Volume calculator

There was no volume calculator prepared when the spill occurred.

VERTEX

June 7, 2022 Vertex Project #: 21E-02816

Spill Closure Report: Todd 26K Federal #010
Unit K, Section 26, Township 23 South, Range 31 East
County: Eddy
API: 30-015-27102
NMOCD Tracking Number: NAB1903733353

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

New Mexico Oil Conservation Division – District 2 – Artesia
811 South First Street
Artesia, New Mexico 88210

Devon Energy Production Company (Devon) retained Vertex Resource Services Inc. (Vertex) to conduct a spill assessment and remediation for the release that occurred on December 25, 2018, at Todd 26K Federal #010, API 30-015-27102 (hereafter referred to as "Todd 26K"). Devon provided notification of the spill to New Mexico Oil Conservation Division (NMOCD) District 2, and the Bureau of Land Management (BLM), who own the property, via an initial C-141 Release Notification (Attachment 1) submitted on January 29, 2019. The NMOCD tracking number assigned to this incident is NAB1903733353.

This letter provides a description of the spill assessment and remediation activities and demonstrates that closure criteria established in 19.15.29.12 *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) have 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.

Incident Description

On December 25, 2018, a release occurred at Devon's Todd 26K site when a poly line developed a leak. This incident resulted in the release of approximately 12.32 barrels (bbls) of produced water and 2 bbls of oil onto the constructed wellpad and adjacent lease road. Upon discovery of the release, the poly line was isolated and repaired. A hydrovac truck was dispatched to site to recover free fluids; 1.5 bbls of produced water and 0.5 bbls of oil were recovered from the impacted area. No produced water or oil was released into undisturbed areas or waterways.

Site Characterization

The release at Todd 26K occurred on federally-owned land, N 32.2735825, W 103.7496414, approximately 18 miles east of Loving, New Mexico. The legal description for the site is Unit K, Section 26, Township 23 South, Range 31 East, Eddy County, New Mexico. This location is within the Permian Basin in southeast New Mexico and has historically been used for oil and gas exploration and production. An aerial photograph and site schematic are included in Attachment 2 (Figure 1).

The surrounding landscape is associated with alluvial fans and plains typical of elevations of 3,000 to 4,200 feet above sea level. The climate is semi-arid, with average annual precipitation ranging between 10 and 14 inches. The ecological classification of the site is Sandy – typically grassland dominated by black grama and dropseeds. Perennial and annual forb abundance is distributed relative to precipitation. Litter and, to a lesser extent, bare ground compose a significant proportion of the ground cover while grasses compose the remainder (United States Department of Agriculture, Natural Resources Conservation Service, 2020). Limited to no vegetation is allowed to grow on the compacted wellpad or lease roads.

The Geological Map of New Mexico indicates the surface geology at Todd 26K is comprised of Qep – eolian and piedmont deposits, which include eolian sands interlaid with piedmont-slope deposits (New Mexico Bureau of Geology and Mineral Resources, 2020). The Natural Resources Conservation Service Web Soil Survey characterizes the soil at the site as Simona and Wink fine sandy loams, characterized by shallow layers of gravelly sandy and fine sandy loam over an indurated caliche layer. This type of soil tends to be well-drained with very high runoff and very low available moisture levels in the soil profile (United States Department of Agriculture, Natural Resources Conservation Service, 2020). There is low potential for karst geology to be present near Todd 26K (United States Department of the Interior, United States Geological Survey, 2020a).

There is no surface water located at Todd 26K. An emergent wetland is located approximately 3 miles southeast of the release site (United States Fish and Wildlife Service, 2020). The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is the Pecos River, located approximately 16 miles to the west of Todd 26K (United States Department of the Interior, United States Geological Survey, 2020b). At Todd 26K, there are no continuously flowing watercourses, lakebeds, sinkholes, playa lakes, or other critical water or community features nearby as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

The nearest active well to Todd 26K is a New Mexico Office of the State Engineer-identified well from 2013, located approximately 0.25 miles south of the site, with a depth to groundwater of 430 feet below ground surface (bgs; New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System, 2020). Documentation pertaining to site characterization and depth to groundwater determination is included in Attachment 3.

Closure Criteria Determination

Using site characterization information, a closure criteria determination worksheet (Attachment 3) was completed to determine if the release was subject to any of the special case scenarios outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

Based on data included in the closure criteria determination worksheet, the release at Todd 26K is not subject to the requirements of Paragraph (4) of Subsection C of 19.15.29.12. Since the release occurred off-site per Paragraph (1) of Subsection D of 19.15.29.13 NMAC, the closure criteria for the release site are determined to be associated with the following constituent concentration limits, based on depth to groundwater.

Table 1. Closure Criteria for Soils to Remediation & Reclamation Standards		
	Constituent	**Limit**
0-4 feet bgs (19.15.29.13)	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
DTGW 51-100 feet (19.15.29.12)	Chloride	10,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg
	GRO+DRO	1,000 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

[1]Total petroleum hydrocarbons (TPH) = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO)
[2]Benzene, toluene, ethylbenzene and xylenes (BTEX)

Remedial Actions

Initial spill inspection and site characterization activities at Todd 26K were completed by Vertex on March 21, 2019. The Daily Field Report (DFR) and field screening data associated with the site visit are included in Attachment 4. Using initial field screening data, the release was initially delineated horizontally and vertically as presented on Figure 1 (Attachment 2). The impacted area was determined to be approximately 251 feet long and 31 feet wide; the total affected area was determined to be approximately 4,177 square feet. Vertex completed delineation around the area, field screens and laboratory results from delineation are presented in Table 2, Attachment 4.

Remediation activities were conducted between March 30 and April 26, 2019, with Vertex personnel guiding excavation of impacted soils using field screening methodology, including Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and EC meter (chlorides). Soils were removed to a depth of approximately 1 foot bgs and transported by a licensed waste hauler for disposal at an approved waste management facility. Additional details and field screening results for this and all subsequent site visits can be found in the DFRs (Attachment 5).

On April 2, 2019, Vertex provided 48-hour notification of confirmation sampling to the NMOCD, as required by Subparagraph (a) of Paragraph (1) of Subsection D 19.15.29.12 NMAC (Attachment 6). A total of ten confirmatory samples were collected from the base of the excavation and submitted to National Environmental Laboratory Accreditation Program (NELAP)-approved laboratory for chemical analysis.

Laboratory analyses included Method 300.0 for chlorides, Method 8021B for volatile organics, including BTEX, and EPA Method 8015 for TPH, including MRO, DRO and GRO. Confirmatory sampling analytical results are presented in Table 3 (Attachment 4). Confirmatory sampling analytical data reports are included in Attachment 7.

Closure Request Denial and Additional Activities

On May 17, 2019, Devon requested closure for the release at Todd 26K, at Vertex's recommendation. On May 14, 2020, the NMOCD denied closure for this incident based on the following:

- The release was not on an active pad or production facility, therefore the top 4 feet must meet NMOCD Reclamation Standards by Rule 19.15.29.13 NMAC. Lease roads are considered off-pad areas.

- The final report did not include a sampling diagram.
- All samples in the report were named "SS19-". Clarification on which are floor samples and which are sidewall samples is required.

The full closure denial explanation is included as Attachment 8.

To address NMOCD concerns, additional release delineation activities were conducted at Todd 26K on October 29, 2020, to further refine the spill footprint. The new characterization sampling locations are presented on Figure 2 (Attachment 2). Field screening and laboratory data for the new soil samples are presented in Table 3 (Attachment 4).

On January 19, 2021, Vertex provided 48-hour notification of additional remediation and confirmation sampling to the NMOCD (Attachment 6). Following the excavation of remaining contaminated soil, Vertex collected a total of 20 five-point composite samples from the base and sidewalls of release area. Each composite sample was representative of no more than 200 square feet per the alternate sampling method outlined in Subparagraph (c) of Paragraph (1) of Subsection D 19.15.29.12 NMAC, which does not require prior NMOCD approval. The confirmatory samples were placed into laboratory-provided containers, preserved on ice and submitted to a NELAP-approved laboratory for chemical analysis.

On May 17, 2022, Vertex provided 48-hour notification of confirmation sampling to the NMOCD and BLM (Attachment 6). Additional sampling was completed for BS21-12 and is representative of no more than 200 square feet per the alternate sampling method outlined in Subparagraph (c) of Paragraph (1) of Subsection D 19.15.29.12 NMAC, which does not require prior NMOCD approval. The composite sample was collected at depths of 0.5-1 ft bgs and 1-1.5 bgs to show the depth of excavation in that area is below criteria. The confirmatory sample was placed into laboratory-provided containers, preserved on ice and submitted to a NELAP-approved laboratory for chemical analysis.

Laboratory analyses included Method 300.0 for chlorides, Method 8021B for volatile organics, including BTEX, and EPA Method 8015 for TPH, including MRO, DRO and GRO. Final confirmatory sampling analytical data are summarized in Table 4 (Attachment 4). Final confirmatory sampling analytical data reports are included in Attachment 7.

A GeoExplorer 7000 Series Trimble global positioning system (GPS) unit, or equivalent, was used to map the approximate center of each of the five-point composite samples. The final confirmatory sampling locations are presented on Figure 3 (Attachment 2).

Closure Request

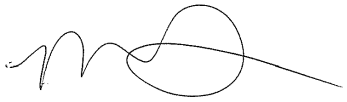
Vertex recommends no additional action to address the release at Todd 26K. Laboratory analyses of the final confirmatory samples showed constituent of concern concentration levels below NMOCD closure criteria for areas where depth to groundwater is greater than 100 feet bgs, as presented in Table 1. There are no anticipated risks to human, ecological or hydrological receptors associated with the release site.

Additionally, because the release occurred off-pad, as defined by NMOCD, the site was remediated such that the top 4 feet of the remediation area meets restoration and reclamation standards as set forth in 19.15.29.13 NMAC. The excavation was backfilled with non-waste-containing, uncontaminated, earthen material, sourced locally, and placed to

meet the site's existing grade to prevent ponding of water and erosion.

Vertex requests that this incident (NAB1903733353) be closed as the original closure request denial (Attachment 9) reasons have been addressed and all closure and reclamation requirements set forth in Subsection E of 19.15.29.12 and 19.15.29.13 NMAC have been met. Devon certifies that all information in this report and the attachments is correct, and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NMOCD requirements to obtain closure on the December 25, 2018, release at Todd 26K.

Should you have any questions or concerns, please do not hesitate to contact the undersigned at 575.361.9880 or mpeppin@vertex.ca.



Monica Peppin
PROJECT MANAGER, Reporting

Attachments

Attachment 1. NMOCD C-141
Attachment 2. Figures
Attachment 3. Closure Criteria for Soils Impacted by a Release Research Determination Documentation
Attachment 4. Tables
Attachment 5. Daily Field Report(s) with Photographs
Attachment 6. Required 48-hr Notification of Confirmatory Sampling to Regulatory Agencies
Attachment 7. Laboratory Data Reports/Chain of Custody Forms
Attachment 8. NMOCD Original Closure Denial

References

New Mexico Bureau of Geology and Mineral Resources. (2020). *Interactive Geologic Map.* Retrieved from http://geoinfo.nmt.edu.

New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System. (2020). *Water Column/Average Depth to Water Report.* Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html

New Mexico Oil Conservation Division. (2018). *New Mexico Administrative Code – Natural Resources and Wildlife Oil and Gas Releases*. Santa Fe, New Mexico.

United States Department of Agriculture, Natural Resources Conservation Service. (2020). *Web Soil Survey*. Retrieved from https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

United States Department of the Interior, United States Geological Survey. (2020a). *New Mexico Cave/Karsts*. *Caves and Karst in the U.S. National Park Service*. Retrieved from https://www.arcgis.com/home/webmap/viewer.html?webmap=14675403c3794 8129acb758138f2dd1e

United States Department of the Interior, United States Geological Survey. (2020b). *National Water Information System.* Retrieved from https://maps.waterdata.usgs.gov/mapper/index.html?state=nm

United States Fish and Wildlife Service. (2020). *National Wetlands Inventory*. Retrieved from https://www.fws.gov/wetlands/data/Mapper.html

Limitations

This report has been prepared for the sole benefit of Devon Energy Production Company (Devon). This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division, without the express written consent of Vertex Resource Services Inc. (Vertex) and Devon. 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.

ATTACHMENT 1

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NAB1903733353
District RP	2RP-5222
Facility ID	
Application ID	pAB1903732371

Release Notification

Responsible Party

Responsible Party Devon Energy Production Company	OGRID 6137
Contact Name Amanda T. Davis	Contact Telephone 575-748-0176
Contact email amanda.davis@dvn.com	Incident # *(assigned by OCD)* NAB1903733353
Contact mailing address 6488 Seven Rivers Hwy	

Location of Release Source

Latitude 32.2735825 Longitude -103.7496414
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Todd 26 K Federal #10	Site Type Oil
Date Release Discovered 12/25/2018	API# *(if applicable)* 3001527102

Unit Letter	Section	Township	Range	County
K	26	23S	31E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 2	Volume Recovered (bbls) .50
☒ Produced Water	Volume Released (bbls) 12.32	Volume Recovered (bbls) 1.50
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release Leak on poly line. Spill area 105'x15'x0.5"

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAB1903733353
District RP	2RP-5222
Facility ID	
Application ID	pAB1903732371

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ■ No	If YES, for what reason(s) does the responsible party consider this a major release?

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Initial Response

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

- ■ The source of the release has been stopped.
- ■ The impacted area has been secured to protect human health and the environment.
- ☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ■ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

The spill occurred outside of containment.

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Kendra DeHoyos Title: EHS Associate

Signature: Kendra DeHoyos Digitally signed by Kendra DeHoyos DN: cn=Kendra DeHoyos, o=Devon, ou, email=kendra.dehoyos@dvn.com, c=US Date: 2019.02.06 10:03:26 -07'00' Date: 1/15/2019

email: kendra.dehoyos@dvn.com Telephone: 575-748-3371

OCD Only

Received by: Amalia Bustamante Date: 2/06/2019

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

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1220 South St. Francis Dr.
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Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAB1903733353
District RP	2RP-5222
Facility ID	
Application ID	pAB1903732371

Release Notification

Responsible Party

Responsible Party **Harvard Petroleum Company, LLC**	OGRID **10155**
Contact Name **Jeff Harvard**	Contact Telephone **575-208-7135**
Contact email **jharvard@hpcnm.com**	Incident # **nAB1903733353**
Contact mailing address **P.O. Box 936 Roswell, NM 88202**	

Location of Release Source

Latitude **32.275667** Longitude **-103.745452**
(NAD 83 in decimal degrees to 5 decimal places)

Site Name **Todd 26 K Federal #010**	Site Type **Oil**
Date Release Discovered **December 25, 2018**	API# **30-015-27102**

Unit Letter	Section	Township	Range	County
K	26	23S	31E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) **2**	Volume Recovered (bbls) **0.5**
☒ Produced Water	Volume Released (bbls) **12.32**	Volume Recovered (bbls) **1.5**
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Cause listed as, "Leak on poly line. Spill area 105'x15'x0.5"."

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	nAB1903733353
District RP	2RP-5222
Facility ID	
Application ID	pAB1903732371

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

Initial Response

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

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Jeff Harvard Title: President and Manager

Signature: _____ Date: _____

email: jharvard@hpcnm.com Telephone: 575-208-7135

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAB1903733353
District RP	2RP-5222
Facility ID	
Application ID	pAB1903732371

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	nAB1903733353
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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: Jeff Harvard Title: President and Manager

Signature: Date:

email: jharvard@hpcnm.com Telephone: 575-208-7135

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAB1903733353
District RP	2RP-5222
Facility ID	
Application ID	pAB1903732371

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Jeff Harvard Title: President and Manager

Signature: _____ Date: _____

email: jharvard@hpcnm.com Telephone: 575-208-7135

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

ATTACHMENT 2

Borehole
Soil Sample
Approximate Spill Extent (7,483 sq. ft.)
Approximate Lease Boundary
Equipment

VERTEX

0 15 30 60 90 ft

Map Center:
Lat/Long: 32.275336, -103.745723

NAD 1983 UTM Zone 13N
Date: May 25/21

N

Initial Characterization Sampling Locations
Todd 26K Federal #10

FIGURE:
1

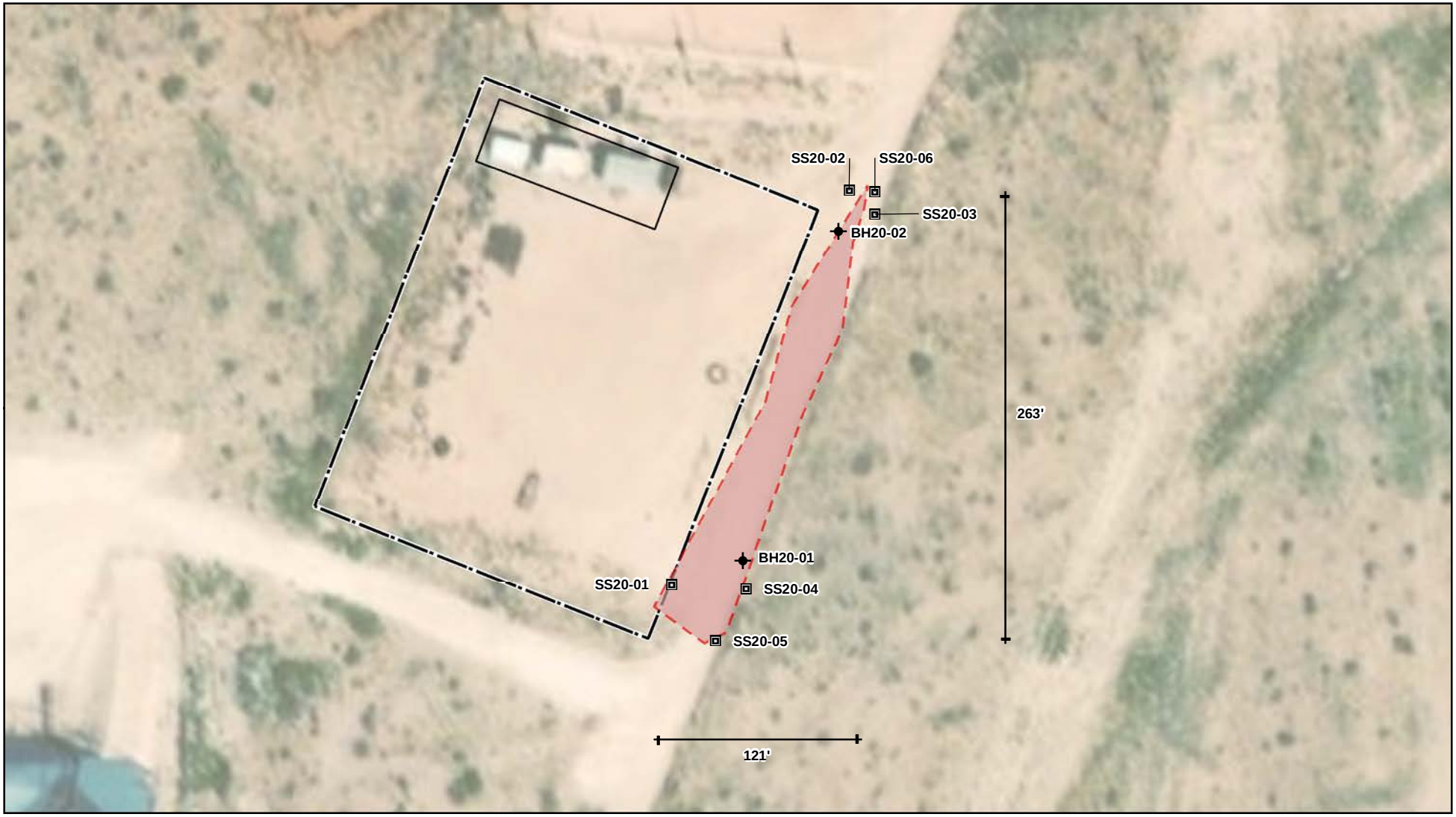
devon

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Imagery from ESRI, 2019. Sample point locations and spill extent from collector, Vertex Professional Services, 2020.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Devon Energy Corporation\19E-00575\003 - Todd 26 K Fed 10\Figure 1 Initial Characterization Todd 26 K Fed 10 20May.mxd



Borehole
Soil Sample
Approximate Spill Extent (7,483 sq. ft.)
Approximate Lease Boundary
Equipment

VERTEX

0 15 30 60 90 ft

Map Center:
Lat/Long: 32.275336, -103.745723

NAD 1983 UTM Zone 13N
Date: May 25/21

N

Re-Characterization Sampling Locations
Todd 26K Federal #10

FIGURE:
2

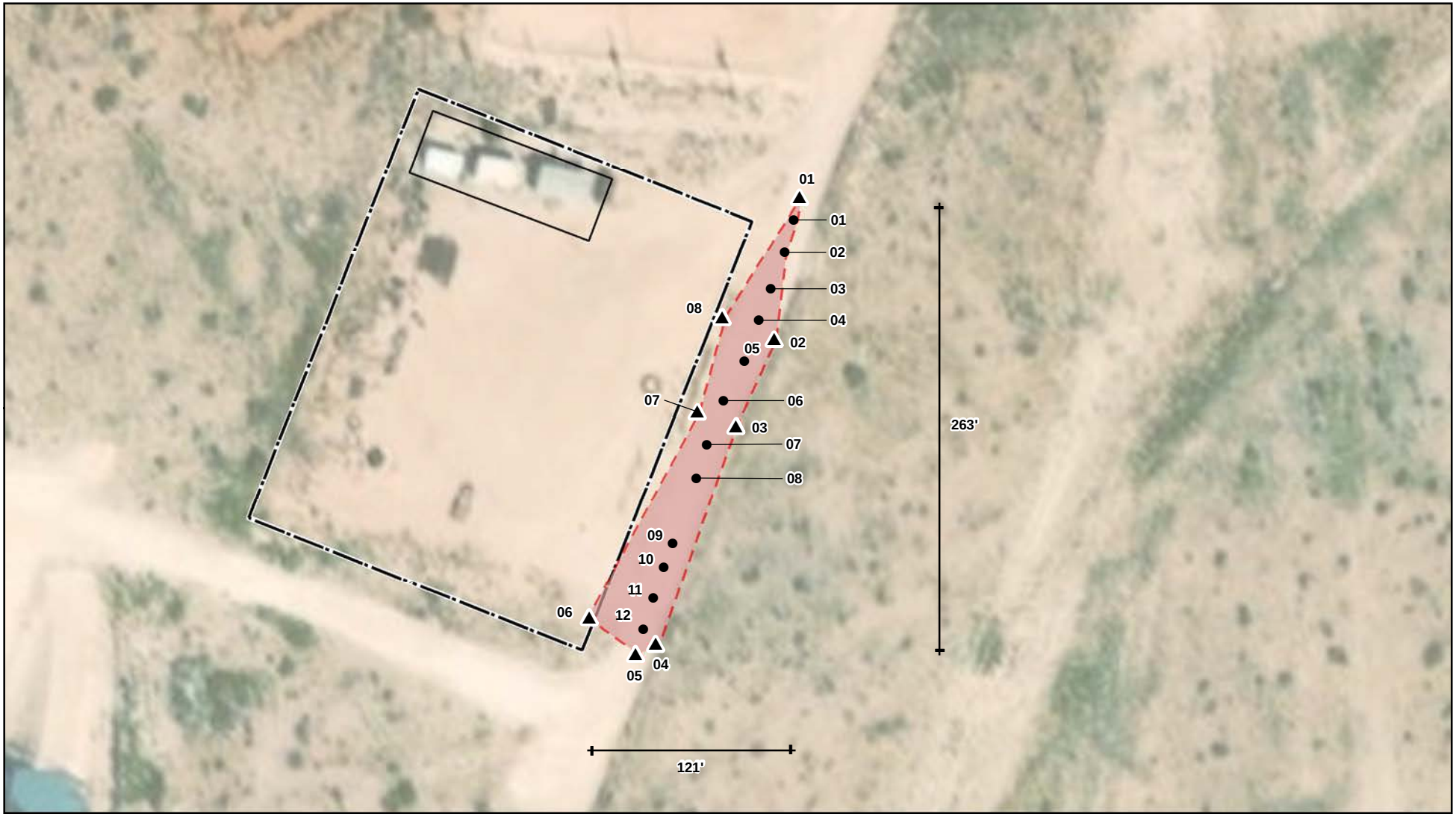
devon

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Imagery from ESRI, 2019. Sample point locations and spill extent from collector, Vertex Professional Services, 2020.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Devon Energy Corporation\19E-00575\003 - Todd 26 K Fed 10\Figure 1 Initial Characterization Todd 26 K Fed 10 20May.mxd



Base Sample (Prefixed by "BS21-")

Wall Sample (Prefixed by "WS21-")

Approximate Spill Extent (7,483 sq. ft.)

Approximate Lease Boundary

Equipment

VERTEX

0 15 30 60 90 ft

Map Center:
Lat/Long: 32.275353, -103.745598

NAD 1983 UTM Zone 13N
Date: May 25/21

N

Final Confirmatory Sampling Locations
Todd 26K Federal #10

FIGURE:
3

devon

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Imagery from ESRI, 2019.

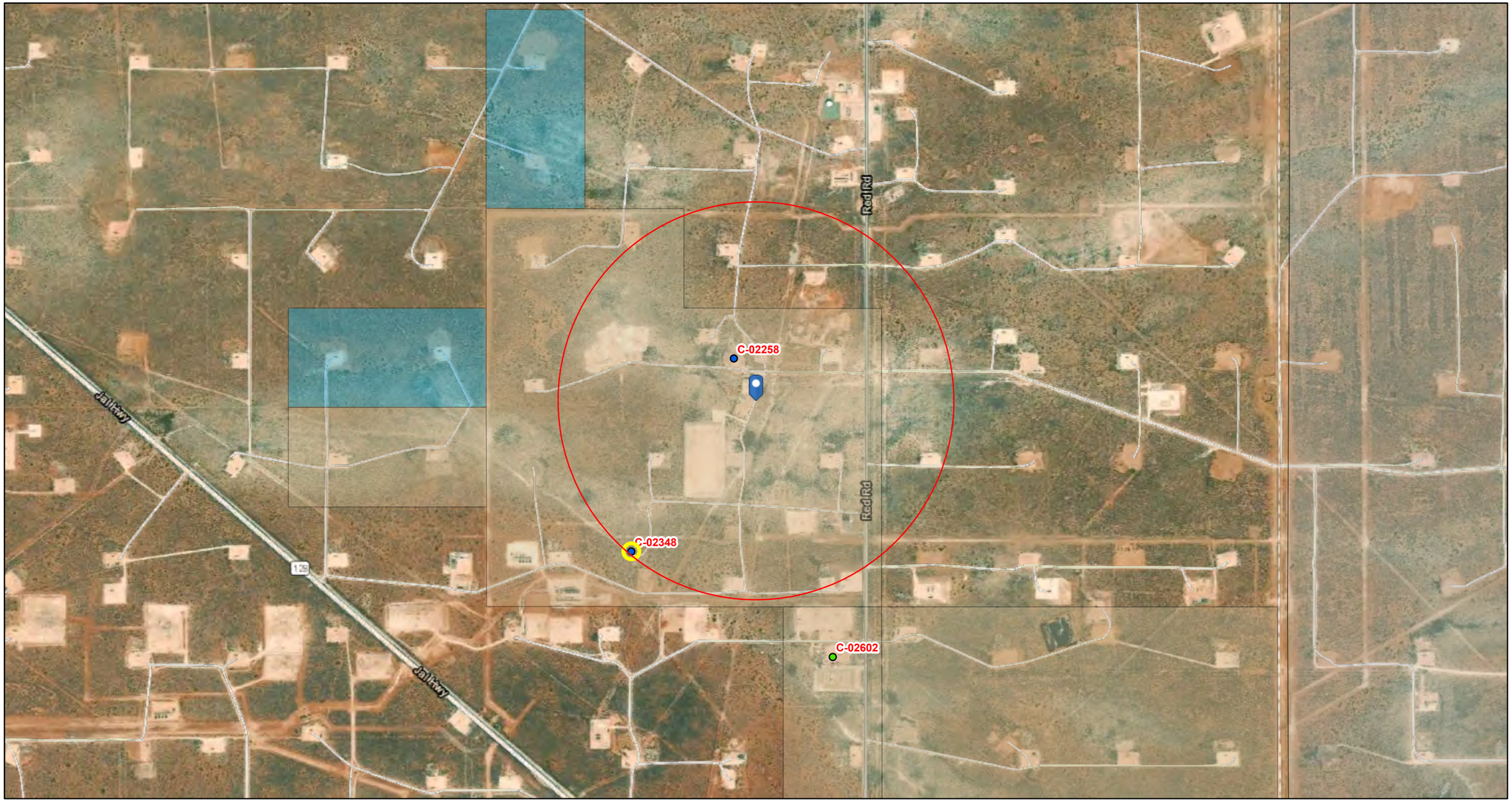
VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Devon Energy Corporation\19E-00575\003 - Todd 26 K Fed 10\Figure 2 Confirmatory Schematic Todd 26 K Fed 10.mxd

ATTACHMENT 3

Closure Criteria Worksheet			
Site Name: Todd 26 K Federal #10H			
Spill Coordinates:		**X: 32.275667**	**Y: -103.745452**
Site Specific Conditions		**Value**	**Unit**
1	Depth to Groundwater	**430**	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	76,325	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	55,711	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	26,928	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, **or**	1,293	feet
	ii) Within 1000 feet of any fresh water well or spring	1,293	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	17,633	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
10	Within a 100-year Floodplain	Undetermined	year
11	Soil Type	Simona and Wink fine sandy loams	
12	Ecological Classification	Shallow Sandy	
13	Geology	Qep	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	<50'	<50' 51-100' >100'

Todd 26 K Federal #10H



6/7/2022, 11:50:34 AM

1:18,056

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

GIS WATERS PODs

- Active
- Pending
- OSE District Boundary

Water Right Regulations

- Closure Area

New Mexico State Trust Lands

- Subsurface Estate

- Both Estates
- SiteBoundaries

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	Twn	Rng	X	Y
	C 02348	1	4	3	26	23S	31E	617648	3571068

Driller License: 1654 **Driller Company:** NOT WORKING FOR HIRE--SIRMAN DRILLING AND CONSTRUC

Driller Name:

Drill Start Date: 10/31/2013 **Drill Finish Date:** 11/01/2013 **Plug Date:**

Log File Date: 11/07/2013 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 10 GPM

Casing Size: 6.00 **Depth Well:** 700 feet **Depth Water:** 430 feet

Water Bearing Stratifications:	Top	Bottom	Description
	15	125	Sandstone/Gravel/Conglomerate
	315	700	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	560	620
	680	700

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y	Distance
C 02348	C	STK	3	NGL WATER SOLUTIONS PERMIAN	ED	C 02348			Shallow	1 4 3	26	23S	31E	617647	3571068	396
C 02258	C	PRO	0	DEVON ENERGY CORP.(NEVADA)	ED	C 02258				3 2	26	23S	31E	618055	3571853*	500
C 02602	C	SAN	0	POGO PRODUCING COMPANY	ED	C 02602				2 2	35	23S	31E	618471	3570650*	1070
C 00225 A	CUB	IRR	8.4	GREGORY ROCKHOUSE RANCH	ED	C 02405			Shallow	4 1	02	24S	31E	617690	3568631*	2818
C 01246 AO	CUB	IRR	47.82	CATHLEEN MC INTIRE	ED	C 02405			Shallow	4 1	02	24S	31E	617690	3568631*	2818
C 02405	C	PRO	0	TEXACO EXPLORATION & PROD. IND	ED	C 02405			Shallow	4 1	02	24S	31E	617690	3568631*	2818
C 02452	C	PRO	0	TEXACO EXPLORATION & PROD INC.	ED	C 02405			Shallow	4 1	02	24S	31E	617690	3568631*	2818
					ED	C 02452				4 1	02	24S	31E	617690	3568631*	2818
C 02576	C	PRO	0	SONAT EXPLORATION COMPANY	ED	C 02405			Shallow	4 1	02	24S	31E	617690	3568631*	2818
C 02464	C	PRO	0	COMMISSIONER OF PUBLIC LANDS	ED	C 02464			Shallow	3 4 1	02	24S	31E	617589	3568530*	2923
C 02901	C	PUB	0	B & H MAINTENANCE & CONST.	ED	C 02901				3 4 1	02	24S	31E	617589	3568530*	2923
C 02460	C	PRO	0	SONAT EXPLORATION	ED	C 02460			Shallow	3	02	24S	31E	617496	3568022*	3437
					ED	C 02460 POD2			Shallow	3	02	24S	31E	617496	3568022*	3437
C 02777	CUB	MON	0	US DEPT OF ENERGY WIPP	ED	C 02777				4 4 4	10	23S	31E	616973	3575662	4285
C 03749	CUB	MON	0	US DEPARTMENT OF ENERGY	LE	C 03749 POD1			Shallow	3 4 4	07	23S	32E	616973	3575662	4285
C 02958	C	STK	3	RICHARDSON CATTLE COMPANY	ED	C 02958				3 3 4	04	24S	31E	614781	3567690*	4795
C 02661	CUB	MON	0	SANDIA NATIONAL LABORATORIES	ED	C 02661				3 3 1	04	24S	31E	613969	3568485*	4811
C 02785	CUB	MON	0	U.S. DEPT. OF ENERGY - WIPP	ED	C 02785				3 3 1	04	24S	31E	613969	3568485*	4811

***UTM location was derived from PLSS - see Help**

(acre ft per annum)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code Grant	Source	q 6416	q 4	Sec	Tws	Rng	X	Y	Distance
C 02954	CUB	EXP	0	U.S. DEPARTMENT OF ENERGY CARLSBAD FIELD OFFICE, WIPP	ED	C 02954 EXPL			Shallow	3 1	4	20	23S	31E	613114	3572906*	4868
C 02783	CUB	OBS	0	U.S. DEPT. OF ENERGY - WIPP	ED	C 02783			Shallow	3 3	1	04	24S	31E	613911	3568461	4871
					ED	C 02783 POD2			Shallow	3 3	1	04	24S	31E	613911	3568461	4871
C 02784	C	SAN	0	US DEPARTMENT OF ENERGY WASTE ISOLATION PILOT PLANT	ED	C 02784			Shallow	4 2	4	04	24S	31E	613911	3568461	4871
C 03470	C	PUB	0	U.S. DEPT. OF ENERGY (WIPP)	ED	C 02783 POD2			Shallow	3 3	1	04	24S	31E	613911	3568461	4871
C 03529	C	STK	0	U.S. DEPT. OF INTERIOR--BLM	LE	C 03529 POD1				2 4	3	29	23S	32E	622651	3571212	4897

Record Count: 24

UTMNAD83 Radius Search (in meters):

Easting (X): 617758.94 **Northing (Y):** 3571449 **Radius:** 5000

Sorted by: Distance

***UTM location was derived from PLSS - see Help**

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

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

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

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

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02348	C	ED	1	4	3	26	23S	31E	617648	3571068	396	700	430	270
C 02258	C	ED		3	2	26	23S	31E	618055	3571853*	500	662		
C 02405	CUB	ED		4	1	02	24S	31E	617690	3568631*	2818	275	160	115
C 02464	C	ED	3	4	1	02	24S	31E	617589	3568530*	2923	320	205	115
C 02460	C	ED			3	02	24S	31E	617496	3568022*	3437	320		
C 02460 POD2	C	ED			3	02	24S	31E	617496	3568022*	3437	320		
C 02777	CUB	ED	4	4	4	10	23S	31E	616974	3575662	4285	890		
C 03749 POD1	CUB	LE	3	4	4	07	23S	32E	616974	3575662	4285	865	639	226
C 02661	CUB	ED	3	3	1	04	24S	31E	613969	3568485*	4811	708		
C 02785	CUB	ED	3	3	1	04	24S	31E	613969	3568485*	4811	692		
C 02954 EXPL	CUB	ED	3	1	4	20	23S	31E	613114	3572906*	4868	905		
C 02783	CUB	ED	3	3	1	04	24S	31E	613911	3568461	4871	708		
C 02783 POD2	CUB	ED	3	3	1	04	24S	31E	613911	3568461	4871	672		
C 02784	C	ED	4	2	4	04	24S	31E	613911	3568461	4871	584		
C 03529 POD1	C	LE	2	4	3	29	23S	32E	622651	3571212	4897	550		

Average Depth to Water: **358 feet**

Minimum Depth: **160 feet**

Maximum Depth: **639 feet**

Record Count: 15

UTMNAD83 Radius Search (in meters):

Easting (X): 617758.94 **Northing (Y):** 3571449 **Radius:** 5000

***UTM location was derived from PLSS - see Help**

Help Using this Tool

Legend | Basemap | Query

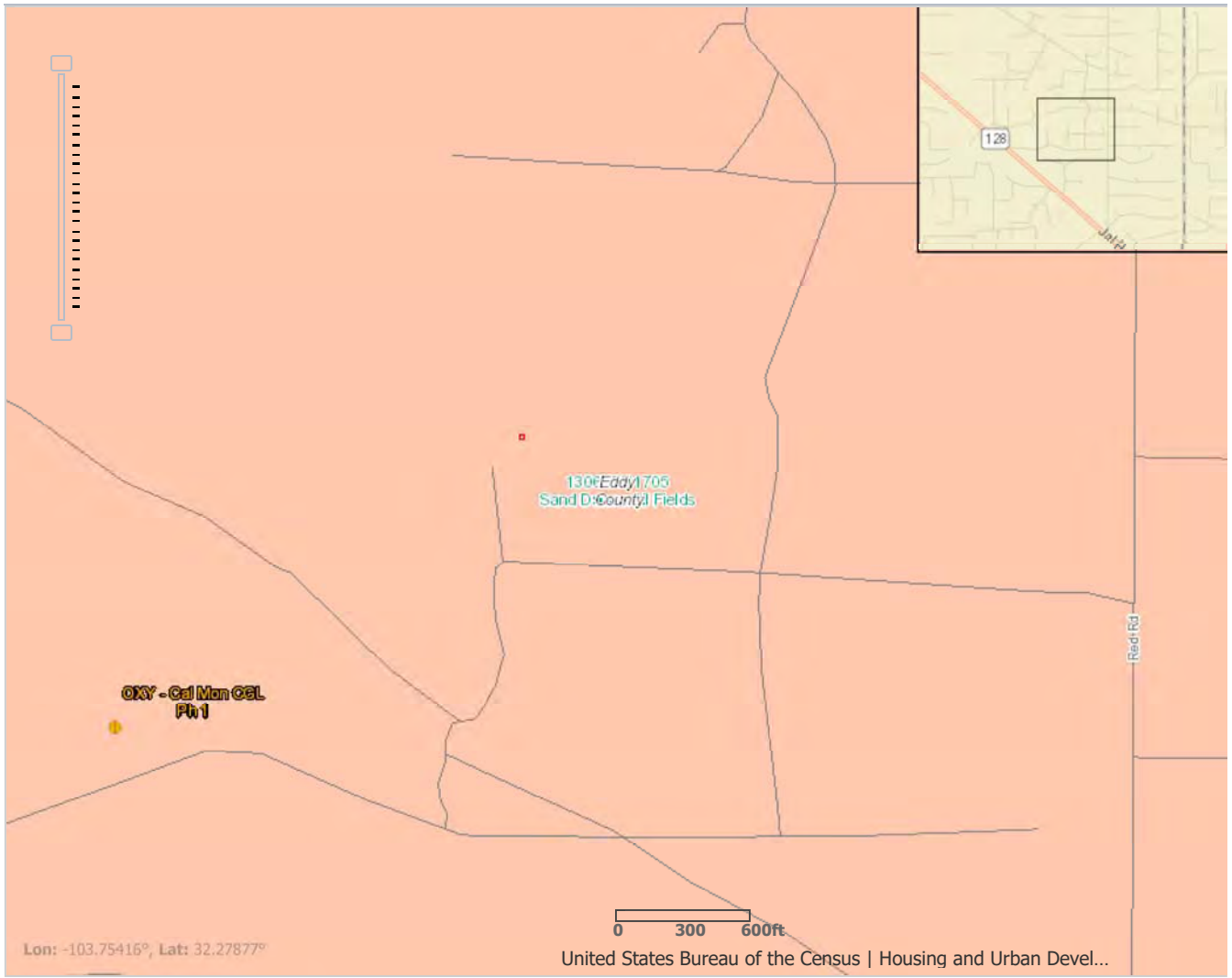
1:9,028

Legend

All Layers On/Off

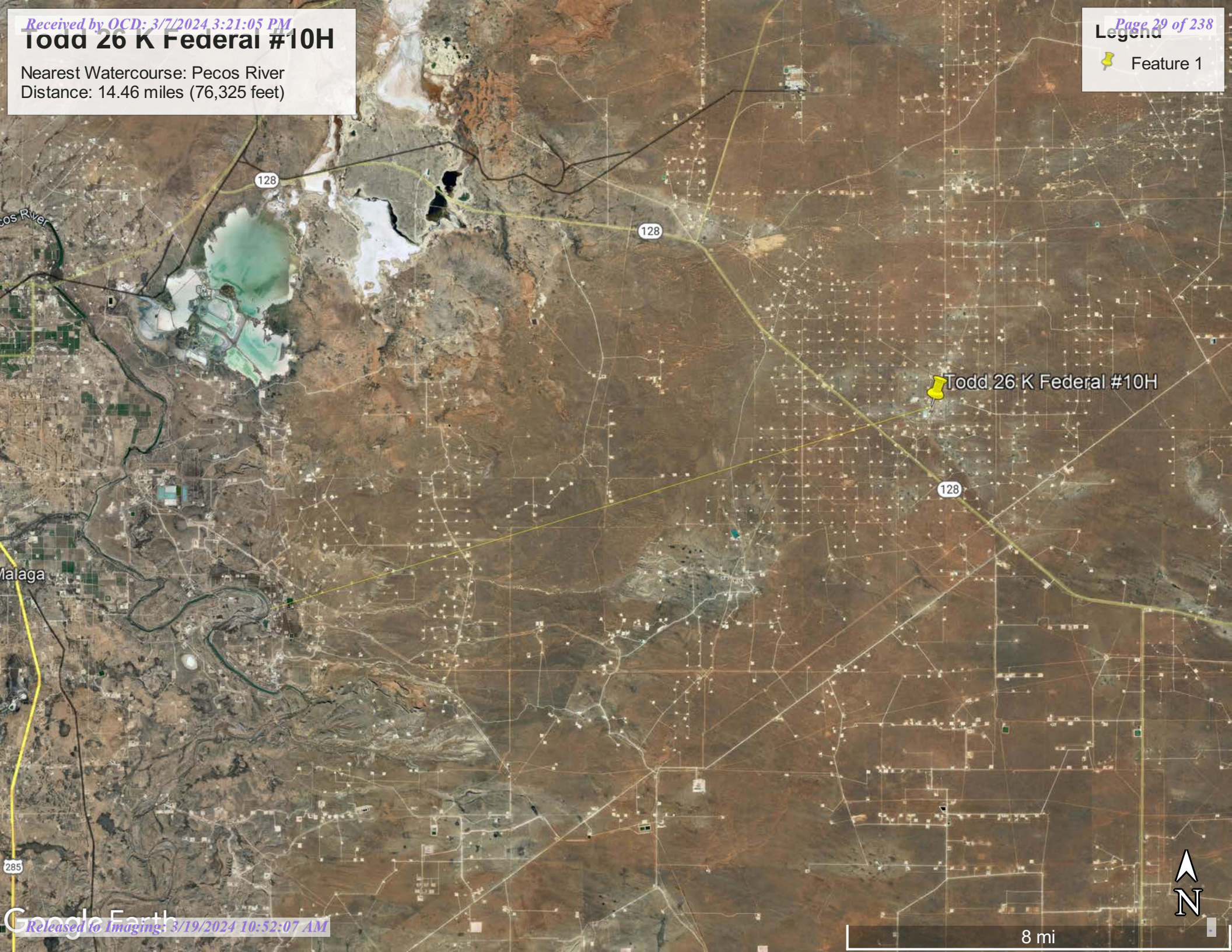
All Layer Transparency

- Roads
- Counties
- Air Emissions
- Air Facilities
- APS Food Facilities
- Dairies
- Brownfields
- Ground Water Discharge Permits
- State Cleanup Program
- Voluntary Remediation Program
- Superfund Sites
- Drinking Water Sources
- Hazardous Waste Facilities
- Landfills
- Petroleum Storage Tanks
- Leaking Tank Sites
- NPDES Permits
- Water Quality Stations
- Nonpoint Source Program
- Impaired Waters
- Assessed Waters
- National Hydrography Dataset
- Watershed Boundary Dataset
- Aquifer Sensitivity



Todd 26 K Federal #10H

Nearest Watercourse: Pecos River
Distance: 14.46 miles (76,325 feet)



U.S. Fish and Wildlife Service
National Wetlands Inventory

Todd 26 Fed 10 Nearest Lake 55,711 ft

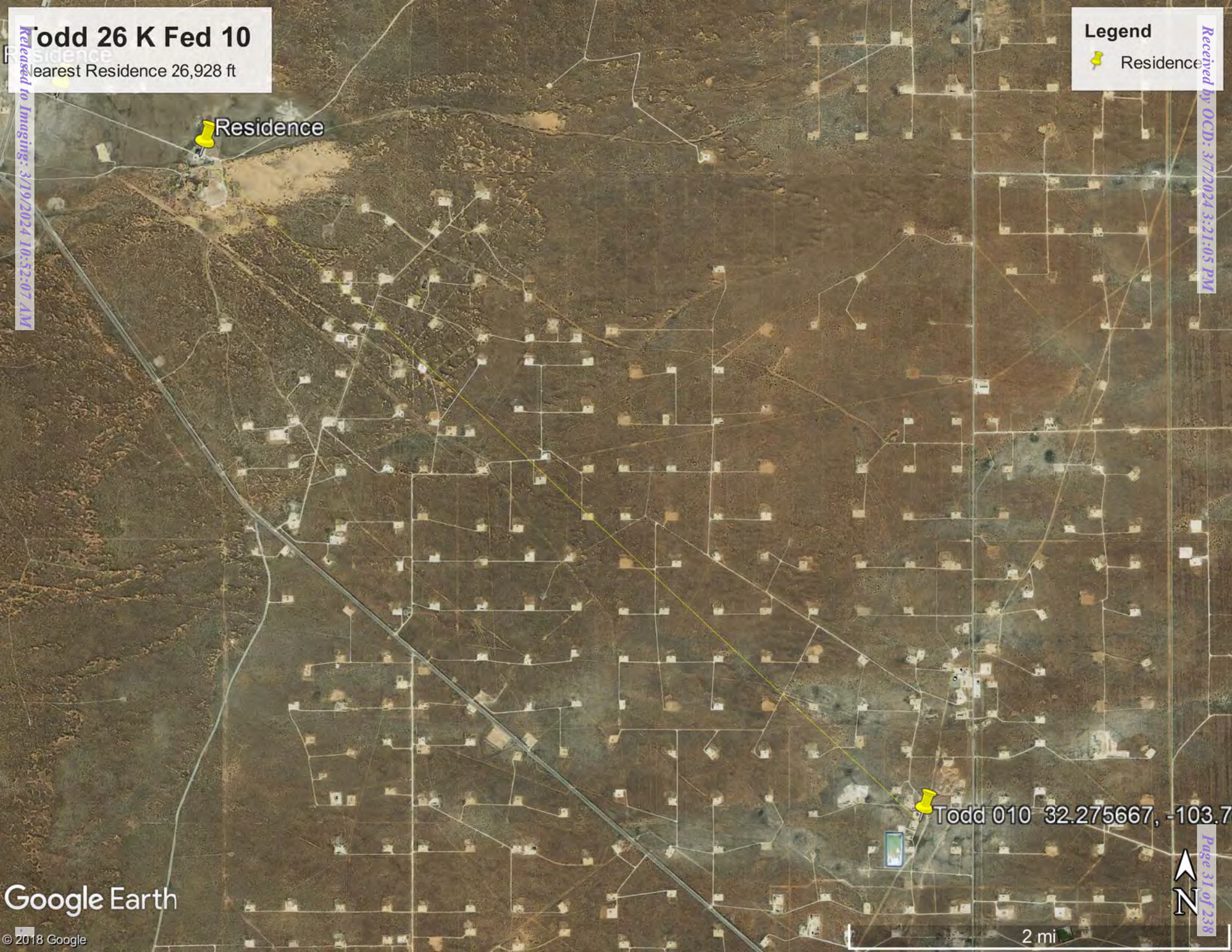
April 24, 2019

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

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.

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



Todd 26K Fed 10

55,410 feet to Spring

Legend

Feature 1

Todd 010 32.275667, -103.745452

Salt Lake

Google Earth

N

10 mi

New Mexico Office of the State Engineer
Wells with Well Log Information

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(in feet)

POD Number	POD Sub-basin Code	County	Source	q 6416	q 4	q 3	Sec	Tws	Rng	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number
C 02348	C	ED	Shallow	1	4	3	26	23S	31E	617648	3571068	396	10/31/2013	11/01/2013	11/07/2013	700	430	JOHN SIRMAN	1654
C 02258	C	ED			3	2	26	23S	31E	618055	3571853*	500	09/18/1992	09/18/1992	09/25/1992	662		CORKY GLENN	421
C 02405	CUB	ED	Shallow		4	1	02	24S	31E	617690	3568631*	2818	09/29/1994	09/30/1994	12/05/1994	275	160	COLLIS, ROBERT E.	1184
C 02464	C	ED	Shallow	3	4	1	02	24S	31E	617589	3568530*	2923	08/24/1995	08/24/1995	09/07/1995	320	205	GLENN, CLARK A."CORKY" (LD)	421
C 02460	C	ED	Shallow			3	02	24S	31E	617496	3568022*	3437	08/21/1995	08/21/1995	09/07/1995	320		GLENN, CLARK A."CORKY" (LD)	421
C 02460 POD2	C	ED	Shallow			3	02	24S	31E	617496	3568022*	3437	08/25/1995	08/25/1995	09/07/1995	320		GLENN, CLARK A."CORKY" (LD)	421
C 03749 POD1	CUB	LE	Shallow	3	4	4	07	23S	32E	616974	3575662	4285	07/10/2014	08/06/2014	09/11/2014	865	639	RANDY STEWART	331
C 02954 EXPL	CUB	ED	Shallow	3	1	4	20	23S	31E	613114	3572906*	4868	06/25/2003	07/29/2003	08/07/2003	905		BROCKMAN, BERNARD J.	1184
C 02783	CUB	ED	Shallow	3	3	1	04	24S	31E	613911	3568461	4871		12/31/1979	10/18/2010	708		SANDIA NATIONAL LABS/USGS	
C 02783 POD2	CUB	ED	Shallow	3	3	1	04	24S	31E	613911	3568461	4871	09/09/2010	09/29/2010	10/18/2010	672		BRUNSON, WILLIAM	331
C 02784	C	ED	Shallow	4	2	4	04	24S	31E	613911	3568461	4871	10/06/2010	10/08/2010	10/18/2010	584		BRUNSON, WILLIAM	331

Record Count: 11

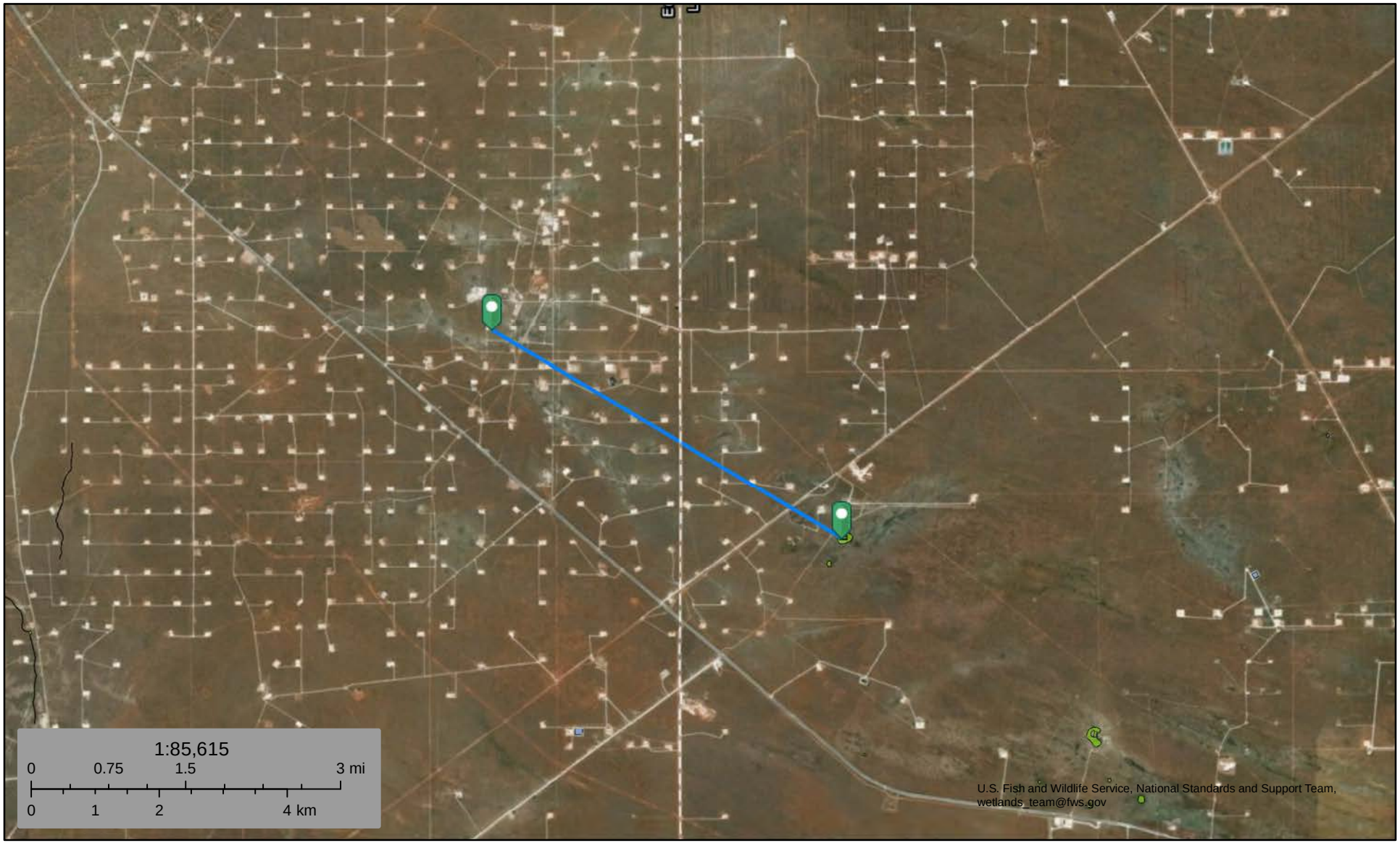
UTMNAD83 Radius Search (in meters):

Easting (X): 617758.94 **Northing (Y):** 3571449 **Radius:** 5000

***UTM location was derived from PLSS - see Help**

U.S. Fish and Wildlife Service
National Wetlands Inventory

Todd 26 K Fed 10: Wetland 17,633 feet



March 23, 2019

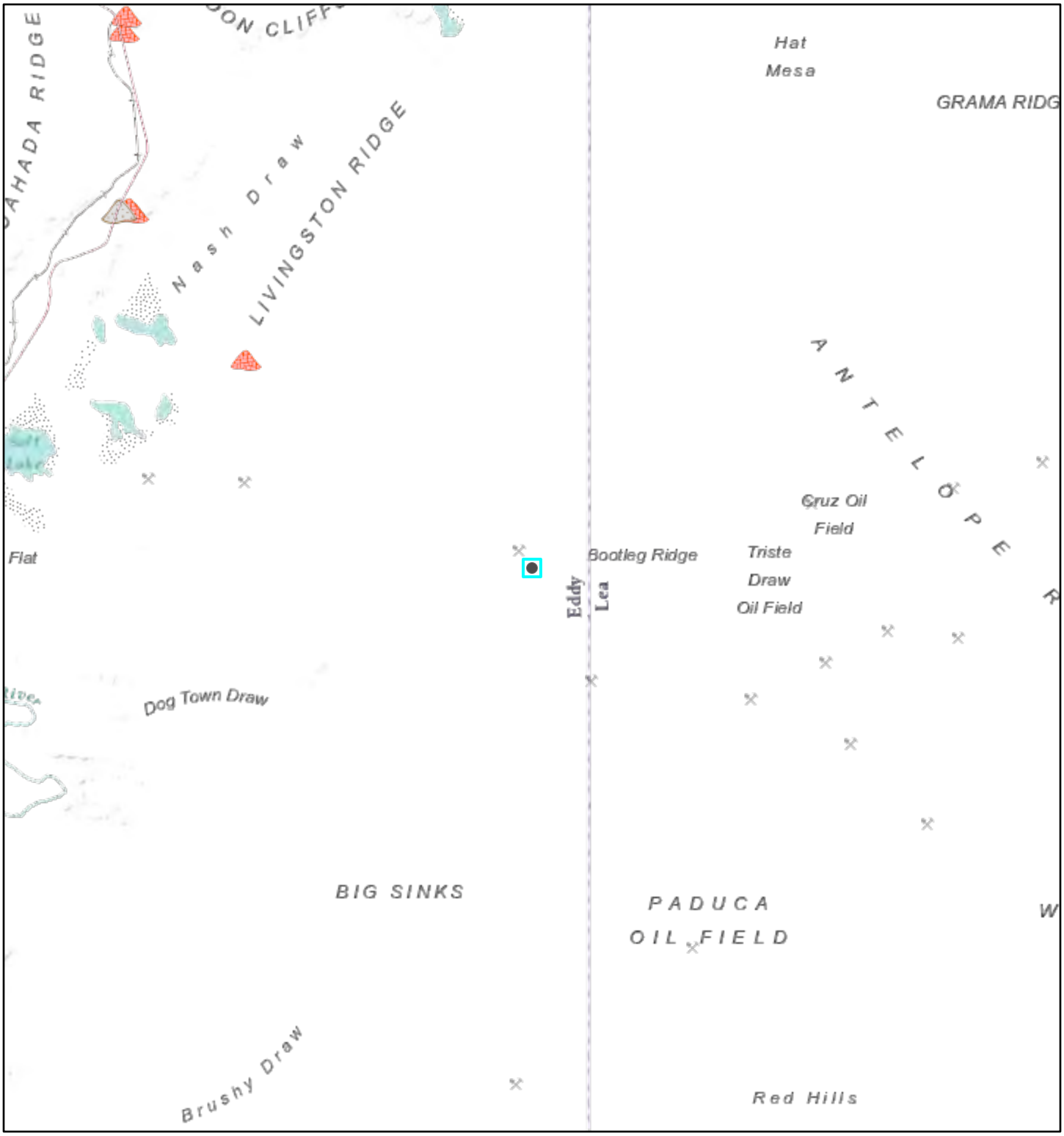
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

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.

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

Active Mines in New Mexico



3/23/2019, 5:09:52 PM

1:288,895

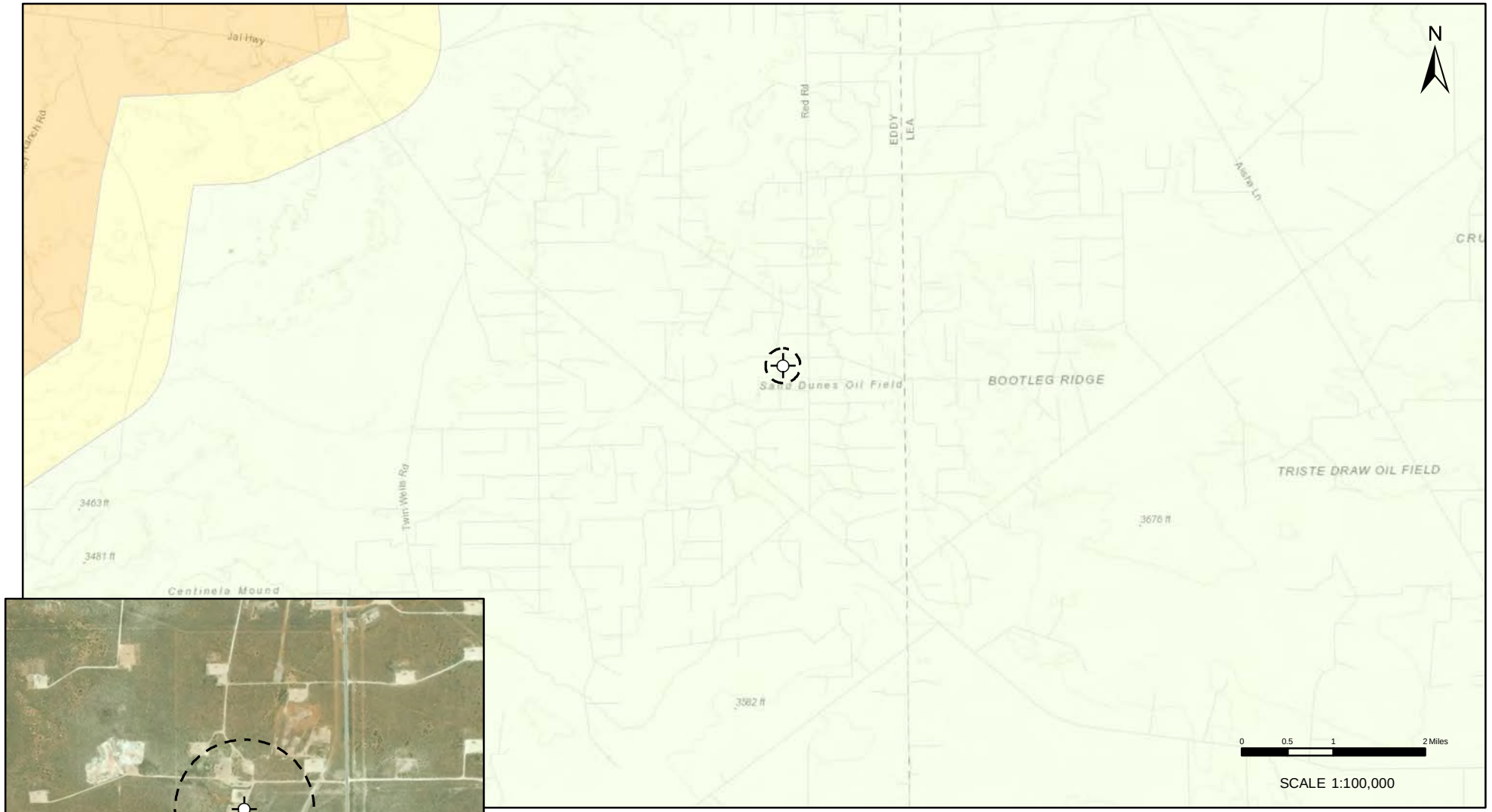
0 2 4 8 mi

0 3.25 6.5 13 km

Registered Mines

- Aggregate, Stone etc.
- Aggregate, Stone etc.
- Potash
- Salt

Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS



LEGEND

SITE

1000FT BUFFER

KARST POTENTIAL

CRITICAL

HIGH

MEDIUM

LOW

Notes: Aerial Image from ESRI Digital Globe 2017

devon

Karst Potential
Todd 26 K Federal 10

VERTEX

DRAWN:	NM
APPROVED:	KM
DATE:	APR 29/19

FIGURE: 1

VERSATILITY. EXPERTISE.

National Flood Hazard Layer FIRMette

FEMA

32°16'40.17"N

103°45'17.29"W

103°44'39.83"W

32°16'9.75"N

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

1:6,000

Legend

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

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

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

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

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

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

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

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/26/2019 at 10:49:52 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

United States Department of Agriculture

NRCS

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 Eddy Area, New Mexico

April 24, 2019

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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Contents

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.

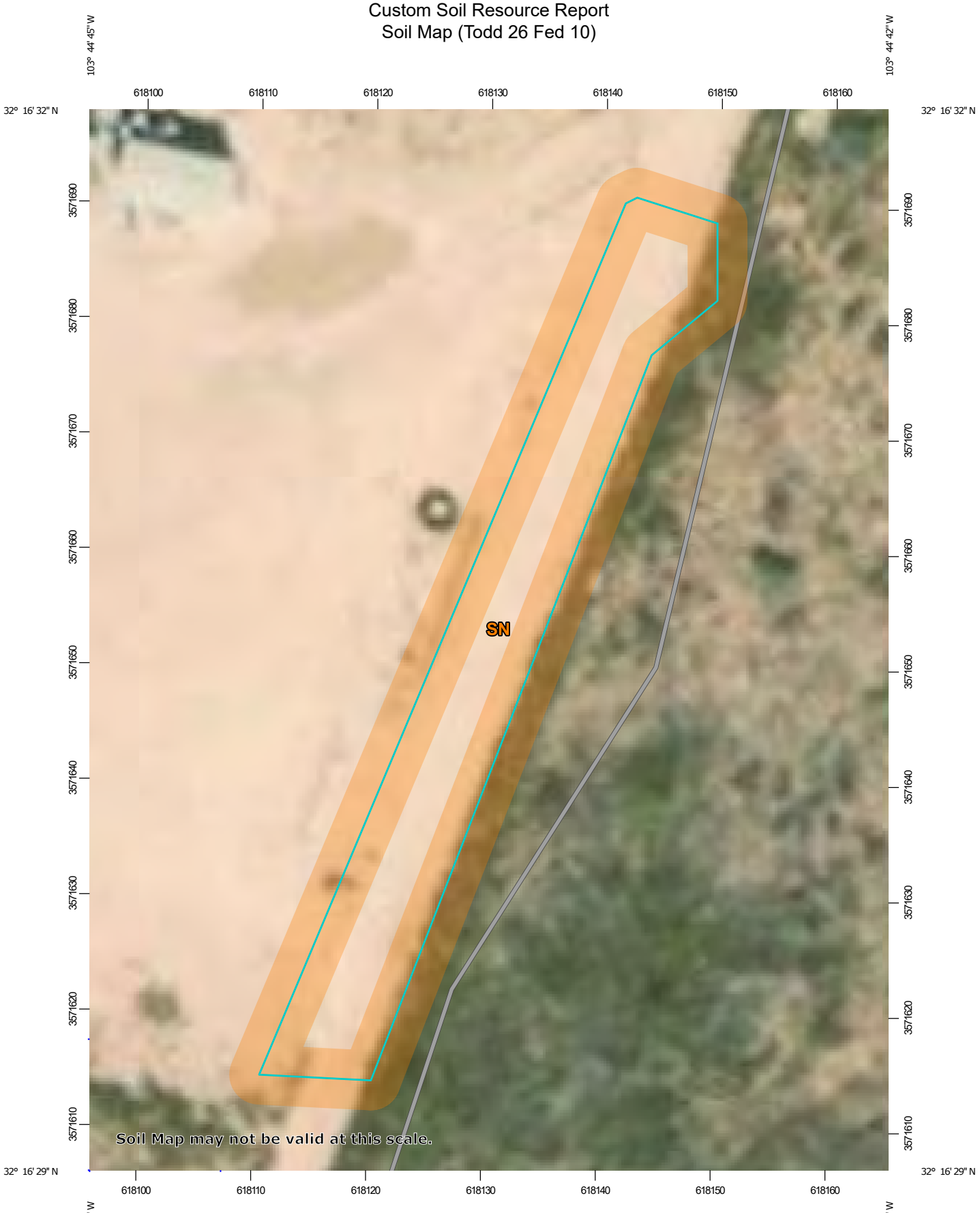
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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.

Custom Soil Resource Report
Soil Map (Todd 26 Fed 10)



Map Scale: 1:449 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 20 40 80 120

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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.

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)

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.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 14, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Sep 17, 2017

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 (Todd 26 Fed 10)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
SN	Simona and Wink fine sandy loams, 0 to 3 percent slopes, eroded	0.2	100.0%
Totals for Area of Interest		**0.2**	**100.0%**

Map Unit Descriptions (Todd 26 Fed 10)

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.

Eddy Area, New Mexico

SN—Simona and Wink fine sandy loams, 0 to 3 percent slopes, eroded

Map Unit Setting

National map unit symbol: 1w5y
Elevation: 3,000 to 4,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 60 to 64 degrees F
Frost-free period: 200 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Simona and similar soils: 45 percent
Wink and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Simona

Setting

Landform: Alluvial fans, plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear, convex
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 19 inches: fine sandy loam
H2 - 19 to 23 inches: indurated

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 7 to 20 inches to petrocalcic
Natural drainage class: Well drained
Runoff class: Very high
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 in profile: 15 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): 4s
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: Shallow Sandy (R042XC002NM)
Hydric soil rating: No

Description of Wink

Setting

Landform: Depressions, swales
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 38 inches: fine sandy loam
H3 - 38 to 60 inches: stratified gravelly variable

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 30 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Low (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: Sandy (R042XC004NM)
Hydric soil rating: No

Minor Components

Dune land

Percent of map unit:
Hydric soil rating: No

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Functional / Structural Groups Worksheet

State NM **Office** NMSO **Ecological Site** Shallow Sandy R042XC002N

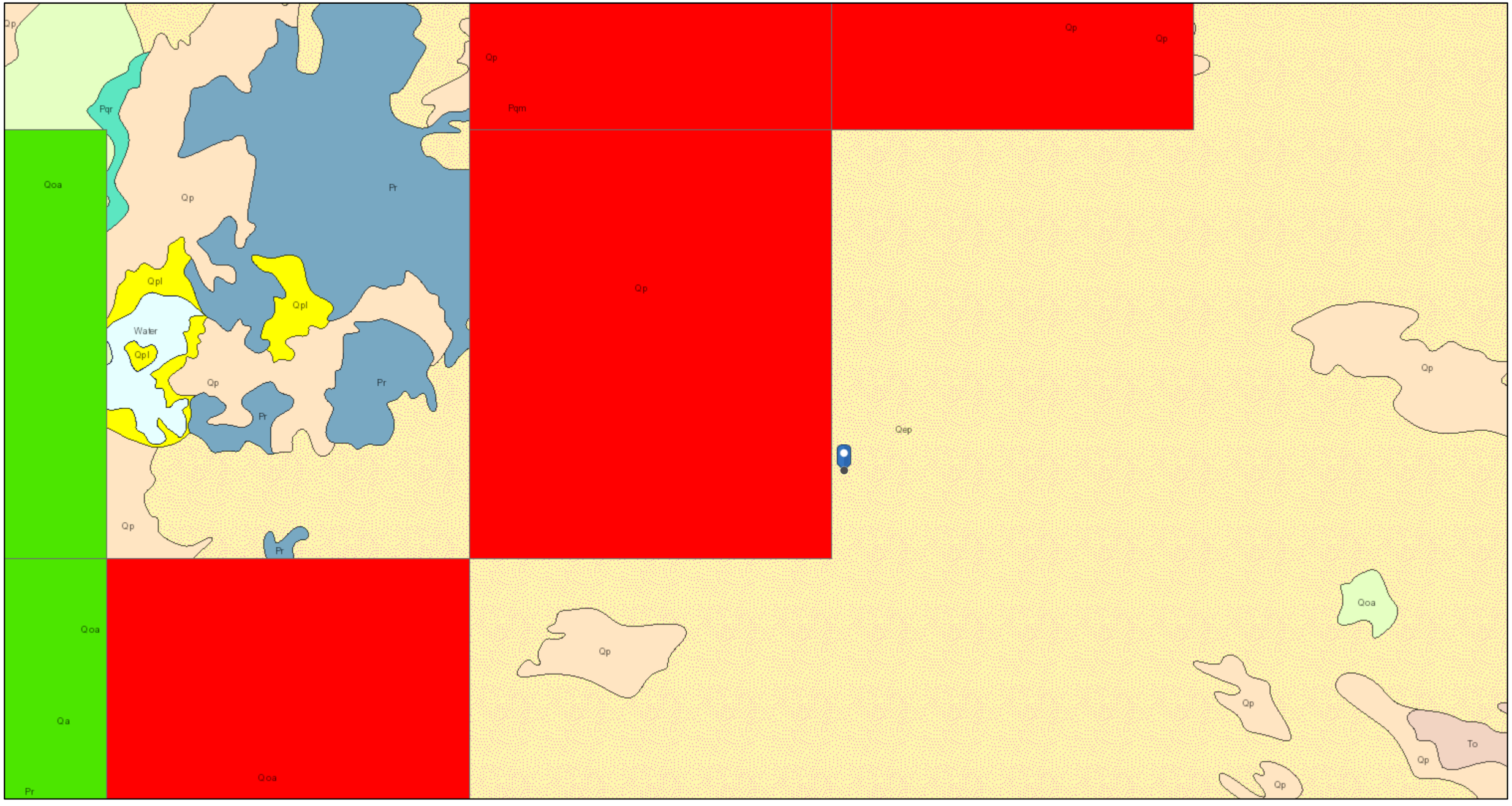
Observers John Tunberg, **Date** 2/3/10

Functional / Structural Groups			Species List for Functional / Structural Groups
Name	**Potential** [1]	**Actual** [2]	**Plant Names**
warm season short stolon grass	D		Black grama
warm season short coarse bunchgra	S		Bush Muhly, Blue grama, threeawn, AZ cottontop, plains bristle
warm season mid bunchgrass	S		Sideoats grama
warm season tall bunchgrass	S		spike dropseed, sand dropseed, mesa dropseed
warm season short sand adapted gr	S		mat sandbur, hooded windmill grass
Shrubs	M		Javalina bush, jointfir, littleleaf rattany, feather dalea, broom sna
Forbs	M		leatherweed, tansyaster, groundsel, ragwort, primrose
Biological Crust [3]			

Indicate whether each "structural/functional group" is a Dominant (D) (roughly 40-100% composition), a **Sub-dominant (S)** (roughly 11-40%) composition) a **Minor Component (M)** (3-11% composition), or a **Trace Component (T)** (<3% composition) based on weight or cover composition in the area of interest (e.g., "Actual" column) relative to the "Potential" column derived from information found in the ecological site/description and/or at the ecological reference area.

Biological Crust [3] dominance is evaluated solely on **cover** not composition by weight.

Todd 26 K Federal #10H



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Lithologic Units

- Playa——Alluvium and evaporite deposits (Holocene)
- Water——Perenial standing water
- Qa——Alluvium (Holocene to upper Pleistocene)
- Ql——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)
- Qeg——Gypsiferous eolian deposits (Holocene to middle Pleistocene)

0 1.5 3 6 mi

0 2.5 5 10 km

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 Bureau TIGER/Line data; USFS

ArcGIS Web AppBuilder

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 Bureau TIGER/Line

ATTACHMENT 4

Client Name: Devon Energy Production Company
Site Name: Todd 26 K Federal #010
NMOCD Incident Tracking Number: NAB1903733353
Project #: 21E-02816-18
Lab Reports: 1904171

Table 2. Characterization Sampling Field Screening and Laboratory Results - Depth to Groundwater <50 ft

Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
						Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (Petro Flag)	Quantab Result	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SS19-01	0	April 2, 2019	0.0	80	74	ND	ND	ND	ND	ND	ND	ND	130
SS19-01	1	April 2, 2019	0.0	20	0	ND	ND	ND	ND	ND	ND	ND	420
SS19-02	0	April 2, 2019	0.0	0	0	ND	ND	ND	ND	ND	ND	ND	ND
SS19-03	0	April 2, 2019	0.0	40	0	ND	ND	ND	15	ND	15	15	78
SS19-04	0	April 2, 2019	0.0	350	2,245	ND	ND	ND	100	84	100	184	2,100
SS19-05	0	April 2, 2019	0.0	370	1,896	ND	ND	ND	60	87	60	147	5,000
SS19-06	0	April 2, 2019	0.0	0	532	ND	ND	ND	38	59	38	97	1,600
SS19-07	0	April 2, 2019	0.0	20	74	ND	ND	ND	29	49	29	78	220
SS19-08	0	April 2, 2019	0.0	0	0	ND	ND	ND	12	ND	12	12	110
SS19-09	0	April 2, 2019	0.0	110	30	ND	ND	ND	ND	ND	ND	ND	70
SS19-10	0	April 2, 2019	0.0	110	0	ND	ND	ND	ND	ND	ND	ND	110

ND - Non-detect
"-" - Not applicable/assessed
Bold and grey shaded indicates exceedance outside of NMOCD closure criteria (On-Site)
Bold and Shaded indicates exceedance outside of regulator criteria (Off-site)

Client Name: Devon Energy Production Company
Site Name: Todd 26 K Federal #010
NMOCD Incident Tracking Number: NAB1903733353
Project #: 21E-02816-18
Lab Reports: 2010D74, 2010D77, 2010D78

Table 3. Re-characterization Sampling Laboratory Results - Depth to Groundwater <50ft

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SS20-01	0-0.5	October 29, 2020	<0.024	<0.098	<4.9	<9.6	<48	<14.5	<62.5	<60
SS20-02	0-0.5	October 29, 2020	<0.025	<0.098	<4.9	<9.4	<47	<14.3	<61.3	<60
SS20-03	0-0.5	October 29, 2020	<0.025	<0.10	<5.0	<10.0	<50	<15.0	<65.0	<60
SS20-04	0-0.5	October 29, 2020	<0.024	<0.098	<4.9	<9.1	<45	<14.0	<59.0	<60
SS20-05	0-0.5	October 29, 2020	<0.025	<0.099	<5.0	<9.6	<48	<14.6	<62.6	<59
SS20-06	0-0.5	October 29, 2020	<0.025	<0.099	<4.9	<9.6	<48	<14.5	<62.5	<60
BH20-01	1	October 29, 2020	<0.025	<0.10	<5.0	<9.4	<47	<14.4	<61.4	79
BH20-01	3.5	October 29, 2020	<0.025	<0.098	<4.9	<9.5	<48	<14.4	<62.4	**3,300**
BH20-02	1	October 29, 2020	<0.025	<0.098	<4.9	<9.6	<48	<14.5	<62.5	<60
BH20-02	3.5	October 29, 2020	<0.025	<0.10	<5.0	<9.8	<49	<14.8	<63.8	590

Bold and Shaded indicates exceedance outside of NMOCD closure criteria (On-Site)
Bold and Shaded indicates exceedance outside of regulator criteria (Off-Site)

Client Name: Devon Energy Production Company
Site Name: Todd 26 K Federal #010
NMOCD Incident Tracking Number: NAB1903733353
Project #: 21E-02816-18
Lab Reports: 2101929

Table 4. Confirmatory Sampling Field Screening and Laboratory Results - Depth to Groundwater <50 ft

Sample Description			Field Screening		Petroleum Hydrocarbons							Inorganic
					Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Extractable Organic Compounds (Petro Flag)	Chloride PPM (Method: Titration -EC Probe)	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride
			(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
WS21-01	0-0.5	January 22, 2021	-	-	ND	ND	ND	ND	ND	ND	ND	190
WS21-02	0-0.5	January 22, 2021	-	20	ND	ND	ND	ND	ND	ND	ND	72
WS21-03	0-0.5	January 22, 2021	-	0	ND	ND	ND	ND	ND	ND	ND	ND
WS21-04	0-0.5	January 22, 2021	47	0	ND	ND	ND	ND	ND	ND	ND	69
WS21-05	0-0.5	January 22, 2021	48	637	ND	ND	ND	ND	ND	ND	ND	330
WS21-06	0-0.5	January 22, 2021	**125**	0	ND	ND	ND	ND	ND	ND	ND	90
WS21-07	0-0.5	January 22, 2021	19	145	ND	ND	ND	ND	ND	ND	ND	150
WS21-08	0-0.5	January 22, 2021	-	73	ND	ND	ND	ND	ND	ND	ND	68
BS21-01	0-0.5	January 22, 2021	-	544	ND	ND	ND	ND	ND	ND	ND	120
BS21-02	0-0.5	January 22, 2021	-	655	ND	ND	ND	ND	ND	ND	ND	230
BS21-03	0-0.5	January 22, 2021	-	398	ND	ND	ND	ND	ND	ND	ND	230
BS21-04	0-0.5	January 22, 2021	13	440	ND	ND	ND	ND	ND	ND	ND	160
BS21-05	0-0.5	January 22, 2021	-	308	ND	ND	ND	ND	ND	ND	ND	240
BS21-06	0-0.5	January 22, 2021	-	349	ND	ND	ND	ND	ND	ND	ND	370
BS21-07	0-0.5	January 22, 2021	-	255	ND	ND	ND	ND	ND	ND	ND	160
BS21-08	0-0.5	January 22, 2021	-	219	ND	ND	ND	ND	ND	ND	ND	120
BS21-09	0-0.5	January 22, 2021	-	499	ND	ND	ND	ND	ND	ND	ND	230
BS21-10	0-0.5	January 22, 2021	-	301	ND	ND	ND	ND	ND	ND	ND	110
BS21-11	0-0.5	January 22, 2021	-	307	ND	ND	ND	ND	ND	ND	ND	120
BS21-12	0-0.5	January 22, 2021	-	428	ND	ND	ND	ND	ND	ND	ND	**1,900**
BS22-12	0.5-1	May 19, 2022	95	0	ND	ND	ND	ND	ND	ND	ND	ND
BS22-12	1-1.5	May 19, 2022	40	152	ND	ND	ND	ND	ND	ND	ND	140

ND - Non-detect
"-" - Not applicable/assessed

Bold and Shaded indicates exceedance outside of NMOCD closure criteria (On-Site)
Bold and Shaded indicates exceedance outside of regulator criteria (Off-Site)

ATTACHMENT 5

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	3/21/2019
Site Location Name:	Todd 26 K Federal #010	Report Run Date:	3/21/2019 5:17 PM
Project Owner:	Amanda T. Davis	File (Project) #:	19E-00575
Project Manager:	Dennis Williams	API #:	30-015-27102
Client Contact Name:	Amanda Davis	Reference	2RP-5222 Poly Line Release
Client Contact Phone #:	(575) 748-0176		

Summary of Times

Left Office	3/21/2019 7:00 AM
Arrived at Site	3/21/2019 8:19 AM
Departed Site	3/21/2019 9:45 AM
Returned to Office	3/21/2019 10:46 AM

Summary of Daily Operations

9:09 Arrive on site and fill out arrival and safety forms
Map spill with Trimble and take pictures
Flag and paint the perimeter of the spill area
Take more pictures
Fill out DFR
Head back to office and upload all paperwork and data

Next Steps & Recommendations

1. Return to office and upload all paperwork and data
2. Put together a remediation plan
3. Clean up spill and take samples
4. Await sample results

Daily Site Visit Report

Site Photos

Viewing Direction: South

Spill area

Viewing Direction: North

Spill area

Viewing Direction: West

Spill area

Viewing Direction: South

Flagged and painted spill area

Daily Site Visit Report

Viewing Direction: West

Flagged and painted spill area

Viewing Direction: South

Flagged and painted spill area

Viewing Direction: North

Flagged and painted spill area

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Jason Crabtree

Signature:

Daily Site Visit Report

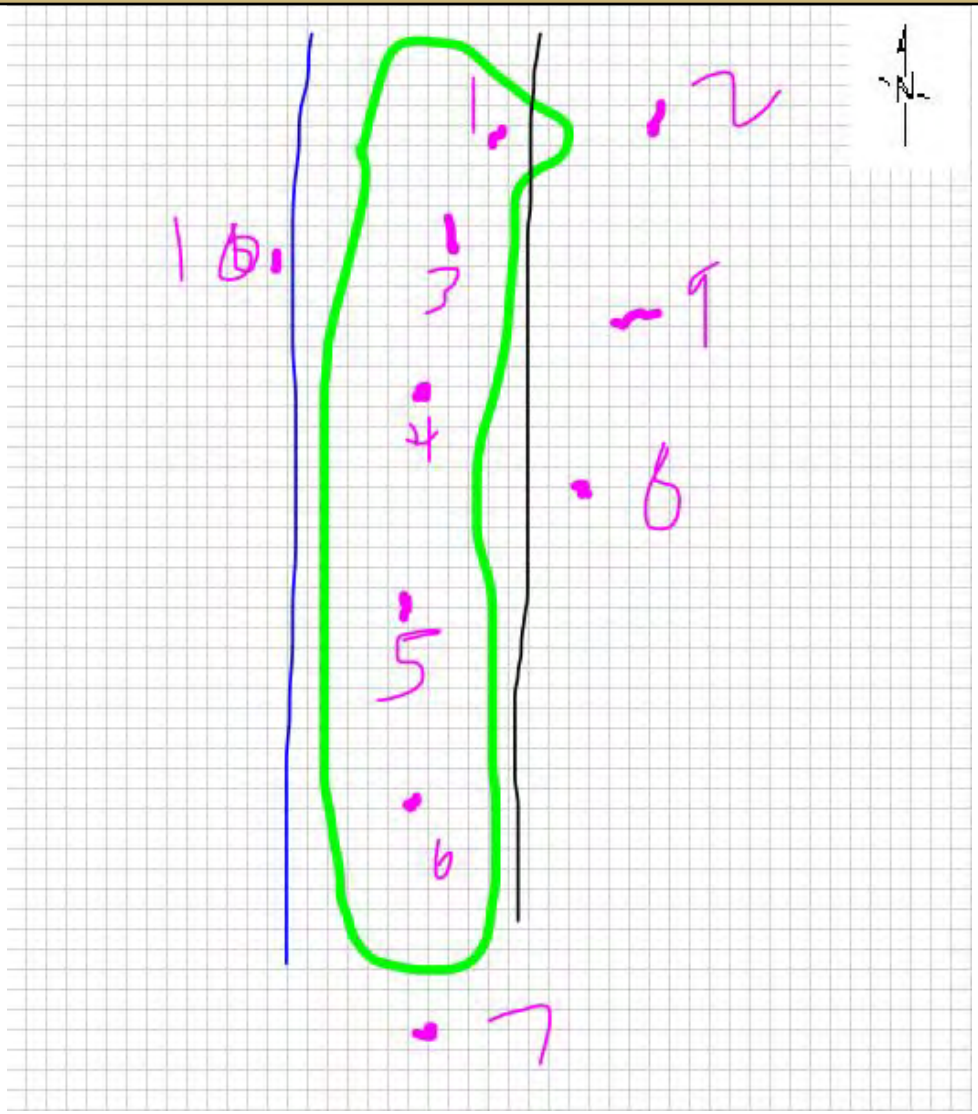
Client:	Devon Energy Corporation	Inspection Date:	3/30/2019
Site Location Name:	Todd 26 K Federal #010	Report Run Date:	3/31/2019 1:29 AM
Project Owner:	Amanda T. Davis	File (Project) #:	19E-00575
Project Manager:	Dennis Williams	API #:	30-015-27102
Client Contact Name:	Amanda Davis	Reference	2RP-5222 Poly Line Release
Client Contact Phone #:	(575) 748-0176		

Summary of Times	
Left Office	3/30/2019 8:15 AM
Arrived at Site	3/30/2019 9:15 AM
Departed Site	3/30/2019 6:06 PM
Returned to Office	3/30/2019 6:59 PM

Daily Site Visit Report

VERTEX

Site Sketch



Daily Site Visit Report

Summary of Daily Operations

9:34 Arrive onsite and complete all safety paperwork and arrival form.

11:06 Start excavation and sample as we go along

Next Steps & Recommendations

1 Have soil pile removed.

2 Take confirmatory samples on Tuesday.

3 Submit report to Devon.

4 Close out file

Sampling

BH19-01

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.	0 ppm	80 ppm	Low (30-600 ppm)	74 ppm		✓	32.16’32.152”, -103.44’43.727”	Yes
1 ft.	0 ppm	20 ppm	Low (30-600 ppm)	0 ppm		✓	32.16’32.152”, -103.44’43.727”	Yes

BH19-02

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.	0 ppm	0 ppm	Low (30-600 ppm)	0 ppm		✓	32.16’32.172”, -103.44’43.296”	Yes

Daily Site Visit Report

	1 ft.	0 ppm	40 ppm	Low (30-600 ppm)	0 ppm		✓	32.16’32.172”, -103.44’43.296”	Yes

SS19-03

	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	0 ft.	0 ppm	180 ppm	Low (30-600 ppm)	197 ppm		✓	32.16’32.152”, -103.44’43.727	Yes

SS19-04

	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	0 ft.	0 ppm	350 ppm	High (300-6000ppm)	2245 ppm		✓	32.16’31.458”, -103.44’44.148”	Yes

SS19-05

	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	0 ft.	0 ppm	370 ppm	High (300-6000ppm)	1896 ppm		✓	32.16’30.916”, -103.44’44.423”	Yes

SS19-06

	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	0 ft.	0 ppm	0 ppm	Low (30-600 ppm)	532 ppm		✓	32.16’30.452”, -103.44’44.658”	Yes

Daily Site Visit Report

SS19-07

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.	0 ppm	20 ppm	Low (30-600 ppm)	74 ppm		✓	32.16’29.990”, -103.44’44.850”	Yes

SS19-08

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.	0 ppm	0 ppm	Low (30-600 ppm)	0 ppm		✓	32.16’31.042”, -103.44’44.161”	Yes

SS19-09

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.	0 ppm	110 ppm	Low (30-600 ppm)	30 ppm		✓	32.16’31.631”, -103.44’43.840”	Yes

SS19-10

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.	0 ppm	110 ppm	Low (30-600 ppm)	0 ppm		✓	32.16’32.026”, -103.44’44.194”	Yes

Daily Site Visit Report

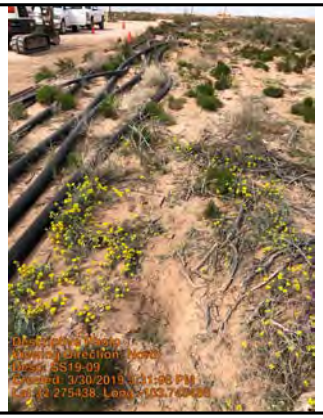
Site Photos

Viewing Direction: South	**Viewing Direction**: North
	
BH19-01	BH19-02
Viewing Direction: South	**Viewing Direction**: South
	
SS19-03	SS19-04

Daily Site Visit Report

Viewing Direction: South	**Viewing Direction**: South
	
SS19-05	SS19-06
Viewing Direction: North	**Viewing Direction**: North
	
SS19-07	SS19-08

Daily Site Visit Report

Viewing Direction: North	**Viewing Direction**: South
	
SS19-09	SS19-10
Viewing Direction: North	**Viewing Direction**: North
	
Overview of spill area.	Overview of spill area.

Daily Site Visit Report

Viewing Direction: North	**Viewing Direction**: South
	
Overview of spill area.	Overview of spill area.
Viewing Direction: South	**Viewing Direction**: East
	
Overview of spill area.	Soil pile 30ft x 15ft x 4ft

Daily Site Visit Report

Viewing Direction: South

Soil pile
30ft x 15ft x 4ft

Daily Site Visit Report

Depth Sample Photos

Sample Point ID: BH19-01	Sample Point ID: BH19-01
	
Depth: 0ft.	**Depth:** 2ft.
Sample Point ID: BH19-02	**Sample Point ID:** BH19-02
	
Depth: 0ft.	**Depth:** 2ft.

Daily Site Visit Report

Sample Point ID: SS19-03	**Sample Point ID**: SS19-10
	
Depth: 0ft.	**Depth:** 0ft.
Sample Point ID: SS19-09	**Sample Point ID**: SS19-04
	
Depth: 0ft.	**Depth:** 0ft.

Daily Site Visit Report

Sample Point ID: SS19-08	**Sample Point ID**: SS19-05
	
Depth: 0ft.	**Depth:** 0ft.

Sample Point ID: SS19-06	**Sample Point ID**: SS19-07
	
Depth: 0ft.	**Depth:** 0ft.

Daily Site Visit Report

Daily Site Visit Signature

Signature of Inspector:

LEGEND

SPILL

ROAD

Notes: Aerial Image from ESRI Digital Globe 2016

0 15 30 60 Feet

SCALE 1:800

devon

Site Schematic
Todd 26 K Fedreal
#010

VERTEX

DRAWN:	NM
APPROVED:	KM
DATE:	MAR 24/19

FIGURE: 1

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Devon Energy Corporation\Figure 1-Todd 26 N Federal 014 (19E-00575).mxd

VERTEX

Spill Response and Sampling

Client:	Devon Energy
Date:	30/03/2019
Site Name:	Todd 26 K Federal 10 Flowline
Site Location:	
Project Owner:	
Project Manager:	
Project #:	19E-00575

Initial Spill Information - Record on First Visit	
Spill Date:	
Spill Volume:	
Spill Cause:	
Spill Product:	
Recovered Spill Volume:	
Recovery Method:	

Sampling

		Field Screening			Data Collection (Check for Yes)			
Sample ID	Depth (ft)	VOC (PID)	PetroFlag TPH (ppm)	Quantab (High/Low) + or -	Lab Analysis	Picture	Trimble Coordinates	Marked on Site Sketch
SS/TP/BH - Year - Number Ex. BH18-01	Ex. '2ft	Ex. 400 ppm	200 ppm	Ex. 'High +	Ex. Hydrocarbon Chloride			
BH19-01	0	0	80	74	low			
BH19-01	2	0	20	ND	low			
BH19-02	0	0.1	0	ND	low			
BH19-02	2	0	40	ND	low			
SS19-03	0	0	180	197	low			
SS19-04	0	0	350	2245	High			
SS19-05	0	0	370	1896	high			
SS19-06	0	0	0	532	low			
SS19-07	0	0	20	74	low			
SS19-08	0	0	340	ND	low			
SS19-09	0	0	110	30	low			
SS19-10	0	0	110	ND	low			

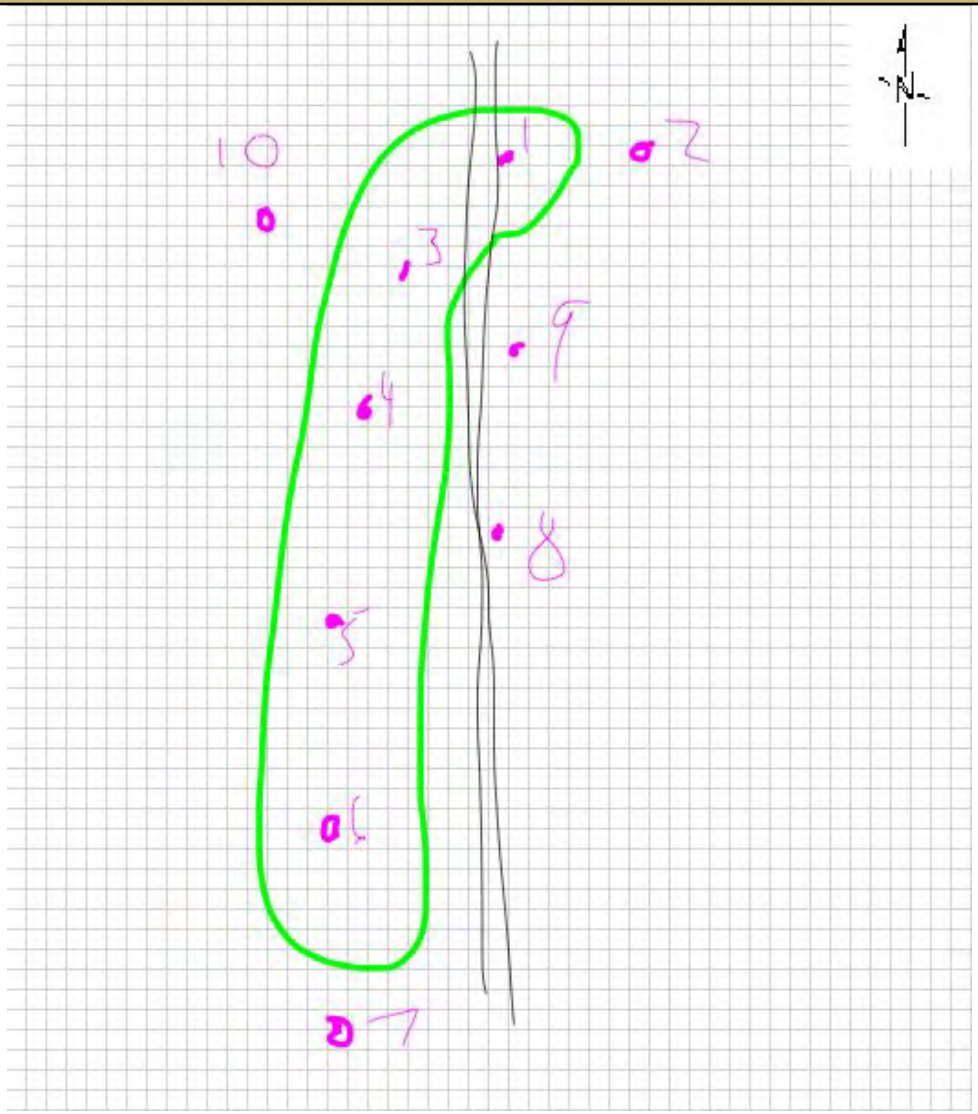
Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	4/2/2019
Site Location Name:	Todd 26 K Federal #010	Report Run Date:	4/2/2019 10:42 PM
Project Owner:	Amanda T. Davis	File (Project) #:	19E-00575
Project Manager:	Dennis Williams	API #:	30-015-27102
Client Contact Name:	Amanda Davis	Reference	2RP-5222 Poly Line Release
Client Contact Phone #:	(575) 748-0176		

Summary of Times	
Left Office	4/2/2019 12:18 PM
Arrived at Site	4/2/2019 1:16 PM
Departed Site	4/2/2019 2:55 PM
Returned to Office	4/2/2019 4:05 PM

Daily Site Visit Report

Site Sketch



Daily Site Visit Report

Summary of Daily Operations

13:17 Complete all safety paperwork and arrival form.

13:28 Collect soil samples.

15:46 Dropped off samples with skip tabor from hall environmental.

Next Steps & Recommendations

1

Sampling

SS19-01

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.16’32.152”, -103.44’43.727”	Yes
1 ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.16’32.152”, -103.44’43.727”	Yes

SS19-02

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.16’32.172”, -103.44’43.296”	Yes

Daily Site Visit Report

VERTEX

SS19-03

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.16’321.951”, -103.44’43.888”	Yes

SS19-04

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.16’31.458”, -103.44’44.148”	Yes

SS19-05

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.16’30.916”, -103.44’44.423”	Yes

SS19-06

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.16’30.452”, -103.44’44.658”	Yes

Daily Site Visit Report

VERTEX

SS19-07

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.16’29.990”, -103.44’44.850”	Yes

SS19-08

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.16’31.042”, -103.44’44.161”	Yes

SS19-09

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.16’31.631”, -103.44’43.840”	Yes

SS19-10

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.16’32.026”, -103.44’44194”	Yes

Daily Site Visit Report

Site Photos

Viewing Direction: South	**Viewing Direction**: South
	
Overview of spill area.	Overview of spill area

Viewing Direction: West

COC

Daily Site Visit Report

Depth Sample Photos

Sample Point ID: SS19-10

Depth: 0ft.

Sample Point ID: SS19-03

Depth: 0ft.

Sample Point ID: SS19-02

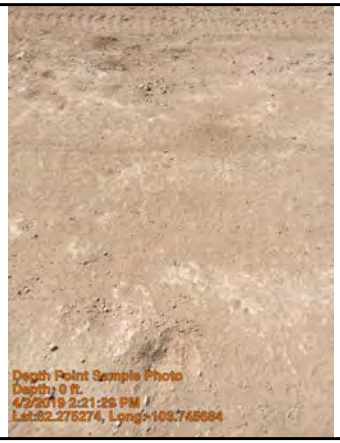
Depth: 0ft.

Sample Point ID: SS19-01

Depth: 0ft.

Daily Site Visit Report

Sample Point ID: SS19-01	**Sample Point ID**: SS19-04
	
Depth: 1ft.	**Depth:** 0ft.

Sample Point ID: SS19-09	**Sample Point ID**: SS19-05
	
Depth: 0ft.	**Depth:** 0ft.

Daily Site Visit Report

Sample Point ID: SS19-06

Depth: 0ft.

Sample Point ID: SS19-08

Depth: 0ft.

Sample Point ID: SS19-07

Depth: 0ft.

Daily Site Visit Report

Daily Site Visit Signature

Signature of Inspector:

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	4/26/2019
Site Location Name:	Todd 26 K Federal #010	Report Run Date:	4/26/2019 10:32 PM
Project Owner:	Amanda T. Davis	File (Project) #:	19E-00575
Project Manager:	Dennis Williams	API #:	30-015-27102
Client Contact Name:	Amanda Davis	Reference	2RP-5222 Poly Line Release
Client Contact Phone #:	(575) 748-0176		

Summary of Times

Left Office	4/26/2019 7:15 AM
Arrived at Site	4/26/2019 8:15 AM
Departed Site	4/26/2019 11:30 AM
Returned to Office	4/26/2019 12:06 PM

Summary of Daily Operations

9:15 Arrive on site

9:16 Fill out safety paperwork and excavation permits

9:17 Take pictures before and after backfill operation

Next Steps & Recommendations

1 Complete closure report

2 Send report to client

Daily Site Visit Report

Site Photos

Viewing Direction: South

Before backfill

Viewing Direction: South

Before backfill

Viewing Direction: West

Before backfill

Viewing Direction: North

Before backfill

Daily Site Visit Report

Viewing Direction: South	**Viewing Direction**: South
	
After backfill near flow lines	After backfill near flow lines
Viewing Direction: Southeast	**Viewing Direction**: West
	
Backfill area on road near flow lines	After backfill near flow lines

Daily Site Visit Report

Viewing Direction: West

After backfill near flow lines

Viewing Direction: Northeast

After backfill near flow lines

Viewing Direction: South

After backfill compacted road

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Austin Harris

Signature: 

Signature

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	4/6/2019
Site Location Name:	Todd 26 K Federal #010	Report Run Date:	4/6/2019 10:11 PM
Project Owner:	Amanda T. Davis	File (Project) #:	19E-00575
Project Manager:	Dennis Williams	API #:	30-015-27102
Client Contact Name:	Amanda Davis	Reference	2RP-5222 Poly Line Release
Client Contact Phone #:	(575) 748-0176		

Summary of Times

Left Office	4/6/2019 8:00 AM
Arrived at Site	4/6/2019 8:40 AM
Departed Site	4/6/2019 8:52 AM
Returned to Office	4/6/2019 9:05 AM

Summary of Daily Operations

13:39 Complete all safety paperwork and arrival form.

13:39 Conduct safety meeting.

13:39 Remove soil pile. One 20yard truck and one 12 yard truck to R360.

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: South	**Viewing Direction**: East
	
Soil pile removed	Soil pile removed

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Robyn Fisher

Signature: 

R360 ENVIRONMENTAL SOLUTIONS

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

Amand Davis

Company Man Contact Information
Name: Dennis Williams
Phone No.: 360-920-9735

GENERATOR

NO. 381203

Operator No.	Devon Energy	Permit/RRC No.	Todd 26K Federal 10
Operators Name		Lease/Well Name & No.	~~North Pure Gold 8 Fed 05~~
Address	6488 Seven Rivers Hwy	County	
		API No.	~~3001527585~~ 300152710?
City, State, Zip	Artesia, NM 88210	Rig Name & No.	Non Drill
Phone No.	505-380-1556	AFE/PO No.	

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)					
Oil Based Muds		NON-INJECTABLE WATERS		INJECTABLE WATERS	
Oil Based Cuttings		Washout Water (Non-Injectable)		Washout Water (Injectable)	
Water Based Muds		Completion Fluid/Flow back (Non-Injectable)		Completion Fluid/Flow back (Injectable)	
Water Based Cuttings		Produced Water (Non-Injectable)		Produced Water (Injectable)	
Produced Formation Solids		Gathering Line Water/Waste (Non-Injectable)		Gathering Line Water/Waste (Injectable)	
Tank Bottoms		INTERNAL USE ONLY		OTHER EXEMPT WASTES (type and generation process of the waste)	
E&P Contaminated Soil	12 yds	Truck Washout (exempt waste)		Non Drilling	
Gas Plant Waste					

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☑ PRODUCTION ☐ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount
All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other ______ *please select from **Non-Exempt Waste List** on back

QUANTITY B - BARRELS L - LIQUID Y - YARDS 12 E - EACH

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☒ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFEILD: Emergency non-hazradous, non-oilfeild waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a desciption of the waste must accompany this form)

Amanda Davis per Robyn Fisher Vertex — 4-6-19 — [signature]
(PRINT) AUTHORIZED AGENTS NAME — DATE — SIGNATURE

TRANSPORTER

Transporter's Name	X Muñoz transportation	Driver's Name	X Cristian Escobedo
Address		Print Name	
		Phone No.	X 575 499 5298
Phone No.		Truck No.	

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

4-6-19 — X Cristian E. — 4-6 — Cristian Escobedo
SHIPMENT DATE — DRIVER'S SIGNATURE — DELIVERY DATE — DRIVER'S SIGNATURE

TRUCK TIME STAMP
IN: ______ OUT: ______

DISPOSAL FACILITY

RECEIVING AREA
Name/No. 5013

Site Name/ Permit No.	Halfway Facility / NM1-006	Phone No.	575-393-1079
Address	6601 Hobbs Hwy US 62/180 Mile Marker 66 Carlsbad, NM 88220		

NORM READINGS TAKEN? (Circle One) YES NO — If YES, was reading > 50 micro roentgens? (circle one) YES NO

PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

		BS&W (%)	
BS&W/BBLS Received			
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why? ______

[name] — 4-6-19 — All Asst — [signature]
NAME (PRINT) — DATE — TITLE — SIGNATURE

R360 ENVIRONMENTAL SOLUTIONS

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

Company Man Contact Information
Name Dennis Williams Amanda Davis
Phone No. 360-921-9135

GENERATOR

NO. 381201

Operator No. Devon Energy
Operators Name
Address
City, State, Zip
Phone No.

Permit/RRC No. 1000261K FED 10
Lease/Well Name & No. Eddy
County
API No. 3001527102
Rig Name & No. Nur-Drill
AFE/PO No.

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)			
Oil Based Muds	NON-INJECTABLE WATERS		INJECTABLE WATERS
Oil Based Cuttings	Washout Water (Non-Injectable)		Washout Water (Injectable)
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)		Completion Fluid/Flow back (Injectable)
Water Based Cuttings	Produced Water (Non-Injectable)		Produced Water (Injectable)
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)		Gathering Line Water/Waste (Injectable)
Tank Bottoms	INTERNAL USE ONLY		OTHER EXEMPT WASTES (type and generation process of the waste)
E&P Contaminated Soil ✓	Truck Washout (exempt waste)		non-drilling fluids, Dump
Gas Plant Waste			

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☒ PRODUCTION ☐ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount
All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other *please select from **Non-Exempt Waste List** on back

QUANTITY B - BARRELS L - LIQUID Y - YARDS 20 E - EACH

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFEILD: Emergency non-hazradous, non-oilfeild waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a desciption of the waste must accompany this form)

Amanda Davis (PRINT) AUTHORIZED AGENTS NAME | 4-6-19 DATE | SIGNATURE

TRANSPORTER

BOS

Transporter's Name
Address
Phone No. 575-689-8524

Driver's Name Cruz
Print Name
Phone No. 1138
Truck No.

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

4-6-19 SHIPMENT DATE | DRIVER'S SIGNATURE | 4-6-19 DELIVERY DATE | DRIVER'S SIGNATURE

TRUCK TIME STAMP
IN: OUT:

DISPOSAL FACILITY

RECEIVING AREA
Name/No. SUPT

Site Name/ Permit No. Halfway Facility / NM1-006
Address 6601 Hobbs Hwy US 62/180 Mile Marker 66 Carlsbad, NM 88220
Phone No. 575-393-1079

NORM READINGS TAKEN? (Circle One) YES NO If YES, was reading > 50 micro roentgens? (circle one) YES NO

PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

	Feet	Inches				
1st Gauge			BS&W/BBLS Received		BS&W (%)	
2nd Gauge			Free Water			
Received			Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT) | DATE | TITLE | SIGNATURE

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	10/29/2020
Site Location Name:	Todd 26 K Federal #010	Report Run Date:	10/29/2020 10:18 PM
Client Contact Name:	Amanda Davis	API #:	30-015-27102
Client Contact Phone #:	(575) 748-0176		
Unique Project ID	-Todd 26 K Federal #010	Project Owner:	Amanda T. Davis
Project Reference #	2RP-5222 Poly Line Release	Project Manager:	Dennis Williams

Summary of Times

Arrived at Site	10/29/2020 8:05 AM
Departed Site	10/29/2020 3:31 PM

Field Notes

8:23 Do safety paper work and address OCD rejection.

Next Steps & Recommendations

1 Samples are jarred and will be placed in fridge. Wait for samples to return from lab.

Daily Site Visit Report

Site Photos

Viewing Direction: East

Looking East at SS20-01

Viewing Direction: North

Looking North at SS20-02

Viewing Direction: East

Looking East at SS20-04

Viewing Direction: East

Looking East at SS20-05

Daily Site Visit Report

Viewing Direction: South	**Viewing Direction**: West
	
Looking at BH20-01	Looking at BH20-02

Daily Site Visit Report

Daily Site Visit Signature

Inspector: John Ramirez

Signature: 

Spill Response and Sampling

VERTEX

Client:	Devon
Date:	10-29-20
Site Name:	Todd 26K Fed 6
Site Location:	
Project Owner:	
Project Manager:	
Project #:	

Initial Spill Information - Record on First Visit	
Spill Date:	
Spill Volume:	
Spill Cause:	
Spill Product:	
Recovered Spill Volume:	
Recovery Method:	

Sampling

		Field Screening			Data Collection (Check for Yes)			
Sample ID	Depth (ft)	VOC (PID)	PetroFlag TPH (ppm)	Quantab (High/Low) + or -	Lab Analysis	Picture	Trimble Coordinates	Marked on Site Sketch
SS/TP/BH - Year - Number Ex. BH18-01	Ex. 2ft	Ex. 400 ppm	200 ppm	Ex. High +	Ex. Hydrocarbon Chloride			
BH20-01	.5'			0.14/19.1				
BH20-01	1'			0.22/18.6				
BH20-01	2'			0.50/19.1				
BH20-01	2.5'			1.69/19.3				
BH20-01	3'			4.03/19.2				
BH20-01	3.5			2.58/20.1	maxed out auger			
BH20-02	1'			0.16/20.8				
BH20-02	1.5			0.30/19.5				
BH20-02	2'			0.61/19.4				
BH20-02	2.5'			0.89/18.9				
BH20-02	3'			0.89/18.6				
BH20-02	3.5'			0.66/19.5	maxed out auger			

Spill Response and Sampling

VERTEX

Client: Devon

Date: 10.29.20

Site Name: Todd 26 C Fed 10

Site Location:

Project Owner:

Project Manager:

Project #: 195-00575

Initial Spill Information - Record on First Visit

Spill Date:

Spill Volume:

Spill Cause:

Spill Product:

Recovered Spill Volume:

Recovery Method:

Sampling

		Field Screening			Data Collection (Check for Yes)			
Sample ID	Depth (ft)	VOC (PID)	PetroFlag TPH (ppm)	Quantab (High/Low) + or -	Lab Analysis	Picture	Trimble Coordinates	Marked on Site Sketch
SS/TP/BH - Year - Number Ex. BH18-01	Ex. 2ft	Ex. 400 ppm	200 ppm	Ex. High +	Ex. Hydrocarbon Chloride			
8:55 SS20-01	0-0.5		103	0.08/10.6	~~Stepped out 5'~~			
9:00 SS20-02	0-0.5		30	0.07/11.3				
SS20-03	0-0.5		14	0.06/15.2				
SS20-04	0-0.5		657	0.07/16.8	~~Stepped out 4'~~			
SS20-05	0-0.5		167	0.10/17.2	~~Stepped out 3'~~			
SS20-06	0-0.5		34	~~2+0~~ 0.09/18.1				
~~BH20-01~~	~~3'~~			~~0.07/18.6~~				
~~BH20-01~~	~~2'~~			~~0.50/19.0~~				
~~BH20-02~~	~~1'~~			~~0.16/20.8~~				
~~BH20-02~~	~~2'~~			~~0.01~~/19.4				
~~BH20-02~~	~~5'~~			~~0.30/19.5~~				
SS20-01.1	0-0.5		190	0.08/22.5				
SS20-04.1	0-0.5		125	0.09/22.5				
SS20-05.1	0-0.5		85	0.07/22.2	Stepped out 3' from original			
SS20-01.1	0-1'		40	0.11/22.5	Stepped 3' from original spot and dug 8" down			
SS20-04.1	0-1'		47	0.05/22.6	Stepped 3' from orginal spot & went deeper			

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	1/22/2021
Site Location Name:	Todd 26 K Federal #010	Report Run Date:	1/22/2021 11:07 PM
Client Contact Name:	Amanda Davis	API #:	30-015-27102
Client Contact Phone #:	(575) 748-0176		
Unique Project ID	-Todd 26 K Federal #010	Project Owner:	Amanda T. Davis
Project Reference #	2RP-5222 Poly Line Release	Project Manager:	Dennis Williams

Summary of Times

Arrived at Site	1/22/2021 8:51 AM
Departed Site	1/22/2021 3:01 PM

Field Notes

8:52 Arrived on site and filled out safety paperwork

10:35 Collect WS and BS samples

Next Steps & Recommendations

1 Submit samples to lab

Daily Site Visit Report

Site Photos

Viewing Direction: South

Sample area

Daily Site Visit Report

Daily Site Visit Signature

Inspector: John Ramirez

Signature: 

VERTEX

Spill Response and Sampling

Client:	Devon
Date:	~~1-21~~ 1-22-21
Site Name:	
Site Location:	Todd 26
Project Owner:	
Project Manager:	
Project #:	19E-00575

Initial Spill Information - Record on First Visit	
Spill Date:	
Spill Volume:	
Spill Cause:	
Spill Product:	
Recovered Spill Volume:	
Recovery Method:	

Sampling

		Field Screening			Data Collection (Check for Yes)		
Sample ID	Depth (ft)	VOC (PID)	PetroFlag TPH (ppm)	Chloride PPM	Notes	Trimble Coordinates	Marked on Site Sketch
BE/WS/BH - Year - Number Ex. BE18-01	Ex. '2ft	Ex. 400 ppm	200 ppm	Method: Titration - EC Probe			
WS21-01	0-0.5						
WS02				0.19/24.6			
WS03				0.11/24.8			
WS 04			47	0.11/22.5			
WS 05			48	0.39/17.0			
WS 06			125	0.14/23.6	0.11/20.8 54petro		
WS 07			19	0.22/22.7			
WS 08				0.15/22.7			
BS21-01	0-0.5			0.28/15.5			
BS02				0.39/16.6			
BS03				~~0.37/16.0~~	0.29/19.2		
BS04			13	0.31/18.9			
BS05				0.24/19.6			
BS06				0.28/20.0			
BS07				0.20/19.5			
BS08				0.19/20.0			
BS09			68	0.39/20.2			
BS10			159	0.22/19.1	0.16/19.2 69petro		
BS11				0.26/20.3			
BB12				0.35/20.5			

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	5/19/2022
Site Location Name:	Todd 26 K Federal #010	Report Run Date:	5/19/2022 6:49 PM
Client Contact Name:	Wes Matthews	API #:	30-015-27102
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	5/19/2022 7:30 AM
Departed Site	5/19/2022 11:15 AM

Field Notes

8:12 Collecting composite samples

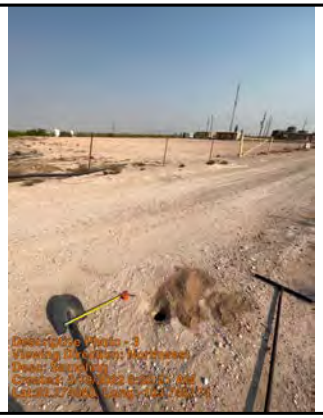
10:58 2 composite samples collected, returning to the office to run screens

Next Steps & Recommendations

1 Await results and proceed as necessary

Daily Site Visit Report

Site Photos

Viewing Direction: Northeast	**Viewing Direction**: East
	
Sampling location	Sampling
Viewing Direction: Northwest	**Viewing Direction**: Northeast
	
Sampling	Still sampling

Daily Site Visit Report

Viewing Direction: Northwest	**Viewing Direction**: South
	
BS22-12 composite area	All auger holes backfilled

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Soil Sampling

Client: Client: Devon Energy Corporation

Location: Site: Todd 26 K Federal #010

Date: (SD: 5/19/22)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES22-12	1.0		95	0.13	23.9	0				✓	
BES22-12	1.5		40	0.27	24.2	152				✓	

ATTACHMENT 6

From: Dennis Williams
To: Bratcher, Mike, EMNRD; James Amos; dmckinne@blm.gov
Cc: amanda.davis@dvn.com; Price, Henryetta (Contract); Dhugal Hanton; Robyn Fisher
Subject: Todd 6 K Federal #10 2RP-5222
Date: April 1, 2019 11:48:54 AM

Good afternoon.

Please accept this email as notification that Vertex will be taking confirmatory samples from the above mentioned location on Tuesday, April 2nd 2019 at 1:00 pm.

If you would like to facilitate a onsite meeting, or any questions or concerns please reply back to this email.

Thank you.

Dennis Williams
Environmental Earthworks Advisor

Vertex Resource Services Inc
1101 Callaway Drive Unit 2103 New Mexico
Carlsbad, 88220

P 281.977.7886
C 575.361.1137
F

www.vertex.ca

Natalie Gordon

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Sent: Tuesday, January 19, 2021 6:05 PM
To: Natalie Gordon
Subject: Fwd: NAB1903733353: Todd 26 K Fed #010 - 48-hr Notification of Confirmatory Sampling

---------- Forwarded message ---------
From: **Dhugal Hanton** <vertexresourcegroupusa@gmail.com>
Date: Tue, Jan 19, 2021 at 6:04 PM
Subject: NAB1903733353: Todd 26 K Fed #010 - 48-hr Notification of Confirmatory Sampling
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>, CFO_Spill, BLM_NM <blm_nm_cfo_spill@blm.gov>, Kelsey <KWade@blm.gov>, Amos, James A <Jamos@blm.gov>
Cc: <wesley.mathews@dvn.com>, <Lupe.Carrasco@dvn.com>, <amanda.davis@dvn.com>

All,

Please accept this email as 48-hr notification that Vertex Resource Services has scheduled confirmatory sampling to be conducted at Todd 26 K Fed #010 for the following release:

NAB1903733353 DOR: December 25, 2018

This work will be completed on behalf of Devon Energy Production Company.

On Friday, January 22, 2021 at approximately 8:00 a.m., John Ramirez will be onsite to conduct confirmatory sampling. He can be reached at 575-725-1809. If you need directions to the site, please do not hesitate to contact him. If you have any questions or concerns regarding this notification, please give me a call at 505-506-0040.

Thank you,
Natalie

Natalie Gordon
Project Manager

Vertex Resource Group Ltd.
213 S. Mesa Street
Carlsbad, NM 88220

P 575.725.5001 ext 709
C 505.506.0040
F

www.vertex.ca

Gmail

Dhugal Hanton <vertexresourcegroupusa@gmail.com>

Todd 26 K Federal #10 Confirmation Sampling Notification NAB1903733353

1 message

Dhugal Hanton <vertexresourcegroupusa@gmail.com> Tue, May 17, 2022 at 8:29 AM
To: "Enviro, OCD, EMNRD" <OCD.Enviro@state.nm.us>, "CFO_Spill, BLM_NM" <blm_nm_cfo_spill@blm.gov>
Cc: dale.woodall@dvn.com

All,

Please accept this email as 48-hr notification that Vertex Resource Services has scheduled additional confirmatory sampling to be conducted for the following releases:

NAB1903733353 DOR: 12/25/2018 Name: Todd 26 K Federal #10

This work will be completed on behalf of Devon Energy Production Company.

On Thursday, May 19, 2022 at approximately 10:00 a.m., Sally Carttar will be on site to conduct confirmatory sampling. She can be reached at 575-361-3561. If you need directions to the site, please do not hesitate to contact her. If you have any questions or concerns regarding this notification, please give me a call at 575-361-9880.

Thank you,

Monica Peppin
Project Manager

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

P 575.725.5001 Ext. 711
C 575.361.9880
F

www.vertex.ca

ATTACHMENT 7

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 08, 2019

Dennis Williams

Devon Energy
6488 Seven Rivers Highway
Artesia, NM 888210
TEL: (575) 748-0176
FAX

RE: Todd 26K Federal 10 OrderNo.: 1904171

Dear Dennis Williams:

Hall Environmental Analysis Laboratory received 11 sample(s) on 4/3/2019 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 Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1904171**
Date Reported: **4/8/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Federal 10
Lab ID: 1904171-001 **Matrix:** SOIL

Client Sample ID: SS19-01 (0)
Collection Date: 4/2/2019 1:52:00 PM
Received Date: 4/3/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/6/2019 7:39:14 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/6/2019 7:39:14 PM
Surr: DNOP	85.7	70-130		%Rec	1	4/6/2019 7:39:14 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/6/2019 9:05:25 AM
Surr: BFB	95.1	73.8-119		%Rec	1	4/6/2019 9:05:25 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	4/6/2019 9:05:25 AM
Toluene	ND	0.048		mg/Kg	1	4/6/2019 9:05:25 AM
Ethylbenzene	ND	0.048		mg/Kg	1	4/6/2019 9:05:25 AM
Xylenes, Total	ND	0.097		mg/Kg	1	4/6/2019 9:05:25 AM
Surr: 4-Bromofluorobenzene	97.3	80-120		%Rec	1	4/6/2019 9:05:25 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	130	60		mg/Kg	20	4/5/2019 7:22:01 PM

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1904171**
Date Reported: **4/8/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Federal 10
Lab ID: 1904171-002 **Matrix:** SOIL

Client Sample ID: SS19-01 (1)
Collection Date: 4/2/2019 1:57:00 PM
Received Date: 4/3/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/6/2019 8:01:28 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/6/2019 8:01:28 PM
Surr: DNOP	82.2	70-130		%Rec	1	4/6/2019 8:01:28 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/6/2019 9:28:51 AM
Surr: BFB	95.2	73.8-119		%Rec	1	4/6/2019 9:28:51 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	4/6/2019 9:28:51 AM
Toluene	ND	0.049		mg/Kg	1	4/6/2019 9:28:51 AM
Ethylbenzene	ND	0.049		mg/Kg	1	4/6/2019 9:28:51 AM
Xylenes, Total	ND	0.098		mg/Kg	1	4/6/2019 9:28:51 AM
Surr: 4-Bromofluorobenzene	96.1	80-120		%Rec	1	4/6/2019 9:28:51 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	420	60		mg/Kg	20	4/5/2019 7:59:15 PM

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1904171**
Date Reported: **4/8/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Federal 10
Lab ID: 1904171-003 **Matrix:** SOIL

Client Sample ID: SS19-02 (0)
Collection Date: 4/2/2019 1:41:00 PM
Received Date: 4/3/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	4/6/2019 8:23:39 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/6/2019 8:23:39 PM
Surr: DNOP	82.1	70-130		%Rec	1	4/6/2019 8:23:39 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/6/2019 9:52:13 AM
Surr: BFB	91.6	73.8-119		%Rec	1	4/6/2019 9:52:13 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	4/6/2019 9:52:13 AM
Toluene	ND	0.048		mg/Kg	1	4/6/2019 9:52:13 AM
Ethylbenzene	ND	0.048		mg/Kg	1	4/6/2019 9:52:13 AM
Xylenes, Total	ND	0.096		mg/Kg	1	4/6/2019 9:52:13 AM
Surr: 4-Bromofluorobenzene	93.2	80-120		%Rec	1	4/6/2019 9:52:13 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	4/5/2019 8:11:39 PM

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1904171**
Date Reported: **4/8/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Federal 10
Lab ID: 1904171-004 **Matrix:** SOIL

Client Sample ID: SS19-03 (0)
Collection Date: 4/2/2019 1:31:00 PM
Received Date: 4/3/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	15	9.4		mg/Kg	1	4/6/2019 8:45:54 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/6/2019 8:45:54 PM
Surr: DNOP	87.0	70-130		%Rec	1	4/6/2019 8:45:54 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/6/2019 10:15:35 AM
Surr: BFB	94.2	73.8-119		%Rec	1	4/6/2019 10:15:35 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	4/6/2019 10:15:35 AM
Toluene	ND	0.048		mg/Kg	1	4/6/2019 10:15:35 AM
Ethylbenzene	ND	0.048		mg/Kg	1	4/6/2019 10:15:35 AM
Xylenes, Total	ND	0.096		mg/Kg	1	4/6/2019 10:15:35 AM
Surr: 4-Bromofluorobenzene	94.8	80-120		%Rec	1	4/6/2019 10:15:35 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	78	60		mg/Kg	20	4/5/2019 8:24:04 PM

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1904171**
Date Reported: **4/8/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Federal 10
Lab ID: 1904171-005 **Matrix:** SOIL

Client Sample ID: SS19-04 (0)
Collection Date: 4/2/2019 2:08:00 PM
Received Date: 4/3/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	100	9.2		mg/Kg	1	4/6/2019 9:08:02 PM
Motor Oil Range Organics (MRO)	84	46		mg/Kg	1	4/6/2019 9:08:02 PM
Surr: DNOP	85.5	70-130		%Rec	1	4/6/2019 9:08:02 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/6/2019 10:38:53 AM
Surr: BFB	88.9	73.8-119		%Rec	1	4/6/2019 10:38:53 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	4/6/2019 10:38:53 AM
Toluene	ND	0.047		mg/Kg	1	4/6/2019 10:38:53 AM
Ethylbenzene	ND	0.047		mg/Kg	1	4/6/2019 10:38:53 AM
Xylenes, Total	ND	0.095		mg/Kg	1	4/6/2019 10:38:53 AM
Surr: 4-Bromofluorobenzene	90.5	80-120		%Rec	1	4/6/2019 10:38:53 AM
EPA METHOD 300.0: ANIONS						Analyst: **CJS**
Chloride	2100	150		mg/Kg	50	4/7/2019 11:04:22 AM

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1904171**
Date Reported: **4/8/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Federal 10
Lab ID: 1904171-006 **Matrix:** SOIL

Client Sample ID: SS19-05 (0)
Collection Date: 4/2/2019 2:11:00 PM
Received Date: 4/3/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	60	9.1		mg/Kg	1	4/4/2019 4:50:42 PM
Motor Oil Range Organics (MRO)	87	46		mg/Kg	1	4/4/2019 4:50:42 PM
Surr: DNOP	84.8	70-130		%Rec	1	4/4/2019 4:50:42 PM
EPA METHOD 300.0: ANIONS						Analyst: **CJS**
Chloride	5000	150		mg/Kg	50	4/7/2019 11:16:46 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	4/5/2019 6:37:41 PM
Toluene	ND	0.048		mg/Kg	1	4/5/2019 6:37:41 PM
Ethylbenzene	ND	0.048		mg/Kg	1	4/5/2019 6:37:41 PM
Xylenes, Total	ND	0.096		mg/Kg	1	4/5/2019 6:37:41 PM
Surr: 1,2-Dichloroethane-d4	92.3	70-130		%Rec	1	4/5/2019 6:37:41 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/5/2019 6:37:41 PM
Surr: Dibromofluoromethane	93.6	70-130		%Rec	1	4/5/2019 6:37:41 PM
Surr: Toluene-d8	92.2	70-130		%Rec	1	4/5/2019 6:37:41 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/5/2019 6:37:41 PM
Surr: BFB	99.0	70-130		%Rec	1	4/5/2019 6:37:41 PM

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1904171**
Date Reported: **4/8/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: SS19-06 (0)
Project: Todd 26K Federal 10
Collection Date: 4/2/2019 2:20:00 PM
Lab ID: 1904171-007 **Matrix:** SOIL
Received Date: 4/3/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	38	9.5		mg/Kg	1	4/4/2019 5:57:19 PM
Motor Oil Range Organics (MRO)	59	47		mg/Kg	1	4/4/2019 5:57:19 PM
Surr: DNOP	47.3	70-130	S	%Rec	1	4/4/2019 5:57:19 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	1600	60		mg/Kg	20	4/5/2019 9:01:18 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	4/5/2019 8:03:23 PM
Toluene	ND	0.049		mg/Kg	1	4/5/2019 8:03:23 PM
Ethylbenzene	ND	0.049		mg/Kg	1	4/5/2019 8:03:23 PM
Xylenes, Total	ND	0.098		mg/Kg	1	4/5/2019 8:03:23 PM
Surr: 1,2-Dichloroethane-d4	89.6	70-130		%Rec	1	4/5/2019 8:03:23 PM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/5/2019 8:03:23 PM
Surr: Dibromofluoromethane	89.9	70-130		%Rec	1	4/5/2019 8:03:23 PM
Surr: Toluene-d8	91.6	70-130		%Rec	1	4/5/2019 8:03:23 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/5/2019 8:03:23 PM
Surr: BFB	104	70-130		%Rec	1	4/5/2019 8:03:23 PM

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1904171**
Date Reported: **4/8/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Federal 10
Lab ID: 1904171-008 **Matrix:** SOIL

Client Sample ID: SS19-07 (0)
Collection Date: 4/2/2019 2:42:00 PM
Received Date: 4/3/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	29	9.7		mg/Kg	1	4/4/2019 6:19:27 PM
Motor Oil Range Organics (MRO)	49	49		mg/Kg	1	4/4/2019 6:19:27 PM
Surr: DNOP	49.7	70-130	S	%Rec	1	4/4/2019 6:19:27 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	220	60		mg/Kg	20	4/5/2019 9:13:43 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	4/5/2019 9:29:01 PM
Toluene	ND	0.048		mg/Kg	1	4/5/2019 9:29:01 PM
Ethylbenzene	ND	0.048		mg/Kg	1	4/5/2019 9:29:01 PM
Xylenes, Total	ND	0.096		mg/Kg	1	4/5/2019 9:29:01 PM
Surr: 1,2-Dichloroethane-d4	91.6	70-130		%Rec	1	4/5/2019 9:29:01 PM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/5/2019 9:29:01 PM
Surr: Dibromofluoromethane	91.3	70-130		%Rec	1	4/5/2019 9:29:01 PM
Surr: Toluene-d8	93.4	70-130		%Rec	1	4/5/2019 9:29:01 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/5/2019 9:29:01 PM
Surr: BFB	104	70-130		%Rec	1	4/5/2019 9:29:01 PM

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1904171**
Date Reported: **4/8/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Federal 10
Lab ID: 1904171-009 **Matrix:** SOIL

Client Sample ID: SS19-08 (0)
Collection Date: 4/2/2019 2:25:00 PM
Received Date: 4/3/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	12	9.8		mg/Kg	1	4/4/2019 6:41:45 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/4/2019 6:41:45 PM
Surr: DNOP	39.0	70-130	S	%Rec	1	4/4/2019 6:41:45 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	110	60		mg/Kg	20	4/5/2019 9:26:07 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	4/5/2019 9:57:30 PM
Toluene	ND	0.048		mg/Kg	1	4/5/2019 9:57:30 PM
Ethylbenzene	ND	0.048		mg/Kg	1	4/5/2019 9:57:30 PM
Xylenes, Total	ND	0.096		mg/Kg	1	4/5/2019 9:57:30 PM
Surr: 1,2-Dichloroethane-d4	88.5	70-130		%Rec	1	4/5/2019 9:57:30 PM
Surr: 4-Bromofluorobenzene	98.6	70-130		%Rec	1	4/5/2019 9:57:30 PM
Surr: Dibromofluoromethane	89.4	70-130		%Rec	1	4/5/2019 9:57:30 PM
Surr: Toluene-d8	93.3	70-130		%Rec	1	4/5/2019 9:57:30 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/5/2019 9:57:30 PM
Surr: BFB	102	70-130		%Rec	1	4/5/2019 9:57:30 PM

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1904171**
Date Reported: **4/8/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Federal 10
Lab ID: 1904171-010 **Matrix:** SOIL

Client Sample ID: SS19-09 (0)
Collection Date: 4/2/2019 2:03:00 PM
Received Date: 4/3/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/4/2019 7:03:45 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/4/2019 7:03:45 PM
Surr: DNOP	54.0	70-130	S	%Rec	1	4/4/2019 7:03:45 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	70	60		mg/Kg	20	4/5/2019 9:38:32 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	4/5/2019 10:26:02 PM
Toluene	ND	0.047		mg/Kg	1	4/5/2019 10:26:02 PM
Ethylbenzene	ND	0.047		mg/Kg	1	4/5/2019 10:26:02 PM
Xylenes, Total	ND	0.095		mg/Kg	1	4/5/2019 10:26:02 PM
Surr: 1,2-Dichloroethane-d4	87.6	70-130		%Rec	1	4/5/2019 10:26:02 PM
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	4/5/2019 10:26:02 PM
Surr: Dibromofluoromethane	89.9	70-130		%Rec	1	4/5/2019 10:26:02 PM
Surr: Toluene-d8	96.0	70-130		%Rec	1	4/5/2019 10:26:02 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/5/2019 10:26:02 PM
Surr: BFB	106	70-130		%Rec	1	4/5/2019 10:26:02 PM

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1904171**
Date Reported: **4/8/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Federal 10
Lab ID: 1904171-011 **Matrix:** SOIL

Client Sample ID: SS19-10 (0)
Collection Date: 4/2/2019 1:46:00 PM
Received Date: 4/3/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/4/2019 7:25:57 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/4/2019 7:25:57 PM
Surr: DNOP	42.6	70-130	S	%Rec	1	4/4/2019 7:25:57 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	110	60		mg/Kg	20	4/5/2019 10:40:34 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	4/5/2019 10:54:37 PM
Toluene	ND	0.049		mg/Kg	1	4/5/2019 10:54:37 PM
Ethylbenzene	ND	0.049		mg/Kg	1	4/5/2019 10:54:37 PM
Xylenes, Total	ND	0.098		mg/Kg	1	4/5/2019 10:54:37 PM
Surr: 1,2-Dichloroethane-d4	88.3	70-130		%Rec	1	4/5/2019 10:54:37 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/5/2019 10:54:37 PM
Surr: Dibromofluoromethane	93.4	70-130		%Rec	1	4/5/2019 10:54:37 PM
Surr: Toluene-d8	93.8	70-130		%Rec	1	4/5/2019 10:54:37 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/5/2019 10:54:37 PM
Surr: BFB	103	70-130		%Rec	1	4/5/2019 10:54:37 PM

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904171**

08-Apr-19

Client: Devon Energy

Project: Todd 26K Federal 10

Sample ID: **MB-44165**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **44165**	RunNo: **58920**							
Prep Date: **4/5/2019**	Analysis Date: **4/5/2019**	SeqNo: **1982078**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-44165**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **44165**	RunNo: **58920**							
Prep Date: **4/5/2019**	Analysis Date: **4/5/2019**	SeqNo: **1982079**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	90	110			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904171**

08-Apr-19

Client: Devon Energy

Project: Todd 26K Federal 10

Sample ID: **LCS-44126** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **44126** RunNo: **58882**

Prep Date: **4/4/2019** Analysis Date: **4/4/2019** SeqNo: **1980513** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.6	63.9	124			
Surr: DNOP	4.4		5.000		88.3	70	130			

Sample ID: **MB-44126** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **44126** RunNo: **58882**

Prep Date: **4/4/2019** Analysis Date: **4/4/2019** SeqNo: **1980514** Units: **mg/Kg**

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	9.1		10.00		91.4	70	130			

Sample ID: **1904171-006AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **SS19-05 (0)** Batch ID: **44126** RunNo: **58882**

Prep Date: **4/4/2019** Analysis Date: **4/4/2019** SeqNo: **1980521** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	100	9.5	47.48	60.31	94.1	53.5	126			
Surr: DNOP	3.9		4.748		82.9	70	130			

Sample ID: **1904171-006AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **SS19-05 (0)** Batch ID: **44126** RunNo: **58882**

Prep Date: **4/4/2019** Analysis Date: **4/4/2019** SeqNo: **1980522** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	100	9.2	45.91	60.31	85.8	53.5	126	5.18	21.7	
Surr: DNOP	4.2		4.591		91.3	70	130	0	0	

Sample ID: **LCS-44142** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **44142** RunNo: **58917**

Prep Date: **4/5/2019** Analysis Date: **4/5/2019** SeqNo: **1981087** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.5	70	130			

Sample ID: **MB-44142** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **44142** RunNo: **58917**

Prep Date: **4/5/2019** Analysis Date: **4/5/2019** SeqNo: **1981088** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904171**
08-Apr-19

Client: Devon Energy
Project: Todd 26K Federal 10

Sample ID: **MB-44142**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **44142**	RunNo: **58917**							
Prep Date: **4/5/2019**	Analysis Date: **4/5/2019**	SeqNo: **1981088**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		101	70	130			

Sample ID: **LCS-44128**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **44128**	RunNo: **58917**							
Prep Date: **4/4/2019**	Analysis Date: **4/5/2019**	SeqNo: **1982023**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		86.1	70	130			

Sample ID: **MB-44128**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **44128**	RunNo: **58917**							
Prep Date: **4/4/2019**	Analysis Date: **4/5/2019**	SeqNo: **1982024**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.8		10.00		98.1	70	130			

Sample ID: **LCS-44110**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **44110**	RunNo: **58917**							
Prep Date: **4/4/2019**	Analysis Date: **4/6/2019**	SeqNo: **1983117**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	63.9	124			
Surr: DNOP	4.4		5.000		88.3	70	130			

Sample ID: **MB-44110**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **44110**	RunNo: **58917**							
Prep Date: **4/4/2019**	Analysis Date: **4/6/2019**	SeqNo: **1983118**	Units: **mg/Kg**						
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	9.1		10.00		90.9	70	130			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904171**

08-Apr-19

Client: Devon Energy

Project: Todd 26K Federal 10

Sample ID: **LCS-44087** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **44087** RunNo: **58948**

Prep Date: **4/3/2019** Analysis Date: **4/5/2019** SeqNo: **1982477** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.4	80.1	123			
Surr: BFB	1100		1000		112	73.8	119			

Sample ID: **MB-44087** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **44087** RunNo: **58948**

Prep Date: **4/3/2019** Analysis Date: **4/6/2019** SeqNo: **1982479** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		94.1	73.8	119			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904171**

08-Apr-19

Client: Devon Energy

Project: Todd 26K Federal 10

Sample ID: **LCS-44087** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **44087** RunNo: **58948**

Prep Date: **4/3/2019** Analysis Date: **4/6/2019** SeqNo: **1982525** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.0	80	120			
Toluene	0.97	0.050	1.000	0	97.1	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.8	80	120			
Surr: 4-Bromofluorobenzene	0.96		1.000		96.0	80	120			

Sample ID: **MB-44087** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **44087** RunNo: **58948**

Prep Date: **4/3/2019** Analysis Date: **4/6/2019** SeqNo: **1982527** Units: **mg/Kg**

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	0.96		1.000		95.9	80	120			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904171**
08-Apr-19

Client: Devon Energy
Project: Todd 26K Federal 10

Sample ID: **1904171-007ams** SampType: **MS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **SS19-06 (0)** Batch ID: **44098** RunNo: **58934**
Prep Date: **4/4/2019** Analysis Date: **4/5/2019** SeqNo: **1982746** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.024	0.9533	0	83.2	68.9	131			
Toluene	0.99	0.048	0.9533	0.008780	102	64.3	137			
Ethylbenzene	1.0	0.048	0.9533	0	105	70	130			
Xylenes, Total	3.0	0.095	2.860	0	106	70	130			
Surr: 1,2-Dichloroethane-d4	0.41		0.4766		85.5	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.4766		101	70	130			
Surr: Dibromofluoromethane	0.43		0.4766		91.1	70	130			
Surr: Toluene-d8	0.45		0.4766		93.5	70	130			

Sample ID: **1904171-007amsd** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **SS19-06 (0)** Batch ID: **44098** RunNo: **58934**
Prep Date: **4/4/2019** Analysis Date: **4/5/2019** SeqNo: **1982747** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.024	0.9671	0	82.7	68.9	131	0.787	20	
Toluene	0.99	0.048	0.9671	0.008780	101	64.3	137	0.290	20	
Ethylbenzene	1.0	0.048	0.9671	0	103	70	130	0.294	0	
Xylenes, Total	3.0	0.097	2.901	0	105	70	130	0.721	0	
Surr: 1,2-Dichloroethane-d4	0.43		0.4836		89.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.49		0.4836		102	70	130	0	0	
Surr: Dibromofluoromethane	0.45		0.4836		93.9	70	130	0	0	
Surr: Toluene-d8	0.45		0.4836		93.2	70	130	0	0	

Sample ID: **lcs-44098** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS** Batch ID: **44098** RunNo: **58934**
Prep Date: **4/4/2019** Analysis Date: **4/5/2019** SeqNo: **1982755** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.75	0.025	1.000	0	75.1	70	130			
Toluene	0.95	0.050	1.000	0	94.6	70	130			
Ethylbenzene	0.95	0.050	1.000	0	95.5	70	130			
Xylenes, Total	2.9	0.10	3.000	0	95.4	70	130			
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		88.2	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		88.1	70	130			
Surr: Toluene-d8	0.47		0.5000		95.0	70	130			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904171**
08-Apr-19

Client: Devon Energy
Project: Todd 26K Federal 10

Sample ID: **mb-44098** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **44098** RunNo: **58934**
Prep Date: **4/4/2019** Analysis Date: **4/5/2019** SeqNo: **1982756** Units: **mg/Kg**

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: 1,2-Dichloroethane-d4	0.45		0.5000		90.5	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		89.8	70	130			
Surr: Toluene-d8	0.46		0.5000		93.0	70	130			

Sample ID: **lcs-44111** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS** Batch ID: **44111** RunNo: **58962**
Prep Date: **4/4/2019** Analysis Date: **4/6/2019** SeqNo: **1983547** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		86.5	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		89.0	70	130			
Surr: Toluene-d8	0.47		0.5000		94.0	70	130			

Sample ID: **mb-44111** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **44111** RunNo: **58962**
Prep Date: **4/4/2019** Analysis Date: **4/6/2019** SeqNo: **1983548** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		85.3	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		104	70	130			
Surr: Dibromofluoromethane	0.43		0.5000		86.9	70	130			
Surr: Toluene-d8	0.47		0.5000		93.3	70	130			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904171**

08-Apr-19

Client: Devon Energy

Project: Todd 26K Federal 10

Sample ID: **1904171-006ams** SampType: **MS** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **SS19-05 (0)** Batch ID: **44098** RunNo: **58934**
Prep Date: **4/4/2019** Analysis Date: **4/5/2019** SeqNo: **1982758** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.7	23.70	0	91.1	68.2	135			
Surr: BFB	480		473.9		100	70	130			

Sample ID: **1904171-006amsd** SampType: **MSD** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **SS19-05 (0)** Batch ID: **44098** RunNo: **58934**
Prep Date: **4/4/2019** Analysis Date: **4/5/2019** SeqNo: **1982759** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.6	23.21	0	92.8	68.2	135	0.193	20	
Surr: BFB	470		464.3		102	70	130	0	0	

Sample ID: **lcs-44098** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS** Batch ID: **44098** RunNo: **58934**
Prep Date: **4/4/2019** Analysis Date: **4/5/2019** SeqNo: **1982789** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.5	70	130			
Surr: BFB	500		500.0		100	70	130			

Sample ID: **lcs-44111** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS** Batch ID: **44111** RunNo: **58934**
Prep Date: **4/4/2019** Analysis Date: **4/6/2019** SeqNo: **1982790** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	510		500.0		103	70	130			

Sample ID: **mb-44111** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS** Batch ID: **44111** RunNo: **58934**
Prep Date: **4/4/2019** Analysis Date: **4/6/2019** SeqNo: **1982791** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	520		500.0		105	70	130			

Sample ID: **mb-44098** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS** Batch ID: **44098** RunNo: **58934**
Prep Date: **4/4/2019** Analysis Date: **4/5/2019** SeqNo: **1982792** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	500		500.0		99.8	70	130			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **DEVON ENERGY** Work Order Number: **1904171** RcptNo: **1**

Received By: **Yazmine Garduno** **4/3/2019 8:50:00 AM** Yazmine Garduno

Completed By: **Isaiah Ortiz** **4/3/2019 10:26:11 AM** I-OA

Reviewed By: DAD 4/3/19
CB: YG 4/3/19

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	# of preserved bottles checked for pH: (<2 or >12 unless noted)
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	Adjusted?
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: YG 4/3/19

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			
2	2.8	Good	Yes			
3	5.6	Good	Yes			

Chain-of-Custody Record

Client: Devon Energy / Amanda Davis

Mailing Address: 6488 Seven Rivers Highway, Artesia, NM 88210

Phone #: 575-748-0176 505-350-1336

email or Fax#: permian@Vertex.ca, amanda.davis@dvn.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time: 5 day Turn
☒ Standard ☐ Rush _____

Project Name: Todd 26K Federal 10

Project #: 19E-00575

Project Manager: Dennis Williams

Sampler: Robyn Fisher

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.1°C, 2.4°C, 5.1°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1904171	BTEX + MTBE + TMB's (8021) (NM)	BTEX + MTBE + TPH (Gas only) (NM)	TPH 8015B (GRO / DRO / MRO) (NM)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (EPA 300.0)				Air Bubbles (Y or N)
02/04/19	13:52	Soil	SS19-01 (0')	Glass/1	Ice	-001	X		X									X				
	13:57	Soil	SS19-01 (1')	Glass/1	Ice	-002	X		X									X				
	13:41	Soil	SS19-02 (0')	Glass/1	Ice	-003	X		X									X				
	13:31	Soil	SS19-03 (0')	Glass/1	Ice	-004	X		X									X				
	14:08	Soil	SS19-04 (0')	Glass/1	Ice	-005	X		X									X				
	14:11	Soil	SS19-05 (0')	Glass/1	Ice	-006	X		X									X				
	14:20	Soil	SS19-06 (0')	Glass/1	Ice	-007	X		X									X				
	14:42	Soil	SS19-07 (0')	Glass/1	Ice	-008	X		X									X				
	14:25	Soil	SS19-08 (0')	Glass/1	Ice	-009	X		X									X				
	14:03	Soil	SS19-09 (0')	Glass/1	Ice	-010	X		X									X				
	13:46	Soil	SS19-10 (0')	Glass/1	Ice	-011	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
02/04/19	3:41	Robyn Fisher			
4/2/19	1900			4/02/19	1545

Received by: Yvette courier 4/3/19 8:30

Remarks:

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.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

November 06, 2020

Natalie Gordon

Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (505) 350-1336
FAX:

RE: Todd 26 K Fed 10 OrderNo.: 2010D74

Dear Natalie Gordon:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/31/2020 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 Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2010D74**
Date Reported: **11/6/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 K Fed 10
Lab ID: 2010D74-001 **Matrix:** SOIL

Client Sample ID: SS20-01 0-0.5'
Collection Date: 10/29/2020 2:55:00 PM
Received Date: 10/31/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	11/4/2020 3:30:36 PM	56197
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/3/2020 3:57:20 PM	56142
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/3/2020 3:57:20 PM	56142
Surr: DNOP	76.7	30.4-154		%Rec	1	11/3/2020 3:57:20 PM	56142
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/3/2020 3:56:16 PM	56138
Surr: BFB	96.2	75.3-105		%Rec	1	11/3/2020 3:56:16 PM	56138
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.098		mg/Kg	1	11/3/2020 2:27:32 AM	56138
Benzene	ND	0.024		mg/Kg	1	11/3/2020 2:27:32 AM	56138
Toluene	ND	0.049		mg/Kg	1	11/3/2020 2:27:32 AM	56138
Ethylbenzene	ND	0.049		mg/Kg	1	11/3/2020 2:27:32 AM	56138
Xylenes, Total	ND	0.098		mg/Kg	1	11/3/2020 2:27:32 AM	56138
Surr: 4-Bromofluorobenzene	97.1	80-120		%Rec	1	11/3/2020 2:27:32 AM	56138

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2010D74**
Date Reported: **11/6/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 K Fed 10
Lab ID: 2010D74-002 **Matrix:** SOIL

Client Sample ID: SS20-02 0-0.5'
Collection Date: 10/29/2020 9:06:00 AM
Received Date: 10/31/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	11/4/2020 4:32:39 PM	56197
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	11/3/2020 4:21:05 PM	56142
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/3/2020 4:21:05 PM	56142
Surr: DNOP	96.2	30.4-154		%Rec	1	11/3/2020 4:21:05 PM	56142
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/3/2020 4:19:39 PM	56138
Surr: BFB	95.9	75.3-105		%Rec	1	11/3/2020 4:19:39 PM	56138
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.098		mg/Kg	1	11/3/2020 2:51:04 AM	56138
Benzene	ND	0.025		mg/Kg	1	11/3/2020 2:51:04 AM	56138
Toluene	ND	0.049		mg/Kg	1	11/3/2020 2:51:04 AM	56138
Ethylbenzene	ND	0.049		mg/Kg	1	11/3/2020 2:51:04 AM	56138
Xylenes, Total	ND	0.098		mg/Kg	1	11/3/2020 2:51:04 AM	56138
Surr: 4-Bromofluorobenzene	96.6	80-120		%Rec	1	11/3/2020 2:51:04 AM	56138

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2010D74**
Date Reported: **11/6/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 K Fed 10
Lab ID: 2010D74-003 **Matrix:** SOIL

Client Sample ID: SS20-03 0-0.5'
Collection Date: 10/29/2020 9:15:00 AM
Received Date: 10/31/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	11/4/2020 4:45:03 PM	56197
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/3/2020 4:44:59 PM	56142
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/3/2020 4:44:59 PM	56142
Surr: DNOP	49.5	30.4-154		%Rec	1	11/3/2020 4:44:59 PM	56142
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/3/2020 4:43:14 PM	56138
Surr: BFB	95.2	75.3-105		%Rec	1	11/3/2020 4:43:14 PM	56138
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	11/3/2020 3:14:34 AM	56138
Benzene	ND	0.025		mg/Kg	1	11/3/2020 3:14:34 AM	56138
Toluene	ND	0.050		mg/Kg	1	11/3/2020 3:14:34 AM	56138
Ethylbenzene	ND	0.050		mg/Kg	1	11/3/2020 3:14:34 AM	56138
Xylenes, Total	ND	0.10		mg/Kg	1	11/3/2020 3:14:34 AM	56138
Surr: 4-Bromofluorobenzene	97.2	80-120		%Rec	1	11/3/2020 3:14:34 AM	56138

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

Qualifiers:

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

Analytical Report
Lab Order **2010D74**
Date Reported: **11/6/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 K Fed 10
Lab ID: 2010D74-004 **Matrix:** SOIL

Client Sample ID: SS20-04 0-0.5'
Collection Date: 10/29/2020 3:00:00 PM
Received Date: 10/31/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	11/4/2020 4:57:28 PM	56197
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	11/3/2020 5:09:03 PM	56142
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	11/3/2020 5:09:03 PM	56142
Surr: DNOP	98.2	30.4-154		%Rec	1	11/3/2020 5:09:03 PM	56142
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/3/2020 5:06:40 PM	56138
Surr: BFB	97.8	75.3-105		%Rec	1	11/3/2020 5:06:40 PM	56138
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.098		mg/Kg	1	11/3/2020 3:38:06 AM	56138
Benzene	ND	0.024		mg/Kg	1	11/3/2020 3:38:06 AM	56138
Toluene	ND	0.049		mg/Kg	1	11/3/2020 3:38:06 AM	56138
Ethylbenzene	ND	0.049		mg/Kg	1	11/3/2020 3:38:06 AM	56138
Xylenes, Total	ND	0.098		mg/Kg	1	11/3/2020 3:38:06 AM	56138
Surr: 4-Bromofluorobenzene	98.3	80-120		%Rec	1	11/3/2020 3:38:06 AM	56138

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2010D74**
Date Reported: **11/6/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 K Fed 10
Lab ID: 2010D74-005 **Matrix:** SOIL

Client Sample ID: SS20-05 0-0.5'
Collection Date: 10/29/2020 2:45:00 PM
Received Date: 10/31/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	59		mg/Kg	20	11/4/2020 5:09:52 PM	56197
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/3/2020 5:33:08 PM	56142
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/3/2020 5:33:08 PM	56142
Surr: DNOP	71.7	30.4-154		%Rec	1	11/3/2020 5:33:08 PM	56142
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/3/2020 5:29:59 PM	56138
Surr: BFB	95.2	75.3-105		%Rec	1	11/3/2020 5:29:59 PM	56138
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.099		mg/Kg	1	11/3/2020 4:01:40 AM	56138
Benzene	ND	0.025		mg/Kg	1	11/3/2020 4:01:40 AM	56138
Toluene	ND	0.050		mg/Kg	1	11/3/2020 4:01:40 AM	56138
Ethylbenzene	ND	0.050		mg/Kg	1	11/3/2020 4:01:40 AM	56138
Xylenes, Total	ND	0.099		mg/Kg	1	11/3/2020 4:01:40 AM	56138
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	11/3/2020 4:01:40 AM	56138

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2010D74**
Date Reported: **11/6/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 K Fed 10
Lab ID: 2010D74-006 **Matrix:** SOIL

Client Sample ID: SS20-06 0-0.5'
Collection Date: 10/29/2020 9:50:00 AM
Received Date: 10/31/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	11/4/2020 5:22:16 PM	56197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/2/2020 3:58:28 PM	56139
Surr: BFB	101	70-130		%Rec	1	11/2/2020 3:58:28 PM	56139
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/3/2020 9:31:39 AM	56144
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/3/2020 9:31:39 AM	56144
Surr: DNOP	79.1	30.4-154		%Rec	1	11/3/2020 9:31:39 AM	56144
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	11/2/2020 3:58:28 PM	56139
Toluene	ND	0.049		mg/Kg	1	11/2/2020 3:58:28 PM	56139
Ethylbenzene	ND	0.049		mg/Kg	1	11/2/2020 3:58:28 PM	56139
Xylenes, Total	ND	0.099		mg/Kg	1	11/2/2020 3:58:28 PM	56139
Surr: 1,2-Dichloroethane-d4	90.0	70-130		%Rec	1	11/2/2020 3:58:28 PM	56139
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	11/2/2020 3:58:28 PM	56139
Surr: Dibromofluoromethane	106	70-130		%Rec	1	11/2/2020 3:58:28 PM	56139
Surr: Toluene-d8	101	70-130		%Rec	1	11/2/2020 3:58:28 PM	56139

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D74**

06-Nov-20

Client: Devon Energy

Project: Todd 26 K Fed 10

Sample ID: **MB-56197**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **56197**	RunNo: **73148**							
Prep Date: **11/4/2020**	Analysis Date: **11/4/2020**	SeqNo: **2572599**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-56197**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **56197**	RunNo: **73148**							
Prep Date: **11/4/2020**	Analysis Date: **11/4/2020**	SeqNo: **2572600**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.6	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D74**

06-Nov-20

Client: Devon Energy

Project: Todd 26 K Fed 10

Sample ID: **MB-56142**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **56142**	RunNo: **73104**
Prep Date: **11/2/2020**	Analysis Date: **11/3/2020**	SeqNo: **2570759** Units: **mg/Kg**

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	11		10.00		108	30.4	154			

Sample ID: **LCS-56142**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **56142**	RunNo: **73104**
Prep Date: **11/2/2020**	Analysis Date: **11/3/2020**	SeqNo: **2570760** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	107	70	130			
Surr: DNOP	5.9		5.000		118	30.4	154			

Sample ID: **2010D74-006AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SS20-06 0-0.5'**	Batch ID: **56144**	RunNo: **73117**
Prep Date: **11/2/2020**	Analysis Date: **11/3/2020**	SeqNo: **2571099** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	9.8	49.16	0	76.1	15	184			
Surr: DNOP	3.6		4.916		72.8	30.4	154			

Sample ID: **2010D74-006AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SS20-06 0-0.5'**	Batch ID: **56144**	RunNo: **73117**
Prep Date: **11/2/2020**	Analysis Date: **11/3/2020**	SeqNo: **2571100** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	31	9.5	47.44	0	65.6	15	184	18.4	23.9	
Surr: DNOP	2.6		4.744		55.4	30.4	154	0	0	

Sample ID: **LCS-56144**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **56144**	RunNo: **73117**
Prep Date: **11/2/2020**	Analysis Date: **11/3/2020**	SeqNo: **2571134** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	110	70	130			
Surr: DNOP	5.5		5.000		110	30.4	154			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D74**

06-Nov-20

Client: Devon Energy

Project: Todd 26 K Fed 10

Sample ID: **LCS-56145** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **56145** RunNo: **73117**

Prep Date: **11/2/2020** Analysis Date: **11/3/2020** SeqNo: **2571135** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		5.000		84.1	30.4	154			

Sample ID: **MB-56144** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **56144** RunNo: **73117**

Prep Date: **11/2/2020** Analysis Date: **11/3/2020** SeqNo: **2571136** Units: **mg/Kg**

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	13		10.00		128	30.4	154			

Sample ID: **MB-56145** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **56145** RunNo: **73117**

Prep Date: **11/2/2020** Analysis Date: **11/3/2020** SeqNo: **2571137** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.2		10.00		91.8	30.4	154			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D74**

06-Nov-20

Client: Devon Energy

Project: Todd 26 K Fed 10

Sample ID: **mb-56138** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **56138** RunNo: **73078**

Prep Date: **11/1/2020** Analysis Date: **11/2/2020** SeqNo: **2569443** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		94.0	75.3	105			

Sample ID: **lcs-56138** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **56138** RunNo: **73078**

Prep Date: **11/1/2020** Analysis Date: **11/2/2020** SeqNo: **2569444** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.2	72.5	106			
Surr: BFB	1100		1000		105	75.3	105			S

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D74**

06-Nov-20

Client: Devon Energy

Project: Todd 26 K Fed 10

Sample ID: **mb-56138**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **56138**	RunNo: **73078**
Prep Date: **11/1/2020**	Analysis Date: **11/2/2020**	SeqNo: **2569524** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		96.7	80	120			

Sample ID: **LCS-56138**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **56138**	RunNo: **73078**
Prep Date: **11/1/2020**	Analysis Date: **11/2/2020**	SeqNo: **2569525** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.81	0.10	1.000	0	81.4	70.9	141			
Benzene	0.92	0.025	1.000	0	92.3	80	120			
Toluene	0.96	0.050	1.000	0	96.1	80	120			
Ethylbenzene	0.96	0.050	1.000	0	95.9	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.4	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		98.8	80	120			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D74**
06-Nov-20

Client: Devon Energy
Project: Todd 26 K Fed 10

Sample ID: **2010d74-006ams** SampType: **MS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **SS20-06 0-0.5'** Batch ID: **56139** RunNo: **73158**
Prep Date: **11/1/2020** Analysis Date: **11/2/2020** SeqNo: **2572725** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9718	0	106	71.1	115			
Toluene	1.1	0.049	0.9718	0	118	79.6	132			
Ethylbenzene	1.1	0.049	0.9718	0	117	83.8	134			
Xylenes, Total	3.6	0.097	2.915	0	122	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.45		0.4859		93.1	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.4859		108	70	130			
Surr: Dibromofluoromethane	0.51		0.4859		105	70	130			
Surr: Toluene-d8	0.49		0.4859		101	70	130			

Sample ID: **2010d74-006amsd** SampType: **MSD4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **SS20-06 0-0.5'** Batch ID: **56139** RunNo: **73158**
Prep Date: **11/1/2020** Analysis Date: **11/2/2020** SeqNo: **2572726** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	0.9843	0	96.7	71.1	115	7.63	20	
Toluene	1.1	0.049	0.9843	0	113	79.6	132	2.92	20	
Ethylbenzene	1.1	0.049	0.9843	0	113	83.8	134	2.01	20	
Xylenes, Total	3.4	0.098	2.953	0	116	82.4	132	3.60	20	
Surr: 1,2-Dichloroethane-d4	0.45		0.4921		91.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.52		0.4921		107	70	130	0	0	
Surr: Dibromofluoromethane	0.51		0.4921		103	70	130	0	0	
Surr: Toluene-d8	0.49		0.4921		99.2	70	130	0	0	

Sample ID: **lcs-56139** SampType: **LCS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC** Batch ID: **56139** RunNo: **73158**
Prep Date: **11/1/2020** Analysis Date: **11/2/2020** SeqNo: **2572746** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.9	80	120			
Toluene	1.1	0.050	1.000	0	108	80	120			
Ethylbenzene	1.1	0.050	1.000	0	109	80	120			
Xylenes, Total	3.4	0.10	3.000	0	113	80	120			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.5	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		103	70	130			
Surr: Toluene-d8	0.51		0.5000		101	70	130			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D74**
06-Nov-20

Client: Devon Energy
Project: Todd 26 K Fed 10

Sample ID: **mb-56139**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **56139**	RunNo: **73158**
Prep Date: **11/1/2020**	Analysis Date: **11/2/2020**	SeqNo: **2572747** Units: **mg/Kg**

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: 1,2-Dichloroethane-d4	0.45		0.5000		90.6	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D74**

06-Nov-20

Client: Devon Energy

Project: Todd 26 K Fed 10

Sample ID: **lcs-56139** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**

Client ID: **LCSS** Batch ID: **56139** RunNo: **73158**

Prep Date: **11/1/2020** Analysis Date: **11/2/2020** SeqNo: **2572773** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.3	70	130			
Surr: BFB	530		500.0		106	70	130			

Sample ID: **mb-56139** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**

Client ID: **PBS** Batch ID: **56139** RunNo: **73158**

Prep Date: **11/1/2020** Analysis Date: **11/2/2020** SeqNo: **2572774** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	530		500.0		105	70	130			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **Devon Energy** Work Order Number: **2010D74** RcptNo: **1**

Received By: **Erin Melendrez** **10/31/2020 11:00:00 AM**

Completed By: **Erin Melendrez** **10/31/2020 11:22:53 AM**

Reviewed By: DF 10/31/2020

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: (<2 or >12 unless noted)

Adjusted?

Checked by: ENM 10/31/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.1	Good				

Chain-of-Custody Record

Client: Devon

Mailing Address: On file

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5-day Rush
~~☒~~ Standard ☐ Rush

Project Name: Todd 26K Fed 10

Project #: 19E-00575-003

Project Manager: Natalie Gordon

Sampler: J.B

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.0+0.1(CF)=3.1 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2010D74	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10-29	2:55	0-0.5'	SS20-01	4oz	ice	-001	✓	✓					✓			
	9:06		SS20-02			-002										
	9:15		SS20-03			-003										
	3:00		SS20-04			-004										
	2:45		SS20-05			-005										
	9:50		SS20-06			-006										

Date	Time	Relinquished by	Received by	Via	Date	Time
10/30/20	1400				10/30/20	1442
10/30/20	1900			courier	10/31/20	1100

Remarks: cc: Natalie Gordon

WO #: 207151184

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.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

November 06, 2020

Natalie Gordon

Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (575) 748-0176
FAX:

RE: Todd 26K Fed 10 OrderNo.: 2010D77

Dear Natalie Gordon:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/31/2020 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 Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2010D77**
Date Reported: **11/6/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Fed 10
Lab ID: 2010D77-001 **Matrix:** SOIL

Client Sample ID: BH20-01
Collection Date: 10/29/2020 10:10:00 AM
Received Date: 10/31/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	11/3/2020 11:36:16 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/3/2020 11:36:16 PM
Surr: DNOP	84.3	30.4-154		%Rec	1	11/3/2020 11:36:16 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	79	60		mg/Kg	20	11/5/2020 1:27:48 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	11/2/2020 11:27:08 PM
Toluene	ND	0.050		mg/Kg	1	11/2/2020 11:27:08 PM
Ethylbenzene	ND	0.050		mg/Kg	1	11/2/2020 11:27:08 PM
Xylenes, Total	ND	0.10		mg/Kg	1	11/2/2020 11:27:08 PM
Surr: 1,2-Dichloroethane-d4	96.1	70-130		%Rec	1	11/2/2020 11:27:08 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	11/2/2020 11:27:08 PM
Surr: Dibromofluoromethane	98.2	70-130		%Rec	1	11/2/2020 11:27:08 PM
Surr: Toluene-d8	96.5	70-130		%Rec	1	11/2/2020 11:27:08 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/2/2020 11:27:08 PM
Surr: BFB	97.5	70-130		%Rec	1	11/2/2020 11:27:08 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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2010D77**
Date Reported: **11/6/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Fed 10
Lab ID: 2010D77-002 **Matrix:** SOIL

Client Sample ID: BH20-02
Collection Date: 10/29/2020 10:20:00 AM
Received Date: 10/31/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/4/2020 12:00:06 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/4/2020 12:00:06 AM
Surr: DNOP	72.2	30.4-154		%Rec	1	11/4/2020 12:00:06 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	11/5/2020 1:40:12 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	11/2/2020 11:54:20 PM
Toluene	ND	0.049		mg/Kg	1	11/2/2020 11:54:20 PM
Ethylbenzene	ND	0.049		mg/Kg	1	11/2/2020 11:54:20 PM
Xylenes, Total	ND	0.098		mg/Kg	1	11/2/2020 11:54:20 PM
Surr: 1,2-Dichloroethane-d4	93.6	70-130		%Rec	1	11/2/2020 11:54:20 PM
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	11/2/2020 11:54:20 PM
Surr: Dibromofluoromethane	97.5	70-130		%Rec	1	11/2/2020 11:54:20 PM
Surr: Toluene-d8	94.3	70-130		%Rec	1	11/2/2020 11:54:20 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/2/2020 11:54:20 PM
Surr: BFB	97.3	70-130		%Rec	1	11/2/2020 11:54:20 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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D77**

06-Nov-20

Client: Devon Energy

Project: Todd 26K Fed 10

Sample ID: **MB-56226**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **56226**	RunNo: **73149**							
Prep Date: **11/5/2020**	Analysis Date: **11/5/2020**	SeqNo: **2573344**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-56226**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **56226**	RunNo: **73149**							
Prep Date: **11/5/2020**	Analysis Date: **11/5/2020**	SeqNo: **2573345**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.1	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D77**

06-Nov-20

Client: Devon Energy

Project: Todd 26K Fed 10

Sample ID: **LCS-56144**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **56144**	RunNo: **73117**
Prep Date: **11/2/2020**	Analysis Date: **11/3/2020**	SeqNo: **2571134** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		5.000		110	30.4	154			

Sample ID: **LCS-56145**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **56145**	RunNo: **73117**
Prep Date: **11/2/2020**	Analysis Date: **11/3/2020**	SeqNo: **2571135** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	107	70	130			
Surr: DNOP	4.2		5.000		84.1	30.4	154			

Sample ID: **MB-56144**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **56144**	RunNo: **73117**
Prep Date: **11/2/2020**	Analysis Date: **11/3/2020**	SeqNo: **2571136** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	13		10.00		128	30.4	154			

Sample ID: **MB-56145**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **56145**	RunNo: **73117**
Prep Date: **11/2/2020**	Analysis Date: **11/3/2020**	SeqNo: **2571137** Units: **mg/Kg**

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	9.2		10.00		91.8	30.4	154			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D77**

06-Nov-20

Client: Devon Energy

Project: Todd 26K Fed 10

Sample ID: **lcs-56140** SampType: **LCS4** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **BatchQC** Batch ID: **56140** RunNo: **73147**

Prep Date: **11/1/2020** Analysis Date: **11/2/2020** SeqNo: **2572387** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.4	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.8	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		97.9	70	130			
Surr: Toluene-d8	0.49		0.5000		98.9	70	130			

Sample ID: **mb-56140** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **PBS** Batch ID: **56140** RunNo: **73147**

Prep Date: **11/1/2020** Analysis Date: **11/2/2020** SeqNo: **2572388** Units: **mg/Kg**

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: 1,2-Dichloroethane-d4	0.47		0.5000		93.7	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.6	70	130			
Surr: Toluene-d8	0.50		0.5000		99.5	70	130			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D77**

06-Nov-20

Client: Devon Energy

Project: Todd 26K Fed 10

Sample ID: **lcs-56140** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**

Client ID: **LCSS** Batch ID: **56140** RunNo: **73147**

Prep Date: **11/1/2020** Analysis Date: **11/2/2020** SeqNo: **2572458** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.6	70	130			
Surr: BFB	500		500.0		100	70	130			

Sample ID: **mb-56140** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**

Client ID: **PBS** Batch ID: **56140** RunNo: **73147**

Prep Date: **11/1/2020** Analysis Date: **11/2/2020** SeqNo: **2572459** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	500		500.0		100	70	130			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **Devon Energy** Work Order Number: **2010D77** RcptNo: **1**

Received By: **Erin Melendrez** **10/31/2020 11:00:00 AM**

Completed By: **Erin Melendrez** **10/31/2020 12:13:47 PM**

Reviewed By: DF 10/31/2020

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: ENM 10/31/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.1	Good				

Chain-of-Custody Record

Client: Devon

Mailing Address: On file

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5-day Rush
☒ Standard ☐ Rush

Project Name: Todd 26 K Fed 10

Project #: 19E-00575-003

Project Manager: Natalie Gordon

Sampler: J.B

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.0+0.1(CF)=3.1(°C)

HEAL No. 2010078

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10-29	10:10	1'	BH20-01	4oz	ice	-001	1	1					1			
↓	10:20	1'	BH20-02	1	1	-002	1	1					1			

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Via:	Date Time	Remarks:
10/30/20	1400				10/30/20 1400	CC: Natalie Gordon
10/30/20	1900			Via: Courier	10/31/20 1100	WO #: 207151 84

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.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

November 10, 2020

Natalie Gordon
Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (575) 748-0176
FAX:

RE: Todd 26K Fed 10 OrderNo.: 2010D78

Dear Natalie Gordon:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/31/2020 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 Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2010D78**
Date Reported: **11/10/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Fed 10
Lab ID: 2010D78-001 **Matrix:** SOIL

Client Sample ID: BH20-01
Collection Date: 10/29/2020 10:15:00 AM
Received Date: 10/31/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/4/2020 12:24:00 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/4/2020 12:24:00 AM
Surr: DNOP	68.1	30.4-154		%Rec	1	11/4/2020 12:24:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	3300	150		mg/Kg	50	11/9/2020 11:26:08 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	11/3/2020 12:21:35 AM
Toluene	ND	0.049		mg/Kg	1	11/3/2020 12:21:35 AM
Ethylbenzene	ND	0.049		mg/Kg	1	11/3/2020 12:21:35 AM
Xylenes, Total	ND	0.098		mg/Kg	1	11/3/2020 12:21:35 AM
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%Rec	1	11/3/2020 12:21:35 AM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	11/3/2020 12:21:35 AM
Surr: Dibromofluoromethane	97.7	70-130		%Rec	1	11/3/2020 12:21:35 AM
Surr: Toluene-d8	95.4	70-130		%Rec	1	11/3/2020 12:21:35 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/3/2020 12:21:35 AM
Surr: BFB	96.4	70-130		%Rec	1	11/3/2020 12:21:35 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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2010D78**
Date Reported: **11/10/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Fed 10
Lab ID: 2010D78-002 **Matrix:** SOIL

Client Sample ID: BH20-02
Collection Date: 10/29/2020 10:25:00 AM
Received Date: 10/31/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/4/2020 12:47:55 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/4/2020 12:47:55 AM
Surr: DNOP	65.0	30.4-154		%Rec	1	11/4/2020 12:47:55 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	590	61		mg/Kg	20	11/5/2020 2:05:01 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	11/3/2020 12:48:48 AM
Toluene	ND	0.050		mg/Kg	1	11/3/2020 12:48:48 AM
Ethylbenzene	ND	0.050		mg/Kg	1	11/3/2020 12:48:48 AM
Xylenes, Total	ND	0.10		mg/Kg	1	11/3/2020 12:48:48 AM
Surr: 1,2-Dichloroethane-d4	94.3	70-130		%Rec	1	11/3/2020 12:48:48 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	11/3/2020 12:48:48 AM
Surr: Dibromofluoromethane	96.4	70-130		%Rec	1	11/3/2020 12:48:48 AM
Surr: Toluene-d8	94.5	70-130		%Rec	1	11/3/2020 12:48:48 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/3/2020 12:48:48 AM
Surr: BFB	95.7	70-130		%Rec	1	11/3/2020 12:48:48 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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D78**

10-Nov-20

Client: Devon Energy

Project: Todd 26K Fed 10

Sample ID: **MB-56226**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **56226**	RunNo: **73149**							
Prep Date: **11/5/2020**	Analysis Date: **11/5/2020**	SeqNo: **2573344**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-56226**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **56226**	RunNo: **73149**							
Prep Date: **11/5/2020**	Analysis Date: **11/5/2020**	SeqNo: **2573345**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.1	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D78**

10-Nov-20

Client: Devon Energy

Project: Todd 26K Fed 10

Sample ID: **LCS-56145** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **56145** RunNo: **73117**

Prep Date: **11/2/2020** Analysis Date: **11/3/2020** SeqNo: **2571135** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	107	70	130			
Surr: DNOP	4.2		5.000		84.1	30.4	154			

Sample ID: **MB-56145** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **56145** RunNo: **73117**

Prep Date: **11/2/2020** Analysis Date: **11/3/2020** SeqNo: **2571137** Units: **mg/Kg**

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	9.2		10.00		91.8	30.4	154			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D78**

10-Nov-20

Client: Devon Energy

Project: Todd 26K Fed 10

Sample ID: **lcs-56140**	SampType: **LCS4**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC**	Batch ID: **56140**	RunNo: **73147**
Prep Date: **11/1/2020**	Analysis Date: **11/2/2020**	SeqNo: **2572387** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.4	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.8	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		97.9	70	130			
Surr: Toluene-d8	0.49		0.5000		98.9	70	130			

Sample ID: **mb-56140**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **56140**	RunNo: **73147**
Prep Date: **11/1/2020**	Analysis Date: **11/2/2020**	SeqNo: **2572388** Units: **mg/Kg**

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: 1,2-Dichloroethane-d4	0.47		0.5000		93.7	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.6	70	130			
Surr: Toluene-d8	0.50		0.5000		99.5	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010D78**

10-Nov-20

Client: Devon Energy

Project: Todd 26K Fed 10

Sample ID: **lcs-56140**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **56140**	RunNo: **73147**
Prep Date: **11/1/2020**	Analysis Date: **11/2/2020**	SeqNo: **2572458** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.6	70	130			
Surr: BFB	500		500.0		100	70	130			

Sample ID: **mb-56140**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **56140**	RunNo: **73147**
Prep Date: **11/1/2020**	Analysis Date: **11/2/2020**	SeqNo: **2572459** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	500		500.0		100	70	130			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **Devon Energy** Work Order Number: **2010D78** RcptNo: **1**

Received By: **Erin Melendrez** **10/31/2020 11:00:00 AM**

Completed By: **Erin Melendrez** **10/31/2020 12:18:06 PM**

Reviewed By: DF 10/31/2020

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: ENM 10/31/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.1	Good				

Chain-of-Custody Record

Client: Devon

Mailing Address: On file

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5-day Rush
~~Standard~~ ☐ Rush

Project Name: Todd 26K Fed 10

Project #: 19E-00575-003

Project Manager: Natalie Gordon

Sampler: J.B

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.0+0.1(CF)=3.1(°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
10-29	10:15	3.5'	BH20-01	4oz	Ice	2010078-001
↓	10:25	↓	BH20-02	1	1	-002

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1	1					1			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
10/30/20	1400				10/30/20	1410
10/30/20	1910			courier	10/31/20	1100

Remarks: CC: Natalie Gordon

WO#:

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.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

February 01, 2021

Natalie Gordon

Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (505) 350-1336
FAX:

RE: Todd 26 1c Fed 10 OrderNo.: 2101929

Dear Natalie Gordon:

Hall Environmental Analysis Laboratory received 20 sample(s) on 1/26/2021 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 Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: WS21-01 0-0.5
Project: Todd 26 1c Fed 10
Collection Date: 1/22/2021 9:10:00 AM
Lab ID: 2101929-001 **Matrix:** SOIL **Received Date:** 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	1/27/2021 9:44:02 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/27/2021 9:44:02 AM
Surr: DNOP	74.5	30.4-154		%Rec	1	1/27/2021 9:44:02 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/27/2021 12:38:14 PM
Surr: BFB	95.3	75.3-105		%Rec	1	1/27/2021 12:38:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	1/27/2021 12:38:14 PM
Toluene	ND	0.046		mg/Kg	1	1/27/2021 12:38:14 PM
Ethylbenzene	ND	0.046		mg/Kg	1	1/27/2021 12:38:14 PM
Xylenes, Total	ND	0.092		mg/Kg	1	1/27/2021 12:38:14 PM
Surr: 4-Bromofluorobenzene	99.5	80-120		%Rec	1	1/27/2021 12:38:14 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	190	60		mg/Kg	20	1/28/2021 10:45:18 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 1c Fed 10
Lab ID: 2101929-002 **Matrix:** SOIL

Client Sample ID: WS21-02 0-0.5
Collection Date: 1/22/2021 9:20:00 AM
Received Date: 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/27/2021 10:07:32 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/27/2021 10:07:32 AM
Surr: DNOP	89.7	30.4-154		%Rec	1	1/27/2021 10:07:32 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/27/2021 1:49:02 PM
Surr: BFB	96.9	75.3-105		%Rec	1	1/27/2021 1:49:02 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 1:49:02 PM
Toluene	ND	0.048		mg/Kg	1	1/27/2021 1:49:02 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2021 1:49:02 PM
Xylenes, Total	ND	0.097		mg/Kg	1	1/27/2021 1:49:02 PM
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	1/27/2021 1:49:02 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	72	60		mg/Kg	20	1/28/2021 11:47:21 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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: WS21-03 0-0.5
Project: Todd 26 1c Fed 10
Collection Date: 1/22/2021 9:30:00 AM
Lab ID: 2101929-003 **Matrix:** SOIL **Received Date:** 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/27/2021 10:31:04 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/27/2021 10:31:04 AM
Surr: DNOP	87.7	30.4-154		%Rec	1	1/27/2021 10:31:04 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/27/2021 2:59:59 PM
Surr: BFB	93.4	75.3-105		%Rec	1	1/27/2021 2:59:59 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 2:59:59 PM
Toluene	ND	0.048		mg/Kg	1	1/27/2021 2:59:59 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2021 2:59:59 PM
Xylenes, Total	ND	0.096		mg/Kg	1	1/27/2021 2:59:59 PM
Surr: 4-Bromofluorobenzene	98.4	80-120		%Rec	1	1/27/2021 2:59:59 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	1/29/2021 12:24:33 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: WS21-04 0-0.5
Project: Todd 26 1c Fed 10
Collection Date: 1/22/2021 9:40:00 AM
Lab ID: 2101929-004 **Matrix:** SOIL **Received Date:** 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/27/2021 10:54:46 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/27/2021 10:54:46 AM
Surr: DNOP	75.8	30.4-154		%Rec	1	1/27/2021 10:54:46 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/27/2021 3:23:41 PM
Surr: BFB	97.0	75.3-105		%Rec	1	1/27/2021 3:23:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 3:23:41 PM
Toluene	ND	0.048		mg/Kg	1	1/27/2021 3:23:41 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2021 3:23:41 PM
Xylenes, Total	ND	0.096		mg/Kg	1	1/27/2021 3:23:41 PM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	1/27/2021 3:23:41 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	69	60		mg/Kg	20	1/29/2021 12:36:57 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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: WS21-05 0-0.5
Project: Todd 26 1c Fed 10
Collection Date: 1/22/2021 9:50:00 AM
Lab ID: 2101929-005 **Matrix:** SOIL **Received Date:** 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/27/2021 11:18:28 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/27/2021 11:18:28 AM
Surr: DNOP	71.4	30.4-154		%Rec	1	1/27/2021 11:18:28 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/27/2021 3:47:26 PM
Surr: BFB	99.4	75.3-105		%Rec	1	1/27/2021 3:47:26 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 3:47:26 PM
Toluene	ND	0.048		mg/Kg	1	1/27/2021 3:47:26 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2021 3:47:26 PM
Xylenes, Total	ND	0.095		mg/Kg	1	1/27/2021 3:47:26 PM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	1/27/2021 3:47:26 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	330	61		mg/Kg	20	1/29/2021 12:49:22 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 1c Fed 10
Lab ID: 2101929-006 **Matrix:** SOIL

Client Sample ID: WS21-06 0-0.5
Collection Date: 1/22/2021 10:00:00 AM
Received Date: 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/27/2021 11:42:08 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/27/2021 11:42:08 AM
Surr: DNOP	84.4	30.4-154		%Rec	1	1/27/2021 11:42:08 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/27/2021 4:11:11 PM
Surr: BFB	101	75.3-105		%Rec	1	1/27/2021 4:11:11 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 4:11:11 PM
Toluene	ND	0.048		mg/Kg	1	1/27/2021 4:11:11 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2021 4:11:11 PM
Xylenes, Total	ND	0.096		mg/Kg	1	1/27/2021 4:11:11 PM
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	1/27/2021 4:11:11 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	90	59		mg/Kg	20	1/29/2021 1:01:46 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: WS21-07 0-0.5
Project: Todd 26 1c Fed 10
Collection Date: 1/22/2021 10:10:00 AM
Lab ID: 2101929-007 **Matrix:** SOIL **Received Date:** 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/27/2021 12:05:58 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/27/2021 12:05:58 PM
Surr: DNOP	76.1	30.4-154		%Rec	1	1/27/2021 12:05:58 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/27/2021 5:45:52 PM
Surr: BFB	96.6	75.3-105		%Rec	1	1/27/2021 5:45:52 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 5:45:52 PM
Toluene	ND	0.048		mg/Kg	1	1/27/2021 5:45:52 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2021 5:45:52 PM
Xylenes, Total	ND	0.096		mg/Kg	1	1/27/2021 5:45:52 PM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	1/27/2021 5:45:52 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	150	60		mg/Kg	20	1/29/2021 1:14:11 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: WS21-08 0-0.5
Project: Todd 26 1c Fed 10
Collection Date: 1/22/2021 10:20:00 AM
Lab ID: 2101929-008 **Matrix:** SOIL **Received Date:** 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/27/2021 12:29:48 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/27/2021 12:29:48 PM
Surr: DNOP	73.7	30.4-154		%Rec	1	1/27/2021 12:29:48 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/27/2021 6:09:23 PM
Surr: BFB	95.0	75.3-105		%Rec	1	1/27/2021 6:09:23 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	1/27/2021 6:09:23 PM
Toluene	ND	0.047		mg/Kg	1	1/27/2021 6:09:23 PM
Ethylbenzene	ND	0.047		mg/Kg	1	1/27/2021 6:09:23 PM
Xylenes, Total	ND	0.093		mg/Kg	1	1/27/2021 6:09:23 PM
Surr: 4-Bromofluorobenzene	98.8	80-120		%Rec	1	1/27/2021 6:09:23 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	68	61		mg/Kg	20	1/29/2021 1:51:24 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 1c Fed 10
Lab ID: 2101929-009 **Matrix:** SOIL

Client Sample ID: BS21-01 0-0.5
Collection Date: 1/22/2021 10:50:00 AM
Received Date: 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/27/2021 12:53:35 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/27/2021 12:53:35 PM
Surr: DNOP	79.9	30.4-154		%Rec	1	1/27/2021 12:53:35 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/27/2021 6:33:14 PM
Surr: BFB	95.4	75.3-105		%Rec	1	1/27/2021 6:33:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 6:33:14 PM
Toluene	ND	0.048		mg/Kg	1	1/27/2021 6:33:14 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2021 6:33:14 PM
Xylenes, Total	ND	0.096		mg/Kg	1	1/27/2021 6:33:14 PM
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	1/27/2021 6:33:14 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	120	60		mg/Kg	20	1/29/2021 2:03:48 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 1c Fed 10
Lab ID: 2101929-010 **Matrix:** SOIL

Client Sample ID: BS21-02 0-0.5
Collection Date: 1/22/2021 10:55:00 AM
Received Date: 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/27/2021 1:17:27 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/27/2021 1:17:27 PM
Surr: DNOP	70.5	30.4-154		%Rec	1	1/27/2021 1:17:27 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/27/2021 6:56:50 PM
Surr: BFB	96.5	75.3-105		%Rec	1	1/27/2021 6:56:50 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	1/27/2021 6:56:50 PM
Toluene	ND	0.047		mg/Kg	1	1/27/2021 6:56:50 PM
Ethylbenzene	ND	0.047		mg/Kg	1	1/27/2021 6:56:50 PM
Xylenes, Total	ND	0.094		mg/Kg	1	1/27/2021 6:56:50 PM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	1/27/2021 6:56:50 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	230	60		mg/Kg	20	1/29/2021 2:16:13 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BS21-03 0-0.5
Project: Todd 26 1c Fed 10
Collection Date: 1/22/2021 11:00:00 AM
Lab ID: 2101929-011 **Matrix:** SOIL **Received Date:** 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	1/27/2021 1:41:08 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/27/2021 1:41:08 PM
Surr: DNOP	62.0	30.4-154		%Rec	1	1/27/2021 1:41:08 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/27/2021 7:20:26 PM
Surr: BFB	96.0	75.3-105		%Rec	1	1/27/2021 7:20:26 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 7:20:26 PM
Toluene	ND	0.049		mg/Kg	1	1/27/2021 7:20:26 PM
Ethylbenzene	ND	0.049		mg/Kg	1	1/27/2021 7:20:26 PM
Xylenes, Total	ND	0.098		mg/Kg	1	1/27/2021 7:20:26 PM
Surr: 4-Bromofluorobenzene	99.7	80-120		%Rec	1	1/27/2021 7:20:26 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	230	60		mg/Kg	20	1/29/2021 2:28:38 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 1c Fed 10
Lab ID: 2101929-012 **Matrix:** SOIL

Client Sample ID: BS21-04 0-0.5
Collection Date: 1/22/2021 11:05:00 AM
Received Date: 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/27/2021 2:04:48 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/27/2021 2:04:48 PM
Surr: DNOP	61.6	30.4-154		%Rec	1	1/27/2021 2:04:48 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/27/2021 7:43:55 PM
Surr: BFB	96.4	75.3-105		%Rec	1	1/27/2021 7:43:55 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 7:43:55 PM
Toluene	ND	0.048		mg/Kg	1	1/27/2021 7:43:55 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2021 7:43:55 PM
Xylenes, Total	ND	0.096		mg/Kg	1	1/27/2021 7:43:55 PM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	1/27/2021 7:43:55 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	160	61		mg/Kg	20	1/29/2021 2:41:02 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 1c Fed 10
Lab ID: 2101929-013 **Matrix:** SOIL

Client Sample ID: BS21-05 0-0.5
Collection Date: 1/22/2021 11:10:00 AM
Received Date: 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/27/2021 2:28:25 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/27/2021 2:28:25 PM
Surr: DNOP	66.0	30.4-154		%Rec	1	1/27/2021 2:28:25 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/27/2021 8:07:52 PM
Surr: BFB	94.9	75.3-105		%Rec	1	1/27/2021 8:07:52 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 8:07:52 PM
Toluene	ND	0.049		mg/Kg	1	1/27/2021 8:07:52 PM
Ethylbenzene	ND	0.049		mg/Kg	1	1/27/2021 8:07:52 PM
Xylenes, Total	ND	0.097		mg/Kg	1	1/27/2021 8:07:52 PM
Surr: 4-Bromofluorobenzene	98.5	80-120		%Rec	1	1/27/2021 8:07:52 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	240	60		mg/Kg	20	1/29/2021 2:53:26 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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BS21-06 0-0.5
Project: Todd 26 1c Fed 10
Collection Date: 1/22/2021 11:15:00 AM
Lab ID: 2101929-014 **Matrix:** SOIL **Received Date:** 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/27/2021 2:52:08 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/27/2021 2:52:08 PM
Surr: DNOP	58.0	30.4-154		%Rec	1	1/27/2021 2:52:08 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/27/2021 8:31:19 PM
Surr: BFB	95.3	75.3-105		%Rec	1	1/27/2021 8:31:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 8:31:19 PM
Toluene	ND	0.049		mg/Kg	1	1/27/2021 8:31:19 PM
Ethylbenzene	ND	0.049		mg/Kg	1	1/27/2021 8:31:19 PM
Xylenes, Total	ND	0.098		mg/Kg	1	1/27/2021 8:31:19 PM
Surr: 4-Bromofluorobenzene	99.4	80-120		%Rec	1	1/27/2021 8:31:19 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	370	60		mg/Kg	20	1/29/2021 3:05:51 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BS21-07 0-0.5
Project: Todd 26 1c Fed 10
Collection Date: 1/22/2021 11:20:00 AM
Lab ID: 2101929-015 **Matrix:** SOIL **Received Date:** 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/27/2021 3:15:44 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/27/2021 3:15:44 PM
Surr: DNOP	51.7	30.4-154		%Rec	1	1/27/2021 3:15:44 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/27/2021 8:54:54 PM
Surr: BFB	95.5	75.3-105		%Rec	1	1/27/2021 8:54:54 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 8:54:54 PM
Toluene	ND	0.048		mg/Kg	1	1/27/2021 8:54:54 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2021 8:54:54 PM
Xylenes, Total	ND	0.096		mg/Kg	1	1/27/2021 8:54:54 PM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	1/27/2021 8:54:54 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	160	60		mg/Kg	20	1/29/2021 3:18:15 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 1c Fed 10
Lab ID: 2101929-016 **Matrix:** SOIL

Client Sample ID: BS21-08 0-0.5
Collection Date: 1/22/2021 11:25:00 AM
Received Date: 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	1/27/2021 3:39:21 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	1/27/2021 3:39:21 PM
Surr: DNOP	63.5	30.4-154		%Rec	1	1/27/2021 3:39:21 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/27/2021 9:18:52 PM
Surr: BFB	93.3	75.3-105		%Rec	1	1/27/2021 9:18:52 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 9:18:52 PM
Toluene	ND	0.048		mg/Kg	1	1/27/2021 9:18:52 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2021 9:18:52 PM
Xylenes, Total	ND	0.095		mg/Kg	1	1/27/2021 9:18:52 PM
Surr: 4-Bromofluorobenzene	98.0	80-120		%Rec	1	1/27/2021 9:18:52 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	120	60		mg/Kg	20	1/29/2021 3:30:39 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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 1c Fed 10
Lab ID: 2101929-017 **Matrix:** SOIL

Client Sample ID: BS21-09 0-0.5
Collection Date: 1/22/2021 11:30:00 AM
Received Date: 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/27/2021 4:02:58 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/27/2021 4:02:58 PM
Surr: DNOP	60.2	30.4-154		%Rec	1	1/27/2021 4:02:58 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/27/2021 10:29:06 PM
Surr: BFB	95.2	75.3-105		%Rec	1	1/27/2021 10:29:06 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 10:29:06 PM
Toluene	ND	0.049		mg/Kg	1	1/27/2021 10:29:06 PM
Ethylbenzene	ND	0.049		mg/Kg	1	1/27/2021 10:29:06 PM
Xylenes, Total	ND	0.098		mg/Kg	1	1/27/2021 10:29:06 PM
Surr: 4-Bromofluorobenzene	98.6	80-120		%Rec	1	1/27/2021 10:29:06 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	230	60		mg/Kg	20	1/29/2021 3:43:04 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 1c Fed 10
Lab ID: 2101929-018 **Matrix:** SOIL

Client Sample ID: BS21-10 0-0.5
Collection Date: 1/22/2021 11:35:00 AM
Received Date: 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	1/27/2021 4:26:34 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/27/2021 4:26:34 PM
Surr: DNOP	49.2	30.4-154		%Rec	1	1/27/2021 4:26:34 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/27/2021 10:52:30 PM
Surr: BFB	94.6	75.3-105		%Rec	1	1/27/2021 10:52:30 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 10:52:30 PM
Toluene	ND	0.049		mg/Kg	1	1/27/2021 10:52:30 PM
Ethylbenzene	ND	0.049		mg/Kg	1	1/27/2021 10:52:30 PM
Xylenes, Total	ND	0.097		mg/Kg	1	1/27/2021 10:52:30 PM
Surr: 4-Bromofluorobenzene	98.0	80-120		%Rec	1	1/27/2021 10:52:30 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	110	60		mg/Kg	20	1/29/2021 5:08:18 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 1c Fed 10
Lab ID: 2101929-019 **Matrix:** SOIL

Client Sample ID: BS21-11 0-0.5
Collection Date: 1/22/2021 11:40:00 AM
Received Date: 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	1/27/2021 4:50:09 PM
Motor Oil Range Organics (MRO)	64	47		mg/Kg	1	1/27/2021 4:50:09 PM
Surr: DNOP	76.0	30.4-154		%Rec	1	1/27/2021 4:50:09 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/27/2021 11:15:57 PM
Surr: BFB	96.6	75.3-105		%Rec	1	1/27/2021 11:15:57 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/27/2021 11:15:57 PM
Toluene	ND	0.048		mg/Kg	1	1/27/2021 11:15:57 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2021 11:15:57 PM
Xylenes, Total	ND	0.096		mg/Kg	1	1/27/2021 11:15:57 PM
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	1/27/2021 11:15:57 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	120	59		mg/Kg	20	1/29/2021 5:20:43 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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2101929**
Date Reported: **2/1/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26 1c Fed 10
Lab ID: 2101929-020 **Matrix:** SOIL

Client Sample ID: BS21-12 0-0.5
Collection Date: 1/22/2021 11:45:00 AM
Received Date: 1/26/2021 7:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	1/27/2021 9:12:57 AM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	1/27/2021 9:12:57 AM
Surr: DNOP	106	30.4-154		%Rec	1	1/27/2021 9:12:57 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/27/2021 11:39:26 PM
Surr: BFB	95.5	75.3-105		%Rec	1	1/27/2021 11:39:26 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	1/27/2021 11:39:26 PM
Toluene	ND	0.050		mg/Kg	1	1/27/2021 11:39:26 PM
Ethylbenzene	ND	0.050		mg/Kg	1	1/27/2021 11:39:26 PM
Xylenes, Total	ND	0.10		mg/Kg	1	1/27/2021 11:39:26 PM
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	1/27/2021 11:39:26 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	1900	60		mg/Kg	20	1/29/2021 5:57:57 PM

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2101929**

01-Feb-21

Client: Devon Energy

Project: Todd 26 1c Fed 10

Sample ID: **MB-57792**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **57792**	RunNo: **74932**							
Prep Date: **1/28/2021**	Analysis Date: **1/28/2021**	SeqNo: **2645210**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-57792**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **57792**	RunNo: **74932**							
Prep Date: **1/28/2021**	Analysis Date: **1/28/2021**	SeqNo: **2645211**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.7	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 range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2101929**

01-Feb-21

Client: Devon Energy

Project: Todd 26 1c Fed 10

Sample ID: **MB-57756** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **57756** RunNo: **74881**

Prep Date: **1/27/2021** Analysis Date: **1/27/2021** SeqNo: **2643135** Units: **mg/Kg**

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	10		10.00		102	30.4	154			

Sample ID: **LCS-57756** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **57756** RunNo: **74881**

Prep Date: **1/27/2021** Analysis Date: **1/27/2021** SeqNo: **2643136** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.8	68.9	141			
Surr: DNOP	4.7		5.000		93.8	30.4	154			

Sample ID: **2101929-020AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **BS21-12 0-0.5** Batch ID: **57756** RunNo: **74881**

Prep Date: **1/27/2021** Analysis Date: **1/27/2021** SeqNo: **2643229** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.4	46.95	0	102	15	184			
Surr: DNOP	4.9		4.695		105	30.4	154			

Sample ID: **2101929-020AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **BS21-12 0-0.5** Batch ID: **57756** RunNo: **74881**

Prep Date: **1/27/2021** Analysis Date: **1/27/2021** SeqNo: **2643230** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	9.5	47.53	0	112	15	184	10.1	23.9	
Surr: DNOP	5.0		4.753		106	30.4	154	0	0	

Sample ID: **MB-57735** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **57735** RunNo: **74887**

Prep Date: **1/26/2021** Analysis Date: **1/27/2021** SeqNo: **2643235** Units: **mg/Kg**

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	8.7		10.00		87.5	30.4	154			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2101929**
01-Feb-21

Client: Devon Energy
Project: Todd 26 1c Fed 10

Sample ID: **LCS-57735**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **57735**	RunNo: **74887**
Prep Date: **1/26/2021**	Analysis Date: **1/27/2021**	SeqNo: **2643236** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.6	68.9	141			
Surr: DNOP	4.2		5.000		84.6	30.4	154			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2101929**
01-Feb-21

Client: Devon Energy
Project: Todd 26 1c Fed 10

Sample ID: **mb-57732** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **57732** RunNo: **74882**
Prep Date: **1/26/2021** Analysis Date: **1/27/2021** SeqNo: **2643529** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		93.7	75.3	105			

Sample ID: **lcs-57732** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **57732** RunNo: **74882**
Prep Date: **1/26/2021** Analysis Date: **1/27/2021** SeqNo: **2643530** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.8	80	120			
Surr: BFB	1100		1000		107	75.3	105			S

Sample ID: **2101929-001ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **WS21-01 0-0.5** Batch ID: **57732** RunNo: **74882**
Prep Date: **1/26/2021** Analysis Date: **1/27/2021** SeqNo: **2643532** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.8	23.85	0	106	61.3	114			
Surr: BFB	1000		954.2		108	75.3	105			S

Sample ID: **2101929-001amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **WS21-01 0-0.5** Batch ID: **57732** RunNo: **74882**
Prep Date: **1/26/2021** Analysis Date: **1/27/2021** SeqNo: **2643533** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.8	24.22	0	100	61.3	114	3.94	20	
Surr: BFB	1100		969.0		110	75.3	105	0	0	S

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2101929**

01-Feb-21

Client: Devon Energy

Project: Todd 26 1c Fed 10

Sample ID: **mb-57732**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **57732**	RunNo: **74882**
Prep Date: **1/26/2021**	Analysis Date: **1/27/2021**	SeqNo: **2643569** Units: **mg/Kg**

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	0.99		1.000		99.0	80	120			

Sample ID: **LCS-57732**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **57732**	RunNo: **74882**
Prep Date: **1/26/2021**	Analysis Date: **1/27/2021**	SeqNo: **2643570** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.7	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.9	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.7	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID: **2101929-002ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **WS21-02 0-0.5**	Batch ID: **57732**	RunNo: **74882**
Prep Date: **1/26/2021**	Analysis Date: **1/27/2021**	SeqNo: **2643573** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.024	0.9551	0	96.9	76.3	120			
Toluene	0.97	0.048	0.9551	0.01023	101	78.5	120			
Ethylbenzene	0.98	0.048	0.9551	0	103	78.1	124			
Xylenes, Total	2.9	0.096	2.865	0	102	79.3	125			
Surr: 4-Bromofluorobenzene	0.96		0.9551		101	80	120			

Sample ID: **2101929-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **WS21-02 0-0.5**	Batch ID: **57732**	RunNo: **74882**
Prep Date: **1/26/2021**	Analysis Date: **1/27/2021**	SeqNo: **2643574** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	0.9881	0	94.0	76.3	120	0.278	20	
Toluene	0.97	0.049	0.9881	0.01023	96.8	78.5	120	0.596	20	
Ethylbenzene	0.98	0.049	0.9881	0	99.1	78.1	124	0.101	20	
Xylenes, Total	2.9	0.099	2.964	0	99.5	79.3	125	0.676	20	
Surr: 4-Bromofluorobenzene	1.0		0.9881		101	80	120	0	0	

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **Devon Energy** Work Order Number: **2101929** RcptNo: **1**

Received By: **Isaiah Ortiz** **1/26/2021 7:43:00 AM** IO

Completed By: **Isaiah Ortiz** **1/26/2021 7:53:16 AM** IO

Reviewed By: ENM 1/26/21

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: (<2 or >12 unless noted)

Adjusted?

Checked by: OC 1/26/21

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Not Present			

Chain-of-Custody Record

Client: Devon

Mailing Address: On file

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5-day
☒ Standard ☐ Rush

Project Name: Todd 26 IC Fed 10

Project #: 19E-00575

Project Manager: Natalie Gordon

Sampler: JH/CO

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.8-0.2(CF) 1.6 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2101929	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1-22	9:10	soil	WS21-09 0-0.5	4oz	ice	001										
	9:20		WS21-02			002										
	9:30		WS21-03			003										
	9:40		WS21-04			004										
	9:50		WS21-05			005										
	10:00		WS21-06			006										
	10:10		WS21-07			007										
	10:20		WS21-08			008										
	10:50		BS21-01			009										
	10:55		BS21-02			010										
	11:00		BS21-03			011										
	11:05		BS21-04			012										

Date	Time	Relinquished by	Received by	Via	Date	Time
1/25/21	1330	Austin Harris				
					1/25/21	1330
			I-Q courier		1/26/21	0743

Remarks: CC: Natalie Gordon
WO# 20715184

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.

Chain-of-Custody Record

Client: Devon

Mailing Address: On file

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5-day
☑ Standard ☐ Rush

Project Name: Todd 26 IC Fed 10

Project #: 19E-00575

Project Manager: Natalie Gordon

Sampler: JB/CD

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.8-0.2(CF)=1.6 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2101929	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1-22	11:10	soil	BS21-05 0-0.5	4oz	ice	013										
	11:15		BS21-06			014										
	11:20		BS21-07			015										
	11:25		BS21-09			016										
	11:30		BS21-08			017										
	11:35		BS21-10			018										
	11:40		BS21-11			019										
	11:45		BS21-12			020										

Date	Time	Relinquished by	Received by	Via	Date	Time
1-25-21	1330	Austin Harris				
					1/25/21	1330
					1/26/21	0743

Remarks: CC: Natalie Gordon
WO# 20715184

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.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

August 23, 2021

Brandon Schafer's

Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (505) 350-1336
FAX

RE: Todd 26K Fed 10 OrderNo.: 2108858

Dear Brandon Schafer's:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/17/2021 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 Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2108858**
Date Reported: **8/23/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Fed 10
Lab ID: 2108858-001 **Matrix:** SOIL

Client Sample ID: BG21-01 0.5'
Collection Date: 8/13/2021 8:30:00 AM
Received Date: 8/17/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/18/2021 6:06:58 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2021 6:06:58 PM
Surr: DNOP	127	70-130		%Rec	1	8/18/2021 6:06:58 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/18/2021 12:25:00 PM
Surr: BFB	106	70-130		%Rec	1	8/18/2021 12:25:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	8/18/2021 12:25:00 PM
Toluene	ND	0.050		mg/Kg	1	8/18/2021 12:25:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/18/2021 12:25:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	8/18/2021 12:25:00 PM
Surr: 4-Bromofluorobenzene	95.9	70-130		%Rec	1	8/18/2021 12:25:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	8/20/2021 5:05:41 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2108858**
Date Reported: **8/23/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Fed 10
Lab ID: 2108858-002 **Matrix:** SOIL

Client Sample ID: BG21-01 2'
Collection Date: 8/13/2021 8:40:00 AM
Received Date: 8/17/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/18/2021 6:18:44 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/18/2021 6:18:44 PM
Surr: DNOP	126	70-130		%Rec	1	8/18/2021 6:18:44 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/18/2021 12:45:00 PM
Surr: BFB	109	70-130		%Rec	1	8/18/2021 12:45:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	8/18/2021 12:45:00 PM
Toluene	ND	0.048		mg/Kg	1	8/18/2021 12:45:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	8/18/2021 12:45:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	8/18/2021 12:45:00 PM
Surr: 4-Bromofluorobenzene	95.9	70-130		%Rec	1	8/18/2021 12:45:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	8/20/2021 6:07:45 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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2108858**
Date Reported: **8/23/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Fed 10
Lab ID: 2108858-003 **Matrix:** SOIL

Client Sample ID: BG21-01 4'
Collection Date: 8/13/2021 8:50:00 AM
Received Date: 8/17/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/18/2021 6:30:26 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/18/2021 6:30:26 PM
Surr: DNOP	129	70-130		%Rec	1	8/18/2021 6:30:26 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/18/2021 1:05:00 PM
Surr: BFB	103	70-130		%Rec	1	8/18/2021 1:05:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	8/18/2021 1:05:00 PM
Toluene	ND	0.049		mg/Kg	1	8/18/2021 1:05:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	8/18/2021 1:05:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	8/18/2021 1:05:00 PM
Surr: 4-Bromofluorobenzene	94.0	70-130		%Rec	1	8/18/2021 1:05:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	8/20/2021 6:20:09 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2108858**
Date Reported: **8/23/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Todd 26K Fed 10
Lab ID: 2108858-004 **Matrix:** SOIL

Client Sample ID: BG21-01 6'
Collection Date: 8/13/2021 9:00:00 AM
Received Date: 8/17/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/18/2021 6:42:08 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/18/2021 6:42:08 PM
Surr: DNOP	132	70-130	S	%Rec	1	8/18/2021 6:42:08 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/18/2021 1:25:00 PM
Surr: BFB	104	70-130		%Rec	1	8/18/2021 1:25:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	8/18/2021 1:25:00 PM
Toluene	ND	0.048		mg/Kg	1	8/18/2021 1:25:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	8/18/2021 1:25:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	8/18/2021 1:25:00 PM
Surr: 4-Bromofluorobenzene	95.3	70-130		%Rec	1	8/18/2021 1:25:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	8/20/2021 6:32:34 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2108858**

23-Aug-21

Client: Devon Energy

Project: Todd 26K Fed 10

Sample ID: **MB-62096**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **62096**	RunNo: **80680**							
Prep Date: **8/20/2021**	Analysis Date: **8/20/2021**	SeqNo: **2846896**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-62096**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **62096**	RunNo: **80680**							
Prep Date: **8/20/2021**	Analysis Date: **8/20/2021**	SeqNo: **2846897**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.6	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2108858**

23-Aug-21

Client: Devon Energy

Project: Todd 26K Fed 10

Sample ID: **MB-62056**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **62056**	RunNo: **80624**
Prep Date: **8/18/2021**	Analysis Date: **8/18/2021**	SeqNo: **2844794** Units: **mg/Kg**

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	13		10.00		131	70	130			S

Sample ID: **LCS-62056**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **62056**	RunNo: **80624**
Prep Date: **8/18/2021**	Analysis Date: **8/18/2021**	SeqNo: **2844797** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.7	68.9	141			
Surr: DNOP	4.9		5.000		98.7	70	130			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2108858**

23-Aug-21

Client: Devon Energy

Project: Todd 26K Fed 10

Sample ID: **mb-62035** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **62035** RunNo: **80628**

Prep Date: **8/17/2021** Analysis Date: **8/18/2021** SeqNo: **2844294** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1200		1000		123	70	130			

Sample ID: **mb-62002** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **62002** RunNo: **80628**

Prep Date: **8/16/2021** Analysis Date: **8/18/2021** SeqNo: **2844295** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		104	70	130			

Sample ID: **lcs-62035** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **62035** RunNo: **80628**

Prep Date: **8/17/2021** Analysis Date: **8/18/2021** SeqNo: **2844296** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	78.6	131			
Surr: BFB	1500		1000		154	70	130			S

Sample ID: **lcs-62002** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **62002** RunNo: **80628**

Prep Date: **8/16/2021** Analysis Date: **8/18/2021** SeqNo: **2844297** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1200		1000		119	70	130			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2108858**

23-Aug-21

Client: Devon Energy
Project: Todd 26K Fed 10

Sample ID: **mb-62035**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **PBS**	Batch ID: **62035**	RunNo: **80628**							
Prep Date: **8/17/2021**	Analysis Date: **8/18/2021**	SeqNo: **2844328**	Units: **mg/Kg**						
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	1.1		1.000		109	70	130			

Sample ID: **mb-62002**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **PBS**	Batch ID: **62002**	RunNo: **80628**							
Prep Date: **8/16/2021**	Analysis Date: **8/18/2021**	SeqNo: **2844329**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.95		1.000		95.3	70	130			

Sample ID: **lcs-62035**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **LCSS**	Batch ID: **62035**	RunNo: **80628**							
Prep Date: **8/17/2021**	Analysis Date: **8/18/2021**	SeqNo: **2844330**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.025	1.000	0	87.2	80	120			
Toluene	0.88	0.050	1.000	0	88.5	80	120			
Ethylbenzene	0.91	0.050	1.000	0	91.0	80	120			
Xylenes, Total	2.7	0.10	3.000	0	91.5	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	70	130			

Sample ID: **lcs-62002**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **LCSS**	Batch ID: **62002**	RunNo: **80628**							
Prep Date: **8/16/2021**	Analysis Date: **8/18/2021**	SeqNo: **2844331**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		98.8	70	130			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **Devon Energy** Work Order Number: **2108858** RcptNo: 1

Received By: **Cheyenne Cason** **8/17/2021 7:30:00 AM**

Completed By: **Sean Livingston** **8/17/2021 8:36:29 AM**

Reviewed By: JR 8/17/21

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: SPA 8-17-21

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good				

Chain-of-Custody Record

Client: Devon

Mailing Address: On File

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 5-Day
☑ Standard ☐ Rush

Project Name: Todd 26K Fed 10

Project #: 21E-02816-18

Project Manager: Brandon Schafer

Sampler: CD

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 1.6-0=1.6 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2104858	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
8/13	8:30	Soil	BG21-01 0.5'	4oz	Ice	001	✓	✓					✓			
	8:40		BG21-01 2'			002										
	8:50		BG21-01 4'			003										
	9:00		BG21-01 6'			004										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
			[signature]		8/16/21	1200
Date: 8/16/21	Time: 1900	Relinquished by: [signature]	Received by: [signature]	Via: courier	Date 8/17/21	Time 0730

Remarks: CC: Chance Dixon, John Hurt, Brandon Schafer
Direct Bill - Devon Energy

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.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 02, 2022

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

RE: Todd 26K Federa 10 OrderNo.: 2205989

Dear Monica Peppin:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/21/2022 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 Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2205989**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.
Client Sample ID: BS22-12 0.5-1'
Project: Todd 26K Federa 10
Collection Date: 5/19/2022 10:15:00 AM
Lab ID: 2205989-001 **Matrix:** SOIL
Received Date: 5/21/2022 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/26/2022 11:07:42 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/26/2022 11:07:42 PM
Surr: DNOP	88.3	51.1-141		%Rec	1	5/26/2022 11:07:42 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/25/2022 1:19:00 AM
Surr: BFB	89.3	37.7-212		%Rec	1	5/25/2022 1:19:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.023		mg/Kg	1	5/25/2022 1:19:00 AM
Toluene	ND	0.047		mg/Kg	1	5/25/2022 1:19:00 AM
Ethylbenzene	ND	0.047		mg/Kg	1	5/25/2022 1:19:00 AM
Xylenes, Total	ND	0.093		mg/Kg	1	5/25/2022 1:19:00 AM
Surr: 4-Bromofluorobenzene	91.3	70-130		%Rec	1	5/25/2022 1:19:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	ND	60		mg/Kg	20	5/27/2022 12:17:37 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2205989**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.
Client Sample ID: BS22-12 1-1.5'
Project: Todd 26K Federa 10
Collection Date: 5/19/2022 10:30:00 AM
Lab ID: 2205989-002 **Matrix:** SOIL
Received Date: 5/21/2022 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	5/26/2022 11:31:28 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/26/2022 11:31:28 PM
Surr: DNOP	74.4	51.1-141		%Rec	1	5/26/2022 11:31:28 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/25/2022 1:38:00 AM
Surr: BFB	90.6	37.7-212		%Rec	1	5/25/2022 1:38:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	5/25/2022 1:38:00 AM
Toluene	ND	0.049		mg/Kg	1	5/25/2022 1:38:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/25/2022 1:38:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	5/25/2022 1:38:00 AM
Surr: 4-Bromofluorobenzene	93.3	70-130		%Rec	1	5/25/2022 1:38:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	140	60		mg/Kg	20	5/27/2022 12:30:01 PM

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2205989**

02-Jun-22

Client: Vertex Resources Services, Inc.

Project: Todd 26K Federa 10

Sample ID: **MB-67722**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **67722**	RunNo: **88373**							
Prep Date: **5/26/2022**	Analysis Date: **5/27/2022**	SeqNo: **3134711**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-67722**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **67722**	RunNo: **88373**							
Prep Date: **5/26/2022**	Analysis Date: **5/27/2022**	SeqNo: **3134712**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.2	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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2205989**
02-Jun-22

Client: Vertex Resources Services, Inc.
Project: Todd 26K Federa 10

Sample ID: **MB-67680**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **67680**	RunNo: **88246**
Prep Date: **5/25/2022**	Analysis Date: **5/26/2022**	SeqNo: **3132682** Units: **mg/Kg**

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	51.1	141			

Sample ID: **LCS-67680**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **67680**	RunNo: **88246**
Prep Date: **5/25/2022**	Analysis Date: **5/26/2022**	SeqNo: **3132685** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	101	64.4	127			
Surr: DNOP	4.7		5.000		93.1	51.1	141			

Qualifiers:

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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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2205989**

02-Jun-22

Client: Vertex Resources Services, Inc.

Project: Todd 26K Federa 10

Sample ID: **lcs-67637**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **67637**	RunNo: **88236**
Prep Date: **5/23/2022**	Analysis Date: **5/24/2022**	SeqNo: **3128820** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.1	72.3	137			
Surr: BFB	2000		1000		202	37.7	212			

Sample ID: **mb-67637**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **67637**	RunNo: **88236**
Prep Date: **5/23/2022**	Analysis Date: **5/24/2022**	SeqNo: **3128821** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		93.2	37.7	212			

Sample ID: **lcs-67640**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **67640**	RunNo: **88271**
Prep Date: **5/23/2022**	Analysis Date: **5/25/2022**	SeqNo: **3130151** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1900		1000		190	37.7	212			

Sample ID: **mb-67640**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **67640**	RunNo: **88271**
Prep Date: **5/23/2022**	Analysis Date: **5/25/2022**	SeqNo: **3130152** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		87.4	37.7	212			

Sample ID: **lcs-67656**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **67656**	RunNo: **88271**
Prep Date: **5/24/2022**	Analysis Date: **5/25/2022**	SeqNo: **3130175** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1900		1000		192	37.7	212			

Sample ID: **mb-67656**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **67656**	RunNo: **88271**
Prep Date: **5/24/2022**	Analysis Date: **5/25/2022**	SeqNo: **3130176** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	920		1000		92.1	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2205989**

02-Jun-22

Client: Vertex Resources Services, Inc.

Project: Todd 26K Federa 10

Sample ID: **lcs-67637**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **67637**	RunNo: **88236**
Prep Date: **5/23/2022**	Analysis Date: **5/24/2022**	SeqNo: **3128876** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.4	80	120			
Toluene	1.0	0.050	1.000	0	99.9	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.0	70	130			

Sample ID: **mb-67637**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **67637**	RunNo: **88236**
Prep Date: **5/23/2022**	Analysis Date: **5/24/2022**	SeqNo: **3128877** Units: **mg/Kg**

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	0.94		1.000		94.5	70	130			

Sample ID: **lcs-67640**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **67640**	RunNo: **88271**
Prep Date: **5/23/2022**	Analysis Date: **5/25/2022**	SeqNo: **3130202** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.90		1.000		90.0	70	130			

Sample ID: **mb-67640**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **67640**	RunNo: **88271**
Prep Date: **5/23/2022**	Analysis Date: **5/25/2022**	SeqNo: **3130203** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.88		1.000		88.4	70	130			

Sample ID: **lcs-67656**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **67656**	RunNo: **88271**
Prep Date: **5/24/2022**	Analysis Date: **5/25/2022**	SeqNo: **3130224** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		1.000		92.4	70	130			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2205989**

02-Jun-22

Client: Vertex Resources Services, Inc.

Project: Todd 26K Federa 10

Sample ID: **mb-67656** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **67656** RunNo: **88271**

Prep Date: **5/24/2022** Analysis Date: **5/25/2022** SeqNo: **3130225** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.93		1.000		92.9	70	130			

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Vertex Resources Services, Inc.

Work Order Number: 2205989

RcptNo: 1

Received By: **Tracy Casarrubias** 5/21/2022 9:45:00 AM

Completed By: **Tracy Casarrubias** 5/21/2022 2:20:06 PM

Reviewed By: JR 5/23/22

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: (<2 or >12 unless noted)

Adjusted?

Checked by: CMC 5/23/22

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.3	Good	Not Present			
2	0.3	Good	Not Present			
3	5.6	Good	Not Present			

Chain-of-Custody Record

Client: Vertex (Devon)

Mailing Address: on file

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush 5 days

Project Name: Todd 26 K Federal #10

Project #: 21E-02816

Project Manager: Monica Peppin
MPeppin@vertex.ca

Sampler: Sally Carttar

On Ice: ☑ Yes ☐ No

# of Coolers: 3

Cooler Temp(including CF): See Checklist (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2205989	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
5/19	10:15	soil	BS22-12 0.5-1'	1 4oz jar	ice	001	✓	✓					✓			
"	10:30	"	BS22-12 1-1.5'	"	"	002	✓	✓					✓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5/19	2:00	Sally Carttar	[illegible]		5/20/22	1100
5/20/22	1900	[illegible]	[illegible]	Courier	5/21/22	9:45

Remarks: Invoice to Laura Calderwood and Dale Woodard

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.

ATTACHMENT 8

Natalie Gordon

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Sent: Sunday, December 6, 2020 6:08 PM
To: Natalie Gordon
Subject: Fwd: NAB1903733353 TODD 26 K FEDERAL #010 @ 30-015-27102 2RP-5222
Attachments: (C-141 Final) NAB1903733353 TODD 26 K FEDERAL #010 @ 30-015-27102_1 2RP-5222.pdf

---------- Forwarded message ---------
From: **Venegas, Victoria, EMNRD** <Victoria.Venegas@state.nm.us>
Date: Thu, May 14, 2020 at 1:25 PM
Subject: NAB1903733353 TODD 26 K FEDERAL #010 @ 30-015-27102 2RP-5222
To: Mathews, Wesley <Wesley.Mathews@dvn.com>, Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>, Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>, Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Cc: Dhugal Hanton <vertexresourcegroupusa@gmail.com>, CFO_Spill, BLM_NM <blm_nm_cfo_spill@blm.gov>

NAB1903733353 TODD 26 K FEDERAL #010 @ 30-015-27102 2RP-5222

Mr. Wesley,

The OCD has denied the submitted Closure Report C-141 for incident # NAB1903733353 TODD 26 K FEDERAL #010 @ 30-015-27102 2RP-5222 for the following reasons:

- Since the release was not on an active pad or production facility, the top 4 feet must meet the NMOCD Reclamation Standards by Rule 19.15.29.13. Lease roads are considered off-pad areas.
- Per rule 19.15.29.12.E.1.a. the final report must include a sampling diagram. Please include a sampling diagram with all sample points clearly marked in your next submittal.
- All samples in this report are named SS19 -see Table 3. Soil Analysis-. Please clarify which are floor samples and which are sidewall samples. It cannot be determined if the horizontal delineation/remediation has been completed because sidewall samples are not clearly identified. A visual footprint on the surface is not sufficient or adequate to assess the horizontal extent of the release.

The denied C-141 can be found in the online image file. Please review and make the required correction prior to resubmitting through the fee portal.

Thank you,

Victoria Venegas

State of New Mexico

Energy, Minerals, and Natural Resources

Oil Conservation Division

811 S. First St., Artesia NM 88210

(575) 748-1283

Victoria.Venegas@state.nm.us

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

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

QUESTIONS

Action 321356

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 321356
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAB1903733353**
Incident Name	**NAB1903733353 TODD 26 K FEDERAL #010 @ 30-015-27102**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Closure Report Received**
Incident Well	**[30-015-27102] TODD 26 K FEDERAL #010**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	TODD 26 K FEDERAL #010
Date Release Discovered	12/25/2018
Surface Owner	Private

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Corrosion | Flow Line - Production | Crude Oil | Released: 2 BBL | Recovered: 0 BBL | Lost: 2 BBL.
Produced Water Released (bbls) Details	Cause: Corrosion | Flow Line - Production | Produced Water | Released: 12 BBL | Recovered: 2 BBL | Lost: 10 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 321356
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dvn.com Date: 03/07/2024

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QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 321356
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Between ½ and 1 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	5000
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	184
GRO+DRO (EPA SW-846 Method 8015M)	100
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	03/30/2019
On what date will (or did) the final sampling or liner inspection occur	05/17/2022
On what date will (or was) the remediation complete(d)	01/19/2021
What is the estimated surface area (in square feet) that will be reclaimed	4177
What is the estimated volume (in cubic yards) that will be reclaimed	154.7
What is the estimated surface area (in square feet) that will be remediated	4177
What is the estimated volume (in cubic yards) that will be remediated	154.7
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 321356
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	R360 Artesia LLC LANDFARM [fEEM0112340644]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dvn.com Date: 03/07/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 321356
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 321356
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**321379**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**05/19/2022**
What was the (estimated) number of samples that were to be gathered	**1**
What was the sampling surface area in square feet	**200**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	4177
What was the total volume (cubic yards) remediated	154.7
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	4177
What was the total volume (in cubic yards) reclaimed	154.7
Summarize any additional remediation activities not included by answers (above)	see report

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

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

I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dvn.com Date: 03/07/2024

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QUESTIONS (continued)

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	Action Number: 321356
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 321356

CONDITIONS

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	6137
	Action Number: 321356
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Remediation approved.	3/19/2024
amaxwell	• The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater; and a revegetation plan.	3/19/2024