Volume calculator

There was no volume calculator prepared when the spill occurred.



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).

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**Devon Energy Production Company** Todd 26K Federal #010

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.

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able 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

<sup>1</sup>Total petroleum hydrocarbons (TPH) = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO) <sup>2</sup>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.

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Devon Energy Production Company Todd 26K Federal #010

- 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 vertex.ca

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**Devon Energy Production Company** Todd 26K Federal #010

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

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### 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

Devon Energy Production Company Todd 26K Federal #010

#### 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.

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# **ATTACHMENT 1**

District I
District I
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 <sub>6137</sub>
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 E Federal Tribal Private (Name: \_\_\_\_

## Nature and Volume of Release

Materia	al(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)

Cau

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

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Page 2	

Page

## State of New Mexico Oil Conservation Division

Incident ID	NAB1903733353
District RP	2RP-5222
Facility ID	19.81 June - 19.275
Application ID	pAB1903732371

	Application ID pAB1903732371
Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release?
Yes 🔳 No	
	Weblerge Shifting and an
If YES, was immediate n	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
	and the second s
	Initial Response
The responsible	party must undertake the following actions immediately unless they could create a safety hazard that would result in injury
<ul> <li>The source of the rel</li> <li>The impacted area has</li> <li>Released materials has</li> <li>All free liquids and rel</li> </ul>	ease has been stopped. Is been secured to protect human health and the environment. ave been contained via the use of berms or dikes, absorbent pads, or other containment devices. recoverable materials have been removed and managed appropriately.
If all the actions describe	d above have <u>not</u> been undertaken, explain why:
The spill occurred of	outside of containment.
	Meness agent particulation and a second
	(and) 212 122 20 20
	and a second secon
Don 10 15 20 9 D (4) MB	AAC the remansible nexts may commence remediation immediately ofter discourse of a milese. If remediation
has begun, please attach within a lined containme	a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred nt area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information of the second	prmation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and required to report and/or file certain release notifications and perform corrective actions for releases which may endanger ment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have gate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In 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
Signature: Kendra DeHoyos Determined to a scheme and the schem

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 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 <u>-103.745452</u> (NAD 83 in decimal degrees to 5 decimal places)

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

Unit Letter	Section	Township	Range	County
К	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) <b>0.5</b>
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 of Release

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

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### 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?	If YES, for what reason(s) does the responsible party consider this a major release?
🗌 Yes 🖾 No	
If YES, was immediate no	otice 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

 $\square$  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:

Received by OCD: 3/7/2024 3:21:05 PM Form C-141 State of New Mexico

Page 3

Oil Conservation Division

Incident ID	nAB1903733353
District RP	2RP-5222
Facility ID	
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# Site Assessment/Characterization

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

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

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- $\square$  Depth to water determination
- Determination of water sources and significant watercourses within <sup>1</sup>/<sub>2</sub>-mile of the lateral extents of the release
- $\boxtimes$  Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

Received by OCD: 3/7/2024 3:21:05 PM			Page 15 of 238	
Form C-141	State of New Mexico		Incident ID	nAB1903733353
Page 4Oil Conservation Division	Oil Conservation Division	1	District RP	2RP-5222
			Facility ID	
			Application ID	pAB1903732371
<ul> <li>I hereby certify that the informative regulations all operators are required public health or the environment failed to adequately investigate a addition, OCD acceptance of a C and/or regulations.</li> <li>Printed Name:Jeff Hassian Signature:</li> </ul>	ion given above is true and complete to the irred to report and/or file certain release no . The acceptance of a C-141 report by the ind remediate contamination that pose a the C-141 report does not relieve the operator of rvard	e best of my knowledge a tifications and perform co OCD does not relieve the reat to groundwater, surfa of responsibility for comp 	and understand that purs orrective actions for rele e operator of liability sh ace water, human health liance with any other fe ent and Manager	uant to OCD rules and eases which may endanger ould their operations have or the environment. In deral, state, or local laws
email: <u>jharvard@hpcn</u>	m.com	Telephone: <u>57</u>	/5-208-7135	
OCD Only				
Received by:		Date:		

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.

<u>Closure Report Attachment Checklist</u>: *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)

 $\boxtimes$  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: <u>575-208-7135</u>	
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**

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# **ATTACHMENT 3**

•

Closure C	riteria Worksheet		
Site Name	e: Todd 26 K Federal #10H		
Spill Coor	dinates:	X: 32.275667	Y: -103.745452
Site Speci	fic 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, <b>or</b>	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 GIS WATERS PODs



• Pending

OSE District Boundary



Both Estates

SiteBoundaries



Esri, HERE, Garmin, (c) OpenStreetMap contributors, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, U.S. Department of Energy Office of Legacy Management



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

			(quarters	(quarters are 1=NW 2=NE 3=SW 4=SE)											
			(quarter	rs are sm	allest t	to largest	(NAD83	(NAD83 UTM in meters)							
Well Tag	POD	Number	Q64 Q	16 Q4	Sec	Tws	Rng	Х		Y					
	C 02	2348	1	4 3	26	23S	31E	617648	;	3571068 🌍					
x Driller Lico Driller Nar	ense: ne:	1654	Driller (	Compa	ny:	NO ANI	Г WOR D CON	RKING FO ISTRUC	R I	IIRESIRMA	N DRILLING				
Drill Start	Date:	10/31/2013	Drill Fin	ish Da	te:	11	/01/201	13 <b>F</b>	Plug	g Date:					
Log File Da	ate:	11/07/2013	PCW Ro	ev Date	:			S	ou	rce:	Shallow				
Pump Type	e:		Pipe Dis	charge	Size	:		F	Esti	mated Yield:	10 GPM				
Casing Size	e:	6.00	Depth W	Vell:		70	0 feet	Γ	Dep	th Water:	430 feet				
x	Wate	er Bearing Strati	fications:	То	p E	Bottom	Desci	ription							
				1	5	125	Sands	stone/Grav	el/C	Conglomerate					
				31	5	700	Sands	stone/Grav	el/C	Conglomerate					
х		Casing Per	forations:	To	p E	Bottom									
				56	50	620									
				68	30	700									
x															

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6/7/22 11:52 AM

POINT OF DIVERSION SUMMARY



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

(R-POD has been replaced

(with Ownership Information)

					and no longer serves	this file, (quai	ters are	1=NW	2=NE 3=SV	V 4=SE)					
		(acre ft	per annum)			C=the file is closed)				smalle	st to largest	) (NAD83	(NAD83 UTM in meters)		
	Sub			-		Well		_	qqq		_				
WR File Nbr	basin	Use Div	ersion Owner	County	POD Number	Tag	Code Grant	Source	6416 4	Sec T	ws Rng	Х	Y	Distance	
<u>C 02348</u>	С	STK	3 NGL WATER SOLUTIONS PERMIAN	ED	<u>C 02348</u>			Shallow	143	26 2	3S 31E	617647	3571068 🍯	396	
<u>C 02258</u>	С	PRO	0 DEVON ENERGY CORP.(NEVADA)	ED	<u>C 02258</u>				32	26 2	3S 31E	618055	3571853* 🌍	500	
<u>C 02602</u>	С	SAN	0 POGO PRODUCING COMPANY	ED	<u>C 02602</u>				22	35 2	3S 31E	618471	3570650* 🌍	1070	
<u>C 00225 A</u>	CUB	IRR	8.4 GREGORY ROCKHOUSE RANCH	ED	<u>C 02405</u>			Shallow	4 1	02 2	4S 31E	617690	3568631* 🌍	2818	
<u>C 01246 AO</u>	CUB	IRR	47.82 CATHLEEN MC INTIRE	ED	<u>C 02405</u>			Shallow	4 1	02 2	4S 31E	617690	3568631* 🌍	2818	
<u>C 02405</u>	С	PRO	0 TEXACO EXPLORATION & PROD. IND	ED	<u>C 02405</u>			Shallow	4 1	02 2	4S 31E	617690	3568631* 🌍	2818	
<u>C 02452</u>	С	PRO	0 TEXACO EXPLORATION & PROD INC.	ED	<u>C 02405</u>			Shallow	4 1	02 2	4S 31E	617690	3568631* 🌍	2818	
				ED	<u>C 02452</u>				4 1	02 2	4S 31E	617690	3568631* 🌍	2818	
<u>C 02576</u>	С	PRO	0 SONAT EXPLORATION COMPANY	ED	<u>C 02405</u>			Shallow	4 1	02 2	4S 31E	617690	3568631* 🌍	2818	
<u>C 02464</u>	С	PRO	0 COMMISSIONER OF PUBLIC LANDS	ED	<u>C 02464</u>			Shallow	341	02 2	4S 31E	617589	3568530* 🌍	2923	
<u>C 02901</u>	С	PUB	0 B & H MAINTENANCE & CONST.	ED	<u>C 02901</u>				341	02 2	4S 31E	617589	3568530* 🌍	2923	
<u>C 02460</u>	С	PRO	0 SONAT EXPLORATION	ED	<u>C 02460</u>			Shallow	3	02 2	4S 31E	617496	3568022* 🌍	3437	
				ED	C 02460 POD2			Shallow	3	02 2	4S 31E	617496	3568022* 🌍	3437	
<u>C 02777</u>	CUB	MON	0 US DEPT OF ENERGY WIPP	ED	<u>C 02777</u>				444	10 2	3S 31E	616973	3575662 🌍	4285	
<u>C 03749</u>	CUB	MON	0 US DEPARTMENT OF ENERGY	LE	C 03749 POD1			Shallow	344	07 2	3S 32E	616973	3575662 🌍	4285	
<u>C 02958</u>	С	STK	3 RICHARDSON CATTLE COMPANY	ED	<u>C 02958</u>				334	04 2	4S 31E	614781	3567690* 🌍	4795	
<u>C 02661</u>	CUB	MON	0 SANDIA NATIONAL LABORATORIES	ED	<u>C 02661</u>				331	04 2	4S 31E	613969	3568485* 🌍	4811	
<u>C 02785</u>	CUB	MON	0 U.S. DEPT. OF ENERGY - WIPP	ED	<u>C 02785</u>				331	04 2	4S 31E	613969	3568485* 🌍	4811	

\*UTM location was derived from PLSS - see Help

					and no longer serves this file,	(qua	arters are 1=NW 2=NE 3=SW 4=SE)								
		(acre ft p	er annum)				C=the file is closed)	(qua	arters ar	e sma	llest to	o largest)	(NAD83	UTM in meters)	
	Sub					Well			qqq						
WR File Nbr	basin	Use Dive	rsion Owner	Count	y POD Number	Tag	Code Grant So	urce	6416 4	Sec	Tws	Rng	Х	Y	Distance
C 02954	CUB	EXP	0 U.S. DEPARTMENT OF ENERGY CARLSBAD FIELD OFFICE, WIPP	ED	C 02954 EXPL		Sh	allow	314	20	23S	31E	613114	3572906* 🌍	4868
<u>C 02783</u>	CUB	OBS	0 U.S. DEPT. OF ENERGY - WIPP	ED	<u>C 02783</u>		Sh	allow	331	04	24S	31E	613911	3568461 🌍	4871
				ED	C 02783 POD2		Sh	allow	331	04	24S	31E	613911	3568461 🌍	4871
<u>C 02784</u>	С	SAN	0 US DEPARTMENT OF ENERGY WASTE ISOLATION PILOT PLANT	ED	<u>C 02784</u>		Sh	allow	424	04	24S	31E	613911	3568461 🌍	4871
<u>C 03470</u>	С	PUB	0 U.S. DEPT. OF ENERGY (WIPP)	ED	<u>C 02783 POD2</u>		Sh	allow	331	04	24S	31E	613911	3568461 🌍	4871
<u>C 03529</u>	С	STK	0 U.S. DEPT. OF INTERIORBLM	LE	<u>C 03529 POD1</u>				243	29	23S	32E	622651	3571212 🌍	4897

**Radius:** 5000

(R=POD has been replaced

Record Count: 24

UTMNAD83 Radius Search (in meters):

Easting (X): 617758.94

Northing (Y): 3571449

Sorted by: Distance

\*UTM location was derived from PLSS - see Help

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# 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)	d,	(qua (qua	rter	s a s a	re 1: re sr	=NW : malles	2=NE st to la	3=SW 4= rgest)	=SE) (NA	D83 UTM in m	neters)	(	In feet)	
DOD Number	POD Sub-	Count	Q	Q	Q	S	Ture	Dna		v	Y	Distance	Depth	Depth	Water
<u>C 02348</u>	Code basin (	ED	. <b>y 04</b> 1	4	<b>4</b> 3	26	23S	31E	6176	<b>^</b> 48	3571068	396	700	430	270
<u>C 02258</u>	С	ED		3	2	26	23S	31E	6180	55	3571853* 🌍	500	662		
<u>C 02405</u>	CUB	ED		4	1	02	24S	31E	6176	90	3568631* 🤤	2818	275	160	115
<u>C 02464</u>	С	ED	3	4	1	02	24S	31E	6175	89	3568530* 🌍	2923	320	205	115
<u>C 02460</u>	С	ED			3	02	24S	31E	6174	96	3568022* 🌍	3437	320		
C 02460 POD2	С	ED			3	02	24S	31E	6174	96	3568022* 🌍	3437	320		
<u>C 02777</u>	CUB	ED	4	4	4	10	23S	31E	6169	74	3575662 🌍	4285	890		
C 03749 POD1	CUB	LE	3	4	4	07	23S	32E	6169	74	3575662 🌍	4285	865	639	226
<u>C 02661</u>	CUB	ED	3	3	1	04	24S	31E	6139	69	3568485* 🌍	4811	708		
<u>C 02785</u>	CUB	ED	3	3	1	04	24S	31E	6139	69	3568485* 🌍	4811	692		
C 02954 EXPL	CUB	ED	3	1	4	20	23S	31E	6131	14	3572906* 🌍	4868	905		
<u>C 02783</u>	CUB	ED	3	3	1	04	24S	31E	6139	11	3568461 🌍	4871	708		
C 02783 POD2	CUB	ED	3	3	1	04	24S	31E	6139	11	3568461 🌍	4871	672		
<u>C 02784</u>	С	ED	4	2	4	04	24S	31E	6139	11	3568461 🌍	4871	584		
C 03529 POD1	С	LE	2	4	3	29	23S	32E	6226	51	3571212 🌍	4897	550		
											Avera	age Depth to	Water:	358	feet
												Minimum	Depth:	160	feet
												Maximum	Depth:	639	feet
Record Count: 15 UTMNAD83 Radius S	earch (in mete	ers):													

Easting (X): 617758.94

Northing (Y): 3571449

Radius: 5000

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

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# Received by OCD: 3/7/2024 3:21:05 PM IOOO 26 K Federal #10H

128

128

115

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

Legend of 238 Feature 1

Todd 26 K Federal #10H

128

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### U.S. Fish and Wildlife Service



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Released to Imaging: 3/19/2024 10:52:07 AM

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



**Received by OCD: 3/7/2024 3:21:05 PM IOOO 26K Fed 10** 55,410 feet to Spring Legend<sup>2</sup> of 238 Feature 1

Todd 010 32.275667, -103.745452

.....

Salt Lake

en station and state (1971) and a raise

10 mi

Google Earth

Released to Imaging: 3/19/2024 10:52:07 AM © 2018 Google 

# 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)	d,	(quarters (q	are 1=N uarters	IW 2= are sr	NE 3=S	SW 4=SE) to largest)	(NA	AD83 UTM in me	eters)				(in fe	et)		
POD Number	POD Sub- Code basin (	County	/ Source	q q q 6416 4	Sec	Tws I	Rng	х	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water D	riller	License Number
C 02348	С	ED	Shallow	143	26	23S 3	31E	617648	3571068 🌍	396	10/31/2013	11/01/2013	11/07/2013	700	430 J	OHN SIRMAN	1654
<u>C 02258</u>	С	ED		32	26	23S 3	31E	618055	3571853* 🌍	500	09/18/1992	09/18/1992	09/25/1992	662	С	ORKY GLENN	421
<u>C 02405</u>	CUB	ED	Shallow	4 1	02	24S 🗧	31E	617690	3568631* 🌍	2818	09/29/1994	09/30/1994	12/05/1994	275	160 C	OLLIS, ROBERT E.	1184
<u>C 02464</u>	С	ED	Shallow	341	02	24S 3	31E	617589	3568530* 🌍	2923	08/24/1995	08/24/1995	09/07/1995	320	205 G A	ILENN, CLARK ."CORKY" (LD)	421
<u>C 02460</u>	С	ED	Shallow	3	02	24S 🗧	31E	617496	3568022* 🌍	3437	08/21/1995	08/21/1995	09/07/1995	320	G	LENN, CLARK "CORKY" (LD)	421
C 02460 POD2	С	ED	Shallow	3	02	24S 3	31E	617496	3568022* 🛑	3437	08/25/1995	08/25/1995	09/07/1995	320	G A	LENN, CLARK ."CORKY" (LD)	421
C 03749 POD1	CUB	LE	Shallow	344	07	23S 3	32E	616974	3575662 🌍	4285	07/10/2014	08/06/2014	09/11/2014	865	639 R	ANDY STEWART	331
C 02954 EXPL	CUB	ED	Shallow	314	20	23S 3	31E	613114	3572906* 🌍	4868	06/25/2003	07/29/2003	08/07/2003	905	B J.	ROCKMAN, BERNARD	1184
<u>C 02783</u>	CUB	ED	Shallow	331	04	24S 🗧	31E	613911	3568461 🌍	4871		12/31/1979	10/18/2010	708	S	ANDIA NATIONAL ABS/USGS	
C 02783 POD2	CUB	ED	Shallow	331	04	24S 3	31E	613911	3568461 🌍	4871	09/09/2010	09/29/2010	10/18/2010	672	В	RUNSON, WILLIAM	331
<u>C 02784</u>	С	ED	Shallow	424	04	24S 🗧	31E	613911	3568461 🌍	4871	10/06/2010	10/08/2010	10/18/2010	584	В	RUNSON, WILLIAM	331
Record Count: 11																	
UTMNAD83 Rad	ius Search (ii	n met	ers):														
Easting (X):	617758.94		I	Northir	ng (Y	): 357	71449		Ra	<mark>dius:</mark> 5000	)						

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

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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.

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



Released to Imaging: 3/19/2024 10:52:07 AM


## Received by OCD: 3/7/2024 3:21:05 PM National Flood Hazard Layer FIRMette



#### Legend

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Releasea to Imaging: 3/19/2024 90.52:07 AM 1,500 2,000



Department of Agriculture

Natural Resources Conservation Service

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

## **Custom Soil Resource Report for Eddy Area, New Mexico**



## Preface

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

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

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

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

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

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

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SN—Simona and Wink fine sandy loams, 0 to 3 percent slopes, eroded	. 13
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## How Soil Surveys Are Made

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

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

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

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

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

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

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

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

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

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

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

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

.

#### Custom Soil Resource Report

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

## Soil Map

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

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#### Custom Soil Resource Report

MAP L	EGEND	MAP INFORMATION
Area of Interest (AOI) Area of Interest (AOI)	<ul><li>Spoil Area</li><li>Stony Spot</li></ul>	The soil surveys that comprise your AOI were mapped at 1:20,000.
Soils Soil Map Unit Polygons Soil Map Unit Lines Soil Map Unit Points Special Point Features Blowout	<ul> <li>Very Stony Spot</li> <li>Wet Spot</li> <li>Other</li> <li>Special Line Features</li> <li>Water Features</li> </ul>	Warning: Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.
<ul> <li>Borrow Pit</li> <li>Clay Spot</li> <li>Closed Depression</li> <li>Gravel Pit</li> <li>Gravelly Spot</li> </ul>	Streams and Canals  Transportation  Rails  Interstate Highways  US Routes  Major Roads	Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)
<ul> <li>Landfill</li> <li>Lava Flow</li> <li>Marsh or swamp</li> <li>Mine or Quarry</li> <li>Mineor Quarry</li> </ul>	Local Roads  Background  Aerial Photography	Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.
<ul> <li>Miscellaneous Water</li> <li>Perennial Water</li> <li>Rock Outcrop</li> <li>Saline Spot</li> <li>Sandy Spot</li> <li>Severely Eroded Spot</li> </ul>		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.
<ul> <li>Sinkhole</li> <li>Slide or Slip</li> <li>Sodic Spot</li> </ul>		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
SI	N	Simona and Wink fine sandy loams, 0 to 3 percent slopes, eroded	0.2	100.0%
То	otals 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 R04	12XC002N
Observers	John Tunbe	erg,			Date	2/3/10

Functional / Structu	ral Groups	5	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	М		Javalina bush, jointfir, littleleaf rattany, feather dalea, broom sn			
Forbs	М		leatherweed, tansyaster, groundsel, ragwort, primrose			
Biological Crust <sup>3</sup>						

Indicate whether each "structural/functional group" is a Dominant (D) (roughly 40-100% composition), a Subdominant (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** <sup>3</sup> dominance is evaluated solely on **cover** not composition by weight.

## Todd 26 K Federal #10H



Qp—Piedmont alluvial deposits (Holocene to lower Pleistocene)

Qe—Eolian deposits (Holocene to middle Pleistocene)

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Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS

### **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												
San	nple Descrip	tion	Fi	eld Screeni	ng	Petroleum Hydrocarbons						Inorganic	
						Vol	atile			Extractable	-		morganic
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)

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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				Petro	leum Hydroca	irbons			Inorganic		
			Vol	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)

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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												
Sar	nple Descrip	tion	Field Sc	reening			Petrol	eum Hydroc	arbons			Inorganic	
					Vola	atile			Extractable			morganic	
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)



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### **ATTACHMENT 5**



Client:	ent: Devon Energy Corporation		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 1	limes			
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



# **Site Photos** Viewing Direction: South Viewing Direction: North Spill area Spill area Viewing Direction: South Viewing Direction: West Spill area Flagged and painted spill area







**Daily Site Visit Signature** 

Inspector: Jason Crabtree

Signature:

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Client:	Devon Energy	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							

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Run on 3/31/2019 1:29 AM UTC



#### **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	9-01											
	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		$\checkmark$	32.16'32.152", - 103.44'43.727"	Yes			
	1 ft.	0 ppm	20 ppm	Low (30-600 ppm)	0 ppm		$\checkmark$	32.16'32.152", - 103.44'43.727"	Yes			
BH19	9-02											
	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		$\checkmark$	32.16'32.172", - 103.44'43.296"	Yes			

Da	ily Site	Visit Re	port						VERTEX
	1 ft.	0 ppm	40 ppm	Low (30-600 ppm)	0 ppm		$\checkmark$	32.16'32.172", - 103.44'43.296"	Yes
SS1	9-03	I			1				
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O ft.	0 ppm	180 ppm	Low (30-600 ppm)	197 ppm		<	32.16'32.152", - 103.44'43.727	Yes
SS1	9-04								
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O ft.	0 ppm	350 ppm	High (300- 6000ppm)	2245 ppm		<	32.16'31.458", - 103.44'44.148"	Yes
SS1	9-05								
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O ft.	0 ppm	370 ppm	High (300- 6000ppm)	1896 ppm		<	32.16'30.916", - 103.44'44.423"	Yes
SS1	9-06								
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O ft.	0 ppm	0 ppm	Low (30-600 ppm)	532 ppm		$\checkmark$	32.16'30.452", - 103.44'44.658"	Yes

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### **Daily Site Visit Report**

SS1	9-07								
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O ft.	0 ppm	20 ppm	Low (30-600 ppm)	74 ppm		$\checkmark$	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?
	O ft.	0 ppm	0 ppm	Low (30-600 ppm)	0 ppm		$\checkmark$	32.16'31.042", - 103.44'44.161"	Yes
SS1	9-09								
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O ft.	0 ppm	110 ppm	Low (30-600 ppm)	30 ppm		$\checkmark$	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?
	O ft.	0 ppm	110 ppm	Low (30-600 ppm)	0 ppm		$\checkmark$	32.16'32.026", - 103.44'44.194"	Yes



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



Viewing Direction: South	Viewing Direction: South			
SS19-05	SS19-06			
Viewing Direction: North	Viewing Direction: North			
Descripting (1920) Descripting (	Provide a state of the state of			
SS19-07	SS19-08			

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Soil pile 30ft x 15ft x 4ft

Run on 3/31/2019 1:29 AM UTC



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









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**Daily Site Visit Signature** 

Signature of Inspector:



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n/Figure 1-Todd 26 N Federal 014 (19E-00575).mxo

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Client:		Devon Fr	eral		Initial Spill Information	Record on Firs	t Visit	
Date:		30/03	12019		Spill Date:			
Site Name:		Toda 26	KFederal	10 Flowline	Spill Volume:			
Site Location:					Spill Cause:			
Project Owner:					Spill Product:			-
Project Manager:		19E-005	75		Recovered Spill Volume:			
Project #:		110-000		Sampling	Recovery Method.	on ICheck for Y	esl	-
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			
BH 19-01	0	0	80	74	low			
BH19-01	2	0	20	ND	6.0			
BH19-02	0	0,1	D	ND	lau			
3419-02	2	0	40	ND	(ov)			
5519-03	0	0	189	197	low			
55/9-04	0	0	350	2245	Asgh			
5519-05	0	0	370	1396	high			
5519-06	0	0	0.	532	low			
5519-07	0	0	20	79	low			
5519-08	0	٥	340	ND	1000		-	
5519-09	0	0	110	30	low			-
5519-10	0	9	110	ND	100			
				1 1 1 E 1	÷			
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VERSATILITY EXPERTISE.



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 T	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		

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Run on 4/2/2019 10:42 PM UTC

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#### **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

					Sam	pling			
SS1	9-01								
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O 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
SS1	9-02								
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW- 4500 Cl), TPH (EPA SW-846 Method 8015M)	$\checkmark$	32.16'32.172", - 103.44'43.296"	Yes

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SS1	9-03								
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW- 4500 Cl), TPH (EPA SW-846 Method 8015M)	$\checkmark$	32.16'321.951", - 103.44'43.888"	Yes
SS1	9-04								
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW- 4500 Cl), TPH (EPA SW-846 Method 8015M)	$\checkmark$	32.16'31.458", - 103.44'44.148"	Yes
SS1	9-05								
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW- 4500 Cl), TPH (EPA SW-846 Method 8015M)	$\checkmark$	32.16'30.916", - 103.44'44.423"	Yes
SS1	9-06								
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW- 4500 Cl), TPH (EPA SW-846 Method 8015M)	$\checkmark$	32.16'30.452", - 103.44'44.658"	Yes

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VERTEX

SS1	9-07								
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW- 4500 Cl), TPH (EPA SW-846 Method 8015M)	$\checkmark$	32.16'29.990", - 103.44'44.850"	Yes
SS1	9-08								
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW- 4500 Cl), TPH (EPA SW-846 Method 8015M)	$\checkmark$	32.16'31.042", - 103.44'44.161"	Yes
SS1	9-09								
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW- 4500 Cl), TPH (EPA SW-846 Method 8015M)	$\checkmark$	32.16'31.631", - 103.44'43.840"	Yes
SS1	9-10								
	Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
	O ft.					BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW- 4500 Cl), TPH (EPA SW-846 Method 8015M)	$\checkmark$	32.16'32.026", - 103.44'44194"	Yes



# **Site Photos** Viewing Direction: South Viewing Direction: South Overview of spill area. Overview of spill area Viewing Direction: West ALL ENVIRONM COC



Depth Sar	mple Photos
Sample Point ID: SS19-10	Sample Point ID: SS19-03
Descrit Perfect Seman Phon Descrit Perfect Seman Phon Descrit Perfect Seman Phon Descrit 9 142:302 THE	Might PolyPlample Pipots Design Services Langer Today Parts
Depth: Oft.	Depth: Oft.
Sample Point ID: SS19-02	Sample Point ID: SS19-01
Positi Point Bannie Photo Bashti 0 R. 4/2019 Tude antificia Lat:22.275864 100 00 03.745383	Point Sample Photo Pri 0 R DIS 1:50:35 PM 2:50:275891, Long>103.745 pr
Depth: Oft.	Depth: Oft.

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VERTEX

**Daily Site Visit Signature** 

Signature of Inspector:



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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 T	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



## **Site Photos** Viewing Direction: South Viewing Direction: South Before backfill Before backfill Viewing Direction: North Viewing Direction: West Before backfill Before backfill











**Daily Site Visit Signature** 

Inspector: Austin Harris

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Signature:

Signature

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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



#### **Site Photos**





**Daily Site Visit Signature** 

Inspector: Robyn Fisher Signature:

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7360	NEW MEXICO NON-HAZ	ARDOUS OILFIELD WASTE MA	ANIFEST Company Man Contact Informat
	(F	LEASE PRINT)	Phone No.
1 -	GE	NERATOR	NO. 381203
ierator No. <u>MEVen t</u>	NPREY.	Permit/RRC No.	- millack Educt 10
erators Name		Lease/Well Name & No.	porter fill bold & TEOR
dress 6456 200	NO. K. ICIS MICHARY	County	
		API No.	300/52710
y, State, Zip <u>Artheorem</u>	NM 83210	Rig Name & No.	hun phill
one No	1926	AFE/PO No.	A CONTRACTOR OF A CONTRACTOR O
EXEMPT E	&P Waste/Service Identification and Am	ount (place volume next to wast	e type in barrels or cubic yards)
Based Muds	Washout Water (Non-Injectable)		NJECTABLE WATERS Vashout Water (Iniectable)
ater Based Muds	Completion Fluid/Flow back (Non-Inj	ectable) C	ompletion Fluid/Flow back (Injectable)
ater Based Cuttings aduced Formation Solids	Produced Water (Non-Injectable)	Pi	roduced Water (Injectable)
nk Bottoms	INTERNAL USE ONLY	ectable) 0	THER EXEMPT WASTES (type and generation process of the waste)
P Contaminated Soil	Truck Washout (exempt waste)		Man arecente
ASTE GENERATION PROCESS:	DRILLING		RODUCTION GATHERING LINES
	NON-EXEMPT E&P Wa	ste/Service Identification and Amoun	t
All non-exemp	ot E&P waste must be analysed and be below t	he threshold limits for toxicity (TCLP),	Ignitability, Corrosivity and Reactivity.
		*please select from	Non-Exempt Waste List on back
ANTITY	B - BARRELS	L - LIQUID	Y - YARDS E - EACH
MSDS Info MSDS Info EMERGENCY NON-OILFEILD: Emergence determin: (PRINT) AUTHORIZED AGENTS NAME  sporter's ne	ormation RCRA Hazardous W cy non-hazradous, non-oilfeild waste that has b ation and a desciption of the waste must accor	aste Analysis Ot eeen ordered by the Department of Pu npany this form) DATE NSPORTER Driver's Name	ther (Provide Description Below) ublic Safety (the order, documentation of non-hazardous waste signature
ress		Print Name	1
		Phone No.	4-13 4113610
one No.		Truck No.	and a set of the set of the set of the set
reby certify that the above named materia	is was were picked up at the Generator's site	insted above and derivered without in	Billion Cadado
SHIPMENT DATE	DRIVER'S SIGNATURE	DELIVERY D	DRIVER'S SIGNATURE
TRUCK TIME ST	AMP DISPC	SAL FACILITY	RECEIVING AREA
I: OUT:			Name/No.
e Name/		time in the second second	
Halfway Facility / NM1-006			
mit No. Thanway racincy / Wiri 000		Phone No. 57	75-393-1079
dress 6601 Hobbs Hwy US 62/180	Mile Marker 66 Carlsbad, NM 88220	Phone No. 55	75-393-1079
dress 6601 Hobbs Hwy US 62/180 NORM READINGS TAKEN? (Circ	Mile Marker 66 Carlsbad, NM 88220 cle One) YES NO	Phone No. 5: If YES, was reading >	> 50 micro roentgens? (circle one) YES NO
Aress 6601 Hobbs Hwy US 62/180 NORM READINGS TAKEN? (Circ PASS THE PAINT FILTER TEST? (Circ	Mile Marker 66 Carlsbad, NM 88220 cle One) YES NO cle One) YES	Phone No. 5: If YES, was reading : NO	> 50 micro roentgens? (circle one) YES NO
Idress 6601 Hobbs Hwy US 62/180 NORM READINGS TAKEN? (Circ PASS THE PAINT FILTER TEST? (Circ	Dile Marker 66 Carlsbad, NM 88220 cle One) YES NO Cle One) YES TAN Inches	Phone No. 5: If YES, was reading : NO KBOTTOMS	>50 micro roentgens? (circle one) YES NO
Idress 6601 Hobbs Hwy US 62/180 NORM READINGS TAKEN? (Circ PASS THE PAINT FILTER TEST? (Circ Feet	Dile Marker 66 Carlsbad, NM 88220 cle One) YES NO Cle One) YES TAN Inches	Phone No. <u>5</u> If YES, was reading : NO <b>K BOTTOMS</b>	/BBLS Received BS&W (%)
t Gauge	Dille Marker 66 Carlsbad, NM 88220 cle One) YES NO cle One) YES TAN Inches	Phone No. <u>5</u> If YES, was reading : NO K BOTTOMS	75-393-1079 > 50 micro roentgens? (circle one) YES NO /BBLS Received BS&W (%) Free Water
Idress 6601 Hobbs Hwy US 62/180 NORM READINGS TAKEN? (Circ PASS THE PAINT FILTER TEST? (Circ Feet t Gauge d Gauge ceived	Mile Marker 66 Carlsbad, NM 88220 cle One) YES NO cle One) YES TAN Inches	Phone No. <u>5</u> If YES, was reading : NO <b>K BOTTOMS</b> BS&W	/5-393-1079 > 50 micro roentgens? (circle one) YES NO /BBLS Received BS&W (%) Free Water Total Received
dress 6601 Hobbs Hwy US 62/180 NORM READINGS TAKEN? (Circ PASS THE PAINT FILTER TEST? (Circ Feet Gauge Gauge Ceived	Mile Marker 66 Carlsbad, NM 88220 cle One) YES NO cle One) YES TAN Inches	Phone No. 5: If YES, was reading : NO KBOTTOMS BS&W	/BBLS Received BS&W (%) Free Water Total Received
A constraint of the second sec	al has been (circle one): ACCEPTED	Phone No. 5: If YES, was reading : NO KBOTTOMS BS&W, BS&W, DENIED If denied, why?	25-393-1079 > 50 micro roentgens? (circle one) YES NO /BBLS Received BS&W (%) Free Water Total Received
t Gauge t Gaug	Allie Marker 66 Carlsbad, NM 88220 cle One) YES NO cle One) YES TAN Inches al has been (circle one): ACCEPTED 4 10:52:07 AM	Phone No. 5: If YES, was reading : NO K BOTTOMS BS&W DENIED If denied, why?	25-393-1079 > 50 micro roentgens? (circle one) YES NO /BBLS Received BS&W (%) Free Water Total Received

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2				A	manda Davis
B360	NEW MEXICO NO	N-HAZARDOUS OIL	FIELD WASTE N	MANIFEST	Company Man Contact Information
		(PLEASE PRIN	r)	DI.	Name
		CENEDATO	10	Phor	
- Near a	and and a second	GENERAT	JR	NO.	381201
Operator No.	- 188 44		Permit/RRC No.	TRAD SE K	100.10
Operators Name			Name & No.	E ALI	N upper an under
Address			County		
			API No.	3001-27	1/02
City, State, Zip		_	Rig Name & No.	- 0	UP DELL
Phone No.			AFE/PO No.		
EXEMPT E&P	Waste/Service Identification	and Amount (place vo	lume next to wa	aste type in barrels or c	ubic yards)
Oil Based Muds	NON-INJECTABLE WATERS			INJECTABLE WATERS	
Oil Based Cuttings	Washout Water (Non-Injecta	able) (Non-Injectable)		Washout Water (Injectab	le)
Water Based Cuttings	Produced Water (Non-Inject	table)		Produced Water (Injectal	ble)
Produced Formation Solids	Gathering Line Water/Waste	e (Non-Injectable)		Gathering Line Water/Wa	iste (Injectable)
E&P Contaminated Soil	Truck Washout (exempt was	ste)		OTHER EXEIVIPT WASTES (	type and gene ation process of the waste)
Gas Plant Waste				Ren-	ORCHARD BUILDA
WASTE GENERATION PROCESS:	DRILLING	COMPLETION	-12-	PRODUCTION	GATHERING LINES
A CONTRACTOR OF THE OWNER OWNER OWNER OF THE OWNER	NON-EXEMPT	E&P Waste/Service Iden	tification and Amo	unt	
All non-exempt E8	P waste must be analysed and be	e below the threshold lim	its for toxicity (TCL	P), Ignitability, Corrosivity	and Reactivity.
Non-Exempt Other			*please select fro	m Non-Exempt Waste Lis	t on back
QUANTITY	B - BARRE	LS	L - LIQUID	Y-YAR	DS E-EACH
				1.1.1.1000	
	, or listed hazardous waste as de- tached. (Check the appropriate i tion RCRA Haza n-hazradous, non-oilfeild waste t and a desciption of the waste m	fined by 40 CFR, part 261 items as provided) ardous Waste Analysis that has been ordered by ust accompany this form <b>TRANSPOR</b>	the Department of ATE Driver's Name Print Name Phone No. Truck No:	ended. The following docur Other (Provide Descriptio F Public Safety (the order, d	nentation demonstrating the waste as non- n Below) ocumentation of non-hazardous waste
hereby certify that the above named material(s) v	/as/were picked up at the Genera	ator's site listed above an	d delivered withou	it incident to the disposal f	acility listed below.
SHIPMENT DATE	DRIVER'S SIGNATURE		DELIVE	RY DATE	DRIVER'S SIGNATURE
TRUCK TIME STAN	P D	ISPOSAL FA	VILITY	RE	CEIVING AREA
		IST OSAL TA	SILLI I	Name/Ne	
IN UUI:				Name/No	2412
Site Name/ Permit No Halfway Facility / NM1-006			Phone No.	575-393-1079	
Address 6601 Hobbs Hury LIS 62/180 Mile	Marker 66 Carlshad, NM 88220				
	Warker oo cansoad, Wiv bozzo		IF VER		interior from
NORM READINGS TAKEN? (Circle O	ne) YES NO		If YES, was reading	ng > 50 micro roentgens? (i	tircle one) YES NO
PASS THE PAINT HILTER TEST? (Circle O	re) YES	TANK BAR			
		TANK BOTTO	JMS		
Feet	Inches		000	M/PRIS Passing al	
2nd Gauge			858	Free Water	B5&W (%)
Received				Total Received	
		in the second			
I hereby certify that the above load material ha	been (circle one): ACCEP	TED DENIED	If denied, why?		
Released to Imaging: 3/19/2024 1	0:52:07 AM	Fiche	TAT	1 1	Y Ctt
NAME (PRINT)	DATE		TLE	11	SIGNATURE



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.



## **Site Photos** Viewing Direction: East Viewing Direction: North Looking East at SS20-01 Looking North at SS20-02 Viewing Direction: East Viewing Direction: East Looking East at SS20-04 Looking East at SS20-05







**Daily Site Visit Signature** 

Inspector: John Ramirez

Signature:

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#### Received by OCD: 3/7/2024 3:21:05 PM

**Spill Response and Sampling** VERTEX Vevon Client: lenäkäral Aspäll lenärdenensikären – tresconstit ann därssit Wässäk 10:29:20 Todd 2615 Fed 10 Date: Spill Date: Site Name: Spill Volume: Site Location: Spill Cause: Project Owner: Spill Product: Project Manager: Recovered Spill Volume: 195-00575 Project #: Recovery Method: Sampling Field Screening Data Collection (Check for Yes) Sample ID PetroFlag TPH Depth (ft) Quantab VOC (PID) Lah Analysis Trimble (High/Low) + or Marked on (ppm) Picture S/TP/BH - Year Coordinates Site Sketch Number Ex. '2ft: Ex. 400 ppm 200 ppm Ex. High 4-Ex. Hydrocarbon Ex. BH18-01 Chloride 0:55 5520-01 0-0.5 0.08 103 Stepped and B 10.6 9:00 5320-020-0.5 5520.030-0.5 0.06 5520-040-0.5 JAMAN 5520-050-0.5 0.10 5520-06 0-0.5 Stacer 2/19.4 BAJOOR BA2000 5 520.01.1 0.3.5 190 225 520-04.1 0-0.5 22.5 0.07/22 Stand out 3' from original 0.11/22.5 Stephed 3' from 0.05/22.6 Stephed 3' from 1.22.6 Stephed 3' from 1.22.6 Stephed 3' from 1.22.6 Stephed 3' from 5520.05. 0-0.5 5520-11 9" 40 5520-04.10-1 

Released to Imaging: 3/19/2024 10:52:07 AM



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	Project Manager:	Dennis Williams
	Release		
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

V

VERTEX

### **Daily Site Visit Report**

#### **Site Photos**





Sample area


**Daily Site Visit Signature** 

Inspector: John Ramirez

Signature:

Run on 1/22/2021 11:07 PM UTC

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#### Received by OCD: 3/7/2024 3:21:05 PM



pill Respon	se and S	Sampling	1. (1.1.)			V	ERTE)
lient:		Rion			Initial Spill Information - Re	cord on First Visit	
Date:	-	1-7-21	1-22.	21	Spill Date:		
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roject Owner:					Spill Product:	<b>S</b>	
roject Manager:					Recovered Spill Volume:		
roject #: 19F'0	20575	<b>A</b>			Recovery Method:		
			Field Screening	Sampling	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			
2/521-01	0:05						
2502	1			0,19/24.6			
2503				0.11/24.8			
WS 04			47	0.1/22.5			
WS 05			48	0.39/17.0			
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B504			13	0.31/18.9			
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				0.35/			

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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



# **Site Photos** Viewing Direction: Northeast Viewing Direction: East Sampling Sampling location Viewing Direction: Northeast Viewing Direction: Northwest Sampling Still sampling







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

Inspector: Sally Carttar

Signature:

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# **Daily Soil Sampling**

#### Client: Client: Devon Energy Corporation

Location: Site: Todd 26 K Federal #010

Date: (SD: 5/19/22)

Sampling											
				Field Screening					Data Co	ollection	
		Hydro	carbon		C	hloride					
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				$\checkmark$	
BES22-12	1.5		40	0.27	24.2	152				$\checkmark$	

## **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 2<sup>nd</sup> 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

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#### **Natalie Gordon**

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

------ Forwarded message ------From: Dhugal Hanton <<u>vertexresourcegroupusa@gmail.com</u>> 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 <<u>OCD.Enviro@state.nm.us</u>>, CFO\_Spill, BLM\_NM <<u>blm\_nm\_cfo\_spill@blm.gov</u>>, Kelsey <<u>KWade@blm.gov</u>>, Amos, James A <<u>Jamos@blm.gov</u>> Cc: <<u>wesley.mathews@dvn.com</u>>, <<u>Lupe.Carrasco@dvn.com</u>>, <<u>amanda.davis@dvn.com</u>>

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

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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

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### **ATTACHMENT 7**



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

Hall Environmental Analysis Laboratory

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

Website: www.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Project: Lab ID: Todd 26K Federal 10

1904171-001

Analytical Report Lab Order 1904171

Date Reported: 4/8/2019

#### Hall Environmental Analysis Laboratory, Inc.

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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: Irm
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

Matrix: SOIL

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

**Qualifiers:** 

- EValue above quantitation rangeNDNot 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

Page 1 of 19

Todd 26K Federal 10

**Project:** 

**Analytical Report** Lab Order 1904171

Date Reported: 4/8/2019

#### Hall Environmental Analysis Laboratory, Inc.

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

Lab ID: 1904171-002	Matrix: SOIL	<b>Received Date:</b> 4/3/2019 8:50:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS				Analyst: Irm	
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 RA	NGE				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:** 

- Е Value above quantitation range Not Detected at the Reporting Limit ND
- 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

Page 2 of 19

Analytical Report Lab Order 1904171

Date Reported: 4/8/2019

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Devon Energy Client Sample ID: SS19-02 (0) **Project:** Todd 26K Federal 10 Collection Date: 4/2/2019 1:41:00 PM Lab ID: 1904171-003 Matrix: SOIL Received Date: 4/3/2019 8:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: Irm **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 4/6/2019 9:52:13 AM 4.8 mg/Kg 1 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 4/6/2019 9:52:13 AM 1 Toluene 0.048 ND 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 4/5/2019 8:11:39 PM ma/Ka 20

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

Page 3 of 19

Todd 26K Federal 10

**Project:** 

Analytical Report Lab Order 1904171

Date Reported: 4/8/2019

#### Hall Environmental Analysis Laboratory, Inc.

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

Lab ID: 1904171-004	Matrix: SOIL	<b>Received Date:</b> 4/3/2019 8:50:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst: Irm	
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 RAM	NGE				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:** 

- EValue above quantitation rangeNDNot Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is our

H Holding times for preparation or analysis exceeded

- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

Sample container temperature is out of limit as specified at testcode

Todd 26K Federal 10

**Project:** 

Analytical Report Lab Order 1904171

#### Hall Environmental Analysis Laboratory, Inc.

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

Lab ID: 1904171-005	Matrix: SOIL	<b>Received Date:</b> 4/3/2019 8:50:00 AM				
Analyses	Result	RL Qua	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst: Irm	
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 RAM	IGE				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:** 

- EValue above quantitation rangeNDNot Detected at the Reporting Limit
- RL Reporting Detection 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

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Todd 26K Federal 10

**Project:** 

Analytical Report Lab Order 1904171

Date Reported: 4/8/2019

#### Hall Environmental Analysis Laboratory, Inc.

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

Lab ID: 1904171-006	Matrix: SOIL	<b>Received Date:</b> 4/3/2019 8:50:00 AM				
Analyses	Result	RL Qua	l Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RAM	NGE ORGANICS				Analyst: Irm	
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 SI	HORT 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: GASOLIN	NE 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:** 

- EValue above quantitation rangeNDNot 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

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**Project:** 

Lab ID:

Analyses

Surr: DNOP

**Analytical Report** Lab Order 1904171

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/8/2019 **CLIENT:** Devon Energy Client Sample ID: SS19-06 (0) Todd 26K Federal 10 Collection Date: 4/2/2019 2:20:00 PM 1904171-007 Matrix: SOIL Received Date: 4/3/2019 8:50:00 AM Result **RL** Qual Units DF **Date Analyzed EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: Irm **Diesel Range Organics (DRO)** 4/4/2019 5:57:19 PM 38 9.5 mg/Kg 1 Motor Oil Range Organics (MRO) 4/4/2019 5:57:19 PM 59 47 mg/Kg 1 47.3 70-130 S %Rec 1 4/4/2019 5:57:19 PM **EPA METHOD 300.0: ANIONS** Analyst: MRA Λ AA Λ Λ

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:** 

- Е 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

- Н Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

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**Project:** 

Todd 26K Federal 10

**Analytical Report** Lab Order 1904171

#### Hall Environmental Analysis Laboratory, Inc.

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

Lab ID: 1904171-008	Matrix: SOIL	<b>Received Date:</b> 4/3/2019 8:50:00 AM				
Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: Irm	
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 S	HORT 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: GASOLI	NE 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:** 

- Е Value above quantitation range Not Detected at the Reporting Limit ND
- 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

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Todd 26K Federal 10

**Project:** 

**Analytical Report** Lab Order 1904171

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/8/2019 Client Sample ID: SS19-08 (0) Collection Date: 4/2/2019 2:25:00 PM **Deceived Deter** 1/2/2010 8.50.00 AM

Lab ID: 1904171-009	Matrix: SOIL	Re	ceived	d Date:	4/3/20	19 8:50:00 AM
Analyses	Result	RL Q	Qual 1	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RAM	NGE ORGANICS					Analyst: Irm
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 SI	HORT 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: GASOLIN	NE 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:** 

- Е Value above quantitation range Not Detected at the Reporting Limit ND
- 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

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Todd 26K Federal 10

1904171-010

**Project:** 

Lab ID:

**Analytical Report** Lab Order 1904171

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/8/2019 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 ORGAN	NICS					Analyst: Irm
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

Matrix: SOIL

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

**Qualifiers:** 

- Е Value above quantitation range Not Detected at the Reporting Limit ND
- RL
- Reporting Detection Limit W

Sample container temperature is out of limit as specified at testcode

н Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

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Project: Todd 26K Federal 10

Analytical Report Lab Order 1904171

Date Reported: 4/8/2019

#### Hall Environmental Analysis Laboratory, Inc.

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

Lab ID: 1904171-011	Matrix: SOIL	Recei	ved Date:	4/3/20	19 8:50:00 AM
Analyses	Result	RL Qua	l Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RAI	NGE ORGANICS				Analyst: Irm
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 S	HORT 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: GASOLI	NE 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:** 

- EValue above quantitation rangeNDNot 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

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Client: Project:	Dev Tod	on Energy d 26K Federal 1	0								
Sample ID:	MB-44165	SampT	ype: <b>m</b> t	olk	Test	Code: EF	PA Method	300.0: Anion	s		
Client ID:	PBS	Batch	ID: 44	44165 RunNo: 58920							
Prep Date:	4/5/2019	Analysis D	ate: 4/	5/2019	S	eqNo: 19	982078	Units: <b>mg/K</b>	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID:	LCS-44165	SampT	ype: Ics	;	Test	Code: EF	PA Method	300.0: Anion	s		
Client ID:	LCSS	Batch	ID: 44	165	R	unNo: 58	3920				
Prep Date:	4/5/2019	Analysis Da	ate: 4/	5/2019	S	eqNo: 19	982079	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	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

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1904171

08-Apr-19

WO#:

WO#:	1904171
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Client: Project:	Devon Er Todd 26K	ergy K Federal 1	0								
Sample ID:	LCS-44126	SampTy	ype: LC	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	LCSS	Batch	ID: 44	126	F	RunNo: 58882					
Prep Date:	4/4/2019	Analysis Da	ate: 4/	/4/2019	S	SeqNo: 1	980513	Units: <b>mg/k</b>	٢g		
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	SampTy	ype: MI	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	PBS	Batch	ID: 44	126	F	RunNo: 5	8882				
Prep Date:	4/4/2019	Analysis Da	ate: 4/	4/2019	S	SeqNo: 1	980514	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	ND	10								
Motor Oil Rang	ge Organics (MRO)	ND 9.1	50	10.00		Q1 /	70	130			
		0.1		10.00		01.4	70	100			
Sample ID:	1904171-006AMS	SampTy	ype: M	S	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID:	SS19-05 (0)	Batch	ID: 44	126	F	RunNo: 5	8882				
Prep Date:	4/4/2019	Analysis Da	ate: 4	/4/2019	Ś	SeqNo: 1	980521	Units: mg/k	٢g		
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			
Suit. DNOF		3.9		4.740		02.9	70	130			
Sample ID:	1904171-006AMSE	SampTy	ype: <b>M</b> \$	SD	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID:	SS19-05 (0)	Batch	ID: 44	126	RunNo: 58882						
Prep Date:	4/4/2019	Analysis Da	ate: 4	4/2019	S	SeqNo: 1	980522	Units: mg/k	٢g		
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	
Sun. DNO		4.2		4.591		31.5	70	130	0	0	
Sample ID:	LCS-44142	SampTy	ype: LC	S	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID:	LCSS	Batch	ID: 44	142	F	RunNo: 5	8917				
Prep Date:	4/5/2019	Analysis Da	ate: 4	/5/2019	ç	SeqNo: 1	981087	Units: %Re	С		
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:											
Sample ID.	MB-44142	SampTy	ype: MI	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID:	MB-44142 PBS	SampTy Batch	ype: <b>MI</b> ID: <b>44</b>	BLK 142	Tes F	tCode: El RunNo: 5	PA Method 8917	8015M/D: Di	esel Rango	e Organics	
Client ID: Prep Date:	MB-44142 PBS 4/5/2019	SampTy Batch Analysis Da	ype: <b>MI</b> ID: <b>44</b> ate: <b>4</b>	BLK 142 ⁄5/2019	Tes F	tCode: El RunNo: 5 SeqNo: 1	PA Method 8917 981088	8015M/D: Di Units: %Re	esel Range c	e Organics	

#### **Qualifiers:**

Е Value above quantitation range Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

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Client:	Dev	von Energy									
Project.	Tor	ld 26K Federal 1	10								
1 Iojeci.	100		10								
Sample ID:	MB-44142	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	PBS	Batch	n ID: 44	142	F	RunNo: 5	8917				
Prep Date:	4/5/2019	Analysis D	ate: 4	/5/2019	S	SeqNo: 1	981088	Units: %Red	;		
Analvte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HiahLimit	%RPD	RPDLimit	Qual
Surr: DNOP		10		10.00		101	70	130			
Sample ID:	LCS-44128	SampT	ype: LC	CS	Tes	tCode: E	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Batch	n ID: 44	128	F	RunNo: 5	8917				
Prep Date:	4/4/2019	Analysis D	ate: 4	/5/2019	S	SeqNo: 1	982023	Units: %Red	;		
Analyte		Result	POI	SPK value	SPK Rof Val	%REC	Lowl imit	Highl imit	%RPD	RPDI imit	Qual
Surr: DNOP		4.3	I QL	5.000		86.1	70	130	701 CT D		Quui
		1.0		0.000		00.1	10	100			
Sample ID:	MB-44128	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	PBS	Batch	n ID: 44	128	F	RunNo: 5	8917				
Prep Date:	4/4/2019	Analysis D	ate: 4	/5/2019	S	SeqNo: 1	982024	Units: %Red	;		
Analvte		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	SampT	ype: LC	S	Tes	tCode: E	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Batch	n ID: 44	110	F	RunNo: 5	8917				
Prep Date:	4/4/2019	Analysis D	)ate: 4	/6/2019	5	SeqNo: 1	983117	Units: mg/K	g		
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	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	8015M/D: Die	esel Range	organics	
Client ID:	PBS	Batch	n ID: 44	110	F	RunNo: 5	8917		-	-	
Prep Date:	4/4/2019	Analysis D	ate: 4	/6/2019	S	SeqNo: 1	983118	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (	Organics (DRO)	ND	10								
Motor Oil Rang	e Organics (MF	0) ND	50								
Surr: DNOP		9.1		10.00		90.9	70	130			

**Qualifiers:** 

> Е 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 Н Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

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Client: D	evon Energy									
Project: 1	odd 26K Federal 10									
Sample ID: LCS-4408	Sample ID: LCS-44087 SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID	Batch ID: 44087		R	unNo: <b>58</b>	3948				
Prep Date: 4/3/2019	Analysis Date	4/5/	/2019	S	eqNo: 19	982477	Units: mg/K	g		
Analyte	Result F	QL S	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	: MBL	ĸ	Test	Code: EF	PA Method	8015D: Gasol	line Range	9	
Client ID: PBS	Batch ID	4408	37	R	unNo: 58	3948				
Prep Date: 4/3/2019	Analysis Date	4/6/	2019	S	eqNo: 19	982479	Units: mg/K	g		
Analyte	Result F	QL S	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

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Client: Devo	n Energy											
Project: Todd	26K Federal	10										
Sample ID: LCS-44087	SampT	ype: LC	S	Tes	TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batcl	h ID: 440	087	F	RunNo: 5	8948						
Prep Date: 4/3/2019	Analysis D	Date: 4/	6/2019	S	SeqNo: 1	982525	Units: <b>mg/k</b>	ſg				
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	SampT	Гуре: <b>МЕ</b>	BLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batcl	h ID: 440	087	F	RunNo: 5	8948						
Prep Date: 4/3/2019	Analysis D	Date: 4/	6/2019	S	SeqNo: 1	982527	Units: mg/k	(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	ND	0.025										
Toluene	ND	0.050										
Ethylbenzene	ND	0.050										
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

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WO#:	1904171

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Client:	Devon Er	nergy												
Project:	Todd 26k	K Federal	10											
Sample ID:	1904171-007ams	Samp	Type <b>MS</b>		Test	tCode: <b>FF</b>	PA Method	8260B: Volat	tiles Short	List				
Client ID:	SS19-06 (0)	Bato	h ID 440	98	RunNo: 58934									
Prop Date:	A/A/2019	Analysis [	Date: 1//	5/2010	G		092746	(a						
T Tep Date.	4/4/2019	Analysis	Jaie. 4/.	5/2019			502740							
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-Dic	chloroethane-d4	0.41		0.4766		85.5	70	130						
Surr: 4-Brom	nofluorobenzene	0.48		0.4766		101	70	130						
Surr: Dibrom	ofluoromethane	0.43		0.4766		91.1	70	130						
Surr: Toluen	e-d8	0.45		0.4766		93.5	70	130						
Sample ID:	1904171-007amsd	Samp <sup>-</sup>	Туре: <b>МЅ</b>	tCode: EF	PA Method	8260B: Volat	tiles Short	List						
Client ID:	SS19-06 (0)	Batc	h ID: 440	98	RunNo: <b>58934</b>									
Prep Date:	4/4/2019	Analysis [	Date: 4/	5/2019	S	SeqNo: 19	982747	Units: mg/k	٢g					
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-Dic	chloroethane-d4	0.43		0.4836		89.4	70	130	0	0				
Surr: 4-Brom	nofluorobenzene	0.49		0.4836		102	70	130	0	0				
Surr: Dibrom	ofluoromethane	0.45		0.4836		93.9	70	130	0	0				
Surr: Toluen	e-d8	0.45		0.4836		93.2	70	130	0	0				
Sample ID:	lcs-44098	Samp	Type: LC	S	Tes	tCode: EF	PA Method	8260B: Volat	tiles Short	List				
Client ID:	LCSS	Batc	h ID: 440	98	R	RunNo: <b>58</b>	8934							
Prep Date:	4/4/2019	Analysis [	Date: 4/	5/2019	S	SeqNo: 19	982755	Units: <b>mg/k</b>	٢g					
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-Dic	chloroethane-d4	0.44		0.5000		88.2	70	130						
Surr: 4-Brom	nofluorobenzene	0.51		0.5000		102	70	130						
Surr: Dibrom	ofluoromethane	0.44		0.5000		88.1	70	130						
Surr: Toluen	e-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

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WO#:	1904171
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Client: Devon	Energy											
Project: Todd 2	6K Federal 1	0										
Sample ID: mb-44098	SampT	ype: ME	BLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch	ID: 44	098	R	RunNo: <b>58934</b>							
Prep Date: 4/4/2019	Analysis D	ate: 4/	5/2019	S	SeqNo: 1	982756	Units: mg/K	g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	ND	0.025										
Toluene	ND	0.050										
Ethylbenzene	ND	0.050										
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: Ics-44111	Tes	tCode: El	PA Method	8260B: Volat	iles Short	List						
Client ID: LCSS	Batch	ID: 44	111	RunNo: 58962								
Prep Date: 4/4/2019	Analysis D	ate: 4/	6/2019	S	SeqNo: 1	983547	Units: %Red	;				
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	SampT	ype: ME	BLK	Test	tCode: El	PA Method	8260B: Volat	iles Short	List			
Client ID: PBS	Batch	ID: 44	111	R	RunNo: 5	8962						
Prep Date: 4/4/2019	Analysis D	ate: 4/	6/2019	S	SeqNo: 1	983548	Units: %Red	;				
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

.

WO#:	1904171

08-Apr-19

Client: Project:	Devon Er Todd 26k	iergy C Federal 1	0										
Sample ID:	1904171-006ams	SampT	уре: М	S	Tes	tCode: E	PA Method	8015D Mod:	Gasoline	Range			
Client ID:	SS19-05 (0)	Batch	ID: 44	4098	F	RunNo: 5	8934						
Prep Date:	4/4/2019	Analysis D	ate: 4	/5/2019	S	SeqNo: 1	982758	Units: mg/K	(g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Rang Surr: BFB	e Organics (GRO)	22 480	4.7	23.70 23.70 473.9	0	91.1 100	68.2 70	135 130					
Sample ID:	1904171-006amsd	SampT	уре: <b>М</b>	SD	Tes	tCode: E	PA Method	8015D Mod:	Gasoline I	Range			
Client ID:	SS19-05 (0)	Batch	ID: 44	4098	F	RunNo: 5	8934						
Prep Date:	4/4/2019	Analysis D	ate: 4	/5/2019	S	SeqNo: 1	982759	Units: mg/K	(g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Rang	e 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	SampT	ype: L(	cs	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID:	LCSS	Batch	ID: 44	4098	F	RunNo: 5	8934						
Prep Date:	4/4/2019	Analysis D	ate: 4	/5/2019	5	SeqNo: 1	982789	Units: mg/K	(g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Rang	e Organics (GRO)	21	5.0	25.00	0	85.5	70	130					
Surr: BFB		500		500.0		100	70	130					
Sample ID:	lcs-44111	SampT	ype: L(	cs	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID:	LCSS	Batch	ID: 44	4111	F	RunNo: 5	8934						
Prep Date													
op Duto.	4/4/2019	Analysis D	ate: 4	/6/2019	S	SeqNo: 1	982790	Units: %Re	C				
Analyte	4/4/2019	Analysis D Result	ate: <b>4</b> PQL	/ <b>6/2019</b> SPK value	SPK Ref Val	SeqNo: 1 %REC	982790 LowLimit	HighLimit	° %RPD	RPDLimit	Qual		
Analyte Surr: BFB	4/4/2019	Analysis D Result 510	ate: 4	500.0	SPK Ref Val	SeqNo: 1 %REC 103	982790 LowLimit 70	HighLimit 130	%RPD	RPDLimit	Qual		
Analyte Surr: BFB Sample ID:	4/4/2019 mb-44111	Analysis D Result 510 SampTy	PQL ype: <b>M</b>	#/6/2019 SPK value 500.0 BLK	SPK Ref Val Tes	SeqNo: 1 %REC 103 tCode: E	982790 LowLimit 70 PA Method	HighLimit 130 8015D Mod:	c %RPD Gasoline I	RPDLimit	Qual		
Analyte Surr: BFB Sample ID: Client ID:	4/4/2019 mb-44111 PBS	Analysis D Result 510 SampTy Batch	ate: 4 PQL ype: M	500.0 BLK 1111	SPK Ref Val Tes	SeqNo: 1 %REC 103 tCode: E RunNo: 5	982790 LowLimit 70 PA Method 8934	HighLimit 130 8015D Mod:	c %RPD Gasoline I	RPDLimit Range	Qual		
Analyte Surr: BFB Sample ID: Client ID: Prep Date:	4/4/2019 mb-44111 PBS 4/4/2019	Analysis D Result 510 SampTy Batch Analysis Da	ate: <b>4</b> <u>PQL</u> ype: <b>M</b> ID: <b>4</b> 4 ate: <b>4</b>	500.0 BLK 4111 //6/2019	SPK Ref Val Tes F S	SeqNo: 1 %REC 103 tCode: El RunNo: 5 SeqNo: 1	982790 LowLimit 70 PA Method 8934 982791	HighLimit 130 8015D Mod: Units: %Red	c %RPD Gasoline I	RPDLimit	Qual		
Analyte Surr: BFB Sample ID: Client ID: Prep Date: Analyte	4/4/2019 mb-44111 PBS 4/4/2019	Analysis D Result 510 SampTy Batch Analysis Da Result	ate: 4 PQL ype: M ID: 44 ate: 4 PQL	//6/2019 SPK value 500.0 BLK 4111 //6/2019 SPK value	SPK Ref Val Tes F SPK Ref Val	SeqNo:         1           %REC         103           tCode:         El           RunNo:         5           SeqNo:         1           %REC         %REC	982790 LowLimit 70 PA Method 8934 982791 LowLimit	HighLimit 130 8015D Mod: Units: %Red HighLimit	c %RPD Gasoline I c %RPD	RPDLimit Range	Qual		
Analyte Surr: BFB Sample ID: Client ID: Prep Date: Analyte Surr: BFB	4/4/2019 mb-44111 PBS 4/4/2019	Analysis D Result 510 SampT Batch Analysis D Result 520	ate: 4 PQL ype: M ID: 44 ate: 4 PQL	//6/2019 SPK value 500.0 BLK 4111 //6/2019 SPK value 500.0	SPK Ref Val Tes F SPK Ref Val	SeqNo:         1           %REC         103           tCode:         E           RunNo:         5           SeqNo:         1           %REC         105           WanNo:         5           105         105	982790 LowLimit 70 PA Method 8934 982791 LowLimit 70	HighLimit 130 8015D Mod: Units: %Red HighLimit 130	C %RPD Gasoline I C %RPD	RPDLimit Range	Qual		
Analyte Surr: BFB Sample ID: Client ID: Prep Date: Analyte Surr: BFB Sample ID:	4/4/2019 mb-44111 PBS 4/4/2019 mb-44098	Analysis D Result 510 SampT Batch Analysis D Result 520 SampT	ate: 4 PQL ype: M 1D: 44 ate: 4 PQL PQL ype: M	//6/2019 SPK value 500.0 BLK 4111 //6/2019 SPK value 500.0 BLK	SPK Ref Val Tes F SPK Ref Val Tes	SeqNo: 1 %REC 103 tCode: E RunNo: 5 SeqNo: 1 %REC 105 tCode: E	982790 LowLimit 70 PA Method 8934 982791 LowLimit 70 PA Method	Units:         % Ref           HighLimit         130           8015D Mod:         Units:           Units:         % Ref           HighLimit         130           8015D Mod:         130           8015D Mod:         % Ref	c %RPD Gasoline I c %RPD Gasoline I	RPDLimit Range RPDLimit Range	Qual		
Analyte Surr: BFB Sample ID: Client ID: Prep Date: Analyte Surr: BFB Sample ID: Client ID:	4/4/2019 mb-44111 PBS 4/4/2019 mb-44098 PBS	Analysis D Result 510 SampT Batch Analysis D Result 520 SampT Batch	ate: 4 PQL ype: M 1D: 44 ate: 4 PQL PQL ype: M ID: 44	//6/2019 SPK value 500.0 BLK 4111 //6/2019 SPK value 500.0 BLK 4098	SPK Ref Val Tes SPK Ref Val SPK Ref Val Tes	SeqNo:         1           %REC         103           tCode:         E           RunNo:         5           SeqNo:         1           %REC         105           tCode:         E           RunNo:         5	982790 LowLimit 70 PA Method 8934 982791 LowLimit 70 PA Method 8934	HighLimit 130 8015D Mod: Units: %Red HighLimit 130 8015D Mod:	c %RPD Gasoline I %RPD Gasoline I	RPDLimit Range RPDLimit Range	Qual		
Analyte Surr: BFB Sample ID: Client ID: Prep Date: Analyte Surr: BFB Sample ID: Client ID: Prep Date:	4/4/2019 mb-44111 PBS 4/4/2019 mb-44098 PBS 4/4/2019	Analysis D Result 510 SampT Batch Analysis D SampT Batch Analysis D	ate:     4       PQL       ype:     M       ID:     42       PQL       ID:     42       ate:     4       ID:     42       ate:     4	//6/2019 SPK value 500.0 BLK 4111 //6/2019 SPK value 500.0 BLK 4098 //5/2019	SPK Ref Val Tes SPK Ref Val SPK Ref Val Tes F	SeqNo: 1           %REC           103           tCode: E           RunNo: 5           SeqNo: 1           %REC           105           tCode: E           RunNo: 5           SeqNo: 1           SeqNo: 1           SeqNo: 5           RunNo: 5           SeqNo: 1	982790 LowLimit 70 PA Method 8934 982791 LowLimit 70 PA Method 8934 982792	HighLimit 130 8015D Mod: Units: %Red HighLimit 130 8015D Mod: Units: mg/k	Gasoline I %RPD Gasoline I %RPD Gasoline I	RPDLimit Range RPDLimit Range	Qual		
Analyte Surr: BFB Sample ID: Client ID: Prep Date: Analyte Surr: BFB Sample ID: Client ID: Prep Date: Analyte	4/4/2019 mb-44111 PBS 4/4/2019 mb-44098 PBS 4/4/2019	Analysis D Result 510 SampT Batch Analysis D Result 520 SampT Batch Analysis D Result	ate:       4         PQL         ype:       M         1D:       44         ate:       4         PQL         ype:       M         1D:       44         ate:       4         PQL       10:         1D:       44         ate:       4         PQL       10:         ate:       4         PQL       10:         Ate:       4         PQL       10:	//6/2019 SPK value 500.0 BLK 4111 //6/2019 SPK value 500.0 BLK 4098 //5/2019 SPK value	SPK Ref Val Tes SPK Ref Val SPK Ref Val Tes SPK Ref Val	SeqNo: 1           %REC           103           tCode: El           RunNo: 5           SeqNo: 1           %REC           105           tCode: El           RunNo: 5           SeqNo: 1           %REC           tCode: El           RunNo: 5           SeqNo: 1           %REC           %REC	982790 LowLimit 70 PA Method 8934 982791 LowLimit 70 PA Method 8934 982792 LowLimit	HighLimit 130 8015D Mod: Units: %Red HighLimit 130 8015D Mod: Units: mg/K HighLimit	Gasoline I %RPD Gasoline I %RPD	RPDLimit Range RPDLimit Range RPDLimit	Qual		

#### **Qualifiers:**

E Value above quantitation range

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit W Sample container temperature is out of limit as specified at testcode

- PQL Practical Quanitative Limit S
  - % Recovery outside of range due to dilution or matrix

Page 19 of 19

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	LL VIRONMENT Alysis Boratory	AL	Ha TE	ll Environme CL: 505-345 Website: ww	ental Analy 49 Albuquer 3975 FAX w.hallenvi	vsis Lab 01 Haw que, NN 505-34 ironmen	oratory kins NE 1 87109 15-4107 ttal.com	Sample Log-In Check List					
Client Name	E: DEVON E	NERGY	Work	Order Num	nber: 190	4171			RcptNo: 1				
Received B	y: Yazmine	Garduno	4/3/201	9 8:50:00 /	AM		aja	nin lifnde	ŭ				
Completed B Reviewed B C	By: Isaiah Or BAD YGYB	tiz 4/3/19 NU	4/3/201	9 10:26:11	AM		П		24				
Chain of C	ustody												
1. Is Chain o	of Custody com	olete?			Yes	~	N		Not Present				
2. How was	the sample deli	vered?			Cou	rier							
Loa In													
3. Was an a	ttempt made to	cool the samp	les?		Yes	~	N	•					
4. Were all s	amples received	d at a tempera	ture of >0° C	to 6.0°C	Yes	~	N	• 🗆					
5. Sample(s)	) in proper conta	ainer(s)?			Yes	~	N	• 🗆					
6. Sufficient	sample volume	for indicated to	est(s)?		Yes	~	N	• 🗆					
7. Are sample	es (except VOA	and ONG) pro	operly preserve	ed?	Yes	~	No						
8. Was prese	ervative added to	o bottles?			Yes		N		NA 🗌				
9. VOA vials	have zero head	space?			Yes		N	П					
10 Were any	sample contain	ers received h	roken?		Voc	$\Box$	N						
10, 110, 0 4, 0,	earlipie contain		inoncin:		103				# of preserved				
11. Does pape (Note disc	erwork match bo repancies on ch	ottle labels? ain of custody	)		Yes	•	No		for pH: (<2 of >12 unless noted)				
12. Are matric	es correctly ider	ntified on Chai	n of Custody?		Yes		No		Adjusted?				
3. Is it clear v	vhat analyses w	ere requested	?		Yes		No						
14. Were all h	olding times abl	e to be met?			Yes		No		Checked by: YG 4314				
Special Har	ndling (if an	nlicable)							I				
15 Was clien	t notified of all d	liscrepancies	with this order	,	Voc		N						
TO, THE OICH	t notified of all d	Iscreparicies			res	النبار	N	• 🗆					
Pers	son Notified:			Date	1								
ByV	vnom:		_	Via:	eM	ail 🗌	Phone [	Fax	In Person				
Reg	arding:												
16 Additiona		1											
17. <u>Cooler</u> Ir	formation												
Cooler	No Temp °C	Condition	Seal Intact	Seal No	Seal D	ate	Signer	By					
1	2.1	Good	Yes										
2	2.8	Good	Yes										
3	5.6	Good	Yes										

Page 1 of 1

Necei	TAL		UD: 3.	///20			.03 F	<i>M</i>	(N ·	10 X	r Bubbles (	iA												<u> </u>	<del>(C 142-0j</del>	F23
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6	) day lura								No	1.2.2.1	HEAL No.	192-	-072	-103	-004	-005	006	-00-	-00%	-009	- 016	110-	Date Time	102/19 15	Date Time	his serves as notice of the
Time:	d 🗆 Rush	e:	K Federal 10		(C-0021>	ager:	Chanlib	hin C. Lar	Nes D	perature: 7 / C	Preservative Type	Lee	Lie	Lee	tee	Lee	Ice	hc	tee	Ice	Lev	Ice	-	the 4	COUNTER	credited laboratories. Th
Turn-Around	Standard	Project Nam	Teld 26	Project #:	(0	Project Mana	Vicinia	Samular.	On Ice:	Sample Tem	Container Type and #	(1/ scalo)	G1-30/1	6/455/1	G/155/1	6/455/1	6/03/1	(1/22)/1)	6/1-55/2	G/45/1	61a55/1	P/ssult)	Received A.	Alt	Received W: ,	ontracted to other ac
ustody Record	5	1	Seven Rivers	NM 83210	3-0176 505-350-133	ne Verlexica,	La devis e dur, com		er		Sample Request ID	5519-01 (O')	5519-01 (1')	5519.02(0')	5519-03 (0')	5519-04 (0')	5519-05 (0')	5519.06 (0')	5519-07 (0")	5519-08 (0°)	5519-09 (0)	54:9-10 (0')	d bv:	fisher t	hd by:	nitted to Hall Environmental may be subc
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Ū Relea	Client:	o Im	Mailing A	1.9/ Wa	Phone #:	email or	QA/QC P	Accredite			Date	05/04/10	-				-				-	>	Date: Ti	oyoy/19 3	Pate: Ti	If ne



November 06, 2020

Natalie Gordon Devon Energy 6488 Seven Rivers Highway Artesia, NM 88210 TEL: (505) 350-1336 FAX: Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

OrderNo.: 2010D74

RE: Todd 26 K Fed 10

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,

ander

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

CLIENT: Devon Energy Project: Todd 26 K Fed 10

Xylenes, Total

Surr: 4-Bromofluorobenzene

Analytical Report
Lab Order 2010D74

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/6/2020 Client Sample ID: SS20-01 0-0.5' Collection Date: 10/29/2020 2:55:00 PM

Lab ID: 2010D74-001	Matrix: SOIL		<b>Received Date:</b> 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						

ND

97.1

0.098

80-120

mg/Kg

%Rec

1

1

11/3/2020 2:27:32 AM

11/3/2020 2:27:32 AM 56138

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

Page 1 of 14
**Project:** 

Todd 26 K Fed 10

Analytical Report
Lab Order 2010D74

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/6/2020 Client Sample ID: SS20-02 0-0.5' Collection Date: 10/29/2020 9:06:00 AM

Lab ID: 2010D74-002	Matrix: SOIL	<b>Received Date:</b> 10/31/2020 11:00:00 AM								
Analyses	Result	RL	<b>RL</b> 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

Page 2 of 14

Todd 26 K Fed 10

2010D74-003

**Project:** 

Lab ID:

Analytical Report
Lab Order 2010D74

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/6/2020 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	It 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 ORGA	NICS				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

Matrix: SOIL

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

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- 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

Page 3 of 14

Todd 26 K Fed 10

**Diesel Range Organics (DRO)** 

Motor Oil Range Organics (MRO)

Gasoline Range Organics (GRO)

Methyl tert-butyl ether (MTBE)

Surr: 4-Bromofluorobenzene

**EPA METHOD 8021B: VOLATILES** 

**EPA METHOD 8015D: GASOLINE RANGE** 

**Project:** 

Lab ID:

Surr: DNOP

Surr: BFB

Benzene

Toluene

Ethylbenzene

Xylenes, Total

**Analytical Report** Lab Order 2010D74

11/3/2020 5:09:03 PM

11/3/2020 5:09:03 PM

11/3/2020 5:09:03 PM

11/3/2020 5:06:40 PM

11/3/2020 5:06:40 PM

11/3/2020 3:38:06 AM

56142

56142

56142

56138

56138

56138

56138

56138

56138

56138

56138

Analyst: NSB

Analyst: NSB

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/6/2020 Client Sample ID: SS20-04 0-0.5' Collection Date: 10/29/2020 3:00:00 PM

Lab ID: 2010D74-004	Matrix: SOIL	<b>Received Date:</b> 10/31/2020 11:00:00 AM								
Analyses	Result	RL Qu	al 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	E ORGANICS				Analyst:	BRM				

mg/Kg

mg/Kg

%Rec

mg/Kg

%Rec

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%Rec

1

1

1

1

1

1

1

1

1

1

1

9.1

45

4.9

30.4-154

75.3-105

0.098

0.024

0.049

0.049

0.098

80-120

ND

ND

98.2

ND

97.8

ND

ND

ND

ND

ND

98.3

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

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits J
- Sample pH Not In Range Р
- RL Reporting Limit

Page 4 of 14

CLIENT: Devon Energy Project: Todd 26 K Fed 10 Analytical Report
Lab Order 2010D74

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/6/2020
Client Sample ID: SS20-05 0-0.5'

Collection Date: 10/29/2020 2:45:00 PM

Lab ID: 2010D74-005	Matrix: SOIL	R	<b>Received Date:</b> 10/31/2020 11:00:00 AM							
Analyses	Result	RL Q	ual 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	1				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

Page 5 of 14

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**Project:** 

Todd 26 K Fed 10

Analytical Report
Lab Order 2010D74

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/6/2020 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

Lab ID: 2010D74-006	Matrix: SOIL		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 RANG	E 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 SHO	RTLIST				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
- D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of 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

Page 6 of 14

Client: Project:	Devon Todd 2	1 Energy 26 K Fed 10									
Sample ID:	MB-56197	SampT	BLK	Tes	tCode: EF	PA Method	300.0: Anion	s			
Client ID:	PBS	Batch	ID: 56	56197 RunNo: 73148							
Prep Date:	11/4/2020	Analysis D	ate: 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	SampT	ype: LC	S	Tes	tCode: EF	PA Method	300.0: Anion	s		
Client ID:	LCSS	Batch	ID: 56	197	R	unNo: 73	3148				
Prep Date:	11/4/2020	Analysis D	ate: 11	/4/2020	S	eqNo: 25	572600	Units: <b>mg/K</b>	g		
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

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2010D74

06-Nov-20

WO#:

-

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

Client: Project:	Devon E Todd 26	Energy K Fed 10									
Sample ID:	MB-56142	SampT	ype: <b>ME</b>	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	PBS	Batch	ID: 56	142	F	RunNo: 7	3104				
Prep Date:	11/2/2020	Analysis D	ate: 11	1/3/2020	5	SeqNo: 2	570759	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range ( Motor Oil Rang Surr: DNOP	Organics (DRO) ge Organics (MRO)	ND ND 11	10 50	10.00		108	30.4	154			
Sample ID:	LCS-56142	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Batch	ID: 56	142	F	RunNo: 7	3104		-	-	
Prep Date:	11/2/2020	Analysis D	ate: 11	/3/2020	S	SeqNo: 2	570760	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range ( Surr: DNOP	Organics (DRO)	53 5.9	10	50.00 5.000	0	107 118	70 30.4	130 154			
Sample ID:	2010D74-006AM	S SampT	уре: МS	6	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	SS20-06 0-0.5'	Batch	ID: 56	144	F	RunNo: 7	3117				
Prep Date:	11/2/2020	Analysis D	ate: 11	1/3/2020	S	SeqNo: 2	571099	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range ( Surr: DNOP	Organics (DRO)	37 3.6	9.8	49.16 4.916	0	76.1 72.8	15 30.4	184 154			
Sample ID:	2010D74-006AM	SD SampT	ype: <b>MS</b>	SD	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	SS20-06 0-0.5'	Batch	ID: 56	144	F	RunNo: 7	3117				
Prep Date:	11/2/2020	Analysis D	ate: 11	1/3/2020	S	SeqNo: 2	571100	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range ( Surr: DNOP	Organics (DRO)	31 2.6	9.5	47.44 4.744	0	65.6 55.4	15 30.4	184 154	18.4 0	23.9	
Sample ID:	LCS-56144	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Batch	ID: 56	144	F	RunNo: <b>7</b> :	3117				
Prep Date:	11/2/2020	Analysis D	ate: 11	1/3/2020	S	SeqNo: 2	571134	Units: mg/K	q		

Prep Date: 11/2/2020	Analysis Date: 11/3/2020			SeqNo: 2571134 Units: m				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

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WO#:	2010D74
	06-Nov-20

**Client:** 

**Project:** 

Analyte

Surr: DNOP

Sample ID: LCS-56145 Client ID: LCSS Prep Date: 11/2/2020

Sample ID: MB-56144

# **QC SUMMARY REPORT** Hall Environmental A

Result

4.2

PQL

SampType: MBLK

nmer	ntal Analysis Laborator	wo#:	2010D74 06-Nov-20
Devor Todd 2	n Energy 26 K Fed 10		
145	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics	
	Batch ID: 56145	RunNo: 73117	
020	Analysis Date: 11/3/2020	SeqNo: 2571135 Units: %Rec	

HighLimit

TestCode: EPA Method 8015M/D: Diesel Range Organics

154

%RPD

RPDLimit

Qual

LowLimit

30.4

Client ID: PBS	Batch II	Batch ID: 56144 RunNo: 73117							
Prep Date: 11/2/2020	Analysis Date	20	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	SampTyp	e: MBLK	Te	stCode: EP	A Method	8015M/D: Die	sel Range	e Organics	
Client ID: PBS	Batch II	D: 56145		RunNo: <b>73</b>	117				
Prep Date: 11/2/2020	Analysis Date	e: 11/3/202	20	SeqNo: 25	71137	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			

%REC

84.1

SPK value SPK Ref Val

5.000

**Qualifiers:** 

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- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
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- Analyte detected below quantitation limits J
- Р Sample pH Not In Range
- Reporting Limit RL

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Client: Devon Devo	Energy 6 K Fed 10										
Sample ID: mb-56138	SampT	BLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batc	h ID: 56	138	RunNo: <b>73078</b>							
Prep Date: 11/1/2020	Analysis E	Analysis Date: 11/2/2020			SeqNo: 2569443			Units: <b>mg/Kg</b>			
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: Ics-56138	SampT	Гуре: <b>LC</b>	S	Tes	tCode: EF	PA Method	8015D: Gaso	line Range	e		٦
Client ID: LCSS	Batcl	h ID: 56	138	R	RunNo: 73	8078					
Prep Date: 11/1/2020	Analysis E	Date: 11	/2/2020	S	SeqNo: 25	69444	Units: <b>mg/K</b>	g			
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:

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- J Analyte detected below quantitation limits
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06-Nov-20

WO#:

**Client:** 

**Project:** 

Sample ID: mb-56138

### **QC SUMMARY REPORT** Hall Environmental A

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nmen	tal Analysis Laborato	ory, Inc.	WO#:	2010D74 06-Nov-20
Devon Todd 2	Energy 26 K Fed 10			
38	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles		

Client ID: PBS	Batcl	n ID: 561	38	F	RunNo: 7:	3078				
Prep Date: 11/1/2020	Analysis D	Date: 11	/2/2020	5	SeqNo: 2	569524	Units: mg/K	g		
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	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Sample ID: LCS-56138 Client ID: LCSS	SampT Batcl	ype: <b>LC</b> : 1 ID: <b>561</b>	S  38	Tes F	tCode: EF RunNo: 7:	PA Method 3078	8021B: Volat	iles		
Sample ID: LCS-56138 Client ID: LCSS Prep Date: 11/1/2020	SampT Batcl Analysis D	<sup>-</sup> ype: <b>LC</b> : n ID: <b>561</b> Date: <b>11</b>	S  38 /2/2020	Tes F	tCode: EF RunNo: 7: SeqNo: 2	PA Method 3078 569525	8021B: Volat	iles g		
Sample ID: LCS-56138 Client ID: LCSS Prep Date: 11/1/2020 Analyte	SampT Batcl Analysis D Result	Type: <b>LC</b> n ID: <b>561</b> Date: <b>11</b> PQL	S  38 <i> 2/2020</i> SPK value	Tes F S SPK Ref Val	tCode: EF RunNo: 7: SeqNo: 2: %REC	PA Method 3078 569525 LowLimit	8021B: Volat Units: mg/K HighLimit	iles g %RPD	RPDLimit	Qual
Sample ID: LCS-56138 Client ID: LCSS Prep Date: 11/1/2020 Analyte Methyl tert-butyl ether (MTBE)	SampT Batcl Analysis E Result 0.81	Type: LC: n ID: 561 Date: 11 PQL 0.10	S 38 /2/2020 SPK value 1.000	Tes F S SPK Ref Val 0	tCode: EF RunNo: 7: SeqNo: 2: <u>%REC</u> 81.4	PA Method 3078 569525 LowLimit 70.9	8021B: Volat Units: mg/K HighLimit 141	iles g %RPD	RPDLimit	Qual
Sample ID: LCS-56138 Client ID: LCSS Prep Date: 11/1/2020 Analyte Methyl tert-butyl ether (MTBE) Benzene	SampT Batcl Analysis E Result 0.81 0.92	Type: LC: n ID: 561 Date: 11 PQL 0.10 0.025	S 38 /2/2020 SPK value 1.000 1.000	Tes F SPK Ref Val 0 0	tCode: EF RunNo: 7; SeqNo: 2! %REC 81.4 92.3	PA Method 3078 569525 LowLimit 70.9 80	8021B: Volat Units: mg/K HighLimit 141 120	iles g %RPD	RPDLimit	Qual
Sample ID: LCS-56138 Client ID: LCSS Prep Date: 11/1/2020 Analyte Methyl tert-butyl ether (MTBE) Benzene Toluene	SampT Batcl Analysis E Result 0.81 0.92 0.96	ype: LC: n ID: 561 Date: 11 PQL 0.10 0.025 0.050	S 38 /2/2020 SPK value 1.000 1.000 1.000	Tes F SPK Ref Val 0 0 0 0	tCode: <b>EF</b> RunNo: <b>7</b> ; SeqNo: <b>2</b> ; <u>%REC</u> 81.4 92.3 96.1	PA Method 3078 569525 LowLimit 70.9 80 80	8021B: Volat Units: mg/K HighLimit 141 120 120	iles g %RPD	RPDLimit	Qual
Sample ID: LCS-56138 Client ID: LCSS Prep Date: 11/1/2020 Analyte Methyl tert-butyl ether (MTBE) Benzene Toluene Ethylbenzene	SampT Batcl Analysis E Result 0.81 0.92 0.96 0.96	Type:         LC:           n ID:         561           Date:         11           PQL         0.10           0.025         0.050           0.050         0.050	S  38 /2/2020 SPK value 1.000 1.000 1.000 1.000	Tes F SPK Ref Val 0 0 0 0 0	tCode: <b>EF</b> RunNo: <b>7</b> SeqNo: <b>2</b> %REC 81.4 92.3 96.1 95.9	PA Method 3078 569525 LowLimit 70.9 80 80 80	8021B: Volat Units: mg/K HighLimit 141 120 120 120	g %RPD	RPDLimit	Qual
Sample ID: LCS-56138 Client ID: LCSS Prep Date: 11/1/2020 Analyte Methyl tert-butyl ether (MTBE) Benzene Toluene Ethylbenzene Xylenes, Total	SampT Batcl Analysis D Result 0.81 0.92 0.96 0.96 2.9	Type:         LC:           n ID:         561           Date:         11           PQL         0.10           0.025         0.050           0.050         0.10	S 38 /2/2020 SPK value 1.000 1.000 1.000 1.000 3.000	Tes F SPK Ref Val 0 0 0 0 0 0 0	tCode: EF RunNo: 7: SeqNo: 2: %REC 81.4 92.3 96.1 95.9 95.4	PA Method 3078 569525 LowLimit 70.9 80 80 80 80 80	8021B: Volat Units: mg/K HighLimit 141 120 120 120 120	g %RPD	RPDLimit	Qual

**Qualifiers:** 

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- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
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WO#:	2010D74

06-Nov-20

Client: Devon Er Project: Todd 26	nergy K Fed 10									
Sample ID: 2010d74-006ams	SampT	SampType: MS4 TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SS20-06 0-0.5'	Batcl	h ID: 561	139	F	RunNo: 73	3158				
Prep Date: 11/1/2020	Analysis D	Date: 11	/2/2020	5	SeqNo: 2	572725	Units: mg/K	g		
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: \$\$20-06 0-0.5'	Batcl	h ID: <b>56</b> 1	139	F	RunNo: 73	3158				
Prep Date: 11/1/2020	Analysis E	Date: 11	/2/2020	5	SeqNo: 2	572726	Units: mg/K	g		
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: Ics-56139	SampT	Гуре: <b>LC</b>	S4	Tes	tCode: EF	PA Method	8260B: Volat	iles Short	List	
Client ID: BatchQC	Batcl	h ID: <b>56</b> 1	139	F	RunNo: 73	3158				
Prep Date: 11/1/2020	Analysis D	Date: 11	/2/2020	5	SeqNo: 25	572746	Units: mg/K	g		
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:

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	WO#:	2010D74
vironmental Analysis Laboratory, Inc.		06-Nov-20

**Client:** Devon Energy **Project:** Todd 26 K Fed 10

-											
Sample ID: mb-56139	SampT	Гуре: МЕ	BLK	TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: PBS	Batcl	h ID: 561	139	R	RunNo: 7:	3158					ļ
Prep Date: 11/1/2020	Analysis D	Date: 11	/2/2020	S	SeqNo: 2	572747	Units: mg/K	g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Kylenes, Total	ND	0.10									
Surr: 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:** 

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Released to Imaging: 3/19/2024 10:52:07 AM

Client:DevoiProject:Todd	n Energy 26 K Fed 10									
Sample ID: Ics-56139	SampTy	pe: <b>LC</b>	S	Tes	tCode: EF	PA Method	8015D Mod:	Gasoline I	Range	
Client ID: LCSS	Batch	ID: 56	139	R	unNo: 73	8158				
Prep Date: 11/1/2020	Analysis Da	ite: 11	/2/2020	S	eqNo: 25	572773	Units: mg/K	g		
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	SampTy	pe: ME	BLK	Tes	tCode: EF	PA Method	8015D Mod:	Gasoline I	Range	
Client ID: PBS	Batch	ID: 56	139	R	unNo: 73	8158				
Prep Date: 11/1/2020	Analysis Da	ite: 11	/2/2020	S	SeqNo: 25	572774	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	530		500.0		105	70	130			

Qualifiers:

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06-Nov-20

WO#:

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HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environ TEL: 505-34 Website: cl	nmental Analy 490 Albuquerd 5-3975 FAX: ients.hallenvi	sis Labor 11 Hawkir 10e, NM 8 505-345 ronmenta	ratory ns NE 87109 -4107 Leom	Sar	nple Log-In Check List
Client Name: Devon Energy	Work Order N	umber: 201	0D74			RcptNo: 1
Received By: Erin Melendrez	10/31/2020 11:0	0:00 AM				
Completed By: Erin Melendrez	10/31/2020 11:2	2:53 AM				
Reviewed By: DF 10/51/2020						
Chain of Custody						
1. Is Chain of Custody complete?		Yes		No		Not Present
2. How was the sample delivered?		Cou	rier			
Log In						
3. Was an attempt made to cool the samples?		Yes	V	No		NA
4. Were all samples received at a temperature of	>0° C to 6.0°C	Yes		No		
5. Sample(s) in proper container(s)?		Yes	V	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	<b>v</b>	NA 🗌
9. Received at least 1 vial with headspace <1/4" f	or AQ VOA?	Yes		No		NA 🗹
10. Were any sample containers received broken?		Yes		No	~	# of preserved
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes		No		for pH: (<2 or>12 unless noted)
12. Are matrices correctly identified on Chain of Cu	istody?	Yes	~	No		Adjusted?
13. Is it clear what analyses were requested?		Yes	$\checkmark$	No		/
<ol> <li>Were all holding times able to be met? (If no, notify customer for authorization.)</li> </ol>		Yes		No	-	Checked by: ENH 10/3/
Special Handling (if applicable)						
15. Was client notified of all discrepancies with thi	s order?	Yes		No		NA 🗹
Person Notified:	Da	ate:			-	
By Whom:	Vi	a: 🗌 eM	ail 🗌 F	Phone	] Fax	In Person
Regarding: Client Instructions:			_		_	
16. Additional remarks:						
17. <u>Cooler Information</u> Cooler No Temp °C Condition Sea	Intact Seal N	o Seal D	ate	Signed	Ву	

Page 1 of 1

-Custody Record	Turn-Around Time: 5-dey Rus		NVTBONMENTAL
	Dr Standard Rush	ANALYS	STS LABORATORY
	Project Name:		
n fi'le	Todd Alst Fed 10	4901 Hawkins NE - All	puquerque, NM 87109
	Project #:	Tel. 505-345-3975	Fax 505-345-4107
	196-00575-003	Anal	ysis Request
	Project Manager:	*0 (0)	(tu
Level 4 (Full Validation)	1 lordelie ( 2m don	ЬО⁴ <sup>,</sup> S NSIMS DCB's D / MR s (802 <sup>.</sup>	ləzdA\t
Compliance	Sampler: 7 R	10 <sup>5</sup> , 3270 782 782 7082	uəsə
her	On Ice: 🛛 Yes 🗆 No	/ T / / 05 8/80 8/80 8/80 8/80 8/80 8/80 8/80 8/	(Α( Έτε
	# of Coolers: /	10 <sup>3</sup> (СВ (СВ (СВ (СВ (СВ (СВ	) ш. О∧-
	Cooler Temp(including CF): 3. 0+0.1(CF) -3. 1 (	0 150 150 191 191 191 191 191 191 191 191 191 19	(AO) imeá notilo
x Sample Name	Container Preservative 70,0070	КЕТЕУ/ 8081 P ВОВ P ВОВ (М ВОВ (М ВОВ СКА В ССКА В ССКА В ССКА В ССКА В СССКА В ССССКА В СССССССКА В СССССССССКА В СССССССССССССССССССССССССС	/) 03260 (/ 8250 (2 D lstoT D lstoT
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	" ACHTIN AT ()	V I V V V V	-1 1/1T



November 06, 2020

Natalie Gordon Devon Energy 6488 Seven Rivers Highway Artesia, NM 88210 TEL: (575) 748-0176 FAX: Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

OrderNo.: 2010D77

RE: Todd 26K Fed 10

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,

ander

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

CLIENT: Devon Energy Project: Todd 26K Fed 10 Analytical Report
Lab Order 2010D77

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/6/2020 Client Sample ID: BH20-01 Collection Date: 10/29/2020 10:10:00 AM Pageiyad Date: 10/21/2020 11:00:00 AM

Lab ID: 2010D77-001	Matrix: SOIL	Rece	ived Date:	10/31/	2020 11:00:00 AM
Analyses	Result	RL Qua	al 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 RA	NGE				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

Page 1 of 6

**CLIENT:** Devon Energy Project: Todd 26K Fed 10 **Analytical Report** Lab Order 2010D77

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/6/2020 Client Sample ID: BH20-02 Collection Date: 10/29/2020 10:20:00 AM

Lab ID: 2010D77-002	Matrix: SOIL	Recei	ved Date:	10/31/	2020 11:00:00 AM
Analyses	Result	RL Qua	l 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 RA	ANGE				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
- Н 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

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits Р
- Sample pH Not In Range
- RL Reporting Limit

Page 2 of 6

Client: Project:	Devon Todd 2	Energy 26K Fed 10									
Sample ID:	MB-56226	SampTy	/pe: <b>mb</b>	olk	Tes	tCode: EF	PA Method	300.0: Anion	s		
Client ID:	PBS	Batch	ID: 562	226	F	unNo: 73	3149				
Prep Date:	11/5/2020	Analysis Da	ate: 11	/5/2020	S	eqNo: 25	573344	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID:	LCS-56226	SampTy	/pe: Ics	;	Tes	tCode: EF	PA Method	300.0: Anion	s		
Client ID:	LCSS	Batch	ID: 562	226	F	unNo: 73	3149				
Prep Date:	11/5/2020	Analysis Da	ate: 11	/5/2020	5	SeqNo: 25	573345	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	92.1	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

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2010D77

06-Nov-20

WO#:

#### **Released to Imaging: 3/19/2024 10:52:07 AM**

WO#:	2010D77
	06-Nov-20

Client:	Devon	Energy									
Project:	Todd 2	26K Fed 10									
Sample ID:	LCS-56144	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Batch	ID: 56	144	F	RunNo: 73	3117				
Prep Date:	11/2/2020	Analysis Da	ate: 11	1/3/2020	S	SeqNo: 2	571134	Units: %Red	;		
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	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Batch	ID: 56	145	F	RunNo: 73	3117				
Prep Date:	11/2/2020	Analysis Da	ate: <b>1</b> 1	1/3/2020	5	SeqNo: 2	571135	Units: mg/K	g		
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	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	PBS	Batch	ID: 56	144	F	RunNo: 73	3117				
Prep Date:	11/2/2020	Analysis Da	ate: <b>1</b> 1	1/3/2020	5	SeqNo: 2	571136	Units: %Red	;		
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	SampT	ype: <b>ME</b>	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	PBS	Batch	ID: 56	145	F	RunNo: 73	3117				
Prep Date:	11/2/2020	Analysis Da	ate: 11	1/3/2020	S	SeqNo: 25	571137	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (	Organics (DRO)	ND	10								
Motor Oil Rang	ge 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

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**Client:** 

**Project:** 

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

W

′O#:	2010D77
	06-Nov-20

Sample ID: Ics-56140	Samp	Гуре: <b>LC</b>	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batc	h ID: 561	40	F	RunNo: 7:	3147					
Prep Date: 11/1/2020	Analysis [	Date: 11	/2/2020	S	SeqNo: 2	572387	Units: mg/K	g			
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	Samp	Гуре: <b>МВ</b>	IK	Tes	tCode: EF	PA Method	8260B: Volat	iles Short	List		
Sample ID: mb-56140 Client ID: PBS	Samp <sup>-</sup> Batc	Гуре: <b>МВ</b> h ID: <b>56</b> 1	BLK 140	Tes F	tCode: Ef	PA Method 3147	8260B: Volat	iles Short	List		
Sample ID: <b>mb-56140</b> Client ID: <b>PBS</b> Prep Date: <b>11/1/2020</b>	Samp Batc Analysis [	Гуре: <b>МВ</b> h ID: <b>56</b> 1 Date: <b>11</b>	BLK  40 /2/2020	Tes F S	tCode: EF RunNo: 73 SeqNo: 2	PA Method 3147 572388	8260B: Volat Units: mg/K	iles Short g	List		
Sample ID: <b>mb-56140</b> Client ID: <b>PBS</b> Prep Date: <b>11/1/2020</b> Analyte	Samp⊺ Batc Analysis ⊑ Result	Гуре: <b>МЕ</b> h ID: <b>56</b> 1 Date: <b>11</b> PQL	SLK  40 <i> 2</i> /2020 SPK value	Tes F S SPK Ref Val	tCode: EF RunNo: 7: SeqNo: 2: %REC	PA Method 3147 572388 LowLimit	8260B: Volat Units: mg/K HighLimit	iles Short g %RPD	<b>List</b> RPDLimit	Qual	
Sample ID: mb-56140 Client ID: PBS Prep Date: 11/1/2020 Analyte Benzene	Samp Batc Analysis I Result ND	Type: <b>ME</b> h ID: <b>56</b> 1 Date: <b>11</b> PQL 0.025	SLK 40 /2/2020 SPK value	Tes F S SPK Ref Val	tCode: EF RunNo: 7: SeqNo: 2: %REC	PA Method 3147 572388 LowLimit	8260B: Volat Units: mg/K HighLimit	iles Short g %RPD	List RPDLimit	Qual	
Sample ID: mb-56140 Client ID: PBS Prep Date: 11/1/2020 Analyte Benzene Toluene	Samp Batc Analysis I Result ND ND	Fype: <b>MB</b> h ID: <b>56</b> 1 Date: <b>11</b> PQL 0.025 0.050	BLK 140 /2/2020 SPK value	Tes F SPK Ref Val	tCode: EF RunNo: 7; SeqNo: 2! %REC	PA Method 3147 572388 LowLimit	8260B: Volat Units: mg/K HighLimit	iles Short g %RPD	List RPDLimit	Qual	
Sample ID: mb-56140 Client ID: PBS Prep Date: 11/1/2020 Analyte Benzene Toluene Ethylbenzene	Samp Batc Analysis I Result ND ND ND	Fype: <b>ME</b> h ID: <b>56</b> 1 Date: <b>11</b> PQL 0.025 0.050 0.050	BLK 140 /2/2020 SPK value	Tes F SPK Ref Val	tCode: EF RunNo: 7: SeqNo: 2! %REC	PA Method 3147 572388 LowLimit	8260B: Volat Units: mg/K HighLimit	iles Short g %RPD	<b>RPDLimit</b>	Qual	
Sample ID: mb-56140 Client ID: PBS Prep Date: 11/1/2020 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Samp Batc Analysis I Result ND ND ND ND	Type: <b>MB</b> h ID: <b>56</b> 1 Date: <b>11</b> PQL 0.025 0.050 0.050 0.10	BLK 140 /2/2020 SPK value	Tes F SPK Ref Val	tCode: EF RunNo: 7: SeqNo: 2: %REC	PA Method 3147 572388 LowLimit	8260B: Volat Units: mg/K HighLimit	iles Short g %RPD	List RPDLimit	Qual	
Sample ID: mb-56140 Client ID: PBS Prep Date: 11/1/2020 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 1,2-Dichloroethane-d4	Samp Batc Analysis I Result ND ND ND ND 0.47	Type: <b>ME</b> h ID: <b>56</b> 1 Date: <b>11</b> PQL 0.025 0.050 0.050 0.10	SLK 40 /2/2020 SPK value 0.5000	Tes F SPK Ref Val	tCode: EF RunNo: 7: SeqNo: 2! %REC 93.7	PA Method 3147 572388 LowLimit 70	8260B: Volat Units: mg/K HighLimit 130	iles Short g %RPD	List RPDLimit	Qual	
Sample ID: mb-56140 Client ID: PBS Prep Date: 11/1/2020 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene	Samp Batc Analysis I Result ND ND ND ND 0.47 0.54	Type: ME h ID: 561 Date: 11 PQL 0.025 0.050 0.050 0.10	6LK 40 /2/2020 SPK value 0.5000 0.5000	Tes F SPK Ref Val	tCode: EF RunNo: 7: SeqNo: 2! %REC 93.7 107	PA Method 3147 572388 LowLimit 70 70	8260B: Volat Units: mg/K HighLimit 130 130	iles Short g %RPD	<b>R</b> PDLimit	Qual	
Sample ID: mb-56140 Client ID: PBS Prep Date: 11/1/2020 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene Surr: Dibromofluoromethane	Samp Batc Analysis I Result ND ND ND 0.47 0.54 0.47	Type: MB h ID: 561 Date: 11 PQL 0.025 0.050 0.050 0.10	6LK 140 /2/2020 SPK value 0.5000 0.5000 0.5000	Tes F SPK Ref Val	tCode: EF RunNo: 7: SeqNo: 2! %REC 93.7 107 94.6	PA Method 3147 572388 LowLimit 70 70 70 70	8260B: Volat Units: mg/K HighLimit 130 130 130	iles Short g %RPD	<b>R</b> PDLimit	Qual	

**Qualifiers:** 

\* Value exceeds Maximum Contaminant Level.

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

ND Not Detected at the Reporting Limit

- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 5 of 6

Client: Devo Project: Todd	on Energy 26K Fed 10									
Sample ID: Ics-56140 SampType: LCS TestCode: EPA Me					PA Method	8015D Mod:	Gasoline I	Range		
Client ID: LCSS	Batcl	h ID: 56	140	R	unNo: 73	8147				
Prep Date: 11/1/2020	Analysis D	Date: 11	/2/2020	S	eqNo: 25	572458	Units: mg/K	g		
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	SampT	Гуре: <b>МЕ</b>	BLK	Tes	tCode: EF	PA Method	8015D Mod:	Gasoline I	Range	
Client ID: PBS	Batcl	h ID: 56	140	R	unNo: 73	8147				
Prep Date: 11/1/2020	Analysis D	Date: 11	/2/2020	S	SeqNo: 25	572459	Units: <b>mg/K</b>	g		
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

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2010D77

06-Nov-20

WO#:

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Page	1	<b>67</b>	of	238
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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: 201	0D77			RcptNo: 1				
Received By: Erin Melendrez 1	0/31/2020 11	:00:00 AM								
Completed By: Erin Melendrez 1	0/31/2020 12	:13:47 PM								
Reviewed By: 1 10/51/2020										
Chain of Custody										
1. Is Chain of Custody complete?		Yes		No		Not Present				
2. How was the sample delivered?		Cou	rier							
Log In 3 Was an attempt made to cool the complex?		Vas		No						
o. Was an allempt made to cool the samples?		res		140						
4. Were all samples received at a temperature of	>0° C to 6.0°	C Yes	~	No						
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 p	reserved?	Yes	$\checkmark$	No						
8. Was preservative added to bottles?		Yes		No	~	NA 🗔				
9. Received at least 1 vial with headspace <1/4" for	r AQ VOA?	Yes		No		NA 🗹				
10. Were any sample containers received broken?		Yes		No	~	# of preserved				
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes		No		bottles checked for pH: (<2 or >12 unless noted)				
12. Are matrices correctly identified on Chain of Cus	stody?	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/				
Special Handling (if applicable)										
15. Was client notified of all discrepancies with this	order?	Yes		No		NA 🔽				
Person Notified:		Date:			-					
By Whom:		Via: 🗌 eM	ail 🗌 Pho	one 🗌	Fax	In Person				
Regarding:										
Client Instructions:										
16. Additional remarks:										
17. <u>Cooler Information</u> Cooler No Temp <sup>o</sup> C Condition Seal 1 3.1 Good	Intact Seal	No Seal D	ate S	Signed E	By					

Page 1 of 1

All SSI Laboration     Mat SSI Laboration       Project Name:     Project Name:       Project Name:     Project Name:       Markins N Albuquerque, NM 87109       Project Nameger:	ustody Record	Turn-Around Time: 5 day Rush		HALLE	IVN	RONMENT	teceived
Product Name:     Product Name:       Texted Plu L     Feed Plu L       Texted Plu L     Feed Plu L       Project Manager:     Project Manager:       Project Manager:		Contraction Carlos Contraction		ANALY	SIS	LABORATC	RY
Project #:         Project Manage:         Multiplicity         Multiplicity           Project #:         Project Manage:         Project Manage:         Project Manage:         Add Add A           Project Manage:         Project Manage:         Project Manage:         Add Add A         Add Add A           Project Manage:         Project Manage:         Project Manage:         Add Add Add A         Add Add Add A           Add Add Add Add Add Add Add Add Add Ad		Project Name:		www.hallen	ivironme	ntal.com	)CD
Project #:         Modect #:           Project #:         Project #:           Project #:         Project #:           Project Manager:         Project Manager:           Prop         Project Manager:      <		Todd 210 K Fed 10	4901 Hav	vkins NE - Al	Ibuquerq	lue, NM 87109	): 3/7
Project Manager: Project Mana		Project #:	Tel. 505-	345-3975	Fax 50	5-345-4107	/202
Project Manager:         Project Manager:           Project Manager:         Project Temposter:           Project Manager:         Project Manager:           Project Manager: <td></td> <td>196-00575,007</td> <td></td> <td>Anal</td> <td>lysis Re</td> <td>quest</td> <td>4 3:</td>		196-00575,007		Anal	lysis Re	quest	4 3:
Protection Market Preservative Prese		Project Manager:	(o) (1	*O	_	(tn	21:0
Interference         Interference<			СВ, <sup>2</sup> \	S '*O	- 14-	iəsdA'	05 PM
Torrest of the second of	Valuation	Ngrane Jonan	S F B's	3 ' <sup>2</sup> 502	. 17	dre	
10 All Carlos     10 All		Sampler: $\mathcal{J}, \mathcal{R}$	МТ 80:	40 <sup>3</sup>		)SƏ	_
Image: Solution of the soluti		On Ice: NY Yes 🗆 No	05 8/s	10 10	(AC	(Pr	
Josef 1 and State     Cooler Templaneachi.3     Cooler Templaneachi.3     Cooler Templaneachi.3       Container     Preservative     HEAL W.     Preservative       Container     Preservative     HEAL W.     Preservative       Container     Preservative     HEAL W.     Preservative       Preservative     Preservative     HEAL W.     Preservative       Preservative     Preservative     Preservative     Preservative       Pre		# of Coolers: \	BE (GF (GF		-^C	u.	
Londaner     Treservatve       Type and #     Type       Type and #     Type<		Cooler Temp(including cF): 3_0+0_1(CF)=3_(°C)	TM <sup>7</sup> (& D3108 Dits99 Dits99	8 by 83 8 M 8 M 9 M 8 M	(AOV) (	ofiloD I	_
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Base 108 of       Base 108 of       Base 108 of       Received by:       Via:       Date Time							
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November 10, 2020

Natalie Gordon Devon Energy 6488 Seven Rivers Highway Artesia, NM 88210 TEL: (575) 748-0176 FAX: Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

OrderNo.: 2010D78

RE: Todd 26K Fed 10

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,

ander

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Todd 26K Fed 10

**Project:** 

Analytical Report
Lab Order 2010D78

Date Reported: 11/10/2020

### Hall Environmental Analysis Laboratory, Inc.

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

Lab ID: 2010D78-001	Matrix: SOIL	Recei	ved Date:	10/31/	2020 11:00:00 AM
Analyses	Result	RL Qua	l 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 SHOR	T 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 R	ANGE				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

Page 1 of 6

CLIENT: Devon Energy Project: Todd 26K Fed 10 Analytical Report
Lab Order 2010D78

### Hall Environmental Analysis Laboratory, Inc.

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

Lab ID: 2010D78-002	Matrix: SOIL	Recei	ved Date:	10/31/	2020 11:00:00 AM
Analyses	Result	RL Qua	l 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 SHOR	T 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 R	ANGE				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

Page 2 of 6

Client: Project:	Devon Todd 2	Energy 26K Fed 10									
Sample ID:	MB-56226	SampTy	/pe: <b>mb</b>	olk	Tes	tCode: EF	PA Method	300.0: Anion	s		
Client ID:	PBS	Batch	ID: 562	226	F	unNo: 73	3149				
Prep Date:	11/5/2020	Analysis Da	ate: 11	/5/2020	S	eqNo: 25	573344	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID:	LCS-56226	SampTy	/pe: Ics	;	Tes	tCode: EF	PA Method	300.0: Anion	s		
Client ID:	LCSS	Batch	ID: 562	226	F	unNo: 73	3149				
Prep Date:	11/5/2020	Analysis Da	ate: 11	/5/2020	5	SeqNo: 25	573345	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	92.1	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

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2010D78

10-Nov-20

WO#:

### Released to Imaging: 3/19/2024 10:52:07 AM

Client: Dev Project: Tod	von Energy ld 26K Fed 10												
Sample ID: LCS-56145	SampT	Type: LC	S	Tes	tCode: Ef	PA Method	8015M/D: Die	esel Range	e Organics				
Client ID: LCSS	: LCSS Batch ID: 56145 RunNo: 73117												
Prep Date: 11/2/2020	Analysis D	Date: 11	/3/2020	S	SeqNo: 2	571135	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	SampT	Гуре: <b>МЕ</b>	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics				
Client ID: PBS	Batcl	h ID: 56'	145	F	RunNo: 7	3117							
Prep Date: 11/2/2020	Analysis D	Date: 11	/3/2020	S	SeqNo: 2	571137	Units: <b>mg/K</b>	íg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Diesel Range Organics (DRO)	ND	10											
Motor Oil Range Organics (MR	0) 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

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2010D78

10-Nov-20

WO#:

Devon Energy

Todd 26K Fed 10

**Client:** 

**Project:** 

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

WO#:

#:	2010D78
	10-Nov-20

Sample ID: Ics-56140	SampT	ype: <b>LC</b>	S4	Tes	tCode: EF	PA Method	8260B: Volat	iles Short	List							
Client ID: BatchQC Batch ID: 56140				RunNo: 73147												
Prep Date: 11/1/2020	Analysis E	Date: 11	/2/2020	S	eqNo: 2	572387	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									
			0.0000		00.0											
Sample ID: mb-56140	SampT	Гуре: <b>МВ</b>	LK	Tes	tCode: EF	PA Method	8260B: Volat	iles Short	List							
Sample ID: mb-56140 Client ID: PBS	Samp1 Batcl	「ype: <b>ME</b> h ID: <b>56</b> 1	5LK 40	Tes	tCode: EF	PA Method 3147	8260B: Volat	iles Short	List							
Sample ID: <b>mb-56140</b> Client ID: <b>PBS</b> Prep Date: <b>11/1/2020</b>	Samp1 Batcl Analysis [	「ype: <b>ME</b> h ID: <b>56</b> 1 Date: <b>11</b>	LK 40 /2/2020	Tes R S	tCode: EF	PA Method 3147 572388	8260B: Volat	iles Short	List							
Sample ID: <b>mb-56140</b> Client ID: <b>PBS</b> Prep Date: <b>11/1/2020</b> Analyte	SampT Batcl Analysis E Result	Type: <b>MB</b> h ID: <b>56</b> 1 Date: <b>11</b> PQL	212020 SPK value	Tes R S SPK Ref Val	tCode: EF RunNo: 7; SeqNo: 2; %REC	PA Method 3147 572388 LowLimit	8260B: Volat Units: mg/K HighLimit	iles Short g %RPD	List RPDLimit	Qual						
Sample ID: mb-56140 Client ID: PBS Prep Date: 11/1/2020 Analyte Benzene	SampT Batcl Analysis E Result ND	Type: <b>MB</b> h ID: <b>56</b> 1 Date: <b>11</b> PQL 0.025	SPK value	Tes R S SPK Ref Val	tCode: EF RunNo: 7: GeqNo: 2! %REC	PA Method 3147 572388 LowLimit	8260B: Volat Units: mg/K HighLimit	iles Short g %RPD	List RPDLimit	Qual						
Sample ID: <b>mb-56140</b> Client ID: <b>PBS</b> Prep Date: <b>11/1/2020</b> Analyte Benzene Toluene	SampT Batcl Analysis E Result ND ND	Type: ME h ID: 561 Date: 11 PQL 0.025 0.050	5LK 40 /2/2020 SPK value	Tes F S SPK Ref Val	tCode: EF RunNo: 7: SeqNo: 2: %REC	PA Method 3147 572388 LowLimit	8260B: Volat Units: mg/K HighLimit	iles Short g %RPD	List RPDLimit	Qual						
Sample ID: <b>mb-56140</b> Client ID: <b>PBS</b> Prep Date: <b>11/1/2020</b> Analyte Benzene Toluene Ethylbenzene	SampT Batcl Analysis E Result ND ND ND	Fype: ME h ID: 561 Date: 11 PQL 0.025 0.050 0.050	5LK 40 /2/2020 SPK value	Tes R SPK Ref Val	tCode: EF RunNo: 7; SeqNo: 2; %REC	PA Method 3147 572388 LowLimit	8260B: Volat Units: mg/K HighLimit	iles Short g %RPD	List RPDLimit	Qual						
Sample ID: mb-56140 Client ID: PBS Prep Date: 11/1/2020 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	SampT Batcl Analysis E Result ND ND ND ND ND	Type: ME h ID: 561 Date: 11 PQL 0.025 0.050 0.050 0.10	5LK 40 /2/2020 SPK value	Tes R SPK Ref Val	tCode: EF RunNo: 7: SeqNo: 2: %REC	PA Method 3147 572388 LowLimit	8260B: Volat Units: mg/K HighLimit	iles Short g %RPD	List RPDLimit	Qual						
Sample ID: mb-56140 Client ID: PBS Prep Date: 11/1/2020 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 1,2-Dichloroethane-d4	Samp1 Batcl Analysis E Result ND ND ND ND ND 0.47	Type: <b>ME</b> h ID: <b>56</b> 1 Date: <b>11</b> 0.025 0.050 0.050 0.10	5LK 40 /2/2020 SPK value 0.5000	Tes R SPK Ref Val	tCode: EF RunNo: 7: GeqNo: 2! %REC 93.7	PA Method 3147 572388 LowLimit 70	8260B: Volat Units: mg/K HighLimit 130	iles Short g %RPD	List RPDLimit	Qual						
Sample ID: mb-56140 Client ID: PBS Prep Date: 11/1/2020 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene	Samp Batch Analysis E Result ND ND ND ND 0.47 0.54	Type: <b>ME</b> h ID: <b>56</b> 1 Date: <b>11</b> <u>PQL</u> 0.025 0.050 0.050 0.10	0.5000 SLK /2/2020 SPK value 0.5000 0.5000	Tes F SPK Ref Val	93.7 107	PA Method 3147 572388 LowLimit 70 70	8260B: Volat Units: mg/K HighLimit 130 130	iles Short g %RPD	<b>List</b> RPDLimit	Qual						
Sample ID: mb-56140 Client ID: PBS Prep Date: 11/1/2020 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene Surr: Dibromofluoromethane	Samp1 Batcl Analysis E Result ND ND ND 0.47 0.54 0.47	Type: <b>ME</b> h ID: <b>56</b> 1 Date: <b>11</b> 0.025 0.050 0.050 0.10	0.5000 SLK /2/2020 SPK value 0.5000 0.5000 0.5000	Tes F SPK Ref Val	eqNo: <b>2</b> %REC 93.7 107 94.6	PA Method 3147 572388 LowLimit 70 70 70 70 70	8260B: Volat Units: mg/K HighLimit 130 130 130	iles Short g %RPD	<b>List</b> RPDLimit	Qual						

**Qualifiers:** 

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- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 5 of 6

Client: Devo Project: Todd	n Energy 26K Fed 10									
Sample ID: Ics-56140	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8015D Mod:	Gasoline F	Range	
Client ID: LCSS	Batch	ID: 561	40	R	unNo: 73	8147				
Prep Date: 11/1/2020	Analysis D	ate: 11	/2/2020	S	eqNo: 25	572458	Units: mg/K	g		
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	SampT	ype: <b>ME</b>	LK	Tes	tCode: EF	PA Method	8015D Mod:	Gasoline I	Range	
Client ID: PBS	Batch	ID: 561	40	R	unNo: 73	8147				
Prep Date: 11/1/2020	Analysis D	ate: 11	/2/2020	S	SeqNo: 25	572459	Units: <b>mg/K</b>	g		
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:

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2010D78

10-Nov-20

WO#:

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HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environm TEL: 505-345- Website: clien	ental Analy 490 Albuquero 3975 FAX: tts.hallenvi	sis Laboratory 11 Hawkins NE 10e, NM 87109 505-345-4107 ronmental.com	0	San	nple Log-In Check List
Client Name: Devon Energy	Work Order Nun	nber: 201	0D78			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 10/31/2028						
Chain of Custody						
1. Is Chain of Custody complete?		Yes	~	No		Not Present 🔲
2. How was the sample delivered?		Cou	rier			
Log In						
3. Was an attempt made to cool the samples?		Yes	V	No		
4. Were all samples received at a temperature	of >0° C to 6.0°C	Yes	V	No		
5. Sample(s) in proper container(s)?		Yes		No		
6. Sufficient sample volume for indicated test(s)	?	Yes	$\checkmark$	No		
7. Are samples (except VOA and ONG) properly	preserved?	Yes	$\checkmark$	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 broker	1?	Yes		No		# of preserved
11. Does paperwork match bottle labels?		Yes	$\checkmark$	No		for pH:
(Note discrepancies on chain of custody)						(<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of 0	Custody?	Yes		No		Adjusted
13. Is it clear what analyses were requested?		Yes		No		FUUDRI/
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes	V	No		Checked by: ENMIUIO/
Special Handling (if applicable)						
15. Was client notified of all discrepancies with t	his order?	Yes		No		NA 🗹
Person Notified:	Date				_	
By Whom:	Via:	eM	ail 🔲 Phone		Fax	In Person
Regarding:			A.S.	_	-	
Client Instructions:						
16. Additional remarks:						
17. <u>Cooler Information</u> Cooler No Temp <sup>o</sup> C Condition Se 1 3.1 Good	al Intact Seal No	Seal D	ate Sigr	ned E	3y	

Page 1 of 1

V Record     Turn-Around Time: 5-day Ruyh- Arcstendard     Coda Rush       Arcstendard     Rush       Project Name:     Project Manager:       Project H:     136-003       Project H:     26-003       Project H:     26-001       Name     176-003       Name     176-003       Name     176-003       Name     176-003       Project Manager:     20-01       Project Manager:     20-01 <th>of-Custody Record     Tum-Around Time: 5-day R.W.       Description     Project Name:       Condition     Project Name:       Condition     Project Manager:       Data Compliance     Project Manager:       Differ     Project Manager:</th> <th></th> <th>APALL ENVIRONMENTAL PALL ENVIRONMENTAL PALL</th> <th></th> <th>4901 Hawkins NF - Alburnerran NM 87100</th> <th></th> <th>16I. 202-342-39/3 FAX 202-345-410/</th> <th>Analysis Request</th> <th>0) (1)</th> <th>15 P 1959 1959 1959 1959 1959 1959 1959 195</th> <th>10 10 10 10 10 10 10 10 10 10 10 10 10 1</th> <th>251( 251) 251 251 251 251 251 251 251 251 251 251</th> <th>V TT / 04 04 A) A) A) A) A)</th> <th>GR4 des des des des des des des des des des</th> <th>MTI 15D( 951ic etho 783 Me 6Mi 0A) Me emi- 0A)</th> <th>11 11 11 11 11 11 11 11 11 11</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Remarks: CC: Nafal, e Gorden</th> <th>ie .</th>	of-Custody Record     Tum-Around Time: 5-day R.W.       Description     Project Name:       Condition     Project Name:       Condition     Project Manager:       Data Compliance     Project Manager:       Differ     Project Manager:		APALL ENVIRONMENTAL PALL ENVIRONMENTAL PALL		4901 Hawkins NF - Alburnerran NM 87100		16I. 202-342-39/3 FAX 202-345-410/	Analysis Request	0) (1)	15 P 1959 1959 1959 1959 1959 1959 1959 195	10 10 10 10 10 10 10 10 10 10 10 10 10 1	251( 251) 251 251 251 251 251 251 251 251 251 251	V TT / 04 04 A) A) A) A) A)	GR4 des des des des des des des des des des	MTI 15D( 951ic etho 783 Me 6Mi 0A) Me emi- 0A)	11 11 11 11 11 11 11 11 11 11							Remarks: CC: Nafal, e Gorden	ie .
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	of-Custody	/ Record		<u>L</u>					<u> </u>		4 (Full Validation)	U.	<u>) 0</u>	1			0~01	 -03					Re	/



February 01, 2021

Natalie Gordon Devon Energy 6488 Seven Rivers Highway Artesia, NM 88210 TEL: (505) 350-1336 FAX: Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

OrderNo.: 2101929

RE: Todd 26 1c Fed 10

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

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 Result **RL** Qual Units DF **Date Analyzed** Analyses **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 1/27/2021 9:44:02 AM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 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 1/27/2021 12:38:14 PM 4.6 mg/Kg 1 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 1/27/2021 12:38:14 PM 1 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 Analyst: VP **EPA METHOD 300.0: ANIONS** Chloride 60 1/28/2021 10:45:18 PM 190 ma/Ka 20

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

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND
- Not Detected at the Reporting Limit POL
- Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

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

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Analytical Report Lab Order 2101929

Date Reported: 2/1/2021

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Devon Energy Client Sample ID: WS21-02 0-0.5 **Project:** Todd 26 1c Fed 10 Collection Date: 1/22/2021 9:20:00 AM Lab ID: 2101929-002 Matrix: SOIL Received Date: 1/26/2021 7:43:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **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 1/27/2021 1:49:02 PM 4.8 mg/Kg 1 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 1/27/2021 1:49:02 PM 1 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 Analyst: VP **EPA METHOD 300.0: ANIONS** Chloride 72 60 1/28/2021 11:47:21 PM ma/Ka 20

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

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level.
   Sample Diluted Due to Matrix
- D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of 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

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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 Result **RL** Qual Units DF **Date Analyzed** Analyses **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 1/27/2021 2:59:59 PM 4.8 mg/Kg 1 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 1/27/2021 2:59:59 PM 1 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 Analyst: VP **EPA METHOD 300.0: ANIONS** Chloride ND 60 1/29/2021 12:24:33 AM ma/Ka 20

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

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. D
- Sample Diluted Due to Matrix Н
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit PQL
- Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

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

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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 Result **RL** Qual Units DF **Date Analyzed** Analyses **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 1/27/2021 3:23:41 PM 4.8 mg/Kg 1 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 1/27/2021 3:23:41 PM 1 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 Analyst: VP **EPA METHOD 300.0: ANIONS** Chloride 69 60 1/29/2021 12:36:57 AM ma/Ka 20

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

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix Н
- Holding times for preparation or analysis exceeded ND
- Not Detected at the Reporting Limit PQL
- Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

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

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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 Result **RL** Qual Units DF **Date Analyzed** Analyses **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 1/27/2021 3:47:26 PM 4.8 mg/Kg 1 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 1/27/2021 3:47:26 PM 1 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 Analyst: VP **EPA METHOD 300.0: ANIONS** Chloride 330 61 1/29/2021 12:49:22 AM ma/Ka 20

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 exceed
- H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit
- NDNot Detected at the Reporting LimitPQLPractical 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

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**Project:** 

Lab ID:

Todd 26 1c Fed 10

2101929-006

**Analytical Report** Lab Order 2101929

Date Reported: 2/1/2021

# Hall Environmental Analysis Laboratory, Inc.

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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: <b>mb</b>
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

Matrix: SOIL

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

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit PQL
  - Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- Analyte detected in the associated Method Blank в
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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**Project:** 

Lab ID:

Todd 26 1c Fed 10

2101929-007

**Analytical Report** Lab Order 2101929

Date Reported: 2/1/2021

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: WS21-07 0-0.5 Collection Date: 1/22/2021 10:10:00 AM Received Date: 1/26/2021 7:43:00 AM

Analyses	Result	RL Q	ual 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	E				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

Matrix: SOIL

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

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- Analyte detected in the associated Method Blank в
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 7 of 25

Todd 26 1c Fed 10

**Project:** 

**Analytical Report** Lab Order 2101929

Date Reported: 2/1/2021

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: WS21-08 0-0.5 Collection Date: 1/22/2021 10:20:00 AM Received Date: 1/26/2021 7:43:00 AM

Lab ID: 2101929-008	Matrix: SOIL	Reco	eived Date:	1/26/2	021 7:43:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst: <b>mb</b>
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 RAI	NGE				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. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- Analyte detected in the associated Method Blank в
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 2/1/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Devon Energy Client Sample ID: BS21-01 0-0.5 **Project:** Todd 26 1c Fed 10 Collection Date: 1/22/2021 10:50:00 AM Lab ID: 2101929-009 Matrix: SOIL Received Date: 1/26/2021 7:43:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **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 1/27/2021 6:33:14 PM 4.8 mg/Kg 1 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 1/27/2021 6:33:14 PM 1 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 Analyst: VP **EPA METHOD 300.0: ANIONS** Chloride 60 1/29/2021 2:03:48 AM 120 ma/Ka 20

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

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix Н
- Holding times for preparation or analysis exceeded ND
- Not Detected at the Reporting Limit PQL
- Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

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

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Todd 26 1c Fed 10

**Project:** 

**Analytical Report** Lab Order 2101929

Date Reported: 2/1/2021

# Hall Environmental Analysis Laboratory, Inc.

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

Lab ID: 2101929-010	Matrix: SOIL	Reco	eived Date:	1/26/2	021 7:43:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst: <b>mb</b>
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 RAM	NGE				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. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- Analyte detected in the associated Method Blank в
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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**Project:** 

Lab ID:

Analyses

Benzene

**Analytical Report** Lab Order 2101929

Date Reported: 2/1/2021

1/27/2021 7:20:26 PM

1/27/2021 7:20:26 PM

1/27/2021 7:20:26 PM Analyst: VP

1/29/2021 2:28:38 AM

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Devon Energy Client Sample ID: BS21-03 0-0.5 Todd 26 1c Fed 10 Collection Date: 1/22/2021 11:00:00 AM 2101929-011 Matrix: SOIL Received Date: 1/26/2021 7:43:00 AM 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 1/27/2021 7:20:26 PM 4.9 mg/Kg 1 Surr: BFB 96.0 75.3-105 %Rec 1 1/27/2021 7:20:26 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB ND 0.024 mg/Kg 1/27/2021 7:20:26 PM 1 mg/Kg ND 0.049 1 1/27/2021 7:20:26 PM

Toluene	ND	0.049	mg/Kg
Ethylbenzene	ND	0.049	mg/Kg
Xylenes, Total	ND	0.098	mg/Kg
Surr: 4-Bromofluorobenzene	99.7	80-120	%Rec
EPA METHOD 300.0: ANIONS			
Chloride	230	60	mg/Kg

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

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

в Analyte detected in the associated Method Blank

1

1

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20

- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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**Project:** 

Lab ID:

Todd 26 1c Fed 10

2101929-012

**Analytical Report** Lab Order 2101929

Date Reported: 2/1/2021

# Hall Environmental Analysis Laboratory, Inc.

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 Q	ual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: <b>mb</b>
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	I				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

Matrix: SOIL

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

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- Analyte detected in the associated Method Blank в
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 2/1/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Devon Energy Client Sample ID: BS21-05 0-0.5 **Project:** Todd 26 1c Fed 10 Collection Date: 1/22/2021 11:10:00 AM Lab ID: 2101929-013 Matrix: SOIL Received Date: 1/26/2021 7:43:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **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 1/27/2021 8:07:52 PM 4.9 mg/Kg 1 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 1/27/2021 8:07:52 PM 1 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 Analyst: VP **EPA METHOD 300.0: ANIONS** Chloride 240 60 1/29/2021 2:53:26 AM ma/Ka 20

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

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix Н
- Holding times for preparation or analysis exceeded ND
- Not Detected at the Reporting Limit PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

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

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Released to Imaging: 3/19/2024 10:52:07 AM

Date Reported: 2/1/2021

1/29/2021 3:05:51 AM

### 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 Result **RL** Qual Units DF **Date Analyzed** Analyses **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 1/27/2021 8:31:19 PM 4.9 mg/Kg 1 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 1/27/2021 8:31:19 PM 1 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 Analyst: VP **EPA METHOD 300.0: ANIONS** 

370

60

ma/Ka

20

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

**Qualifiers:** 

Chloride

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix Н
- Holding times for preparation or analysis exceeded ND
- Not Detected at the Reporting Limit PQL
- Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

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

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Todd 26 1c Fed 10

**Project:** 

**Analytical Report** Lab Order 2101929

Date Reported: 2/1/2021

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BS21-07 0-0.5 Collection Date: 1/22/2021 11:20:00 AM Received Date: 1/26/2021 7:43:00 AM

Lab ID: 2101929-015	Matrix: SOIL	Reco	eived Date:	1/26/2	021 7:43:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst: <b>mb</b>
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 RA	NGE				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. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- Analyte detected in the associated Method Blank в
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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**Project:** 

Lab ID:

Analyses

Surr: DNOP

Surr: BFB

**Analytical Report** Lab Order 2101929

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 2/1/2021 **CLIENT:** Devon Energy Client Sample ID: BS21-08 0-0.5 Todd 26 1c Fed 10 Collection Date: 1/22/2021 11:25:00 AM 2101929-016 Matrix: SOIL Received Date: 1/26/2021 7:43:00 AM Result **RL** Qual Units DF **Date Analyzed** EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: mb Diesel Range Organics (DRO) 1/27/2021 3:39:21 PM ND 9.0 mg/Kg 1 Motor Oil Range Organics (MRO) 1/27/2021 3:39:21 PM ND 45 mg/Kg 1 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 1/27/2021 9:18:52 PM 4.8 mg/Kg 1 93.3 75.3-105 %Rec 1 1/27/2021 9:18:52 PM В

EPA METHOD 8021B: VOLATILES					Analyst: <b>NS</b>
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 Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

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

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Project: Todd 26 1c Fed 10

Analytical Report Lab Order 2101929

Date Reported: 2/1/2021

# Hall Environmental Analysis Laboratory, Inc.

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

Lab ID: 2101929-017	Matrix: SOIL	Reco	eived Date:	1/26/2	021 7:43:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst: <b>mb</b>
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 RAM	NGE				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.
   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

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Date Reported: 2/1/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Devon Energy Client Sample ID: BS21-10 0-0.5 **Project:** Todd 26 1c Fed 10 Collection Date: 1/22/2021 11:35:00 AM Lab ID: 2101929-018 Matrix: SOIL Received Date: 1/26/2021 7:43:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **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 1/27/2021 10:52:30 PM 4.9 mg/Kg 1 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 1/27/2021 10:52:30 PM 1 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 Analyst: VP **EPA METHOD 300.0: ANIONS** Chloride 60 1/29/2021 5:08:18 PM 110 ma/Ka 20

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

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix Н
- Holding times for preparation or analysis exceeded ND
- Not Detected at the Reporting Limit PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

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

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Todd 26 1c Fed 10

**Project:** 

**Analytical Report** Lab Order 2101929

Date Reported: 2/1/2021

# Hall Environmental Analysis Laboratory, Inc.

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

Lab ID: 2101929-019	Matrix: SOIL	Rec	eived Date:	1/26/2	021 7:43:00 AM
Analyses	Result	RL Qu	ial Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: <b>mb</b>
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 RAN	GE				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
- Н
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- Analyte detected in the associated Method Blank в
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Project: Todd 26 1c Fed 10

Analytical Report Lab Order 2101929

Date Reported: 2/1/2021

# Hall Environmental Analysis Laboratory, Inc.

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

Lab ID: 2101929-020	Matrix: SOIL	Reco	eived Date:	1/26/2	021 7:43:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANICS				Analyst: <b>mb</b>
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 RA	NGE				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.
   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

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Client: Project:	Devon E Todd 26	nergy 1c Fed 10									
Sample ID:	MB-57792	SampType	e: MB	BLK	Tes	tCode: EF	PA Method	300.0: Anion	S		
Client ID:	PBS	Batch ID	: 57	792	R	lunNo: 74	1932				
Prep Date:	1/28/2021	Analysis Date	: 1/	28/2021	S	eqNo: 20	645210	Units: mg/K	g		
Analyte		Result F	QL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID:	LCS-57792	SampType	e: LC	S	Tes	tCode: EF	PA Method	300.0: Anion	S		
Client ID:	LCSS	Batch ID	: 57	792	R	unNo: 74	4932				
Prep Date:	1/28/2021	Analysis Date	: 1/	28/2021	S	eqNo: 20	645211	Units: mg/K	g		
Analyte		Result F	QL	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

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2101929

01-Feb-21

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Chent: Project:	Devon Ei Todd 26	nergy 1c Fed 10									
Sample ID:	MB-57756	SampT	Гуре: <b>М</b> І	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	PBS	Batch	h ID: 57	756	R	anNo: 74	4881				
Prep Date:	1/27/2021	Analysis D	Date: 1/	/27/2021	S	eqNo: 2	643135	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (	Organics (DRO)	ND	10								
Motor Oil Rang	ge Organics (MRO)	ND	50								
Surr: DNOP		10		10.00		102	30.4	154			
Sample ID:	LCS-57756	SampT	Type: LC	s	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Batch	h ID: 57	756	R	anNo: 74	4881				
Prep Date:	1/27/2021	Analysis D	Date: 1/	/27/2021	S	eqNo: 20	643136	Units: mg/k	ζg		
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	SampT	Type: M	S	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Sample ID: Client ID:	2101929-020AMS BS21-12 0-0.5	SampT Batch	「ype: <b>M</b> h ID: <b>57</b>	S 756	Tes R	tCode: Ef	PA Method 4881	8015M/D: Die	esel Range	e Organics	
Sample ID: Client ID: Prep Date:	2101929-020AMS BS21-12 0-0.5 1/27/2021	SampT Batch Analysis D	「ype: <b>M</b> h ID: <b>57</b> Date: <b>1</b> /	S 756 /27/2021	Tes R S	tCode: Ef tunNo: 74 SeqNo: 20	PA Method 4881 643229	8015M/D: Die Units: mg/k	esel Range (g	e Organics	
Sample ID: Client ID: Prep Date: Analyte	2101929-020AMS BS21-12 0-0.5 1/27/2021	SampT Batch Analysis D Result	Type: <b>M</b> h ID: <b>57</b> Date: <b>1</b> / PQL	S 756 /27/2021 SPK value	Tes R S SPK Ref Val	tCode: EF RunNo: 74 SeqNo: 26 %REC	PA Method 4881 643229 LowLimit	8015M/D: Die Units: mg/K HighLimit	esel Rango Kg %RPD	e Organics RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range (	2101929-020AMS BS21-12 0-0.5 1/27/2021 Organics (DRO)	SampT Batch Analysis D Result 48	Type: M h ID: 57 Date: 1/ PQL 9.4	S 756 /27/2021 SPK value 46.95	Tes R SPK Ref Val 0	tCode: EF RunNo: 74 SeqNo: 26 <u>%REC</u> 102	PA Method 4881 643229 LowLimit 15	8015M/D: Die Units: mg/k HighLimit 184	esel Rango Kg %RPD	e Organics RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Surr: DNOP	2101929-020AMS BS21-12 0-0.5 1/27/2021 Organics (DRO)	SampT Batch Analysis D Result 48 4.9	Type: <b>M</b> h ID: <b>57</b> Date: <b>1</b> / PQL 9.4	S 756 /27/2021 SPK value 46.95 4.695	Tes R SPK Ref Val 0	tCode: EF tunNo: 74 SeqNo: 26 <u>%REC</u> 102 105	PA Method 4881 643229 LowLimit 15 30.4	8015M/D: Die Units: mg/k HighLimit 184 154	esel Rango (g %RPD	e Organics	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Surr: DNOP Sample ID:	2101929-020AMS BS21-12 0-0.5 1/27/2021 Organics (DRO) 2101929-020AMS	SampT Batcl Analysis D Result 48 4.9 D SampT	Type: M h ID: <b>57</b> Date: <b>1</b> / PQL 9.4	S 756 /27/2021 SPK value 46.95 4.695 SD	Tes R SPK Ref Val 0 Tes	tCode: EF RunNo: 74 GeqNo: 20 %REC 102 105 tCode: EF	PA Method 4881 643229 LowLimit 15 30.4 PA Method	8015M/D: Die Units: mg/K HighLimit 184 154 8015M/D: Die	kg %RPD esel Range	e Organics RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Surr: DNOP Sample ID: Client ID:	2101929-020AMS BS21-12 0-0.5 1/27/2021 Organics (DRO) 2101929-020AMS BS21-12 0-0.5	SampT Batch Analysis D Result 48 4.9 D SampT Batch	Fype: <b>M</b> h ID: <b>57</b> Date: <b>1</b> , PQL 9.4 Fype: <b>M</b> h ID: <b>57</b>	S 756 /27/2021 SPK value 46.95 4.695 SD 756	Tes R SPK Ref Val 0 Tes R	tCode: EF RunNo: 74 SeqNo: 20 %REC 102 105 tCode: EF RunNo: 74	PA Method 4881 643229 LowLimit 15 30.4 PA Method 4881	8015M/D: Die Units: mg/k HighLimit 184 154 8015M/D: Die	esel Rango %RPD esel Rango	e Organics RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Surr: DNOP Sample ID: Client ID: Prep Date:	2101929-020AMS BS21-12 0-0.5 1/27/2021 Organics (DRO) 2101929-020AMSI BS21-12 0-0.5 1/27/2021	SampT Batch Analysis D Result 48 4.9 D SampT Batch Analysis D	Fype: M h ID: 57 Date: 1/ PQL 9.4 Fype: M h ID: 57 Date: 1/	S 756 /27/2021 SPK value 46.95 4.695 SD 756 /27/2021	Tes R SPK Ref Val 0 Tes R S	tCode: EF RunNo: 74 GeqNo: 20 %REC 102 105 tCode: EF RunNo: 74 GeqNo: 20	PA Method 4881 643229 LowLimit 15 30.4 PA Method 4881 643230	8015M/D: Die Units: mg/K HighLimit 184 154 8015M/D: Die Units: mg/K	esel Range Kg %RPD esel Range	e Organics RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Surr: DNOP Sample ID: Client ID: Prep Date: Analyte	2101929-020AMS BS21-12 0-0.5 1/27/2021 Organics (DRO) 2101929-020AMSI BS21-12 0-0.5 1/27/2021	SampT Batcl Analysis D Result 48 4.9 D SampT Batcl Analysis D Result	∑ype: M3 h ID: 57 Date: 1/ PQL 9.4 ∑ype: M3 h ID: 57 Date: 1/ PQL	S 756 /27/2021 SPK value 46.95 4.695 8D 756 /27/2021 SPK value	Tes R SPK Ref Val 0 Tes R SPK Ref Val	tCode: EF RunNo: 74 SeqNo: 20 %REC 102 105 tCode: EF RunNo: 74 SeqNo: 20 %REC	PA Method 4881 643229 LowLimit 15 30.4 PA Method 4881 643230 LowLimit	8015M/D: Die Units: mg/K HighLimit 184 154 8015M/D: Die Units: mg/K HighLimit	esel Rango %RPD esel Rango %RPD	e Organics RPDLimit e Organics	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Surr: DNOP Sample ID: Client ID: Prep Date: Analyte Diesel Range (	2101929-020AMS BS21-12 0-0.5 1/27/2021 Organics (DRO) 2101929-020AMSI BS21-12 0-0.5 1/27/2021 Organics (DRO)	SampT Batcl Analysis D Result 48 4.9 D SampT Batcl Analysis D Result 53	Fype: M h ID: 57 Date: 1/ PQL 9.4 Fype: M h ID: 57 Date: 1/ PQL 9.5	S 756 /27/2021 SPK value 46.95 4.695 SD 756 /27/2021 SPK value 47.53	Tes R SPK Ref Val 0 Tes R SPK Ref Val 0	tCode: EF RunNo: 74 SeqNo: 20 <u>%REC</u> 102 105 tCode: EF RunNo: 74 SeqNo: 20 <u>%REC</u> 112	PA Method 4881 643229 LowLimit 15 30.4 PA Method 4881 643230 LowLimit 15	8015M/D: Die Units: mg/K HighLimit 184 154 8015M/D: Die Units: mg/K HighLimit 184	kg %RPD esel Range kg %RPD 10.1	e Organics RPDLimit e Organics RPDLimit 23.9	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Surr: DNOP Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Surr: DNOP	2101929-020AMS BS21-12 0-0.5 1/27/2021 Organics (DRO) 2101929-020AMSI BS21-12 0-0.5 1/27/2021 Organics (DRO)	SampT Batcl Analysis D Result 48 4.9 D SampT Batcl Analysis D Result 53 5.0	Fype: <b>M</b> h ID: <b>57</b> Date: <b>1</b> PQL 9.4 Fype: <b>M</b> fype: <b>M</b> Date: <b>1</b> PQL 9.5	S 756 /27/2021 SPK value 46.95 4.695 SD 756 /27/2021 SPK value 47.53 4.753	Tes R SPK Ref Val 0 Tes R SPK Ref Val 0	tCode: EF RunNo: 74 SeqNo: 20 %REC 102 105 tCode: EF RunNo: 74 SeqNo: 20 %REC 112 106	PA Method 4881 643229 LowLimit 15 30.4 PA Method 4881 643230 LowLimit 15 30.4	8015M/D: Die Units: mg/k HighLimit 184 154 8015M/D: Die Units: mg/k HighLimit 184 154	esel Range %RPD esel Range %RPD 10.1 0	e Organics RPDLimit e Organics RPDLimit 23.9 0	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Surr: DNOP Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Surr: DNOP Sample ID:	2101929-020AMS BS21-12 0-0.5 1/27/2021 Organics (DRO) 2101929-020AMSI BS21-12 0-0.5 1/27/2021 Organics (DRO)	SampT Batcl Analysis D Result 48 4.9 D SampT Batcl Analysis D Result 53 5.0 SampT	Fype: M h ID: 57 Date: 1/ PQL 9.4 Fype: M h ID: 57 Date: 1/ 9.5 Fype: MI	S 756 /27/2021 SPK value 46.95 4.695 SD 756 /27/2021 SPK value 47.53 4.753 BLK	Tes R SPK Ref Val 0 Tes SPK Ref Val 0 Tes	tCode: EF 2unNo: 74 3eqNo: 20 3REC 102 105 tCode: EF 2unNo: 74 3eqNo: 20 3REC 112 106 tCode: EF	PA Method 4881 643229 LowLimit 15 30.4 PA Method 4881 643230 LowLimit 15 30.4 PA Method	8015M/D: Die Units: mg/H HighLimit 184 154 8015M/D: Die Units: mg/H HighLimit 184 154 8015M/D: Die	kg %RPD esel Range %RPD 10.1 0 esel Range	e Organics RPDLimit e Organics RPDLimit 23.9 0 e Organics	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Surr: DNOP Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Surr: DNOP Sample ID: Client ID:	2101929-020AMS BS21-12 0-0.5 1/27/2021 Organics (DRO) 2101929-020AMSI BS21-12 0-0.5 1/27/2021 Organics (DRO) MB-57735 PBS	SampT Batcl Analysis D Result 48 4.9 D SampT Batcl Analysis D Result 53 5.0 SampT Batcl	Fype: M h ID: 57 Date: 1/ PQL 9.4 Fype: M Date: 1/ PQL 9.5 Fype: MI h ID: 57	S 756 /27/2021 SPK value 46.95 4.695 SD 756 /27/2021 SPK value 47.53 4.753 BLK 735	Tes R SPK Ref Val 0 Tes SPK Ref Val 0 Tes R	tCode: EF RunNo: 74 SeqNo: 20 %REC 102 105 tCode: EF RunNo: 74 SeqNo: 20 %REC 112 106 tCode: EF RunNo: 74	PA Method 4881 643229 LowLimit 15 30.4 PA Method 4881 643230 LowLimit 15 30.4 PA Method 4887	8015M/D: Die Units: mg/K HighLimit 184 154 8015M/D: Die Units: mg/K HighLimit 184 154 8015M/D: Die	esel Range %RPD esel Range %RPD 10.1 0 esel Range	e Organics RPDLimit e Organics RPDLimit 23.9 0 e Organics	Qual

PQL

10

50

10.00

Result

ND

ND

8.7

- \* 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

Analyte

Surr: DNOP

**Qualifiers:** 

Diesel Range Organics (DRO)

Motor Oil Range Organics (MRO)

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

87.5

30.4

E Value above quantitation range

SPK value SPK Ref Val %REC LowLimit

- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

%RPD

HighLimit

154

RPDLimit

Qual

2101929

01-Feb-21

2101929 *01-Feb-21* 

WO#:

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Devon En Todd 26 1	lergy le Fed 10									
Sample ID: LCS-	57735	SampTy	ype: LC	S	Test	Code: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: LCSS	6	Batch	ID: 577	735	R	unNo: 74	887				
Prep Date: 1/26	/2021	Analysis Da	ate: 1/2	27/2021	S	eqNo: 26	643236	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics	s (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

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# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Devon Er Todd 26	nergy 1c Fed 10										
Sample ID:	mb-57732	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e		
Client ID:	PBS	Batcl	n ID: <b>57</b>	732	F	RunNo: 74	4882					
Prep Date:	1/26/2021	Analysis D	0ate: 1/	27/2021	S	SeqNo: 2	643529	Units: mg/k	٢g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 940	5.0	1000		93.7	75.3	105				
Sample ID:	lcs-57732	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e		
Client ID:	LCSS	Batcl	n ID: <b>57</b>	732	F	RunNo: 7	4882					
Prep Date:	1/26/2021	Analysis D	ate: 1/	27/2021	S	SeqNo: 2	643530	Units: mg/k	٢g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang	e 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	SampT	уре: М	3	Tes	tCode: El	PA Method	8015D: Gasc	oline Rang	e		
Client ID:	WS21-01 0-0.5	Batcl	n ID: 57	732	F	RunNo: 7	4882					
Prep Date:	1/26/2021	Analysis D	Date: 1/	27/2021	S	SeqNo: 2	643532	Units: mg/k	٢g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang	e 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	SampT	уре: М	SD	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e		
Client ID:	WS21-01 0-0.5	Batcl	n ID: 57	732	F	RunNo: 7	4882					
Prep Date:	1/26/2021	Analysis D	ate: 1/	27/2021	S	SeqNo: 2	643533	Units: mg/k	٢g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang	e 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

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01-Feb-21

**Client:** 

**Project:** 

Analyte

Benzene Toluene Ethylbenzene Xylenes, Total

Sample ID: mb-57732

Surr: 4-Bromofluorobenzene

Sample ID: LCS-57732

Client ID: LCSS Prep Date: 1/26/2021

Analyte

Xylenes, Total

Benzene Toluene Ethylbenzene

Client ID: PBS Prep Date: 1/26/2021

# **QC SUMMARY REPORT** Hall Environmental A

3.0

0.10

3.000

nmen	tal Anal	ysis L	Laborat	ory, Inc.						01-Feb-2
Devon Todd 2	Energy 6 1c Fed 10									
32	Samp	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
	Batc	h ID: 57	732	F	RunNo: 7	4882				
021	Analysis [	Date: 1/	27/2021	S	SeqNo: 2	643569	Units: mg/k	٢g		
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	ND	0.025								
	ND	0.050								
	ND	0.050								
	ND	0.10								
nzene	0.99		1.000		99.0	80	120			
732	Samp	Гуре: <b>LC</b>	S	Tes	tCode: El	PA Method	8021B: Vola	tiles		
	Batc	h ID: 57	732	F	RunNo: 7	4882				
021	Analysis [	Date: 1/	27/2021	S	GeqNo: 2	643570	Units: mg/k	٢g		
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	0.98	0.025	1.000	0	97.7	80	120			
	1.0	0.050	1.000	0	100	80	120			
	0.99	0.050	1.000	0	98.9	80	120			

80

120

Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			
Sample ID: 2101929-002ams	SampT	ype: MS	;	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: WS21-02 0-0.5	Batch	n ID: 57	732	F	RunNo: 7	4882				
Prep Date: 1/26/2021	Analysis D	ate: 1/	27/2021	5	SeqNo: 2	643573	Units: mg/k	ζg		
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			

0

99.7

104

Sample ID: 2101929-002amsd	l SampT	ype: <b>MS</b>	D	TestCode: EPA Method 8021B: Volatiles							
Client ID: WS21-02 0-0.5	Batch	n ID: 577	732	F	RunNo: 74	4882					
Prep Date: 1/26/2021	ate: 1/2	27/2021	S	SeqNo: 2	643574	Units: <b>mg/K</b>	g				
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:**

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- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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HALL ENVIR ANALY LABOR	ONMENTAL (SIS RATORY	Hall Enviro. TEL: 505-3- Website: ci	nmental Analy 49 Albuquer 15-3975 FAX ients.hallenvi	sis Laborato 11 Hawkins N 106, NM 8711 505-345-410 ronmental.co	NE 09 <b>Sar</b> 07	nple Log-In Check List
Client Name:	Devon Energy	Work Order N	umber: 210	1929		RcptNo: 1
Received By:	Isaiah Ortiz	1/26/2021 7:43:	00 AM		I.C	2%
Completed By:	Isaiah Ortiz	1/26/2021 7:53:	16 AM		Inc	2.L
Reviewed By:	ENM	1126121				
Chain of Cus	tody					
1. Is Chain of Cu	istody complete?		Yes		No 🗌	Not Present
2. How was the	sample delivered?		Cou	rier		
Log In						
3. Was an attem	pt made to cool the	e samples?	Yes	$\checkmark$	No 🗌	NA 🗌
4. Were all samp	les received at a te	emperature of >0° C to 6.0°C	Yes		No 🗌	
5. Sample(s) in p	roper container(s)	?	Yes		No 🗌	
6. Sufficient samp	ole volume for indic	cated test(s)?	Yes	~	No 🗌	
7. Are samples (e	except VOA and O	NG) properly preserved?	Yes	$\checkmark$	No 🗌	
8. Was preservat	ive added to bottle	s?	Yes		No 🔽	NA 🗌
9. Received at lea	ast 1 vial with head	space <1/4" for AQ VOA?	Yes		No 🗌	NA 🗹
10. Were any sam	ple containers reco	eived broken?	Yes		No 🔽	# of preserved
11. Does paperwor (Note discrepa	k match bottle lab	els? ustody)	Yes		No 🗌	bottles checked for pH;
2. Are matrices co	prrectly identified o	n Chain of Custody?	Yes	V	No 🗍	Adjusted?
3. Is it clear what	analyses were req	uested?	Yes	V	No 🗌	/
4. Were all holdin (If no, notify cu	g times able to be stomer for authoriz	met? ation.)	Yes		No 🗌	Checked by: Cm 1/26
Special Handli	ng (if applicab	le)				
15. Was client not	ified of all discrepa	ncies with this order?	Yes		No 🗌	NA 🔽
Person N	lotified:	Da	ate:		_	
By Whor	n:	Vi	a: 🗌 eMa	il 🗌 Phor	ne 🗌 Fax	In Person
Regardir	ig:					
Client Ins	structions:					
16. Additional rem	arks:					

Page 1 of 1

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Released to Imaging: 3/19/2024 10:52:07 AM

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August 23, 2021

Brandon Schafer's Devon Energy 6488 Seven Rivers Highway Artesia, NM 88210 TEL: (505) 350-1336 FAX Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

OrderNo.: 2108858

RE: Todd 26K Fed 10

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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Todd 26K Fed 10

**Project:** 

**Analytical Report** Lab Order 2108858

Date Reported: 8/23/2021

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BG21-01 0.5' Collection Date: 8/13/2021 8:30:00 AM **Deceived Deter** 8/17/2021 7:20:00 AM

Lab ID: 2108858-001	Matrix: SOIL	Rece	eived Date:	8/17/2	021 7:30:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RAN	IGE 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 RA	NGE				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. D Sample Diluted Due to Matrix
- Н
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 1 of 8

Todd 26K Fed 10

2108858-002

**Project:** 

Lab ID:

Analytical Report Lab Order 2108858

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/23/2021 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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	BANICS				Analyst: <b>SB</b>
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: <b>JMT</b>
Chloride	ND	60	mg/Kg	20	8/20/2021 6:07:45 PM

Matrix: SOIL

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

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level.
   D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- 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

Page 2 of 8

Todd 26K Fed 10

**Project:** 

Chloride

**Analytical Report** Lab Order 2108858

8/20/2021 6:20:09 PM

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/23/2021 Client Sample ID: BG21-01 4' Collection Date: 8/13/2021 8:50:00 AM

Lab ID: 2108858-003 Matrix: SOIL Received Date: 8/17/2021 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: SB Diesel Range Organics (DRO) 8/18/2021 6:30:26 PM ND 9.9 mg/Kg 1 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 8/18/2021 1:05:00 PM 4.9 mg/Kg 1 Surr: BFB 103 70-130 %Rec 1 8/18/2021 1:05:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: mb Benzene ND 8/18/2021 1:05:00 PM 0.024 mg/Kg 1 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 8/18/2021 1:05:00 PM Surr: 4-Bromofluorobenzene 94.0 70-130 %Rec 1 **EPA METHOD 300.0: ANIONS** Analyst: JMT

ND

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ma/Ka

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

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. D
- Sample Diluted Due to Matrix Н Holding times for preparation or analysis exceeded
- ND
- Not Detected at the Reporting Limit POL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

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

Page 3 of 8

Todd 26K Fed 10

Project:

**Analytical Report** Lab Order 2108858

Date Reported: 8/23/2021

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BG21-01 6' Collection Date: 8/13/2021 9:00:00 AM **Deceived Deter** 8/17/2021 7:20:00 AM

Lab ID: 2108858-004	Matrix: SOIL	Rec	eived Date:	8/17/2	021 7:30:00 AM
Analyses	Result	RL Qu	ual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANG	SE 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 RAN	GE				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
- Н
- Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 4 of 8

Client: Project:	Devon Todd 2	Energy 26K Fed 10									
Sample ID:	MB-62096	SampTy	pe: <b>m</b> t	olk	Test	Code: EF	PA Method	300.0: Anion	s		
Client ID:	PBS	Batch	ID: 62	096	R	unNo: <b>80</b>	0680				
Prep Date:	8/20/2021	Analysis Da	ite: <b>8/</b>	20/2021	S	eqNo: 28	346896	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID:	LCS-62096	SampTy	pe: Ics	5	Test	Code: EF	PA Method	300.0: Anion	s		
Client ID:	LCSS	Batch	ID: 62	096	R	unNo: <b>80</b>	0680				
Prep Date:	8/20/2021	Analysis Da	ite: <b>8/</b>	20/2021	S	eqNo: 28	346897	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	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

Page 5 of 8

2108858

23-Aug-21

Client:Devon FProject:Todd 26	Energy 6K Fed 10									
Sample ID: MB-62056	SampT	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: PBS	Batcl	h ID: 62	056	F	RunNo: <b>8</b>	0624				
Prep Date: 8/18/2021	Analysis E	Date: 8/	18/2021	S	SeqNo: 2	844794	Units: <b>mg/#</b>	٤g		
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	Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         MRO)       ND       10									
Client ID: LCSS	Batc	h ID: 62	056	F	RunNo: <b>8</b>	0624				
Prep Date: 8/18/2021	Analysis E	Date: <b>8/</b>	18/2021	S	SeqNo: 2	844797	Units: mg/k	(g		
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			

- \* 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

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2108858

23-Aug-21

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	Devon E	Energy									
Project:	Todd 26	K Fed 10									
Sample ID:	mb-62035	SampTyp	be: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBS	Batch I	D: 62	035	F	unNo: <b>8</b>	0628				
Prep Date:	8/17/2021	Analysis Dat	ie: <b>8/</b>	18/2021	S	eqNo: 2	844294	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	ND	5.0								
Surr: BFB		1200		1000		123	70	130			
Sample ID:	mb-62002	SampTyp	be: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBS	Batch I	D: 62	002	F	lunNo: <b>8</b>	0628				
Prep Date:	8/16/2021	Analysis Dat	:e: <b>8/</b>	18/2021	S	eqNo: 2	844295	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	SampTyp	be: LC	S	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSS	Batch I	D: 62	035	F	unNo: 8	0628				
Prep Date:	8/17/2021	Analysis Dat	ie: <b>8/</b>	18/2021	S	eqNo: 2	844296	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	27	5.0	25.00	0	109	78.6	131			
Surr: BFB		1500		1000		154	70	130			S
Sample ID:	lcs-62002	SampTyp	be: LC	S	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSS	Batch I	D: 62	002	F	lunNo: 8	0628				
Prep Date:	8/16/2021	Analysis Dat	te: <b>8/</b>	18/2021	S	eqNo: 2	844297	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

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2108858

23-Aug-21

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#:	2108858

23-Aug-21

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Client:	Devon En	ergy									
Project:	Todd 26K	Fed 10									
Sample ID: r	nb-62035	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID:	PBS	Batch	n ID: 62	035	F	RunNo: <b>8</b>	0628				
Prep Date:	8/17/2021	Analysis D	0ate: <b>8/</b>	18/2021	5	SeqNo: 28	844328	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Bromo	fluorobenzene	1.1		1.000		109	70	130			
Sample ID: r	nb-62002	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID:	PBS	Batch	n ID: 62	002	F	RunNo: <b>8</b>	0628				
Prep Date:	8/16/2021	Analysis D	0ate: <b>8/</b>	18/2021	5	SeqNo: 28	844329	Units: %Rec	;		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromo	fluorobenzene	0.95		1.000		95.3	70	130			
Sample ID: I	cs-62035	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: I	LCSS	Batch	n ID: 62	035	F	RunNo: <b>8</b>	0628				
Prep Date:	8/17/2021	Analysis D	0ate: <b>8/</b>	18/2021	5	SeqNo: 28	844330	Units: mg/K	g		
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-Bromo	fluorobenzene	1.2		1.000		117	70	130			
Sample ID: I	cs-62002	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID:	LCSS	Batch	n ID: 62	002	F	RunNo: <b>8</b>	0628				
Prep Date:	8/16/2021	Analysis D	0ate: <b>8/</b>	18/2021	5	SeqNo: 28	844331	Units: %Rec	;		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromo	fluorobenzene	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

Received by	OCD:	3/7/2024	3:21:05 PM
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ANALYSIS LABORATORY	TEL: 505-345-2 Website: clien	490 490 Albuquero 3975 FAX: ts.hallenvi	sis Labo 11 Hawki 10e, NM 505-345 ronmenta	ratory ins NE 87109 <b>Sa</b> 1-4107 al.com	mple Log-In Check Lis	t
Client Name: Devon Energy	Work Order Num	ber: 210	8858		RcptNo: 1	
Received By: Cheyenne Cason	8/17/2021 7:30:00	АМ		cheal		
Completed By: Sean Livingston	8/17/2021 8:36:29	AM		$\leq$ /	' mal	
Reviewed By: JR S/17/21				JAC	135-	
Chain of Custody						
1. Is Chain of Custody complete?		Yes	~	No 🗌	Not Present	
2. How was the sample delivered?		Cou	rier			
Log In						
3. Was an attempt made to cool the sample:	5?	Yes	$\checkmark$	No 🗌		
4. Were all samples received at a temperatu	re of >0° C to 6.0°C	Yes		No 🗌		
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) prop	erly 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 🗹	~
<ol> <li>Were any sample containers received bro</li> </ol>	ken?	Yes		No 🗹	# of preserved bottles checked	
11. Does paperwork match bottle labels?		Yes	$\checkmark$	No 🗌	for pH:	ad)
2 Are matrices correctly identified on Chain	of Custody2	Voc		No 🗍	Adjusted?	eu)
3 Is it clear what analyses were requested?	of ouslody?	Ves				
14. Were all holding times able to be met?		Yes		No 🗌	Checked by: SPA 8.	17.2
(If no, notify customer for authorization.)					/	10
Special Handling (if applicable)						
15. Was client notified of all discrepancies wit	h this order?	Yes		No 🗌	NA 🔽	
Person Notified:	Date	-				
By Whom:	Via:	□ eM	ail 🗔	Phone 🦳 Fax	In Person	
Regarding:						
Client Instructions:						
16. Additional remarks:						
17. <u>Cooler Information</u> Cooler No Temp °C Condition 1 1.6 Good	Seal Intact Seal No	Seal D	ate	Signed By		

Page 1 of 1
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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

Hall Environmental Analysis Laboratory

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

Website: www.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

**Project:** 

Lab ID:

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

Todd 26K Federa 10

2205989-001

**Analytical Report** Lab Order 2205989

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 6/2/2022 Client Sample ID: BS22-12 0.5-1' Collection Date: 5/19/2022 10:15:00 AM

Received Date: 5/21/2022 9:45:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				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

Matrix: SOIL

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

**Qualifiers:** 

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

Н

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

Page 1 of 7

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

Project: Todd 26K Federa 10

**Analytical Report** Lab Order 2205989

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 6/2/2022 Client Sample ID: BS22-12 1-1.5' Collection Date: 5/19/2022 10:30:00 AM · 1D to. 5/21/2022 0.45.00 ANA -

Lab ID: 2205989-002	Matrix: SOIL	Rece	<b>Received Date:</b> 5/21/2022 9:45:00 AM									
Analyses	Result	RL Qu	al Units	DF	Date Analyzed							
EPA METHOD 8015M/D: DIESEL RAM	IGE 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 RA	NGE				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. D Sample Diluted Due to Matrix
- Н
- Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference S
- в Analyte detected in the associated Method Blank
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 2 of 7

Client: Project:	Verte Todd	x Resources S 26K Federa 1	ervices 0	, Inc.							
Sample ID:	MB-67722	SampT	ype: <b>m</b> t	olk	Tes	tCode: EF	PA Method	300.0: Anion	s		
Client ID:	PBS	Batch	n ID: 67	722	F	RunNo: <b>88</b>	8373				
Prep Date:	5/26/2022	Analysis D	ate: 5/	27/2022	S	SeqNo: 31	134711	Units: <b>mg/K</b>	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID:	LCS-67722	SampT	ype: Ics	5	Tes	tCode: EF	PA Method	300.0: Anion	s		
Client ID:	LCSS	Batch	n ID: 67	722	F	RunNo: <b>88</b>	8373				
Prep Date:	5/26/2022	Analysis D	ate: 5/	27/2022	S	SeqNo: 31	134712	Units: <b>mg/K</b>	g		
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

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WO#: 2205989 02-Jun-22

Client: Vert Project: Tode	ex Resources S d 26K Federa 1	Services 10	, Inc.							
Sample ID: MB-67680	Samp	Type: MI	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: PBS	Batc	h ID: 67	680	F	RunNo: <b>8</b>	8246				
Prep Date: 5/25/2022	Analysis I	Date: 5/	26/2022	S	SeqNo: 3	132682	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRC	)) ND	50								
Surr: DNOP	9.3		10.00		93.1	51.1	141			
Sample ID: LCS-67680	Samp	Type: LC	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batc	h ID: 67	680	F	RunNo: 8	8246				
Prep Date: 5/25/2022	Analysis I	Date: 5/	26/2022	S	SeqNo: 3	132685	Units: mg/k	٢g		
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:

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

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2205989

02-Jun-22

WO#:

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Vert Project: Tode	ex Resources Services, Inc. d 26K Federa 10			
Sample ID: Ics-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 (GRC Surr: BFB	25         5.0         25.00           2000         1000	0 99.1 72.3 202 37.7	137 212	
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 (GRC Surr: BFB	) ND 5.0 930 1000	93.2 37.7	212	
Sample ID: Ics-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: Ics-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

2205989

02-Jun-22

WO#:

s

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

Client:	Vertex	Resources Se	ervices,	, Inc.							
Project:	Todd 2	6K Federa 10	0								
Sample ID:	lcs-67637	SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	LCSS	Batch	n ID: 67	637	F	RunNo: <b>8</b>	8236				
Prep Date:	5/23/2022	Analysis D	ate: 5/	24/2022	5	SeqNo: 3	128876	Units: <b>mg/K</b>	íg		
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-Brom	ofluorobenzene	0.94		1.000		94.0	70	130			
Sample ID:	mb-67637	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	PBS	Batch	n ID: 67	637	F	RunNo: <b>8</b>	8236				
Prep Date:	5/23/2022	Analysis D	ate: 5/	24/2022	S	SeqNo: 3	128877	Units: <b>mg/K</b>	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brom	ofluorobenzene	0.94		1.000		94.5	70	130			
Sample ID:	lcs-67640	SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	LCSS	Batch	D: 67	640	F	RunNo: 8	8271				
Prep Date:	5/23/2022	Analysis D	ate: 5/	25/2022	S	SeqNo: 3	130202	Units: %Re	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brom	ofluorobenzene	0.90		1.000		90.0	70	130			
Sample ID:	mb-67640	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	PBS	Batch	D: 67	640	F	RunNo: <b>8</b>	8271				
Prep Date:	5/23/2022	Analysis D	ate: 5/	25/2022	S	SeqNo: 3	130203	Units: %Re	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brom	ofluorobenzene	0.88		1.000		88.4	70	130			
Sample ID:	lcs-67656	SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	LCSS	Batch	n ID: 67	656	F	RunNo: <b>8</b>	8271				
Prep Date:	5/24/2022	Analysis D	ate: 5/	25/2022	S	SeqNo: 3	130224	Units: %Re	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brom	ofluorobenzene	0.92		1.000		92.4	70	130			

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. \*

D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

- % Recovery outside of range due to dilution or matrix interference S
- Analyte detected in the associated Method Blank в
- Е Estimated value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit WO#: 2205989

02-Jun-22

Client: Project:	Vertex Resources Ser Todd 26K Federa 10	vices, Inc.							
Sample ID: mb-676	56 SampTyr	e: MBLK	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch I	D: 67656	F	RunNo: <b>88</b>	3271				
Prep Date: 5/24/2	022 Analysis Dat	ie: 5/25/2022	S	SeqNo: 31	30225	Units: %Rec	:		
Analyte	Result	PQL SPK value	e SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobe	nzene 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

Page 7 of 7

2205989

02-Jun-22

WO#:

	L VIRONMEN LYSIS ORATORY	ITAL	Ha TI	all Environme EL: 505-345-3 Website: www	ntal Anal 49 Albuquer 975 FAX v.hallenvi	vsis Labora 01 Hawkins que. NM 87 : 505-345-4 ironmental.	tory NE 7109 <b>Sa</b> 7107 com	mple Log-In (	Check List
Client Name	Vertex R Services	esources , Inc.	Worl	k Order Num	ber: 220	5989		RcptNc	: 1
Received By	Tracy C	asarrubias	5/21/20	022 9:45:00	AM				
Completed B	y: Tracy C	asarrubias	5/21/20	022 2:20:06	РМ				
Reviewed By	JASI	123/22							
Chain of C	ustody								
1, Is Chain o	Custody cor	nplete?			Yes		No 🗌	Not Present	
2. How was t	he sample de	livered?			Cou	rier			
Log In 3 Was an att	omnt made k								
J. was an an	empt made to	o cool the sam	ples?		Yes		No 🗀	NA 🛄	
4 Were all sa	moles receiv	ed at a temper	atura of 20° C	to 6 0°C			No 🗆		
-1. Word an 32	inples lecely	eu al a tempen		10 0.0 C	Yes				
5. Sample(s)	in proper con	tainer(s)?			Yes		No 🗌		
C. Cufficients						-	-		
<ol> <li>Sumicient s</li> </ol>	ample volume	e for indicated t	est(s)?		Yes		No 🗌		
7. Are sample	s (except VO	A and ONG) pr	operly preserv	ed?	Yes		No 🗌		
o. was presei	vative added	to bottles?			Yes		No 🗹	NA 🛄	
9. Received a	least 1 vial v	vith headspace	<1/4" for AQ \	/OA?	Yes		No 🗌		/
10. Were any s	ample contai	iners received l	proken?		Yes		No 🔽		
								# of preserved bottles checked	/
11. Does paper	work match b	ottle labels?			Yes		No 🗌	for pH:	
(Note discre	pancies on c	hain of custody	/) in af Custada 0					Adjusted?	r >12 unless noted)
13. Is it clear w	at analyses	were requester	in of Custody?		Yes			Adjusted !	
14. Were all ho	ding times at	ble to be met?			Ves			Checked by	1001 SIZZIE
(If no, notify	customer for	authorization.)	)		105			/	And Alle
Special Han	dling (if ar	oplicable)							
15 Was client	notified of all	discrepancies	with this order	2	Vee		NH []		
		aleoropanolos	with this order		ies			NA 💌	
Perso	on Notified:			Date:	12.	1.1.1.1			
By W	nom: rding:			Via:	eM	ail 🗌 Ph	one 🗌 Fax	In Person	
Clien	Instructions								
16. Additional	remarks								
17	en nomo.								
Cooler Inf	ormation	Condition	Soul Intent	ContMa	0				
1	3.3	Good	Not Present	Searino	Seal D	ale S	signed By		
2	0.3	Good	Not Present						
	56	Good	Not Droppet	1					

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Page 1 of 1

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# **ATTACHMENT 8**

#### **Natalie Gordon**

From:	Dhugal Hanton <vertexresourcegroupusa@gmail.com></vertexresourcegroupusa@gmail.com>
Sent:	Sunday, December 6, 2020 6:08 PM
То:	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 <<u>Victoria.Venegas@state.nm.us</u>> Date: Thu, May 14, 2020 at 1:25 PM Subject: NAB1903733353 TODD 26 K FEDERAL #010 @ 30-015-27102 2RP-5222 To: Mathews, Wesley <<u>Wesley.Mathews@dvn.com</u>>, Bratcher, Mike, EMNRD <<u>mike.bratcher@state.nm.us</u>>, Hamlet, Robert, EMNRD <<u>Robert.Hamlet@state.nm.us</u>>, Eads, Cristina, EMNRD <<u>Cristina.Eads@state.nm.us</u>>, Hamlet, Cc: Dhugal Hanton <<u>vertexresourcegroupusa@gmail.com</u>>, CFO\_Spill, BLM\_NM <<u>blm\_nm\_cfo\_spill@blm.gov</u>>

#### 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 <u>19.15.29.13</u>. 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.

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District III

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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

QUESTION	NS
Operator: DEVON ENERGY PRODUCTION COMPANY, LP	OGRID: 6137
333 West Sheridan Ave. Oklahoma City, OK 73102	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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### **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS, Page 2

Action 321356

QUESTIONS (continued)		
Operator:	OGRID:	
DEVON ENERGY PRODUCTION COMPANY, LP	6137	
333 West Sheridan Ave.	Action Number:	
Oklahoma City, OK 73102	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 s	afety 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 remedi actions to date in the follow-up C-141 submission. If remedial efforts have been successfully complei Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure e	ation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of ted or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of valuation in the follow-up C-141 submission.
I hereby certify that the information given above is true and complete to the best of my later report and/or file certain release notifications and perform corrective actions for release the OCD does not relieve the operator of liability should their operations have failed to a water, human health or the environment. In addition, OCD acceptance of a C-141 report local laws and/or regulations.	cnowledge and understand that pursuant to OCD rules and regulations all operators are required ases which may endanger public health or the environment. The acceptance of a C-141 report by adequately investigate and remediate contamination that pose a threat to groundwater, surface t does not relieve the operator of responsibility for compliance with any other federal, state, or
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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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

Page 233 of 238

QUESTIONS, Page 3

Action 321356

QUESTIONS (continued)		
Operator:	OGRID:	
DEVON ENERGY PRODUCTION COMPANY, LP	6137	
333 West Sheridan Ave.	Action Number:	
Oklahoma City, OK 73102	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 ar	d 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 t	hat 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 de	emonstrating the lateral and vertical extents of soil contaminatio	n associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.
Have the lateral and vertic	al extents of contamination been fully delineated	Yes
Was this release entirely of	contained within a lined containment area	No
Soil Contamination Sampling	g: (Provide the highest observable value for each, in m	illigrams per kilograms.)
Chloride	(EPA 300.0 or SM4500 CI 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
		5
Per Subsection B of 19.15.29.11 which includes the anticipated tir	NMAC unless the site characterization report includes complete nelines for beginning and completing the remediation.	d efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC,
Per Subsection B of 19.15.29.11 which includes the anticipated tin On what estimated date w	NMAC unless the site characterization report includes complete nelines for beginning and completing the remediation. ill the remediation commence	d efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, 03/30/2019
Per Subsection B of 19.15.29.11 which includes the anticipated tim On what estimated date w On what date will (or did) t	NMAC unless the site characterization report includes complete nelines for beginning and completing the remediation. ill the remediation commence he final sampling or liner inspection occur	d efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, 03/30/2019 05/17/2022
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Per Subsection B of 19.15.29.11 which includes the anticipated tin On what estimated date w On what date will (or did) t On what date will (or was) What is the estimated surf	NMAC unless the site characterization report includes complete nelines for beginning and completing the remediation. ill the remediation commence he final sampling or liner inspection occur the remediation complete(d) ace area (in square feet) that will be reclaimed	d efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, 03/30/2019 05/17/2022 01/19/2021 4177
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Per Subsection B of 19.15.29.11 which includes the anticipated tim On what estimated date w On what date will (or did) t On what date will (or was) What is the estimated surf What is the estimated volu What is the estimated surf What is the estimated volu These estimated dates and meas	NMAC unless the site characterization report includes complete nelines for beginning and completing the remediation. ill the remediation commence he final sampling or liner inspection occur the remediation complete(d) ace area (in square feet) that will be reclaimed ime (in cubic yards) that will be reclaimed ace area (in square feet) that will be remediated ime (in cubic yards) that will be remediated ime (in cubic yards) that will be remediated ime (in cubic yards) that will be remediated	d efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, 03/30/2019 05/17/2022 01/19/2021 4177 154.7 4177 154.7 4177 154.7 te time of submission and may (be) change(d) over time as more remediation efforts are completed.

significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

District I

1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

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

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Action 321356

QUESTIONS (continued)		
Operator: DEVON ENERGY PRODUCTION COMPANY, LP	OGRID: 6137	
333 West Sheridan Ave. Oklahoma City, OK 73102	Action Number: 321356	
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	
QUESTIONS		

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. Name: Dale Woodall Title: EHS Professional I hereby agree and sign off to the above statement Email: Dale.Woodall@dvn.com

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.

Date: 03/07/2024

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District III

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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

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QUESTIONS, Page 5

Action 321356

QUESTIONS (continued)		
Operator: DEVON ENERGY PRODUCTION COMPANY, LP	OGRID: 6137	
333 West Sheridan Ave. Oklahoma City, OK 73102	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	Νο	

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

QUESTIONS, Page 6

Action 321356

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QUESTIONS (continued)		
Operator:	OGRID:	
DEVON ENERGY PRODUCTION COMPANY, LP	6137	
333 West Sheridan Ave.	Action Number:	
Oklahoma City, OK 73102	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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## **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS, Page 7

Action 321356

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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		
Declamation Depart		

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

CONDITIONS

Action 321356

Operator: OGRID: DEVON ENERGY PRODUCTION COMPANY, LP 6137 333 West Sheridan Ave. Action Number: Oklahoma City, OK 73102 321356 Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

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