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	nAPP2128538179
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Devon Energy Production Company	OGRID 6137
Contact Name Wesley Mathews	Contact Telephone
Contact email Wesley.Mathews@dvn.com	Incident # *(assigned by OCD)*
Contact mailing address 6488 Seven Rivers Hwy Artesia, NM 88210	

Location of Release Source

Latitude 32.076588 Longitude -103.512033
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Jayhawk 6 CBT 2	Site Type Oil
Date Release Discovered 10/11/2021	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
C	6	26S	34E	Lea

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)	Volume Recovered (bbls)
■ Produced Water	Volume Released (bbls) 6.5 BBL	Volume Recovered (bbls) 6 BBLS
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release Pin hole leak causing fluid release.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2128538179
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ■ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

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

Spill was not in lined containment.

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

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

Printed Name: Kendra DeHoyos Title: EHS Associate

Signature: Kendra DeHoyos Date: 1/19/2022

email: Kendra.Ruiz@dvn.com Telephone: 575-748-0167

OCD Only

Received by: Ramona Marcus Date: 1/21/2022

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2128538179
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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?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- N/A 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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2128538179
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Dale Woodall Title: EHS Professional

Signature: Dale Woodall Date: 2/4/2022

email: Dale.Woodall@dvn.com Telephone: 575-748-1838

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2128538179
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Dale Woodall Title: EHS Professional

Signature: Dale Woodall Date: 2/4/2022

email: Dale.Woodall@dvn.com Telephone: 575-748-1838

OCD Only

Received by: Chad Hensley Date: 02/24/2022

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: Chad Hensley Date: 02/24/2022

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

VERTEX

January 20, 2022 Vertex Project #: 21E-00580-007

Spill Closure Report: Jayhawk 6 CTB 2
Unit K, Section 6, Township 26 South, Range 34 East
County: Lea
Incident Report: nAPP2128538179

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

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

Devon Energy Production Company, LP (Devon) retained Vertex Resource Services Inc. (Vertex) to conduct a Spill Assessment for a release of produced water at Jayhawk 6 CTB 2 (hereafter referred to as "Jayhawk"). Devon provided notification to the New Mexico Oil Conservation Division (NMOCD) District 1 via a C-141 Notification of Release (Attachment 1), which was received by NMOCD on October 12, 2021. The NMOCD tracking number assigned to this incident is nAPP2128538179.

This letter provides a description of the Spill Assessment and demonstrates that closure criteria established in 19.15.29.12 *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2021) 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 October 11, 2021, a release was discovered at Devon's Jayhawk site resulting from a pin hole leak in a welded swedge. Upon discovery of the release, upstream and downstream valves were closed and a well shut in. The release occurred on the pad surface, was approximately 5 barrels (bbl.) in volume and comprised of produced water only. A hydrovac was dispatched and removed approximately 5 bbl. of free fluid during initial spill clean-up. The release was contained on-site, and no fluids were released into sensitive areas or waterways.

Site Characterization

The release at Jayhawk occurred on federally owned land, N 32.076325, W 103.511947, approximately 19 miles west of Jal, New Mexico. The legal location for the site is Unit K, Section 6, Township 26 South and Range 34 East in Lea County, New Mexico. The spill area is located on Bureau of Land Management (BLM) property. An aerial photograph and site schematic are included in Attachment 2.

Jayhawk is typical of oil and gas exploration and production sites in the western portion of the Permian Basin and is

currently used for oil and gas production and storage. The following sections specifically describe the area in which the Jayhawk facility is located.

The surrounding landscape is associated with sandy plains typical of elevations of 3,000 to 3,900 feet above sea level. The climate is semi-arid, with average annual precipitation ranging between 10 and 12 inches. Historically, the plant community was dominated by grasses, which stabilized the potentially erosive sandy soils; however, more recent conditions, resulting from fire suppression and extensive grazing, show increased woody plant abundance. The dominant grass species are black grama, dropseeds and bluestems, with scattered shinnery oak and sand sage. Litter and, to a lesser extent, bare ground are a significant proportion of ground cover while grasses compose the remainder (United States Department of Agriculture, Natural Resources Conservation Service, 2021). Limited to no vegetation is allowed to grow on the compacted facility pad.

The Geological Map of New Mexico indicates the surface geology at Jayhawk is comprised of Qep – eolian and piedmont deposits that include eolian sands interlaid with piedmont-slope deposits (New Mexico Bureau of Geology and Mineral Resources, 2021). The Natural Resources Conservation Service Web Soil Survey characterizes the soil at the site as Pyote and Maljamar fine sands, characterized by deep, fine sand, fine sandy loam, and sandy clay loam soils. It tends to be well drained with very low to negligible runoff and low available moisture levels in the soil profile (United States Department of Agriculture, Natural Resources Conservation Service, 2021). There is low potential for karst geology to be present near Jayhawk, though some erosional karst is possible (United States Department of the Interior, Bureau of Land Management, 2018).

There is no surface water located at Jayhawk. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is the Pecos River located approximately 25.7 miles west-southwest of the site. An intermittent lake is located approximately 16.2 miles southeast of the release site, and an emergent wetland is located approximately 0.51 miles south of the release (United States Fish and Wildlife Service, 2021). At Jayhawk, 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 Jayhawk is a New Mexico Office of the State Engineer-identified livestock water well, located approximately 0.29 miles northeast of the site. The nearest well with a depth to groundwater reference is a United States Geological Survey monitoring well located approximately 0.38 miles east of the site. The recorded depth to groundwater at that location was 176 feet below ground surface (bgs) as of January 2013 (New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System, 2021; United States Department of the Interior, United States Geological Survey, 2021). 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 Jayhawk is not subject to the requirements of Paragraph (4) of Subsection C of 19.15.29.12 NMAC and the closure criteria for the site was initially determined to be associated with the following constituent concentration limits based on depth to groundwater.

Table 1. Closure Criteria for Soils Impacted by a Release

Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000mg/l TDS[1]	Constituent	Limit
>100 feet	Chloride	20,000 mg/kg
	TPH[2] (GRO + DRO + MRO)	2,500 mg/kg
	GRO + DRO	1,000 mg/kg
	BTEX[3]	50 mg/kg
	Benzene	10 mg/kg

[1]Total Dissolved Solids (TDS)

[2]Total petroleum hydrocarbons (TPH) = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO)

[3]Benzene, toluene, ethylbenzene, and xylenes (BTEX)

Remedial Actions

An initial site inspection of the spill area was completed on October 13, 2021, which identified the area of the spill specified in the Notification of Release and white lined the area required for the 811 One Call request. On October 15, 2021, the impacted area was horizontally and vertically delineated using field screening and laboratory results. Vertical delineation was limited to depths of 1 to 1.5 feet bgs due to refusal. Field screening was completed on a total of 11 sample points and consisted of analysis using a Photo Ionization Detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and an electrical conductivity meter to estimate chloride concentration. All initial characterization samples were submitted to a National Environmental Laboratory Accreditation Program (NELAP)-approved laboratory for chemical analysis. The impacted area was determined to be approximately 90 feet long and 75 feet wide; the total affected area was determined to be 4,402 square feet, as presented on Figure 1 (Attachment 2). The Daily Field Reports associated with the site inspection are included in Attachment 4.

On December 20, 2021, Vertex provided 48-hour notification of confirmation sampling to the NMOCD (Attachment 5) for work to be carried out on December 23, 2021. On December 23, 2021, Vertex personnel supervised scraping of the release area to 0.5 feet bgs to remove visible soil staining. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility. Vertex collected 22 five-point composite samples from the base of the excavation and 10 five-point composite samples from the sidewalls. 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 field screened and placed into laboratory-provided containers, preserved on ice, and submitted to a NELAP-approved laboratory for chemical analysis.

On January 5, 2021, Vertex provided 48-hour notification of confirmation sampling to the NMOCD and 30-day extension request (Attachment 5) for additional confirmation sampling of an excavation base sample that exceeded closure criteria. BS22-22 was recollected as a five-point composite sample from the base of the excavation, representative of

no more than 200 square feet. The re-collected confirmatory sample was field screened, placed in a laboratory-provided container, 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 3 (Attachment 6). 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 2 (Attachment 2).

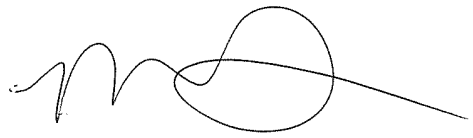
Closure Request

Vertex recommends no additional remediation action to address the release at Jayhawk. 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 shown in Table 1. There are no anticipated risks to human, ecological or hydrological receptors associated with the release site.

The excavation was backfilled with non-waste-containing, uncontaminated, earthen material, sourced locally and placed to meet the site's existing grade to prevent ponding of water and erosion.

Vertex requests that this incident (nAPP2128538179) be closed as all closure requirements set forth in Subsection E of 19.15.29.12 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 October 11, 2021, release at Jayhawk.

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



1/28/2022

Monica Peppin
SR. ENVIRONMENTAL TECHNICIAN, REPORTING

Date

01/25/2022

Dhugal Hanton, B.Sc., P.AG, P. Biol., SR/WA
VICE PRESIDENT, REPORT REVIEW

Date

Attachments

References

New Mexico Bureau of Geology and Mineral Resources. (2021). *Interactive Geologic Map.* Retrieved from http://geoinfo.nmt.edu.

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United States Fish and Wildlife Service. (2021). *National Wetlands Inventory*. Retrieved from https://www.fws.gov/wetlands/data/Mapper.html.

Limitations

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

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

ATTACHMENT 1

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1625 N. French Dr., Hobbs, NM 88240
District II
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Revised August 24, 2018
Submit to appropriate OCD District office

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Release Notification

Responsible Party

Responsible Party Devon Energy Production Company	OGRID 6137
Contact Name Wesley Mathews	Contact Telephone
Contact email Wesley.Mathews@dvn.com	Incident # *(assigned by OCD)*
Contact mailing address 6488 Seven Rivers Hwy Artesia, NM 88210	

Location of Release Source

Latitude 32.076588 Longitude -103.512033

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Jayhawk 6 CBT 2	Site Type Oil
Date Release Discovered 10/11/2021	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
C	6	26S	34E	Lea

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)	Volume Recovered (bbls)
■ Produced Water	Volume Released (bbls) 6.5 BBL	Volume Recovered (bbls) 6 BBLS
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
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☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release Pin hole leak causing fluid release.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

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

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- ■ The source of the release has been stopped.
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- ☐ 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:

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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.

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Printed Name: Kendra DeHoyos Title: EHS Associate

Signature: Kendra DeHoyos Date: 1/19/2022

email: Kendra.Ruiz@dvn.com Telephone: 575-748-0167

OCD Only

Received by: Ramona Marcus Date: 1/21/2022

State of New Mexico
Oil Conservation Division

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

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

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- ☒ Field data
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- N/A Boring or excavation logs
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State of New Mexico
Oil Conservation Division

Incident ID	nAPP2128538179
District RP	
Facility ID	
Application ID	

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

Printed Name: Dale Woodall Title: EHS Professional

Signature: Dale Woodall Date: 2/4/2022

email: Dale.Woodall@dvn.com Telephone: 575-748-1838

OCD Only

Received by: Date:

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2128538179
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Dale Woodall Title: EHS Professional

Signature: Dale Woodall Date: 2/4/2022

email: Dale.Woodall@dvn.com Telephone: 575-748-1838

OCD Only

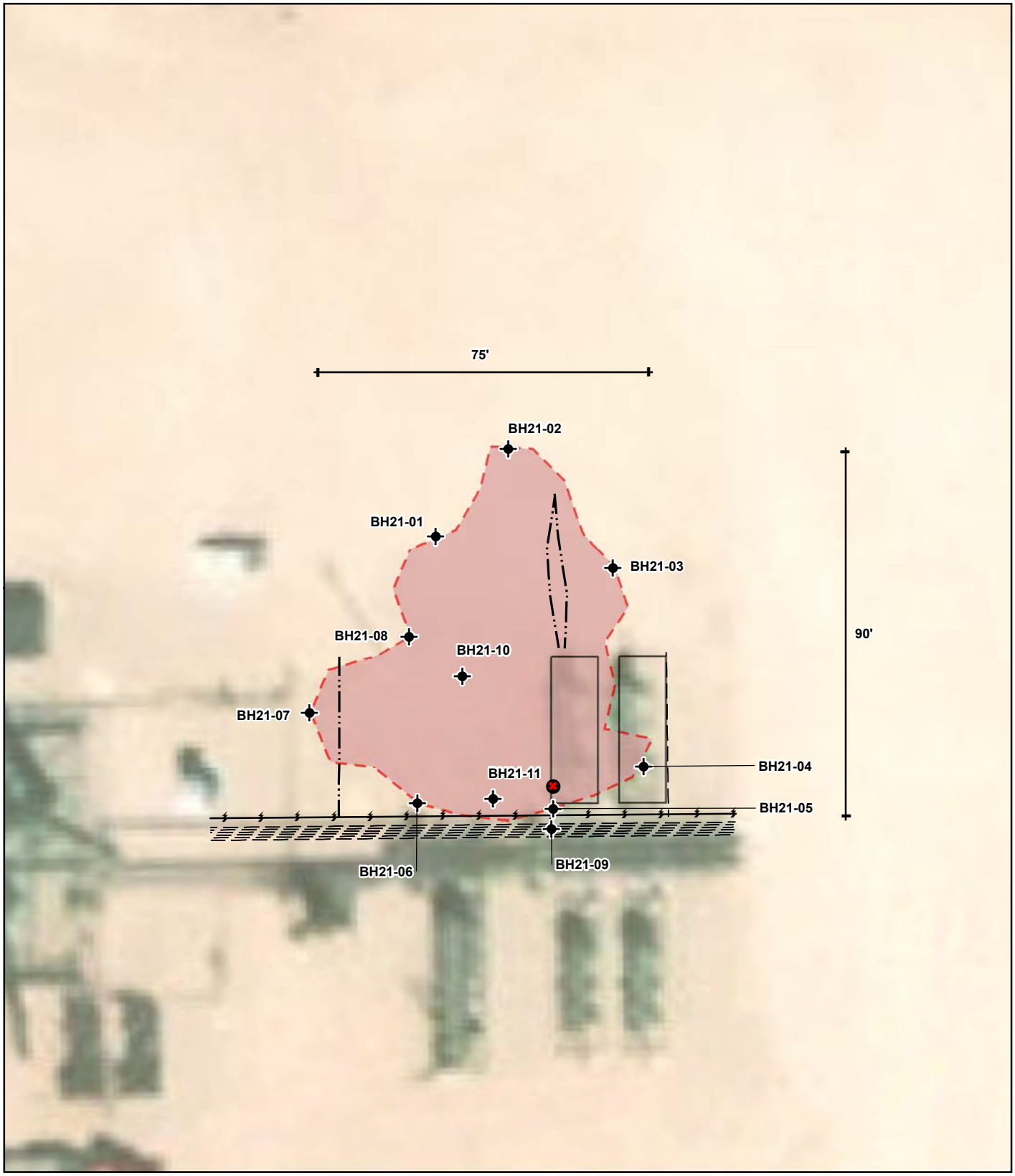
Received by: _____ Date: _____

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



VERTEX

0 5 10 20 ft.

NAD 1983 UTM Zone 13N
Date: Jan 07/22

Map Center:
Lat: 32.076559,
Long:-103.511627

N

Site Schematic and
Initial Characterization Sample Locations
Jayhawk 6 CTB 2

FIGURE: 1

devon

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

Note: Background Imagery from Maxar, 2020. Composite base samples from GPS, Vertex Professional Services., 2021.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Devon Energy Corporation\21E-00680\007 - Jayhawk 6 CTB 2\Figure 1 Initial Characterization (Jayhawk 6 CTB 2).mxd

Point of Release
Base Sample (Prefixed by "BS21-")
Wall Sample (Prefixed by "WS21-")
Electrical Line
Pipeline (Aboveground)
Pipeline (Underground)
Approximate Excavation Extent (4,402 sq. ft.)
Separator

VERTEX

0 2.5 5 10 ft.

NAD 1983 UTM Zone 13N
Date: Dec 29/21

Map Center:
Lat: 32.076559,
Long:-103.511627

N

Confirmatory Schematic
Jayhawk 6 CTB 2

FIGURE: 2

devon

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

Note: Background Imagery from Maxar, 2020. Composite base samples from GPS, Vertex Professional Services., 2021.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Devon Energy Corporation\21E-00680\007 - Jayhawk 6 CTB 2\Figure 2 Confirmatory Schematic (Jayhawk 6 CTB 2).mxd

ATTACHMENT 3

Closure Criteria Worksheet				
Site Name: Jayhawk 6 CTB 2				
Spill Coordinates:		X: 32.076325	Y: -103.511947	
Site Specific Conditions		Value	Unit	Reference
1	Depth to Groundwater	**176**	feet	1
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	135,836	feet	2
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	85,846	feet	3
4	Within 300 feet from an occupied residence, school, hospital, institution or church	8,395	feet	4
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, **or**	1,538	feet	5
	ii) Within 1000 feet of any fresh water well or spring	1,538	feet	5
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)	6
7	Within 300 feet of a wetland	2,705	feet	7
8	Within the area overlying a subsurface mine	No	(Y/N)	8
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low	9
10	Within a 100-year Floodplain	Undetermined	year	10
11	Soil Type	Pyote and Maljamar find sands		11
12	Ecological Classification	Loamy sand and Deep sand		12
13	Geology	Qep - Eolian and piedmont deposits		13
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	>100'	<50' 51-100' >100'	

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

site_no list =

- 320419103302201

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

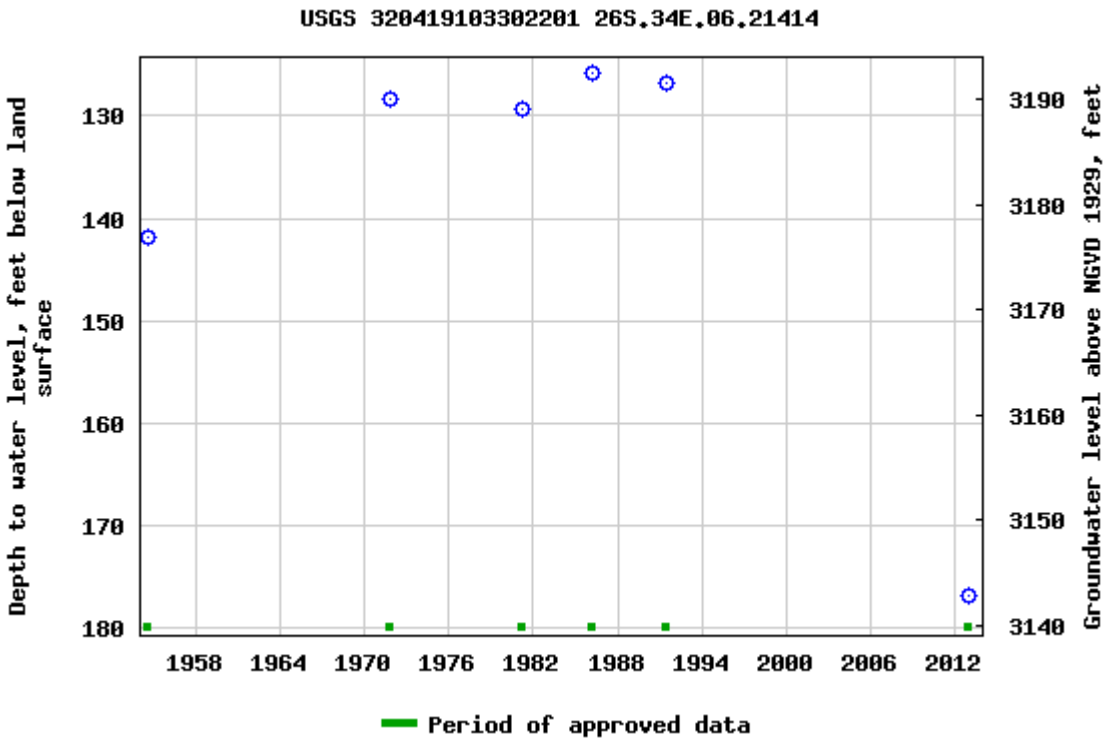
USGS 320419103302201 26S.34E.06.21414

Available data for this site | Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°04'37.9", Longitude 103°30'20.5" NAD83
Land-surface elevation 3,319.00 feet above NGVD29
The depth of the well is 360 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

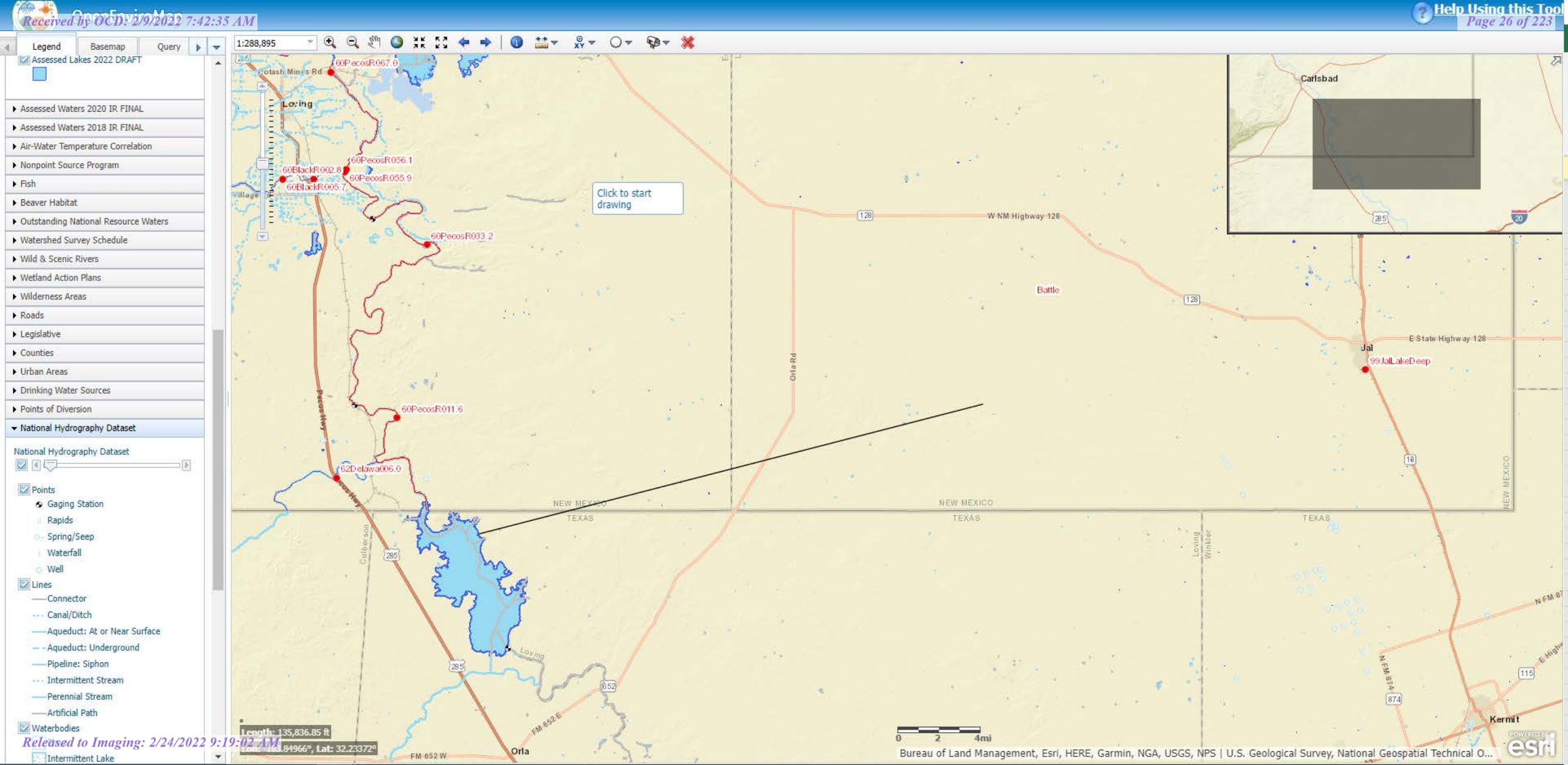


Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2021-10-26 10:52:15 EDT
0.69 0.62 nadww01



Jayhawk 6 CTB 2 Nearest Residence

Distance to Nearest Residence = 8395 feet

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

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

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

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

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02291	CUB	LE	1	1	2	06	26S	34E	640825	3550140*	469	220	160	60
C 03441 POD1	C	LE	4	1	2	06	26S	34E	640971	3550039	554	250		
C 02292 POD1	CUB	LE	4	1	2	06	26S	34E	640992	3549987	560	200	140	60
C 03442 POD1	C	LE	4	1	2	06	26S	34E	641056	3550028	632	251		

Average Depth to Water: **150 feet**

Minimum Depth: **140 feet**

Maximum Depth: **160 feet**

Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 640445 **Northing (Y):** 3549864 **Radius:** 2000

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

New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 02291	1	1	2	06	26S	34E	640825	3550140*

Driller License: **Driller Company:**

Driller Name:

Drill Start Date:		**Drill Finish Date:**	12/31/1949	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	15 GPM
Casing Size:	6.00	**Depth Well:**	220 feet	**Depth Water:**	160 feet

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

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y	Distance
C 02291	CUB	PLS	3	INTREPID POTASH NEW MEXICO LLC	LE	C 02291					1 1 2	06	26S	34E	640825	3550140*	469
C 03441	C	STK	3	INTREPID POTASH NEW MEXICO LLC	LE	C 03441 POD1				Shallow	4 1 2	06	26S	34E	640970	3550039	554
C 03491	C	PRO	0	EOG RESOURCES, INC	LE	C 03441 POD1				Shallow	4 1 2	06	26S	34E	640970	3550039	554
C 02292	CUB	PLS	3	DINWIDDIE CATTLE CO.	LE	C 02292 POD1					4 1 2	06	26S	34E	640991	3549987	560
C 03493	C	PRO	0	EOG RESOURCES, INC.	LE	C 02292 POD1					4 1 2	06	26S	34E	640991	3549987	560
C 03442	C	STK	3	INTREPID POTASH NEW MEXICO LLC	LE	C 03442 POD1				Shallow	4 1 2	06	26S	34E	641055	3550028	632
C 03477	C	PRO	0	EOG RESOURCES, INC.	LE	C 03442 POD1				Shallow	4 1 2	06	26S	34E	641055	3550028	632
C 03492	C	PRO	0	EOG RESOURCES, INC	LE	C 03442 POD1				Shallow	4 1 2	06	26S	34E	641055	3550028	632
C 04265	CUB	GEO	0	EOG RESOUCES	LE	C 04265 POD1	NA				2 3 1	32	25S	34E	641842	3551281	1990

Record Count: 9

UTMNAD83 Radius Search (in meters):

Easting (X): 640445 **Northing (Y):** 3549864 **Radius:** 2000

Sorted by: Distance

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

Jayhawk 6 CTB 2, Well Map

C 02291, Nearest Active well, Livestock Water
Distance = 1538 feet

320419103302201, USGS Monitoring Well, most recent measurent January 16, 2013

320419103302202, USGS Monitoring Well, results out of date

Jayhawk 6 CTB 2

Circle radius = 0.5 mi

Legend

- USGS wells

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	C 02291	1	1	2	06	26S	34E	640825	3550140*

Driller License:		**Driller Company:**			
Driller Name:					
Drill Start Date:		**Drill Finish Date:**	12/31/1949	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	15 GPM
Casing Size:	6.00	**Depth Well:**	220 feet	**Depth Water:**	160 feet

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

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: C 02291 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: PLS NON 72-12-1 LIVESTOCK WATERING

Primary Status: DCL DECLARATION

Total Acres: 0 **Subfile:** - **Header:** -

Total Diversion: 3 **Cause/Case:** -

Owner: INTREPID POTASH NEW MEXICO LLC

Contact: KATIE KELLER

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	653050	COWNF	2019-06-11	CHG	APR	C 02291	T	0	0	
get images	648782	COWNF	2019-03-20	CHG	PRC	C 02291	T	0	0	
get images	464443	DCL	1993-02-02	DCL	PRC	C 02291	T	0	3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 02291			1	1	2	06	26S	34E	640825	3550140*	

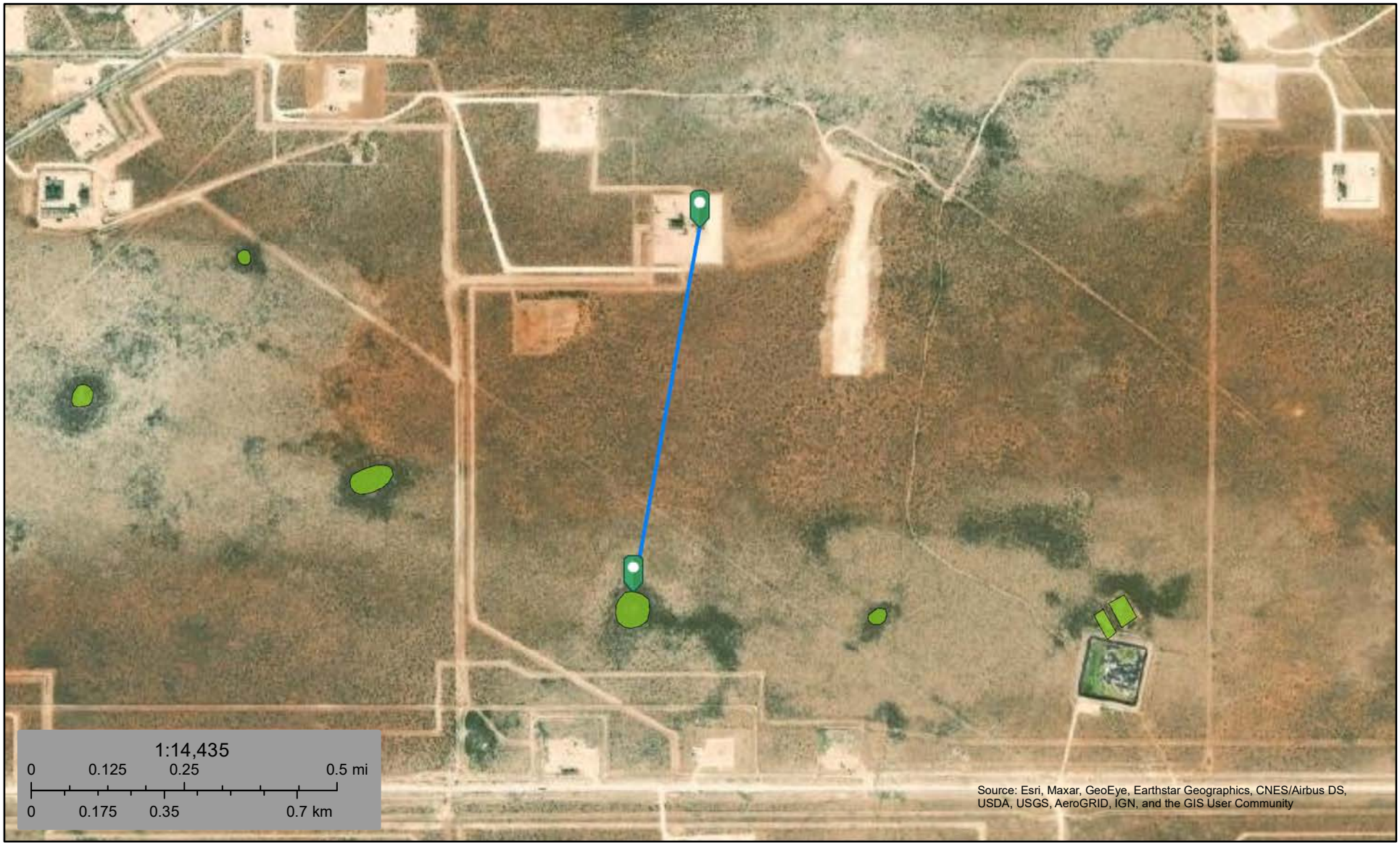
***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Priority Summary

Priority	Status	Acres	Diversion	Pod Number
12/31/1949	DCL	0	3	C 02291

U.S. Fish and Wildlife Service
National Wetlands Inventory

Jayhawk 6 CTB 2, Wetland 2705 feet



October 13, 2021

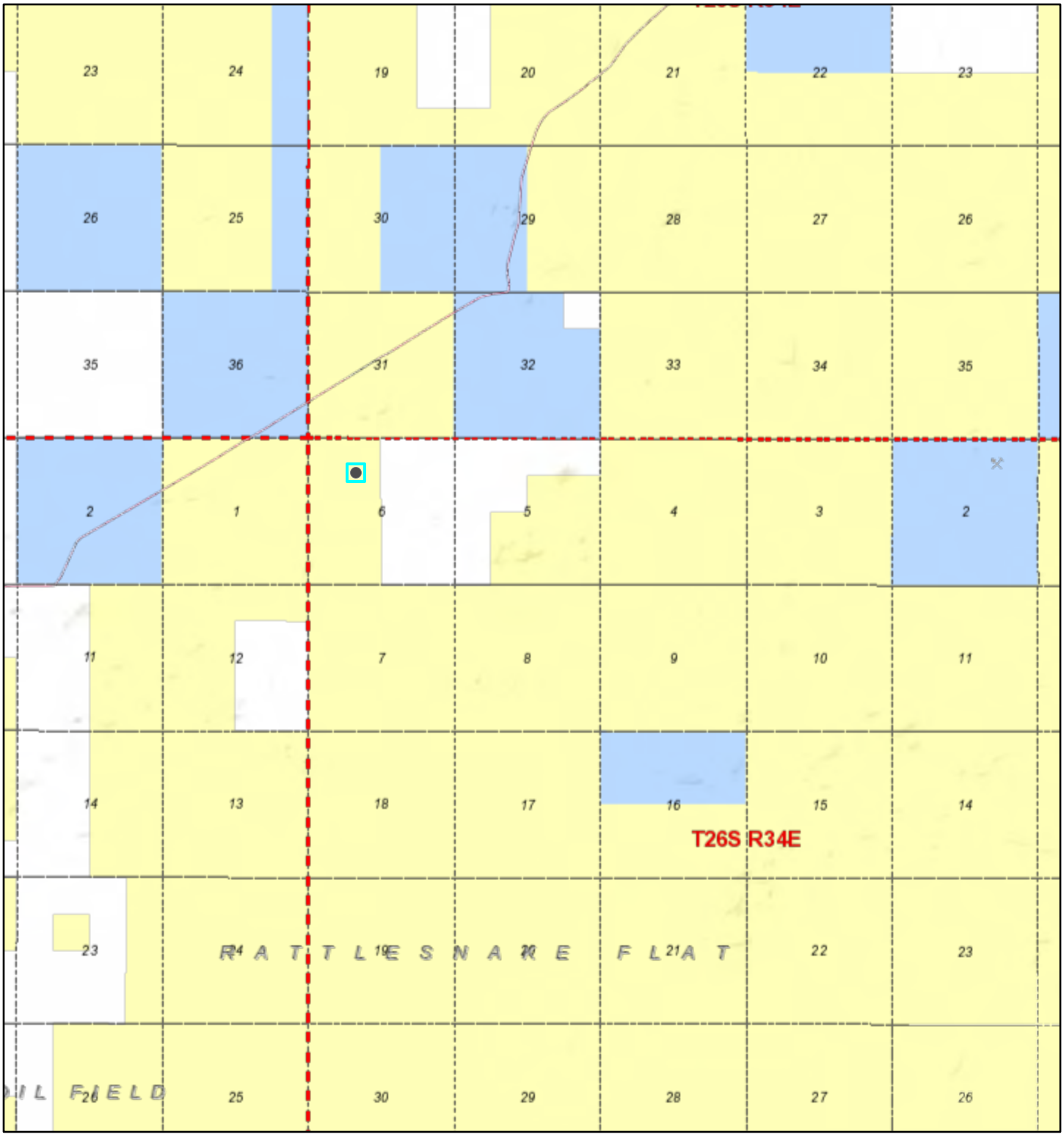
Wetlands

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

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

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

Active Mines in New Mexico



10/13/2021, 2:10:31 PM

1:72,224

0 0.5 1 2 mi

0 0.75 1.5 3 km

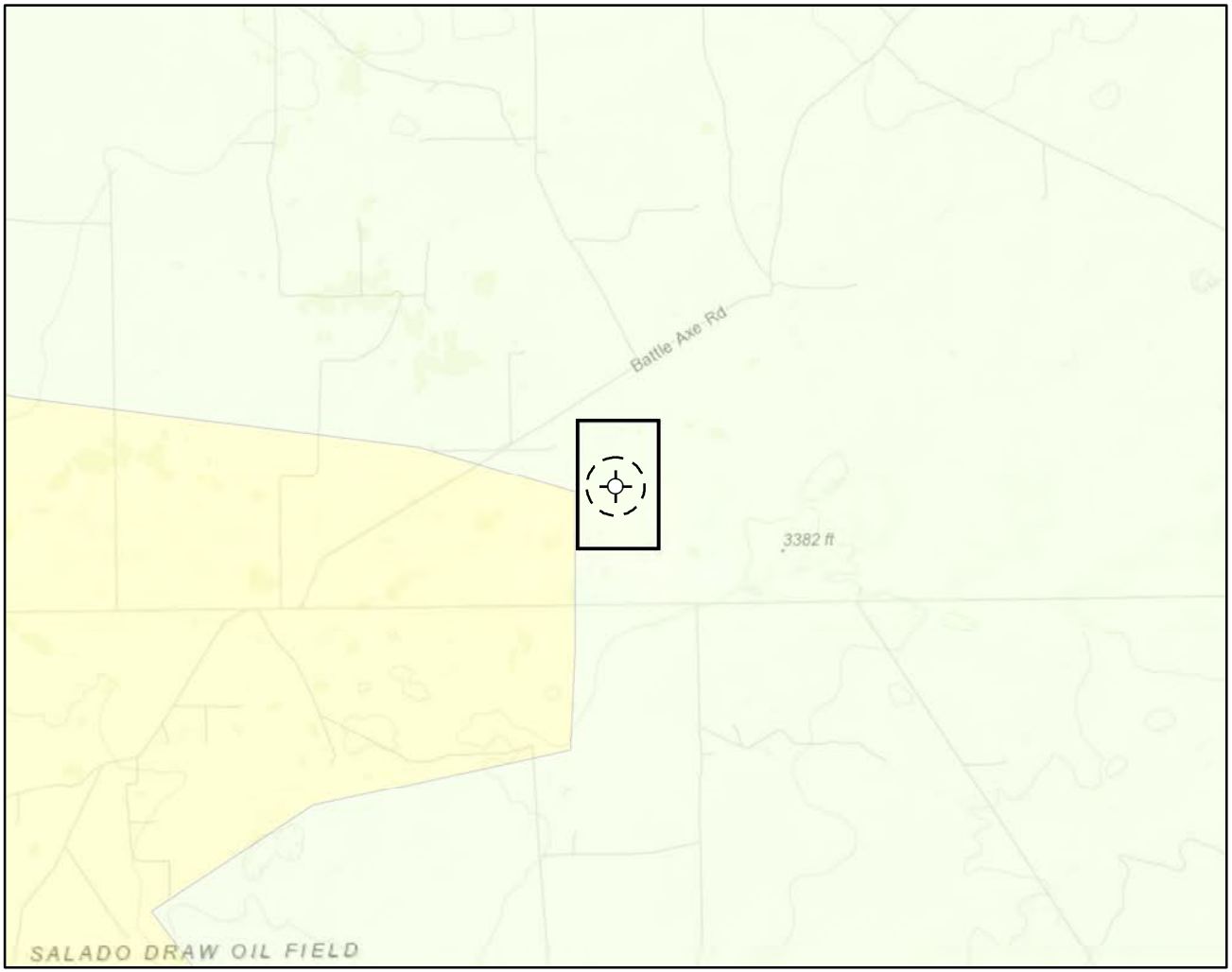
Township / Range
Sections

Land Ownership
Bureau of Land Management
Bureau of Reclamation
Department of Agriculture
Department of Defense
Department of Energy
National Park Service
Private Land
State Game and Fish
State Land
State Parks
Tribal

U.S. Bureau of Land Management - New Mexico State Office, Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS

EMNRD MMD GIS Coordinator

New Mexico Energy, Minerals and Natural Resources Department (http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=1b5e577974664d689b47790897ca2795)



Karst Potential

- Critical
- High
- Medium
- Low

Site Location

Site Buffer (1,000 ft.)

Overview Map

0 0.25 0.5 1 mi

Detail Map

0 150 300 600 ft.

VERTEX

Map Center:
Lat/Long: 32.076432, -103.511603

NAD 1983 UTM Zone 13N
Date: Oct 19/21

N

Karst Potential Map
Jayhawk 6 CTB 2

FIGURE:
X

devon

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

Note: Inset Map, ESRI 20XX; Overview Map: ESRI World Topographic

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Document Path: G:\1-Projects_US PROJECTS\Devon Energy Corporation\21E-00580007 - Jayhawk 6 CTB 2\Figure X Karst Potential (Jayhawk 6 CTB 2).mxd

National Flood Hazard Layer FIRMette

FEMA

103°31'2"W 32°4'50"N

103°30'24"W 32°4'20"N

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

1:6,000

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

Legend

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

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

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

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

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

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

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

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/13/2021 at 3:47 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for Lea County, New Mexico

October 13, 2021

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.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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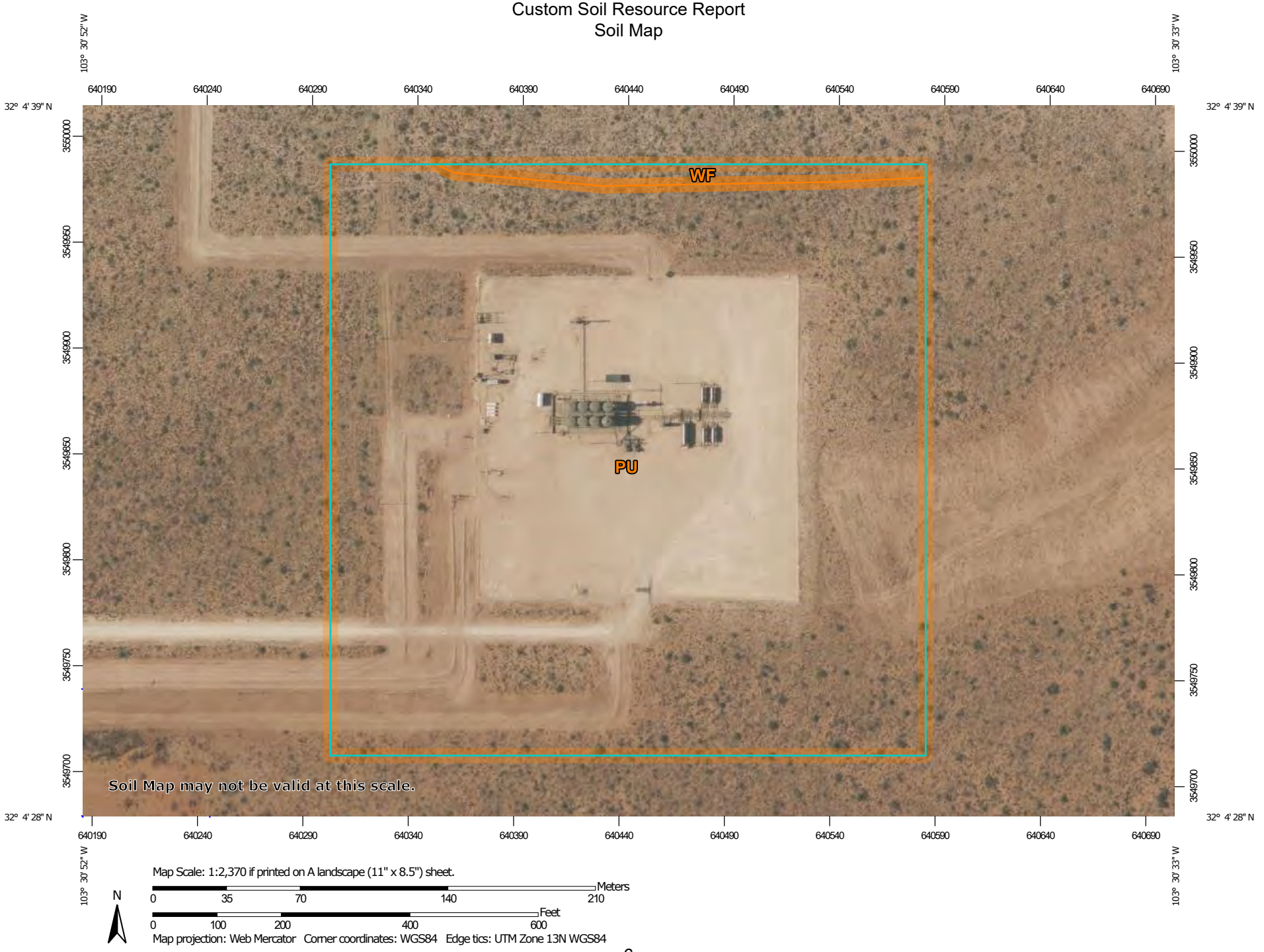
Contents

Soil Map

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

Custom Soil Resource Report
Soil Map



MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

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

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

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

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PU	Pyote and Maljamar fine sands	19.1	97.6%
WF	Wink fine sand	0.5	2.4%
Totals for Area of Interest		**19.6**	**100.0%**

Map Unit Descriptions

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

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

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

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

onsite investigation is needed to define and locate the soils and miscellaneous areas.

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

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

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

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

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

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

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

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

Lea County, New Mexico

PU—Pyote and Maljamar fine sands

Map Unit Setting

National map unit symbol: dmqq
Elevation: 3,000 to 3,900 feet
Mean annual precipitation: 10 to 12 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

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

Description of Pyote

Setting

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

Typical profile

A - 0 to 30 inches: fine sand
Bt - 30 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
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 content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Description of Maljamar

Setting

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

Typical profile

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

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 40 to 60 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Kermit

Percent of map unit: 10 percent
Ecological site: R042XC022NM - Sandhills
Hydric soil rating: No

WF—Wink fine sand

Map Unit Setting

National map unit symbol: dmrl
Elevation: 2,600 to 4,600 feet

Mean annual precipitation: 10 to 21 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 185 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Wink and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wink

Setting

Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Calcareous sandy alluvium and/or calcareous sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 12 inches: fine sand
Bk - 12 to 23 inches: sandy loam
BCk - 23 to 60 inches: variable

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
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 content: 30 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 4.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R042XC005NM - Deep Sand
Hydric soil rating: No

Minor Components

Jal

Percent of map unit: 5 percent
Ecological site: R042XC030NM - Limy
Hydric soil rating: No

Midessa

Percent of map unit: 4 percent
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

Drake

Percent of map unit: 3 percent
Landform: Playa dunes
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R077CY026TX - High Lime 16-21" PZ
Hydric soil rating: No

Kermit

Percent of map unit: 3 percent
Ecological site: R042XC022NM - Sandhills
Hydric soil rating: No

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USDA Natural Resources Conservation Service

Ecological site R042XC003NM
Loamy Sand

Accessed: 10/13/2021

General information

Figure 1. Mapped extent

Areas shown in blue indicate the maximum mapped extent of this ecological site. Other ecological sites likely occur within the highlighted areas. It is also possible for this ecological site to occur outside of highlighted areas if detailed soil survey has not been completed or recently updated.

Associated sites

R042XC004NM	**Sandy** Sandy
R042XC005NM	**Deep Sand** Deep Sand

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site is on uplands, plains, dunes, fan piedmonts and in inter dunal areas. The parent material consists of mixed alluvium and or eolian sands derived from sedimentary rock. Slope range on this site range from 0 to 9 percent with the average of 5 percent.

Low stabilized dunes may occur occasionally on this site. Elevations range from 2,800 to 5,000 feet.

Table 2. Representative physiographic features

Landforms	(1) Fan piedmont (2) Alluvial fan (3) Dune
Elevation	2,800–5,000 ft
Slope	0–9%
Aspect	Aspect is not a significant factor

Climatic features

The average annual precipitation ranges from 8 to 13 inches. Variations of 5 inches, more or less, are common. Over 80 percent of the precipitation falls from April through October. Most of the summer precipitation comes in the form of high intensity-short duration thunderstorms.
Temperatures are characterized by distinct seasonal changes and large annual and diurnal temperature changes. The average annual temperature is 61 degrees with extremes of 25 degrees below zero in the winter to 112 degrees in the summer.
The average frost-free season is 207 to 220 days. The last killing frost being late March or early April and the first killing frost being in later October or early November.
Temperature and rainfall both favor warm season perennial plant growth. In years of abundant spring moisture, annual forbs and cool season grasses can make up an important component of this site. Strong winds blow from the southwest from January through June, which accelerates soil drying during a critical period for cool season plant growth.

Climate data was obtained from http://www.wrcc.sage.dri.edu/summary/climsmnm.html web site using 50% probability for freeze-free and frost-free seasons using 28.5 degrees F and 32.5 degrees F respectively.

Table 3. Representative climatic features

Frost-free period (average)	221 days
Freeze-free period (average)	240 days
Precipitation total (average)	13 in

Influencing water features

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

Soil features

Soils are moderately deep or very deep. Surface textures are loamy fine sand, fine sandy loam, loamy very fine sand or gravelly sandy loam.

Subsurface is a loamy fine sand, coarse sandy loam, fine sandy loam or loam that averages less than 18 percent clay and less than 15 percent carbonates.

Substratum is a fine sandy loam or gravelly fine sandy loam with less than 15 percent gravel and with less than 40 percent calcium carbonate. Some layers high in lime or with caliche fragments may occur at depths of 20 to 30 inches.

These soils, if unprotected by plant cover and organic residue, become wind blown and low hummocks are formed.

Minimum and maximum values listed below represent the characteristic soils for this site.

Characteristic soils are:
Maljamar
Berino

Parjarito
Palomas
Wink
Pyote

Table 4. Representative soil features

Surface texture	(1) Fine sand (2) Fine sandy loam (3) Loamy fine sand
Family particle size	(1) Sandy
Drainage class	Well drained to somewhat excessively drained
Permeability class	Moderate to moderately rapid
Soil depth	40–72 in
Surface fragment cover <=3"	0–10%
Surface fragment cover >3"	0%
Available water capacity (0-40in)	5–7 in
Calcium carbonate equivalent (0-40in)	3–40%
Electrical conductivity (0-40in)	2–4 mmhos/cm
Sodium adsorption ratio (0-40in)	0–2
Soil reaction (1:1 water) (0-40in)	6.6–8.4
Subsurface fragment volume <=3" (Depth not specified)	4–12%
Subsurface fragment volume >3" (Depth not specified)	0%

Ecological dynamics

Overview

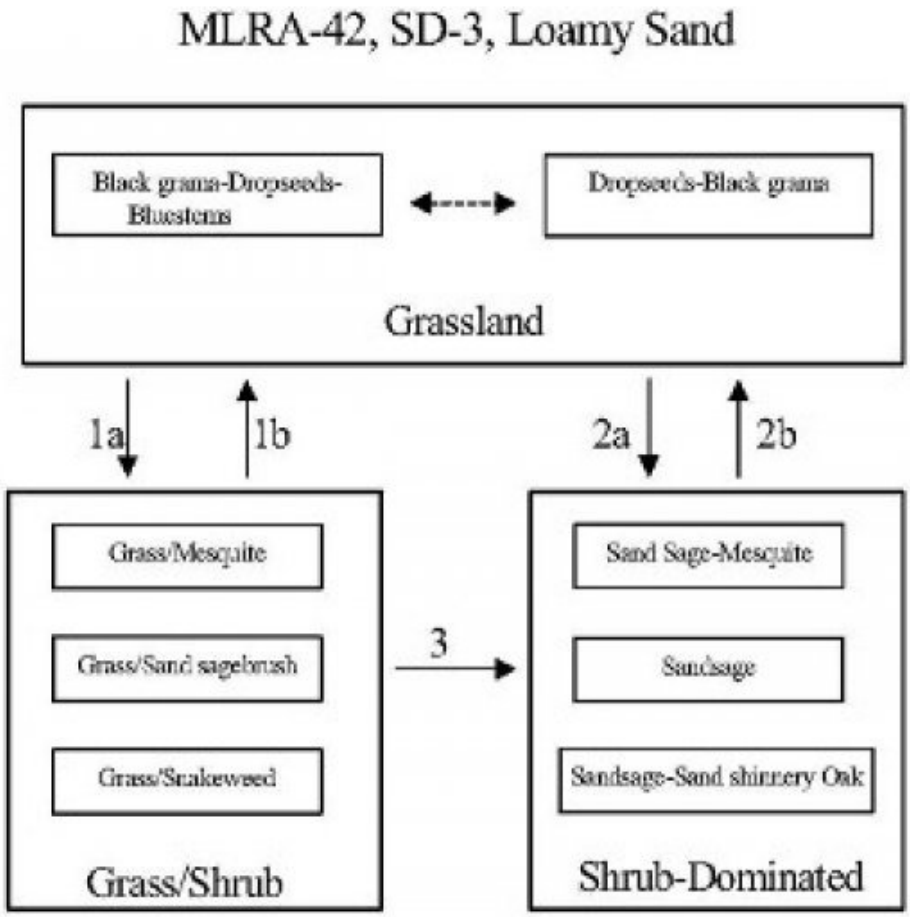
The Loamy Sand site intergrades with the Deep Sand and Sandy sites (SD-3). These sites can be differentiated by surface soil texture and depth to a textural change. Loamy Sand and Deep Sand sites have coarse textured (sands and loamy sand) surface soils while Sandy sites have moderately coarse textured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

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

dominated historic plant community.

State and transition model

Plant Communities and Transitional Pathways (diagram):



1a. Drought, over grazing, fire suppression.
1b. Brush control, prescribed grazing

2.a Severe loss of grass cover, fire suppression, erosion.
2b. Brush control, seeding, prescribed grazing.

3. Continued loss of grass cover, erosion.

Figure 4.

State 1
Historic Climax Plant Community

Community 1.1
Historic Climax Plant Community

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

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

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	442	833	1224
Forb	110	208	306
Shrub/Vine	98	184	270
Total	**650**	**1225**	**1800**

Table 6. Ground cover

Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	28%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	50%
Surface fragments >0.25" and <=3"	0%
Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	22%

Figure 6. Plant community growth curve (percent production by month). NM2803, R042XC003NM-Loamy Sand-HCPC. SD-3 Loamy Sand - Warm season plant community .

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	3	5	10	10	25	30	12	5	0	0

State 2
Grass/Shrub

Community 2.1
Grass/Shrub

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

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

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

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

State 3
Shrub Dominated

Community 3.1
Shrub Dominated

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

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

Key indicators of approach to transition:

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

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

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

Key indicators of approach to transition:

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

Additional community tables

Table 7. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
Grass/Grasslike					
1	**Warm Season**			61–123	
	little bluestem	SCSC	*Schizachyrium scoparium*	61–123	–
2	**Warm Season**			37–61	
	sand bluestem	ANHA	*Andropogon hallii*	37–61	–
3	**Warm Season**			37–61	
	cane bluestem	BOBA3	*Bothriochloa barbinodis*	37–61	–
	silver bluestem	BOSA	*Bothriochloa saccharoides*	37–61	–
4	**Warm Season**			123–184	
	black grama	BOER4	*Bouteloua eriopoda*	123–184	–
	bush muhly	MUPO2	*Muhlenbergia porteri*	123–184	–
5	**Warm Season**			123–184	
	thin paspalum	PASE5	*Paspalum setaceum*	123–184	–
	plains bristlegrass	SEVU2	*Setaria vulpiseta*	123–184	

	plains bristlegrass	SEVU2	*Setaria vulpiseta*	123–184	–
	fringed signalgrass	URCI	*Urochloa ciliatissima*	123–184	–
6	**Warm Season**			123–184	
	spike dropseed	SPCO4	*Sporobolus contractus*	123–184	–
	sand dropseed	SPCR	*Sporobolus cryptandrus*	123–184	–
	mesa dropseed	SPFL2	*Sporobolus flexuosus*	123–184	–
7	**Warm Season**			61–123	
	hooded windmill grass	CHCU2	*Chloris cucullata*	61–123	–
	Arizona cottontop	DICA8	*Digitaria californica*	61–123	–
9	**Other Perennial Grasses**			37–61	
	Grass, perennial	2GP	*Grass, perennial*	37–61	–
Shrub/Vine					
8	**Warm Season**			37–61	
	New Mexico feathergrass	HENE5	*Hesperostipa neomexicana*	37–61	–
	giant dropseed	SPGI	*Sporobolus giganteus*	37–61	–
10	**Shrub**			61–123	
	sand sagebrush	ARFI2	*Artemisia filifolia*	61–123	–
	Havard oak	QUHA3	*Quercus havardii*	61–123	–
11	**Shrub**			34–61	
	fourwing saltbush	ATCA2	*Atriplex canescens*	37–61	–
	featherplume	DAFO	*Dalea formosa*	37–61	–
12	**Shrub**			37–61	
	jointfir	EPHED	*Ephedra*	37–61	–
	littleleaf ratany	KRER	*Krameria erecta*	37–61	–
13	**Other Shrubs**			37–61	
	Shrub (>.5m)	2SHRUB	*Shrub (>.5m)*	37–61	–
Forb					
14	**Forb**			61–123	
	leatherweed	CRPOP	*Croton pottsii var. pottsii*	61–123	–
	Indian blanket	GAPU	*Gaillardia pulchella*	61–123	–
	globemallow	SPHAE	*Sphaeralcea*	61–123	–
15	**Forb**			12–37	
	woolly groundsel	PACA15	*Packera cana*	12–37	–
16	**Forb**			61–123	
	touristplant	DIWI2	*Dimorphocarpa wislizeni*	61–123	–
	woolly plantain	PLPA2	*Plantago patagonica*	61–123	–
17	**Other Forbs**			37–61	
	Forb (herbaceous, not grass nor grass-like)	2FORB	*Forb (herbaceous, not grass nor grass-like)*	37–61	–

Animal community

This Ecological Site provides habitat which supports a resident animal community that is characterized by pronghorn antelope, desert cottontail, spotted ground squirrel, black-tailed prairie dog, yellow faced pocket gopher, Ord's kangaroo rat, northern grasshopper mouse, southern plains woodrat, badger, roadrunner, meadowlark, burrowing owl, white necked raven, lesser prairie chicken, morning dove, scaled quail, Harris hawk, side blotched

lizard, marbled whiptail, Texas horned lizard, western diamondback rattlesnake, dusty hognose snake and ornate box turtle.
Where mesquite has invaded, most resident birds and scissor-tailed flycatcher, morning dove and Swainson's hawk, nest. Vesper and grasshopper sparrows utilize the site during migration.

Hydrological functions

The runoff curve numbers are determined by field investigations using hydraulic cover conditions and hydrologic soil groups.
Hydrologic Interpretations
Soil Series Hydrologic Group
Berino B
Kinco A
Maljamar B
Pajarito B
Palomas B
Wink B
Pyote A

Recreational uses

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

Wood products

This site has no potential for wood products.

Other products

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

Other information

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

Inventory data references

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

Other references

Literature Cited:

Ansley, R. J.; Jacoby, P. W. 1998. Manipulation of fire intensity to achieve mesquite management goals in north Texas. In: Pruden, Teresa L.; Brennan, Leonard A., eds. Fire in ecosystem management: shifting the paradigm from suppression to prescription: Proceedings, Tall Timbers fire ecology conference; 1996 May 7-10; Boise, ID. No. 20. Tallahassee, FL: Tall Timbers Research Station: 195-204.

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Pettit, Russell D. 1986. Sand shinnery oak: control and management. Management Note 8. Lubbock, TX: Texas Tech University, College of Agricultural Sciences, Department of Range and Wildlife Management. 5 p.

Contributors

Don Sylvester
Quinn Hodgson

Rangeland health reference sheet

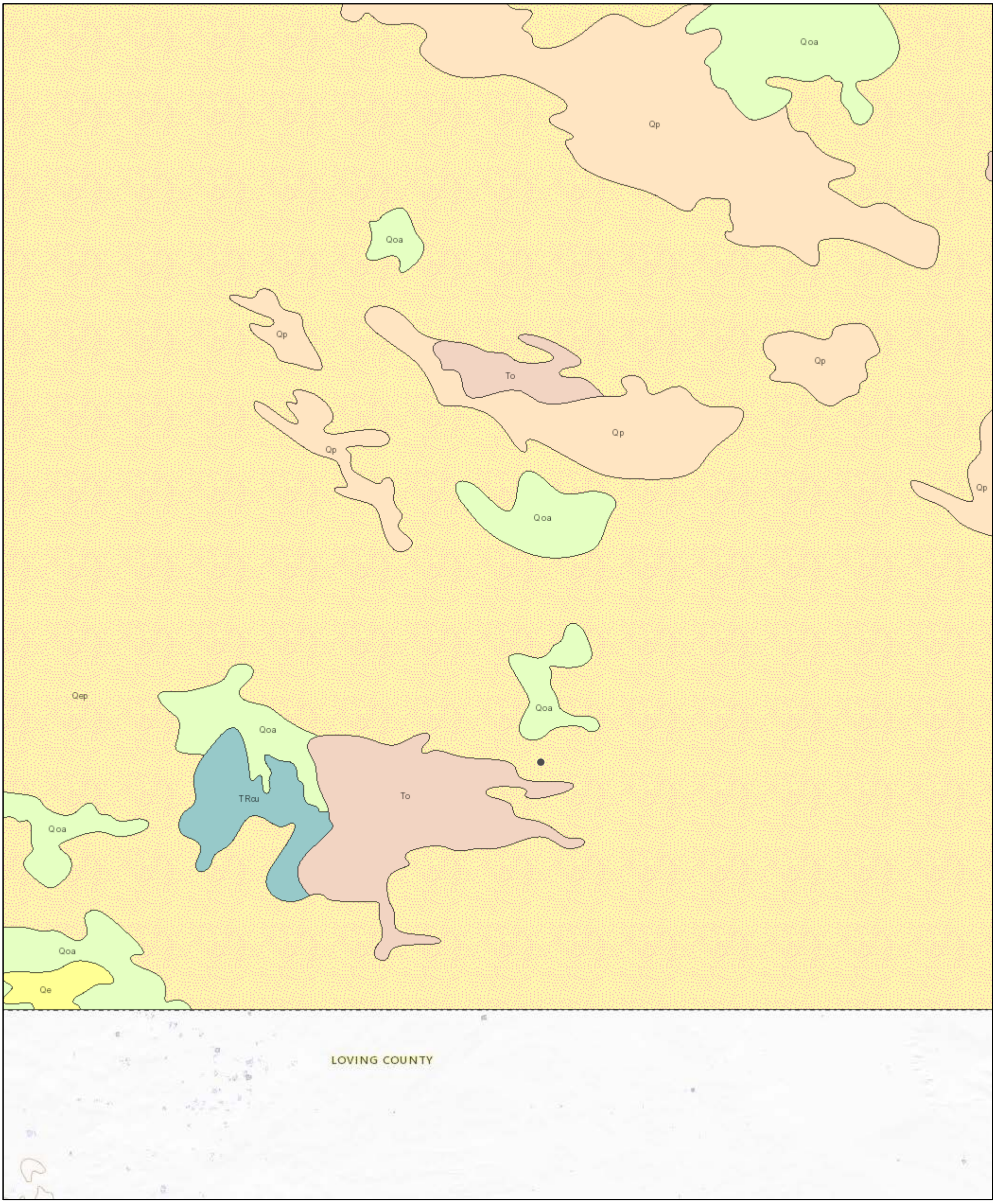
Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:**

ArcGIS Web Map



10/13/2021, 3:02:18 PM

Lithologic Contacts	Faults	Dikes
Contact, Exposed	Fault, Exposed	<all other values>
Contact, Gradational	Fault, Intermittent	Dike
Nomenclature change	Fault, Concealed	Dike intruding fault
Map Boundary	Shere Zone	Volcanic Vents

1:144,448

0 1.25 2.5 5 mi

0 2.25 4.5 9 km

USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data;

ArcGIS Web AppBuilder

USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset,

ATTACHMENT 5

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	10/13/2021
Site Location Name:	JayHawk 6 CTB 2	Report Run Date:	10/13/2021 9:25 PM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/13/2021 8:37 AM
Departed Site	10/13/2021 9:30 AM

Field Notes

8:48 Arrived on site to white line/flag spill area for 811 call.

9:27 811 has been placed, ticket becomes valid on 10/15 @ 9:30am

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: Northwest	**Viewing Direction**: Southwest
	
White lined and flagged area around spill	White lined and flagged area around spill
Viewing Direction: South	**Viewing Direction**: East
	
White lined and flagged area around spill	Spill area

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: North
	
White lined and flagged area around the spill	Spill area

Daily Site Visit Report

Daily Site Visit Signature

Inspector: John Ramirez

Signature: 

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	10/15/2021
Site Location Name:	JayHawk 6 CTB 2	Report Run Date:	10/15/2021 10:13 PM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/15/2021 8:40 AM
Departed Site	10/15/2021 2:38 PM

Field Notes

10:05 Arrived on site at 8:40 to begin delineation for PW release. One-call didn't clear until 9:30. Began digging with hand auger at 9:45

11:57 Ran BH21-01-BH21-08 to run horizontal delineation along the edge of the spill. All but BH21-05 were clean on EC, PID, and PetroFlag.

11:58 BH21-05 was stepped out to BH21-09. 09 is clean on EC, PID, and PetroFlag. Spill is now horizontally delineated.

13:27 Attempting to vertically delineate with BH21-05 and BH21-10-BH21-11. All hitting refusal at 1-2ft. All three still dirty on chlorides

14:38 Tried to dig six holes to vertically delineate. All hot refusal at 1-1.5ft

Next Steps & Recommendations

1 Come up with a plan to vertically delineate.

Daily Site Visit Report

Site Photos

Viewing Direction: Northeast

Release area

Viewing Direction: Northeast

Samples area for BH21-07-BH21-08

Viewing Direction: Southeast

Release area

Viewing Direction: South

Release area

Daily Site Visit Report

Viewing Direction: West	**Viewing Direction**: Northwest
	
Pipelines over release area	Release area between separators
Viewing Direction: West	**Viewing Direction**: Northeast
	
Pipelines and walkway over release area	Sample area for BH21-01-BH21-02

Daily Site Visit Report

Viewing Direction: South	**Viewing Direction**: West
	
Sample area for BH21-03	Sample area for BH21-04-BH21-06 and BH21-09along south edge under pipes

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Chance Dixon

Signature: 

Signature

Daily Soil Sampling

Client: Client: Devon Energy Corporation

Location: Site: JayHawk 6 CTB 2

Date: (SD: 10/15/21)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BH21-01	0.5	0	62	0.12	19.9	122		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-02	0.5	0		0.06	20.2	23		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-03	0.5	0	28	0.11	20.5	82		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-04	0.5	0		0.17	20.5	168		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-05	0.5	0	80	1.31	22.2	1740		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-05	1.0	0	92	2.55	18.2	3703		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-05	2.0	0		2.04	18.9	2937		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	2.00
BH21-06	0.5	0	99	0.14	20.3	134		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-07	0.5	0	42	0.30	22.1	287		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	

Daily Soil Sampling

BH21-08	0.5	0	55	0.23	20.5	255		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-09	0.5	0	56	0.18	20.5	183		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-10	0.5	0	110	3.88	19.3	5575		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-10	1.0	0	106	3.33	18.4	4820		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	1.00
BH21-11	0.5	0	90	3.80	18.5	5494		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-11	1.0	0	84	3.41	18.4	4936		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	1.00

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	11/17/2021
Site Location Name:	JayHawk 6 CTB 2	Report Run Date:	11/17/2021 10:25 PM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	11/17/2021 11:33 AM
Departed Site	11/17/2021 4:21 PM

Field Notes

11:33 Complete confirmation sampling of release area.

12:25 Plotted sample points in collector for composite samples to be taken. Total of 12 bases within spill area and 10 wall samples around edges of spill.

12:45 Staining of spill is still visible. Field screening of all samples to be completed and sent in for laboratory analysis

12:51 Composite samples of each sample are being taken 0-1 ft in five points to determine the overall average of each area due to no excavation being completed and closure criteria determination shows dtgw being greater than 100 ft

Next Steps & Recommendations

1. Lab analysis
2. Closure report

Daily Site Visit Report

Site Photos

Viewing Direction: South

Sample area

Viewing Direction: Southwest

Sample area

Viewing Direction: Southeast

Sample area

Viewing Direction: South

Sample area

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: East
	
Sample area	Sample area
Viewing Direction: Northeast	**Viewing Direction**: North
	
Sample area	Sample area

Daily Site Visit Report

Viewing Direction: North

Sample area

Viewing Direction: West

Sample area

Viewing Direction: West

Sample area

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Monica Peppin

Signature: 

Daily Soil Sampling

Client: Client: Devon Energy Corporation

Location: Site: JayHawk 6 CTB 2

Date: (SD: 11/17/21)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES21-01	1.0	0	20	2.45	20.6	3455		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-02	1.0	0	36	2.31	20.4	3261		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-03	1.0	0	39	3.95	20.4	5628		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-04	1.0	0	44	5.45	20.6	7785		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-05	1.0	0	43	4.69	20.7	6683		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-06	1.0	0	40	5.15	21.3	7321		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	

Daily Soil Sampling

BES21-07	1.0	0	57	4.43	20.6	6312		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-08	1.0	0	43	4.83	20.9	6877		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-09	1.0	0	52	4.35	21.1	6175		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-10	1.0	0	48	4.34	20.6	6183		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-11	1.0	2	55	5.58	21	7955		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-12	1.0	0	63	6.27	21.2	8942		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-01	1.0	0	25	1.11	20	1547		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-02	1.0	0	13	0.13	19.8	141		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-03	1.0	0	10	0.14	20.3	134		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	

Daily Soil Sampling

WES21-04	1.0	0	28	2.41	20.6	3397		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-05	1.0	0	30	2.94	20.4	4171		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-06	1.0	0	43	3.81	20.1	5439		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-07	1.0	0	39	4.62	20.1	6608		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-08	1.0	0	19	0.90	19.4	1270		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-09	1.0	0	12	0.15	19.7	174		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-10	1.0	0	46	3.90	19.7	5586		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	12/20/2021
Site Location Name:	JayHawk 6 CTB 2	Report Run Date:	12/21/2021 12:15 AM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	12/20/2021 8:07 AM
Departed Site	12/20/2021 9:35 AM

Field Notes

8:07 Tailgate/flha

8:15 Surface scrape the stained area and recollect confirmation samples

9:08 Change of plans, having to make a 811 call for the surface scrape.

9:34 811 has been placed and becomes valid on 12/22/21 and expires 1/18/22

Next Steps & Recommendations

1 Come back Thursday with hand crew to complete job

Daily Site Visit Report

Site Photos

Viewing Direction: South

Stained area

Viewing Direction: Southeast

Stained area

Viewing Direction: North

Stained area

Viewing Direction: South

White flagged for 811

Daily Site Visit Report

Viewing Direction: East

White flagged for 811

Daily Site Visit Report

Daily Site Visit Signature

Inspector: John Ramirez

Signature: 

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	12/23/2021
Site Location Name:	JayHawk 6 CTB 2	Report Run Date:	12/24/2021 12:15 AM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	12/23/2021 7:29 AM
Departed Site	12/23/2021 3:50 PM

Field Notes

7:29 Tailgate/flha

8:03 Doing a surface scrape to remove visible staining

8:50 Having to take down 6” do to the staining still being visible at just a surface scrape

10:34 Taking confirmation samples and field screening them

14:03 Collecting an additional 10 base samples

15:43 32 total samples have been collect. They are jarred and ready for pick up with COC’s

Next Steps & Recommendations

1 Lab results
Possible backfill

Daily Site Visit Report

VERTEX

Site Photos

Viewing Direction: South

Majority of the staining is west of the 2 separators

Viewing Direction: South

Some staining between the separators

Viewing Direction: South

Surface scraping

Viewing Direction: Southwest

Surface scrape

Daily Site Visit Report

Viewing Direction: Southeast	**Viewing Direction**: South
	
Digging down to 6”	Area has been scraped down 6”
Viewing Direction: Northeast	**Viewing Direction**: South
	
Sample area	Sample area

Daily Site Visit Report

Daily Site Visit Signature

Inspector: John Ramirez

Signature: 

Daily Soil Sampling

Client: Client: Devon Energy Corporation

Location: Site: JayHawk 6 CTB 2

Date: (SD: 12/23/21)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES21-01	0.5	0	40	5.42	23.1	7633		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-02	0.5	0	43	3.58	24.2	4930		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-03	0.5	0	45	3.25	24.1	4458		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-04	0.5	0	22	1.35	24.1	1716		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-05	0.5	0	37	3.92	23	5472		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-06	0.5	0	18	3.57	23.7	4937		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-07	0.5	0	44	6.03	23	8518		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-08	0.5	0	47	4.05	23.7	5630		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-09	0.5	0	21	5.39	24	7551		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	

Daily Soil Sampling

BES21-10	0.5	0	41	4.18	22.7	5861		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-11	0.5	0	99	4.64	23.8	6477		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-12	0.5	0	37	3.99	22.9	5578		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-13	0.5	0		7.14	23.5	10098		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-14	0.5	0		4.44	24.2	6171		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-15	0.5	0		3.54	24.4	4863		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-16	0.5	0	17	3.73	23.2	5190		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-17	0.5	0		4.36	24.1	6060		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-18	0.5	0		3.90	24.1	5396		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-19	0.5	0	36	4.51	23.4	6307		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-20	0.5	0		0.19	23.7	59		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-21	0.5	0		0.17	24.3	4		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	

Daily Soil Sampling

BES21-22	0.5	0		2.47	24.2	3328		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-01	0.5	0	4	0.12	23.3	0		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-02	0.5	0	21	0.15	24.1	0		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-03	0.5	0	21	0.46	24.4	418		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-04	0.5	0	100	8.97	24.4	12701		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-05	0.5	0	111	4.83	23.4	6769		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-06	0.5	0	47	5.70	24	7998		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-07	0.5	0	46	5.51	23.8	7733		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-08	0.5	0	39	2.98	24.4	4055		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-09	0.5	0	7	0.25	24.6	106		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-10	0.5	0	43	6.67	24.3	9385		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	1/11/2022
Site Location Name:	JayHawk 6 CTB 2	Report Run Date:	1/11/2022 9:46 PM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/11/2022 8:42 AM
Departed Site	1/11/2022 10:00 AM

Field Notes

8:43 Per instruction:
Obtain BS21-22 to be under 2,500 ppm for TPH AND 20,000 ppm for chloride concentration and then proceed with backfill.

Next Steps & Recommendations

1 Send sample to lab

Daily Site Visit Report

Site Photos

Viewing Direction: South	**Viewing Direction**: South
	
Excavated area before backfill	Completed backfill
Viewing Direction: Southeast	**Viewing Direction**: North
	
Completed backfill	Completed backfill

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: West
	
Completed backfill	Excavated area before backfill
Viewing Direction: South	**Viewing Direction**: East
	
Excavated area before backfill	Excavated area before backfill

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: North
	
Excavated area before backfill	Excavated area before backfill
Viewing Direction: Northwest	**Viewing Direction**: South
	
Excavated area before backfill	Backfill material approximately 10 yards

Daily Site Visit Report

Viewing Direction: North

FSF

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Austin Harris

Signature: 

Signature

Daily Soil Sampling

Client: Client: Devon Energy Corporation

Location: Site: JayHawk 6 CTB 2

Date: (SD: 1/11/22)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES22-22	0.5	0	2	0.24	16.1	460		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	

ATTACHMENT 4

Gmail in:sent

nAPP2128538179 Jayhawk 6 CTB 2 48 hr Notification of Confirmatic

Dhugal Hanton <vertexresourcegroupusa@gmail.com>
to dale.woodall, EMNRD-OCD-District1spills, OCD,, mpeppin, bshafer

All,

Please accept my sincerest apologies. Vertex Resource Services is unable to complete scheduled addi onal con

Please accept this email as 48-hr no fica on that Vertex Resource Services has re-scheduled confirmatory sam

nAPP2128538179 DOR: October 11, 2021

On Thursday, December 23rd, at approximately 8:30 a.m., John Ramirez will be onsite to conduct addi onal co have any ques ons or concerns regarding this no fica on, please give me a call at 701-301-1564.

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

Thank you,

Brandon Schafer
Project Manager

Vertex Resource Services Inc.

P 701.645.3111 Ext. 706
C 701.301.1564
F 780.464.3731

www.vertex.ca

Monica Peppin

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Sent: Wednesday, January 5, 2022 11:59 AM
To: EMNRD-OCD-District1spills; Enviro, OCD, EMNRD; dale.woodall@dvn.com; Brandon Schafer; Monica Peppin
Subject: nAPP2128538179 Extension Request Jayhawk 6 CTB 2

Good Afternoon,

Vertex Resources is requesting a 30-day extension for the Jayhawk 6 CTB 2. The closure report is underway as laboratory analysis from confirmation sampling is still being completed.

Incident #: nAPP2128538179 DOR: October 11, 2021

Thank you,

Monica Peppin
Sr. Environmental Technician

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

P 575.725.5001 Ext. 711
C 575.361.9880
F

www.vertex.ca

Monica Peppin

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Sent: Wednesday, January 5, 2022 4:12 PM
To: EMNRD-OCD-District1spills; Enviro, OCD, EMNRD
Cc: dale.woodall@dvn.com; Brandon Schafer; Monica Peppin
Subject: nAPP2128538179 Jayhawk 6 CTB 2 48 HR Notification

All,

Please accept this email as 48-hr notification that Vertex Resource Services has re-scheduled confirmatory sampling to be conducted at Jayhawk 6 CTB 2 for the following release:
nAPP2128538179 DOR: October 11, 2021

On Tuesday, January 11, 2022, at approximately 9:30 a.m., Austin Harris will be onsite to conduct additional confirmatory sampling. John can be reached at 432-250-5003. 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 701-301-1564.

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

Thank you,

Brandon Schafer
Project Manager

Vertex Resource Services Inc.

P 701.645.3111 Ext. 706
C 701.301.1564
F 780.464.3731

www.vertex.ca

ATTACHMENT 6

Client Name: Devon Energy Production Company
Site Name: Jayhawk 6 CTB 2
NM OCD Tracking #: nAPP2128538179
Project #: 21E-00580-007
Lab Report: 2110847

Table 2. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater >100 feet bgs

Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
						Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH21-01	0-0.5	10/15/2021	0	62	122	ND	ND	ND	ND	ND	ND	ND	ND
BH21-02	0-0.5	10/15/2021	0	-	23	ND	ND	ND	ND	ND	ND	ND	ND
BH21-03	0-0.5	10/15/2021	0	28	82	ND	ND	ND	ND	ND	ND	ND	ND
BH21-04	0-0.5	10/15/2021	0	-	168	ND	ND	ND	ND	ND	ND	ND	ND
BH21-05	0-0.5	10/15/2021	0	80	1,740	ND	ND	ND	ND	ND	ND	ND	2800
BH21-05	1	10/15/2021	0	92	3,703	ND	ND	ND	ND	ND	ND	ND	4300
BH21-05	2	10/15/2021	0	-	2,937	ND	ND	ND	ND	ND	ND	ND	3000
BH21-06	0-0.5	10/15/2021	0	99	134	ND	ND	ND	33	ND	ND	ND	ND
BH21-07	0-0.5	10/15/2021	0	42	287	ND	ND	ND	ND	ND	ND	ND	ND
BH21-08	0-0.5	10/15/2021	0	55	255	ND	ND	ND	ND	ND	ND	ND	ND
BH21-09	0-0.5	10/15/2021	0	56	183	ND	ND	ND	ND	ND	ND	ND	ND
BH21-10	0-0.5	10/15/2021	0	110	5,575	ND	ND	ND	ND	ND	ND	ND	8000
BH21-10	1	10/15/2021	0	106	4,820	ND	ND	ND	ND	ND	ND	ND	4700
BH21-11	0-0.5	10/15/2021	0	90	5,494	ND	ND	ND	ND	ND	ND	ND	7300
BH21-11	1	10/15/2021	0	84	4,936	ND	ND	ND	ND	ND	ND	ND	5400

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and grey shaded indicates exceedance outside of NM OCD Closure Criteria (on-pad)

Client Name: Devon Energy Production Company
Site Name: Jayhawk 6 CTB 2
NMOCD Tracking #: nAPP2128538179
Project #: 21E-00580-007
Lab Reports: 2112D89, 2111A00, 2201507

Table 3. Confirmatory Sample Field Screen and Laboratory Results - Depth to Groundwater >100 feet bgs

Sample Description			Field Screening			Petroleum Hydrocarbons									Inorganic
						Volatile					Extractable				
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BS21-01	0.5	12/23/21	0	40	7,633	ND	ND	ND	ND	ND	ND	ND	ND	ND	4900
BS21-02	0.5	12/23/21	0	43	4,930	ND	ND	ND	ND	ND	ND	ND	ND	ND	5800
BS21-03	0.5	12/23/21	0	45	4,458	ND	ND	ND	ND	ND	ND	ND	ND	ND	4200
BS21-04	0.5	12/23/21	0	22	1,716	ND	ND	ND	ND	ND	ND	ND	ND	ND	1100
BS21-05	0.5	12/23/21	0	37	5,472	ND	ND	ND	ND	ND	ND	ND	ND	ND	5100
BS21-06	0.5	12/23/21	0	18	4,937	ND	ND	ND	ND	ND	ND	ND	ND	ND	4800
BS21-07	0.5	12/23/21	0	44	8,518	ND	ND	ND	ND	ND	ND	ND	ND	ND	9700
BS21-08	0.5	12/23/21	0	47	5,630	ND	ND	ND	ND	ND	ND	ND	ND	ND	6100
BS21-09	0.5	12/23/21	0	21	7,551	ND	ND	ND	ND	ND	ND	ND	ND	ND	5700
BS21-10	0.5	12/23/21	0	41	5,861	ND	ND	ND	ND	ND	ND	ND	ND	ND	5300
BS21-11	0.5	12/23/21	0	99	6,477	ND	ND	ND	ND	ND	ND	18	ND	18	6700
BS21-12	0.5	12/23/21	0	37	5,578	ND	ND	ND	ND	ND	ND	ND	ND	ND	5100
BS21-13	0.5	12/23/21	0	-	10,098	ND	ND	ND	ND	ND	ND	ND	ND	ND	10000
BS21-14	0.5	12/23/21	0	-	6,171	ND	ND	ND	ND	ND	ND	ND	ND	ND	5100
BS21-15	0.5	12/23/21	0	-	4,863	ND	ND	ND	ND	ND	ND	ND	ND	ND	3400
BS21-16	0.5	12/23/21	0	17	5,190	ND	ND	ND	ND	ND	ND	ND	ND	ND	4200
BS21-17	0.5	12/23/21	0	-	6,060	ND	ND	ND	ND	ND	ND	ND	ND	ND	4300
BS21-18	0.5	12/23/21	0	-	5,396	ND	ND	ND	ND	ND	ND	ND	ND	ND	6400
BS21-19	0.5	12/23/21	0	36	6,307	ND	ND	ND	ND	ND	ND	ND	ND	ND	5000
BS21-20	0.5	12/23/21	0	-	59	ND	ND	ND	ND	ND	ND	ND	ND	ND	80
BS21-21	0.5	12/23/21	0	-	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS21-22	0.5	12/23/21	0	-	3,328	ND	ND	ND	ND	ND	ND	ND	ND	ND	**20000**
BS22-22	0.5	1/11/2022	0	2	460	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**
WS21-01	0-0.5	12/23/21	0	4	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS21-02	0-0.5	12/23/21	0	21	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	80
WS21-03	0-0.5	12/23/21	0	21	418	ND	ND	ND	ND	ND	ND	ND	ND	ND	290
WS21-04	0-0.5	12/23/21	0	100	12,701	ND	ND	ND	ND	ND	ND	170	90	260	11000
WS21-05	0-0.5	12/23/21	0	111	6,769	ND	ND	ND	ND	ND	ND	17	ND	17	5600
WS21-06	0-0.5	12/23/21	0	47	7,998	ND	ND	ND	ND	ND	ND	ND	ND	ND	6000
WS21-07	0-0.5	12/23/21	0	46	7,733	ND	ND	ND	ND	ND	ND	ND	ND	ND	3700
WS21-08	0-0.5	12/23/21	0	39	4,055	ND	ND	ND	ND	ND	ND	ND	ND	ND	6100
WS21-09	0-0.5	12/23/21	0	7	106	ND	ND	ND	ND	ND	ND	ND	ND	ND	220
WS21-10	0-0.5	12/23/21	0	43	9,385	ND	ND	ND	ND	ND	ND	ND	ND	ND	7300

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and grey shaded indicates exceedance outside of NM OCD Closure Criteria (on-pad)
Bold and green-shaded indicates re-collection of sample previously in exceedance of NMOCD Closure Criteria

ATTACHMENT 7

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

October 27, 2021

Brandon Schafer's

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

RE: Jayhawk 6 CTB 2 OrderNo.: 2110847

Dear Brandon Schafer's:

Hall Environmental Analysis Laboratory received 15 sample(s) on 10/19/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2110847**
Date Reported: **10/27/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2110847-001 **Matrix:** SOIL

Client Sample ID: BH21-01 0.5'
Collection Date: 10/15/2021 10:00:00 AM
Received Date: 10/19/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/21/2021 5:27:11 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/21/2021 5:27:11 PM
Surr: DNOP	86.0	70-130		%Rec	1	10/21/2021 5:27:11 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	10/24/2021 12:13:08 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	10/21/2021 4:05:19 AM
Toluene	ND	0.049		mg/Kg	1	10/21/2021 4:05:19 AM
Ethylbenzene	ND	0.049		mg/Kg	1	10/21/2021 4:05:19 AM
Xylenes, Total	ND	0.097		mg/Kg	1	10/21/2021 4:05:19 AM
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	10/21/2021 4:05:19 AM
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	10/21/2021 4:05:19 AM
Surr: Dibromofluoromethane	105	70-130		%Rec	1	10/21/2021 4:05:19 AM
Surr: Toluene-d8	97.6	70-130		%Rec	1	10/21/2021 4:05:19 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/21/2021 4:05:19 AM
Surr: BFB	96.5	70-130		%Rec	1	10/21/2021 4:05:19 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2110847**
Date Reported: **10/27/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2110847-002 **Matrix:** SOIL

Client Sample ID: BH21-02 0.5'
Collection Date: 10/15/2021 10:10:00 AM
Received Date: 10/19/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/21/2021 5:38:01 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/21/2021 5:38:01 PM
Surr: DNOP	110	70-130		%Rec	1	10/21/2021 5:38:01 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	10/24/2021 12:25:33 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.023		mg/Kg	1	10/21/2021 4:32:07 AM
Toluene	ND	0.046		mg/Kg	1	10/21/2021 4:32:07 AM
Ethylbenzene	ND	0.046		mg/Kg	1	10/21/2021 4:32:07 AM
Xylenes, Total	ND	0.092		mg/Kg	1	10/21/2021 4:32:07 AM
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	10/21/2021 4:32:07 AM
Surr: 4-Bromofluorobenzene	95.7	70-130		%Rec	1	10/21/2021 4:32:07 AM
Surr: Dibromofluoromethane	107	70-130		%Rec	1	10/21/2021 4:32:07 AM
Surr: Toluene-d8	104	70-130		%Rec	1	10/21/2021 4:32:07 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/21/2021 4:32:07 AM
Surr: BFB	93.2	70-130		%Rec	1	10/21/2021 4:32:07 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2110847**
Date Reported: **10/27/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2110847-003 **Matrix:** SOIL

Client Sample ID: BH21-03 0.5'
Collection Date: 10/15/2021 10:20:00 AM
Received Date: 10/19/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/21/2021 5:48:54 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/21/2021 5:48:54 PM
Surr: DNOP	96.5	70-130		%Rec	1	10/21/2021 5:48:54 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	10/24/2021 12:37:58 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	10/21/2021 4:58:54 AM
Toluene	ND	0.048		mg/Kg	1	10/21/2021 4:58:54 AM
Ethylbenzene	ND	0.048		mg/Kg	1	10/21/2021 4:58:54 AM
Xylenes, Total	ND	0.096		mg/Kg	1	10/21/2021 4:58:54 AM
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	10/21/2021 4:58:54 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	10/21/2021 4:58:54 AM
Surr: Dibromofluoromethane	112	70-130		%Rec	1	10/21/2021 4:58:54 AM
Surr: Toluene-d8	101	70-130		%Rec	1	10/21/2021 4:58:54 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/21/2021 4:58:54 AM
Surr: BFB	99.0	70-130		%Rec	1	10/21/2021 4:58:54 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2110847**
Date Reported: **10/27/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2110847-004 **Matrix:** SOIL

Client Sample ID: BH21-04 0.5'
Collection Date: 10/15/2021 10:30:00 AM
Received Date: 10/19/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/21/2021 5:59:43 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/21/2021 5:59:43 PM
Surr: DNOP	64.4	70-130	S	%Rec	1	10/21/2021 5:59:43 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	10/24/2021 12:50:22 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	10/21/2021 5:25:41 AM
Toluene	ND	0.048		mg/Kg	1	10/21/2021 5:25:41 AM
Ethylbenzene	ND	0.048		mg/Kg	1	10/21/2021 5:25:41 AM
Xylenes, Total	ND	0.095		mg/Kg	1	10/21/2021 5:25:41 AM
Surr: 1,2-Dichloroethane-d4	98.7	70-130		%Rec	1	10/21/2021 5:25:41 AM
Surr: 4-Bromofluorobenzene	98.7	70-130		%Rec	1	10/21/2021 5:25:41 AM
Surr: Dibromofluoromethane	107	70-130		%Rec	1	10/21/2021 5:25:41 AM
Surr: Toluene-d8	103	70-130		%Rec	1	10/21/2021 5:25:41 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/21/2021 5:25:41 AM
Surr: BFB	95.5	70-130		%Rec	1	10/21/2021 5:25:41 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2110847**
Date Reported: **10/27/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2110847-005 **Matrix:** SOIL

Client Sample ID: BH21-05 0.5'
Collection Date: 10/15/2021 10:40:00 AM
Received Date: 10/19/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/21/2021 6:10:35 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/21/2021 6:10:35 PM
Surr: DNOP	88.6	70-130		%Rec	1	10/21/2021 6:10:35 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	2800	150		mg/Kg	50	10/25/2021 7:47:03 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	10/21/2021 5:52:26 AM
Toluene	ND	0.048		mg/Kg	1	10/21/2021 5:52:26 AM
Ethylbenzene	ND	0.048		mg/Kg	1	10/21/2021 5:52:26 AM
Xylenes, Total	ND	0.095		mg/Kg	1	10/21/2021 5:52:26 AM
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%Rec	1	10/21/2021 5:52:26 AM
Surr: 4-Bromofluorobenzene	97.4	70-130		%Rec	1	10/21/2021 5:52:26 AM
Surr: Dibromofluoromethane	99.6	70-130		%Rec	1	10/21/2021 5:52:26 AM
Surr: Toluene-d8	102	70-130		%Rec	1	10/21/2021 5:52:26 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/21/2021 5:52:26 AM
Surr: BFB	97.9	70-130		%Rec	1	10/21/2021 5:52:26 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2110847**
Date Reported: **10/27/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2110847-006 **Matrix:** SOIL

Client Sample ID: BH21-06 0.5'
Collection Date: 10/15/2021 10:50:00 AM
Received Date: 10/19/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	33	9.9		mg/Kg	1	10/21/2021 6:21:23 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/21/2021 6:21:23 PM
Surr: DNOP	109	70-130		%Rec	1	10/21/2021 6:21:23 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	10/24/2021 1:15:11 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	10/21/2021 6:19:09 AM
Toluene	ND	0.049		mg/Kg	1	10/21/2021 6:19:09 AM
Ethylbenzene	ND	0.049		mg/Kg	1	10/21/2021 6:19:09 AM
Xylenes, Total	ND	0.097		mg/Kg	1	10/21/2021 6:19:09 AM
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%Rec	1	10/21/2021 6:19:09 AM
Surr: 4-Bromofluorobenzene	96.5	70-130		%Rec	1	10/21/2021 6:19:09 AM
Surr: Dibromofluoromethane	107	70-130		%Rec	1	10/21/2021 6:19:09 AM
Surr: Toluene-d8	97.3	70-130		%Rec	1	10/21/2021 6:19:09 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/21/2021 6:19:09 AM
Surr: BFB	94.9	70-130		%Rec	1	10/21/2021 6:19:09 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2110847**
Date Reported: **10/27/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2110847-007 **Matrix:** SOIL

Client Sample ID: BH21-07 0.5'
Collection Date: 10/15/2021 11:00:00 AM
Received Date: 10/19/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/21/2021 6:32:17 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/21/2021 6:32:17 PM
Surr: DNOP	84.5	70-130		%Rec	1	10/21/2021 6:32:17 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	10/24/2021 1:27:35 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	10/21/2021 6:45:54 AM
Toluene	ND	0.047		mg/Kg	1	10/21/2021 6:45:54 AM
Ethylbenzene	ND	0.047		mg/Kg	1	10/21/2021 6:45:54 AM
Xylenes, Total	ND	0.095		mg/Kg	1	10/21/2021 6:45:54 AM
Surr: 1,2-Dichloroethane-d4	99.8	70-130		%Rec	1	10/21/2021 6:45:54 AM
Surr: 4-Bromofluorobenzene	96.1	70-130		%Rec	1	10/21/2021 6:45:54 AM
Surr: Dibromofluoromethane	108	70-130		%Rec	1	10/21/2021 6:45:54 AM
Surr: Toluene-d8	103	70-130		%Rec	1	10/21/2021 6:45:54 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/21/2021 6:45:54 AM
Surr: BFB	97.4	70-130		%Rec	1	10/21/2021 6:45:54 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2110847**
Date Reported: **10/27/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2110847-008 **Matrix:** SOIL

Client Sample ID: BH21-08 0.5'
Collection Date: 10/15/2021 11:10:00 AM
Received Date: 10/19/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/21/2021 6:43:10 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/21/2021 6:43:10 PM
Surr: DNOP	91.0	70-130		%Rec	1	10/21/2021 6:43:10 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	10/24/2021 1:40:00 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	10/21/2021 7:12:38 AM
Toluene	ND	0.047		mg/Kg	1	10/21/2021 7:12:38 AM
Ethylbenzene	ND	0.047		mg/Kg	1	10/21/2021 7:12:38 AM
Xylenes, Total	ND	0.094		mg/Kg	1	10/21/2021 7:12:38 AM
Surr: 1,2-Dichloroethane-d4	96.3	70-130		%Rec	1	10/21/2021 7:12:38 AM
Surr: 4-Bromofluorobenzene	94.5	70-130		%Rec	1	10/21/2021 7:12:38 AM
Surr: Dibromofluoromethane	103	70-130		%Rec	1	10/21/2021 7:12:38 AM
Surr: Toluene-d8	106	70-130		%Rec	1	10/21/2021 7:12:38 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/21/2021 7:12:38 AM
Surr: BFB	99.6	70-130		%Rec	1	10/21/2021 7:12:38 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2110847**
Date Reported: **10/27/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH21-09 0.5'
Project: Jayhawk 6 CTB 2
Collection Date: 10/15/2021 11:20:00 AM
Lab ID: 2110847-009 **Matrix:** SOIL **Received Date:** 10/19/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/21/2021 6:54:01 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/21/2021 6:54:01 PM
Surr: DNOP	86.0	70-130		%Rec	1	10/21/2021 6:54:01 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	10/24/2021 2:17:13 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.023		mg/Kg	1	10/21/2021 7:39:24 AM
Toluene	ND	0.046		mg/Kg	1	10/21/2021 7:39:24 AM
Ethylbenzene	ND	0.046		mg/Kg	1	10/21/2021 7:39:24 AM
Xylenes, Total	ND	0.092		mg/Kg	1	10/21/2021 7:39:24 AM
Surr: 1,2-Dichloroethane-d4	93.3	70-130		%Rec	1	10/21/2021 7:39:24 AM
Surr: 4-Bromofluorobenzene	91.1	70-130		%Rec	1	10/21/2021 7:39:24 AM
Surr: Dibromofluoromethane	97.8	70-130		%Rec	1	10/21/2021 7:39:24 AM
Surr: Toluene-d8	102	70-130		%Rec	1	10/21/2021 7:39:24 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/21/2021 7:39:24 AM
Surr: BFB	93.4	70-130		%Rec	1	10/21/2021 7:39:24 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
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2110847**
Date Reported: **10/27/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2110847-010 **Matrix:** SOIL

Client Sample ID: BH21-05 1'
Collection Date: 10/15/2021 11:30:00 AM
Received Date: 10/19/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	10/21/2021 8:20:50 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	10/21/2021 8:20:50 PM
Surr: DNOP	91.1	70-130		%Rec	1	10/21/2021 8:20:50 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/22/2021 11:51:00 PM
Surr: BFB	133	70-130	S	%Rec	1	10/22/2021 11:51:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	10/22/2021 11:51:00 PM
Toluene	ND	0.048		mg/Kg	1	10/22/2021 11:51:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/22/2021 11:51:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	10/22/2021 11:51:00 PM
Surr: 4-Bromofluorobenzene	95.0	70-130		%Rec	1	10/22/2021 11:51:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	4300	150		mg/Kg	50	10/25/2021 7:59:24 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2110847**
Date Reported: **10/27/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2110847-011 **Matrix:** SOIL

Client Sample ID: BH21-05 2'
Collection Date: 10/15/2021 11:40:00 AM
Received Date: 10/19/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	10/21/2021 8:53:31 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	10/21/2021 8:53:31 PM
Surr: DNOP	97.7	70-130		%Rec	1	10/21/2021 8:53:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2021 12:10:00 AM
Surr: BFB	107	70-130		%Rec	1	10/23/2021 12:10:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.025		mg/Kg	1	10/23/2021 12:10:00 AM
Toluene	ND	0.049		mg/Kg	1	10/23/2021 12:10:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	10/23/2021 12:10:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	10/23/2021 12:10:00 AM
Surr: 4-Bromofluorobenzene	89.7	70-130		%Rec	1	10/23/2021 12:10:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	3000	150		mg/Kg	50	10/25/2021 8:11:45 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2110847**
Date Reported: **10/27/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2110847-012 **Matrix:** SOIL

Client Sample ID: BH21-10 0.5'
Collection Date: 10/15/2021 11:50:00 AM
Received Date: 10/19/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/21/2021 9:04:26 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/21/2021 9:04:26 PM
Surr: DNOP	96.1	70-130		%Rec	1	10/21/2021 9:04:26 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2021 12:30:00 AM
Surr: BFB	106	70-130		%Rec	1	10/23/2021 12:30:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	10/23/2021 12:30:00 AM
Toluene	ND	0.049		mg/Kg	1	10/23/2021 12:30:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	10/23/2021 12:30:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	10/23/2021 12:30:00 AM
Surr: 4-Bromofluorobenzene	89.5	70-130		%Rec	1	10/23/2021 12:30:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	8000	300		mg/Kg	100	10/25/2021 8:48:47 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2110847**
Date Reported: **10/27/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2110847-013 **Matrix:** SOIL

Client Sample ID: BH21-10 1'
Collection Date: 10/15/2021 12:00:00 PM
Received Date: 10/19/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	10/21/2021 9:15:20 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/21/2021 9:15:20 PM
Surr: DNOP	94.3	70-130		%Rec	1	10/21/2021 9:15:20 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2021 12:50:00 AM
Surr: BFB	106	70-130		%Rec	1	10/23/2021 12:50:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	10/23/2021 12:50:00 AM
Toluene	ND	0.049		mg/Kg	1	10/23/2021 12:50:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	10/23/2021 12:50:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	10/23/2021 12:50:00 AM
Surr: 4-Bromofluorobenzene	93.0	70-130		%Rec	1	10/23/2021 12:50:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	4700	150		mg/Kg	50	10/25/2021 9:01:09 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2110847**
Date Reported: **10/27/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2110847-014 **Matrix:** SOIL

Client Sample ID: BH21-11 0.5'
Collection Date: 10/15/2021 12:10:00 PM
Received Date: 10/19/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	10/21/2021 9:26:15 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	10/21/2021 9:26:15 PM
Surr: DNOP	93.6	70-130		%Rec	1	10/21/2021 9:26:15 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/23/2021 1:09:00 AM
Surr: BFB	106	70-130		%Rec	1	10/23/2021 1:09:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	10/23/2021 1:09:00 AM
Toluene	ND	0.048		mg/Kg	1	10/23/2021 1:09:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	10/23/2021 1:09:00 AM
Xylenes, Total	ND	0.096		mg/Kg	1	10/23/2021 1:09:00 AM
Surr: 4-Bromofluorobenzene	91.3	70-130		%Rec	1	10/23/2021 1:09:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	7300	300		mg/Kg	100	10/25/2021 9:13:30 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2110847**
Date Reported: **10/27/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2110847-015 **Matrix:** SOIL

Client Sample ID: BH21-11 1'
Collection Date: 10/15/2021 12:20:00 PM
Received Date: 10/19/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/21/2021 9:37:10 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/21/2021 9:37:10 PM
Surr: DNOP	93.6	70-130		%Rec	1	10/21/2021 9:37:10 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/23/2021 1:29:00 AM
Surr: BFB	106	70-130		%Rec	1	10/23/2021 1:29:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.023		mg/Kg	1	10/23/2021 1:29:00 AM
Toluene	ND	0.047		mg/Kg	1	10/23/2021 1:29:00 AM
Ethylbenzene	ND	0.047		mg/Kg	1	10/23/2021 1:29:00 AM
Xylenes, Total	ND	0.093		mg/Kg	1	10/23/2021 1:29:00 AM
Surr: 4-Bromofluorobenzene	89.2	70-130		%Rec	1	10/23/2021 1:29:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	5400	150		mg/Kg	50	10/25/2021 9:25:50 PM

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2110847**

27-Oct-21

Client: Devon Energy

Project: Jayhawk 6 CTB 2

Sample ID: **MB-63517**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **63517**	RunNo: **82310**							
Prep Date: **10/22/2021**	Analysis Date: **10/24/2021**	SeqNo: **2918554**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-63517**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **63517**	RunNo: **82310**							
Prep Date: **10/22/2021**	Analysis Date: **10/24/2021**	SeqNo: **2918555**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.5	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2110847**

27-Oct-21

Client: Devon Energy

Project: Jayhawk 6 CTB 2

Sample ID: **LCS-63418**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **63418**	RunNo: **82184**
Prep Date: **10/20/2021**	Analysis Date: **10/21/2021**	SeqNo: **2915302** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	109	68.9	135			
Surr: DNOP	5.6		5.000		113	70	130			

Sample ID: **MB-63418**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **63418**	RunNo: **82184**
Prep Date: **10/20/2021**	Analysis Date: **10/21/2021**	SeqNo: **2915304** 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	15		10.00		145	70	130			S

Sample ID: **2110847-010AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BH21-05 1'**	Batch ID: **63449**	RunNo: **82184**
Prep Date: **10/20/2021**	Analysis Date: **10/21/2021**	SeqNo: **2916059** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.0	45.21	0	95.4	39.3	155			
Surr: DNOP	4.9		4.521		109	70	130			

Sample ID: **2110847-010AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BH21-05 1'**	Batch ID: **63449**	RunNo: **82184**
Prep Date: **10/20/2021**	Analysis Date: **10/21/2021**	SeqNo: **2916060** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.8	48.97	0	93.9	39.3	155	6.34	23.4	
Surr: DNOP	5.3		4.897		108	70	130	0	0	

Sample ID: **LCS-63449**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **63449**	RunNo: **82184**
Prep Date: **10/20/2021**	Analysis Date: **10/21/2021**	SeqNo: **2916079** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	68.9	135			
Surr: DNOP	5.3		5.000		106	70	130			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2110847**
27-Oct-21

Client: Devon Energy
Project: Jayhawk 6 CTB 2

Sample ID: **MB-63449**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **63449**	RunNo: **82184**
Prep Date: **10/20/2021**	Analysis Date: **10/21/2021**	SeqNo: **2916080** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		103	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2110847**

27-Oct-21

Client: Devon Energy

Project: Jayhawk 6 CTB 2

Sample ID: **lcs-63422**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **63422**	RunNo: **82283**
Prep Date: **10/20/2021**	Analysis Date: **10/22/2021**	SeqNo: **2917115** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	25.00	0	122	78.6	131			
Surr: BFB	1100		1000		114	70	130			

Sample ID: **mb-63422**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **63422**	RunNo: **82283**
Prep Date: **10/20/2021**	Analysis Date: **10/22/2021**	SeqNo: **2917116** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		104	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2110847**

27-Oct-21

Client: Devon Energy

Project: Jayhawk 6 CTB 2

Sample ID: **lcs-63422**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **LCSS**	Batch ID: **63422**	RunNo: **82283**							
Prep Date: **10/20/2021**	Analysis Date: **10/22/2021**	SeqNo: **2917088**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	80	120			
Toluene	0.98	0.050	1.000	0	98.3	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.2	0.10	3.000	0	105	80	120			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.0	70	130			

Sample ID: **mb-63422**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **PBS**	Batch ID: **63422**	RunNo: **82283**							
Prep Date: **10/20/2021**	Analysis Date: **10/22/2021**	SeqNo: **2917089**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		88.5	70	130			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2110847**
27-Oct-21

Client: Devon Energy
Project: Jayhawk 6 CTB 2

Sample ID: **mb-63402** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **63402** RunNo: **82228**
Prep Date: **10/19/2021** Analysis Date: **10/20/2021** SeqNo: **2914363** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		105	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.4	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID: **lcs-63402** SampType: **LCS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC** Batch ID: **63402** RunNo: **82246**
Prep Date: **10/19/2021** Analysis Date: **10/21/2021** SeqNo: **2915320** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	91.9	80	120			
Toluene	0.88	0.050	1.000	0	88.1	80	120			
Ethylbenzene	0.86	0.050	1.000	0	86.5	80	120			
Xylenes, Total	2.6	0.10	3.000	0	86.0	80	120			
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		106	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.0	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2110847**

27-Oct-21

Client: Devon Energy

Project: Jayhawk 6 CTB 2

Sample ID: **lcs-63402**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **63402**	RunNo: **82228**
Prep Date: **10/19/2021**	Analysis Date: **10/20/2021**	SeqNo: **2914382** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.9	70	130			
Surr: BFB	490		500.0		98.9	70	130			

Sample ID: **mb-63402**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **63402**	RunNo: **82228**
Prep Date: **10/19/2021**	Analysis Date: **10/20/2021**	SeqNo: **2914383** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	490		500.0		98.8	70	130			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Devon Energy** Work Order Number: **2110847** RcptNo: 1

Received By: **Cheyenne Cason** 10/19/2021 7:00:00 AM

Completed By: **Cheyenne Cason** 10/19/2021 8:45:10 AM

Reviewed By: JR 10/19/21

Chain of Custody

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

Log In

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

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

Adjusted?

Checked by: KPG 10/19/21

Special Handling (if applicable)

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

Person Notified: Date:

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

Regarding:

Client Instructions:

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.8	Good				

Chain-of-Custody Record

Client: Devon Energy

Mailing Address: On File

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☒ Other
☐ EDD (Type)

Turn-Around Time: 5-Day
☑ Standard ☐ Rush

Project Name: JAYHAWK 6 CTB 2

Project #: 21E-00580-008

Project Manager: Brandon Schafer

Sampler: CD

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 5.8-0=5.8 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2110847	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10/15	10:00	Soil	BH21-01 0.5'	4oz	Ice	001	✓	✓					✓			
	10:10		BH21-02 0.5'			002										
	10:20		BH21-03 0.5'			003										
	10:30		BH21-04 0.5'			004										
	10:40		BH21-05 0.5'			005										
	10:50		BH21-06 0.5'			006										
	11:00		BH21-07 0.5'			007										
	11:10		BH21-08 0.5'			008										
	11:20		BH21-09 0.5'			009										
	11:30		BH21-05 1'			010										
	11:40		BH21-05 2'			011										
	11:50		BH21-10 0.5'			012										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					10/15/21	1100
Date: 10/15/21	Time: 1900	Relinquished by:	Received by:	Via:	Date	Time
			CC	Courier	10/19/21	0700

Remarks: CC: Chance Dixon, John Hurt
Devon Energy

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: Devon Energy

Mailing Address: On File

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5-Day
☑ Standard ☐ Rush

Project Name: Jaywawk 6 CTB 2

Project #: 21E-00580-008

Project Manager: Brandon Schafer

Sampler: CD

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 5.8-0=5.8 (°C)

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2110847
10/15	12:00	soil	BH21-10 1'	4 oz	Ice	~~013~~ 012
10/15	12:10	soil	BH21-11 0.5'	4 oz	Ice	014
10/15	12:20	soil	BH21-11 1'	4 oz	Ice	015

Analysis Request

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

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					10/18/21	1100
Date: 10/18/21	Time: 1900	Relinquished by:	Received by:	Via:	Date	Time
			CVE Courier	10/19/21a	0700	

Remarks: CC: Chance Dixon, John Hurt
Devon Energy

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 29, 2021

Brandon Schafer's

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

RE: Jayhawk 6 CTB 2 OrderNo.: 2111A00

Dear Brandon Schafer's:

Hall Environmental Analysis Laboratory received 22 sample(s) on 11/18/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-001 **Matrix:** SOIL

Client Sample ID: WS21-01 0-1'
Collection Date: 11/17/2021 1:40:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/24/2021 5:41:48 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/24/2021 5:41:48 AM
Surr: DNOP	89.4	70-130		%Rec	1	11/24/2021 5:41:48 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/22/2021 9:03:00 AM
Surr: BFB	99.7	70-130		%Rec	1	11/22/2021 9:03:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	11/22/2021 9:03:00 AM
Toluene	ND	0.049		mg/Kg	1	11/22/2021 9:03:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	11/22/2021 9:03:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	11/22/2021 9:03:00 AM
Surr: 4-Bromofluorobenzene	95.8	70-130		%Rec	1	11/22/2021 9:03:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	1900	59		mg/Kg	20	11/22/2021 2:33:54 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-002 **Matrix:** SOIL

Client Sample ID: WS21-02 0-1'
Collection Date: 11/17/2021 1:50:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/24/2021 6:13:10 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/24/2021 6:13:10 AM
Surr: DNOP	77.0	70-130		%Rec	1	11/24/2021 6:13:10 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/22/2021 10:02:00 AM
Surr: BFB	100	70-130		%Rec	1	11/22/2021 10:02:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	11/22/2021 10:02:00 AM
Toluene	ND	0.050		mg/Kg	1	11/22/2021 10:02:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	11/22/2021 10:02:00 AM
Xylenes, Total	ND	0.10		mg/Kg	1	11/22/2021 10:02:00 AM
Surr: 4-Bromofluorobenzene	93.6	70-130		%Rec	1	11/22/2021 10:02:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	ND	60		mg/Kg	20	11/22/2021 3:11:09 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-003 **Matrix:** SOIL

Client Sample ID: WS21-03 0-1'
Collection Date: 11/17/2021 2:00:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	11/24/2021 6:23:40 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/24/2021 6:23:40 AM
Surr: DNOP	111	70-130		%Rec	1	11/24/2021 6:23:40 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/22/2021 11:00:00 AM
Surr: BFB	91.4	70-130		%Rec	1	11/22/2021 11:00:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	11/22/2021 11:00:00 AM
Toluene	ND	0.050		mg/Kg	1	11/22/2021 11:00:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	11/22/2021 11:00:00 AM
Xylenes, Total	ND	0.10		mg/Kg	1	11/22/2021 11:00:00 AM
Surr: 4-Bromofluorobenzene	87.5	70-130		%Rec	1	11/22/2021 11:00:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	ND	60		mg/Kg	20	11/22/2021 3:23:33 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-004 **Matrix:** SOIL

Client Sample ID: WS21-04 0-1'
Collection Date: 11/17/2021 2:10:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	11/24/2021 6:34:11 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	11/24/2021 6:34:11 AM
Surr: DNOP	139	70-130	S	%Rec	1	11/24/2021 6:34:11 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/22/2021 11:20:00 AM
Surr: BFB	94.9	70-130		%Rec	1	11/22/2021 11:20:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	11/22/2021 11:20:00 AM
Toluene	ND	0.050		mg/Kg	1	11/22/2021 11:20:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	11/22/2021 11:20:00 AM
Xylenes, Total	ND	0.10		mg/Kg	1	11/22/2021 11:20:00 AM
Surr: 4-Bromofluorobenzene	91.5	70-130		%Rec	1	11/22/2021 11:20:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	2800	150		mg/Kg	50	11/23/2021 12:43:16 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-005 **Matrix:** SOIL

Client Sample ID: WS21-05 0-1'
Collection Date: 11/17/2021 2:20:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/24/2021 6:44:43 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/24/2021 6:44:43 AM
Surr: DNOP	112	70-130		%Rec	1	11/24/2021 6:44:43 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/22/2021 11:40:00 AM
Surr: BFB	95.1	70-130		%Rec	1	11/22/2021 11:40:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	11/22/2021 11:40:00 AM
Toluene	ND	0.049		mg/Kg	1	11/22/2021 11:40:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	11/22/2021 11:40:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	11/22/2021 11:40:00 AM
Surr: 4-Bromofluorobenzene	89.8	70-130		%Rec	1	11/22/2021 11:40:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	4200	150		mg/Kg	50	11/23/2021 12:55:41 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
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	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-006 **Matrix:** SOIL

Client Sample ID: WS21-06 0-1'
Collection Date: 11/17/2021 2:30:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/24/2021 6:55:13 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/24/2021 6:55:13 AM
Surr: DNOP	126	70-130		%Rec	1	11/24/2021 6:55:13 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/22/2021 11:59:00 AM
Surr: BFB	93.0	70-130		%Rec	1	11/22/2021 11:59:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	11/22/2021 11:59:00 AM
Toluene	ND	0.050		mg/Kg	1	11/22/2021 11:59:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	11/22/2021 11:59:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	11/22/2021 11:59:00 AM
Surr: 4-Bromofluorobenzene	88.8	70-130		%Rec	1	11/22/2021 11:59:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	3200	150		mg/Kg	50	11/23/2021 1:08:06 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-007 **Matrix:** SOIL

Client Sample ID: WS21-07 0-1'
Collection Date: 11/17/2021 2:40:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/24/2021 7:05:45 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/24/2021 7:05:45 AM
Surr: DNOP	121	70-130		%Rec	1	11/24/2021 7:05:45 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/22/2021 12:19:00 PM
Surr: BFB	94.2	70-130		%Rec	1	11/22/2021 12:19:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	11/22/2021 12:19:00 PM
Toluene	ND	0.049		mg/Kg	1	11/22/2021 12:19:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	11/22/2021 12:19:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	11/22/2021 12:19:00 PM
Surr: 4-Bromofluorobenzene	90.6	70-130		%Rec	1	11/22/2021 12:19:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	2900	150		mg/Kg	50	11/23/2021 1:20:31 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-008 **Matrix:** SOIL

Client Sample ID: WS21-08 0-1'
Collection Date: 11/17/2021 2:50:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	11/24/2021 7:16:18 AM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	11/24/2021 7:16:18 AM
Surr: DNOP	113	70-130		%Rec	1	11/24/2021 7:16:18 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/22/2021 12:38:00 PM
Surr: BFB	98.2	70-130		%Rec	1	11/22/2021 12:38:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	11/22/2021 12:38:00 PM
Toluene	ND	0.048		mg/Kg	1	11/22/2021 12:38:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	11/22/2021 12:38:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	11/22/2021 12:38:00 PM
Surr: 4-Bromofluorobenzene	92.5	70-130		%Rec	1	11/22/2021 12:38:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	810	60		mg/Kg	20	11/22/2021 4:50:24 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-009 **Matrix:** SOIL

Client Sample ID: WS21-09 0-1'
Collection Date: 11/17/2021 3:00:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	11/24/2021 7:26:53 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	11/24/2021 7:26:53 AM
Surr: DNOP	77.4	70-130		%Rec	1	11/24/2021 7:26:53 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/22/2021 12:58:00 PM
Surr: BFB	102	70-130		%Rec	1	11/22/2021 12:58:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	11/22/2021 12:58:00 PM
Toluene	ND	0.047		mg/Kg	1	11/22/2021 12:58:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	11/22/2021 12:58:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	11/22/2021 12:58:00 PM
Surr: 4-Bromofluorobenzene	94.6	70-130		%Rec	1	11/22/2021 12:58:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	ND	60		mg/Kg	20	11/22/2021 5:02:49 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-010 **Matrix:** SOIL

Client Sample ID: WS21-10 0-1'
Collection Date: 11/17/2021 3:10:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	11/24/2021 7:37:30 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/24/2021 7:37:30 AM
Surr: DNOP	127	70-130		%Rec	1	11/24/2021 7:37:30 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/22/2021 1:18:00 PM
Surr: BFB	97.4	70-130		%Rec	1	11/22/2021 1:18:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	11/22/2021 1:18:00 PM
Toluene	ND	0.047		mg/Kg	1	11/22/2021 1:18:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	11/22/2021 1:18:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	11/22/2021 1:18:00 PM
Surr: 4-Bromofluorobenzene	93.6	70-130		%Rec	1	11/22/2021 1:18:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	5300	300		mg/Kg	100	11/23/2021 1:32:55 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-011 **Matrix:** SOIL

Client Sample ID: BS21-01 0-1'
Collection Date: 11/17/2021 11:40:00 AM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/24/2021 7:48:04 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/24/2021 7:48:04 AM
Surr: DNOP	112	70-130		%Rec	1	11/24/2021 7:48:04 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/22/2021 2:17:00 PM
Surr: BFB	92.0	70-130		%Rec	1	11/22/2021 2:17:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	11/22/2021 2:17:00 PM
Toluene	ND	0.050		mg/Kg	1	11/22/2021 2:17:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	11/22/2021 2:17:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	11/22/2021 2:17:00 PM
Surr: 4-Bromofluorobenzene	87.9	70-130		%Rec	1	11/22/2021 2:17:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	2800	150		mg/Kg	50	11/23/2021 1:45:20 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-012 **Matrix:** SOIL

Client Sample ID: BS21-02 0-1'
Collection Date: 11/17/2021 11:50:00 AM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/24/2021 7:58:39 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/24/2021 7:58:39 AM
Surr: DNOP	115	70-130		%Rec	1	11/24/2021 7:58:39 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/22/2021 2:36:00 PM
Surr: BFB	87.8	70-130		%Rec	1	11/22/2021 2:36:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	11/22/2021 2:36:00 PM
Toluene	ND	0.050		mg/Kg	1	11/22/2021 2:36:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	11/22/2021 2:36:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	11/22/2021 2:36:00 PM
Surr: 4-Bromofluorobenzene	85.3	70-130		%Rec	1	11/22/2021 2:36:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	2800	150		mg/Kg	50	11/24/2021 3:28:02 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-013 **Matrix:** SOIL

Client Sample ID: BS21-03 0-1'
Collection Date: 11/17/2021 12:00:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/24/2021 8:09:17 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/24/2021 8:09:17 AM
Surr: DNOP	123	70-130		%Rec	1	11/24/2021 8:09:17 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/22/2021 2:56:00 PM
Surr: BFB	92.4	70-130		%Rec	1	11/22/2021 2:56:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	11/22/2021 2:56:00 PM
Toluene	ND	0.050		mg/Kg	1	11/22/2021 2:56:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	11/22/2021 2:56:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	11/22/2021 2:56:00 PM
Surr: 4-Bromofluorobenzene	88.8	70-130		%Rec	1	11/22/2021 2:56:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	5600	300		mg/Kg	100	11/24/2021 3:40:23 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-014 **Matrix:** SOIL

Client Sample ID: BS21-04 0-1'
Collection Date: 11/17/2021 12:10:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/24/2021 8:19:56 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/24/2021 8:19:56 AM
Surr: DNOP	119	70-130		%Rec	1	11/24/2021 8:19:56 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/22/2021 3:15:00 PM
Surr: BFB	92.6	70-130		%Rec	1	11/22/2021 3:15:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	11/22/2021 3:15:00 PM
Toluene	ND	0.048		mg/Kg	1	11/22/2021 3:15:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	11/22/2021 3:15:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	11/22/2021 3:15:00 PM
Surr: 4-Bromofluorobenzene	88.8	70-130		%Rec	1	11/22/2021 3:15:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	7400	300		mg/Kg	100	11/24/2021 3:52:45 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-015 **Matrix:** SOIL

Client Sample ID: BS21-05 0-1'
Collection Date: 11/17/2021 12:20:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/24/2021 8:30:35 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/24/2021 8:30:35 AM
Surr: DNOP	96.5	70-130		%Rec	1	11/24/2021 8:30:35 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/22/2021 3:35:00 PM
Surr: BFB	96.5	70-130		%Rec	1	11/22/2021 3:35:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	11/22/2021 3:35:00 PM
Toluene	ND	0.047		mg/Kg	1	11/22/2021 3:35:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	11/22/2021 3:35:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	11/22/2021 3:35:00 PM
Surr: 4-Bromofluorobenzene	90.0	70-130		%Rec	1	11/22/2021 3:35:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	6200	300		mg/Kg	100	11/24/2021 4:05:06 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-016 **Matrix:** SOIL

Client Sample ID: BS21-06 0-1'
Collection Date: 11/17/2021 12:30:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/24/2021 8:41:15 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/24/2021 8:41:15 AM
Surr: DNOP	112	70-130		%Rec	1	11/24/2021 8:41:15 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/22/2021 3:55:00 PM
Surr: BFB	96.6	70-130		%Rec	1	11/22/2021 3:55:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	11/22/2021 3:55:00 PM
Toluene	ND	0.047		mg/Kg	1	11/22/2021 3:55:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	11/22/2021 3:55:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	11/22/2021 3:55:00 PM
Surr: 4-Bromofluorobenzene	90.7	70-130		%Rec	1	11/22/2021 3:55:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	7500	300		mg/Kg	100	11/24/2021 4:42:09 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-017 **Matrix:** SOIL

Client Sample ID: BS21-07 0-1'
Collection Date: 11/17/2021 12:40:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	11/24/2021 8:52:05 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	11/24/2021 8:52:05 AM
Surr: DNOP	115	70-130		%Rec	1	11/24/2021 8:52:05 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/22/2021 4:14:00 PM
Surr: BFB	96.8	70-130		%Rec	1	11/22/2021 4:14:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	11/22/2021 4:14:00 PM
Toluene	ND	0.049		mg/Kg	1	11/22/2021 4:14:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	11/22/2021 4:14:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	11/22/2021 4:14:00 PM
Surr: 4-Bromofluorobenzene	91.9	70-130		%Rec	1	11/22/2021 4:14:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	5300	300		mg/Kg	100	11/24/2021 4:54:30 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-018 **Matrix:** SOIL

Client Sample ID: BS21-08 0-1'
Collection Date: 11/17/2021 12:50:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	11/24/2021 9:02:54 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	11/24/2021 9:02:54 AM
Surr: DNOP	104	70-130		%Rec	1	11/24/2021 9:02:54 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/22/2021 4:34:00 PM
Surr: BFB	103	70-130		%Rec	1	11/22/2021 4:34:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	11/22/2021 4:34:00 PM
Toluene	ND	0.049		mg/Kg	1	11/22/2021 4:34:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	11/22/2021 4:34:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	11/22/2021 4:34:00 PM
Surr: 4-Bromofluorobenzene	93.6	70-130		%Rec	1	11/22/2021 4:34:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	6400	300		mg/Kg	100	11/24/2021 5:06:50 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-019 **Matrix:** SOIL

Client Sample ID: BS21-09 0-1'
Collection Date: 11/17/2021 1:00:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	11/24/2021 9:13:42 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	11/24/2021 9:13:42 AM
Surr: DNOP	106	70-130		%Rec	1	11/24/2021 9:13:42 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/22/2021 4:54:00 PM
Surr: BFB	92.9	70-130		%Rec	1	11/22/2021 4:54:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	11/22/2021 4:54:00 PM
Toluene	ND	0.050		mg/Kg	1	11/22/2021 4:54:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	11/22/2021 4:54:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	11/22/2021 4:54:00 PM
Surr: 4-Bromofluorobenzene	90.6	70-130		%Rec	1	11/22/2021 4:54:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	5100	300		mg/Kg	100	11/24/2021 5:19:12 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-020 **Matrix:** SOIL

Client Sample ID: BS21-10 0-1'
Collection Date: 11/17/2021 1:10:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/24/2021 9:24:29 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/24/2021 9:24:29 AM
Surr: DNOP	108	70-130		%Rec	1	11/24/2021 9:24:29 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/22/2021 5:13:00 PM
Surr: BFB	100	70-130		%Rec	1	11/22/2021 5:13:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	11/22/2021 5:13:00 PM
Toluene	ND	0.049		mg/Kg	1	11/22/2021 5:13:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	11/22/2021 5:13:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	11/22/2021 5:13:00 PM
Surr: 4-Bromofluorobenzene	93.5	70-130		%Rec	1	11/22/2021 5:13:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	5800	300		mg/Kg	100	11/24/2021 5:31:37 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-021 **Matrix:** SOIL

Client Sample ID: BS21-11 0-1'
Collection Date: 11/17/2021 1:20:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	11/22/2021 1:35:44 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	11/22/2021 1:35:44 PM
Surr: DNOP	91.8	70-130		%Rec	1	11/22/2021 1:35:44 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/22/2021 4:54:16 PM
Surr: BFB	97.6	70-130		%Rec	1	11/22/2021 4:54:16 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	11/22/2021 4:54:16 PM
Toluene	ND	0.048		mg/Kg	1	11/22/2021 4:54:16 PM
Ethylbenzene	ND	0.048		mg/Kg	1	11/22/2021 4:54:16 PM
Xylenes, Total	ND	0.096		mg/Kg	1	11/22/2021 4:54:16 PM
Surr: 4-Bromofluorobenzene	97.5	70-130		%Rec	1	11/22/2021 4:54:16 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	8400	300		mg/Kg	100	11/24/2021 5:43:59 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2111A00**
Date Reported: **11/29/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2111A00-022 **Matrix:** SOIL

Client Sample ID: BS21-12 0-1'
Collection Date: 11/17/2021 1:30:00 PM
Received Date: 11/18/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/22/2021 2:00:02 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/22/2021 2:00:02 PM
Surr: DNOP	93.6	70-130		%Rec	1	11/22/2021 2:00:02 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/22/2021 6:04:39 PM
Surr: BFB	100	70-130		%Rec	1	11/22/2021 6:04:39 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	11/22/2021 6:04:39 PM
Toluene	ND	0.047		mg/Kg	1	11/22/2021 6:04:39 PM
Ethylbenzene	ND	0.047		mg/Kg	1	11/22/2021 6:04:39 PM
Xylenes, Total	ND	0.094		mg/Kg	1	11/22/2021 6:04:39 PM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	11/22/2021 6:04:39 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	9000	600		mg/Kg	200	11/24/2021 5:56:20 PM

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2111A00**

29-Nov-21

Client: Devon Energy

Project: Jayhawk 6 CTB 2

Sample ID: **MB-64091**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **64091**	RunNo: **83049**							
Prep Date: **11/22/2021**	Analysis Date: **11/22/2021**	SeqNo: **2950075**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-64091**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **64091**	RunNo: **83049**							
Prep Date: **11/22/2021**	Analysis Date: **11/22/2021**	SeqNo: **2950076**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.2	90	110			

Sample ID: **MB-64122**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **64122**	RunNo: **83084**							
Prep Date: **11/23/2021**	Analysis Date: **11/23/2021**	SeqNo: **2951448**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-64122**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **64122**	RunNo: **83084**							
Prep Date: **11/23/2021**	Analysis Date: **11/23/2021**	SeqNo: **2951449**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.2	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	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2111A00**

29-Nov-21

Client: Devon Energy

Project: Jayhawk 6 CTB 2

Sample ID: **LCS-64106** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **64106** RunNo: **83036**
Prep Date: **11/22/2021** Analysis Date: **11/22/2021** SeqNo: **2950330** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.9		5.000		77.4	70	130			

Sample ID: **MB-64106** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **64106** RunNo: **83036**
Prep Date: **11/22/2021** Analysis Date: **11/22/2021** SeqNo: **2950331** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.6		10.00		86.2	70	130			

Sample ID: **2111A00-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **WS21-01 0-1'** Batch ID: **64082** RunNo: **83061**
Prep Date: **11/22/2021** Analysis Date: **11/24/2021** SeqNo: **2951682** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	9.3	46.55	0	89.7	39.3	155			
Surr: DNOP	3.6		4.655		77.9	70	130			

Sample ID: **2111A00-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **WS21-01 0-1'** Batch ID: **64082** RunNo: **83061**
Prep Date: **11/22/2021** Analysis Date: **11/24/2021** SeqNo: **2951683** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	9.8	48.97	0	84.7	39.3	155	0.636	23.4	
Surr: DNOP	3.9		4.897		79.6	70	130	0	0	

Sample ID: **LCS-64082** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **64082** RunNo: **83061**
Prep Date: **11/22/2021** Analysis Date: **11/24/2021** SeqNo: **2951756** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.6	68.9	135			
Surr: DNOP	4.4		5.000		88.4	70	130			

Sample ID: **MB-64082** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **64082** RunNo: **83061**
Prep Date: **11/22/2021** Analysis Date: **11/24/2021** SeqNo: **2951761** 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								

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2111A00**
29-Nov-21

Client: Devon Energy
Project: Jayhawk 6 CTB 2

Sample ID: **MB-64082** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **64082** RunNo: **83061**
Prep Date: **11/22/2021** Analysis Date: **11/24/2021** SeqNo: **2951761** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		123	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	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2111A00**

29-Nov-21

Client: Devon Energy

Project: Jayhawk 6 CTB 2

Sample ID: **mb-64049**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **64049**	RunNo: **83039**							
Prep Date: **11/19/2021**	Analysis Date: **11/22/2021**	SeqNo: **2949166**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	980		1000		98.2	70	130			

Sample ID: **lcs-64049**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **64049**	RunNo: **83039**							
Prep Date: **11/19/2021**	Analysis Date: **11/22/2021**	SeqNo: **2949168**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	78.6	131			
Surr: BFB	1100		1000		114	70	130			

Sample ID: **2111a00-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **WS21-01 0-1'**	Batch ID: **64049**	RunNo: **83039**							
Prep Date: **11/19/2021**	Analysis Date: **11/22/2021**	SeqNo: **2949170**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.56	0	94.9	61.3	114			
Surr: BFB	1100		982.3		110	70	130			

Sample ID: **2111a00-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **WS21-01 0-1'**	Batch ID: **64049**	RunNo: **83039**							
Prep Date: **11/19/2021**	Analysis Date: **11/22/2021**	SeqNo: **2949172**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.9	24.63	0	95.6	61.3	114	1.05	20	
Surr: BFB	1100		985.2		111	70	130	0	0	

Sample ID: **mb-64057**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **64057**	RunNo: **83018**							
Prep Date: **11/19/2021**	Analysis Date: **11/22/2021**	SeqNo: **2949226**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		99.9	70	130			

Sample ID: **lcs-64057**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **64057**	RunNo: **83018**							
Prep Date: **11/19/2021**	Analysis Date: **11/22/2021**	SeqNo: **2949229**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2111A00**
29-Nov-21

Client: Devon Energy
Project: Jayhawk 6 CTB 2

Sample ID: **lcs-64057** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **64057** RunNo: **83018**
Prep Date: **11/19/2021** Analysis Date: **11/22/2021** SeqNo: **2949229** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.0	78.6	131			
Surr: BFB	1100		1000		113	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	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2111A00**
29-Nov-21

Client: Devon Energy
Project: Jayhawk 6 CTB 2

Sample ID: **mb-64049** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **64049** RunNo: **83039**
Prep Date: **11/19/2021** Analysis Date: **11/22/2021** SeqNo: **2949220** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		93.7	70	130			

Sample ID: **lcs-64049** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **64049** RunNo: **83039**
Prep Date: **11/19/2021** Analysis Date: **11/22/2021** SeqNo: **2949223** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.4	80	120			
Toluene	0.94	0.050	1.000	0	94.5	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.0	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.5	80	120			
Surr: 4-Bromofluorobenzene	0.98		1.000		97.9	70	130			

Sample ID: **2111a00-002ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **WS21-02 0-1'** Batch ID: **64049** RunNo: **83039**
Prep Date: **11/19/2021** Analysis Date: **11/22/2021** SeqNo: **2949227** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.025	0.9950	0	87.4	80	120			
Toluene	0.91	0.050	0.9950	0	91.9	80	120			
Ethylbenzene	0.95	0.050	0.9950	0	95.3	80	120			
Xylenes, Total	2.8	0.10	2.985	0	93.9	80	120			
Surr: 4-Bromofluorobenzene	0.90		0.9950		90.4	70	130			

Sample ID: **2111a00-002amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **WS21-02 0-1'** Batch ID: **64049** RunNo: **83039**
Prep Date: **11/19/2021** Analysis Date: **11/22/2021** SeqNo: **2949230** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	0.9960	0	89.8	80	120	2.79	20	
Toluene	0.93	0.050	0.9960	0	93.6	80	120	1.93	20	
Ethylbenzene	0.97	0.050	0.9960	0	97.1	80	120	2.02	20	
Xylenes, Total	2.9	0.10	2.988	0	96.0	80	120	2.35	20	
Surr: 4-Bromofluorobenzene	0.92		0.9960		92.4	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2111A00**

29-Nov-21

Client: Devon Energy

Project: Jayhawk 6 CTB 2

Sample ID: **mb-64057** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **64057** RunNo: **83018**

Prep Date: **11/19/2021** Analysis Date: **11/22/2021** SeqNo: **2949317** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		100	70	130			

Sample ID: **LCS-64057** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **64057** RunNo: **83018**

Prep Date: **11/19/2021** Analysis Date: **11/22/2021** SeqNo: **2949318** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.7	80	120			
Toluene	0.93	0.050	1.000	0	93.3	80	120			
Ethylbenzene	0.93	0.050	1.000	0	93.0	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.2	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	70	130			

Sample ID: **2111a00-021ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BS21-11 0-1'** Batch ID: **64057** RunNo: **83018**

Prep Date: **11/19/2021** Analysis Date: **11/22/2021** SeqNo: **2949321** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.025	0.9843	0	86.5	80	120			
Toluene	0.86	0.049	0.9843	0	87.2	80	120			
Ethylbenzene	0.87	0.049	0.9843	0	87.9	80	120			
Xylenes, Total	2.6	0.098	2.953	0	87.2	80	120			
Surr: 4-Bromofluorobenzene	1.0		0.9843		102	70	130			

Sample ID: **2111a00-021amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BS21-11 0-1'** Batch ID: **64057** RunNo: **83018**

Prep Date: **11/19/2021** Analysis Date: **11/22/2021** SeqNo: **2949322** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.024	0.9524	0	85.6	80	120	4.30	20	
Toluene	0.82	0.048	0.9524	0	86.6	80	120	3.95	20	
Ethylbenzene	0.83	0.048	0.9524	0	87.5	80	120	3.75	20	
Xylenes, Total	2.5	0.095	2.857	0	86.8	80	120	3.83	20	
Surr: 4-Bromofluorobenzene	0.95		0.9524		100	70	130	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Devon Energy | Work Order Number: 2111A00 | RcptNo: 1

Received By: Cheyenne Cason 11/18/2021 8:00:00 AM

Completed By: Tracy Casarrubias 11/19/2021 8:24:20 AM

Reviewed By: KPG 11/19/21

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: TMC 11/18/21

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.8	Good	Yes			
2	0.6	Good	Yes			
3	1.3	Good	Yes			

Chain-of-Custody Record

Client: Devon Energy
Wes Matthews

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Days
☑ Standard ☐ Rush

Project Name: Jaytawk 6 CTB 2

Project #: 21E-00580

Project Manager: Brandon Shafer

Sampler: MJP

On Ice: ☑ Yes ☐ No

# of Coolers: 2 0.8-0=0.8

Cooler Temp (including CF): 0.6-0=0.6 (°C) 1.3-0=1.3

HEAL No. 2111A00

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
11/17	1:40	soil	WS21-01 0-1'	4 oz	ice	001	✓	✓					✓			
	1:50		WS21-02 0-1'			002										
	2:00		WS21-03 0-1'			003										
	2:10		WS21-04 0-1'			004										
	2:20		WS21-05 0-1'			005										
	2:30		WS21-06 0-1'			006										
	2:40		WS21-07 0-1'			007										
	2:50		WS21-08 0-1'			008										
	3:00		WS21-09 0-1'			009										
	3:10		WS21-10 0-1'			010										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					11/18/21	1030
11/18/21	1900				Date	Time
			Emc courier		11/19/21	0800

Remarks: Direct Bill Devon
W.matthews & Dale.Woodall@dvn.com

CC: M Pepper & B. Shafer final Report

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: Devon Energy
Wes Matthews
Mailing Address:
Phone #:
email or Fax#:
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 5 Day
☑ Standard ☐ Rush
Project Name: Jayhawk 6 CTB 2
Project #: 21E-00580
Project Manager: Brandon Shafer
Sampler: MJP
On Ice: ☒ Yes ☐ No
# of Coolers: 3 See first page
Cooler Temp(including CF): (°C)

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2111A08	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
11/17	11:40	Soil	BS21-01 0-1'	4 oz	ice	011	✓	✓					✓			
	11:50		BS21-02 0-1'			012										
	12:00		BS21-03 0-1'			013										
	12:10		BS21-04 0-1'			014										
	12:20		BS21-05 0-1'			015										
	12:30		BS21-06 0-1'			016										
	12:40		BS21-07 0-1'			017										
	12:50		BS21-08 0-1'			018										
	1:00		BS21-09 0-1'			019										
	1:10		BS21-10 0-1'			020										
	1:20		BS21-11 0-1'			021										
	1:30		BS21-12 0-1'			022										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					11/18/21	1030
11/18/21	1900				Date	Time
					11/19/21	0800

Remarks: Direct Bill Devon CC: Dale.Woodall@dvn.com & W.Matthews.
CC: M.Peppin & B.Shafer Final Report

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

January 07, 2022

Brandon Schafer's

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

RE: Jayhawk 6 CTB2 OrderNo.: 2112D89

Dear Brandon Schafer's:

Hall Environmental Analysis Laboratory received 32 sample(s) on 12/28/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-001 **Matrix:** SOIL

Client Sample ID: BS21-01 0.5
Collection Date: 12/23/2021 10:10:00 AM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/30/2021 3:08:38 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/30/2021 3:08:38 PM
Surr: DNOP	74.4	70-130		%Rec	1	12/30/2021 3:08:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/30/2021 12:04:37 AM
Surr: BFB	98.8	70-130		%Rec	1	12/30/2021 12:04:37 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	12/30/2021 12:04:37 AM
Toluene	ND	0.048		mg/Kg	1	12/30/2021 12:04:37 AM
Ethylbenzene	ND	0.048		mg/Kg	1	12/30/2021 12:04:37 AM
Xylenes, Total	ND	0.096		mg/Kg	1	12/30/2021 12:04:37 AM
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	12/30/2021 12:04:37 AM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	4900	150		mg/Kg	50	1/5/2022 8:11:56 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-002 **Matrix:** SOIL

Client Sample ID: BS21-02 0.5'
Collection Date: 12/23/2021 10:15:00 AM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/3/2022 3:37:42 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/3/2022 3:37:42 PM
Surr: DNOP	85.8	70-130		%Rec	1	1/3/2022 3:37:42 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/30/2021 12:27:53 AM
Surr: BFB	95.6	70-130		%Rec	1	12/30/2021 12:27:53 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	12/30/2021 12:27:53 AM
Toluene	ND	0.047		mg/Kg	1	12/30/2021 12:27:53 AM
Ethylbenzene	ND	0.047		mg/Kg	1	12/30/2021 12:27:53 AM
Xylenes, Total	ND	0.093		mg/Kg	1	12/30/2021 12:27:53 AM
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	12/30/2021 12:27:53 AM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	5800	300		mg/Kg	100	1/5/2022 8:24:20 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-003 **Matrix:** SOIL

Client Sample ID: BS21-03 0.5'
Collection Date: 12/23/2021 10:20:00 AM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/3/2022 3:48:25 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/3/2022 3:48:25 PM
Surr: DNOP	88.9	70-130		%Rec	1	1/3/2022 3:48:25 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/30/2021 12:51:15 AM
Surr: BFB	97.5	70-130		%Rec	1	12/30/2021 12:51:15 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	12/30/2021 12:51:15 AM
Toluene	ND	0.048		mg/Kg	1	12/30/2021 12:51:15 AM
Ethylbenzene	ND	0.048		mg/Kg	1	12/30/2021 12:51:15 AM
Xylenes, Total	ND	0.096		mg/Kg	1	12/30/2021 12:51:15 AM
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	12/30/2021 12:51:15 AM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	4200	150		mg/Kg	50	1/5/2022 8:36:44 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-004 **Matrix:** SOIL

Client Sample ID: BS21-04 0.5'
Collection Date: 12/23/2021 10:25:00 AM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	1/3/2022 3:59:04 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/3/2022 3:59:04 PM
Surr: DNOP	87.5	70-130		%Rec	1	1/3/2022 3:59:04 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/30/2021 1:14:34 AM
Surr: BFB	96.7	70-130		%Rec	1	12/30/2021 1:14:34 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	12/30/2021 1:14:34 AM
Toluene	ND	0.046		mg/Kg	1	12/30/2021 1:14:34 AM
Ethylbenzene	ND	0.046		mg/Kg	1	12/30/2021 1:14:34 AM
Xylenes, Total	ND	0.092		mg/Kg	1	12/30/2021 1:14:34 AM
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	12/30/2021 1:14:34 AM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	1100	60		mg/Kg	20	1/4/2022 2:58:49 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-005 **Matrix:** SOIL

Client Sample ID: BS21-05 0.5'
Collection Date: 12/23/2021 10:30:00 AM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/3/2022 4:09:43 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/3/2022 4:09:43 PM
Surr: DNOP	86.8	70-130		%Rec	1	1/3/2022 4:09:43 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/30/2021 1:37:51 AM
Surr: BFB	93.7	70-130		%Rec	1	12/30/2021 1:37:51 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	12/30/2021 1:37:51 AM
Toluene	ND	0.049		mg/Kg	1	12/30/2021 1:37:51 AM
Ethylbenzene	ND	0.049		mg/Kg	1	12/30/2021 1:37:51 AM
Xylenes, Total	ND	0.099		mg/Kg	1	12/30/2021 1:37:51 AM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	12/30/2021 1:37:51 AM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	5100	300		mg/Kg	100	1/5/2022 8:49:09 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BS21-06 0.5'
Project: Jayhawk 6 CTB2
Collection Date: 12/23/2021 10:35:00 AM
Lab ID: 2112D89-006 **Matrix:** SOIL **Received Date:** 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	12/30/2021 3:51:37 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/30/2021 3:51:37 PM
Surr: DNOP	110	70-130		%Rec	1	12/30/2021 3:51:37 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/29/2021 12:19:58 PM
Surr: BFB	97.5	70-130		%Rec	1	12/29/2021 12:19:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	12/29/2021 12:19:58 PM
Toluene	ND	0.047		mg/Kg	1	12/29/2021 12:19:58 PM
Ethylbenzene	ND	0.047		mg/Kg	1	12/29/2021 12:19:58 PM
Xylenes, Total	ND	0.094		mg/Kg	1	12/29/2021 12:19:58 PM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	12/29/2021 12:19:58 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	4800	150		mg/Kg	50	1/5/2022 9:01:34 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BS21-07 0.5'
Project: Jayhawk 6 CTB2
Collection Date: 12/23/2021 10:40:00 AM
Lab ID: 2112D89-007 **Matrix:** SOIL **Received Date:** 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/30/2021 4:23:54 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/30/2021 4:23:54 PM
Surr: DNOP	87.9	70-130		%Rec	1	12/30/2021 4:23:54 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/29/2021 1:30:49 PM
Surr: BFB	96.0	70-130		%Rec	1	12/29/2021 1:30:49 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	12/29/2021 1:30:49 PM
Toluene	ND	0.049		mg/Kg	1	12/29/2021 1:30:49 PM
Ethylbenzene	ND	0.049		mg/Kg	1	12/29/2021 1:30:49 PM
Xylenes, Total	ND	0.099		mg/Kg	1	12/29/2021 1:30:49 PM
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	12/29/2021 1:30:49 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	9700	300		mg/Kg	100	1/5/2022 9:13:58 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-008 **Matrix:** SOIL

Client Sample ID: BS21-08 0.5'
Collection Date: 12/23/2021 10:45:00 AM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	12/30/2021 4:34:38 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/30/2021 4:34:38 PM
Surr: DNOP	87.2	70-130		%Rec	1	12/30/2021 4:34:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/29/2021 2:41:21 PM
Surr: BFB	99.5	70-130		%Rec	1	12/29/2021 2:41:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	12/29/2021 2:41:21 PM
Toluene	ND	0.046		mg/Kg	1	12/29/2021 2:41:21 PM
Ethylbenzene	ND	0.046		mg/Kg	1	12/29/2021 2:41:21 PM
Xylenes, Total	ND	0.093		mg/Kg	1	12/29/2021 2:41:21 PM
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	12/29/2021 2:41:21 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	6100	300		mg/Kg	100	1/5/2022 9:26:22 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-009 **Matrix:** SOIL

Client Sample ID: BS21-09 0.5'
Collection Date: 12/23/2021 10:50:00 AM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/30/2021 4:45:20 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/30/2021 4:45:20 PM
Surr: DNOP	90.9	70-130		%Rec	1	12/30/2021 4:45:20 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/29/2021 3:05:00 PM
Surr: BFB	98.2	70-130		%Rec	1	12/29/2021 3:05:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	12/29/2021 3:05:00 PM
Toluene	ND	0.048		mg/Kg	1	12/29/2021 3:05:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/29/2021 3:05:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	12/29/2021 3:05:00 PM
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	12/29/2021 3:05:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	5700	300		mg/Kg	100	1/5/2022 9:38:46 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BS21-10 0.5'
Project: Jayhawk 6 CTB2
Collection Date: 12/23/2021 10:55:00 AM
Lab ID: 2112D89-010 **Matrix:** SOIL
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/30/2021 4:56:02 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/30/2021 4:56:02 PM
Surr: DNOP	123	70-130		%Rec	1	12/30/2021 4:56:02 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/29/2021 3:28:30 PM
Surr: BFB	96.0	70-130		%Rec	1	12/29/2021 3:28:30 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	12/29/2021 3:28:30 PM
Toluene	ND	0.048		mg/Kg	1	12/29/2021 3:28:30 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/29/2021 3:28:30 PM
Xylenes, Total	ND	0.096		mg/Kg	1	12/29/2021 3:28:30 PM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	12/29/2021 3:28:30 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	5300	300		mg/Kg	100	1/5/2022 9:51:11 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-011 **Matrix:** SOIL

Client Sample ID: BS21-11 0.5'
Collection Date: 12/23/2021 11:00:00 AM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	18	9.6		mg/Kg	1	12/30/2021 5:06:43 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/30/2021 5:06:43 PM
Surr: DNOP	130	70-130		%Rec	1	12/30/2021 5:06:43 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/29/2021 3:51:53 PM
Surr: BFB	101	70-130		%Rec	1	12/29/2021 3:51:53 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	12/29/2021 3:51:53 PM
Toluene	ND	0.047		mg/Kg	1	12/29/2021 3:51:53 PM
Ethylbenzene	ND	0.047		mg/Kg	1	12/29/2021 3:51:53 PM
Xylenes, Total	ND	0.095		mg/Kg	1	12/29/2021 3:51:53 PM
Surr: 4-Bromofluorobenzene	110	70-130		%Rec	1	12/29/2021 3:51:53 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	6700	300		mg/Kg	100	1/5/2022 10:03:35 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BS21-12 0.5
Project: Jayhawk 6 CTB2
Collection Date: 12/23/2021 11:05:00 AM
Lab ID: 2112D89-012 **Matrix:** SOIL **Received Date:** 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	12/30/2021 5:17:21 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/30/2021 5:17:21 PM
Surr: DNOP	80.6	70-130		%Rec	1	12/30/2021 5:17:21 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/29/2021 4:15:29 PM
Surr: BFB	102	70-130		%Rec	1	12/29/2021 4:15:29 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	12/29/2021 4:15:29 PM
Toluene	ND	0.050		mg/Kg	1	12/29/2021 4:15:29 PM
Ethylbenzene	ND	0.050		mg/Kg	1	12/29/2021 4:15:29 PM
Xylenes, Total	ND	0.099		mg/Kg	1	12/29/2021 4:15:29 PM
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	12/29/2021 4:15:29 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	5100	300		mg/Kg	100	1/5/2022 10:40:48 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 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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-013 **Matrix:** SOIL

Client Sample ID: BS21-13 0.5
Collection Date: 12/23/2021 2:10:00 PM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/30/2021 5:28:00 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/30/2021 5:28:00 PM
Surr: DNOP	86.2	70-130		%Rec	1	12/30/2021 5:28:00 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/29/2021 4:39:03 PM
Surr: BFB	101	70-130		%Rec	1	12/29/2021 4:39:03 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	12/29/2021 4:39:03 PM
Toluene	ND	0.048		mg/Kg	1	12/29/2021 4:39:03 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/29/2021 4:39:03 PM
Xylenes, Total	ND	0.097		mg/Kg	1	12/29/2021 4:39:03 PM
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	12/29/2021 4:39:03 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	10000	600		mg/Kg	200	1/5/2022 10:53:12 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BS21-14 0.5'
Project: Jayhawk 6 CTB2
Collection Date: 12/23/2021 2:15:00 PM
Lab ID: 2112D89-014 **Matrix:** SOIL **Received Date:** 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	12/30/2021 5:38:41 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/30/2021 5:38:41 PM
Surr: DNOP	84.5	70-130		%Rec	1	12/30/2021 5:38:41 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/29/2021 6:13:09 PM
Surr: BFB	99.1	70-130		%Rec	1	12/29/2021 6:13:09 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	12/29/2021 6:13:09 PM
Toluene	ND	0.049		mg/Kg	1	12/29/2021 6:13:09 PM
Ethylbenzene	ND	0.049		mg/Kg	1	12/29/2021 6:13:09 PM
Xylenes, Total	ND	0.097		mg/Kg	1	12/29/2021 6:13:09 PM
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	12/29/2021 6:13:09 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	5100	150		mg/Kg	50	1/5/2022 11:05:37 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-015 **Matrix:** SOIL

Client Sample ID: BS21-15 0.5'
Collection Date: 12/23/2021 2:20:00 PM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/3/2022 3:52:34 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/3/2022 3:52:34 PM
Surr: DNOP	72.7	70-130		%Rec	1	1/3/2022 3:52:34 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/29/2021 6:36:38 PM
Surr: BFB	101	70-130		%Rec	1	12/29/2021 6:36:38 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	12/29/2021 6:36:38 PM
Toluene	ND	0.049		mg/Kg	1	12/29/2021 6:36:38 PM
Ethylbenzene	ND	0.049		mg/Kg	1	12/29/2021 6:36:38 PM
Xylenes, Total	ND	0.097		mg/Kg	1	12/29/2021 6:36:38 PM
Surr: 4-Bromofluorobenzene	110	70-130		%Rec	1	12/29/2021 6:36:38 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	3400	150		mg/Kg	50	1/5/2022 11:18:01 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-016 **Matrix:** SOIL

Client Sample ID: BS21-16 0.5'
Collection Date: 12/23/2021 2:25:00 PM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/30/2021 5:59:52 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/30/2021 5:59:52 PM
Surr: DNOP	110	70-130		%Rec	1	12/30/2021 5:59:52 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/29/2021 7:00:14 PM
Surr: BFB	100	70-130		%Rec	1	12/29/2021 7:00:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	12/29/2021 7:00:14 PM
Toluene	ND	0.047		mg/Kg	1	12/29/2021 7:00:14 PM
Ethylbenzene	ND	0.047		mg/Kg	1	12/29/2021 7:00:14 PM
Xylenes, Total	ND	0.094		mg/Kg	1	12/29/2021 7:00:14 PM
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	12/29/2021 7:00:14 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	4200	150		mg/Kg	50	1/5/2022 11:30:26 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-017 **Matrix:** SOIL

Client Sample ID: BS21-17 0.5'
Collection Date: 12/23/2021 2:30:00 PM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	12/30/2021 6:10:24 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/30/2021 6:10:24 PM
Surr: DNOP	104	70-130		%Rec	1	12/30/2021 6:10:24 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/29/2021 7:23:46 PM
Surr: BFB	99.5	70-130		%Rec	1	12/29/2021 7:23:46 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	12/29/2021 7:23:46 PM
Toluene	ND	0.046		mg/Kg	1	12/29/2021 7:23:46 PM
Ethylbenzene	ND	0.046		mg/Kg	1	12/29/2021 7:23:46 PM
Xylenes, Total	ND	0.092		mg/Kg	1	12/29/2021 7:23:46 PM
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	12/29/2021 7:23:46 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	4300	150		mg/Kg	50	1/5/2022 11:42:50 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-018 **Matrix:** SOIL

Client Sample ID: BS21-18 0.5'
Collection Date: 12/23/2021 2:35:00 PM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/30/2021 6:20:54 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/30/2021 6:20:54 PM
Surr: DNOP	101	70-130		%Rec	1	12/30/2021 6:20:54 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/29/2021 7:47:15 PM
Surr: BFB	99.1	70-130		%Rec	1	12/29/2021 7:47:15 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	12/29/2021 7:47:15 PM
Toluene	ND	0.048		mg/Kg	1	12/29/2021 7:47:15 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/29/2021 7:47:15 PM
Xylenes, Total	ND	0.097		mg/Kg	1	12/29/2021 7:47:15 PM
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	12/29/2021 7:47:15 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	6400	300		mg/Kg	100	1/5/2022 9:09:34 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-019 **Matrix:** SOIL

Client Sample ID: BS21-19 0.5'
Collection Date: 12/23/2021 2:40:00 PM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/30/2021 6:31:27 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/30/2021 6:31:27 PM
Surr: DNOP	122	70-130		%Rec	1	12/30/2021 6:31:27 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/29/2021 8:10:43 PM
Surr: BFB	98.4	70-130		%Rec	1	12/29/2021 8:10:43 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	12/29/2021 8:10:43 PM
Toluene	ND	0.046		mg/Kg	1	12/29/2021 8:10:43 PM
Ethylbenzene	ND	0.046		mg/Kg	1	12/29/2021 8:10:43 PM
Xylenes, Total	ND	0.091		mg/Kg	1	12/29/2021 8:10:43 PM
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	12/29/2021 8:10:43 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	5000	300		mg/Kg	100	1/5/2022 9:21:55 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-020 **Matrix:** SOIL

Client Sample ID: BS21-20 0.5'
Collection Date: 12/23/2021 2:45:00 PM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/30/2021 6:41:58 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/30/2021 6:41:58 PM
Surr: DNOP	78.9	70-130		%Rec	1	12/30/2021 6:41:58 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/29/2021 8:34:10 PM
Surr: BFB	96.2	70-130		%Rec	1	12/29/2021 8:34:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	12/29/2021 8:34:10 PM
Toluene	ND	0.047		mg/Kg	1	12/29/2021 8:34:10 PM
Ethylbenzene	ND	0.047		mg/Kg	1	12/29/2021 8:34:10 PM
Xylenes, Total	ND	0.093		mg/Kg	1	12/29/2021 8:34:10 PM
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	12/29/2021 8:34:10 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	80	60		mg/Kg	20	1/4/2022 8:19:45 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-021 **Matrix:** SOIL

Client Sample ID: BS21-21 0.5'
Collection Date: 12/23/2021 2:50:00 PM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	12/30/2021 6:52:27 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/30/2021 6:52:27 PM
Surr: DNOP	78.4	70-130		%Rec	1	12/30/2021 6:52:27 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/29/2021 8:57:42 PM
Surr: BFB	98.5	70-130		%Rec	1	12/29/2021 8:57:42 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	12/29/2021 8:57:42 PM
Toluene	ND	0.046		mg/Kg	1	12/29/2021 8:57:42 PM
Ethylbenzene	ND	0.046		mg/Kg	1	12/29/2021 8:57:42 PM
Xylenes, Total	ND	0.092		mg/Kg	1	12/29/2021 8:57:42 PM
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	12/29/2021 8:57:42 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	1/4/2022 8:32:05 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-022 **Matrix:** SOIL

Client Sample ID: BS21-22 0.5'
Collection Date: 12/23/2021 2:55:00 PM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/3/2022 3:05:24 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/3/2022 3:05:24 PM
Surr: DNOP	107	70-130		%Rec	1	1/3/2022 3:05:24 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/29/2021 9:21:09 PM
Surr: BFB	98.7	70-130		%Rec	1	12/29/2021 9:21:09 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	12/29/2021 9:21:09 PM
Toluene	ND	0.046		mg/Kg	1	12/29/2021 9:21:09 PM
Ethylbenzene	ND	0.046		mg/Kg	1	12/29/2021 9:21:09 PM
Xylenes, Total	ND	0.092		mg/Kg	1	12/29/2021 9:21:09 PM
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	12/29/2021 9:21:09 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	20000	1500		mg/Kg	500	1/5/2022 9:34:15 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
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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: WS21-01 0-0.5'
Project: Jayhawk 6 CTB2
Collection Date: 12/23/2021 12:25:00 PM
Lab ID: 2112D89-023 **Matrix:** SOIL **Received Date:** 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	12/30/2021 7:13:23 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	12/30/2021 7:13:23 PM
Surr: DNOP	79.2	70-130		%Rec	1	12/30/2021 7:13:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/29/2021 9:44:34 PM
Surr: BFB	96.7	70-130		%Rec	1	12/29/2021 9:44:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	12/29/2021 9:44:34 PM
Toluene	ND	0.046		mg/Kg	1	12/29/2021 9:44:34 PM
Ethylbenzene	ND	0.046		mg/Kg	1	12/29/2021 9:44:34 PM
Xylenes, Total	ND	0.091		mg/Kg	1	12/29/2021 9:44:34 PM
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	12/29/2021 9:44:34 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	1/4/2022 8:56:47 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: WS21-02 0-0.5'
Project: Jayhawk 6 CTB2
Collection Date: 12/23/2021 12:30:00 PM
Lab ID: 2112D89-024 **Matrix:** SOIL **Received Date:** 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	12/30/2021 7:23:49 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/30/2021 7:23:49 PM
Surr: DNOP	93.3	70-130		%Rec	1	12/30/2021 7:23:49 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/29/2021 10:31:13 PM
Surr: BFB	96.7	70-130		%Rec	1	12/29/2021 10:31:13 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	12/29/2021 10:31:13 PM
Toluene	ND	0.047		mg/Kg	1	12/29/2021 10:31:13 PM
Ethylbenzene	ND	0.047		mg/Kg	1	12/29/2021 10:31:13 PM
Xylenes, Total	ND	0.093		mg/Kg	1	12/29/2021 10:31:13 PM
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	12/29/2021 10:31:13 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	80	60		mg/Kg	20	1/4/2022 9:09:07 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-025 **Matrix:** SOIL

Client Sample ID: WS21-03 0-0.5'
Collection Date: 12/23/2021 12:35:00 PM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/30/2021 7:34:14 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/30/2021 7:34:14 PM
Surr: DNOP	71.3	70-130		%Rec	1	12/30/2021 7:34:14 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/29/2021 10:54:34 PM
Surr: BFB	95.9	70-130		%Rec	1	12/29/2021 10:54:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	12/29/2021 10:54:34 PM
Toluene	ND	0.047		mg/Kg	1	12/29/2021 10:54:34 PM
Ethylbenzene	ND	0.047		mg/Kg	1	12/29/2021 10:54:34 PM
Xylenes, Total	ND	0.094		mg/Kg	1	12/29/2021 10:54:34 PM
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	12/29/2021 10:54:34 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	290	60		mg/Kg	20	1/4/2022 9:46:08 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 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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: WS21-04 0-0.5'
Project: Jayhawk 6 CTB2
Collection Date: 12/23/2021 12:40:00 PM
Lab ID: 2112D89-026 **Matrix:** SOIL **Received Date:** 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	170	9.6		mg/Kg	1	12/30/2021 10:23:35 PM
Motor Oil Range Organics (MRO)	90	48		mg/Kg	1	12/30/2021 10:23:35 PM
Surr: DNOP	96.9	70-130		%Rec	1	12/30/2021 10:23:35 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/30/2021 11:33:00 AM
Surr: BFB	89.4	70-130		%Rec	1	12/30/2021 11:33:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	12/30/2021 11:33:00 AM
Toluene	ND	0.048		mg/Kg	1	12/30/2021 11:33:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	12/30/2021 11:33:00 AM
Xylenes, Total	ND	0.096		mg/Kg	1	12/30/2021 11:33:00 AM
Surr: 4-Bromofluorobenzene	79.3	70-130		%Rec	1	12/30/2021 11:33:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	11000	600		mg/Kg	200	1/5/2022 9:46:35 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 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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB2
Lab ID: 2112D89-027 **Matrix:** SOIL

Client Sample ID: WS21-05 0-0.5'
Collection Date: 12/23/2021 12:45:00 PM
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	17	9.9		mg/Kg	1	12/30/2021 10:34:25 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/30/2021 10:34:25 PM
Surr: DNOP	124	70-130		%Rec	1	12/30/2021 10:34:25 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/30/2021 12:32:00 PM
Surr: BFB	86.6	70-130		%Rec	1	12/30/2021 12:32:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	12/30/2021 12:32:00 PM
Toluene	ND	0.049		mg/Kg	1	12/30/2021 12:32:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	12/30/2021 12:32:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	12/30/2021 12:32:00 PM
Surr: 4-Bromofluorobenzene	79.9	70-130		%Rec	1	12/30/2021 12:32:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	5600	300		mg/Kg	100	1/5/2022 9:58:55 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: WS21-06 0-0.5'
Project: Jayhawk 6 CTB2
Collection Date: 12/23/2021 12:50:00 PM
Lab ID: 2112D89-028 **Matrix:** SOIL
Received Date: 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/30/2021 10:45:15 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/30/2021 10:45:15 PM
Surr: DNOP	94.3	70-130		%Rec	1	12/30/2021 10:45:15 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/30/2021 12:52:00 PM
Surr: BFB	86.4	70-130		%Rec	1	12/30/2021 12:52:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	12/30/2021 12:52:00 PM
Toluene	ND	0.048		mg/Kg	1	12/30/2021 12:52:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/30/2021 12:52:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	12/30/2021 12:52:00 PM
Surr: 4-Bromofluorobenzene	79.7	70-130		%Rec	1	12/30/2021 12:52:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	6000	300		mg/Kg	100	1/5/2022 10:11:16 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: WS21-07 0-0.5'
Project: Jayhawk 6 CTB2
Collection Date: 12/23/2021 12:55:00 PM
Lab ID: 2112D89-029 **Matrix:** SOIL **Received Date:** 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/30/2021 10:56:05 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/30/2021 10:56:05 PM
Surr: DNOP	79.4	70-130		%Rec	1	12/30/2021 10:56:05 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/30/2021 1:11:00 PM
Surr: BFB	84.4	70-130		%Rec	1	12/30/2021 1:11:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	12/30/2021 1:11:00 PM
Toluene	ND	0.049		mg/Kg	1	12/30/2021 1:11:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	12/30/2021 1:11:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	12/30/2021 1:11:00 PM
Surr: 4-Bromofluorobenzene	76.3	70-130		%Rec	1	12/30/2021 1:11:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	3700	150		mg/Kg	50	1/5/2022 10:23:37 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: WS21-08 0-0.5'
Project: Jayhawk 6 CTB2
Collection Date: 12/23/2021 1:00:00 PM
Lab ID: 2112D89-030 **Matrix:** SOIL **Received Date:** 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/30/2021 11:06:53 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/30/2021 11:06:53 PM
Surr: DNOP	92.9	70-130		%Rec	1	12/30/2021 11:06:53 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/30/2021 1:31:00 PM
Surr: BFB	86.9	70-130		%Rec	1	12/30/2021 1:31:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	12/30/2021 1:31:00 PM
Toluene	ND	0.049		mg/Kg	1	12/30/2021 1:31:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	12/30/2021 1:31:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	12/30/2021 1:31:00 PM
Surr: 4-Bromofluorobenzene	79.9	70-130		%Rec	1	12/30/2021 1:31:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	6100	300		mg/Kg	100	1/5/2022 11:25:19 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: WS21-09 0-0.5'
Project: Jayhawk 6 CTB2
Collection Date: 12/23/2021 1:05:00 PM
Lab ID: 2112D89-031 **Matrix:** SOIL **Received Date:** 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	12/30/2021 11:17:39 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/30/2021 11:17:39 PM
Surr: DNOP	83.4	70-130		%Rec	1	12/30/2021 11:17:39 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/30/2021 1:51:00 PM
Surr: BFB	90.4	70-130		%Rec	1	12/30/2021 1:51:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	12/30/2021 1:51:00 PM
Toluene	ND	0.048		mg/Kg	1	12/30/2021 1:51:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/30/2021 1:51:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	12/30/2021 1:51:00 PM
Surr: 4-Bromofluorobenzene	81.7	70-130		%Rec	1	12/30/2021 1:51:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	220	60		mg/Kg	20	1/4/2022 5:58:39 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2112D89**
Date Reported: **1/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: WS21-10 0-0.5'
Project: Jayhawk 6 CTB2
Collection Date: 12/23/2021 1:10:00 PM
Lab ID: 2112D89-032 **Matrix:** SOIL **Received Date:** 12/28/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/30/2021 11:28:25 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/30/2021 11:28:25 PM
Surr: DNOP	97.3	70-130		%Rec	1	12/30/2021 11:28:25 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/30/2021 2:50:00 PM
Surr: BFB	81.0	70-130		%Rec	1	12/30/2021 2:50:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	12/30/2021 2:50:00 PM
Toluene	ND	0.047		mg/Kg	1	12/30/2021 2:50:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	12/30/2021 2:50:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	12/30/2021 2:50:00 PM
Surr: 4-Bromofluorobenzene	75.8	70-130		%Rec	1	12/30/2021 2:50:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	7300	300		mg/Kg	100	1/5/2022 10:48:18 AM

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

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2112D89**
07-Jan-22

Client: Devon Energy
Project: Jayhawk 6 CTB2

Sample ID: **MB-64834** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **64834** RunNo: **84947**
Prep Date: **1/4/2022** Analysis Date: **1/4/2022** SeqNo: **2988545** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-64834** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **64834** RunNo: **84947**
Prep Date: **1/4/2022** Analysis Date: **1/4/2022** SeqNo: **2988546** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.4	90	110			

Sample ID: **MB-64837** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **64837** RunNo: **84947**
Prep Date: **1/4/2022** Analysis Date: **1/4/2022** SeqNo: **2988575** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-64837** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **64837** RunNo: **84947**
Prep Date: **1/4/2022** Analysis Date: **1/4/2022** SeqNo: **2988576** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.4	90	110			

Sample ID: **MB-64847** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **64847** RunNo: **84950**
Prep Date: **1/4/2022** Analysis Date: **1/4/2022** SeqNo: **2988853** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-64847** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **64847** RunNo: **84950**
Prep Date: **1/4/2022** Analysis Date: **1/4/2022** SeqNo: **2988854** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.3	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2112D89**

07-Jan-22

Client: Devon Energy

Project: Jayhawk 6 CTB2

Sample ID: **LCS-64781** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **64781** RunNo: **84875**
Prep Date: **12/29/2021** Analysis Date: **12/30/2021** SeqNo: **2985761** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.6	68.9	135			
Surr: DNOP	4.1		5.000		82.4	70	130			

Sample ID: **LCS-64791** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **64791** RunNo: **84875**
Prep Date: **12/29/2021** Analysis Date: **12/30/2021** SeqNo: **2985762** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	111	68.9	135			
Surr: DNOP	4.7		5.000		94.8	70	130			

Sample ID: **MB-64781** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **64781** RunNo: **84875**
Prep Date: **12/29/2021** Analysis Date: **12/30/2021** SeqNo: **2985763** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.9		10.00		88.8	70	130			

Sample ID: **MB-64791** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **64791** RunNo: **84875**
Prep Date: **12/29/2021** Analysis Date: **12/30/2021** SeqNo: **2985764** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		110	70	130			

Sample ID: **2112D89-006AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BS21-06 0.5'** Batch ID: **64782** RunNo: **84875**
Prep Date: **12/29/2021** Analysis Date: **12/30/2021** SeqNo: **2986012** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.7	48.36	0	91.4	39.3	155	0	23.4	
Surr: DNOP	3.6		4.836		74.4	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2112D89**
07-Jan-22

Client: Devon Energy
Project: Jayhawk 6 CTB2

Sample ID: **LCS-64782** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **64782** RunNo: **84875**
Prep Date: **12/29/2021** Analysis Date: **12/30/2021** SeqNo: **2986013** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	101	68.9	135			
Surr: DNOP	5.7		5.000		114	70	130			

Sample ID: **MB-64782** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **64782** RunNo: **84875**
Prep Date: **12/29/2021** Analysis Date: **12/30/2021** SeqNo: **2986014** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.3		10.00		83.1	70	130			

Sample ID: **2112D89-006AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BS21-06 0.5'** Batch ID: **64782** RunNo: **84875**
Prep Date: **12/29/2021** Analysis Date: **12/30/2021** SeqNo: **2986017** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	9.4	47.13	0	84.1	39.3	155			
Surr: DNOP	4.0		4.713		84.5	70	130			

Sample ID: **LCS-64780** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **64780** RunNo: **84903**
Prep Date: **12/30/2021** Analysis Date: **1/3/2022** SeqNo: **2986775** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.3	68.9	135			
Surr: DNOP	4.1		5.000		82.2	70	130			

Sample ID: **MB-64780** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **64780** RunNo: **84903**
Prep Date: **12/30/2021** Analysis Date: **1/3/2022** SeqNo: **2986777** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		86.1	70	130			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2112D89**
07-Jan-22

Client: Devon Energy
Project: Jayhawk 6 CTB2

Sample ID: **mb-64760** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **64760** RunNo: **84850**
Prep Date: **12/28/2021** Analysis Date: **12/29/2021** SeqNo: **2984638** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		104	70	130			

Sample ID: **lcs-64760** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **64760** RunNo: **84850**
Prep Date: **12/28/2021** Analysis Date: **12/29/2021** SeqNo: **2984639** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.1	78.6	131			
Surr: BFB	1100		1000		108	70	130			

Sample ID: **2112d89-006ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BS21-06 0.5'** Batch ID: **64760** RunNo: **84850**
Prep Date: **12/28/2021** Analysis Date: **12/29/2021** SeqNo: **2984641** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.8	24.15	0	107	61.3	114			
Surr: BFB	1100		966.2		110	70	130			

Sample ID: **2112d89-006amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BS21-06 0.5'** Batch ID: **64760** RunNo: **84850**
Prep Date: **12/28/2021** Analysis Date: **12/29/2021** SeqNo: **2984642** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.8	24.22	0	108	61.3	114	0.662	20	
Surr: BFB	1000		969.0		108	70	130	0	0	

Sample ID: **mb-64758** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **64758** RunNo: **84840**
Prep Date: **12/28/2021** Analysis Date: **12/29/2021** SeqNo: **2984707** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	810		1000		81.4	70	130			

Sample ID: **lcs-64758** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **64758** RunNo: **84840**
Prep Date: **12/28/2021** Analysis Date: **12/29/2021** SeqNo: **2984708** Units: **mg/Kg**

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

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2112D89**
07-Jan-22

Client: Devon Energy
Project: Jayhawk 6 CTB2

Sample ID: **lcs-64758** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **64758** RunNo: **84840**
Prep Date: **12/28/2021** Analysis Date: **12/29/2021** SeqNo: **2984708** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.5	78.6	131			
Surr: BFB	960		1000		95.6	70	130			

Sample ID: **mb-64790** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **64790** RunNo: **84854**
Prep Date: **12/29/2021** Analysis Date: **12/30/2021** SeqNo: **2984955** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		86.3	70	130			

Sample ID: **lcs-64790** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **64790** RunNo: **84854**
Prep Date: **12/29/2021** Analysis Date: **12/30/2021** SeqNo: **2984956** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	102	78.6	131			
Surr: BFB	1000		1000		101	70	130			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2112D89**
07-Jan-22

Client: Devon Energy
Project: Jayhawk 6 CTB2

Sample ID: **mb-64760** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **64760** RunNo: **84850**
Prep Date: **12/28/2021** Analysis Date: **12/29/2021** SeqNo: **2984675** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		113	70	130			

Sample ID: **LCS-64760** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **64760** RunNo: **84850**
Prep Date: **12/28/2021** Analysis Date: **12/29/2021** SeqNo: **2984676** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.4	80	120			
Toluene	0.96	0.050	1.000	0	96.4	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.1	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.7	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	70	130			

Sample ID: **2112d89-007ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BS21-07 0.5'** Batch ID: **64760** RunNo: **84850**
Prep Date: **12/28/2021** Analysis Date: **12/29/2021** SeqNo: **2984679** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.024	0.9588	0	103	80	120			
Toluene	0.99	0.048	0.9588	0	104	80	120			
Ethylbenzene	1.0	0.048	0.9588	0	105	80	120			
Xylenes, Total	3.0	0.096	2.876	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.0		0.9588		106	70	130			

Sample ID: **2112d89-007amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BS21-07 0.5'** Batch ID: **64760** RunNo: **84850**
Prep Date: **12/28/2021** Analysis Date: **12/29/2021** SeqNo: **2984680** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.024	0.9699	0	102	80	120	0.0831	20	
Toluene	1.0	0.048	0.9699	0	103	80	120	0.237	20	
Ethylbenzene	1.0	0.048	0.9699	0	105	80	120	1.05	20	
Xylenes, Total	3.0	0.097	2.910	0	103	80	120	1.02	20	
Surr: 4-Bromofluorobenzene	1.1		0.9699		109	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2112D89**

07-Jan-22

Client: Devon Energy

Project: Jayhawk 6 CTB2

Sample ID: **mb-64758**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **64758**	RunNo: **84840**
Prep Date: **12/28/2021**	Analysis Date: **12/29/2021**	SeqNo: **2984742** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.77		1.000		77.5	70	130			

Sample ID: **lcs-64758**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **64758**	RunNo: **84840**
Prep Date: **12/28/2021**	Analysis Date: **12/29/2021**	SeqNo: **2984743** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	88.4	80	120			
Toluene	0.87	0.050	1.000	0	86.9	80	120			
Ethylbenzene	0.87	0.050	1.000	0	87.0	80	120			
Xylenes, Total	2.6	0.10	3.000	0	85.2	80	120			
Surr: 4-Bromofluorobenzene	0.80		1.000		79.6	70	130			

Sample ID: **mb-64790**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **64790**	RunNo: **84854**
Prep Date: **12/29/2021**	Analysis Date: **12/30/2021**	SeqNo: **2984959** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.81		1.000		80.6	70	130			

Sample ID: **lcs-64790**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **64790**	RunNo: **84854**
Prep Date: **12/29/2021**	Analysis Date: **12/30/2021**	SeqNo: **2984960** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.4	80	120			
Toluene	0.89	0.050	1.000	0	88.5	80	120			
Ethylbenzene	0.89	0.050	1.000	0	88.9	80	120			
Xylenes, Total	2.6	0.10	3.000	0	86.8	80	120			
Surr: 4-Bromofluorobenzene	0.82		1.000		81.7	70	130			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2112D89**
07-Jan-22

Client: Devon Energy
Project: Jayhawk 6 CTB2

Sample ID: **2112D89-026ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **WS21-04 0-0.5'** Batch ID: **64790** RunNo: **84854**
Prep Date: **12/29/2021** Analysis Date: **12/30/2021** SeqNo: **2985923** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.024	0.9524	0	90.7	80	120			
Toluene	0.86	0.048	0.9524	0	90.1	80	120			
Ethylbenzene	0.87	0.048	0.9524	0	90.9	80	120			
Xylenes, Total	2.5	0.095	2.857	0	88.1	80	120			
Surr: 4-Bromofluorobenzene	0.75		0.9524		78.5	70	130			

Sample ID: **2112D89-026amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **WS21-04 0-0.5'** Batch ID: **64790** RunNo: **84854**
Prep Date: **12/29/2021** Analysis Date: **12/30/2021** SeqNo: **2985925** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.024	0.9579	0	92.1	80	120	2.11	20	
Toluene	0.88	0.048	0.9579	0	91.7	80	120	2.26	20	
Ethylbenzene	0.88	0.048	0.9579	0	92.1	80	120	1.86	20	
Xylenes, Total	2.6	0.096	2.874	0	89.2	80	120	1.78	20	
Surr: 4-Bromofluorobenzene	0.77		0.9579		80.8	70	130	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Devon Energy | Work Order Number: 2112D89 | RcptNo: 1

Received By: Tracy Casarrubias 12/28/2021 7:50:00 AM

Completed By: Tracy Casarrubias 12/28/2021 9:14:36 AM

Reviewed By: 12/28/21

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: JR 12/28/21

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

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

Chain-of-Custody Record

Client: Devon

Mailing Address: on file

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

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

Project Name: Jayhawk 6 CTB2

Project #: 21E-00580

Project Manager: Brandon Schafer

Sampler: JH

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 3.2 - 0.1 = 3.1 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2112D89	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
12/23	10:10	Soil	BS21-01 0.5'	4oz	ice	001										
	10:15		BS21-02			002										
	10:20		BS21-03			003										
	10:25		BS21-04			004										
	10:30		BS21-05			005										
	10:35		BS21-06			006										
	10:40		BS21-07			007										
	10:45		BS21-08			008										
	10:50		BS21-09			009										
	10:55		BS21-10			010										
	11:00		BS21-11			011										
	11:05		BS21-12			012										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					12/27/21	1230
12/27/21	1900				12/28/21	7:50

Remarks:

CC: Brandon Schafer

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: Devon

Mailing Address: on file

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5-day
☑ Standard ☑ Rush

Project Name: Jayhawk 6 CTB2

Project #: 21E-00580

Project Manager: Brandon Schafer

Sampler:

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.2-0.1=3.1 (°C)

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
12/23	2:10	Soil	BS21-13 0.5'	4oz	ice	013										
	2:15		BS21-14			014										
	2:20		BS21-15			015										
	2:25		BS21-16			016										
	2:30		BS21-17			017										
	2:35		BS21-18			018										
	2:40		BS21-19			019										
	2:45		BS21-20			020										
	2:50		BS21-21			021										
	2:55		BS21-22			022										
	12:25		WS21-01 0-0.5			023										
	12:30		WS21-02 0-0.5			024										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					12/27/21	1730
12/27/21	1900			Courier	12/28/21	7:50

Remarks: CC: Brandon Schafer

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: Devon

Mailing Address: on File

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

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

Project Name: Jayhawk 6 CTB 2

Project #: 21E-00580

Project Manager: Brandon Schafer

Sampler:

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.2-0.1=3.1 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
12/23	12:35	soil	WS21-03 0-0.5	4/oz	ice	025	X	X					X			
	12:40		WS21-04			026										
	12:45		WS21-05			027										
	12:50		WS21-06			028										
	12:55		WS21-07			029										
	1:00		WS21-08			030										
	1:05		WS21-09			031										
	1:10		WS21-10			032										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					12/27/21	730
12/27/21	1900			Via: courier	Date	Time
					12/28/21	7:50

Remarks:
CC: Brandon Schafer

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

January 19, 2022

Monica Peppin

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

RE: Jayhawk 6 CTB 2 OrderNo.: 2201507

Dear Monica Peppin:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/13/2022 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2201507**
Date Reported: **1/19/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Jayhawk 6 CTB 2
Lab ID: 2201507-001 **Matrix:** SOIL

Client Sample ID: BS21-22 0.5'
Collection Date: 1/11/2022 10:30:00 AM
Received Date: 1/13/2022 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	7.4		mg/Kg	1	1/17/2022 6:57:03 PM
Motor Oil Range Organics (MRO)	ND	37		mg/Kg	1	1/17/2022 6:57:03 PM
Surr: DNOP	76.5	70-130		%Rec	1	1/17/2022 6:57:03 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/14/2022 3:05:00 PM
Surr: BFB	86.2	70-130		%Rec	1	1/14/2022 3:05:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	1/14/2022 3:05:00 PM
Toluene	ND	0.050		mg/Kg	1	1/14/2022 3:05:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	1/14/2022 3:05:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	1/14/2022 3:05:00 PM
Surr: 4-Bromofluorobenzene	89.2	70-130		%Rec	1	1/14/2022 3:05:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	ND	60		mg/Kg	20	1/18/2022 1:11:07 PM

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2201507**

19-Jan-22

Client: Devon Energy

Project: Jayhawk 6 CTB 2

Sample ID: **MB-65063**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **65063**	RunNo: **85246**							
Prep Date: **1/17/2022**	Analysis Date: **1/18/2022**	SeqNo: **2999009**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-65063**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **65063**	RunNo: **85246**							
Prep Date: **1/17/2022**	Analysis Date: **1/18/2022**	SeqNo: **2999010**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2201507**

19-Jan-22

Client: Devon Energy

Project: Jayhawk 6 CTB 2

Sample ID: **MB-65016**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **65016**	RunNo: **85156**
Prep Date: **1/13/2022**	Analysis Date: **1/14/2022**	SeqNo: **2996380** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		106	70	130			

Sample ID: **LCS-65016**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **65016**	RunNo: **85156**
Prep Date: **1/13/2022**	Analysis Date: **1/14/2022**	SeqNo: **2996382** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	101	68.9	135			
Surr: DNOP	4.9		5.000		98.1	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2201507**

19-Jan-22

Client: Devon Energy

Project: Jayhawk 6 CTB 2

Sample ID: **mb-65013**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **65013**	RunNo: **85185**
Prep Date: **1/13/2022**	Analysis Date: **1/14/2022**	SeqNo: **2996656** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		96.4	70	130			

Sample ID: **lcs-65013**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **65013**	RunNo: **85185**
Prep Date: **1/13/2022**	Analysis Date: **1/14/2022**	SeqNo: **2996657** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.2	78.6	131			
Surr: BFB	1000		1000		101	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2201507**

19-Jan-22

Client: Devon Energy

Project: Jayhawk 6 CTB 2

Sample ID: **mb-65013**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **65013**	RunNo: **85185**
Prep Date: **1/13/2022**	Analysis Date: **1/14/2022**	SeqNo: **2996680** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.91		1.000		90.9	70	130			

Sample ID: **lcs-65013**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **65013**	RunNo: **85185**
Prep Date: **1/13/2022**	Analysis Date: **1/14/2022**	SeqNo: **2996681** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.2	80	120			
Toluene	0.97	0.050	1.000	0	97.3	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.0	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.1	80	120			
Surr: 4-Bromofluorobenzene	0.89		1.000		89.5	70	130			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Devon Energy** Work Order Number: **2201507** RcptNo: 1

Received By: **Cheyenne Cason** **1/13/2022 8:00:00 AM** CM

Completed By: **Cheyenne Cason** **1/13/2022 8:20:15 AM** CM

Reviewed By: KPG 1/13/22

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: CM 1/13/22

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Not Present			

Chain-of-Custody Record

Client: DEVON

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush 5 Day

Project Name: Jayhawk 6 CTB 2

Project #: 21E-00580-007

Project Manager: Monica Peppin

Sampler: AH

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 2.8-0=2.8 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2201507
1-11-22	1030	Soil	BS21-22 0.5'	6 Glass Jar	ICE	001

Analysis Request

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

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
1-12-22	0820			-	1/12/22	920
1/12/22	1900		CME courier		1/13/22	0800

Remarks: cc: Monica Peppin
mpeppin@vertex.ca
Dale Woodall dale.woodall@dvn.com

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

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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

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

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 79972
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	When resampling an area, example BS22-22, if sample does not meet closure criteria, the OCD requires samples to exceed the depth last sample taken. In BS22-22 case of 0.5ft bgs, the OCD in future will require a depth of 2ft bgs proving sample meets closure.	2/24/2022
chensley	NOTE: The OCD requires a copy of all correspondence relative to remedial projects be included in all proposal and/or final closure reports. Correspondence required to be included in reports may include, but not necessarily limited to, extension requests, liner inspection notifications, sample event notifications, spill/release/fire notifications, and variance requests. This will allow for notifications and requests to become a documented part of the incident file.	2/24/2022