C28*	21500	100	09/21/2022	ND	197	98.7	200	6.11	
EXT DRO >C28-C36	2280	100	09/21/2022	ND					

Surrogate: 1-Chlorooctane 1390 % 45.3-161

Surrogate: 1-Chlorooctadecane 327 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	09/19/2022	Sampling Date:	09/16/2022
Reported:	09/23/2022	Sampling Type:	Soil
Project Name:	VENDIVER #2	Sampling Condition:	Cool & Intact
Project Number:	KH227013	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO MIDSTREAM - ARTESIA, NM		

Sample ID: SS - S (H224331-06)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.246	0.050	09/21/2022	ND	1.81	90.5	2.00	6.49	
Toluene*	1.73	0.050	09/21/2022	ND	1.83	91.3	2.00	4.56	
Ethylbenzene*	0.294	0.050	09/21/2022	ND	1.74	87.2	2.00	5.38	
Total Xylenes*	2.79	0.150	09/21/2022	ND	5.41	90.1	6.00	5.77	
Total BTEX	5.06	0.300	09/21/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/21/2022	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/21/2022	ND	183	91.6	200	4.06	
DRO >C10-C28*	<10.0	10.0	09/21/2022	ND	197	98.7	200	6.11	
EXT DRO >C28-C36	<10.0	10.0	09/21/2022	ND					

Surrogate: 1-Chlorooctane 87.8 % 45.3-161

Surrogate: 1-Chlorooctadecane 90.8 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	09/19/2022	Sampling Date:	09/16/2022
Reported:	09/23/2022	Sampling Type:	Soil
Project Name:	VENDIVER #2	Sampling Condition:	Cool & Intact
Project Number:	KH227013	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO MIDSTREAM - ARTESIA, NM		

Sample ID: SS - E (H224331-07)

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	09/21/2022	ND	1.81	90.5	2.00	6.49		
Toluene*	0.711	0.050	09/21/2022	ND	1.83	91.3	2.00	4.56		
Ethylbenzene*	0.117	0.050	09/21/2022	ND	1.74	87.2	2.00	5.38		
Total Xylenes*	1.78	0.150	09/21/2022	ND	5.41	90.1	6.00	5.77		
Total BTEX	2.61	0.300	09/21/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	09/21/2022	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2022	ND	183	91.6	200	4.06	
DRO >C10-C28*	<10.0	10.0	09/20/2022	ND	197	98.7	200	6.11	
EXT DRO >C28-C36	<10.0	10.0	09/20/2022	ND					

Surrogate: 1-Chlorooctane 78.6 % 45.3-161

Surrogate: 1-Chlorooctadecane 81.4 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	09/19/2022	Sampling Date:	09/19/2022
Reported:	09/23/2022	Sampling Type:	Soil
Project Name:	VENDIVER #2	Sampling Condition:	Cool & Intact
Project Number:	KH227013	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO MIDSTREAM - ARTESIA, NM		

Sample ID: W - SW 0' - 7' (H224331-08)

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	09/21/2022	ND	1.81	90.5	2.00	6.49		
Toluene*	0.050	0.050	09/21/2022	ND	1.83	91.3	2.00	4.56		
Ethylbenzene*	<0.050	0.050	09/21/2022	ND	1.74	87.2	2.00	5.38		
Total Xylenes*	<0.150	0.150	09/21/2022	ND	5.41	90.1	6.00	5.77		
Total BTEx	<0.300	0.300	09/21/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/21/2022	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2022	ND	183	91.6	200	4.06	
DRO >C10-C28*	<10.0	10.0	09/20/2022	ND	197	98.7	200	6.11	
EXT DRO >C28-C36	<10.0	10.0	09/20/2022	ND					

Surrogate: 1-Chlorooctane 80.6 % 45.3-161

Surrogate: 1-Chlorooctadecane 84.5 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	09/19/2022	Sampling Date:	09/19/2022
Reported:	09/23/2022	Sampling Type:	Soil
Project Name:	VENDIVER #2	Sampling Condition:	Cool & Intact
Project Number:	KH227013	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO MIDSTREAM - ARTESIA, NM		

Sample ID: N - SW 0' - 7' (H224331-09)

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	09/21/2022	ND	1.81	90.5	2.00	6.49		
Toluene*	<0.050	0.050	09/21/2022	ND	1.83	91.3	2.00	4.56		
Ethylbenzene*	<0.050	0.050	09/21/2022	ND	1.74	87.2	2.00	5.38		
Total Xylenes*	<0.150	0.150	09/21/2022	ND	5.41	90.1	6.00	5.77		
Total BTEx	<0.300	0.300	09/21/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	09/21/2022	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2022	ND	183	91.6	200	4.06	
DRO >C10-C28*	<10.0	10.0	09/20/2022	ND	197	98.7	200	6.11	
EXT DRO >C28-C36	<10.0	10.0	09/20/2022	ND					

Surrogate: 1-Chlorooctane 76.9 % 45.3-161

Surrogate: 1-Chlorooctadecane 79.0 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	09/19/2022	Sampling Date:	09/19/2022
Reported:	09/23/2022	Sampling Type:	Soil
Project Name:	VENDIVER #2	Sampling Condition:	Cool & Intact
Project Number:	KH227013	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO MIDSTREAM - ARTESIA, NM		

Sample ID: E - SW 0' - 5' (H224331-10)

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	09/21/2022	ND	2.05	103	2.00	5.76		
Toluene*	<0.050	0.050	09/21/2022	ND	2.02	101	2.00	5.53		
Ethylbenzene*	<0.050	0.050	09/21/2022	ND	1.96	98.2	2.00	6.35		
Total Xylenes*	<0.150	0.150	09/21/2022	ND	6.06	101	6.00	6.98		
Total BTEx	<0.300	0.300	09/21/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	09/21/2022	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2022	ND	183	91.6	200	4.06	
DRO >C10-C28*	<10.0	10.0	09/20/2022	ND	197	98.7	200	6.11	
EXT DRO >C28-C36	<10.0	10.0	09/20/2022	ND					

Surrogate: 1-Chlorooctane 81.3 % 45.3-161

Surrogate: 1-Chlorooctadecane 84.4 % 46.3-178

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

Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	09/19/2022	Sampling Date:	09/19/2022
Reported:	09/23/2022	Sampling Type:	Soil
Project Name:	VENDIVER #2	Sampling Condition:	Cool & Intact
Project Number:	KH227013	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO MIDSTREAM - ARTESIA, NM		

Sample ID: S - SW 0' - 5' (H224331-11)

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	09/21/2022	ND	2.05	103	2.00	5.76		
Toluene*	<0.050	0.050	09/21/2022	ND	2.02	101	2.00	5.53		
Ethylbenzene*	<0.050	0.050	09/21/2022	ND	1.96	98.2	2.00	6.35		
Total Xylenes*	<0.150	0.150	09/21/2022	ND	6.06	101	6.00	6.98		
Total BTX	<0.300	0.300	09/21/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.6 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/21/2022	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2022	ND	188	94.2	200	2.84	
DRO >C10-C28*	<10.0	10.0	09/20/2022	ND	198	99.1	200	1.03	
EXT DRO >C28-C36	<10.0	10.0	09/20/2022	ND					

Surrogate: 1-Chlorooctane 78.0 % 45.3-161

Surrogate: 1-Chlorooctadecane 79.2 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	09/19/2022	Sampling Date:	09/19/2022
Reported:	09/23/2022	Sampling Type:	Soil
Project Name:	VENDIVER #2	Sampling Condition:	Cool & Intact
Project Number:	KH227013	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO MIDSTREAM - ARTESIA, NM		

Sample ID: FS - 01 (H224331-12)

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	09/21/2022	ND	2.05	103	2.00	5.76		
Toluene*	<0.050	0.050	09/21/2022	ND	2.02	101	2.00	5.53		
Ethylbenzene*	<0.050	0.050	09/21/2022	ND	1.96	98.2	2.00	6.35		
Total Xylenes*	<0.150	0.150	09/21/2022	ND	6.06	101	6.00	6.98		
Total BTEx	<0.300	0.300	09/21/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/21/2022	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2022	ND	188	94.2	200	2.84	
DRO >C10-C28*	<10.0	10.0	09/20/2022	ND	198	99.1	200	1.03	
EXT DRO >C28-C36	<10.0	10.0	09/20/2022	ND					

Surrogate: 1-Chlorooctane 78.0 % 45.3-161

Surrogate: 1-Chlorooctadecane 81.8 % 46.3-178

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Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

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

BILL TO

ANALYSIS REQUEST

Company Name: Terracon

Project Manager: Joseph Guesnier

Address: 5847 50th Street

City: Lubbock

Phone #: (806) 300-0140

Project #: K227013

Project Name: Vendor #2

Project Location: Artsia, NM

Sample Name: Austin Worley

State: TX

Zip: 79424

Attn:

Address:

City:

State:

Zip:

Phone #:

Fax #:

P.O. #:

Company: Durango

Analysis Request

FOR LAB USE ONLY

Lab I.D. H24331

Sample I.D.

	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	BTEX (8024B)	Chloride (EPA Method 4500)	TPH (8015)	ANALYSIS REQUEST			
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :						ACID/BASE:	ICE / COOL	OTHER :	
1 BH01 1'	G	1	X						9/16/12	10:30	X	X	X				
2 BH01 5'	G	1	X						9/16/12	10:33	X	X	X				
3 SS-N	G	1	X						9/16/12	10:46	X	X	X				
4 BH02-1'	G	1	X						9/16/12	10:34	X	X	X				
5 BH02 5'	G	1	X						9/16/12	10:38	X	X	X				
6 SS-S	G	1	X						9/16/12	10:50	X	X	X				
7 SS-E	G	1	X						9/16/12	10:48	X	X	X				

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Relinquished By: [Signature] Date: 9-19-12 Received By: [Signature] Verbal Result: ☐ Yes ☐ No Add'l Phone #:

Relinquished By: [Signature] Date: 9-19-12 Received By: [Signature] All Results are emailed. Please provide Email address:

REMARKS: joseph.guesnier@terracon.com
travis.casey@terracon.com
austin.worley@terracon.com

Turnaround Time: Standard ☒ Rush ☐ Bacteria (only) ☒ Cool Intact ☐ Yes ☐ No ☐ Sample Condition ☐ Observed Temp. °C ☐ Corrected Temp. °C

Delivered By: (Circle One) ☒ UPS ☐ Bus ☐ Other: ☐

Observed Temp. °C: -1.8

Corrected Temp. °C: -2.4

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

CHECKED BY: [Signature] (Initials): AG

Thermometer ID #113

Correction Factor -0.6°C

FORM-006 R-33 07/10/12

Please email changes to celia.keene@cardinallabsnm.com



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Terracon		BILL TO		ANALYSIS REQUEST	
Project Manager: Joseph Guesnier		P.O. #:			
Address: 5847 50th Street		Company: Durango			
City: Lubbock		Attn:			
Phone #: (806) 300-0140		Address:			
Fax #: 		City:			
Project #: HH227013		State:			
Project Owner: Durango		Zip:			
Project Location: Artesia, NM		Phone #:			
Sample Name: Austin Worley		Fax #:			

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.			DATE	TIME	BTX (8024B)	Chloride (EPA Method 4500)	TPH (8015)							
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :												
HH224331	W-SW 0'-7'	C	1	X									9/14/22	11:20	X	X	X							
9	N-SW 0'-7'	C	1	X									9/14/22	12:58	X	X	X							
10	E-SW 0'-5'	C	1	X									9/14/22	13:20	X	X	X							
11	S-SW 0'-5'	C	1	X									9/14/22	13:22	X	X	X							
12	FS-01	C	1	X									9/14/22	14:25	X	X	X							

Relinquished By: Joseph Guesnier		Date: 9/16/22		Received By: Travis Casey		Date: 9/16/22		Time: 4:57pm		Remarks: JOSEPH.GUESNIER@TERRACON.COM	
Relinquished By: Travis Casey		Date: 9/16/22		Received By: Austin Worley		Date: 9/16/22		Time: 4:57pm		Remarks: travis.casey@terracon.com	

Delivered By: (Circle One)	Observed Temp. °C	Sample Condition	CHECKED BY: (Initials)	Turnaround Time:	Standard	Bacteria (only)	Sample Condition
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>	TD	Thermometer ID #113	Rush	<input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/>	Observed Temp. °C
	-1.8	Yes				Yes	
	-2.4	No				No	

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



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

November 30, 2022

JOSEPH GUESNIER

TERRACON CONSULTANTS

5827 50TH ST. SUITE 1

LUBBOCK, TX 79424

RE: VANDIVER #2

Enclosed are the results of analyses for samples received by the laboratory on 11/28/22 9:53.

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 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:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	11/28/2022	Sampling Date:	11/23/2022
Reported:	11/30/2022	Sampling Type:	Soil
Project Name:	VANDIVER #2	Sampling Condition:	Cool & Intact
Project Number:	KH227013	Sample Received By:	Shalyn Rodriguez
Project Location:	DURANGO MIDSTREAM - ARTESIA, NM		

Sample ID: FS 02 (H225565-01)

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	11/29/2022	ND	1.98	98.9	2.00	3.96	
Toluene*	<0.050	0.050	11/29/2022	ND	2.20	110	2.00	3.68	
Ethylbenzene*	<0.050	0.050	11/29/2022	ND	2.19	110	2.00	4.66	
Total Xylenes*	<0.150	0.150	11/29/2022	ND	6.69	112	6.00	5.47	
Total BTX	<0.300	0.300	11/29/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 88.9 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	11/28/2022	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	11/29/2022	ND	218	109	200	3.45	
DRO >C10-C28*	119	10.0	11/29/2022	ND	218	109	200	0.337	
EXT DRO >C28-C36	<10.0	10.0	11/29/2022	ND					

Surrogate: 1-Chlorooctane 104 % 45.3-161

Surrogate: 1-Chlorooctadecane 125 % 46.3-178

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:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received: 11/28/2022
 Reported: 11/30/2022
 Project Name: VANDIVER #2
 Project Number: KH227013
 Project Location: DURANGO MIDSTREAM - ARTESIA, NM

Sampling Date: 11/23/2022
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 03 (H225565-02)

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	11/29/2022	ND	1.98	98.9	2.00	3.96		
Toluene*	<0.050	0.050	11/29/2022	ND	2.20	110	2.00	3.68		
Ethylbenzene*	<0.050	0.050	11/29/2022	ND	2.19	110	2.00	4.66		
Total Xylenes*	<0.150	0.150	11/29/2022	ND	6.69	112	6.00	5.47		
Total BTEx	<0.300	0.300	11/29/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.4 % 69.9-140

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	11/28/2022	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	11/29/2022	ND	218	109	200	3.45	
DRO >C10-C28*	93.1	10.0	11/29/2022	ND	218	109	200	0.337	
EXT DRO >C28-C36	<10.0	10.0	11/29/2022	ND					

Surrogate: 1-Chlorooctane 107 % 45.3-161

Surrogate: 1-Chlorooctadecane 125 % 46.3-178

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received: 11/28/2022
 Reported: 11/30/2022
 Project Name: VANDIVER #2
 Project Number: KH227013
 Project Location: DURANGO MIDSTREAM - ARTESIA, NM

Sampling Date: 11/23/2022
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 04 (H225565-03)

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	11/29/2022	ND	1.98	98.9	2.00	3.96		
Toluene*	<0.050	0.050	11/29/2022	ND	2.20	110	2.00	3.68		
Ethylbenzene*	<0.050	0.050	11/29/2022	ND	2.19	110	2.00	4.66		
Total Xylenes*	<0.150	0.150	11/29/2022	ND	6.69	112	6.00	5.47		
Total BTEx	<0.300	0.300	11/29/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 88.6 % 69.9-140

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	11/28/2022	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	11/29/2022	ND	218	109	200	3.45	
DRO >C10-C28*	79.3	10.0	11/29/2022	ND	218	109	200	0.337	
EXT DRO >C28-C36	<10.0	10.0	11/29/2022	ND					

Surrogate: 1-Chlorooctane 103 % 45.3-161

Surrogate: 1-Chlorooctadecane 126 % 46.3-178

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:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received: 11/28/2022
 Reported: 11/30/2022
 Project Name: VANDIVER #2
 Project Number: KH227013
 Project Location: DURANGO MIDSTREAM - ARTESIA, NM

Sampling Date: 11/23/2022
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 05 (H225565-04)

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	11/29/2022	ND	1.98	98.9	2.00	3.96	
Toluene*	<0.050	0.050	11/29/2022	ND	2.20	110	2.00	3.68	
Ethylbenzene*	<0.050	0.050	11/29/2022	ND	2.19	110	2.00	4.66	
Total Xylenes*	<0.150	0.150	11/29/2022	ND	6.69	112	6.00	5.47	
Total BTEx	<0.300	0.300	11/29/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 88.2 % 69.9-140

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	11/28/2022	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	11/29/2022	ND	218	109	200	3.45	
DRO >C10-C28*	<10.0	10.0	11/29/2022	ND	218	109	200	0.337	
EXT DRO >C28-C36	<10.0	10.0	11/29/2022	ND					

Surrogate: 1-Chlorooctane 102 % 45.3-161

Surrogate: 1-Chlorooctadecane 119 % 46.3-178

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

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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*=Accredited Analyte

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

Caley 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

[illegible]



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

December 12, 2022

JOSEPH GUESNIER

TERRACON CONSULTANTS

5827 50TH ST. SUITE 1

LUBBOCK, TX 79424

RE: VANDIVER #2

Enclosed are the results of analyses for samples received by the laboratory on 12/05/22 14:03.

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:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	12/05/2022	Sampling Date:	12/05/2022
Reported:	12/12/2022	Sampling Type:	Soil
Project Name:	VANDIVER #2	Sampling Condition:	Cool & Intact
Project Number:	KH227013	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO MIDSTREAM - ARTESIA, NM		

Sample ID: FS 2.1 (H225695-01)

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	12/09/2022	ND	2.10	105	2.00	3.22		
Toluene*	<0.050	0.050	12/09/2022	ND	2.21	111	2.00	4.05		
Ethylbenzene*	<0.050	0.050	12/09/2022	ND	2.14	107	2.00	3.49		
Total Xylenes*	<0.150	0.150	12/09/2022	ND	6.56	109	6.00	3.47		
Total BTX	<0.300	0.300	12/09/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

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	12/08/2022	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	12/07/2022	ND	193	96.7	200	6.77	
DRO >C10-C28*	<10.0	10.0	12/07/2022	ND	173	86.6	200	6.80	
EXT DRO >C28-C36	<10.0	10.0	12/07/2022	ND					

Surrogate: 1-Chlorooctane 76.5 % 45.3-161

Surrogate: 1-Chlorooctadecane 84.8 % 46.3-178

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Terracon Project Manager: Joseph Guesnier				BILL TO				ANALYSIS REQUEST			
Address: 4518 W. Perice Street City: Carlsbad State: NM Zip: 88220 Phone #: 8065077057 Fax #: Project #: KH227013 Project Owner: Durango Project Name: Vandiver #2 Project Location: Eddy Sampler Name: Travis Casey				P.O. #: Company: Amber Graves Attn: Durango Address: City: State: Zip: Phone #: Fax #:							
FOR LAB USE ONLY								MATRIX PRESERV. SAMPLING			
Lab I.D. H225695		Sample I.D. FS 2.1		(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :		DATE 12/5		TIME 11:30		Chloride (EPA Method4500) TPH Extended 8015 BTEX (EPA Method 8021B)	
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: Beckley Miller				Date: 12-5-22 Time: 1403				Received By: [Signature]			
Relinquished By: [Signature]				Date: Time:				Received By: [Signature]			
Delivered By: (Circle One) Sampler - UPS - Bus - Other:				Observed Temp. °C: 3.6 Corrected Temp. °C: 3.0				Sample Condition: Cool Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Bacteria (only) Sample Condition: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>				Thermometer ID #113 Correction Factor -0.5°C				REMARKS: joseph.guesnier@terracon.com; travis.casey@terracon.com; austin.worley@terracon.com; michael.adams@terracon.com			
Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:											
All Results are emailed. Please provide Email address:											

APPENDIX E – WASTE MANIFEST

APPENDIX F – TERRACON STANDARD OF CARE, LIMITATION, AND RELIANCE

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

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

CONDITIONS

Action 176258

CONDITIONS

Operator: FRONTIER FIELD SERVICES, LLC 10077 Grogans Mill Rd. The Woodlands, TX 77380	OGRID: 221115
	Action Number: 176258
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2222749455 6 IN VANDIVER PIPELINE #2, thank you. This closure is approved.	5/15/2023