Received by OCD: 7/20/2023 1:32:25 PM State of New Mexico

Oil Conservation Division

	Page 1 of 168
Incident ID	nSAD1402255331
District RP	1RP-01-14-3008
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?		
Did this release impact groundwater or surface water?	🗌 Yes 🛛 No	
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No	
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No	
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No	
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No	
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No	
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No	
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No	
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No	
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No	
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No	
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	🗌 Yes 🖂 No	

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. Field data

Page 3

- 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.

	:32:25 PM			Page 2 of 10
ronn C-141			Incident ID	nSAD1402255331
Page 4 Oil Conservation D		n	District RP	1RP-01-14-3008
			Facility ID	
			Application ID	
I nereby certify that the informative regulations all operators are required public health or the environment. Failed to adequately investigate a addition, OCD acceptance of a C and/or regulations. Printed Name:Dale W Signature: Dale Wood email:dale.woodall@c	In given above is true and complete to the strue and complete to the strue and complete to the strue at the strue and complete to the strue at the strue at the strue at the structure of a C-141 report by the structure of a C-141 report by the structure of a C-141 report by the structure of a C-141 report does not relieve the operator structure of a C-141 report does not relieve the operator structure of a C-141 report does not relieve the stru	ne best of my knowledge outifications and perform e OCD does not relieve to hreat to groundwater, sur of responsibility for con Title: <u>Enviro</u> Date: <u>7/20/2022</u> Telephone: <u>5</u>	and understand that purs corrective actions for rele the operator of liability sh rface water, human health opliance with any other fe <u>nmental Professional</u>	eases which may endanger nould their operations have n or the environment. In ederal, state, or local laws
OCD Only				

**Received by OCD: 7/20/2023 1:32:25 PM** Form C-141 State of New Mexico

Oil Conservation Division

<u>Remediation Plan Checklist</u>: Each of the following items must be included in the plan.

Incident ID	nSAD1402255331
District RP	1RP-01-14-3008
Facility ID	
Application ID	

## **Remediation Plan**

Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points  $\boxtimes$ 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: Dale Woodall Title: <u>Environmental Professional</u> Signature: Dale Woodall Date: 7/20/2023 email: <u>dale.woodall@dvn.com</u> Telephone: <u>575-748-1838</u> OCD Only Received by: Shelly Wells Date: 7/20/2023 Approved Approved with Attached Conditions of Approval Denied Deferral Approved Signature: Date:

Page 6

Oil Conservation Division

Incident ID	nSAD1402255331
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# 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.

<b><u>Closure Report Attachment Checklist</u>: Each of the following a</b>	items must be included in the closure report.	
$\square$ 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 OD	C 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 comple and regulations all operators are required to report and/or file certai may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and re- human health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regular restore, reclaim, and re-vegetate the impacted surface area to the co- accordance with 19.15.29.13 NMAC including notification to the O	ete to the best of my knowledge and understand that pursuant to OCD rules n release notifications and perform corrective actions for releases which a C-141 report by the OCD does not relieve the operator of liability mediate contamination that pose a threat to groundwater, surface water, a C-141 report does not relieve the operator of responsibility for ations. The responsible party acknowledges they must substantially molitions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.	
Printed Name:Dale Woodall	Title:Environmental Professional	
Signature: Dale Woodall	Date: 7/20/2023	
email:dale.woodall@dvn.com	Telephone: <u>575-748-1838</u>	
OCD Only		
Received by: <u>Shelly Wells</u>	Date: <u>7/20/2023</u>	
Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and $A = b h a$ .	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.	
Closure Approved by:	Date: //20/2025	
Printed Name: Ashley Maxwell	Title: Environmental Specialist	



Incident Number: NSAD1402255331

# **Release Assessment and Closure**

Trionyx 6 Federal #007H Section 06, Township 25 South, Range 32 East API: 30-025-40047 County: Lea Vertex File Number: 22E-01921

Prepared for: Devon Energy Production Company, LP

Prepared by: Vertex Resource Services Inc.

Date: July 2023 Devon Energy Production Company, LP Trionyx 6 Federal #007H

Release Assessment and Closure July 2023

Release Assessment and Closure Trionyx 6 Federal #007H Section 06, Township 25 South, Range 32 East API: 30-025-40047 County: Lea

Prepared for: Devon Energy Production Company, LP 6488 Seven Rivers Highway Artesia, New Mexico 88210

New Mexico Oil Conservation Division – District 1 1625 N. French Drive Hobbs, New Mexico 88240

Prepared by: Vertex Resource Services Inc. 3101 Boyd Drive Carlsbad, New Mexico 88220

Stephanie McCarty

Stephanie McCarty, B.Sc.

July 05, 2023

Date

Kent Stallings P.G.

Kent Stallings, P.G. PROJECT MANAGER, REPORT REVIEW July 10, 2023

Date

Devon Energy Production Company, LP	
Trionyx 6 Federal #007H	

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#### Devon Energy Production Company, LP

Trionyx 6 Federal #007H

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- Appendix B. Closure Criteria Research Documentation
- Appendix C. Daily Field and Sampling Reports
- Appendix D. Notifications
- Appendix E. Laboratory Data Reports and Chain of Custody Forms

Devon Energy Production Company, LP Trionyx 6 Federal #007H

#### **1.0 Introduction**

Devon Energy Production Company, LP (Devon) retained Vertex Resource Services Inc. (Vertex) to conduct a Release Assessment and Closure for a produced water release that occurred on January 13, 2014, at Trionyx 6 Federal #007H API 30-025-40047 (hereafter referred to as the "site"). Devon submitted an initial C-141 Release Notification (Appendix A) to New Mexico Oil Conservation Division (NMOCD) District 1 on January 14, 2014. Incident ID number NSAD1402255331, 1RP-3008-0, was assigned to this incident.

This report provides a description of the release assessment and remediation activities associated with the site. The information presented demonstrates that closure criteria established in Table I of 19.15.29.12 of the *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) related to NMOCD has been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NMOCD for closure of this release, with the understanding that restoration of the release site will be completed following remediation activities as per NMAC 19.15.29.13.

#### 2.0 Incident Description

The release occurred on January 13, 2014, due to a load line valve failing to be closed by a water hauler driver following a water pick up. The incident was reported on January 14, 2014, and involved the release of approximately 10 barrels (bbl.) of produced water on the pad site. Approximately 2 bbl. of free fluid was removed during initial clean-up. Additional details relevant to the release are presented in the C-141 Report. Daily Field Reports (DFRs) and site photographs are included in Appendix C.

Due to the complexity of this incident report, the Workplan references incident NJXK1534948142, which was reported on the same day and in the same area. This incident received closure approval on June 12, 2014.

#### 3.0 Site Characteristics

The site is located approximately 21.5 miles east of Malaga, New Mexico (Google Inc., 2023). The legal location for the site is Section 06, Township 25 South and Range 32 East in Lea County, New Mexico. The release area is located on Bureau of Land Management property. An aerial photograph and site schematic are presented on Figure 1.

The location is typical of oil and gas exploration and production sites in the Permian Basin and is currently used for oil and gas production. The following sections specifically describe the release area at the site or in proximity to the constructed pad (Figure 1).

The surface geology at the site primarily comprises Qep – Eolian and piedmont deposits from the Holocene to middle Pleistocene (New Mexico Bureau of Geology and Mineral Resources, 2023). The soil at the site is characterized as loamy sand (United States Department of Agriculture, Natural Resources Conservation Service, 2023). Additional soil characteristics include well drained soil with a runoff class of negligible to high depending on the slope. The karst geology potential for the site is low (United States Department of the Interior, Bureau of Land Management, 2018).

Devon Energy Production Company, LP Trionyx 6 Federal #007H

The surrounding landscape is associated with alluvial flats and fans with elevations ranging between 2,500 and 4,500 feet. The climate is semiarid with average annual precipitation ranging between 8 and 13 inches. Using information from the United States Department of Agriculture, the dominant vegetation was determined to be grasses with honey mesquite (*Prosopis glandulosa*) shrubs. Grasses with shinnery oak (*Quercus havardii*) shrubs dominate the historic plant community (United States Department of Agriculture, Natural Resources Conservation Service, 2023). Limited to no vegetation is allowed to grow on the compacted production pad, right-of-way and access road.

#### 4.0 Closure Criteria Determination

The nearest active well to the site is a New Mexico Office of the State Engineer (NMOSE) monitoring well located approximately 0.25 miles west of the site (United States Geological Survey, 2023). Data from 2022 show the NMOSE borehole recorded a depth to groundwater of 55 feet below ground surface (bgs). Information pertaining to the depth to groundwater determination is included in Appendix B.

There is no surface water present at the site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is an intermittent riverine identified in the National Wetlands Inventory approximately 3.1 miles northwest of the site (United States Fish and Wildlife Service, 2023).

At the site, there are no continuously flowing watercourses or significant watercourses, lakebeds, sinkholes, playa lakes or other critical water or community features as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

Trionyx 6 Federal #007H

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<b>Release Assessment and Cl</b>	osure
July	2023

Closure Criteria Worksheet				
Site Name: Trionyx 6 Federal #007H				
Table 1.	Closure Criteria Determination			
Site Speci	fic Conditions	Value	Unit	
1	Depth to Groundwater	>55	feet	
2	Within 300 feet of any continuously flowing	16 274	feet	
2	watercourse or any other significant watercourse	10,274		
2	Within 200 feet of any lakebed, sinkhole or playa lake	12 570	foot	
5	(measured from the ordinary high-water mark)	45,570	Teet	
	Within 300 feet from an occupied residence, school,	20 424	faat	
4	hospital, institution or church	29,424	Teet	
	i) Within 500 feet of a spring or a private, domestic			
F	fresh water well used by less than five households for	9,291	feet	
5	domestic or stock watering purposes, <b>or</b>			
	ii) Within 1000 feet of any fresh water well or spring		feet	
	Within incorporated municipal boundaries or within a			
	defined municipal fresh water field covered under a			
6	municipal ordinance adopted pursuant to Section 3-	No	(Y/N)	
	27-3 NMSA 1978 as amended, unless the municipality			
	specifically approves			
7	Within 300 feet of a wetland	17,424	feet	
8	Within the area overlying a subsurface mine	No	(Y/N)	
			Critical	
0	Within an unstable area (Karst Man)	Low	High	
9	within an unstable area (Karst Map)		Medium	
			Low	
10	Within a 100 year Floodplain	500	Voor	
10		500	year	
11	Soil Type	Maljamar and	Palomas fine	
11	son type	sar	nds	
12	Ecological Classification	Loamy sand		
	-			
13	Geology	Qep		
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	51-100'		

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Devon Energy Production Comp	any, LP
Trionyx 6 Federal #007H	

The closure criteria determined for the site are associated with the following constituent concentration limits as presented in Table 2.

Table 2. Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the			
horizontal boundary of the release to groundwater			
less than 10,000 mg/l TDS	Constituent	Limit	
	Chloride	10,000 mg/kg	
	TPH (GRO+DRO+MRO)	2,500 mg/kg	
51 feet - 100 feet	GRO+DRO	1,000 mg/kg	
	BTEX	50 mg/kg	
	Benzene	10 mg/kg	

TDS – total dissolved solids

TPH – total petroleum hydrocarbons, GRO – gas range organics, DRO – diesel range organics, MRO – motor oil range organics

BTEX – benzene, toluene, ethylbenzene and xylenes

#### 5.0 Remedial Actions Taken

An initial site inspection of the release area was completed on August 9, 2022, and characterization was completed between August 9, 2022, and March 6, 2023, which identified the area of the release specified in the initial C-141 Report. The impacted area was determined to be approximately 17 feet long and 19 feet wide; the total affected area was 334 square feet. The DFR associated with the site inspections are included in Appendix C.

Remediation efforts began on August 9, 2022, and were finalized on March 6, 2023. Vertex personnel supervised the excavation of impacted soils. Field screening was completed on a total of ten sample points and consisted of analysis using a Photo Ionization Detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and an electroconductivity meter (chlorides). Field screening results were used to identify areas requiring further remediation. Soils were removed to a depth of 2 feet bgs. Characterization field screening and laboratory results are summarized in Table 3. Field screening results and DFRs documenting various phases of the remediation are presented in Appendix C.

Notification that a liner inspection was scheduled to be completed was provided to the NMOCD on August 5, 2022. Visual observation of the liner was completed on all sides and the base of the containment, around equipment, and of all seams in the liner. As evidenced in the DFR (Appendix C), liner integrity was confirmed, and the Liner Inspection Notification email is included in Appendix D.

Notification that confirmatory samples were being collected was provided to the NMOCD on February 27 and March 2, 2023, which are included in Appendix D. Confirmatory composite samples were collected from the base and walls of the excavation in 200 square foot increments. A total of five samples were collected for laboratory analysis following NMOCD soil sampling procedures. Samples were submitted to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico, under chain-of-custody protocols and analyzed for BTEX (EPA Method 8021B), total petroleum hydrocarbons (GRO, DRO, MRO – EPA Method 8015D) and total chlorides (EPA Method 300.0). Laboratory

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Devon Energy Production Company, LP Trionyx 6 Federal #007H

results are presented in Table 4, and the laboratory data reports are included in Appendix E. All confirmatory samples collected and analyzed were below closure criteria for the site.

#### 6.0 Closure Request

The release area was fully delineated, remediated and backfilled with local soils by March 6, 2023. Confirmatory samples were analyzed by the laboratory and found to be below allowable concentrations as per the NMAC Closure Criteria for Soils Impacted by a release location where depth to ground water is 51-100 feet bgs. Based on these findings, Devon requests that this release be closed.

Should you have any questions or concerns, please do not hesitate to contact Kent Stallings at 346.814.1413 or kstallings@vertex.ca.

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#### 7.0 References

Google Inc. (2023). Google Earth Pro (Version 7.3.3) [Software]. Retrieved from https://earth.google.com

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- United States Geological Survey. (2023). National Water Information System: Web Interface. Retrieved from https://waterdata.usgs.gov/nwis

Devon Energy Production Company, LP Trionyx 6 Federal #007H

#### 8.0 Limitations

This report has been prepared for the sole benefit of Devon Energy Production Company, LP. This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division and the Bureau of Land Management, without the express written consent of Vertex Resource Services Inc. (Vertex) and Devon Energy Production Company, LP. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgement of Vertex based on the data collected during the assessment. Due to the nature of the assessment and the data available, Vertex cannot warrant against undiscovered environmental liabilities. Conclusions and recommendations presented in this report should not be considered legal advice.

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## **FIGURES**



(22E-01921)16089



### TABLES

Client Name: Devon Energy Production Company, LP Site Name: Trionyx 6 Federal #007H NM OCD Tracking #: nSAD1402255331 Project #: 22E-01921 Lab Report: 2208G98

Table 3. Initia	al Characteri	zation Sample Fie	d Screen and Laboratory Results - Depth to G					oundwater 51-100 feet bgs					
5	Sample Descrip	otion	Field Screening			Petroleum Hydrocarbons							
						Vol	atile			Extractable	2		Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compound: (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
BH22-01	0	August 25 2022	(ppiii)	(ppiii)	(ppiii) 502								(IIIg/Kg)
BH22-01 BH22-01	2	August, 25 2022	0	46	372	ND	ND	ND	ND	ND	ND	ND	580
BH22-02	0	August, 25 2022	0	33	0	ND	ND	ND	ND	ND	ND	ND	ND
BH22-02	2	August, 25 2022	0	38	0	ND	ND	ND	ND	ND	ND	ND	ND
BH22-02	4	August, 25 2022	0	28	0	ND	ND	ND	ND	ND	ND	ND	ND
BH22-03	0	August, 25 2022	0	190	69	ND	ND	ND	83	ND	83	83	160
BH22-03	2	August, 25 2022	0	70	0	ND	ND	ND	ND	ND	ND	ND	93
BH22-03	4	August, 25 2022	0	90	0	ND	ND	ND	ND	ND	ND	ND	81
BH22-04	0	August, 25 2022	0	266	0	ND	ND	ND	94	290	94	384	ND
BH22-04	2	August, 25 2022	0	114	0	ND	ND	ND	39	92	39	131	ND
BH22-05	0	August, 25 2022	0	-	0	ND	ND	ND	990	1700	990	2690	94
BH22-05	2	August, 25 2022	0	-	0	ND	ND	ND	ND	ND	ND	ND	ND
BH22-06	0	March 6, 2023	0	33	287	ND	ND	ND	ND	ND	ND	ND	ND
BH22-06	1	March 6, 2023	0	56	262	ND	ND	ND	ND	ND	ND	ND	ND
BH22-07	0	March 6, 2023	0	42	345	ND	ND	ND	ND	ND	ND	ND	ND
BH22-07	1	March 6, 2023	0	94	457	ND	ND	ND	ND	ND	ND	ND	ND
BH22-08	0	March 6, 2023	0	30	389	ND	ND	ND	ND	ND	ND	ND	ND
BH22-08	1	March 6, 2023	0	43	245	ND	ND	ND	ND	ND	ND	ND	ND
BH23-09	0	March 6, 2023	0	66	502	ND	ND	ND	ND	ND	ND	ND	ND
BH23-09	1	March 6, 2023	0	12	367	ND	ND	ND	ND	ND	ND	ND	ND
BH22-10	0	March 6, 2023	0	101	490	ND	ND	ND	ND	ND	ND	ND	ND
BH22-10	1	March 6, 2023	0	87	377	ND	ND	ND	ND	ND	ND	ND	ND

"ND" Not Detected at the Reporting Limit

"-" indicates not analyzed/assessed

Bold and grey shaded indicates exceedance outside of NM OCD Closure Criteria (on-pad)



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Devon Energy Corporation Production Company, LP Trionyx 6 Federal #007H NM OCD Tracking #: nSAD1402255331 Project #: 22E-01921 Lab Report: 2303380

Table 4. Confirmatory Samples and Laboratory Results - Depth to Groundwater 51-100 feet bgs													
						Pe	troleum H	ydrocarbo	ns				Inorganic
Sample ID	Depth (ft)	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (kg/gm)	(gay for the second	a) (a) (a) (a) (Total)	a) 26 Gasoline Range Organics (GRO) 28	a) 26 26 27 27 28 20 20 20 20 20 20 20 20 20 20 20 20 20	a) Motor Oil Range Organics (MRO)	(GRO + DRO) (gro + DRO)	a) 2015 Total Petroleum Hydrocarbons (TPH) 2027 Total Petroleum Hydrocarbons (TPH)	a) (b) (chloride Concentration
	NMOCD - NMAC <5	0 ft 19.15.29 (2018)	10	-	-	-	50	-	-	-	-	100	600
Criteria	NMOCD - NMAC 51-1	100 ft 19.15.29 (2018)	10	-	-	-	50	-	-	-	1000	2500	10000
	NMOCD - NMAC >10	00 ft 19.15.29 (2018)	10	-	-	-	50	-	-	-	1000	2500	20000
2023 Samples	5												
BES23-01	2	March 6, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WES23-01	0 - 1	March 6, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	110
WES23-02	0 - 1	March 6, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	88
WES23-03	0 - 1	March 6, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	68
WES23-04	0 - 1	March 6, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NMAC - New Mexico Administrative Code (Title 19, Chapter 15, Part 29; 2018)

ND - Not Detected at the Reporting Limit

- Denotes no standard/not analyzed

Bold and grey shaded indicates exceedance outside of NM OCD Closure Criteria (on-pad)

Bold and green shaded indicates exceedance outside of NM OCD Reclamation Criteria (off-pad)

.

**APPENDIX A - NMOCD C-141 Reports** 

Received by OCD: 7/20/2023 1:32:25 PM Form C-141 State of New Mexico

Oil Conservation Division

	Page 23 of 168
Incident ID	nSAD1402255331
District RP	1RP-01-14-3008
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?	<u>350</u> (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	🗌 Yes 🖂 No

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data

Page 3

- Data table of soil contaminant concentration data
- $\square$  Depth to water determination
- Determination of water sources and significant watercourses within <sup>1</sup>/<sub>2</sub>-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.

Received by OCD: 7/20/2	023 1:32:25 PM				Page 24 of 168
Form C-141	State of New Mexico			Incident ID	nSAD1402255331
Page 4	Oil Conservation Divisio	n		District RP	1RP-01-14-3008
				Facility ID	
				Application ID	
I hereby certify that the inf regulations all operators at public health or the enviro failed to adequately invest addition, OCD acceptance and/or regulations. Printed Name:D Signature: Dale U email:dale.wood	formation given above is true and complete to re required to report and/or file certain release in nment. The acceptance of a C-141 report by the igate and remediate contamination that pose a of a C-141 report does not relieve the operator ale Woodall hoodall all@dvn.com	the best of my kno notifications and p ne OCD does not re- threat to groundwa of responsibility f 	wledge an erform co elieve the tter, surfa for compl Environn 0/2023 57:	nd understand that purs rrective actions for rele operator of liability sho ce water, human health iance with any other fea mental Professional	uant to OCD rules and eases which may endanger ould their operations have or the environment. In deral, state, or local laws
OCD Only       Received by:		Date	:		

Received by OCD: 7/20/2023 1:32:25 PM State of New Mexico

Oil Conservation Division

<u>Remediation Plan Checklist</u>: Each of the following items must be included in the plan.

Page 25 0J 100	ige 25 of 16	ð
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Incident ID	nSAD1402255331
District RP	1RP-01-14-3008
Facility ID	
Application ID	

## **Remediation 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: \_\_\_\_\_ Dale Woodall \_\_\_\_\_\_ Title: \_\_\_\_ Environmental Professional \_\_\_\_\_\_ Signature: Dale Woodall Date: 7/20/2023 Telephone: \_\_\_\_ 575-748-1838 email: \_\_\_\_\_ dale.woodall@dvn.com OCD Only Received by: Date: Approved Approved with Attached Conditions of Approval Denied Deferral Approved Signature: Date:

Page 6

Oil Conservation Division

Incident ID	nSAD1402255331
District RP	1RP-01-14-3008
Facility ID	
Application ID	

Page 26 of 168

## 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.

<b><u>Closure Report Attachment Checklist</u></b> : Each of the following it	items must be included in the closure report.							
$\square$ 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 OD	C 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 comple and regulations all operators are required to report and/or file certai may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and re- human health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regula restore, reclaim, and re-vegetate the impacted surface area to the co- accordance with 19.15.29.13 NMAC including notification to the O	ete to the best of my knowledge and understand that pursuant to OCD rules in release notifications and perform corrective actions for releases which if a C-141 report by the OCD does not relieve the operator of liability mediate contamination that pose a threat to groundwater, surface water, a C-141 report does not relieve the operator of responsibility for ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.							
Printed Name:Dale Woodall	Title:Environmental Professional							
Signature: Dale Woodall	Date: <u>7/20/2023</u>							
email: <u>dale.woodall@dvn.com</u>	Telephone: <u>575-748-1838</u>							
OCD Only								
Received by:	Date:							
Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and/	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.							
Closure Approved by:	Date:							
Printed Name:	Title:							

Received by	OCD: 7/20	/2023 1:32:	25 PM	CD							Page	e 27 of 168
District I 1625 N. French	Dr. Hobbs N	M 88240	OBR2C	St	ate of I	New Mex	ico				For	-m C-141
District II	Artonia NIM 9	<b>221</b> 0 -	16	20 Anergy Mi	nerals a	and Natura	l Resources	Revised Augus				gust 8, 2011
District III	Ancsia, NM o	J	AN 10	Oil C	Conser	vation Div	vision	Subm	it I Copy	to appropriat	e Distric	t Office in
District IV 1220 So						St. Franc	is Dr.		ac	cordance with	n 19.15.2	9 NMAC.
1220 S. St. Fran	cis Dr., Santa	Fe, NM 87505	RECE	Sa	anta Fe	e, NM 875	05					
			Rele	ease Notifie	cation	and Co	orrective A	ction				
				211)		OPERA	ΓOR		🛛 Initia	al Repòrt	🗌 Fi	nal Report
Name of Co	mpany Dev	on Energy	,	(60)		Contact Tr	acy Kidd					
Address PO	Box 250 A	Artesia, NM	<u>88211</u>			Telephone N	No. 575- 513.06	28				
		toreu / a	0	1		racinty Typ						
Surface Ow	ner Federal			Mineral (	Owner				API No	<u>. 30025400</u>	47	
				LOCA	TION	N OF REJ	LEASE					
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/We	est Line	County		
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				Latitude: 32.15	24569	Longi	tude: -103.7075	59				
				NIA T	TIDE		FACE	-				
Type of Relea	ase Spill P	roduced Wate	er	INAI	UKE	Volume of	Release 10bbls		Volume F	Recovered 2b	ols	]
Source of Rel	lease mechai	nical failure:	Load line	valve left open		Date and H	lour of Occurrenc	e I	Date and	Hour of Disco	overy 01.	13.2014;
Was Immedia	ate Notice G	iven?				01.13.2014	; 2:45 PM Whom?	2 	2:45 PM			
			Yes 🗌	] No 🗌 Not R	equired	d Tracy Kidd- Production Foreman						
By Whom? J	By Whom? Joe Wilks						Date and Hour 01.13.2014					
Was a Watero	Was a Watercourse Reached?						If YES, Volume Impacting the Watercourse.					
If a Watercou	ree was Imn	acted Descri		k								
	use was mip	acteu, Desch	ibe runy.						المسرا		11.11	ı
N/A Deseribe Cou	so of Broble	m and Dama	dial Action	n Takan *			DTI	M =	550	JAKL 1	11011	1.
Water hauler	driver failed	to close load	l line valv	e after water pick	up. Val	ve closed and	2 bbls of the 10b	bls were i	recovered	l by vac truck		
							=					
Describe Are	a Affected a	nd Cleanup A	Action Tak	ting 75ft x 10Ft	equating	10bble RW	trucking recovere	d 2bble w	vith vac tr	uck Affected	coil will	he
sampled, rem	oved and rep	placed with fi	resh soil. S	Sampling will be	complete	ed by Talon L	PE.	d 20013 W		dek. Affected	SOIT WIII	
I hereby certi	fy that the in	formation gi	ven above	is true and comp	lete to th	e best of my	knowledge and u	nderstand	that purs	suant to NMO	CD rules	and
regulations al	l operators a	re required to	o report ar	id/or file certain r	elease no	otifications and NMOCD m	nd perform correc	tive action	ns for release not reli	eases which n	hay endar	nger bility
should their c	perations ha	ve failed to a	dequately	investigate and r	emediate	e contaminati	on that pose a three	eat to grou	und water	, surface wate	er, humar	n health
or the enviror	ment. In ad	dition, NMO	CD accep	tance of a C-141	report do	pes not reliev	e the operator of r	responsibi	ility for c	ompliance wi	th any otl	her
rederal, state,	or local law	s und of regu	ilutions.				OIL CON	SERVA	TION	DIVISIO	N	
Signature: So	andra F	arley					kiel?	GRA	Ar a	erum		
Printed Name	: Sandra Fa	ırlev				Approved by	EnvironmentaFS	vv ocijalistiji	ental St	necialist	0	
Title: Field A	dmin S	×				Annuaral D				2/17	114	
Thue: Fleid A	amin Supp	ort				Approval Dat		Ex	piration	Date: <b>3</b>	117	
E-mail Addre	ess: Sandy.F	arley@dvn.o	com		(	Conditions of	Approval: SUB	MIT F	FINAL	Attached		
Date: 01.14.2	2014		Phone	: 575.746.5587		C-141 B	8 3/17/14			1RP-01-	-14-3	3008
* Attach Addit	tional Sheet	ts If Necessa	ary		<b>[</b>					_L. •		

JAN 2 3 2014

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# RW TRUCKING LLC

1979 NAME For Garage \_\_\_\_\_Reck 52 NONE // Clement 57 NAME AND OF NAME OF NAME OF









## **APPENDIX B – Closure Criteria Research Documentation**





2904 W 2nd St. Roswell, NM 88201 voice: 575.624.2420 fax: 575.624.2421 www.atkinseng.com



June 8, 2022

DII-NMOSE 1900 W 2<sup>nd</sup> Street Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-4620 Pod1

To whom it may concern:

Attached please find a well log & record and a plugging record, in duplicate, for a one (1) soil borings, C-4620 Pod1.

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

Gron Middlan

Lucas Middleton Enclosures: as noted above

05E ON JUN 10 2022 MB:21


# WELL RECORD & LOG

### **OFFICE OF THE STATE ENGINEER**

www.ose.state.nm.us

_												
Z	OSE POD NO POD 1 (TV	. (well no. V-1)	.)		WELL TAG ID NO. N/A			OSE FILE NO( C-4620	S).			
CATIO	WELL OWNE Devon Ene	ER NAME(S) rgy						PHONE (OPT) 575-748-18	onal) 38			
LL LO	WELL OWNE	ER MAILING	ADDRESS					CITY		STATE	00010	ZIP
ME!	6488 7 Riv	vers Hwy						Artesia		INIM	88210	
NL AND	WELL LOCATIO	N LAT	DE	GREES 32	MINUTES 9	SECONI 7.46	bs 5 N	• ACCURACY	REQUIRED: ONE TEN	TH OF A	SECOND	
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VIIOI	DRILLING FLUID: AIR MUD ADDITIVES - SPECIFY:											
DRM	DRILLING METHOD: ROTARY HAMMER CABLE TOOL OTHER-SPECIFY: Hollow Stem Auger								TER IS			
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R M/												
NULA										_		
I. AN												
FOF	OSE INTER	NAL USE						WR-2	0 WELL RECORD	& LOG	(Version 01/28	8/2022)
FIL	E NO.				POD NO		T	WELL TAGE			PAGE	1 OF 2

WELL TAG ID NO.

LOCATION

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								_			
	DEPTH (f FROM	eet bgl) TO	THICKNESS (feet)	COLOR AN INCLUDE WATE (attach sup	D TYPE OF MATERIAL E R-BEARING CAVITIES O plemental sheets to fully do	NCOUN R FRAC escribe a	TERED - TURE ZONES Il units)		WATE BEARIN (YES / N	ir NG? NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	0	6	6	Sand Fine-	rained noorly graded, 2.5 Y	( <b>R</b> 3/6, T	Dark Red	-	Y	/ N	Eone (Shu)
	6	19	13	Sand Fine-grained nor	arly graded unconsolidated.	7.5 YR 3	7/6. Reddish Ye	llow	Y ·	V N	
	29	55	36	Sand. Fine-graine	1. poorly graded, with Calic	1e. 7.5 Y	R 75/6. Brown		Y .	√ N	
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PER			bo	elow ground surface(b	gs), then hydrated benton	ite chip	s ten feet bgs	to sur	face.		<b>-</b>
RIG SU			Z. C	2 otton Draw Unit 252H	I		0'3	EOI	I JUN 10	) 2022	2 am <u>9;21</u>
EST;	PRINTNAM	E(S) OF D	RILL RIG SUPE	RVISOR(S) THAT PRO	VIDED ONSITE SUPERVI	SION O	WELL CONS	TRUG	CTION OTH	ER TH	AN LICENSEE:
5. T	Shane Eldric	lge, Came	ron Pruitt								
TURE	THE UNDE CORRECT H AND THE P	RSIGNED I RECORD O ERMIT HO	HEREBY CERTI OF THE ABOVE I OLDER WITHIN	FIES THAT, TO THE B DESCRIBED HOLE AN 30 DAYS AFTER COM	EST OF HIS OR HER KNO D THAT HE OR SHE WIL PLETION OF WELL DRIL	OWLEDO L FILE ' LING:	GE AND BELII THIS WELL RI	EF, TI ECOR	HE FOREG D WITH T	OING I HE STA	S A TRUE AND TE ENGINEER
. SIGNA'	Jack A	tkins		Jac	kie D. Atkins				6/9/20	022	
9		SIGNAT	URE OF DRILLI	ER / PRINT SIGNEE	NAME				D	DATE	
EOI	OSE NITER	NAT HEE					WR-20 WEL	LRE		)G <i>(</i> Ver	sion 01/28/2022)
FIL	E NO.	AL USE			POD NO.		TRN NO.			50 (10	510H (1) 20/2022)
LO	CATION					WELL	TAG ID NO.				PAGE 2 OF 2



# PLUGGING RECORD



### NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

### I. GENERAL / WELL OWNERSHIP:

State	Engineer Well Number: C-4620			
Well	owner: Devon Energy		Phone No.:	75-748-1838
Maili	ing address:6488 7 Rivers Hwy			
City:	Artesia	State:	New Mexico	Zip code:88210
II. V	VELL PLUGGING INFORMATION:			
1)	Name of well drilling company that plug	ged well: Jackie D	D. Atkins ( Atkins Engineeri	ng Associates Inc.)
2)	New Mexico Well Driller License No.:	1249	Ехр	iration Date:
3)	Well plugging activities were supervised Shane Eldridge, Cameron Pruitt	by the following w	vell driller(s)/rig superviso	r(s):
4)	Date well plugging began:6/6/2022	Da	te well plugging conclude	d: <u>6/6/2022</u>
5)	GPS Well Location: Latitude: Longitude:	<u>    32      deg,</u> <u>    103     </u> deg,	9 min, 7.46 42 min, 43.84	sec 4sec, WGS 84
6)	Depth of well confirmed at initiation of p by the following manner: water level pro	lugging as:58 be	5 ft below ground leve	l (bgl),
7)	Static water level measured at initiation of	of plugging:n/	aft bgl	
8)	Date well plugging plan of operations wa	s approved by the	State Engineer: 5/19/202	22
9)	Were all plugging activities consistent w differences between the approved plugging	ith an approved plung plan and the we	ngging plan? Yes Il as it was plugged (attach	If not, please describe additional pages as needed):
			05	E 011 JUN 10 2022 #*3121

Version: September 8, 2009 Page 1 of 2 10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

<u>Depth</u> (ft bgl)	Plugging <u>Material Used</u> (include any additives used)	Volume of <u>Material Placed</u> (gallons)	<u>Theoretical Volume</u> of Borehole/ Casing (gallons)	Placement <u>Method</u> (tremie pipe, other)	<u>Comments</u> ("casing perforated first", "open annular space also plugged", etc.)
	0-10' Hydrated Bentonite	Approx. 15 gallons	15 gallons	Augers	
	10'-55' Drill Cuttings	Approx. 71 gallons	71 gallons	Boring	
-					
4					
1.1.1					
				OSE OTA	FUN 10 2022 ##5:21
		MULTIPLY E cubic feet x 7.4 cubic yards x 201.5	3Y AND OBTAIN 805 = gallons 87 = gallons		

#### For each interval plugged, describe within the following columns:

#### **III. SIGNATURE:**

I, <u>Jackie D. Atkins</u>, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Jack Atkins

6/9/2022

Signature of Well Driller

Date

Version: September 8, 2009 Page 2 of 2

# 22\_C-4620\_WR-20 Well Record and Log-forsign

### Final Audit Report

2022-06-09

Created:	2022-06-09
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAADkdumLMcT-3UaBp7g4YqUlg_eAUBgYK1

### "22\_C-4620\_WR-20 Well Record and Log-forsign" History

- Document created by Lucas Middleton (lucas@atkinseng.com) 2022-06-09 - 3:21:13 PM GMT
- Document emailed to Jack Atkins (jack@atkinseng.com) for signature 2022-06-09 3:22:34 PM GMT
- Email viewed by Jack Atkins (jack@atkinseng.com) 2022-06-09 - 5:10:11 PM GMT
- Document e-signed by Jack Atkins (jack@atkinseng.com) Signature Date: 2022-06-09 - 5:10:30 PM GMT - Time Source: server
- Agreement completed. 2022-06-09 - 5:10:30 PM GMT

DSE DIT JUN 10 2022 #9/21

Adobe Acrobat Sign

### U.S. Fish and Wildlife Service National Wetlands Inventory

### Trionyx 6 Federal 7 Watercourse (Riverine) 16,274 feet



Lake

Other

Riverine

Freshwater Emergent Wetland

**Freshwater Pond** 

Freshwater Forested/Shrub Wetland

### Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

Released to Imaging: 7/25/2023 8:31:39 AM

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

U.S. Fish and Wildlife Service

### National Wetlands Inventory

### Trionyx 6 Federal 7 Pond 43,570 feet

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National Wetlands Inventory (NWI) This page was produced by the NWI mapper





## New Mexico Office of the State Engineer **Point of Diversion Summary**

	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)	(NAD83 UTM in meters)
Well Tag POD Number	Q64 Q16 Q4 Sec Tws Rng	X Y
NA C 04620 POD1	4 3 4 06 258 32E	621445 3558018 🌍
Driller License: 1249	Driller Company: ATKINS ENG	JINEERING ASSOC. INC.
<b>Driller Name:</b> ATKINS, JACKIE	D.UELENER	
<b>Drill Start Date:</b> 06/01/2022	<b>Drill Finish Date:</b> 06/01/2022	Plug Date:
Log File Date: 06/10/2022	PCW Rev Date:	Source:
Pump Type:	Pipe Discharge Size:	Estimated Yield: 0 GPM
Casing Size:	Depth Well: 55 feet	Depth Water:
Casing Perfo	rations: Top Bottom	
	0 55	

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POINT OF DIVERSION SUMMARY

Recaised by 450 Fireport"%3A"podByLocOwner"%2C%0A"PodNbrDiv"%3A"ege 46 of 168



### New Mexico Office of the State Engineer Active & Inactive Points of Diversion

(with Ownership Information)

							(R=POD has been replaced and no longer serves this file,	(quarte	rs are 1=	NW 2=	=NE 3=	=SW 4=SE)		
		(acre ft per a	nnum)				C=the file is closed)	(quarte	rs are sm	allest	to large	est)	(NAD	83 UTM in me
	Sub					Well			qqq					
WR File Nbr <u>C 04620</u>	basin CUB	Use Divers MON	o DEVON ENERGY	County LE	POD Number <u>C 04620 POD1</u>	Tag NA	Code Grant	Source	<b>64164</b> 434	<b>Sec</b> 06	Tws 25S	Rng 32E	X 621445	Y 3558018
<u>C 04722</u>	CUB	MON	0 DEVON ENERGY RESOURCES	LE	<u>C 04722 POD2</u>	NA			2 1 1	06	258	32E	620808	3559499 🧲
<u>C 04635</u>	CUB	EXP	0 DEVON ENERGY	ED	C 04635 POD1	NA			434	01	258	31E	619957	3558078 🧲
<u>C 02245</u>	С	STK	3 TWIN WELLS RANCH LLC	ED	<u>C 02245</u>				1 1	12	25S	31E	619018	3557785* 🧲
<u>C 02568</u>	CUB	COM	3 OXY USA INC	ED	<u>C 02568</u>				4 3 1	01	25S	31E	619103	3558892* 🧲
<u>C 04221</u>	CUB	MON	0 AND PRODUCTION CHEVRON NORTH AMERICA EXPLORAT	ED	<u>C 04221 POD1</u>	NA			2 1 2	09	25S	32E	624855	3557903 🧲
<u>C 02570</u>	CUB	COM	3 OXY USA INC	ED	<u>C 02570</u>				424	02	258	31E	618704	3558489* 🧲
<u>C 03830</u>	CUB	EXP	0 ROCKHOUSE RANCH INC	ED	<u>C 03830 POD1</u>			Shallow	424	02	258	31E	618632	3558432 🧲
<u>C 02569</u>	CUB	COM	12 BUREAU OF LAND MANAGEMENT	ED	<u>C 02569</u>			Shallow	4 4 2	02	258	31E	618699	3558891* 🧲
<u>C 04618</u>	CUB	MON	0 DEVON ENERGY	LE	<u>C 04618 POD1</u>	NA			3 4 3	18	258	32E	621040	3554886 🧲
<u>C 02572</u>	CUB	COM	3 OXY USA INC	ED	<u>C 02572</u>				4 2 2	02	258	31E	618695	3559294* 🧲
<u>C 02573</u>	CUB	COM	3 BUREAU OF LAND MANAGEMENT	ED	<u>C 02573</u>				1 4 2	02	25S	31E	618499	3559091* 🧲
<u>C 04161</u>	С	DOL	3 JEFF ROBBINS	LE	<u>C 04161 POD1</u>	20662			4 4 1	33	24S	32E	624386	3560611 🧧
<u>C 02571</u>	CUB	COM	3 BUREAU OF LAND MANAGEMENT	ED	<u>C 02571</u>			Shallow	4 1 2	02	258	31E	618292	3559294* 🧲
<u>C 04654</u>	CUB	MON	0 DEVON ENERGY	ED	<u>C 04654 POD1</u>	NA			334	25	24S	31E	619764	3561226 🧧
<u>C 02574</u>	CUB	COM	12 BUREAU OF LAND MANAGEMENT	ED	<u>C 02574</u>			Shallow	1 1 2	02	258	31E	618092	3559494* 🧲
<u>C 04634</u>	CUB	EXP	0 DEVON ENERGY	LE	<u>C 04634 POD1</u>	NA			433	10	258	32E	625642	3556522
<u>C 04636</u>	CUB	EXP	0 DEVON ENERGY	ED	<u>C 04636 POD1</u>	NA			3 4 3	25	24S	31E	619200	3561279
<u>C 04643</u>	С	DOL	3 FULTON VALENZUELA	ED	<u>C 04643 POD1</u>	21068		Shallow	4 2 2	05	238	27E	619200	3561279
<u>C 04536</u>	С	STK	3 BASIN PROPERTIES RANCHES LLC	LE	<u>C 04536 POD1</u>	20E37		Shallow	1 2 2	33	24S	32E	625019	3561244 🧲
<u>C 04665</u>	CUB	EXP	0 COG OPERATING LLC	LE	<u>C 04665</u>	NA			1 1 2	30	24S	32E	621349	3562798 🧧
Record Count:	21													
UTMNAD83 F	Radius	<u>Search (in m</u>	eters):											
Easting (X):	621	835	Northing (Y): 3558080		Radius:	5000								

Sorted by: Distance

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF D

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WATER RIGHT SUMMARY

# OSE POD 0.5 Mile



### 6/13/2023, 1:27:58 PM

GIS WATERS PODs 0 Active

OSE District Boundary New Mexico State Trust Lands Water Right Regulations

Subsurface Estate

- Closure Area Pending

0

Both Estates

SiteBoundaries



Esri, HERE, iPC, U.S. Department of Energy Office of Legacy Management, Esri, HERE, Garmin, iPC, Maxar



	(quarters are smallest to largest)	(NAD83 UTM in meters)
Well Tag POD Number	Q64 Q16 Q4 Sec Tws Rng	X Y
C 02568	4 3 1 01 25S 31E	619103 3558892* 😜
x Driller License:	Driller Company:	
Driller Name: UNKNOWN		
Drill Start Date: 07/10/1973	<b>Drill Finish Date:</b> 07/10/19	73 Plug Date:
Log File Date:	PCW Rcv Date:	Source:
Pump Type:	Pipe Discharge Size:	<b>Estimated Yield:</b>
Casing Size: 7.00	<b>Depth Well:</b> 1025 feet	Depth Water:

\*UTM location was derived from PLSS - see Help

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POINT OF DIVERSION SUMMARY



U.S. Fish and Wildlife Service

### National Wetlands Inventory

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#### June 20, 2023

#### Wetlands\_Alaska

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland Freshwater Forested/Shrub Wetland
- **Freshwater Pond**

Lake Other Riverine

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### Trionyx 6 Federal #007H



# 6/13/2023, 11:12:38 AM 1:72,224 Registered Mines 0 0.5 1 2 mi \* Aggregate, Stone etc. 0 0.75 1.5 3 km

Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA



Recei

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by OCD: 7/20/2023 1:32:25 PM

### Received by OCD: 7/20/2023 1:32:25,PM National Flood Hazard Layer FIRMette



### Legend

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Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020



United States Department of Agriculture

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Lea County, New Mexico



# Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/? cid=nrcs142p2\_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

.

### Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

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### Custom Soil Resource Report

MAP L	EGEND	MAP INFORMATION			
Area of Interest (AOI) Area of Interest (AOI)	<ul><li>Spoil Area</li><li>Stony Spot</li></ul>	The soil surveys that comprise your AOI were mapped at 1:20,000.			
Soils Soil Map Unit Polygons Soil Map Unit Lines Soil Map Unit Points Special Point Features Blowout	<ul> <li>Very Stony Spot</li> <li>Wet Spot</li> <li>Other</li> <li>Special Line Features</li> </ul>	Warning: Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.			
Image: Borrow Pit         Image: Borrow Pit         Image: Clay Spot         Image: Closed Depression         Image: Closed Depression	Transportation H Rails Interstate Highways US Routes Maior Boardo	Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)			
<ul> <li>Landfill</li> <li>Lava Flow</li> <li>Marsh or swamp</li> <li>Mine or Quarry</li> </ul>	Local Roads      Local Roads      Aerial Photography	Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.			
<ul> <li>Miscellaneous Water</li> <li>Perennial Water</li> <li>Rock Outcrop</li> <li>Saline Spot</li> </ul>		This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. Soil Survey Area: Lea County, New Mexico Survey Area Data: Version 19, Sep 8, 2022			
<ul> <li>Sandy Spot</li> <li>Severely Eroded Spot</li> <li>Sinkhole</li> <li>Slide or Slip</li> <li>Sodic Spot</li> </ul>		Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020 The orthophoto or other base map on which the soil lines were			
		compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.			

### Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MF	Maljamar and Palomas fine sands, 0 to 3 percent slopes	4.3	100.0%
Totals for Area of Interest		4.3	100.0%

### **Map Unit Descriptions**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

### Lea County, New Mexico

### MF—Maljamar and Palomas fine sands, 0 to 3 percent slopes

### **Map Unit Setting**

National map unit symbol: dmqb Elevation: 3,000 to 3,900 feet Mean annual precipitation: 10 to 15 inches Mean annual air temperature: 60 to 62 degrees F Frost-free period: 190 to 205 days Farmland classification: Farmland of statewide importance

### **Map Unit Composition**

Maljamar and similar soils: 46 percent Palomas and similar soils: 44 percent Minor components: 10 percent Estimates are based on observations, descriptions, and transects of the mapunit.

### **Description of Maljamar**

### Setting

Landform: Plains Landform position (three-dimensional): Rise Down-slope shape: Linear Across-slope shape: Linear Parent material: Sandy eolian deposits derived from sedimentary rock

### **Typical profile**

A - 0 to 24 inches: fine sand Bt - 24 to 50 inches: sandy clay loam Bkm - 50 to 60 inches: cemented material

### **Properties and qualities**

Slope: 0 to 3 percent
Depth to restrictive feature: 40 to 60 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.6 inches)

### Interpretive groups

Land capability classification (irrigated): 7e Land capability classification (nonirrigated): 7e Hydrologic Soil Group: B Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

#### **Description of Palomas**

#### Setting

Landform: Plains Landform position (three-dimensional): Rise Down-slope shape: Linear Across-slope shape: Linear Parent material: Alluvium derived from sandstone

### **Typical profile**

A - 0 to 16 inches: fine sand Bt - 16 to 60 inches: sandy clay loam Bk - 60 to 66 inches: sandy loam

#### **Properties and qualities**

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 45 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 7.5 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7e Hydrologic Soil Group: B Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

### **Minor Components**

#### Kermit

Percent of map unit: 5 percent Ecological site: R070BC022NM - Sandhills Hydric soil rating: No

#### Wink

Percent of map unit: 5 percent Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

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### UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE

### **ECOLOGICAL SITE DESCRIPTION**

### ECOLOGICAL SITE CHARACTERISTICS

Site Type:	Rangeland	
Site ID:	R042XC003NM	
Site Name:	Loamy Sand	
Precipitation	or Climate Zone: 8	8 to 13 inches
Phase:		

### **PHYSIOGRAPHIC FEATURES**

### Narrative:

This site occurs on upland plains between drainageways. Slopes are nearly level to undulating, usually less than 9 percent. Low stabilized dunes may occur occasionally. Direction of slopes vaaries and is not usually significant. Elevations range from 2,500 to 4,500 feet.

Land Form:
1. Fan
2. Alluvial flat
3.
A spect:

A	ispect.
1	. N/A
2	
3	

	Minimum	Maximum
Elevation (feet)	2,500	4,500
Slope (percent)	0	9
Water Table Depth (inches)	N/A	N/A
Flooding:	Minimum	Maximum
Frequency	N/A	N/A
Duration	N/A	N/A
Ponding:	Minimum	Maximum
Depth (inches)	N/A	N/A
Frequency	N/A	N/A
Duration	N/A	N/A
Runoff Class:		

Negligible to High depending on slope.
### **CLIMATIC FEATURES**

#### Narrative:

The average annual precipitation ranges from 8 to 13 inches. Variations of 5 inches, more or less, are common. Over 80 percent of the precipitation falls from April through October. Most of the summer precipitation comes in the form of high intensity-short duration thunderstorms.

Temperatures are characterized by distinct seasonal changes and large annual and diurnal temperature changes. The average annual temperature is 61 degrees with extremes of 25 degrees below zero in the winter to 112 degrees in the summer.

The average frost-free season is 207 to 220 days. The last killing frost being late March or early April and the first killing frost being in later October or early November.

Temperature and rainfall both favor warm season perennial plant growth. In years of abundant spring moisture, annual forbs and cool season grasses can make up an important component of this site. Strong winds blow from the southwest from January through June, which accelerates soil drying during a critical period for cool season plant growth.

	Minimum	Maximum
Frost-free period (days):	180	221
Freeze-free period (days):	199	240
Mean annual precipitation (inches):	10.0	13.0

Monthly moisture (inches) and temperature (<sup>0</sup>F) distribution:

,	Precip. Min.	Precip. Max.	Temp. Min.	Temp. Max.
January	0.40	0.42	20.6	59.7
February	0.40	0.41	25.2	65.6
March	0.41	0.43	31.4	72.7
April	0.58	0.63	40.4	81.5
May	1.28	1.35	49.6	88.7
June	1.40	1.46	59.1	95.4
July	1.62	1.64	63.3	96.4
August	1.79	1.84	61.6	94.8
September	1.81	2.20	54.1	88.5
October	1.16	1.41	40.7	80.4
November	0.43	0.47	28.4	68.7
December	0.48	0.51	20.9	61.1

#### Climate Stations:

(1) NM0600, Artesia, NM - Period of record 1961 - 1990

(2) NM0992, Bitter Lakes WL Refuge, NM - Period of record 1961 - 1990

(3) NM1469, Carlsbad, NM - Period of record 1961 - 1990

(4) NM293792, Hagerman, NM - Period of record 1961 - 1990

(5) NM299563, Waste Isolation Plant, NM - Period of record 1961 - 1990

(2) NM4346, Jal, NM - Period of record 1961 - 1990

## INFLUENCING WATER FEATURES

#### Narrative:

This site is not influenced from water from wetlands or streams.

Wetland description:

System	Subsystem	Class
N/A		

If Riverine Wetland System enter Rosgen Stream Type:  $N\!/\!A$ 

### **REPRESENTATIVE SOIL FEATURES**

#### Narrative:

The soils on this site are deep and well drained. The surface texture varies from fine sand to loamy fine sand to a depth of 20 to 30 inches. Underlying layers are fine sandy loam or sandy clay loam. Some layers high in lime or with caliche fragments may occur at depths of 20 to 30 inches. These soils have a moderately rapid to moderate permeability. Available water holding capacity is medium to high. Moisture that falls on this site is readily absorbed and can be stored in the lower part of the root zone. These soils, if unprotected by plant cover and organic residue, become wind blown and low hummocks are formed.

Parent Material Kind:	Alluvium	
Parent Material Origin:	Mixed	

Surface Texture:

1.	Fine sand
2.	Loamy
3.	Loamy fine sand

#### Surface Texture Modifier:

1.	N/A
2.	
3.	

Subsurface Texture Group:	N/A
Surface Fragments <=3" (% Cover):	N/A
Surface Fragments >3" (% Cover):	N/A
Subsurface Fragments <=3" (%Volume):	: 4 to 12
Subsurface Fragments >=3" (%Volume):	: N/A

Minimum	Maximum
Well	Well
Moderately slow	Moderate
>72	>72
2.0	4.0
N/A	N/A
6.6	8.4
N/A	N/A
5	5
N/A	N/A
	Minimum Well Moderately slow >72 2.0 N/A 6.6 N/A 5 N/A

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# PLANT COMMUNITIES

### **Ecological Dynamics of the Site:**

### Overview

The Loamy Sand site intergrades with the Deep Sand and Sandy sites (SD-3). These sites can be differentiated by surface soil texture and depth to a textural change. Loamy Sand and Deep Sand sites have coarse textured (sands and loamy sand) surface soils while Sandy sites have moderately coarse textured (sandy loam and fine sandy loam) surfaces. Although Loamy Sand and Deep Sand sites have similar surface textures, the depth to a textural change is different—Loamy Sand sub-surface textures typically increase in clay at approximately 20 to 30 inches, and Deep Sand sites not until around 40 inches.

The historic plant community of Loamy Sand sites is dominated by black grama (Bouteloua eriopoda), dropseeds (Sporobolus flexuosus, S. contractus, S. cryptandrus), and bluestems (Schizachyrium scoparium and Andropogon hallii), with scattered shinnery oak (Quercus havardii) and sand sage (Artemisia filifolia). Perennial and annual forb abundance and distribution are dependent on precipitation. Litter and to a lesser extent, bare ground, are a significant proportion of ground cover while grasses compose the remainder. Decreases in black grama indicate a transition to either a grass/shrub or shrub-dominated state. The grass/shrub state is composed of grasses/honey mesquite (Prosopis glandulosa), grasses/broom snakeweed (Gutierrezia sarothrae), or grasses/sand sage. The shrub-dominated state occurs after a severe loss of grass cover and a prevalence of sand sage with secondary shinnery oak and mesquite. Heavy grazing intensity and/or drought are influential drivers in decreasing black grama and bluestems and subsequently increasing shrub cover, erosion, and bare patches. Historical fire suppression also encourages shrub pervasiveness and a competitive advantage over grass species (McPherson 1995). Brush and grazing management, however, may reverse grass/shrub and shrub-dominated states toward the grassland-dominated historic plant community.

### Plant Communities and Transitional Pathways (diagram):

### MLRA-42, SD-3, Loamy Sand



1a. Drought, over grazing, fire suppression.

1b. Brush control, prescribed grazing

2.a Severe loss of grass cover, fire suppression, erosion.

2b. Brush control, seeding, prescribed grazing.

3. Continued loss of grass cover, erosion.

.

# Plant Communities Photo Display & Descriptive Diagnosis

# MLRA 42; SD-3; Loamy Sand

Grass/Shrub





### Shrub-Dominated

•Black grama/Mesquite community, with some dropseeds, threeawns, and scattered sand shinnery oak •Grass cover low to moderate

•Sand Sage/Sand shinnery oak community, with some yucca, dropseeds, threeawns, and black grama •Grass cover low •Bare patches evident



# Shrub-Dominated





Sand sagebrush community, with some dropseeds, bluestems, and a few scattered mesquite
Grass cover low
Bare patches expanding
Pajarito loamy fine sand, Eddy Co.,

NM

Plant Community Name:	Historic Clin	nax Plant Co	ommunity	
Plant Community Sequence N	Number:	1	Narrative Label:	HCPC

#### **State Containing Historic Plant Community**

**Grassland:** The historic plant community is a uniformly distributed grassland dominated by black grama, dropseeds, and bluestems. Sand sage and shinnery oak are evenly dispersed throughout the grassland due to the coarse soil surface texture. Perennial and annual forbs are common but their abundance and distribution are reflective of precipitation. Bluestems initially, followed by black grama, decrease with drought and heavy grazing intensity. Historical fire frequency is unknown but likely occurred enough to remove small shrubs to the competitive advantage of grass species. Fire suppression, drought conditions, and excessive grazing drive most grass species out of competition with shrub species.

Diagnosis: Grassland dominated by black grama, dropseeds, and bluestems. Shrubs, such as sand sage, shinnery oak, and mesquite are dispersed throughout the grassland. Forbs are present and populations fluctuate with precipitation variability.

Ground Cover (Aveage Percent of Surface Area).	
Grasses & Forbs	28
Bare ground	22
Surface cobble and stone	_ 0
Litter (percent)	50
Litter (average depth in cm.)	1

Than community Timuar Troduction (by plant type).				
Annual Production (lbs/ac)				
Plant Type	Low	RV	High	
Grass/Grasslike	442	833	1224	
Forb	110	208	306	
Tree/Shrub/Vine	98	184	270	
Lichen				
Moss				
Microbiotic Crusts				
Totals	650	1225	1800	

Plant Community Annual Production (by plant type):

Plant Community Composition and Group Annual Production: P annual production **not** by functional groups.

Plant species are grouped by

Plant Type - Grass/Grasslike					
Group	Scientific		Species	Group	
Number	Plant	Common Name	Annual	Annual	
	Symbol		Production	Production	
1	SCSC	little bluestem	61 - 123	61 - 123	
2	ANHA	sand bluestem	37 - 61	37 - 61	
3	BOSA	silver bluestem	37 - 61	37 - 61	
3	BOBA3	cane bluestem			
4	BOER4	black grama	123 - 184	123 - 184	
4	MUPO2	bush muhly			
5	SEVU2	plains bristlegrass	123 - 184	123 - 184	
5	URCI	signal grass			
5	PASE5	sand paspalum			
6	SPCR	sand dropseed	123 - 184	123 - 184	
6	SPCO4	spike dropseed			
6	SPFL2	mesa dropseed			
7	DICOA	fall witchgrass	61 - 123	61 - 123	
7	CHCU2	hooded windmill			
7	DICA8	Arizona cottontop			
8	SPGI	giant dropseed	37 - 61	37 - 61	
8	HENE5	New Mexico feathergrass			
9	2GP	other perennial grasses	37 - 61	37 - 61	

Plant Type – Tree/Shrub/Vine

Group	Scientific		Species	Group
Number	Plant	Common Name	Annual	Annual
	Symbol		Production	Production
10	ARFI2	sand sagebrush	61 – 123	61 – 123
10	QUHA3	shinnery oak		
11	ATCA2	fourwing saltbush	37 - 61	37 - 61
11	DAFO	feather dalea		
12	EPHED	ephedra spp.	37 - 61	37 - 61
12	KRER	range ratany		
13	2SHRUB	other shrubs	37 - 61	37 - 61

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Plant Type	- Forb			
Group	Scientific		Species	Group
Number	Plant	Common Name	Annual	Annual
	Symbol		Production	Production
14	CRPOP	leather croton	61 - 123	61 - 123
14	SPHAE	globemallow		
14	GAPU	Indian blanket flower		
15	PACAL5	wooly groundsel	12 - 37	12 - 37
16	PLPA2	wooly Indianwheat	61 - 123	61 - 123
16		Deerstongue		
16	DIWI2	spectaclepod		
17	2FORB	other forbs	37 - 61	37 - 61

#### Plant Type - Lichen

Group	Scientific		Species	Group
Number	Plant	Common Name	Annual	Annual
	Symbol		Production	Production

#### Plant Type - Moss

Group	Scientific	Common Nomo	Species	Group
Number	Plant	Common Name	Annual	Annual
	Symbol		Production	Production

#### Plant Type - Microbiotic Crusts

Group	Scientific		Species	Group	
Number	Plant	Common Name	Annual	Annual	
	Symbol		Production	Production	

### Plant Growth Curves

Growth Curve ID NM2803	
Growth Curve Name: HCPC	
Growth Curve Description:	SD-3 Loamy Sand - Warm season plant community

Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
0	0	3	5	10	10	25	30	12	5	0	0

.

#### **Additional States**

**Grass/Shrub State:** The grass/shrub state is dominated by communities of grasses/mesquite, grasses/snakeweed, or grasses/sand sage. Decreases in black grama and bluestem species lead to an increase in bare patches and mesquite which further competes with grass species. An increase of dropseeds and threeawns occurs. Grass distribution becomes more patchy with an absence or severe decrease in black grama and bluestems. Mesquite provides nitrogen and soil organic matter to co-dominant grasses (Ansley and Jacoby 1998, Ansley et al. 1998). Mesquite mortality when exposed to fire is low due to aggressive resprouting abilities. Herbicide application combined with subsequent prescribed fire may be more effective in mesquite reduction (Britton and Wright 1971).

Diagnosis: This state is dominated by an increased abundance of communities including grass/mesquite, grass/snakeweed, or grass/sand sage. Dropseeds and threeawns have a patchy distribution.

**Transition to Grass/Shrub State (1a):** The historic plant community begins to shift toward the grass/shrub state as drivers such as drought, fire suppression, interspecific competition, and excessive grazing contribute to alterations in soil properties and herbaceous cover. Cover loss and surface soil erosion are initial indicators of transition followed by a decrease in black grama with a subsequent increase of dropseeds, threeawns, mesquite, and snakeweed. Snakeweed has been documented to outcompete black grama especially under conditions of fire suppression and drought (McDaniel et al. 1984).

Key indicators of approach to transition:

- Loss of black grama cover
- Surface soil erosion
- Bare patch expansion
- Increased dropseed/threeawn and mesquite, snakeweed, or sand sage abundances

**Transition to Historic Plant Community (1b):** Brush and grazing management may restore the grassland component and reverse shrub or grass/shrub dominated states back toward the historic plant community.

**Shrub-Dominated State:** The shrub-dominated state results from a severe loss of grass cover. This state's primary species is sand sage. Shinnery oak and mesquite also occur; however, grass cover is limited to intershrub distribution. Sand sage stabilizes light sandy soils from wind erosion, which enhances protected grass/forb cover (Davis and Bonham 1979). However, shinnery oak also responds to the sandy soils with dense stands due to an aggressive rhizome system. Shinnery oak's extensive root system promotes competitive exclusion of grasses and forbs. Sand sage, shinnery oak, and mesquite can be controlled with herbicide (Herbel et al. 1979, Pettit 1986).

**Transition to Shrub-Dominated (2a):** Severe loss of grass species with increased erosion and fire suppression will result in a transition to a shrub-dominated state with sand sage, Shin oak, and honey mesquite directly from the grassland-dominated state.

Key indicators of approach to transition:

- Severe loss of grass species cover
- Surface soil erosion
- Bare patch expansion
- Increased sand sage, shinnery oak, and mesquite abundance

**Transition to Historic Plant Community (2b):** Brush and grazing management may restore the grassland component and reverse shrub or grass/shrub dominated states back toward the historic plant community. In addition, seeding with native grass species will augment the transition to a grassland-dominated state.

**Transition to Shrub-Dominated (3):** If the grass/shrub site continues to lose grass cover with soil erosion, the site will transition to a shrub-dominated state with sand sage, shinnery oak, and honey mesquite.

Key indicators of approach to transition:

- Continual loss of dropseeds/threeawns cover
- Surface soil erosion
- Bare patch expansion
- Increased sand sage, shinnery oak, and mesquite/dropseed/threeawn and mesquite/snakeweed abundance

# ECOLOGICAL SITE INTERPRETATIONS

### **Animal Community:**

This Ecological Site provides habitat which supports a resident animal community that is characterized by pronghorn antelope, desert cottontail, spotted ground squirrel, black-tailed prairie dog, yellow faced pocket gopher, Ord's kangaroo rat, northern grasshopper mouse, southern plains woodrat, badger, roadrunner, meadowlark, burrowing owl, white necked raven, lesser prairie chicken, morning dove, scaled quail, Harris hawk, sie blotched lizard, marbled whiptail, Texas horned lizard, western diamondback rattlesnake, dusty hognose snake and ornate box turtle.

Where mesquite has invaded, most resident birds and scissor-tailed flycatcher, morning dove and Swainson's hawk, nest. Vesper and grasshopper sparrows utilize the site during migration.

### **Hydrology Functions:**

The runoff curve numbers are determined by field investigations using hydraulic cover conditions and hydrologic soil groups.

Hydrologic Interpretations					
Soil Series	Hydrologic Group				
Berino	В				
Kinco	Α				
Maljamar	В				
Pajarito	В				

### **Recreational Uses:**

This site offers recreation potential for hiking, borseback riding, nature observation, photography and hunting. During years of abundant spring moisture, this site displays a colorful array of wildflowers during May and June.

### Wood Products:

This site has no potential for wood products.

### **Other Products:**

This site is suitable for grazing by all kinds and classes of livestock at any time of year. In cases where this site has been invaded by brush species it is especially suited for goats. Mismanagement of this site will cause a decrease in species such as the bluestems, blsck grama, bush muhly, plains bristlegrass, New Mexico feathergrass, Arizona cottontop and fourwing saltbush. A corresponding increase in the dropseeds, windmill grass, fall witchgrass, silver bluestem, sand sagebrush, shinery oak and ephedra will occur. This will also cause an increase in bare ground which will increase soil erodibility. This site will respond well to a system of management that rotates the season of use.

Other Information:	
Guide to Suggested Initial Stocking	Rate Acres per Animal Unit Month
Similarity Index	Ac/AUM
100 - 76	2.3 – 3.5
75 – 51	3.0 - 4.5
50 - 26	4.6 - 9.0
25 – 0	9.1 +

### **Plant Preference by Animal Kind:**

	Code	Species Preference	Code
Stems	S	None Selected	N/S
Leaves	L	Preferred	Р
Flowers	F	Desirable	D
Fruit/Seeds	F/S	Undesirable	U
Entire Plant	EP	Not Consumed	NC
Underground Parts	UP	Emergency	Е
		Toxic	Т

#### Animal Kind: Livestock

Animal Type:	Cattle													
		Plant					Fora	ge Pi	efere	ences				
Common	Scientific	Part	J	F	Μ	А	М	J	J	А	S	0	Ν	D
Name	Name													
little	Schizachyrium	EP	D	D	D	D	Р	Р	Р	Р	Р	D	D	D
bluestem	scoparium													
sand	Andropogon	EP	D	D	D	D	Р	Р	Р	Р	Р	D	D	D
bluestem	hallii													
black grama	Bouteloua eripoda	EP	Р	Р	Р	D	D	D	D	D	D	D	Р	Р
bush muhly	Mulenbergia	EP	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р
<i></i>	porteri													
sand	Sporobolus	EP	U	U	U	D	D	D	D	D	D	U	U	U
dropseed	cryptandrus													
sand sagebrush	Artemisia filifolia	EP	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
shinnery oak	Quercus	EP	Е	Е	Т	Т	Т	U	U	U	U	U	U	Е
·	havardii													
fourwind	Atriplex	EP	Р	Р	Р	D	D	D	D	D	D	Р	Р	Р
saltbush	canescens													
globemallow	Sphaeralcea	EP	N/S	N/S	N/S	N/S	Р	D	D	D	Р	Р	Р	

.

# **Supporting Information**

Associated Sites:				
Site Name		Site ID	Site Narrative	
Deep Sand		R042XC005NM		
Sandy		R042XC004NM		
<u>Similiar Sites:</u> <u>Site Name</u>		Site ID	Site Narrative	
State Correlation: This site has been	correlated with	the following state	es: Texas	
Data Source	<u>Number of</u> <u>Records</u>	Sample Perio	<u>d State</u>	<u>County</u>
Type Locality:				

Relationship to Other Established Classifications:

Other References:

Data collection for this site was done in conjunction with the progressive soil surveys within the Southern Desertic Basins, Plains and Mountains, Major Land Resource Areas of New Mexico. This site has been mapped and correlated with soils in the following soil surveys. Eddy County, Lea County, and Chaves County.

Characteristic soils are:	Maljamar fine sand	Pyote loamy fine sand
Berino fine sand	Parjarito loamy fine sand	Wickett loamy fine sand
Berino Loamy fine sand	Palomas fine sand	Wink loamy fine sand
Kinco loamy fine sand	Pyote fine sand	Wink loamy sand

### **Literature Cited**

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Site Description Approval:			
Author	Date	<u>Approval</u>	Date
Don Sylvester	07/12/1979	Don Sylvester	07/12/1979
Site Description Revision:			
Author	Date	<u>Approval</u>	Date
David Trujillo	04/30/03	George Chavez	04/30/03



# Map Unit Legend

Map Unit Symbol Map Unit Name		Acres in AOI	Percent of AOI
MF	Maljamar and Palomas fine sands, 0 to 3 percent slopes	27.7	93.6%
PT Pyote loamy fine sand		1.9	6.4%
Totals for Area of Interest		29.6	100.0%



*Hydrologic Soil Group:* A *Ecological site:* R042XC003NM - Loamy Sand *Hydric soil rating:* No

#### **Minor Components**

#### Maljamar

Percent of map unit: 8 percent Ecological site: R042XC003NM - Loamy Sand Hydric soil rating: No

#### Palomas

Percent of map unit: 7 percent Ecological site: R042XC003NM - Loamy Sand Hydric soil rating: No

# **Data Source Information**

Soil Survey Area: Lea County, New Mexico Survey Area Data: Version 18, Sep 10, 2021



# Geology



Qa—Alluvium (Holocene to upper Pleistocene)

QI-Landslide deposits and colluvium (Holocene to Pleistocene) - Landslide deposits on western flanks of Socorro Mountains not shown for clarity

Qpl—Lacustrine and playa deposits (Holocene) — Includes associated alluvial and eolian deposits of major lake basins

Qp—Piedmont alluvial deposits (Holocene to lower Pleistocene)

Qe—Eolian deposits (Holocene to middle Pleistocene)

Released to Interstation Dataset, and National Transportation Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line

Esri, NASA, NGA, USGS, NMBGMR, USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census **APPENDIX C – Daily Field and Sampling Reports** 

Client:	Devon Energy Corporation	Inspection Date:	8/9/2022
Site Location Name:	Trionyx 6 Federal #007H	Report Run Date:	8/10/2022 3:07 PM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
		Summary of	Times
Arrived at Site	8/9/2022 9:15 AM		
Departed Site	8/9/2022 10:45 AM		

### **Field Notes**

**10:02** Arrived on site to complete liner inspection for tank battery area

**10:13** Outside of the containment area appears to be clean and there is no sign of a breach

**10:18** The containment wall does not show any signs of significant damage inside or outside

10:36 The floor of the liner does not show any significant damage and there is no visible staining anywhere outside of the containment area.

**Next Steps & Recommendations** 

1 Submit DFR to client



S	ite Photos
Viewing Direction: West	Viewing Direction: East         Viewing Direction: East
Outside of wall dyke north side	Floor of liner north of tank battery and inside
And the second of the second o	Viewing Direction. West
Floor of liner south of tank battery and inside south wall	Floor of liner south of tank battery and inside south wall

•







Viewing Direction: East	Viewing Direction: North
Outside of wall dyke south side	Outside of wall dyke southeast cutaway
Viewing Direction: Fast	Viewing Direction: East
	viewing Direction. East
The wring bill continue to associate the second sec	Viewing Direction. East

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# VERTEX





**Daily Site Visit Signature** 

Inspector: McKitric Wier

Signature: Model Signature

•



Client:	Devon Energy Corporation	Inspection Date:	8/19/2022
Site Location Name:	Trionyx 6 Federal #007H	Report Run Date:	8/19/2022 5:49 PM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
		Summary of	Times
Arrived at Site	8/19/2022 10:30 AM		
Departed Site	8/19/2022 11:44 AM		

### **Field Notes**

11:26 Meet Devon rep on site to review sampling area. Flag area for sampling

11:40 Ticket submitted for one call

#### **Next Steps & Recommendations**

**1** Wait on one call to clear

2 Schedule delineation

3 Delineation of area



#### Site Photos







White line area

Run on 8/19/2022 5:49 PM UTC



#### **Daily Site Visit Signature**



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Client:	Devon Energy Corporation	Inspection Date:	8/25/2022
Site Location Name:	Trionyx 6 Federal #007H	Report Run Date:	8/25/2022 10:38 PM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
		Summary of	Times
Arrived at Site	8/25/2022 9:38 AM		
Departed Site	8/25/2022 3:20 PM		

**Field Notes** 

9:39 Arrived on location and conducted JSA and toolbox

12:06 Collected samples BS22-1-BS22-5 and field screened for EC

#### **Next Steps & Recommendations**

1









North view of area bore holes for confirmation samples



**Daily Site Visit Signature** 

Inspector: Joseph Barajas Signature:

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Client:	Devon Energy Corporation	Inspection Date:	2/28/2023
Site Location Name:	Trionyx 6 Federal #007H	Report Run Date:	2/28/2023 8:40 PM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
		Summary of	Times
Arrived at Site	2/28/2023 9:08 AM		
Departed Site	2/28/2023 11:17 AM		

### Field Notes

**11:17** Arrived at site and filled out safety paperwork. Met with Devon rep and white lined area of interest.

**11:17** White line/flagged area and took photographs. Will place 811 call.

#### **Next Steps & Recommendations**

1



# **Site Photos** Viewing Direction: Southeast Viewing Direction: East Northwest corner of white line North edge along white line Viewing Direction: Southwest Viewing Direction: West Northeast corner of the white line North edge of white line




V

VERTEX

# **Daily Site Visit Report**

Daily Site Visit Signature

Inspector: Fernando Rodriguez

Signature:

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Devon Energy Corporation	Inspection Date:	3/6/2023			
Trionyx 6 Federal #007H	Report Run Date:	3/6/2023 8:57 PM			
Jim Raley	API #:				
575-748-0176					
	Project Owner:				
	Project Manager:				
Summary of Times					
3/6/2023 9:30 AM					
3/6/2023 12:00 PM					
	Devon Energy Corporation Trionyx 6 Federal #007H Jim Raley 575-748-0176 3/6/2023 9:30 AM 3/6/2023 12:00 PM	Devon Energy CorporationInspection Date:Trionyx 6 Federal #007H Jim RaleyReport Run Date:Jim RaleyAPI #:575-748-0176Project Owner:Project Owner:Project Manager:3/6/2023 9:30 AM3/6/2023 12:00 PM			

### **Field Notes**

9:22 Arrived on site to complete confirmation of small excavation and finish delineation.

**9:54** Collected WES23-01 through WES23-04 and BES23-01 in the excavation.

**11:11** All samples were under criteria on all field screening.

**11:11** Sending all samples to lab for analysis.

#### **Next Steps & Recommendations**

1 Send samples to lab for analysis.



# **Site Photos** Viewing Direction: Northeast Viewing Direction: East Sample area for WES23-01 through WES23-04 Sample area for BH23-06 and BES23-01 Viewing Direction: West Viewing Direction: South Anto Sample area for BH23-07 Sample area for BH23-08

Run on 3/6/2023 8:57 PM UTC







#### **Daily Site Visit Signature**

Inspector: Chance Dixon

Signature

Signature:

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# **APPENDIX D – Notifications**



Dhugal Hanton <vertexresourcegroupusa@gmail.com>

# 48-HR Notification of Liner Inspection

1 message

Dhugal Hanton <vertexresourcegroupusa@gmail.com> To: "Enviro, OCD, EMNRD" <OCD.Enviro@state.nm.us> Cc: dale.woodall@dvn.com, KStallings@vertex.ca Bcc: MWier@vertex.ca Fri, Aug 5, 2022 at 1:53 PM

All,

Please accept this email as a 48-hour notification that Vertex Resource Services has scheduled a liner inspection to be conducted for the following release:

API: 30-025-40047 DOR: 1/13/14 Site Name: Trionyx 6 Federal 7 & 8

On Tuesday, August 9, 2022, at approximately 10:00 a.m., McKitric Wier will be on-site to conduct a liner inspection. He can be reached at 575-361-9639. If you need directions to the site, please do not hesitate to contact him. If you have any questions regarding this notification, please call Kent Stallings at 346-814-1413.

Thank you,

#### **Chance Dixon** B.Sc. Senior Environmental Technician

Vertex Resource Services Inc. 3101 Boyd Drive, Carlsbad, NM 88220

C 575.988.1472



Dhugal Hanton <vertexresourcegroupusa@gmail.com>

# 48-Hour Notification - Trionyx 6 Federal #007

4 messages

**Dhugal Hanton** <vertexresourcegroupusa@gmail.com> To: "Enviro, OCD, EMNRD" <OCD.Enviro@state.nm.us> Cc: dale.woodall@dvn.com, KStallings@vertex.ca Mon, Feb 27, 2023 at 7:38 AM

All,

Please accept this email as a notification that Vertex Resource Services has scheduled a sampling event to be conducted at the following release:

#### nSAD1402255331

On Wednesday, March 1, 2023, at approximately 8:00 a.m., Vertex will be on-site to conduct confirmation sampling. The sampling will continue until Friday, March 3, 2023. If you have any questions regarding this notification or need directions to the site, please contact either Chance Dixon at 575-988-1472 or Kent Stallings at 346-814-1413.

Thank you,

#### Chance Dixon B.Sc.

Sr Environmental Technologist

Vertex Resource Services Inc. 3101 Boyd Drive, Carlsbad, NM 88220

#### C 575.988.1472

Enviro, OCD, EMNRD < OCD.Enviro@emnrd.nm.gov>
To: Dhugal Hanton <vertexresourcegroupusa@gmail.com></vertexresourcegroupusa@gmail.com>
Cc: "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov></mike.bratcher@emnrd.nm.gov>

Mon, Feb 27, 2023 at 1:11 PM

Chance,

Thank you for the notification. 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.

JH

#### Jocelyn Harimon • Environmental Specialist

Environmental Bureau

EMNRD - Oil Conservation Division

1220 South St. Francis Drive | Santa Fe, NM 87505

#### (505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov

http:// www.emnrd.nm.gov



From: Dhugal Hanton <vertexresourcegroupusa@gmail.com> Sent: Monday, February 27, 2023 7:38 AM To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov> Cc: dale.woodall@dvn.com; KStallings@vertex.ca Subject: [EXTERNAL] 48-Hour Notification - Trionyx 6 Federal #007

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

#### All,

Please accept this email as a notification that Vertex Resource Services has scheduled a sampling event to be conducted at the following release:

#### nSAD1402255331

On Wednesday, March 1, 2023, at approximately 8:00 a.m., Vertex will be on-site to conduct confirmation sampling. The sampling will continue until Friday, March 3, 2023. If you have any questions regarding this notification or need directions to the site, please contact either Chance Dixon at 575-988-1472 or Kent Stallings at 346-814-1413.

Thank you,

**Chance Dixon** B.Sc. Sr Environmental Technologist

Vertex Resource Services Inc. 3101 Boyd Drive, Carlsbad, NM 88220

C 575.988.1472

Dhugal Hanton <vertexresourcegroupusa@gmail.com> To: "Enviro, OCD, EMNRD" <OCD.Enviro@state.nm.us> Thu, Mar 2, 2023 at 4:19 PM

Good afternoon,

Gmail - 48-Hour Notification - Trionyx 6 Federal #007

Vertex respectfully requests that confirmation sampling for this event be extended to Monday, March 6, 2023.

Thank you,

Chance Dixon B.Sc.

Sr Environmental Technologist

Vertex Resource Services Inc. 3101 Boyd Drive, Carlsbad, NM 88220

#### C 575.988.1472

On Mon, Feb 27, 2023 at 7:38 AM Dhugal Hanton <vertexresourcegroupusa@gmail.com> wrote: All,

Please accept this email as a notification that Vertex Resource Services has scheduled a sampling event to be conducted at the following release:

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Thank you,

**Chance Dixon** B.Sc. Sr Environmental Technologist

Vertex Resource Services Inc. 3101 Boyd Drive, Carlsbad, NM 88220

C 575.988.1472

Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov> To: Dhugal Hanton <vertexresourcegroupusa@gmail.com> Cc: "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>, "Nobui, Jennifer, EMNRD" <Jennifer.Nobui@emnrd.nm.gov> Fri, Mar 3, 2023 at 2:49 PM

JH

Chance,

Jocelyn Harimon • Environmental Specialist

ensure the notifications are documented in the project file.

**Environmental Bureau** 

EMNRD - Oil Conservation Division

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to

Received by OGD: 7/20/2023 1:32:25 PM

1220 South St. Francis Drive | Santa Fe, NM 87505

(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov

http:// www.emnrd.nm.gov



From: Dhugal Hanton <vertexresourcegroupusa@gmail.com> Sent: Thursday, March 2, 2023 4:19 PM To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov> Subject: [EXTERNAL] Re: 48-Hour Notification - Trionyx 6 Federal #007

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

Good afternoon,

Vertex respectfully requests that confirmation sampling for this event be extended to Monday, March 6, 2023.

Thank you,

**Chance Dixon** B.Sc. Sr Environmental Technologist

Vertex Resource Services Inc. 3101 Boyd Drive, Carlsbad, NM 88220

C 575.988.1472

On Mon, Feb 27, 2023 at 7:38 AM Dhugal Hanton <vertexresourcegroupusa@gmail.com> wrote:

All,

Please accept this email as a notification that Vertex Resource Services has scheduled a sampling event to be conducted at the following release:

nSAD1402255331

Gmail - 48-Hour Notification - Trionyx 6 Federal #007

On Wednesday, March 1, 2023, at approximately 8:00 a.m., Vertex will be on-site to conduct confirmation sampling. The sampling will continue until Friday, March 3, 2023. If you have any questions regarding this notification or need directions to the site, please contact either Chance Dixon at 575-988-1472 or Kent Stallings at 346-814-1413.

Thank you,

**Chance Dixon** B.Sc. Sr Environmental Technologist

Vertex Resource Services Inc. 3101 Boyd Drive, Carlsbad, NM 88220

C 575.988.1472

# **APPENDIX E – Laboratory Data Reports and Chain of Custody Forms**



September 06, 2022

Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL: (505) 506-0040 FAX Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

RE: Triouyx 6 Fed 7H

OrderNo.: 2208G98

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 12 sample(s) on 8/27/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Project: Triouyx 6 Fed 7H

**CLIENT:** Vertex Resources Services, Inc.

Analytical Report Lab Order 2208G98

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/6/2022 Client Sample ID: BH22-01 0' Collection Date: 8/25/2022 10:00:00 AM

Lab ID: 2208G98-001	Matrix: SOIL	Received Date: 8/27/2022 9:35:00 AM			
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	8/31/2022 10:03:37 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	8/31/2022 10:03:37 PM
Surr: DNOP	109	21-129	%Rec	1	8/31/2022 10:03:37 PM
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/30/2022 1:17:59 PM
Surr: BFB	94.8	37.7-212	%Rec	1	8/30/2022 1:17:59 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.025	mg/Kg	1	8/30/2022 1:17:59 PM
Toluene	ND	0.049	mg/Kg	1	8/30/2022 1:17:59 PM
Ethylbenzene	ND	0.049	mg/Kg	1	8/30/2022 1:17:59 PM
Xylenes, Total	ND	0.098	mg/Kg	1	8/30/2022 1:17:59 PM
Surr: 4-Bromofluorobenzene	89.6	70-130	%Rec	1	8/30/2022 1:17:59 PM
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	800	60	mg/Kg	20	9/1/2022 11:21:53 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level.
   Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND
   Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 16

**CLIENT:** Vertex Resources Services, Inc.

Analytical Report Lab Order 2208G98

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/6/2022
Client Sample ID: BH22-01 2'

Project:	Triouyx 6 Fed 7H	Collection Date: 8/25/2022 10:05:00 AM					
Lab ID:	2208G98-002	Matrix: SOIL	Received Date: 8/27/2022 9:35:00 AM				
Analyses	Result	RL Qua	al Units	DF	Date Analyzed		
EPA MET	HOD 8015M/D: DIESEL RAN	IGE ORGANICS				Analyst: DGH	
Diesel R	ange Organics (DRO)	ND	14	mg/Kg	1	8/31/2022 10:35:30 PM	
Motor Oi	l Range Organics (MRO)	ND	45	mg/Kg	1	8/31/2022 10:35:30 PM	
Surr: I	ONOP	114	21-129	%Rec	1	8/31/2022 10:35:30 PM	
EPA MET	HOD 8015D: GASOLINE RA	NGE				Analyst: NSB	
Gasoline	Range Organics (GRO)	ND	4.8	mg/Kg	1	8/30/2022 1:41:32 PM	
Surr: I	3FB	95.7	37.7-212	%Rec	1	8/30/2022 1:41:32 PM	
EPA ME	HOD 8021B: VOLATILES					Analyst: NSB	
Benzene		ND	0.024	mg/Kg	1	8/30/2022 1:41:32 PM	
Toluene		ND	0.048	mg/Kg	1	8/30/2022 1:41:32 PM	
Ethylben	zene	ND	0.048	mg/Kg	1	8/30/2022 1:41:32 PM	
Xylenes,	Total	ND	0.095	mg/Kg	1	8/30/2022 1:41:32 PM	
Surr: 4	4-Bromofluorobenzene	91.2	70-130	%Rec	1	8/30/2022 1:41:32 PM	
EPA ME	HOD 300.0: ANIONS					Analyst: JMT	
Chloride		580	60	mg/Kg	20	9/1/2022 11:34:18 AM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 16

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**Project:** 

**CLIENT:** Vertex Resources Services, Inc.

Triouyx 6 Fed 7H

Analytical Report Lab Order 2208G98

Date Reported: 9/6/2022

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-02 0' Collection Date: 8/25/2022 10:10:00 AM Received Date: 8/27/2022 9:35:00 AM

Lab ID: 2208G98-003	Matrix: SOIL	<b>Received Date:</b> 8/27/2022 9:35:00 AM			
Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	8/31/2022 10:46:15 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	8/31/2022 10:46:15 PM
Surr: DNOP	100	21-129	%Rec	1	8/31/2022 10:46:15 PM
EPA METHOD 8015D: GASOLINE RAM	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	8/30/2022 2:05:07 PM
Surr: BFB	94.8	37.7-212	%Rec	1	8/30/2022 2:05:07 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.025	mg/Kg	1	8/30/2022 2:05:07 PM
Toluene	ND	0.050	mg/Kg	1	8/30/2022 2:05:07 PM
Ethylbenzene	ND	0.050	mg/Kg	1	8/30/2022 2:05:07 PM
Xylenes, Total	ND	0.10	mg/Kg	1	8/30/2022 2:05:07 PM
Surr: 4-Bromofluorobenzene	89.7	70-130	%Rec	1	8/30/2022 2:05:07 PM
EPA METHOD 300.0: ANIONS					Analyst: JMT
Chloride	ND	61	mg/Kg	20	9/1/2022 11:46:42 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level.
   D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** 

Lab ID:

**CLIENT:** Vertex Resources Services, Inc.

Triouyx 6 Fed 7H

2208G98-004

Analytical Report Lab Order 2208G98

Date Reported: 9/6/2022

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-02 2' Collection Date: 8/25/2022 10:15:00 AM Received Date: 8/27/2022 9:35:00 AM

		0			
Analyses	Result	RL Qu	ial Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	8/31/2022 10:57:05 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	8/31/2022 10:57:05 PM
Surr: DNOP	105	21-129	%Rec	1	8/31/2022 10:57:05 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/30/2022 2:28:38 PM
Surr: BFB	94.9	37.7-212	%Rec	1	8/30/2022 2:28:38 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.024	mg/Kg	1	8/30/2022 2:28:38 PM
Toluene	ND	0.048	mg/Kg	1	8/30/2022 2:28:38 PM
Ethylbenzene	ND	0.048	mg/Kg	1	8/30/2022 2:28:38 PM
Xylenes, Total	ND	0.096	mg/Kg	1	8/30/2022 2:28:38 PM
Surr: 4-Bromofluorobenzene	89.9	70-130	%Rec	1	8/30/2022 2:28:38 PM
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	ND	60	mg/Kg	20	9/1/2022 11:59:07 AM

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level.
   D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 4 of 16

Project: Triouyx 6 Fed 7H

**CLIENT:** Vertex Resources Services, Inc.

Analytical Report Lab Order 2208G98

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/6/2022 Client Sample ID: BH22-02 4' Collection Date: 8/25/2022 10:20:00 AM

Lab ID: 2208G98-005	Matrix: SOIL	<b>Received Date:</b> 8/27/2022 9:35:00 AM				
Analyses	Result	RL Qu	Qual Units DF		Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analyst: DGH	
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	8/31/2022 11:08:01 PM	
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	8/31/2022 11:08:01 PM	
Surr: DNOP	94.5	21-129	%Rec	1	8/31/2022 11:08:01 PM	
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst: <b>NSB</b>	
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/30/2022 2:52:12 PM	
Surr: BFB	95.4	37.7-212	%Rec	1	8/30/2022 2:52:12 PM	
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>	
Benzene	ND	0.024	mg/Kg	1	8/30/2022 2:52:12 PM	
Toluene	ND	0.048	mg/Kg	1	8/30/2022 2:52:12 PM	
Ethylbenzene	ND	0.048	mg/Kg	1	8/30/2022 2:52:12 PM	
Xylenes, Total	ND	0.096	mg/Kg	1	8/30/2022 2:52:12 PM	
Surr: 4-Bromofluorobenzene	89.6	70-130	%Rec	1	8/30/2022 2:52:12 PM	
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>	
Chloride	ND	59	mg/Kg	20	9/1/2022 12:11:31 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** 

**CLIENT:** Vertex Resources Services, Inc.

Triouyx 6 Fed 7H

Analytical Report Lab Order 2208G98

Date Reported: 9/6/2022

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-03 0' Collection Date: 8/25/2022 10:25:00 AM Received Date: 8/27/2022 9:35:00 AM

Lab ID: 2208G98-006	Matrix: SOIL	Rece	<b>Received Date:</b> 8/27/2022 9:35:00 AM				
Analyses	Result	RL Qua	al Units	DF	Date Analyzed		
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: DGH		
Diesel Range Organics (DRO)	83	15	mg/Kg	1	8/31/2022 11:18:53 PM		
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	8/31/2022 11:18:53 PM		
Surr: DNOP	118	21-129	%Rec	1	8/31/2022 11:18:53 PM		
EPA METHOD 8015D: GASOLINE RANG	GE				Analyst: NSB		
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/30/2022 3:15:42 PM		
Surr: BFB	93.2	37.7-212	%Rec	1	8/30/2022 3:15:42 PM		
EPA METHOD 8021B: VOLATILES					Analyst: NSB		
Benzene	ND	0.025	mg/Kg	1	8/30/2022 3:15:42 PM		
Toluene	ND	0.049	mg/Kg	1	8/30/2022 3:15:42 PM		
Ethylbenzene	ND	0.049	mg/Kg	1	8/30/2022 3:15:42 PM		
Xylenes, Total	ND	0.099	mg/Kg	1	8/30/2022 3:15:42 PM		
Surr: 4-Bromofluorobenzene	88.9	70-130	%Rec	1	8/30/2022 3:15:42 PM		
EPA METHOD 300.0: ANIONS					Analyst: JMT		
Chloride	160	60	mg/Kg	20	9/1/2022 12:23:56 PM		

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level.
   D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** 

Lab ID:

**CLIENT:** Vertex Resources Services, Inc.

Triouyx 6 Fed 7H

2208G98-007

Analytical Report Lab Order 2208G98

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/6/2022 Client Sample ID: BH22-03 2' Collection Date: 8/25/2022 10:30:00 AM

**Received Date:** 8/27/2022 9:35:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS					Analyst: DGH
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	8/31/2022 11:40:39 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	8/31/2022 11:40:39 PM
Surr: DNOP	112	21-129	%Rec	1	8/31/2022 11:40:39 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	8/30/2022 3:39:11 PM
Surr: BFB	95.3	37.7-212	%Rec	1	8/30/2022 3:39:11 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.025	mg/Kg	1	8/30/2022 3:39:11 PM
Toluene	ND	0.050	mg/Kg	1	8/30/2022 3:39:11 PM
Ethylbenzene	ND	0.050	mg/Kg	1	8/30/2022 3:39:11 PM
Xylenes, Total	ND	0.099	mg/Kg	1	8/30/2022 3:39:11 PM
Surr: 4-Bromofluorobenzene	88.9	70-130	%Rec	1	8/30/2022 3:39:11 PM
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	93	60	mg/Kg	20	9/1/2022 12:36:20 PM

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level.
   D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project: Triouyx 6 Fed 7H

**CLIENT:** Vertex Resources Services, Inc.

Analytical Report Lab Order 2208G98

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/6/2022 Client Sample ID: BH22-03 4' Collection Date: 8/25/2022 10:35:00 AM

Lab ID: 2208G98-008	Matrix: SOIL	Received Date: 8/27/2022 9:35:00 AM			
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	8/31/2022 11:51:36 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	8/31/2022 11:51:36 PM
Surr: DNOP	111	21-129	%Rec	1	8/31/2022 11:51:36 PM
EPA METHOD 8015D: GASOLINE RAM	IGE				Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	8/30/2022 4:02:42 PM
Surr: BFB	95.1	37.7-212	%Rec	1	8/30/2022 4:02:42 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.024	mg/Kg	1	8/30/2022 4:02:42 PM
Toluene	ND	0.047	mg/Kg	1	8/30/2022 4:02:42 PM
Ethylbenzene	ND	0.047	mg/Kg	1	8/30/2022 4:02:42 PM
Xylenes, Total	ND	0.095	mg/Kg	1	8/30/2022 4:02:42 PM
Surr: 4-Bromofluorobenzene	89.5	70-130	%Rec	1	8/30/2022 4:02:42 PM
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	81	60	mg/Kg	20	9/1/2022 1:13:34 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level.
   Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project: Triouyx 6 Fed 7H

**CLIENT:** Vertex Resources Services, Inc.

Analytical Report Lab Order 2208G98

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/6/2022 Client Sample ID: BH22-04 0' Collection Date: 8/25/2022 10:40:00 AM Pageived Date: 8/27/2022 0:25:00 AM

Lab ID: 2208G98-009	Matrix: SOIL	Received Date: 8/27/2022 9:35:00 AM			
Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	94	29	mg/Kg	2	9/1/2022 1:40:20 PM
Motor Oil Range Organics (MRO)	290	97	mg/Kg	2	9/1/2022 1:40:20 PM
Surr: DNOP	77.9	21-129	%Rec	2	9/1/2022 1:40:20 PM
EPA METHOD 8015D: GASOLINE RANG	<b>SE</b>				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/30/2022 5:13:19 PM
Surr: BFB	94.1	37.7-212	%Rec	1	8/30/2022 5:13:19 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.024	mg/Kg	1	8/30/2022 5:13:19 PM
Toluene	ND	0.048	mg/Kg	1	8/30/2022 5:13:19 PM
Ethylbenzene	ND	0.048	mg/Kg	1	8/30/2022 5:13:19 PM
Xylenes, Total	ND	0.096	mg/Kg	1	8/30/2022 5:13:19 PM
Surr: 4-Bromofluorobenzene	89.3	70-130	%Rec	1	8/30/2022 5:13:19 PM
EPA METHOD 300.0: ANIONS					Analyst: JMT
Chloride	ND	60	mg/Kg	20	9/1/2022 1:25:58 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level.
   Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** 

**CLIENT:** Vertex Resources Services, Inc.

Triouyx 6 Fed 7H

Analytical Report Lab Order 2208G98

Date Reported: 9/6/2022

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-04 2' Collection Date: 8/25/2022 10:45:00 AM Received Date: 8/27/2022 9:35:00 AM

Lab ID: 2208G98-010	Matrix: SOIL	<b>Received Date:</b> 8/27/2022 9:35:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS				Analyst: DGH	
Diesel Range Organics (DRO)	39	13	mg/Kg	1	9/1/2022 12:24:26 AM	
Motor Oil Range Organics (MRO)	92	45	mg/Kg	1	9/1/2022 12:24:26 AM	
Surr: DNOP	91.4	21-129	%Rec	1	9/1/2022 12:24:26 AM	
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: NSB	
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/30/2022 5:36:45 PM	
Surr: BFB	96.2	37.7-212	%Rec	1	8/30/2022 5:36:45 PM	
EPA METHOD 8021B: VOLATILES					Analyst: NSB	
Benzene	ND	0.024	mg/Kg	1	8/30/2022 5:36:45 PM	
Toluene	ND	0.048	mg/Kg	1	8/30/2022 5:36:45 PM	
Ethylbenzene	ND	0.048	mg/Kg	1	8/30/2022 5:36:45 PM	
Xylenes, Total	ND	0.097	mg/Kg	1	8/30/2022 5:36:45 PM	
Surr: 4-Bromofluorobenzene	90.9	70-130	%Rec	1	8/30/2022 5:36:45 PM	
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>	
Chloride	ND	60	mg/Kg	20	9/1/2022 1:38:22 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level.
   D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** Triouyx 6 Fed 7H

**CLIENT:** Vertex Resources Services, Inc.

Analytical Report Lab Order 2208G98

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/6/2022 Client Sample ID: BH22-05 0' Collection Date: 8/25/2022 10:50:00 AM

Lab ID: 2208G98-011	Matrix: SOIL	Received Date: 8/27/2022 9:35:00 AM									
Analyses	Result	RL (	Qual	Units	DF	Date Analyzed					
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS					Analyst: DGH					
Diesel Range Organics (DRO)	990	140		mg/Kg	10	9/1/2022 12:35:28 AM					
Motor Oil Range Organics (MRO)	1700	460		mg/Kg	10	9/1/2022 12:35:28 AM					
Surr: DNOP	0	21-129	S	%Rec	10	9/1/2022 12:35:28 AM					
EPA METHOD 8015D: GASOLINE RANG	GE					Analyst: NSB					
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/30/2022 6:00:20 PM					
Surr: BFB	94.6	37.7-212		%Rec	1	8/30/2022 6:00:20 PM					
EPA METHOD 8021B: VOLATILES						Analyst: NSB					
Benzene	ND	0.024		mg/Kg	1	8/30/2022 6:00:20 PM					
Toluene	ND	0.048		mg/Kg	1	8/30/2022 6:00:20 PM					
Ethylbenzene	ND	0.048		mg/Kg	1	8/30/2022 6:00:20 PM					
Xylenes, Total	ND	0.097		mg/Kg	1	8/30/2022 6:00:20 PM					
Surr: 4-Bromofluorobenzene	88.8	70-130		%Rec	1	8/30/2022 6:00:20 PM					
EPA METHOD 300.0: ANIONS						Analyst: <b>JMT</b>					
Chloride	94	60		mg/Kg	20	9/1/2022 1:50:47 PM					

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level.
   D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** 

Lab ID:

**CLIENT:** Vertex Resources Services, Inc.

Triouyx 6 Fed 7H

2208G98-012

Analytical Report Lab Order 2208G98

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/6/2022 Client Sample ID: BH22-05 2' Collection Date: 8/25/2022 10:55:00 AM

Received Date: 8/27/2022 9:35:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	9/1/2022 12:46:32 AM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	9/1/2022 12:46:32 AM
Surr: DNOP	115	21-129	%Rec	1	9/1/2022 12:46:32 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/30/2022 6:23:53 PM
Surr: BFB	96.1	37.7-212	%Rec	1	8/30/2022 6:23:53 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.024	mg/Kg	1	8/30/2022 6:23:53 PM
Toluene	ND	0.048	mg/Kg	1	8/30/2022 6:23:53 PM
Ethylbenzene	ND	0.048	mg/Kg	1	8/30/2022 6:23:53 PM
Xylenes, Total	ND	0.096	mg/Kg	1	8/30/2022 6:23:53 PM
Surr: 4-Bromofluorobenzene	91.8	70-130	%Rec	1	8/30/2022 6:23:53 PM
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	ND	60	mg/Kg	20	9/1/2022 5:48:24 PM

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level.
   D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Client: Project:	Verte Triou	x Resources Services, Iı vx 6 Fed 7H	1C.							
Sample ID:	MB-69907	SampType: mblk		Test	tCode: EF	PA Method	300.0: Anions	<b>i</b>		
Client ID:	PBS	Batch ID: 6990	7	R	lunNo: <b>90</b>	)757				
Prep Date:	9/1/2022	Analysis Date: 9/1/2	2022	S	eqNo: 32	244232	Units: mg/Kg	9		
Analyte		Result PQL S	PK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND 1.5								
Sample ID:	LCS-69907	SampType: Ics		Test	tCode: EF	PA Method	300.0: Anions	5		
Client ID:	LCSS	Batch ID: 6990	7	R	unNo: <b>90</b>	0757				
Prep Date:	9/1/2022	Analysis Date: 9/1/2	2022	S	eqNo: 32	244233	Units: mg/Kg	9		
Analyte		Result PQL S	PK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		15 1.5	15.00	0	98.6	90	110			
Sample ID:	MB-69904	SampType: mblk		Test	tCode: EF	PA Method	300.0: Anions	5		
Client ID:	PBS	Batch ID: 6990	4	R	lunNo: <b>90</b>	)757				
Prep Date:	8/31/2022	Analysis Date: 9/1/2	2022	S	eqNo: 32	244264	Units: mg/Kg	9		
Analyte		Result PQL S	PK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND 1.5								
Sample ID:	LCS-69904	SampType: Ics		Test	tCode: EF	PA Method	300.0: Anions	5		
Client ID:	LCSS	Batch ID: 6990	4	R	lunNo: <b>90</b>	)757				
Prep Date:	8/31/2022	Analysis Date: 9/1/2	2022	S	eqNo: 32	244265	Units: mg/Kg	9		
Analyte		Result PQL S	PK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		15 1.5	15.00	0	101	90	110			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

2208G98

06-Sep-22

WO#:

# **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Vertex Re Triouyx 6	esources S Fed 7H	lervices.	, Inc.							
Sample ID: L	_CS-69852	Samp	Гуре: <b>LC</b>	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: L	_CSS	Batc	h ID: 69	852	F	RunNo: 9	0697				
Prep Date:	8/30/2022	Analysis [	Date: 8/	/31/2022	S	SeqNo: 3	242022	Units: mg/ł	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Or Surr: DNOP	ganics (DRO)	41 4.4	15	50.00 5.000	0	82.8 88.9	64.4 21	127 129			
Sample ID: N	MB-69852	Samp	Гуре: МІ	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: F	PBS	Batc	h ID: 69	852	F	RunNo: 9	0697				
Prep Date:	8/30/2022	Analysis E	Date: 8/	/31/2022	S	SeqNo: 3	242025	Units: <b>mg/ł</b>	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Or	ganics (DRO)	ND	15								
Motor Oil Range	Organics (MRO)	ND	50								
Surr: DNOP		11		10.00		112	21	129			
Sample ID: 2	2208G98-001AMS	Samp	Гуре: М	S	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: E	3H22-01 0'	Batc	h ID: 69	852	F	RunNo: 9	0697				
Prep Date:	8/30/2022	Analysis I	Date: 8/	/31/2022	5	SeqNo: 3	242064	Units: mg/ł	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Or	ganics (DRO)	41	15	49.70	0	83.0	36.1	154			
Surr: DNOP		4.9		4.970		98.6	21	129			
Sample ID: 2	2208G98-001AMS	D Samp	Гуре: М	SD	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: E	3H22-01 0'	Batc	h ID: 69	852	F	RunNo: <b>9</b>	0697				
Prep Date:	8/30/2022	Analysis [	Date: <b>8/</b>	/31/2022	5	SeqNo: 3	242065	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Or	ganics (DRO)	43	14	47.62	0	91.2	36.1	154	5.19	33.9	
Surr: DNOP		5.0		4.762		106	21	129	0	0	

#### **Qualifiers:**

- Value exceeds Maximum Contaminant Level. \*
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference S
- Analyte detected in the associated Method Blank в
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit 2208G98

06-Sep-22

WO#:

Client: Verte Project: Triou	x Resources Ser yx 6 Fed 7H	vices	, Inc.									
Sample ID: mb-69824	SampTyp	De: ME	BLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch I	D: 69	824	F	lunNo: 9	0670						
Prep Date: 8/29/2022	Analysis Dat	ie: <b>8/</b>	30/2022	S	eqNo: 32	240207	Units: mg/k	(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range Organics (GRO)	ND	5.0										
Surr: BFB	950		1000		95.4	37.7	212					
Sample ID: Ics-69824	SampTyp	be: LC	s	Tes	tCode: EF	PA Method	8015D: Gasc	line Rang	e			
Client ID: LCSS	Batch I	D: 69	824	F	lunNo: 9	0670						
Prep Date: 8/29/2022	Analysis Dat	ie: <b>8/</b>	30/2022	5	eqNo: 32	240208	Units: mg/k	ſg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	72.3	137					
Surr: BFB	2000		1000		198	37.7	212					

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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2208G98

06-Sep-22

WO#:

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Client: Verter Project: Triouy	x Resources S /x 6 Fed 7H	ervices	, Inc.										
Sample ID: mb-69824	SampT	ype: ME	BLK	TestCode: EPA Method 8021B: Volatiles									
Client ID: PBS	Batc	h ID: 69	824	F	RunNo: 9	0670							
Prep Date: 8/29/2022	Analysis E	Date: <b>8/</b>	30/2022	5	SeqNo: 3	240249	Units: mg/k	٢g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	ND	0.025											
Toluene	ND	0.050											
Ethylbenzene	ND	0.050											
Xylenes, Total	ND	0.10											
Surr: 4-Bromofluorobenzene	0.91		1.000		90.8	70	130						
Sample ID: LCS-69824	SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Vola	tiles					
Client ID: LCSS	Batc	h ID: 69	824	F	RunNo: 9	0670							
Prep Date: 8/29/2022	Analysis E	Date: <b>8/</b>	30/2022	5	SeqNo: 3	240250	Units: mg/k	٢g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	0.87	0.025	1.000	0	87.3	80	120						
Toluene	0.90	0.050	1.000	0	89.8	80	120						
Ethylbenzene	0.90	0.050	1.000	0	90.3	80	120						
Xylenes, Total	2.7	0.10	3.000	0	90.2	80	120						
Surr: 4-Bromofluorobenzene	0.94		1.000		93.8	70	130						

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference S
- Analyte detected in the associated Method Blank в
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

2208G98

06-Sep-22

WO#:

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ived by OCALL ENVI ANAL LABO	20/2023 1: RONMENT YSIS RATORY	32:25 <i>PM</i> AL	Ha TE	Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com			nple Log-In Check	Page 140 of 1 List			
Client Name:	Vertex Res Services,	sources Inc.	Work	Order Num	nber: 220	8G98				RcptNo: 1	
Received By:	Tracy Ca	sarrubias	8/27/20	22 9:35:00	АМ						
Completed By:	Isaiah Or	tiz	8/27/20	22 10:55:10	0 AM			1-	~0	24	
Reviewed By:	MPCI	8	29-2	77							
Chain of Cus	<u>stody</u>										
1. Is Chain of C	Custody comp	olete?			Yes	$\checkmark$		No		Not Present	
2. How was the	sample deli	vered?			Cou	rier					
<u>Log In</u> 3. Was an atter	mpt made to	cool the samp	les?		Yes	$\checkmark$		No			
4. Were all sam	ples received	d at a tempera	ture of >0° C	to 6.0°C	Yes	$\checkmark$		No [			
5. Sample(s) in	proper conta	iner(s)?			Yes	$\checkmark$		No [			
6. Sufficient san	nple volume	for indicated to	est(s)?		Yes	$\checkmark$	1	No [			
7. Are samples	(except VOA	and ONG) pro	operly preserve	ed?	Yes	$\checkmark$	1	No [			
8. Was preserva	ative added to	bottles?			Yes		1	No 🛛	<b>~</b>	NA 🗌	
9. Received at le	east 1 vial wi	th headspace	<1/4" for AQ V	'OA?	Yes		1	ΝοΓ			/
10. Were any sa	mple contain	ers received b	oroken?		Yes			No [	<b>~</b>		
11. Does paperw	ork match bo	ttle labels?	N		Yes	✓	ì	No [		# of preserved bottles checked for pH:	and noted)
12. Are matrices	correctly ider	ntified on Chai	) n of Custodv?		Yes	$\checkmark$		Νο Γ		Adjusted?	ess noted)
13. Is it clear what	it analyses w	ere requested	?		Yes	$\checkmark$	i	No [			
14. Were all holdi (If no, notify c	ing times able ustomer for a	e to be met? authorization.)			Yes	$\checkmark$	I	No [		Checked by: 5 K	29 22
Special Hand	ling (if app	olicable)									
15. Was client no	otified of all d	iscrepancies v	with this order?	,	Yes			No [		NA 🗹	
Person	Notified:	ſ		Date	: [				anaana.		
By Who	om:			Via:	eMa	ail 🗌	Phone		Fax	In Person	
Regard	ing:										
Client I	nstructions:										
16. Additional re	marks:				2						
17. <u>Cooler Infor</u> Cooler No	mation ∫ Temp ⁰C	Condition	Seal Intact	Seal No	Seal D	ate	Sian	ed By	v		
1	4.0	Good	Not Present				Sign				
2	4.8	Good	Not Present								

.

5.6

Good

Not Present

•

Client:	<mark>Chain</mark> Dev	-of-Ci	ustody Record	Turn-Around	Time:	5 Day				ŀ			E			RO				eived by
Mailing	Address	s: ov	file	Project Name: - Triony X 6 Fed 7 H				4901 Hawkins NE - Albuquerque, NM 87109								2CD: 7/20				
Phone	#:	a II		Project #: 2ZE-01921			Tel. 505-345-3975 Fax 505-345-4107 Analysis Request								1/2023 1:					
email c	or Fax#:			Project Mana	ager:		Ē	B					04			lt)				22
QA/QC □ Star	Package: ndard		□ Level 4 (Full Validation)	KRIAT	Stall	Lug S	s (802	N/MR	PCB's		SIMS		0 <sup>4</sup> , S			/Absei				<del>25 PM</del>
Accred	itation:	□ Az Co	ompliance	Sampler: T	5001 300	2 NOT	AB'	DR D	82 F	Ê	270		D <sub>2</sub> , F			sent				
	AC	□ Othe	r	On Ice:	V Yes		Ē	ò	s/80	04.	or 8		ž		(A)	Pre				
	) (Type)			# of Coolers:	3		] 出	(GR	cide	od 5	310	etals	<sup>2</sup> 03	-	-V0	Ľ				
	· ·			Cooler Temp	(including CF): Su	re Remark (°C)	Ξ	15D	estic	leth	y 83	N N	Ľ,	OA	emi	olifo				
Date	Time	Matrix	Sample Name	Container	Preservative Type	HEAL NO.	STEX)	TPH)80	3081 P(	EDB (N	AHs b	SCRA 8	<u></u> Эг, е	3260 (V	3270 (S	Fotal Co				
-6/25	10,00	10	BU77-01 0	402	105	001	5	$\mathbf{V}$	~		-	-	5						+	+
1	10:05		BH22-01 2'	100	7	<u> </u>	f	1					7				-		+	+
5	10:10	0	BH72 07 0			003	$\left  \right\rangle$	$\left( \right)$		_	-	-	$\left\{ \right\}$	-	1		-			-
	10.10		RH22-02 7'	+/		003	+	-)				-	$\mathcal{H}$	-		-	-	_		_
	10'26		BH22-07-4'			<u>009</u>		+				-	+	_	_					+
$\vdash$	10.75		13H27-03 0	+ )		005	$\square$				-		$\left\{ + \right\}$	-			-	-	+	+
	10:30		BH72-03 7	1/		002							++		_		-	-	+	+
$\square$	10:35		BH22-03 4'			008	$\square$						$\square$						+	+
$\square$	10:40	101	13H22-04 0			009						+	$\mathbf{t}$					-	+	+
	10:45		BH22-04 2'			016	<b>1</b>					1	$\uparrow$							+
	6:50		BHZ2-05 0'			011	1	$\top$												+
1	10:55		BHZZ-05 2'			012		1								·				
Date:	Time:	Relinquish	ed by:	Received by:	Via:	Date Time	Ren	narks	s:				- <u>·</u>						<u> </u>	- p
	<del></del>	<b>D</b>		Rum	min	8/20/22 1030	1.)	C	C	; )	rei	$^+$	5	fa	(1,1	nS :	S			age
Bon on		Relinquish	ed by:	Received by:	Via: Carr	Date Time	2.)	4.0	)	7	- ø	-	4	.0' 6	ι ,					141 (
1001.00	1900	licu	un	Lan	///	8/27/22	3.)	5.6		100	/		ч							of I



March 16, 2023

Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL: (505) 506-0040 FAX:

RE: Trionyx 6 Federal 007

OrderNo.: 2303380

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 15 sample(s) on 3/8/2023 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

**Analytical Report** Lab Order 2303380

Date Reported: 3/16/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: WES23-01 1' **Project:** Trionyx 6 Federal 007 Collection Date: 3/6/2023 10:00:00 AM Lab ID: 2303380-001 Matrix: SOIL Received Date: 3/8/2023 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.4 mg/Kg 1 3/9/2023 9:07:06 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 3/9/2023 9:07:06 PM Surr: DNOP 99.7 69-147 %Rec 1 3/9/2023 9:07:06 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 3/9/2023 7:13:46 PM 4.9 mg/Kg 1 Surr: BFB 108 37.7-212 %Rec 1 3/9/2023 7:13:46 PM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 3/9/2023 7:13:46 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 3/9/2023 7:13:46 PM Ethylbenzene ND 0.049 mg/Kg 1 3/9/2023 7:13:46 PM Xylenes, Total ND 0.097 mg/Kg 1 3/9/2023 7:13:46 PM Surr: 4-Bromofluorobenzene 95.1 70-130 %Rec 1 3/9/2023 7:13:46 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride mg/Kg 3/9/2023 8:47:10 PM 110 60 20

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit

% Recovery outside of standard limits. If undiluted results may be estimated. S

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 1 of 22

**Project:** 

**CLIENT:** Vertex Resources Services, Inc.

Trionyx 6 Federal 007

**Analytical Report** Lab Order 2303380

Date Reported: 3/16/2023

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: WES23-02 1' Collection Date: 3/6/2023 10:05:00 AM Received Date: 3/8/2023 7:30:00 AM

Lab ID: 2303380-002	Matrix: SOIL	<b>Received Date:</b> 3/8/2023 7:30:00 AM								
Analyses	Result	RL Qu	al Units	DF	Date Analyzed					
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH					
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	3/9/2023 9:17:34 PM					
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	3/9/2023 9:17:34 PM					
Surr: DNOP	93.7	69-147	%Rec	1	3/9/2023 9:17:34 PM					
EPA METHOD 8015D: GASOLINE RA	ANGE				Analyst: JJP					
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	3/9/2023 7:37:51 PM					
Surr: BFB	107	37.7-212	%Rec	1	3/9/2023 7:37:51 PM					
EPA METHOD 8021B: VOLATILES					Analyst: JJP					
Benzene	ND	0.025	mg/Kg	1	3/9/2023 7:37:51 PM					
Toluene	ND	0.049	mg/Kg	1	3/9/2023 7:37:51 PM					
Ethylbenzene	ND	0.049	mg/Kg	1	3/9/2023 7:37:51 PM					
Xylenes, Total	ND	0.099	mg/Kg	1	3/9/2023 7:37:51 PM					
Surr: 4-Bromofluorobenzene	94.1	70-130	%Rec	1	3/9/2023 7:37:51 PM					
EPA METHOD 300.0: ANIONS					Analyst: SNS					
Chloride	88	60	mg/Kg	20	3/9/2023 8:59:35 PM					

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of standard limits. If undiluted results may be estimated. S

Analyte detected in the associated Method Blank в

Above Quantitation Range/Estimated Value Е

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 2 of 22

\*
Date Reported: 3/16/2023

3/9/2023 9:11:59 PM

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: WES23-03 1' **Project:** Trionyx 6 Federal 007 Collection Date: 3/6/2023 10:10:00 AM Lab ID: 2303380-003 Matrix: SOIL Received Date: 3/8/2023 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.8 mg/Kg 1 3/9/2023 9:49:13 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 3/9/2023 9:49:13 PM Surr: DNOP 130 69-147 %Rec 1 3/9/2023 9:49:13 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: BFR Gasoline Range Organics (GRO) ND 3/9/2023 1:52:00 PM 4.8 mg/Kg 1 Surr: BFB 88.2 37.7-212 %Rec 1 3/9/2023 1:52:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: BFR Benzene ND 0.024 3/9/2023 1:52:00 PM mg/Kg 1 Toluene ND 0.048 mg/Kg 1 3/9/2023 1:52:00 PM Ethylbenzene ND 0.048 mg/Kg 1 3/9/2023 1:52:00 PM Xylenes, Total ND 0.096 mg/Kg 1 3/9/2023 1:52:00 PM Surr: 4-Bromofluorobenzene 90.1 70-130 %Rec 1 3/9/2023 1:52:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS

68

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Chloride

Value exceeds Maximum Contaminant Level Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

% Recovery outside of standard limits. If undiluted results may be estimated.

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

mg/Kg

20

61

RL Reporting Limit Page 3 of 22

**CLIENT:** Vertex Resources Services, Inc.

Trionyx 6 Federal 007

**Analytical Report** Lab Order 2303380

Date Reported: 3/16/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: WES23-04 1' Collection Date: 3/6/2023 10:15:00 AM Received Date: 3/8/2023 7:30:00 AM

Lab ID: 2303380-004	Matrix: SOIL	Rece	ived Date:	3/8/20	23 7:30:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/9/2023 10:20:57 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	3/9/2023 10:20:57 PM
Surr: DNOP	103	69-147	%Rec	1	3/9/2023 10:20:57 PM
EPA METHOD 8015D: GASOLINE RA	ANGE				Analyst: BFR
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/9/2023 2:57:00 PM
Surr: BFB	87.7	37.7-212	%Rec	1	3/9/2023 2:57:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: BFR
Benzene	ND	0.024	mg/Kg	1	3/9/2023 2:57:00 PM
Toluene	ND	0.048	mg/Kg	1	3/9/2023 2:57:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	3/9/2023 2:57:00 PM
Xylenes, Total	ND	0.096	mg/Kg	1	3/9/2023 2:57:00 PM
Surr: 4-Bromofluorobenzene	89.3	70-130	%Rec	1	3/9/2023 2:57:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	ND	60	mg/Kg	20	3/9/2023 9:24:24 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- ND PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 4 of 22

**CLIENT:** Vertex Resources Services, Inc.

Trionyx 6 Federal 007

**Analytical Report** Lab Order 2303380

Date Reported: 3/16/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BES23-01 2' Collection Date: 3/6/2023 10:20:00 AM Received Date: 3/8/2023 7:30:00 AM

Lab ID: 2303380-005	Matrix: SOIL	Rece	eived Date:	3/8/20	23 7:30:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	3/9/2023 10:31:32 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	3/9/2023 10:31:32 PM
Surr: DNOP	106	69-147	%Rec	1	3/9/2023 10:31:32 PM
EPA METHOD 8015D: GASOLINE R	ANGE				Analyst: BFR
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	3/9/2023 4:01:00 PM
Surr: BFB	91.9	37.7-212	%Rec	1	3/9/2023 4:01:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: BFR
Benzene	ND	0.024	mg/Kg	1	3/9/2023 4:01:00 PM
Toluene	ND	0.047	mg/Kg	1	3/9/2023 4:01:00 PM
Ethylbenzene	ND	0.047	mg/Kg	1	3/9/2023 4:01:00 PM
Xylenes, Total	ND	0.094	mg/Kg	1	3/9/2023 4:01:00 PM
Surr: 4-Bromofluorobenzene	91.7	70-130	%Rec	1	3/9/2023 4:01:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	ND	60	mg/Kg	20	3/9/2023 10:26:27 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of standard limits. If undiluted results may be estimated. S

- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 5 of 22

**CLIENT:** Vertex Resources Services, Inc.

Trionyx 6 Federal 007

**Analytical Report** Lab Order 2303380

Date Reported: 3/16/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-06 0' Collection Date: 3/6/2023 10:25:00 AM Received Date: 3/8/2023 7:30:00 AM

Lab ID: 2303380-006	Matrix: SOIL	Rece	ived Date:	3/8/20	23 7:30:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	3/9/2023 10:42:10 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	3/9/2023 10:42:10 PM
Surr: DNOP	122	69-147	%Rec	1	3/9/2023 10:42:10 PM
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: BFR
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/9/2023 4:23:00 PM
Surr: BFB	91.6	37.7-212	%Rec	1	3/9/2023 4:23:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: BFR
Benzene	ND	0.024	mg/Kg	1	3/9/2023 4:23:00 PM
Toluene	ND	0.048	mg/Kg	1	3/9/2023 4:23:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	3/9/2023 4:23:00 PM
Xylenes, Total	ND	0.097	mg/Kg	1	3/9/2023 4:23:00 PM
Surr: 4-Bromofluorobenzene	91.9	70-130	%Rec	1	3/9/2023 4:23:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	ND	60	mg/Kg	20	3/9/2023 10:38:51 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit

% Recovery outside of standard limits. If undiluted results may be estimated. S

- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range Reporting Limit

RL

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Date Reported: 3/16/2023

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-06 1' **Project:** Trionyx 6 Federal 007 Collection Date: 3/6/2023 10:30:00 AM Lab ID: 2303380-007 Matrix: SOIL Received Date: 3/8/2023 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 8.7 mg/Kg 1 3/9/2023 10:52:49 PM Motor Oil Range Organics (MRO) ND 43 mg/Kg 1 3/9/2023 10:52:49 PM Surr: DNOP 69-147 %Rec 1 3/9/2023 10:52:49 PM 115 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: BFR Gasoline Range Organics (GRO) ND 3/9/2023 4:45:00 PM 4.8 mg/Kg 1 Surr: BFB 90.0 37.7-212 %Rec 1 3/9/2023 4:45:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: BFR Benzene ND 3/9/2023 4:45:00 PM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 3/9/2023 4:45:00 PM Ethylbenzene ND 0.048 mg/Kg 1 3/9/2023 4:45:00 PM Xylenes, Total ND 0.095 mg/Kg 1 3/9/2023 4:45:00 PM Surr: 4-Bromofluorobenzene 92.3 70-130 %Rec 1 3/9/2023 4:45:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride mg/Kg 3/9/2023 11:16:06 PM ND 60 20

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level Sample Diluted Due to Matrix

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range

RL Reporting Limit

Page 7 of 22

Lab ID:

CLIENT: Vertex Resources Services, Inc.

2303380-008

Trionyx 6 Federal 007

**Analytical Report** Lab Order 2303380

Date Reported: 3/16/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-07 0' Collection Date: 3/6/2023 10:35:00 AM Received Date: 3/8/2023 7:30:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE C	RGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.0	mg/Kg	1	3/9/2023 11:03:27 PM
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	3/9/2023 11:03:27 PM
Surr: DNOP	116	69-147	%Rec	1	3/9/2023 11:03:27 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: BFR
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/9/2023 5:06:00 PM
Surr: BFB	90.0	37.7-212	%Rec	1	3/9/2023 5:06:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: BFR
Benzene	ND	0.023	mg/Kg	1	3/9/2023 5:06:00 PM
Toluene	ND	0.046	mg/Kg	1	3/9/2023 5:06:00 PM
Ethylbenzene	ND	0.046	mg/Kg	1	3/9/2023 5:06:00 PM
Xylenes, Total	ND	0.091	mg/Kg	1	3/9/2023 5:06:00 PM
Surr: 4-Bromofluorobenzene	91.9	70-130	%Rec	1	3/9/2023 5:06:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	ND	60	mg/Kg	20	3/9/2023 11:28:30 PM

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of standard limits. If undiluted results may be estimated. S

Analyte detected in the associated Method Blank в

Above Quantitation Range/Estimated Value Е

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 8 of 22

Date Reported: 3/16/2023

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-07 1' **Project:** Trionyx 6 Federal 007 Collection Date: 3/6/2023 10:40:00 AM Lab ID: 2303380-009 Matrix: SOIL Received Date: 3/8/2023 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.6 mg/Kg 1 3/9/2023 11:14:07 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 3/9/2023 11:14:07 PM Surr: DNOP 108 69-147 %Rec 1 3/9/2023 11:14:07 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: BFR Gasoline Range Organics (GRO) ND 4.7 3/9/2023 5:28:00 PM mg/Kg 1 Surr: BFB 89.0 37.7-212 %Rec 1 3/9/2023 5:28:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: BFR Benzene ND 3/9/2023 5:28:00 PM 0.024 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 3/9/2023 5:28:00 PM Ethylbenzene ND 0.047 mg/Kg 1 3/9/2023 5:28:00 PM Xylenes, Total ND 0.095 mg/Kg 1 3/9/2023 5:28:00 PM Surr: 4-Bromofluorobenzene 91.4 70-130 %Rec 1 3/9/2023 5:28:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride mg/Kg 3/9/2023 11:40:55 PM ND 60 20

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

% Recovery outside of standard limits. If undiluted results may be estimated. S

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 9 of 22

**CLIENT:** Vertex Resources Services, Inc.

Trionyx 6 Federal 007

**Analytical Report** Lab Order 2303380

Date Reported: 3/16/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-08 0' Collection Date: 3/6/2023 10:45:00 AM **Received Date:** 3/8/2023 7:30:00 AM

Lab ID: 2303380-010	Matrix: SOIL	Rece	ived Date:	3/8/20	23 7:30:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RAM	NGE ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	3/9/2023 11:24:49 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	3/9/2023 11:24:49 PM
Surr: DNOP	132	69-147	%Rec	1	3/9/2023 11:24:49 PM
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: BFR
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/9/2023 5:49:00 PM
Surr: BFB	91.0	37.7-212	%Rec	1	3/9/2023 5:49:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: BFR
Benzene	ND	0.023	mg/Kg	1	3/9/2023 5:49:00 PM
Toluene	ND	0.046	mg/Kg	1	3/9/2023 5:49:00 PM
Ethylbenzene	ND	0.046	mg/Kg	1	3/9/2023 5:49:00 PM
Xylenes, Total	ND	0.093	mg/Kg	1	3/9/2023 5:49:00 PM
Surr: 4-Bromofluorobenzene	91.9	70-130	%Rec	1	3/9/2023 5:49:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	ND	60	mg/Kg	20	3/9/2023 11:53:19 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 10 of 22

Date Reported: 3/16/2023

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-08 1' **Project:** Trionyx 6 Federal 007 Collection Date: 3/6/2023 10:50:00 AM Lab ID: 2303380-011 Matrix: SOIL Received Date: 3/8/2023 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.3 mg/Kg 1 3/9/2023 11:35:29 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 3/9/2023 11:35:29 PM Surr: DNOP 109 69-147 %Rec 1 3/9/2023 11:35:29 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: BFR Gasoline Range Organics (GRO) ND 4.7 3/9/2023 6:11:00 PM mg/Kg 1 Surr: BFB 96.9 37.7-212 %Rec 1 3/9/2023 6:11:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: BFR Benzene ND 3/9/2023 6:11:00 PM 0.024 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 3/9/2023 6:11:00 PM Ethylbenzene ND 0.047 mg/Kg 1 3/9/2023 6:11:00 PM Xylenes, Total ND 0.094 mg/Kg 1 3/9/2023 6:11:00 PM Surr: 4-Bromofluorobenzene 94.3 70-130 %Rec 1 3/9/2023 6:11:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride mg/Kg 3/10/2023 12:30:34 AM ND 60 20

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

POL

Practical Quanitative Limit S

% Recovery outside of standard limits. If undiluted results may be estimated.

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 11 of 22

Released to Imaging: 7/25/2023 8:31:39 AM

Lab ID:

Analyses

Surr: DNOP

Surr: BFB

Benzene

Toluene

Chloride

Ethylbenzene

Xylenes, Total

**EPA METHOD 8021B: VOLATILES** 

Surr: 4-Bromofluorobenzene

**EPA METHOD 300.0: ANIONS** 

**Analytical Report** Lab Order 2303380

3/9/2023 6:54:00 PM

3/10/2023 12:42:58 AM

Analyst: BFR

Analyst: SNS

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/16/2023 **CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-09 0 Trionyx 6 Federal 007 Collection Date: 3/6/2023 10:55:00 AM 2303380-012 Matrix: SOIL Received Date: 3/8/2023 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.7 mg/Kg 1 3/9/2023 11:56:43 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 3/9/2023 11:56:43 PM 133 69-147 %Rec 1 3/9/2023 11:56:43 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: BFR Gasoline Range Organics (GRO) ND 4.7 3/9/2023 6:54:00 PM mg/Kg 1

37.7-212

0.024

0.047

0.047

0.095

70-130

60

%Rec

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%Rec

mg/Kg

1

1

1

1

1

1

20

94.4

ND

ND

ND

ND

97.2

ND

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

% Recovery outside of standard limits. If undiluted results may be estimated.

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 12 of 22

Date Reported: 3/16/2023

3/10/2023 12:55:23 AM

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-09 1' **Project:** Trionyx 6 Federal 007 Collection Date: 3/6/2023 11:00:00 AM Lab ID: 2303380-013 Matrix: SOIL Received Date: 3/8/2023 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.9 mg/Kg 1 3/10/2023 12:07:37 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 3/10/2023 12:07:37 AM Surr: DNOP 121 69-147 %Rec 1 3/10/2023 12:07:37 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: BFR Gasoline Range Organics (GRO) ND 4.7 3/9/2023 7:16:00 PM mg/Kg 1 Surr: BFB 92.1 37.7-212 %Rec 1 3/9/2023 7:16:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: BFR Benzene ND 3/9/2023 7:16:00 PM 0.023 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 3/9/2023 7:16:00 PM Ethylbenzene ND 0.047 mg/Kg 1 3/9/2023 7:16:00 PM Xylenes, Total ND 0.094 mg/Kg 3/9/2023 7:16:00 PM 1 Surr: 4-Bromofluorobenzene 94.8 70-130 %Rec 1 3/9/2023 7:16:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS

ND

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Chloride

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

% Recovery outside of standard limits. If undiluted results may be estimated.

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

mg/Kg

20

60

RL Reporting Limit Page 13 of 22

Lab ID:

CLIENT: Vertex Resources Services, Inc.

2303380-014

Trionyx 6 Federal 007

**Analytical Report** Lab Order 2303380

Date Reported: 3/16/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-10 0' Collection Date: 3/6/2023 11:05:00 AM Received Date: 3/8/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	3/10/2023 12:18:30 AM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	3/10/2023 12:18:30 AM
Surr: DNOP	112	69-147	%Rec	1	3/10/2023 12:18:30 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: BFR
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/9/2023 7:38:00 PM
Surr: BFB	93.8	37.7-212	%Rec	1	3/9/2023 7:38:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: BFR
Benzene	ND	0.024	mg/Kg	1	3/9/2023 7:38:00 PM
Toluene	ND	0.048	mg/Kg	1	3/9/2023 7:38:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	3/9/2023 7:38:00 PM
Xylenes, Total	ND	0.096	mg/Kg	1	3/9/2023 7:38:00 PM
Surr: 4-Bromofluorobenzene	96.2	70-130	%Rec	1	3/9/2023 7:38:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	ND	60	mg/Kg	20	3/10/2023 1:07:47 AM

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of standard limits. If undiluted results may be estimated. S

- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 14 of 22

Date Reported: 3/16/2023

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-10 1' **Project:** Trionyx 6 Federal 007 Collection Date: 3/6/2023 11:10:00 AM Lab ID: 2303380-015 Matrix: SOIL Received Date: 3/8/2023 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.2 mg/Kg 1 3/10/2023 12:29:23 AM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 3/10/2023 12:29:23 AM Surr: DNOP 69-147 %Rec 1 3/10/2023 12:29:23 AM 110 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: BFR Gasoline Range Organics (GRO) ND 3/9/2023 8:00:00 PM 4.8 mg/Kg 1 Surr: BFB 90.9 37.7-212 %Rec 1 3/9/2023 8:00:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: BFR Benzene ND 3/9/2023 8:00:00 PM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 3/9/2023 8:00:00 PM Ethylbenzene ND 0.048 mg/Kg 1 3/9/2023 8:00:00 PM Xylenes, Total ND 0.097 mg/Kg 1 3/9/2023 8:00:00 PM Surr: 4-Bromofluorobenzene 94.6 70-130 %Rec 1 3/9/2023 8:00:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride mg/Kg 3/10/2023 1:20:11 AM ND 59 20

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

POL Practical Quanitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 15 of 22

Client:	Vertex	Resources Se	ervices,	Inc.							
Project:	Triony	x 6 Federal 0	07								
Sample ID:	MB-73618	SampT	ype: mb	lk	Tes	TestCode: EPA Method 300.0: Anions					
Client ID:	PBS	Batch	וD: <b>736</b>	618	F	RunNo: <b>9</b>	5145				
Prep Date:	3/9/2023	Analysis D	)ate: 3/9	9/2023	S	SeqNo: 34	141886	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID:	LCS-73618	SampT	ype: Ics		Tes	TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS	Batch	Batch ID: 73618			RunNo: <b>95145</b>					
Prep Date:	3/9/2023	Analysis D	)ate: 3/9	9/2023	SeqNo: 3441887			Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	92.8	90	110			
Sample ID:	LCS-73629	SampT	ype: Ics		Tes	tCode: EF	PA Method	300.0: Anions	;		
Client ID:	LCSS	Batch	ו ID: <b>736</b>	629	F	RunNo: <b>9</b> 8	5145				
Prep Date:	3/9/2023	Analysis D	)ate: 3/9	9/2023	S	SeqNo: 34	441919	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	92.7	90	110			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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2303380

16-Mar-23

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	Vertex Re	sources S	ervices,	Inc.							
Project:	Trionyx 6	Federal (	007								
Sample ID:	2303380-003AMS	Samp	Type: MS	5	Tes	stCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	WES23-03 1'	Batcl	h ID: 735	589	F	RunNo: <b>9</b>	5174				
Prep Date:	3/8/2023	Analysis [	Date: 3/9	9/2023	:	SeqNo: 34	142209	Units: <b>mg/K</b>	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (	Organics (DRO)	41	9.3	46.30	0	89.4	54.2	135			
Surr: DNOP		5.1		4.630		110	69	147			
Sample ID:	2303380-003AMSD	SampT	Гуре: <b>М</b> З	SD.	Tes	stCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	WES23-03 1'	Batcl	h ID: 735	589	F	RunNo: <b>9</b>	5174				
Prep Date:	3/8/2023	Analysis [	Date: 3/9	9/2023	\$	SeqNo: 34	142210	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (	Organics (DRO)	37	9.1	45.62	0	80.6	54.2	135	11.8	29.2	
Surr: DNOP		4.5		4.562		98.3	69	147	0	0	
Sample ID:	LCS-73581	Samp	Гуре: <b>LC</b>	S	Tes	stCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batcl	Batch ID: 73581			RunNo: <b>9</b>	5174				
Prep Date:	3/8/2023	Analysis [	Date: 3/9	9/2023	:	SeqNo: 34	142336	Units: <b>mg/K</b>	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (	Organics (DRO)	47	10	50.00	0	93.8	61.9	130			
Surr: DNOP	1	5.0		5.000		99.4	69	147			
Sample ID:	LCS-73589	Samp	Гуре: <b>LC</b>	S	Tes	stCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batcl	h ID: 735	589	F	RunNo: <b>9</b>	5174				
Prep Date:	3/8/2023	Analysis [	Date: 3/9	9/2023	Ş	SeqNo: 34	142337	Units: <b>mg/K</b>	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (	Organics (DRO)	44	10	50.00	0	87.1	61.9	130			
Surr: DNOP		4.7		5.000		93.9	69	147			
Sample ID:	MB-73581	SampT	Гуре: МЕ	BLK	Tes	stCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	PBS	Batcl	h ID: 735	581	F	RunNo: <b>9</b>	5174				
Prep Date:	3/8/2023	Analysis [	Date: 3/9	9/2023	:	SeqNo: 34	142340	Units: <b>mg/K</b>	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	ND	10								
Motor Oil Rang	ge Organics (MRO)	ND	50								
Surr: DNOP	1	9.1		10.00		90.9	69	147			

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

2303380

16-Mar-23

Client: Vertex Project: Triony	Resources S 6 Federal (	ervices, )07	Inc.							
Sample ID: MB-73589	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: PBS	Batcl	n ID: 735	589	F	RunNo: <b>95</b>	5174				
Prep Date: 3/8/2023	Analysis E	Date: 3/9	9/2023	5	SeqNo: 34	42341	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		93.1	69	147			

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

2303380

16-Mar-23

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Vertex Re Trionyx 6	sources Ser Federal 007	vices,	Inc.							
Sample ID:	lcs-73575	SampTyp	e: LC	S	Tes	tCode: EF	A Method	8015D: Gaso	line Range		
Client ID:	LCSS	Batch II	): 73	575	F	RunNo: 95	5134				
Prep Date:	3/8/2023	Analysis Date	e: <b>3/</b> 9	9/2023	S	SeqNo: 34	40471	Units: <b>mg/K</b>	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	22 1800	5.0	25.00 1000	0	86.3 184	70 37.7	130 212			
Sample ID:	mb-73575	SampTyp	e: Me	BLK	Tes	tCode: EF	A Method	8015D: Gaso	line Range		
Client ID:	PBS	Batch II	): <b>73</b>	575	F	RunNo: <b>9</b> 5	5134				
Prep Date:	3/8/2023	Analysis Date	e: <b>3/</b> 9	9/2023	Ş	SeqNo: 34	140472	Units: <b>mg/K</b>	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 1000	5.0	1000		101	37.7	212			
Sample ID:	mb-73580	SampTyp	e: ME	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	PBS	Batch II	): <b>73</b>	580	F	RunNo: <b>9</b> 5	5142				
Prep Date:	3/8/2023	Analysis Date	e: <b>3/</b> 9	9/2023	S	SeqNo: 34	42020	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 920	5.0	1000		92.3	37.7	212			
Sample ID:	lcs-73580	SampTyp	e: <b>LC</b>	S	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	LCSS	Batch II	): <b>73</b>	580	F	RunNo: <b>9</b>	5142				
Prep Date:	3/8/2023	Analysis Date	e: <b>3/</b> 9	9/2023	S	SeqNo: 34	142022	Units: <b>mg/K</b>	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	20 1900	5.0	25.00 1000	0	80.8 188	70 37.7	130 212			
Sample ID:	2303380-003ams	SampTyp	e: MS	5	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	WES23-03 1'	Batch II	): 73	580	F	RunNo: 95	5142				
Prep Date:	3/8/2023	Analysis Date	e: <b>3/</b> 9	9/2023	S	SeqNo: 34	42025	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	22 1800	4.8	23.88 955.1	0	91.8 192	70 37.7	130 212			
Sample ID:	2303380-003amsd	SampTyp	e: MS	SD.	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	WES23-03 1'	Batch II	): <b>73</b>	580	F	RunNo: <b>9</b> 5	5142				
Prep Date:	3/8/2023	Analysis Date	e: <b>3/</b> 9	9/2023	S	SeqNo: 34	142026	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

2303380

16-Mar-23

Client: Project:	Vertex Re Trionyx 6	sources Se Federal 0	ervices. 07	, Inc.							
Sample ID:	2303380-003amsd	SampT	ype: M\$	SD	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	WES23-03 1'	Batch	ID: 73	580	F	RunNo: <b>9</b> 5	5142				
Prep Date:	3/8/2023	Analysis D	ate: 3/	9/2023	S	SeqNo: 34	42026	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	20	4.8	23.83	0	85.6	70	130	7.18	20	
Surr: BFB		1800		953.3		192	37.7	212	0	0	

#### Qualifiers:

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- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

2303380

16-Mar-23

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Vo	ertex Resources S	Services,	Inc.							
Project: 11	rionyx 6 Federal	007								
Sample ID: LCS-7357	5 Samp	Туре: <b>LC</b>	S	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: LCSS	Bato	h ID: 735	575	F	RunNo: <b>9</b>	5134				
Prep Date: 3/8/2023	Analysis	Date: 3/9	9/2023	S	SeqNo: 34	440474	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	1.000	0	85.9	80	120			
Toluene	0.88	0.050	1.000	0	88.0	80	120			
Ethylbenzene	0.87	0.050	1.000	0	87.1	80	120			
Kylenes, Total	2.6	0.10	3.000	0	87.3	80	120			
Surr: 4-Bromofluorobenzer	ne 0.96		1.000		96.3	70	130			
Sample ID: mb-73575	Samp	Туре: МЕ	BLK	TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Bato	h ID: 73	575	F	RunNo: 9	5134				
Prep Date: 3/8/2023	Analysis	Date: 3/9	9/2023	S	SeqNo: 34	440475	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Kylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzer	ne 0.91		1.000		91.1	70	130			
Sample ID: mb-73580	Samp	Туре: МЕ	BLK	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: PBS	Bato	h ID: 735	580	RunNo: <b>95142</b>						
Prep Date: 3/8/2023	Analysis	Date: 3/9	9/2023	S	SeqNo: 34	442021	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Foluene	ND	0.050								
Ethylbenzene	ND	0.050								
Kylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzer	ne 0.93		1.000		93.4	70	130			
Sample ID: Ics-73580	Samp	Туре: <b>LC</b>	s	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: LCSS	Bato	ch ID: 735	580	F	RunNo: <b>9</b>	5142				
Prep Date: 3/8/2023	Analysis	Date: 3/9	9/2023	S	SeqNo: 34	442023	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.5	80	120			
Foluene	0.89	0.050	1.000	0	89.0	80	120			
Ethylbenzene	0.86	0.050	1.000	0	86.4	80	120			
Xylenes, Total	2.6	0.10	3.000	0	86.0	80	120			
Surr: 4-Bromofluorobenzer	ne 0.94		1.000		93.9	70	130			

#### Qualifiers:

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

WO#:	2303380

16-Mar-23

# **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Vertex Resources Services, Inc. Trionyx 6 Federal 007										
Sample ID:	e ID: 2303380-004ams SampType: MS TestCode: EPA Method 8021B: Volatiles										
Client ID:	WES23-04 1'	Batc	h ID: 73	580	F	RunNo: 9	5142				
Prep Date:	3/8/2023	Analysis [	Date: 3/9	9/2023	S	SeqNo: 34	442050	Units: <b>mg/K</b>	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.91	0.024	0.9597	0	94.8	68.8	120			
Toluene		0.92	0.048	0.9597	0	95.4	73.6	124			
Ethylbenzene		0.91	0.048	0.9597	0	95.0	72.7	129			
Xylenes, Total		2.7	0.096	2.879	0	94.2	75.7	126			
Surr: 4-Bromo	ofluorobenzene	0.89		0.9597		92.3	70	130			
Sample ID:	2303380-004AMSE	Samp	Гуре: <b>МS</b>	D	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: N	WES23-04 1'	Batc	h ID: 735	580	F	RunNo: 9	5142				
Prep Date:	3/8/2023	Analysis [	Date: 3/9	9/2023	5	SeqNo: 34	442051	Units: <b>mg/K</b>	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.88	0.024	0.9588	0	91.4	68.8	120	3.76	20	
Toluene		0.87	0.048	0.9588	0	91.1	73.6	124	4.64	20	
Ethylbenzene		0.87	0.048	0.9588	0	90.4	72.7	129	5.07	20	
Xylenes, Total		2.6	0.096	2.876	0	89.9	75.7	126	4.75	20	
Surr: 4-Bromo	ofluorobenzene	0.88		0.9588		91.4	70	130	0	0	

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank В
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 22 of 22

HALL ENVIR ANALY LABOR	ONMENTAL SIS Atory	Hall Environmental Albı TEL: 505-345-3975 Website: www.ha	Analysis Laborato 4901 Hawkins N iquerque, NM 8710 FAX: 505-345-410 Ilenvironmental.co	ry NE 09 <b>Sarr</b> 07	Sample Log-In Check List							
Client Name:	Vertex Resources Services, Inc.	Work Order Number:	2303380		RcptNo:	1						
Received By: Completed By: Reviewed By:	Juan Rojas Sean Livingston TMC	3/8/2023 7:30:00 AM 3/8/2023 8:21:02 AM 3   8   7 3		l por se la Se la	gat-							
<u>Chain of Cust</u> 1. Is Chain of Cu 2. How was the s	t <b>ody</b> Istody complete? sample delivered?		Yes <b>⊻</b> <u>Courier</u>	No 🗌	Not Present							
Log In 3. Was an attem	pt made to cool the sampl	es?	Yes 🔽	No 🗌	NA 🗌							
4. Were all samp	les received at a temperal	ture of >0° C to 6.0°C	Yes 🗹	No 🗌	na 🗆							
5. Sample(s) in p	proper container(s)?		Yes 🗹	No 🗌								
6. Sufficient sam	ple volume for indicated te	st(s)?	Yes 🗹	No 🗌								
8. Was preservat	ive added to bottles?	perty preserved ?	Yes □	No 🗹	NA 🗌							
9. Received at lea	ast 1 vial with headspace	<1/4" for AQ VOA? roken?	Yes □ <sub>Yes</sub> □	No 🗌 No 🗹	NA 🗹							
11.Does paperwo (Note discrepa	rk match bottle labels? ncies on chain of custody)	)	Yes 🗹	No 🗆	for pH:(<2 or	>12 unless noted)						
12. Are matrices of 13. Is it clear what 14. Were all holdin (If no, notify cu	orrectly identified on Chair analyses were requested ig times able to be met? istomer for authorization.)	n of Custody? ?	Yes 🗹 Yes 🗹 Yes 🗹	No 🗌 No 🗍 No 🗌	Adjusted?	JN318/23						
Special Handli	ng (if applicable)				_							
15. Was client not Person I By Who Regardin Client In	Notified: m: ng: structions:	vith this order? Date: Via:	Yes 🗌	No 🗌	NA 🗹							
16. Additional ren 17. <u>Cooler Inforr</u> Cooler No 1	narks: nation Temp °C Condition 0.5 Good	Seal Intact Seal No S Not Present Morty	eal Date Si	igned By		1						

Page 165 of 168

Receive	d by OCD:	7/20/202	3 1:32:25 PM															Page .	166 of 168
C	hain-	of-Cu	stody Record	Turn-Around		9		НΔ		FI	NV	TR	201		1EI	NT/			
Client:		Verte	x/Devon	Standard     Rush  Project Name:				ANALYSIS LABORATORY									RY		
Mailing	J Address	ONF		TH	onyx 6 h	#007	www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109												
Dhana				Project #:	E-01921		Tel. 505-345-3975 Fax 505-345-4107 Analysis Request												
email	<i></i> or Fax#:			Project Mana	iger:	5 9 . A g	$\square$	ô				04			lf)				
	Package:		Level 4 (Full Validation)	Ke	nt Stall	nings	s (802	0/MR	PCB's	SIMS		PO4, S			t/Abse				
	ditation:	□ Az Co □ Other	mpliance	Sampler: C On Ice:	∕) ⊒-Yes	🗆 No	TMB'	RO / DR	es/8082	504.1) ) or 8270	s	3, NO <sub>2</sub> ,		(AO)	(Preser				
	D (Type)	-		# of Coolers: $Mart 9$ Cooler Temp(including CF): $(h, b \cdot 0, 1 = 0, 5 - (°C))$				15D(G	sticid	ethod v 831(	8 Meta	NC NO	(YO	emi-V	oliform			2.5	
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL NO. (	втех	<b>ТРН:80</b>	8081 Pe	EDB (M PAHs b	RCRA 8	CI, F	8260 (V	8270 (S	Total Co				
31612	3 10:00	50,71	WESZ3-01 1	402	ICC	001	$\square$					$\square$	<u> </u>	nt Sel	1	11291			
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	10:10		WES28-03 1			003												121	
	10:15		WES23-04 1'			224					1			12					
	10:20		BESZ3-01 2'			005		e.		12	12		1						
	10:25		BH23-06 0'			Du					1.00			20.94	1.00				
	10:30		BH23-06 1'			700												-	
	10:35		BH23-07 0'			201													
	10:40		BH23-07 1'			229				27.7			12	1.12.0		and and			
	10:45		BHZ3-68 0'			010													
	10:50		BH23-68 1			3(1							100		1.00				
	,0:55	·	B1+23-09 D'			012		1			1	1							
Date:	e: Time: Relinquished by:			Received by: Via: Date Time MMMMM 3/7/23 650 Received by: Ma: Date Time				Remarks: D, ract B,71 Z Devon CC: Chance											
3/173 1900 (AMAMAMA - 2)			2	france	- 3/ 1/23 7130	30													

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report. Released to Imaging: 7/25/2023 8:31:39 AM

Received by OCD: 7/20/2023 1:32:25 PM

С	hain-	of-Cu	stody Record	Turn-Around				н	Δ1		FR	v	TR	201	NM	EN.	ΤΑΙ	_		
Client:	Dero	n/v	ir ex	□ Standard Project Name	Rush.		ANALYSIS LA							AB al.co	ABORATORY al.com					
Mailing Address:				Trionyx 6 Federal #007				4901 Hawkins NE - Albuquerque, NM 87109												
				Project #:	25-0192	)	Tel. 505-345-3975 Fax 505-345-4107 Analysis Request												and the second	
email or Fax#:			Project Mana	ager:		(1)	Ô					304			ent)		10000			
QA/QC Package: /				K	ent stal	lings	3's (802	RO / MR	PCB's		OSIMS	-	, PO4,			ent/Abse		100		
Accreditation:  Accreditation:				Sampler: CD On Ice: TYes D No				SRO / DF	les/8082	1504.1)	0 or 827	als	D <sub>3</sub> , NO <sub>2</sub>		(VO)	n (Prese				
	) (Type) <u>-</u>			# of Coolers: Cooler Temp	(including CF):	6-0.1=0.5(°C)	ATB	015D(G	Desticid	Method	by 831	8 Meta	Br, NC	(VOA)	(Semi-\	Coliforn				
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX	TPH:8	8081	EDB (	PAHs	RCRA	U C	8260	8270	Total				
31612	11:00	5017	BH23-09 1'	#02	ICE	0(3	Y	$\checkmark$					$\checkmark$							
- i -	11:05		BHZ3-10 0'	)	1	()14	1	1												
	11:10		BH23-10 1'	/	/	015		1						2						
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37/23	1900	PLA	UNU IN N	12	Fromer	318/23 7:30	0													

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report. Released to Imaging: 7/25/2023 8:31:39 AM

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

Operator:	OGRID:					
DEVON ENERGY PRODUCTION COMPANY, LP	6137					
333 West Sheridan Ave.	Action Number:					
Oklahoma City, OK 73102	242601					
	Action Type:					
	[C-141] Release Corrective Action (C-141)					

#### CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	7/25/2023

Action 242601