VERTEX

January 9, 2022 Vertex Project #: 21E-02589-001

Spill Closure Report: Rushing Intersection (Section 7, Township 19 South, Range 25 East)
API: N/A
County: Eddy
Incident Report: nAPP2123949031

Prepared For: Lucid Artesia Company
201 South 4th Street
Artesia, New Mexico 88210

New Mexico Oil Conservation Division - District Artesia
811 South 1st Street
Artesia, New Mexico 88210

Lucid Artesia Company retained Vertex Resource Services Inc. (Vertex) to conduct a Spill Assessment for a release of natural gas that was likely caused by corrosion or failure at a pipeline connection on the right-of-way for the EOG Y Resources, Inc., and Lucid Artesia Company Rushing Intersection, incident nAPP2123949031 (hereafter referred to as "Rushing"). A copy of the New Mexico Oil Conservation Division (NMOCD) C-141 Report is included in Attachment 1. This letter provides a description of the Spill Assessment and includes a request for Spill Closure. The spill area is located at N 32.678000, W -104.523421.

Background

The site is located approximately eight miles northwest of Seven Rivers, New Mexico. The legal location for the site is Section 7, Township 19 South and Range 25 East in Eddy County, New Mexico. The spill area is located on private property. An aerial photograph and site schematic are presented on Figure 1 (Attachment 2).

The Geological Map of New Mexico (New Mexico Bureau of Geology and Mineral Resources, 2021 indicates the site's surface geology is comprised primarily of Qp - Piedmont alluvial deposits (Holocene to lower Pleistocene) and is characterized as residuum weathered from limestone. The Natural Resources Conservation Service Web Soil Survey characterizes the soil at Rushing as loamy. This soil tends to be well drained with low runoff with moderate available water capacity (United States Department of Agriculture, Natural Resources Conservation Service, 2021). There is medium potential for karst geology near Rushing (United States Department of the Interior, Bureau of Land Management, 2020).

The surrounding landscape is associated with alluvial fans and fan remnants typical of elevations between 1,100 to 5,400 feet above sea level. The climate is semi-arid with average annual precipitation ranging between 6 to 14 inches. Historically, the plant communities in this area have been dominated by black grama, tobosa, bunch grasses, midgrasses, soap tree yucca, ephedra, fourwing saltbrush, forbs, broom snakeweed and prickly pear. Mesquite, tarbush, and creosote bush can be invasive and pose the greatest threat to dominate Rushing in the long term after disturbance (United States Department of Agriculture, Natural Resources Conservation Service, 2020).

There is no surface water located on-site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 New Mexico Administrative Code (NMAC), is the Pecos River, located approximately 13 miles to the east of the site (Google Earth Pro, 2021). There are no continuously flowing watercourses, lakebeds, sinkholes, playa lakes, or other critical water or community features at Rushing, as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

Incident Description

The spill occurred on October 7, 2020, due to corrosion or failure at a pipeline connection. The spill was reported on August 27, 2021, and involved the release of an unknown amount of natural gas. Approximately zero Mcf of free gas was removed during initial spill clean-up. The NMOCD C-141 Report: nAPP2123949031 is included in Attachment 1. The Daily Field Report (DFRs) and site photographs are included in Attachment 3.

Closure Criteria Determination

The depth to groundwater was determined using information from Oil and Gas Drilling records and the New Mexico Office of the State Engineer Water Column/Average Depth to Water report and United States Geological Survey. A 0.5-mile search radius was used to determine groundwater depth. The closest recorded depth to groundwater was determined to be 262 feet below ground surface (bgs) and 1.02 miles from the site. Documentation used in Closure Criteria Determination research is included in Attachment 4.

Using site characterization information, a closure criteria determination worksheet (Attachment 4) 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. This site does not fall under any special case scenarios but is located within pastureland; therefore, it was determined that the less than 50 feet to groundwater criteria applies at the site.

Closure Criteria Worksheet			
Site Name: Rushing Intersection			
Spill Coordinates:		**X: 32.678000**	**Y: -104.523421**
Site Specific Conditions		**Value**	**Unit**
1	Depth to Groundwater	**0**	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	68,612	feet
3	Within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	52,707	feet
4	Within 300 feet from an occupied residence, school, hospital, institution, or church	17,997	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, **or**	17,997	feet
	ii) Within 1000 feet of any fresh water well or spring	17,997	feet

6	Within incorporated municipal boundaries or within a defined municipal freshwater field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	2,257	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Medium	Critical High Medium Low
10	Within a 100-year Floodplain	>100	year
11	Soil Type	RE	Reagan-Upton
12	Ecological Classification	Loamy	
13	Geology	Qp	Piedmont alluvial deposits
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	<50'	<50' 51-100' >100'

The closure criteria determined for the site are associated with the following constituent concentration limits as presented in Table 1.

Table 1. Closure Criteria for Soils Impacted by a Release

Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Limit
< 50 feet	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

Remedial Actions Taken

An initial site inspection of the spill area was completed on June 26, 2021. The delineation of the area subsequently began and concluded on August 10, 2021. A Vertex field technician identified the area of the spill specified in the initial C-141 Report, estimated the approximate volume of the spill, and white-lined the area required for the 811 “One Call” request during the delineation. The pipeline intersection on the right-of-way had already been partially excavated by the other operator completing remediation. The impacted area was determined to be approximately 68 feet long and

66 feet wide; the total affected area was determined to be 1,085 square feet. The DFR associated with the site inspection is included in Attachment 3.

Remediation efforts began on October 25, 2021, and were completed on December 7, 2021. Vertex personnel supervised the excavation of impacted soils. Field screening was completed on a total of 12 sample points and consisted of analysis using a Photo Ionization Detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and Titration/EC Meter (chlorides). Field screening results were used to identify areas requiring further remediation from those areas showing concentrations below determined closure criteria levels. Soils were removed to a depth of 16 feet bgs. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility. Field screening results are presented in Attachment 5, as well as in the DFRs in Attachment 3.

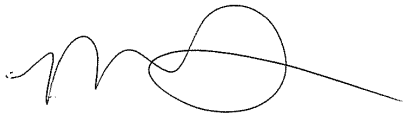
Notification that confirmatory samples were being collected was provided to the NMOCD on October 26, 2021, and are included in Attachment 6. Confirmatory composite samples were collected from the base and walls of the excavation in 200 square foot increments. A total of 11 samples were collected during this event for laboratory analysis following NMOCD soil sampling procedures. Samples were submitted to Hall Environmental Analysis Laboratory under chain-of-custody protocols and analyzed for BTEX (EPA Method 8021B), total petroleum hydrocarbons (GRO, DRO, MRO – EPA Method 8015D) and total chlorides (EPA Method 300.0). Laboratory results are presented in Table 3 (Attachment 5) and the laboratory data report is included in Attachment 7. All confirmatory samples collected and analyzed were below closure criteria for the site.

An additional sampling notification was provided to NMOCD on December 2, 2021, and is included in Attachment 6. One additional confirmatory sample was collected from the north wall of the excavation where staining was visually observed by the landowner and was addressed. The area of soil staining was removed from underneath the flowlines and field screened to confirm the sample was below allowable concentration levels.

Closure Request

The spill area was fully delineated horizontally and vertically from 8 feet to 16 feet bgs as stipulated in a responsibility agreement between the landowner and Lucid Artesia Company. Following remedial activities, the site was backfilled with local soils by December 11, 2021. The Confirmatory Sample Notification emails are included in Attachment 6. Confirmatory samples were analyzed by the laboratory and found to be below allowable concentrations as per the NMAC Closure Criteria for Soils Impacted by a Release locations “under 50 feet to groundwater”. There are no anticipated risks to human, ecological, or hydrological receptors associated with the release site. Based on these findings, Lucid Artesia Company requests that this spill (nAPP2123949031) be closed. Lucid Artesia Company certifies the information in the report and attachments is correct.

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



01/10/2022

Monica Peppin
SENIOR ENVIRONMENTAL TECHINICIAN, REPORTING

Date

01/10/2022

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

Date

Attachments

Attachment 1. NMOCD C-141 Report
Attachment 2. Site Schematics
Attachment 3. Daily Field Report(s) with Pictures
Attachment 4. Closure Criteria for Soils Impacted by a Release Research Determination Documentation
Attachment 5. Tables
Attachment 6. 48-hour Confirmatory Sampling Notifications
Attachment 7. Laboratory Data Reports and Chain of Custody Forms

Received by OCD: 1/12/2022 4:50:28 AM

References

Water Column/Average Depth to Water Report. New Mexico Water Rights Reporting System, (2021). Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html

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Interactive Geologic Map. New Mexico Bureau of Geology and Mineral Resources, (2019). Retrieved from http://geoinfo.nmt.edu

Measured Distance from the Subject Site to Residence. Google Earth Pro, (2021). Retrieved from https://earth.google.com

Point of Diversion Location Report. New Mexico Water Rights Reporting System, (2021). Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/wellSurfaceDiversion.html

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New Mexico Cave/Karsts. United States Department of the Interior, Bureau of Land Management, (2019) Retrieved from https://www.blm.gov/programs/recreation/recreation-programs/caves/new-mexico

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Natural Resources and Wildlife Oil and Gas Releases. New Mexico Oil Conservation Division, (2019). Santa Fe, New Mexico.

Soil Survey, New Mexico. United States Department of Agriculture, Soil Conservation Service in Cooperation with New Mexico Agricultural Experiment Station. (1971). Retrieved from http://www.wipp.energy.gov/library/Information_Repository_A/Supplemental_Information/Chugg%20et%20al%201971%20w-map.pdf

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Received by OCD: 1/12/2022 4:50:28 AM

Limitations

This report has been prepared for the sole benefit of Lucid Artesia Company. 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 Lucid Artesia Company. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

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

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ATTACHMENT 1

District I
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	nAPP2123949031
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Lucid Artesia Company	OGRID 147831
Contact Name Michael Gant	Contact Telephone 3143307876
Contact email MGant@lucid-energy.com	Incident # *(assigned by OCD)*
Contact mailing address 201 South 4th Street Artesia NM 88210	

Location of Release Source

Latitude 32.678000° Longitude -104.523421°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Rushing Intersection	Site Type Natural gas pipeline
Date Release Discovered 10/7/2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
G	7	19S	25E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☑ Private (*Name:* Howell Ranch)

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)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☑ Natural Gas	Volume Released (Mcf) unknown	Volume Recovered (Mcf) unknown
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Due to the historical nature of this release site the current cause is unknown. The release was likely caused by corrosion or failure at a pipeline connection. Lucid will provide more information as the remediation activities progress.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2123949031
District RP	
Facility ID	
Application ID	

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? This is considered a major release due to the unknown volume of gas loss from a pipeline connection that has been inactive since approximately 2015.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Immediate notice was not provided to OCD, as this site was being remediated for another release caused by another operator. Once confirmation of responsibility was determined Lucid promptly notified OCD and the private landowner on 8/27/2021 via email and OCD online NOR form.

Initial Response

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

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

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

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

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

Printed Name: Michael Gant
Title: Environmental Coordinator
Signature: MGant
Date: 8/27/2021
email: MGant@lucid-energy.com
Telephone: 3143307876

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2123949031
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<50 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2123949031
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: Darin B. Kennard Title: Vice President and General Manager

Signature: Darin B. Kennard Date: 1/11/2022

email: dkennard@durangomidstream.com Telephone: 8323888338

OCD Only

Received by: Date:

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2123949031
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: Darin B. Kennard Title: Vice President and General Manager

Signature: Darin B. Kennard Date: 1/11/2022

email: dkennard@durangomidstream.com Telephone: 8323888338

OCD Only

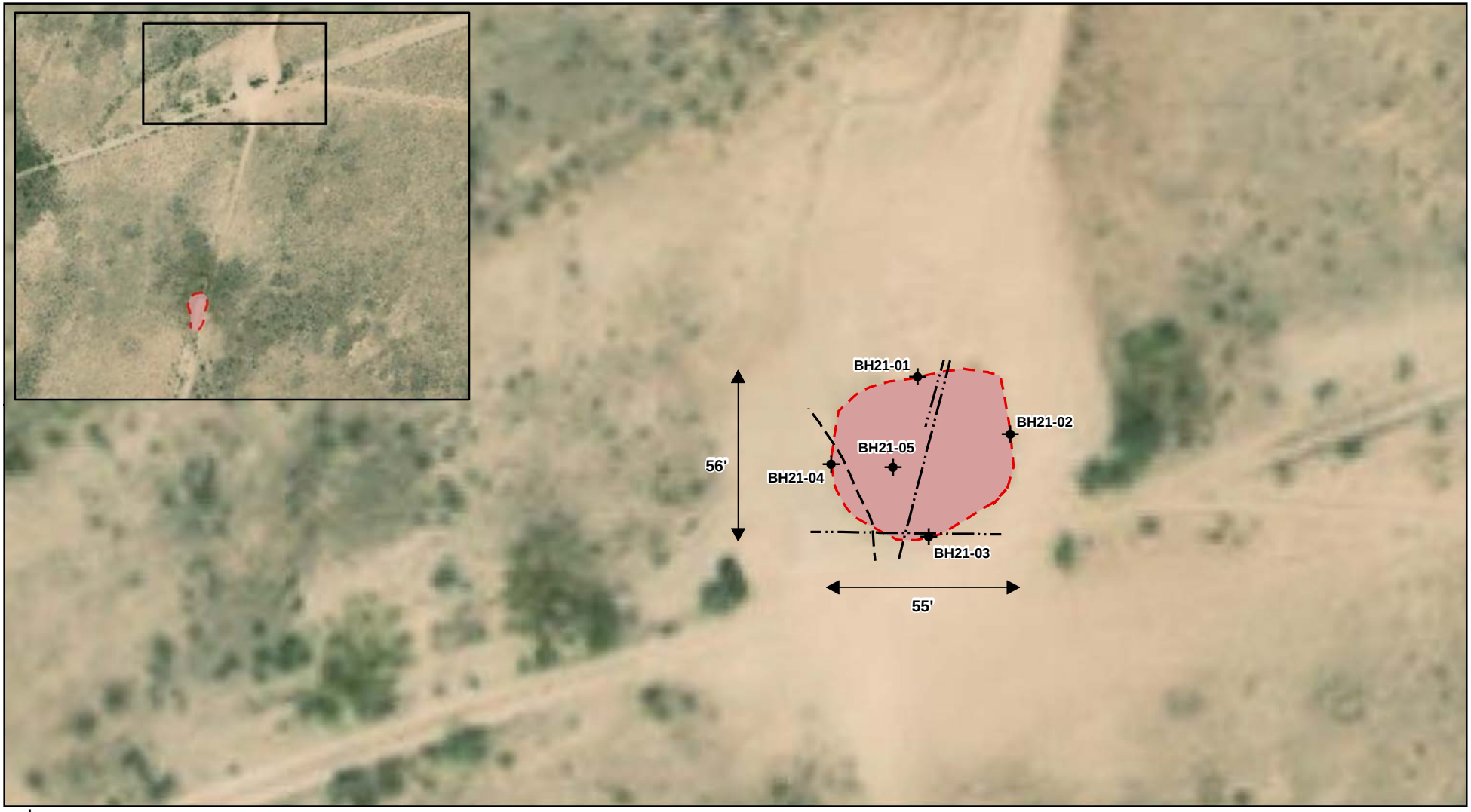
Received by: Chad Hensley Date: 02/02/2022

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: 02/02/2022

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

ATTACHMENT 2



Borehole

Live Flowline

Dead Pipeline

Approximate Release Area (2,946 sq.ft)

VERTEX

0 10 20 40 Feet

Map Center:
Lat/Long: 32.678051, -104.523496

NAD 1983 UTM Zone 13N

Date: Sep 03/21

N

Initial Characterization
Rushing Delineation

FIGURE:
1

LUCID energy group

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.

VERSATILITY. EXPERTISE.

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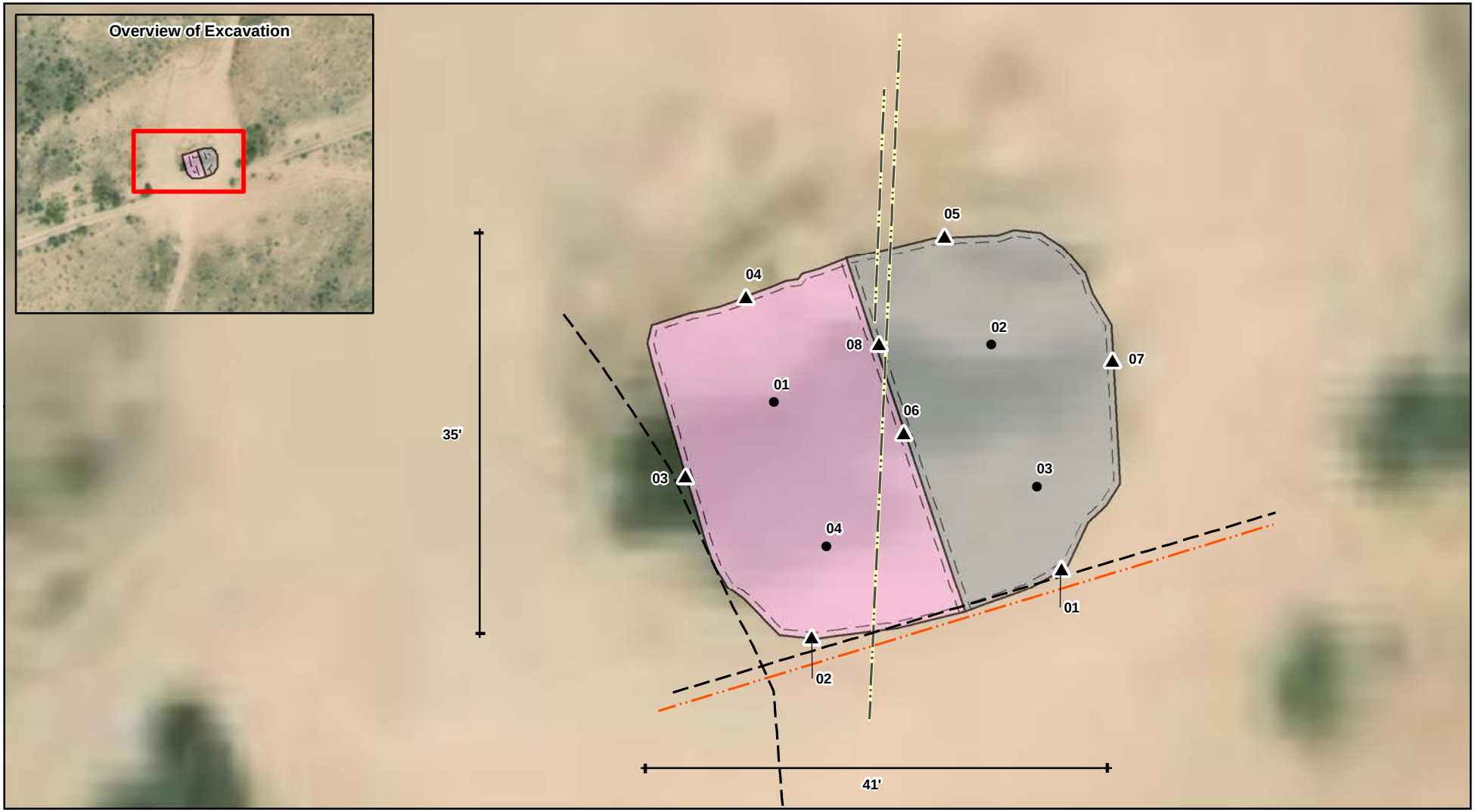

● Base Sample (Prefixed by "BS21-")
▲ Wall Sample (Prefixed by "WS21-")
Pipeline (Aboveground)
Pipeline (Underground), Dead Flowline
Pipeline (Underground), EOG Pipeline
Pipeline (Underground), Lucid Pipeline
Approximate Excavation Extent (521 sq. ft. @ 10' Depth)
Approximate Excavation Extent (564 sq. ft. @ 16' Depth)

VERTEX

0 2.5 5 10 15 Feet

Map Center:
Lat/Long: 32.678000, -104.523349

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

N

Confirmatory Schematic
Rushing Delineation

FIGURE:
2

LUCID energy group

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.

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ATTACHMENT 3

Daily Site Visit Report

Client:	Lucid Energy Group	Inspection Date:	6/26/2021
Site Location Name:	Rushing	Report Run Date:	6/26/2021 5:11 PM
Client Contact Name:	Michael Gant	API #:	
Client Contact Phone #:	(575)810-6144		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	6/26/2021 10:33 AM
Departed Site	6/26/2021 10:45 AM

Field Notes

10:40 Excavation area has sloped sides. Vegetation is growing around the outer edges

10:41 Use of backhoe or excavator would be useful to complete delineation

10:44 No staining or odor coming from area. Loamy soil

Next Steps & Recommendations

1 Complete delineation

2 Site research

Daily Site Visit Report

Site Photos

Viewing Direction: West

Excavated area

Viewing Direction: North

Excavated area

Viewing Direction: East

Excavated area

Viewing Direction: South

Excavated area

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Monica Peppin

Signature:

Daily Site Visit Report

Client:	Lucid Energy Group	Inspection Date:	8/10/2021
Site Location Name:	Rushing	Report Run Date:	8/10/2021 7:49 PM
Client Contact Name:	Michael Gant	API #:	
Client Contact Phone #:	(575)810-6144		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	8/10/2021 7:45 AM
Departed Site	8/10/2021 12:22 PM

Field Notes

10:38 Arrived on site to complete delineation

13:44 Ran 4 sidewalk borehole samples on all four directions (BH1-4) and are clean on PID and EC

13:46 Vertical borehole (BH5) in the middle is clean on PID, EC, and PetroFlag at 20ft

10:40 Area was already excavated down to 8ft from past eog work

Next Steps & Recommendations

1 Wait for Lucid to decide what next steps are

Daily Site Visit Report

Site Photos

Viewing Direction: South

Current excavation

Viewing Direction: Southeast

BH5 vertical borehole 20ft

Viewing Direction: West

Current excavation

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Chance Dixon

Signature: 

Signature

Spill Response and Sampling

VERTEX

Client: Lucid	Initial Spill Information - Record on First Visit
Date: 8/10/21	Spill Date:
Site Name:	Spill Volume:
Site Location: Rushing	Spill Cause:
Client Contact:	Spill Product:
Project Manager:	Recovered Spill Volume:
Project #:	Recovery Method:
API:	On Lease/Off Lease:
Site Wide Picture Yes/No Circle	Site Placard Picture: Yes/No Circle

Sampling

		Field Screening							'Data Collection (Check for Yes)	
		Hydrocarbon		Chloride						
Sample ID	Depth (ft)	VOC (PID)	PetroFlag TPH (ppm)	EC Reading (dS/cm)	Temp (°C)	Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Picture	Marked on Site Sketch
SS/TP/BH - Year - Number Ex. BH18-01	Ex. '2ft	400.0	200.0	0.006	25	0		BTEX TPH None		
BH21-01	0-8	0.0		0.06	23.3	ND				
BH21-02	0-8	0.0		0.06	23.0	ND				
BH21-03	0-8	0.0		0.10	24.0	ND				
BH21-04	0-8	0.1		0.08	23.5	ND				
BH21-05	10	99.9		0.19	23.3	75				
BH21-05	14	7	905	0.16	23.7	15				
BH21-05	16	41.9	204	0.10	23.8	ND				
BH21-05	20	5	67	0.09	23.0	ND				

Daily Site Visit Report

Client:	Lucid Energy Group	Inspection Date:	10/25/2021
Site Location Name:	Rushing	Report Run Date:	10/25/2021 10:49 PM
Client Contact Name:	Michael Gant	API #:	
Client Contact Phone #:	(575)810-6144		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/25/2021 8:35 AM
Departed Site	10/25/2021 3:45 PM

Field Notes

8:49 Arrived on site to begin excavation. Waiting to hear back from Lucid to get rep on site.

9:48 Lucid gave go ahead to start dig. Taking fence down and building ramps for excavator to reach bottom

10:18 Starting bottom on west side down 2ft (10ft) and grabbing five point composite sample (BS21-01)

15:14 Ran BS21-01 11-15ft. 15ft is still dirty at 156 TPH

15:15 80 yards hauled to disposal today

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: North

Fence taken down and berm being cut for ramps

Viewing Direction: North

Digging 2ft down on west side

Viewing Direction: North

BS21-01 sample area

Viewing Direction: Northeast

Stockpile with 20-40 yards on it

Daily Site Visit Report

Viewing Direction: Southeast	**Viewing Direction**: East
	
BS21-01 sample area	Excavation
Viewing Direction: North	**Viewing Direction**: West
	
Excavation	Excavation

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Chance Dixon

Signature: 

Signature

Daily Soil Sampling

Client: Client: Lucid Energy Group

Location: Site: Rushing

Date: (SD: 10/25/21)

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	12.0	5	369	0.16	23.4	28		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		√	
BES21-01	13.0	3	318	0.32	23.7	246		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		√	
BES21-01	15.0	0	156	0.23	23.5	125		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		√	

Daily Site Visit Report

Client:	Lucid Energy Group	Inspection Date:	10/26/2021
Site Location Name:	Rushing	Report Run Date:	10/26/2021 9:44 PM
Client Contact Name:	Michael Gant	API #:	
Client Contact Phone #:	(575)810-6144		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/26/2021 8:05 AM
Departed Site	10/26/2021 2:00 PM

Field Notes

9:34 Arrived on site to continue excavation

9:34 Sloped north wall to begin excavating east side of excavation two feet down for two composite samples

10:50 Pulled BH21-02 and BH21-03 and they are all clean at 10ft

10:51 Ran WS21-01 on the south wall at 9ft and it is all clean

12:46 Ran BS21-01 and BS21-04 at 16ft. All clean

12:46 Ran WS21-01-WS21-06. All clean

Next Steps & Recommendations

1 Put in 48 hour notification for confirmation sampling

Daily Site Visit Report

Site Photos

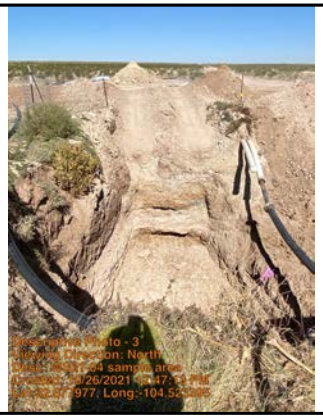
Viewing Direction: Northwest

BS21-02 and BS21-03 sample area

Viewing Direction: North

Sloped area and sample area

Viewing Direction: North



WS21-04 sample area

Viewing Direction: South

WS21-02 sample area

Daily Site Visit Report

Viewing Direction: South	**Viewing Direction**: South
	
BS21-01 and BS21-04 sample area	WS21-01 sample area
Viewing Direction: Southwest	**Viewing Direction**: East
	
WS21-03 sample area	WS21-05 sample area

Daily Site Visit Report

Viewing Direction: South

WS21-06 sample area

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Chance Dixon

Signature: _____
Signature

Daily Soil Sampling

Client: Client: Lucid Energy Group

Location: Site: Rushing

Date: (SD: 10/26/21)

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	16.0	3	92	0.10	22.3	0		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		√	
BES21-02	10.0	0	79	0.10	22.5	0		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		√	
BES21-03	10.0	0	83	0.10	22.5	0		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		√	
BES21-04	16.0	3	36	0.19	22.3	119		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		√	
WES21-01	9.0	0	92	0.14	22.1	56		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		√	
WES21-02	14.0	2	22	0.16	21.7	102		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		√	
WES21-03	14.0	2	45	0.18	21.6	135		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		√	
WES21-04	14.0	2	58	0.19	21.2	167		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		√	
WES21-05	9.0	0	75	0.09	21.4	14		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		√	

Daily Soil Sampling

WES21-06	14.0	3	95	0.20	21.4	173		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		√	

Daily Site Visit Report

Client:	Lucid Energy Group	Inspection Date:	10/28/2021
Site Location Name:	Rushing	Report Run Date:	10/29/2021 1:16 PM
Client Contact Name:	Michael Gant	API #:	
Client Contact Phone #:	(575)810-6144		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/28/2021 7:50 AM
Departed Site	10/28/2021 5:45 PM

Field Notes

8:01 Arrived on site to assess confirmation sampling

8:50 Collected and ran BS21-02-BS21-03, WS21-01, WS21-05, and WS21-07. All clean on EC, PID, and PetroFlag

10:37 Collected and ran BS21-01, BS21-04, WS21-02-WS21-04, and WS21-06. All clean on EC, PID, and PetroFlag.

12:50 Currently stockpiling caliche to be ready for backfill

17:03 200 yards of caliches staged and stockpiled next to excavation for backfill

Next Steps & Recommendations

1 Send confirmation samples to lab and await results

Daily Site Visit Report

Site Photos

Viewing Direction: North	**Viewing Direction**: North
	
Excavation	Stockpile for backfill
Viewing Direction: North	**Viewing Direction**: North
	
Sample area for BS21-02-BS21-03	Sample area for WS21-05

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: Southeast
	
Sample area for WS21-07	Sample area for WS21-01
Viewing Direction: North	**Viewing Direction**: North
	
BS21-01 and BS21-04 sample area	WS21-04 sample area

Daily Site Visit Report

Viewing Direction: South	**Viewing Direction**: West
	
WS21-02 sample area	WS21-03 sample area

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Chance Dixon

Signature: 

Signature

Daily Soil Sampling

Client: Client: Lucid Energy Group

Location: Site: Rushing

Date: (SD: 10/28/21)

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	16.0	1	20	0.14	20.5	125		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-02	10.0	1	83	0.11	18.2	181		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-03	10.0	1	31	0.16	18	262		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-04	16.0	1	62	0.16	22.1	85		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-01	9.0	0	66	0.25	18	392		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-02	14.0	1	72	0.09	19.7	88		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-03	14.0	1	14	0.10	19.5	111		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-04	14.0	2	99	0.10	19.2	124		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-05	9.0	1	95	0.20	18.2	311		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	

Daily Soil Sampling

WES21-06	14.0	0	67	0.35	18.6	510		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-07	9.0	1	53	0.10	18.1	171		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	

Daily Site Visit Report

Client:	Lucid Energy Group	Inspection Date:	11/24/2021
Site Location Name:	Rushing	Report Run Date:	11/24/2021 5:08 PM
Client Contact Name:	Michael Gant	API #:	
Client Contact Phone #:	(575)810-6144		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	11/24/2021 7:25 AM
Departed Site	11/24/2021 9:06 AM

Field Notes

7:26 Tailgate/flha safety paperwork

7:33 Site visit to see if there is visible staining and to make note and take pictures.

7:40 I see maybe a small amount of staining/discoloration on the north wall. And possibly the South wall.

7:42 Slight odor on north wall, in the grey colored dirt

7:44 On the north wall the grey colored dirt seems to be at a depth of 8-10’ down.

7:48 On the South wall the yellow colored dirt is at a rough depth of 12-14’ and could possibly go deeper. No odor.

7:48 No visible staining on east or west walls.

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: North	**Viewing Direction**: West
	
North excavation	West side wall
Viewing Direction: Northwest	**Viewing Direction**: South
	
Stock pile	South excavation

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: West
	
East excavation	West excavation

Viewing Direction: North	**Viewing Direction**: South
	
North wall, possible staining and discoloration	South wall, possible discoloration and staining

Daily Site Visit Report

Viewing Direction: East

East wall

Viewing Direction: North

North wall, grey dirt. Slight odor

Viewing Direction: South

South wall, yellow colored dirt. Could possibly go deeper

Daily Site Visit Report

Daily Site Visit Signature

Inspector: John Ramirez

Signature: 

Daily Site Visit Report

Client:	Lucid Energy Group	Inspection Date:	12/6/2021
Site Location Name:	Rushing	Report Run Date:	12/6/2021 9:06 PM
Client Contact Name:	Michael Gant	API #:	
Client Contact Phone #:	(575)810-6144		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	12/6/2021 9:15 AM
Departed Site	12/6/2021 11:30 AM

Field Notes

10:40 On location to excavate portion of wall that was said to have visual staining. Area will be taken out, sampled, and field screened to verify clean and sent in for lab analysis

12:25 Staining in wall area still visible. Will continue excavation to remove staining when we arrive back on location

Next Steps & Recommendations

1. Finish excavation
2. Collect sample

Daily Site Visit Report

Site Photos

Viewing Direction: North

Wall to be excavated

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Monica Peppin

Signature: 

Daily Site Visit Report

Client:	Lucid Energy Group	Inspection Date:	12/7/2021
Site Location Name:	Rushing	Report Run Date:	12/7/2021 6:54 PM
Client Contact Name:	Michael Gant	API #:	
Client Contact Phone #:	(575)810-6144		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	12/7/2021 9:32 AM
Departed Site	12/7/2021 11:52 AM

Field Notes

9:33 Finish excavation of visible staining in north sidewall

10:43 As ground is busted to remove staining strong odor is coming from spot being removed

10:50 Soil has a definite change in color as staining is removed. Collection of sample to be taken from underneath flowlines

10:55 Wall sample collected has no odor or discoloration to it. Field screening of sample to determine if any contamination is left

11:27 Wall sample taken at a depth of 10 feet to assess the area with visible staining. Low PID reading at 0.5. Titration ran at 85 and petroflag came back at 26

Next Steps & Recommendations

1 Sample to lab for analysis

Daily Site Visit Report

Site Photos

Viewing Direction: Northeast	**Viewing Direction**: North
	
Visible staining	Excavation from yesterday
Viewing Direction: East	**Viewing Direction**: Northeast
	
Stained portion	Part of wall taken out

Daily Site Visit Report

Viewing Direction: Northeast

Portion under piping being removed

Viewing Direction: Northeast

Area where sample collected

Viewing Direction: North

Remainder of soil to be removed

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Monica Peppin

Signature:

Signature

Daily Soil Sampling

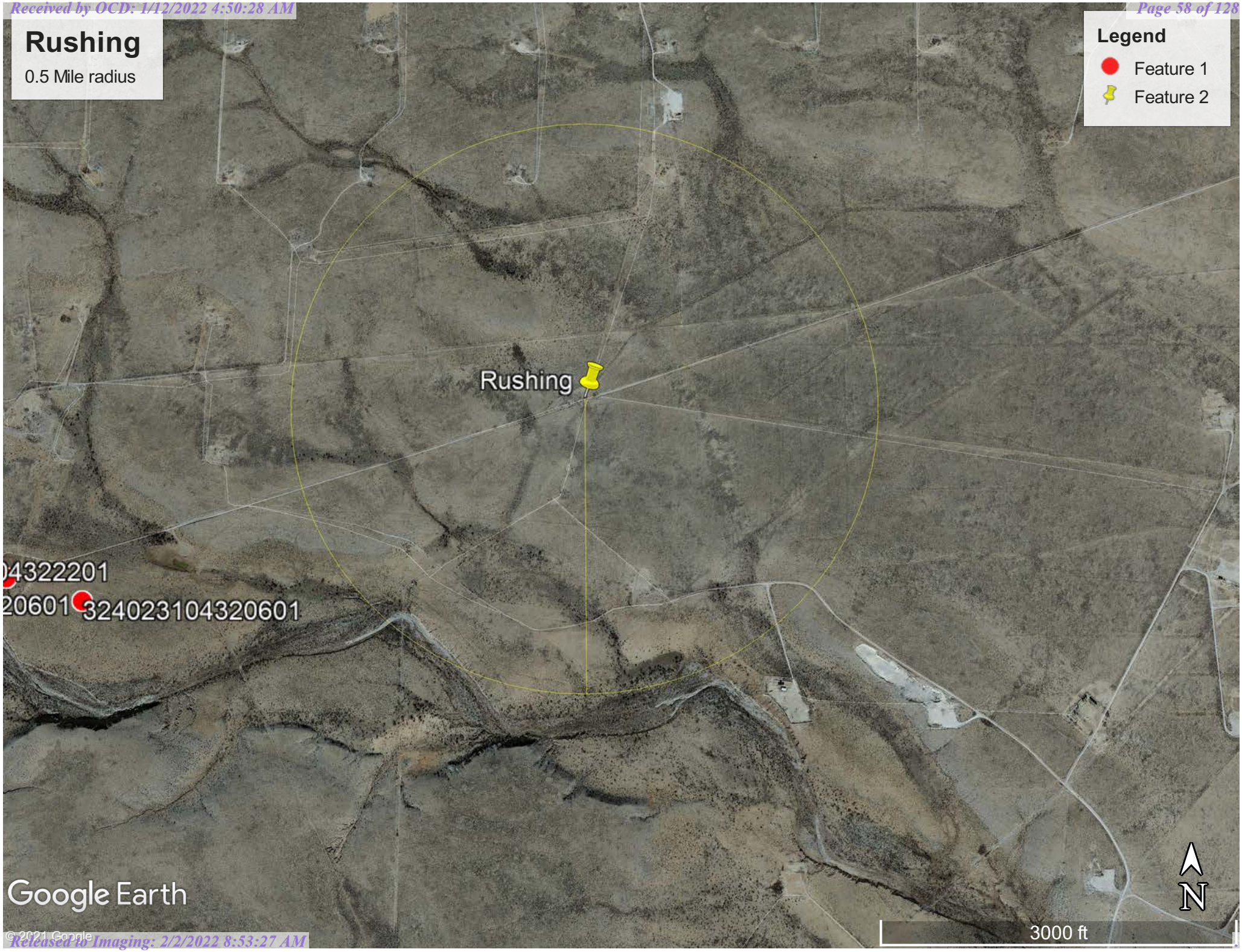
Client: Client: Lucid Energy Group

Location: Site: Rushing

Date: (SD: 12/7/21)

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)
WES21-08	10.0	0	26				85	Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	

ATTACHMENT 4


Rushing
0.5 Mile radius
Legend
Feature 1
Feature 2
Rushing
04322201
20601
3240231043206O1
Google Earth
© 2021 Google
3000 ft
N

Rushing Nearest OSE Well

6/29/2021, 10:47:56 AM

GIS WATERS PODs

- Active

OSE District Boundary

New Mexico State Trust Lands

- Subsurface Estate
- Both Estates
- SiteBoundaries

1:9,028

0 0.07 0.15 0.3 mi

0 0.13 0.25 0.5 km

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

Printed from Public Web Map
Unofficial Map from OSE POD Locations Web Application

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	RA 05331	1	1	4	05	19S	25E	546308	3616955*

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

Driller License: 353 **Driller Company:** OSBOURN DRILLING & PUMP CO.

Driller Name:

Drill Start Date: 04/05/1967 **Drill Finish Date:** 04/13/1967 **Plug Date:**

Log File Date: 04/17/1967 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 5.50 **Depth Well:** 460 feet **Depth Water:** 305 feet

Water Bearing Stratifications:	Top	Bottom	Description
	328	364	Limestone/Dolomite/Chalk
	398	440	Other/Unknown

Casing Perforations:	Top	Bottom
	400	440

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

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.


Rushing
Nearest USGS Well: 32402410432221
Distance: 1.02 miles
DTGW: 262 ft
Year data collected: 1994
Legend
Feature 1
Feature 2
Rushing
22201 324024104322201
40231043206O1 324023104320601
Google Earth
© 2021 Google
2000 ft
N

National Water Information System: Web Interface

USGS Water Resources

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

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News
- **June 29, 2021 - we are experiencing an outage on some realtime data sites. We are actively investigating it now. A follow up message will be posted when resolved.**

Groundwater levels for the Nation

* IMPORTANT: Next Generation Station Page

Search Results -- 1 sites found

site_no list =

- 324024104322201

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

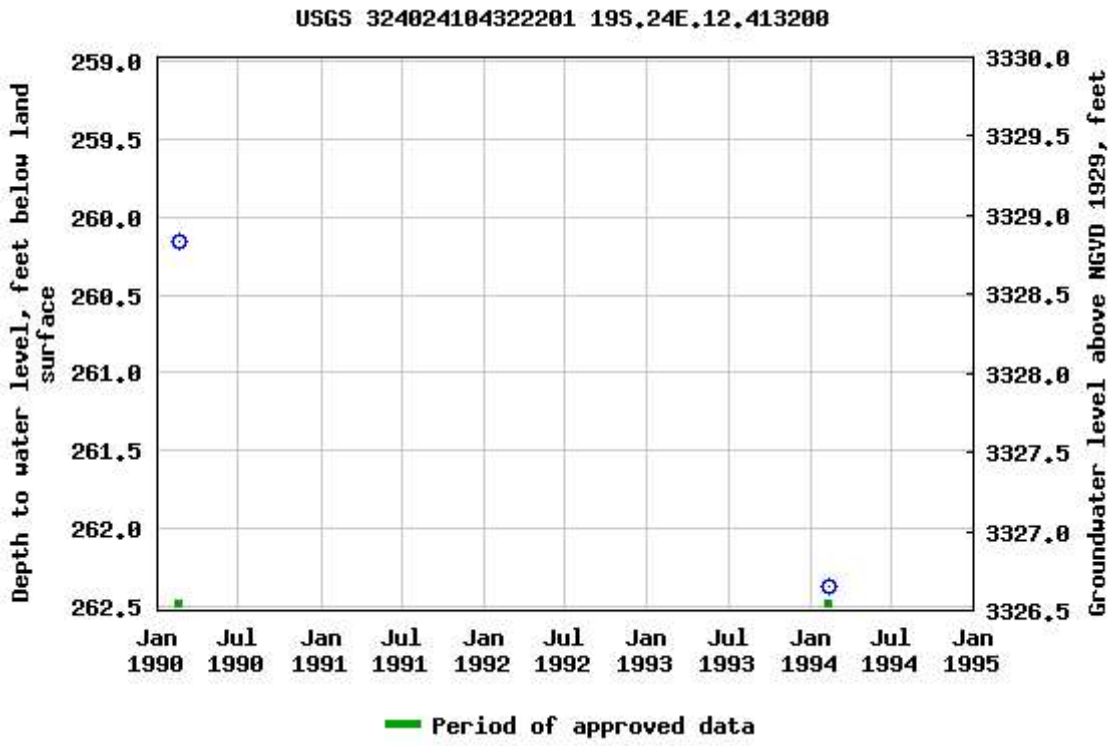
USGS 324024104322201 19S.24E.12.413200

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

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°40'24", Longitude 104°32'22" NAD27
Land-surface elevation 3,589 feet above NGVD29
This well is completed in the Roswell Basin aquifer system (S400RSWLBS) national aquifer.
This well is completed in the Artesia Group (313ARTS) 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

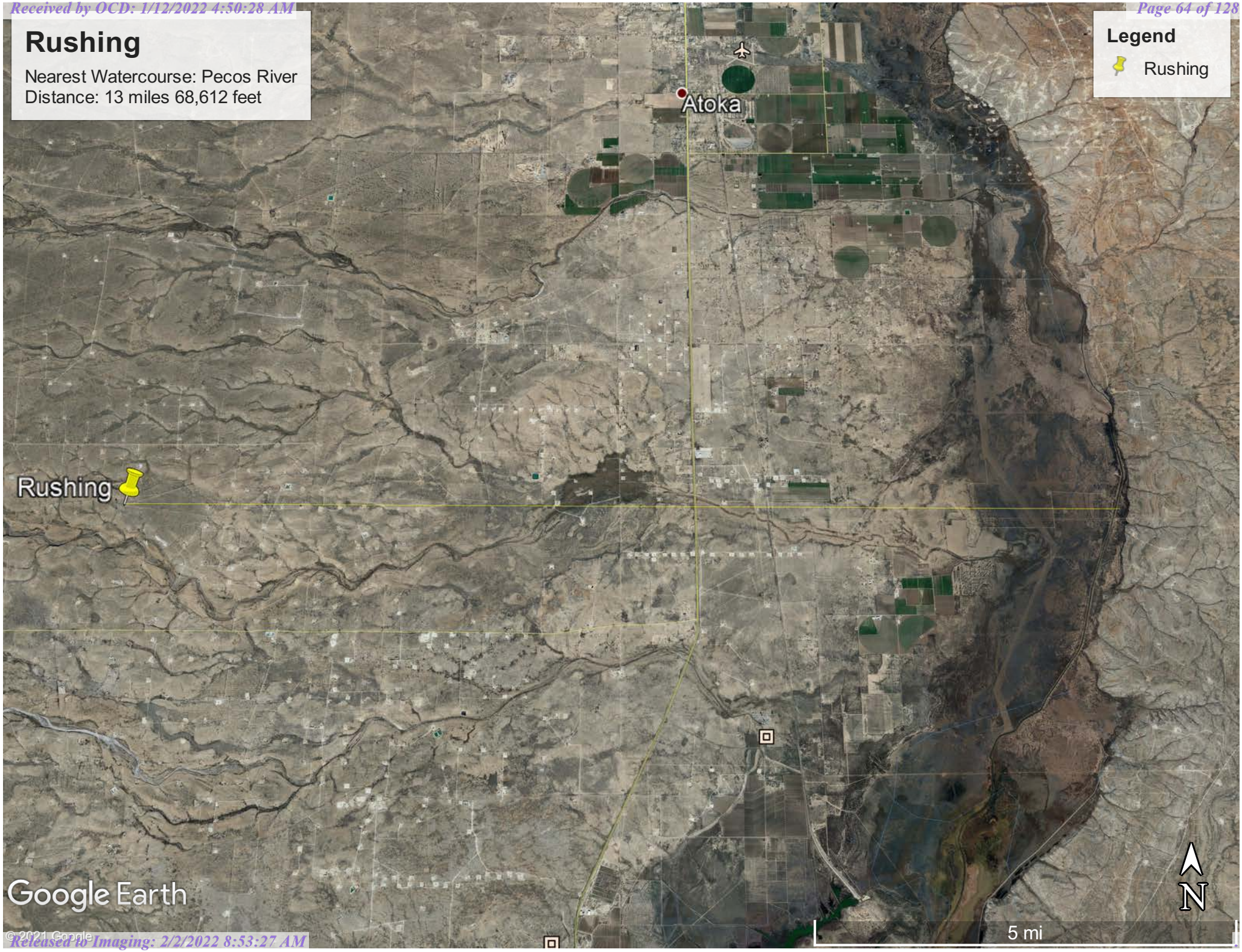
Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey
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: 2021-06-29 12:44:02 EDT
0.55 0.48 nadww02

Rushing

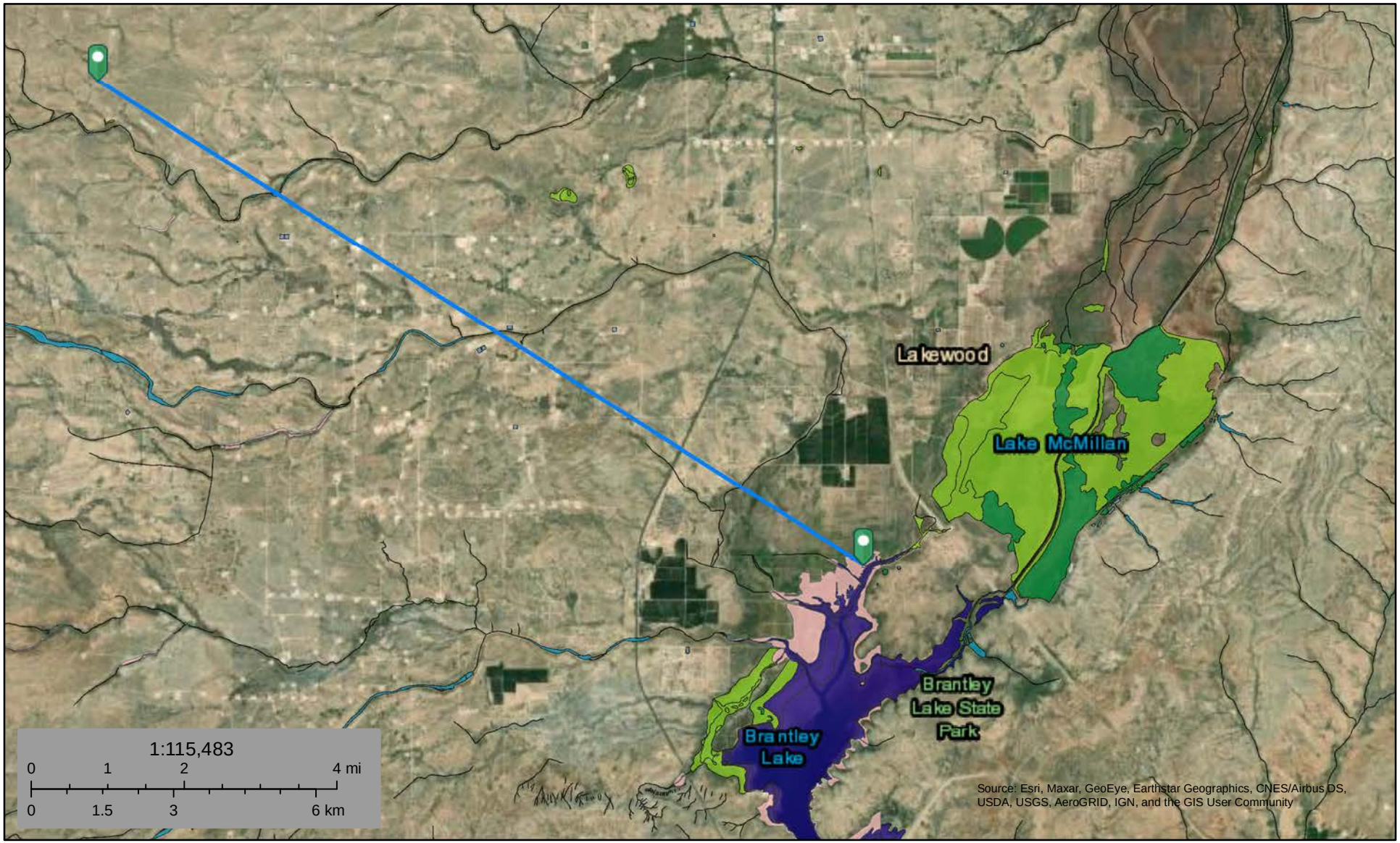
Nearest Watercourse: Pecos River
Distance: 13 miles 68,612 feet



Received by OCD: 1/12/2022 4:50:28 AM

U.S. Fish and Wildlife Service
National Wetlands Inventory

Rushing Lakebed



June 29, 2021

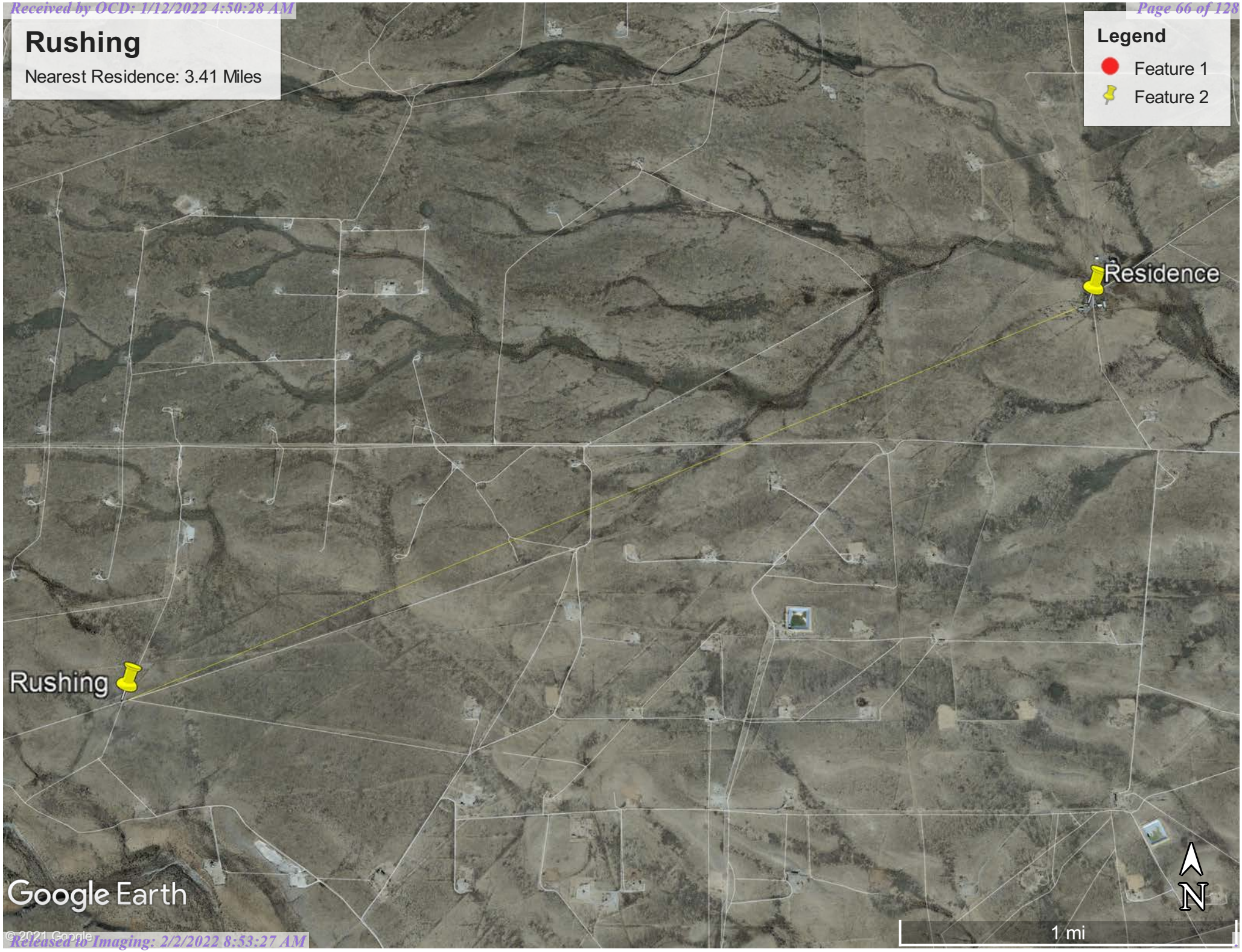
Wetlands

- 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

Released to Imaging: 2/2/2022 8:53:27 AM

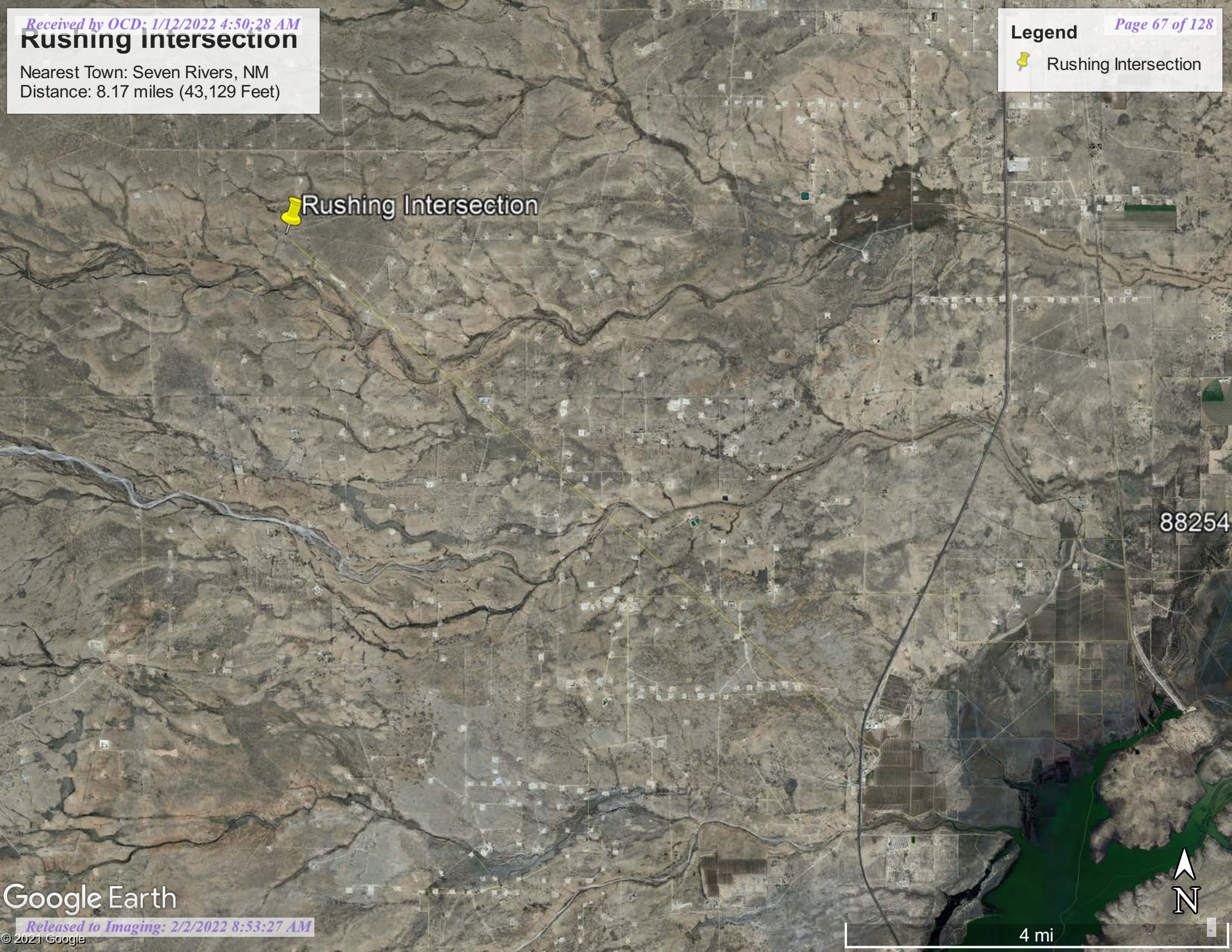

Rushing
Nearest Residence: 3.41 Miles
Legend
Feature 1
Feature 2
Residence
Rushing
Google Earth
© 2021 Google
1 mi
N

Rushing Intersection

Nearest Town: Seven Rivers, NM
Distance: 8.17 miles (43,129 Feet)

Legend

Rushing Intersection



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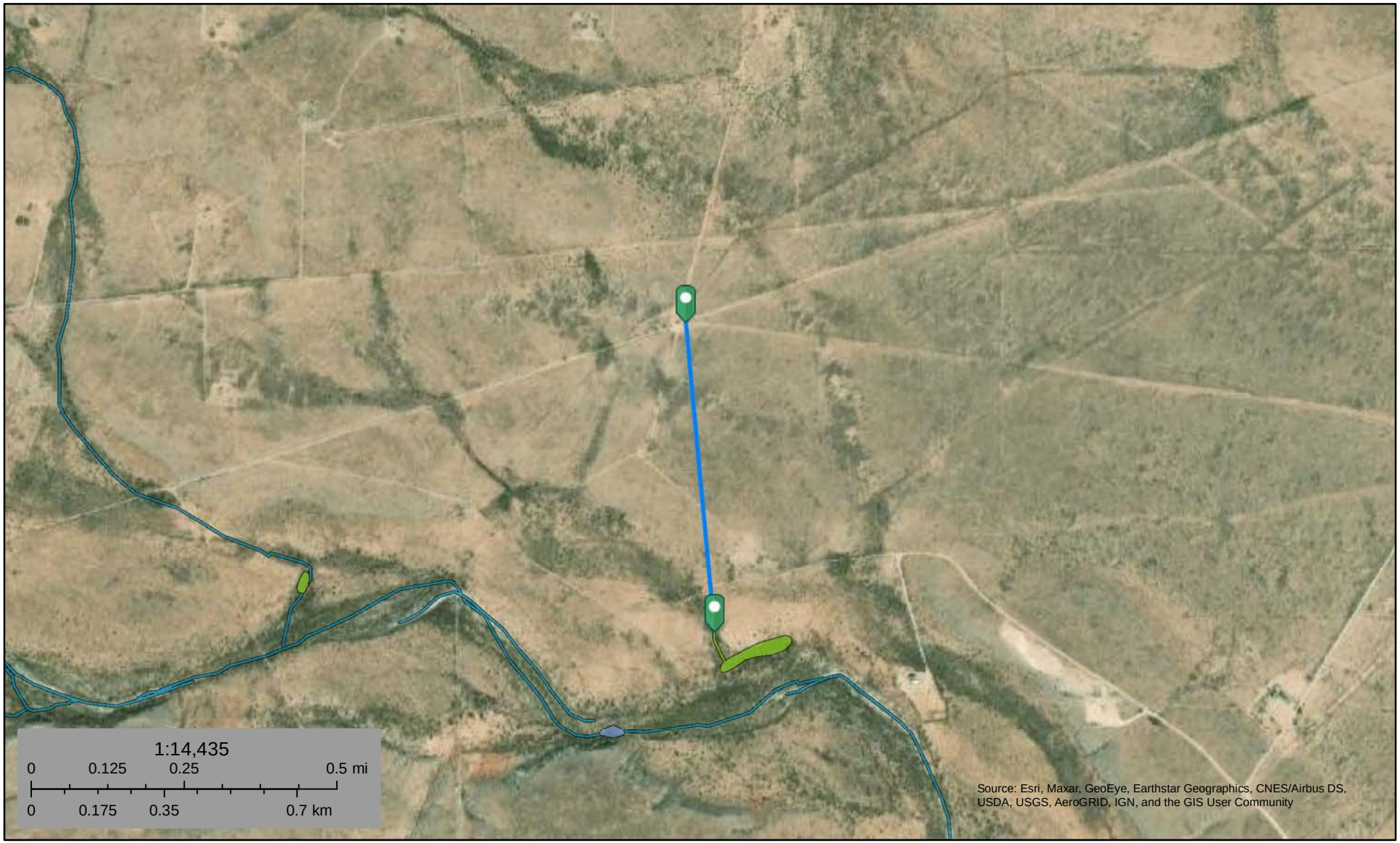
Received by OCD: 1/12/2022 4:50:28 AM

U.S. Fish and Wildlife Service
National Wetlands Inventory

Rushing Wetlands



June 29, 2021

Wetlands

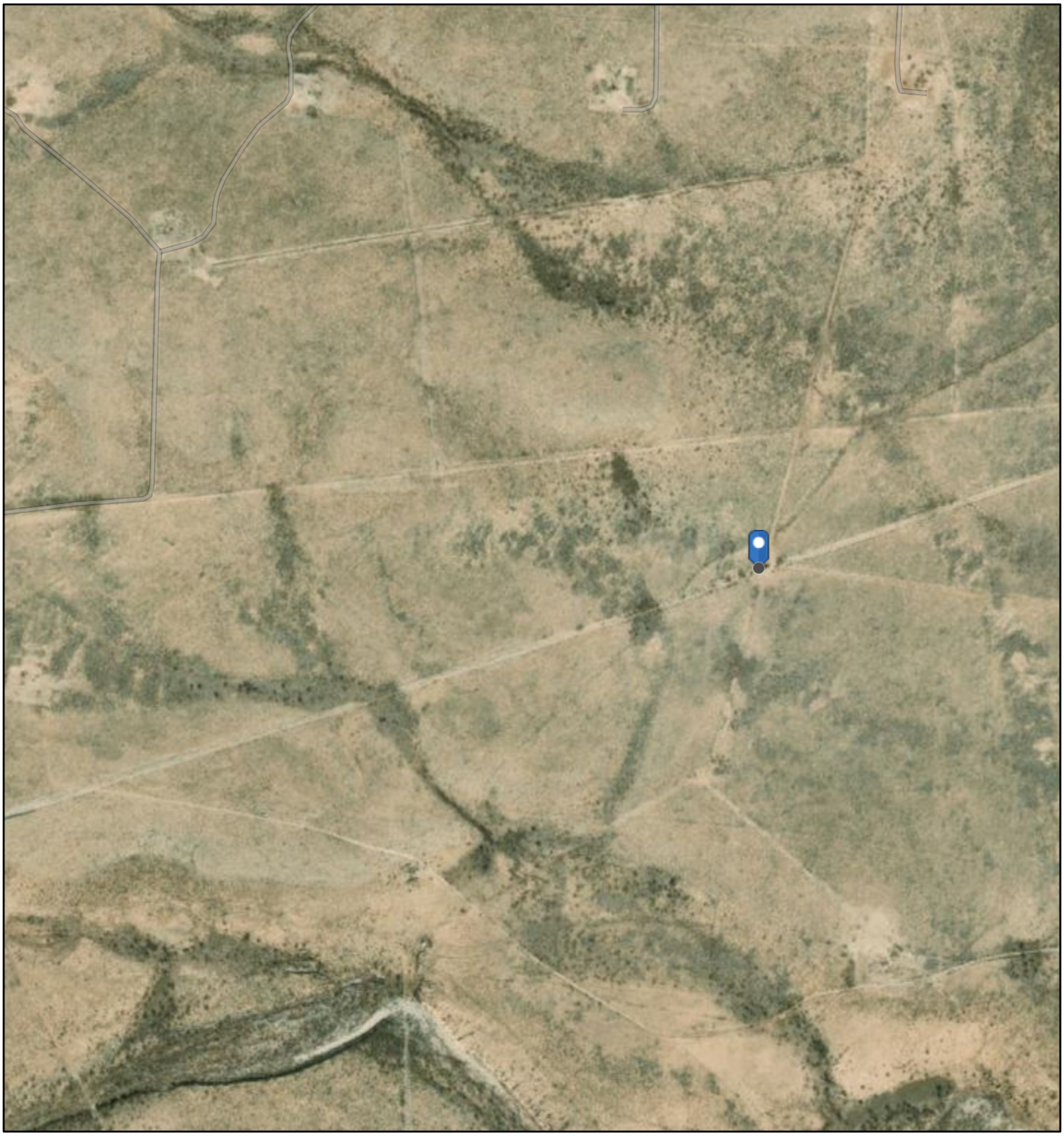
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

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

Released to Imaging: 2/2/2022 8:53:27 AM

Rushing Intersection



12/29/2021, 10:07:19 AM

1:9,028

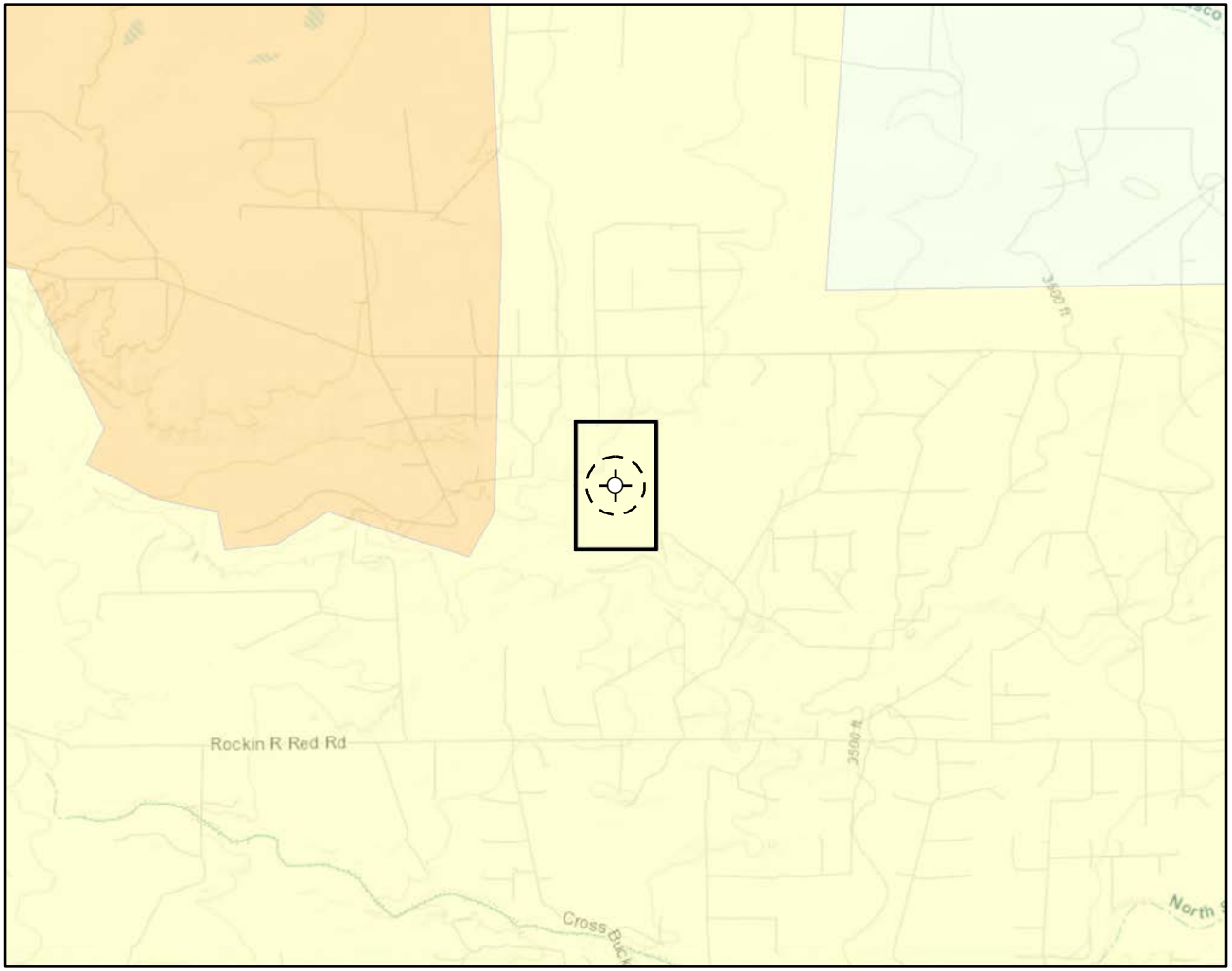
0 0.05 0.1 0.2 mi

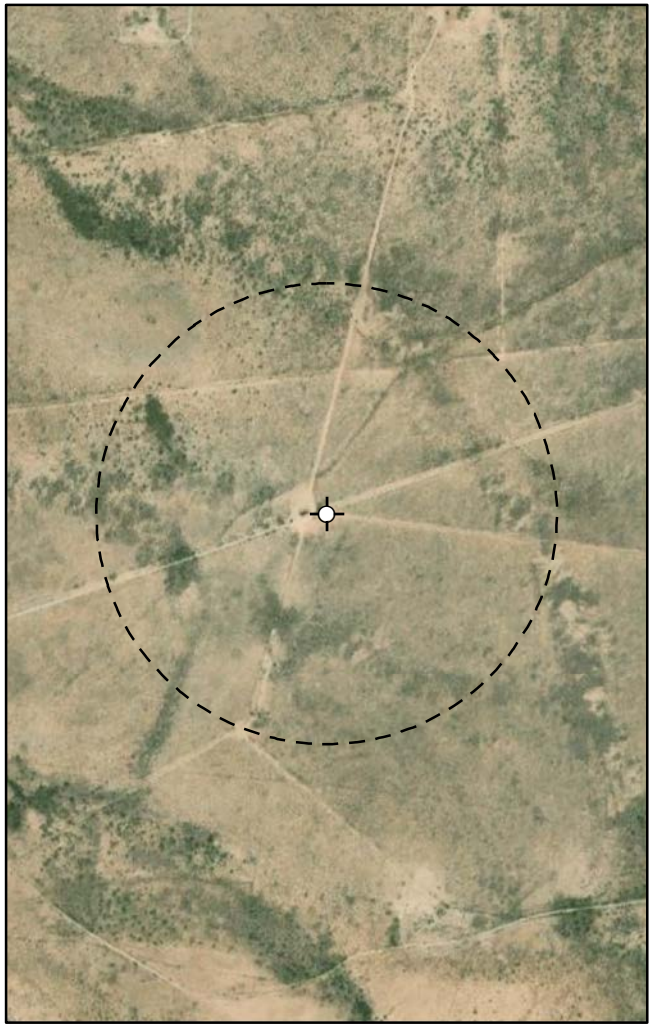
0 0.1 0.2 0.4 km

Esri Community Maps Contributors, New Mexico State University, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Maxar

EMNRD MMD GIS Coordinator

New Energy, Minerals and Natural Resources Department (http://nm-emnrd.maps.arcgis.com/apps/webappbuilder/index.html?id=7ebfa3c432db42978d66c99a9cc8311a)





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: 32.678000, -104.523000

NAD 1983 UTM Zone 13N
Date: Jul 09/21

N

Karst Potential Map
Rushing Delineation

FIGURE:
X

LUCID energy group

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

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECT S\Lucid Energy Group\001 - Rushing Delineation\Fig. X Karst Potential Map (Rushing).mxd

Received by OCD: 1/12/2022 4:50:28 AM

National Flood Hazard Layer FIRMette

FEMA

104°31'43"W 32°40'56"N

104°31'6"W 32°40'26"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.

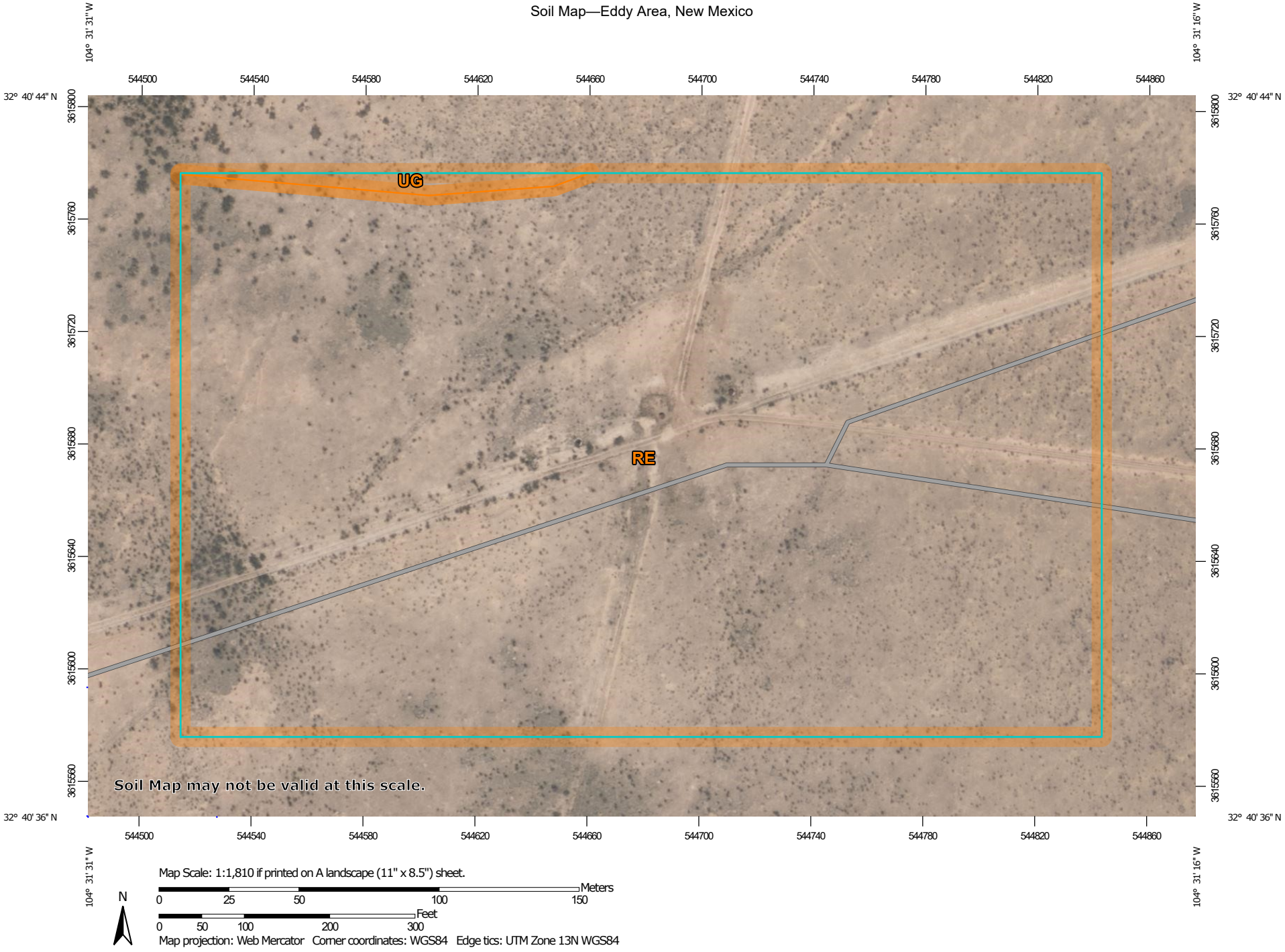
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/29/2021 at 2:22 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.

Released to Imaging: 2/2/2022 8:53:27 AM

Soil Map—Eddy Area, New Mexico



Map Scale: 1:1,810 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 25 50 100 150

Feet: 0 50 100 200 300

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

Received by OCD: 1/12/2022 4:50:28 AM

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 16, Jun 8, 2020

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

Date(s) aerial images were photographed: Feb 27, 2020—Feb 28, 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.

Released to Imaging: 2/2/2022 8:53:27 AM

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
RE	Reagan-Upton association, 0 to 9 percent slopes	16.2	99.0%
UG	Upton gravelly loam, 0 to 9 percent slopes	0.2	1.0%
Totals for Area of Interest		**16.4**	**100.0%**

Eddy Area, New Mexico

RE—Reagan-Upton association, 0 to 9 percent slopes

Map Unit Setting

National map unit symbol: 1w5d
Elevation: 1,100 to 5,400 feet
Mean annual precipitation: 6 to 14 inches
Mean annual air temperature: 60 to 64 degrees F
Frost-free period: 180 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Reagan and similar soils: 70 percent
Upton and similar soils: 25 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reagan

Setting

Landform: Alluvial fans, fan remnants
Landform position (three-dimensional): Rise
Down-slope shape: Linear, convex
Across-slope shape: Linear
Parent material: Alluvium and/or eolian deposits

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 60 inches: loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B

Ecological site: R070DY153NM - Loamy
Hydric soil rating: No

Description of Upton

Setting

Landform: Fans, ridges
Landform position (three-dimensional): Side slope, rise
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Typical profile

H1 - 0 to 9 inches: gravelly loam
H2 - 9 to 13 inches: gravelly loam
H3 - 13 to 21 inches: cemented
H4 - 21 to 60 inches: very gravelly loam

Properties and qualities

Slope: 0 to 9 percent
Depth to restrictive feature: 7 to 20 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 75 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R070DY159NM - Shallow Loamy
Hydric soil rating: No

Minor Components

Atoka

Percent of map unit: 3 percent
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

Pima

Percent of map unit: 2 percent
Ecological site: R042XC017NM - Bottomland

Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 16, Jun 8, 2020

Ecological Reference Worksheet

Author(s) / participant(s): John Tunberg, Garth Grizzle

Contact for lead author : 505-761-4488 **Reference site used? Yes/No** No

Date: 2/17/2010 **MLRA:** 70D **Ecological Site:** Loamy This *must* be verified based on soils and climate (see Ecological Site Description). Current plant community *cannot* be used to identify the ecological site.

Indicators: For each indicator, describe the potential for the site. Where possible, **(1)** use numbers, **(2)** include expected range of values for above and below average years for **each** community within the reference state, when appropriate & **(3)** site data. Continue description on separate sheet.

1. Number and extent of rills There should not be any rills on this site at 5% or less slope. Few on slopes from 5 to 15%
After wildfires, or abnormally high human or herbivore impacts or extended drought or combinations of these disturbances rills may double in number on steeper slopes at the margins of this site after high-intensity summer thunderstorms. Any rills formed should not be long lived or interconnected and should heal rapidly.

2. Presence of water flow patterns: Large storms can produce short, less than 1 meter flow patterns across the bare patches.

None or few on less than 5% slopes. Few to several on slopes ranging from 5% to 15%. Flow pattern length of 6 to 8 feet on steeper slopes. Water flow patterns should only be present following intense storm events on upper slope limits at the margins of this site. Numerous obstructions alter flow paths. Flow pattern length and numbers may double after wildfires, or abnormally high human or herbivore impacts or extended drought or combinations of these disturbances.

3. Number and height of erosional pedestals or terracettes: Pedestals should be rare. Terracettes can be common and should be discontinuous.

If present plant or rock pedestals and terracettes are almost always in flow patterns. Wind caused pedestals are rare and only would be on the site following after wildfires, or abnormally high human or herbivore impacts or extended drought or combinations of these disturbances. These would show signs of healing within 1 year after event.

4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground) :

Bare ground can make up to 50% of the ground over on this site according to the ESD. Bare patch size should be small.

5. Number of gullies and erosion associated with gullies: Gullies and erosion associated with gullies should be rare or infrequent. Typically, gullies if present will only follow the micro topography.

Slopes over 8% may have limited gully erosion. Natural drainages with little to no active cutting are common on this site. There should not be any accelerated erosion. After high-intensity summer thunderstorms or after wildfire, or abnormally high human or herbivore impacts or extended drought or combinations of these disturbances then gully formation would be accelerated for a year or two. Evidence of healing within 1 year of event and continuing after that.

6. Extent of wind scoured, blowouts and/or depositional area

Wind scoured , blowouts and/or depositional areas should be rare and associated with disturbances (e.g. small mammal burrows, resting areas). Wind erosion is minimal when the site is in a well vegetated condition. Significant wind erosion would only be present following high-intensity summer thunderstorms, after wildfire, or abnormally high human or herbivore impacts or extended drought or combinations of these disturbances. After rain events, exposed soil surfaces form physical crusts that tend to reduce wind erosion. Deposition from off site sources can be common on this site and is in fact a primary soil forming process. This site is susceptible to wind erosion when vegetation is removed or significantly decreased.

7. Amount of litter movement (describe size and distance expected to travel) :

The size of the litter (grass litter) should be small and its movement should be less than 1 meter across bare patches.

8. Soil surface (top few mm) resistance to erosion (stability) values are averages - most sites will show a range of values for both plant canopy and interspaces, if different) :

Stability values are estimated to be 5 to 6 in plant canopy at surface and subsurface. 4 to 5 values will be in interspaces at surface and subsurface.

9. Soil surface structures and SOM content (include type and strength of structure, and A-horizon color and thickness for both plant canopy and interspaces, if different) :

For the Reakor Series in Sierra County this silt loam should have an A horizon 0-3 inches thick. It should have a weak thin platy structure and be light brown (7.5 YR 4-6/4 dry) to (7.5 YR 4/4 moist). The SOM content should be less than 1%.

10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff:

Overall, infiltration rates should be slow for this site but can be higher around bases of grasses than in interspaces and around bases of shrubs

11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction): There should not be any compaction layers on this site.

There are soil profile features in the top 9 inches of the soil profile that would be mistaken for a management induced soil compaction layer. Management induced compaction layers will be more difficult to penetrate than clay lenses.

12. Functional/Structural Groups (list in order of descending dominance by above-ground weight using symbols: indicate much

greater than (>>) , greater than (>) , and equal to (=) :

Dominants: black grama >> tobosa > C 4 bunch grasses (drop seeds) > C4 midgrasses (three awns) >= soap tree yucca, Ephedra, Fourwing saltbush >= forbs (croton, desert marigold, globe mallow, > broom snakeweed, prickly pear, = other forbs

13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence) :

Short-lived perennial component can exhibit significant mortality in drought, black grama tends to exhibit mortality only when exposed to drought in addition to other stressors. Shrubs/yucca should exhibit low mortality rates.

14. Average percent litter cover (_____ %) and depth (_____ inches).

15% litter cover on this site. Well distributed. Depth of .75 inch.

15. Expected annual production (this is <u>TOTAL</u> above-ground production, not just forage production):

(Low Production 688 lbs./ac.) (Average RV Production 989 lbs./ac.) (High Production 1290 lbs./ac.) After wildfires, high herbivore impacts, extended drought, or combinations of these disturbances, can cause production to be significantly reduced (100-200 lbs per ac. the first growing season following a wildfire) and recover slowly under below average precipitation regimes.

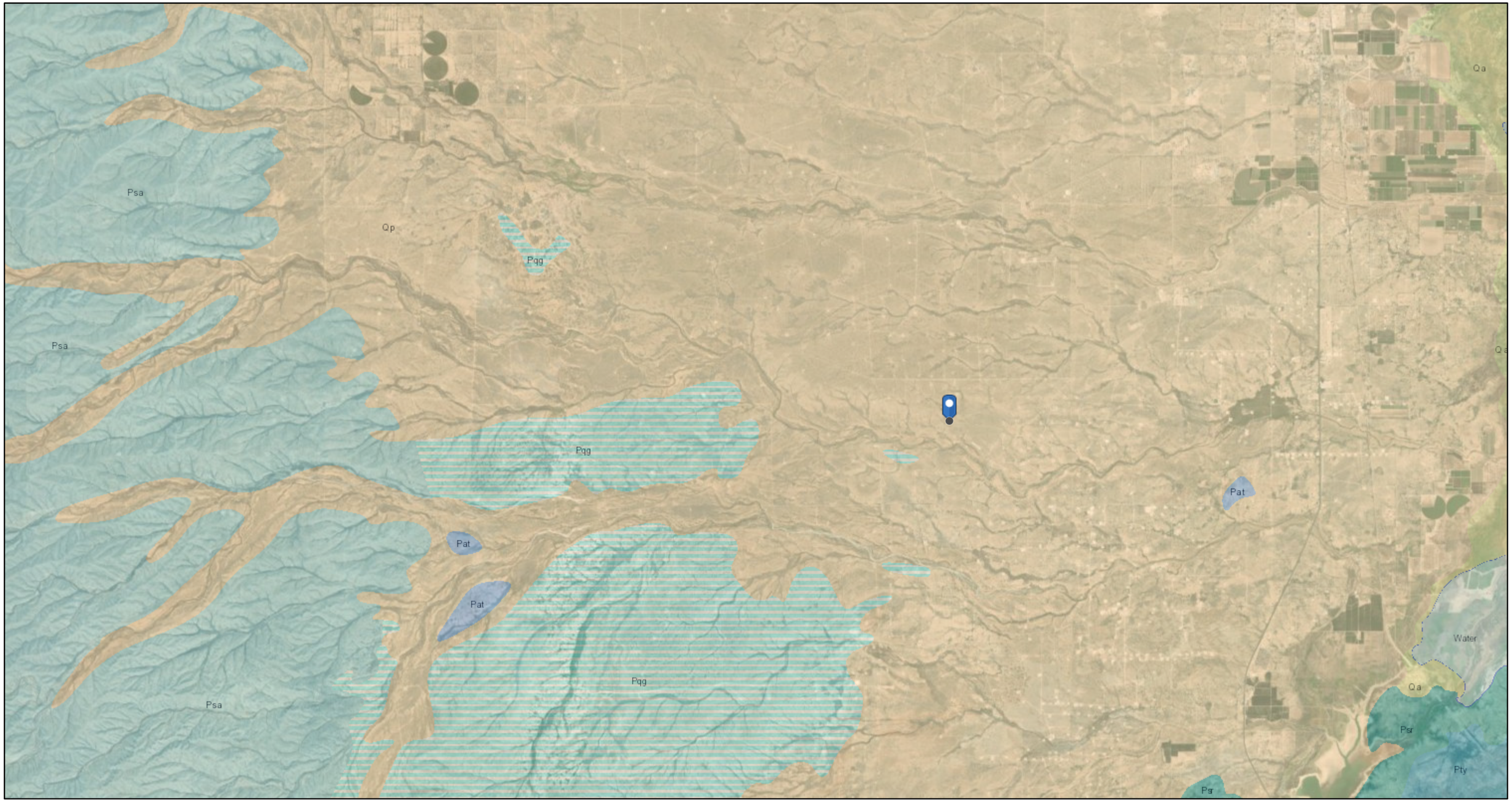
16. Potential invasive (including noxious) species (native and non-native). List species which characterize degraded states and which, after a threshold is crossed, "can, and often do , continue to increase regardless of the management of the site and may eventually dominate

Mesquite, Tarbush and creosote bush (where gravel content high) can be invaders of this site. Invasive plants should not occur in reference plant community. However, love grass, Russian thistle, kochia, and other nonnative annuals may initially invade following extended disturbance. Mesquite and tarbush and creosote and love grass are the greatest threat to dominate this site in the long term after disturbance (primarily following wildfire exclusion but also includes high human or herbivore impacts and extended drought). Mesquite and tarbush and creosote and love grass are most likely to retain dominance if allowed to alter natural fire regime (this alteration may require poor land management combined with years of wet winter-spring; dry summer-fall conditions). Any of these invaded communities represent a departure from the reference state.

17. Perennial plant reproductive capability :

Black grama reproduces by seed sporadically and reproduction by tiller and stolon can be common. The C4 midgrasses should have high reproductive potential and rapidly recover from drought in the absence of additional stresses (grazing).

Rushing Geological



6/29/2021, 10:51:53 AM

Faults

- Fault, Exposed
- Fault, Intermittent
- Fault, Concealed
- Shere Zone

1:144,448

0 1.5 3 6 mi

0 2.25 4.5 9 km

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, NMBGMR

ArcGIS Web AppBuilder

Released to Imaging: 2/2/2022 8:53:27 AM

ATTACHMENT 5

Client Name: Lucid Energy
Site Name: Rushing Intersection
NMOCD Tracking #: nAPP2123949031
Project #: 21E-02589-001
Lab Report: 2108605

Table 2. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater <50 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	0-8	8/10/2021	0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH21-02	0-8	8/10/2021	0	-	ND	ND	ND	ND	22	**100**	22	**122**	ND
BH21-03	0-8	8/10/2021	0	-	ND	ND	ND	ND	**120**	**250**	**120**	**370**	ND
BH21-04	0-8	8/10/2021	0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH21-05	10	8/10/2021	**100**	-	75	ND	ND	ND	**120**	**110**	**120**	**230**	ND
BH21-05	14	8/10/2021	7	**905**	15	-	-	-	-	-	-	-	-
BH21-05	16	8/10/2021	42	**204**	ND	ND	ND	ND	27	ND	27	27	ND
BH21-05	20	8/10/2021	5	67	ND	ND	ND	ND	15	ND	15	15	ND

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

Client Name: Lucid Energy
Site Name: Rushing Intersection
NMOCD Tracking #: nAPP2123949031
Project #: 21E-02589-001
Lab Report(s): 2110E14, 2112618

Table 3. Initial Confirmation Sample Field Screen and Laboratory Results - Depth to Groundwater <50 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)
BES21-01	16	10/28/2021	1	20	125	ND	ND	ND	ND	ND	ND	ND	ND
BES21-02	10	10/28/2021	1	83	181	ND	ND	ND	ND	ND	ND	ND	ND
BES21-03	10	10/28/2021	1	31	262	ND	ND	ND	ND	ND	ND	ND	ND
BES21-04	16	10/28/2021	1	62	85	ND	ND	ND	10	ND	10	10	ND
WES21-01	9	10/28/2021	0	66	392	ND	ND	ND	ND	ND	ND	ND	ND
WES21-02	14	10/28/2021	1	72	88	ND	ND	ND	ND	ND	ND	ND	ND
WES21-03	14	10/28/2021	1	14	111	ND	ND	ND	ND	ND	ND	ND	ND
WES21-04	14	10/28/2021	2	99	124	ND	ND	ND	ND	ND	ND	ND	ND
WES21-05	9	10/28/2021	1	95	311	ND	ND	ND	ND	ND	ND	ND	ND
WES21-06	14	10/28/2021	0	67	510	ND	ND	ND	ND	ND	ND	ND	ND
WES21-07	9	10/28/2021	1	52	171	ND	ND	ND	ND	ND	ND	ND	ND
WES21-08	10	12/7/2021	0	26	85	ND	ND	ND	ND	ND	ND	ND	ND

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

ATTACHMENT 6

Monica Peppin

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Sent: Tuesday, October 26, 2021 1:54 PM
To: mmoffit@vertex.ca; Monica Peppin
Subject: Fwd: 48 HR Notification of Confirmatory Sampling nAPP2129349031 Rushing Intersection

---------- Forwarded message ---------
From: **Dhugal Hanton** <vertexresourcegroupusa@gmail.com>
Date: Tue, Oct 26, 2021 at 1:53 PM
Subject: 48 HR Notification of Confirmatory Sampling nAPP2129349031 Rushing Intersection
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Cc: <mgant@lucid-energy.com>

All,

Please accept this email as 48-hour notification that Vertex Resource Services has scheduled confirmatory sampled to be conducted at Rushing Intersection for the following release:

nAPP2123949031 DOR: October 7, 2020

On Thursday, October 28, 2021 at approximately 8:00 AM, Chance Dixon will be onsite to conduct confirmatory sampling after excavation has been completed. Confirmation sampling could continue on into the following day. He can be reached at 575-988-1472, please do not hesitate to contact him. If you have any questions or concerns regarding this notification, please give me a call at 575-361-9880.

Thank you,
Monica

Monica Peppin
Project Manager

Vertex Resource Group Ltd.
3101 Boyd Drive,
Carlsbad, NM 88220

P 575.725.5001 Ext. 711
C 575.361.9880
F

www.vertex.ca

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Monica Peppin

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Sent: Thursday, December 2, 2021 4:22 PM
To: Monica Peppin
Subject: Fwd: 48 HR Notification of Confirmatory Sampling nAPP2129349031 Rushing Intersection

---------- Forwarded message ---------
From: **Dhugal Hanton** <vertexresourcegroupusa@gmail.com>
Date: Thu, Dec 2, 2021 at 4:08 PM
Subject: 48 HR Notification of Confirmatory Sampling nAPP2129349031 Rushing Intersection
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>, <mgant@lucid-energy.com>

All,

Please accept this email as 48-hour notification that Vertex Resource Services has scheduled confirmatory sampled to be conducted at Rushing Intersection for the following release:

nAPP2123949031 DOR: October 7, 2020

On Monday, December 6, 2021 at approximately 8:00 AM, Monica Peppin will be onsite to conduct additional confirmatory sampling after excavation has been completed. Confirmation sampling could continue on into the following day. He can be reached at 575-361-9880, please do not hesitate to contact her. If you have any questions or concerns regarding this notification, please give me a call at 575-361-9880.

Thank you,
Monica

Monica Peppin
Project Manager

Vertex Resource Group Ltd.
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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

August 19, 2021

John Hurt

Lucid Energy Delaware
201 South 4th St.
Artesia, NM 88210
TEL:
FAX

RE: Rushing OrderNo.: 2108605

Dear John Hurt:

Hall Environmental Analysis Laboratory received 7 sample(s) on 8/12/2021 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 **2108605**
Date Reported: **8/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: BH21-01 0-8'
Project: Rushing
Collection Date: 8/10/2021 9:00:00 AM
Lab ID: 2108605-001 **Matrix:** SOIL **Received Date:** 8/12/2021 7:40:00 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	8/15/2021 9:11:06 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/15/2021 9:11:06 AM
Surr: DNOP	91.9	70-130		%Rec	1	8/15/2021 9:11:06 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/16/2021 9:52:00 PM
Surr: BFB	90.6	70-130		%Rec	1	8/16/2021 9:52:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	8/16/2021 9:52:00 PM
Toluene	ND	0.050		mg/Kg	1	8/16/2021 9:52:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/16/2021 9:52:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	8/16/2021 9:52:00 PM
Surr: 4-Bromofluorobenzene	84.5	70-130		%Rec	1	8/16/2021 9:52:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	8/18/2021 2:53:19 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2108605**
Date Reported: **8/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: BH21-02 0-8'
Project: Rushing
Collection Date: 8/10/2021 9:10:00 AM
Lab ID: 2108605-002 **Matrix:** SOIL **Received Date:** 8/12/2021 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	22	9.3		mg/Kg	1	8/17/2021 2:54:35 PM
Motor Oil Range Organics (MRO)	100	46		mg/Kg	1	8/17/2021 2:54:35 PM
Surr: DNOP	114	70-130		%Rec	1	8/17/2021 2:54:35 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/16/2021 10:12:00 PM
Surr: BFB	85.4	70-130		%Rec	1	8/16/2021 10:12:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	8/16/2021 10:12:00 PM
Toluene	ND	0.049		mg/Kg	1	8/16/2021 10:12:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	8/16/2021 10:12:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	8/16/2021 10:12:00 PM
Surr: 4-Bromofluorobenzene	83.1	70-130		%Rec	1	8/16/2021 10:12:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	8/18/2021 3:05:43 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2108605**
Date Reported: **8/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: BH21-03 0-8'
Project: Rushing
Collection Date: 8/10/2021 9:20:00 AM
Lab ID: 2108605-003 **Matrix:** SOIL **Received Date:** 8/12/2021 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	120	9.2		mg/Kg	1	8/15/2021 9:58:31 AM
Motor Oil Range Organics (MRO)	250	46		mg/Kg	1	8/15/2021 9:58:31 AM
Surr: DNOP	113	70-130		%Rec	1	8/15/2021 9:58:31 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/16/2021 10:32:00 PM
Surr: BFB	88.6	70-130		%Rec	1	8/16/2021 10:32:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	8/16/2021 10:32:00 PM
Toluene	ND	0.048		mg/Kg	1	8/16/2021 10:32:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	8/16/2021 10:32:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	8/16/2021 10:32:00 PM
Surr: 4-Bromofluorobenzene	87.1	70-130		%Rec	1	8/16/2021 10:32:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	59		mg/Kg	20	8/18/2021 4:07:45 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2108605**
Date Reported: **8/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: BH21-04 0-8'
Project: Rushing
Collection Date: 8/10/2021 9:30:00 AM
Lab ID: 2108605-004 **Matrix:** SOIL **Received Date:** 8/12/2021 7:40:00 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	8/15/2021 10:22:14 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	8/15/2021 10:22:14 AM
Surr: DNOP	112	70-130		%Rec	1	8/15/2021 10:22:14 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/16/2021 10:52:00 PM
Surr: BFB	92.4	70-130		%Rec	1	8/16/2021 10:52:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.023		mg/Kg	1	8/16/2021 10:52:00 PM
Toluene	ND	0.046		mg/Kg	1	8/16/2021 10:52:00 PM
Ethylbenzene	ND	0.046		mg/Kg	1	8/16/2021 10:52:00 PM
Xylenes, Total	ND	0.093		mg/Kg	1	8/16/2021 10:52:00 PM
Surr: 4-Bromofluorobenzene	87.3	70-130		%Rec	1	8/16/2021 10:52:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	8/18/2021 4:20:09 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2108605**
Date Reported: **8/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: BH21-05 10'
Project: Rushing
Collection Date: 8/10/2021 9:40:00 AM
Lab ID: 2108605-005 **Matrix:** SOIL **Received Date:** 8/12/2021 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	120	9.1		mg/Kg	1	8/15/2021 10:45:57 AM
Motor Oil Range Organics (MRO)	110	46		mg/Kg	1	8/15/2021 10:45:57 AM
Surr: DNOP	113	70-130		%Rec	1	8/15/2021 10:45:57 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	9.5		mg/Kg	2	8/16/2021 11:12:00 PM
Surr: BFB	102	70-130		%Rec	2	8/16/2021 11:12:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.047		mg/Kg	2	8/16/2021 11:12:00 PM
Toluene	ND	0.095		mg/Kg	2	8/16/2021 11:12:00 PM
Ethylbenzene	ND	0.095		mg/Kg	2	8/16/2021 11:12:00 PM
Xylenes, Total	ND	0.19		mg/Kg	2	8/16/2021 11:12:00 PM
Surr: 4-Bromofluorobenzene	92.8	70-130		%Rec	2	8/16/2021 11:12:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	59		mg/Kg	20	8/18/2021 4:32:34 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2108605**
Date Reported: **8/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: BH21-05 16'
Project: Rushing
Collection Date: 8/10/2021 9:50:00 AM
Lab ID: 2108605-006 **Matrix:** SOIL **Received Date:** 8/12/2021 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	27	9.4		mg/Kg	1	8/15/2021 11:09:43 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	8/15/2021 11:09:43 AM
Surr: DNOP	111	70-130		%Rec	1	8/15/2021 11:09:43 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/16/2021 11:32:00 PM
Surr: BFB	105	70-130		%Rec	1	8/16/2021 11:32:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	8/16/2021 11:32:00 PM
Toluene	ND	0.050		mg/Kg	1	8/16/2021 11:32:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/16/2021 11:32:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	8/16/2021 11:32:00 PM
Surr: 4-Bromofluorobenzene	88.2	70-130		%Rec	1	8/16/2021 11:32:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	8/18/2021 4:44:58 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2108605**
Date Reported: **8/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: BH21-05 20'
Project: Rushing
Collection Date: 8/10/2021 10:00:00 AM
Lab ID: 2108605-007 **Matrix:** SOIL **Received Date:** 8/12/2021 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	15	8.5		mg/Kg	1	8/15/2021 11:33:28 AM
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	8/15/2021 11:33:28 AM
Surr: DNOP	117	70-130		%Rec	1	8/15/2021 11:33:28 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/16/2021 11:52:00 PM
Surr: BFB	93.4	70-130		%Rec	1	8/16/2021 11:52:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	8/16/2021 11:52:00 PM
Toluene	ND	0.049		mg/Kg	1	8/16/2021 11:52:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	8/16/2021 11:52:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	8/16/2021 11:52:00 PM
Surr: 4-Bromofluorobenzene	87.1	70-130		%Rec	1	8/16/2021 11:52:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	8/18/2021 4:57:22 PM

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2108605**

19-Aug-21

Client: Lucid Energy Delaware

Project: Rushing

Sample ID: **MB-62041** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **62041** RunNo: **80630**

Prep Date: **8/18/2021** Analysis Date: **8/18/2021** SeqNo: **2844372** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-62041** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **62041** RunNo: **80630**

Prep Date: **8/18/2021** Analysis Date: **8/18/2021** SeqNo: **2844373** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.2	90	110			

Sample ID: **MB-62045** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **62045** RunNo: **80630**

Prep Date: **8/18/2021** Analysis Date: **8/18/2021** SeqNo: **2844404** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-62045** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **62045** RunNo: **80630**

Prep Date: **8/18/2021** Analysis Date: **8/18/2021** SeqNo: **2844405** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.5	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#: **2108605**
19-Aug-21

Client: Lucid Energy Delaware
Project: Rushing

Sample ID: **MB-61958**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **61958**	RunNo: **80568**
Prep Date: **8/13/2021**	Analysis Date: **8/15/2021**	SeqNo: **2841995** 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: **LCS-61958**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **61958**	RunNo: **80568**
Prep Date: **8/13/2021**	Analysis Date: **8/15/2021**	SeqNo: **2842047** 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	141			
Surr: DNOP	5.0		5.000		100	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2108605**

19-Aug-21

Client: Lucid Energy Delaware

Project: Rushing

Sample ID: **mb-61951**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **61951**	RunNo: **80541**
Prep Date: **8/12/2021**	Analysis Date: **8/16/2021**	SeqNo: **2841040** 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	870		1000		87.3	70	130			

Sample ID: **lcs-61951**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **61951**	RunNo: **80541**
Prep Date: **8/12/2021**	Analysis Date: **8/16/2021**	SeqNo: **2841041** 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	1000		1000		102	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#: **2108605**
19-Aug-21

Client: Lucid Energy Delaware
Project: Rushing

Sample ID: **mb-61951** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **61951** RunNo: **80541**
Prep Date: **8/12/2021** Analysis Date: **8/16/2021** SeqNo: **2841061** 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	0.86		1.000		86.2	70	130			

Sample ID: **lcs-61951** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **61951** RunNo: **80541**
Prep Date: **8/12/2021** Analysis Date: **8/16/2021** SeqNo: **2841062** 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	87.8	80	120			
Toluene	0.90	0.050	1.000	0	89.9	80	120			
Ethylbenzene	0.92	0.050	1.000	0	92.5	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.8	80	120			
Surr: 4-Bromofluorobenzene	0.87		1.000		86.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
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: **Lucid Energy Delaware** Work Order Number: **2108605** RcptNo: 1

Received By: **Cheyenne Cason** **8/12/2021 7:40:00 AM** Chad

Completed By: **Sean Livingston** **8/12/2021 9:49:12 AM** Sean Livingston

Reviewed By: JR 8/12/21

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: MPG 8/12/21

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	0.4	Good				
2	2.1	Good				

Released to Imaging: 2/2/2022 8:53:27 AM
Received by OCD: 1/12/2022 4:50:28 AM

Chain-of-Custody Record

Client: Lucid 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: Rushing

Project #: 21E-02589-001

Project Manager: John Hurt

Sampler: CD
On Ice: ☒ Yes ☐ No
# of Coolers: 2 0.4 - 0 = 0.4
Cooler Temp(including CF): 2.1 - 0 = 2.1 (°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. 2108605	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
8/10	9:00	Soil	BH21-01 0-8'			001	X	X					X			
	9:10		BH21-02 0-8'			002										
	9:20		BH21-03 0-8'			003										
	9:30		BH21-04 0-8'			004										
	9:40		BH21-05 10'			005										
	9:50		BH21-05 16'			006										
	10:00		BH21-05 20'			007										

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
8/11/21					8/11/21	900
8/11/21	1900			COC	8/12/21	0740

Remarks: CC: Chance Dixon, John Hurt
Direct Bill Lucid 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 05, 2021

Michael Moffit

Lucid Energy Delaware
201 South 4th St.
Artesia, NM 88210
TEL: (575) 513-8988
FAX:

RE: Rushing OrderNo.: 2110E14

Dear Michael Moffit:

Hall Environmental Analysis Laboratory received 11 sample(s) on 10/30/2021 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 **2110E14**
Date Reported: **11/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: BS21-01 16'
Project: Rushing
Collection Date: 10/28/2021 9:30:00 AM
Lab ID: 2110E14-001 **Matrix:** SOIL **Received Date:** 10/30/2021 8:40:00 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	11/2/2021 4:32:25 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/2/2021 4:32:25 PM
Surr: DNOP	94.3	70-130		%Rec	1	11/2/2021 4:32:25 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	24		mg/Kg	5	11/2/2021 5:11:00 PM
Surr: BFB	98.1	70-130		%Rec	5	11/2/2021 5:11:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.12		mg/Kg	5	11/2/2021 5:11:00 PM
Toluene	ND	0.24		mg/Kg	5	11/2/2021 5:11:00 PM
Ethylbenzene	ND	0.24		mg/Kg	5	11/2/2021 5:11:00 PM
Xylenes, Total	ND	0.48		mg/Kg	5	11/2/2021 5:11:00 PM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	5	11/2/2021 5:11:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	11/3/2021 1:41:18 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2110E14**
Date Reported: **11/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: BS21-02 10'
Project: Rushing
Collection Date: 10/28/2021 8:00:00 AM
Lab ID: 2110E14-002 **Matrix:** SOIL **Received Date:** 10/30/2021 8:40:00 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	11/2/2021 4:43:28 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/2/2021 4:43:28 PM
Surr: DNOP	144	70-130	S	%Rec	1	11/2/2021 4:43:28 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/2/2021 5:31:00 PM
Surr: BFB	104	70-130		%Rec	1	11/2/2021 5:31:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	11/2/2021 5:31:00 PM
Toluene	ND	0.048		mg/Kg	1	11/2/2021 5:31:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	11/2/2021 5:31:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	11/2/2021 5:31:00 PM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	11/2/2021 5:31:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	11/3/2021 1:53:42 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 **2110E14**
Date Reported: **11/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: BS21-03 10'
Project: Rushing
Collection Date: 10/28/2021 8:10:00 AM
Lab ID: 2110E14-003 **Matrix:** SOIL **Received Date:** 10/30/2021 8:40:00 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	11/2/2021 4:54:32 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/2/2021 4:54:32 PM
Surr: DNOP	74.9	70-130		%Rec	1	11/2/2021 4:54:32 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/2/2021 5:50:00 PM
Surr: BFB	99.4	70-130		%Rec	1	11/2/2021 5:50:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	11/2/2021 5:50:00 PM
Toluene	ND	0.050		mg/Kg	1	11/2/2021 5:50:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	11/2/2021 5:50:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	11/2/2021 5:50:00 PM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	11/2/2021 5:50:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	11/3/2021 2:55:45 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 **2110E14**
Date Reported: **11/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: BS21-04 16'
Project: Rushing
Collection Date: 10/28/2021 9:40:00 AM
Lab ID: 2110E14-004 **Matrix:** SOIL **Received Date:** 10/30/2021 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	10	9.6		mg/Kg	1	11/2/2021 5:05:34 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/2/2021 5:05:34 PM
Surr: DNOP	105	70-130		%Rec	1	11/2/2021 5:05:34 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/2/2021 6:10:00 PM
Surr: BFB	101	70-130		%Rec	1	11/2/2021 6:10:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	11/2/2021 6:10:00 PM
Toluene	ND	0.049		mg/Kg	1	11/2/2021 6:10:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	11/2/2021 6:10:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	11/2/2021 6:10:00 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	11/2/2021 6:10:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	11/3/2021 3:08:10 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 **2110E14**
Date Reported: **11/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: WS21-01 9'
Project: Rushing
Collection Date: 10/28/2021 8:20:00 AM
Lab ID: 2110E14-005 **Matrix:** SOIL **Received Date:** 10/30/2021 8:40:00 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	11/2/2021 5:16:38 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/2/2021 5:16:38 PM
Surr: DNOP	75.3	70-130		%Rec	1	11/2/2021 5:16:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/2/2021 7:09:00 PM
Surr: BFB	104	70-130		%Rec	1	11/2/2021 7:09:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	11/2/2021 7:09:00 PM
Toluene	ND	0.048		mg/Kg	1	11/2/2021 7:09:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	11/2/2021 7:09:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	11/2/2021 7:09:00 PM
Surr: 4-Bromofluorobenzene	99.4	70-130		%Rec	1	11/2/2021 7:09:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	11/3/2021 3:20:35 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	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 **2110E14**
Date Reported: **11/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: WS21-02 14'
Project: Rushing
Collection Date: 10/28/2021 9:50:00 AM
Lab ID: 2110E14-006 **Matrix:** SOIL **Received Date:** 10/30/2021 8:40:00 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	11/2/2021 5:27:39 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/2/2021 5:27:39 PM
Surr: DNOP	91.9	70-130		%Rec	1	11/2/2021 5:27:39 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/2/2021 7:28:00 PM
Surr: BFB	103	70-130		%Rec	1	11/2/2021 7:28:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	11/2/2021 7:28:00 PM
Toluene	ND	0.049		mg/Kg	1	11/2/2021 7:28:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	11/2/2021 7:28:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	11/2/2021 7:28:00 PM
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	11/2/2021 7:28:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	11/3/2021 3:33:00 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 **2110E14**
Date Reported: **11/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: WS21-03 14'
Project: Rushing
Collection Date: 10/28/2021 10:00:00 AM
Lab ID: 2110E14-007 **Matrix:** SOIL **Received Date:** 10/30/2021 8:40:00 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	11/2/2021 5:38:38 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/2/2021 5:38:38 PM
Surr: DNOP	115	70-130		%Rec	1	11/2/2021 5:38:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/2/2021 7:48:00 PM
Surr: BFB	99.8	70-130		%Rec	1	11/2/2021 7:48:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	11/2/2021 7:48:00 PM
Toluene	ND	0.047		mg/Kg	1	11/2/2021 7:48:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	11/2/2021 7:48:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	11/2/2021 7:48:00 PM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	11/2/2021 7:48:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	11/3/2021 4:10:14 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 **2110E14**
Date Reported: **11/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: WS21-04 14'
Project: Rushing
Collection Date: 10/28/2021 10:10:00 AM
Lab ID: 2110E14-008 **Matrix:** SOIL **Received Date:** 10/30/2021 8:40:00 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	11/2/2021 5:49:35 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	11/2/2021 5:49:35 PM
Surr: DNOP	76.5	70-130		%Rec	1	11/2/2021 5:49:35 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/2/2021 8:08:00 PM
Surr: BFB	97.0	70-130		%Rec	1	11/2/2021 8:08:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	11/2/2021 8:08:00 PM
Toluene	ND	0.050		mg/Kg	1	11/2/2021 8:08:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	11/2/2021 8:08:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	11/2/2021 8:08:00 PM
Surr: 4-Bromofluorobenzene	97.7	70-130		%Rec	1	11/2/2021 8:08:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	ND	60		mg/Kg	20	11/3/2021 1:38:56 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	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 **2110E14**
Date Reported: **11/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: WS21-05 9'
Project: Rushing
Collection Date: 10/28/2021 8:30:00 AM
Lab ID: 2110E14-009 **Matrix:** SOIL **Received Date:** 10/30/2021 8:40:00 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	11/2/2021 6:00:32 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/2/2021 6:00:32 PM
Surr: DNOP	82.5	70-130		%Rec	1	11/2/2021 6:00:32 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/2/2021 8:27:00 PM
Surr: BFB	95.5	70-130		%Rec	1	11/2/2021 8:27:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.025		mg/Kg	1	11/2/2021 8:27:00 PM
Toluene	ND	0.049		mg/Kg	1	11/2/2021 8:27:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	11/2/2021 8:27:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	11/2/2021 8:27:00 PM
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	11/2/2021 8:27:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	ND	60		mg/Kg	20	11/3/2021 2:16:10 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 **2110E14**
Date Reported: **11/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: WS21-06 14'
Project: Rushing
Collection Date: 10/28/2021 10:20:00 AM
Lab ID: 2110E14-010 **Matrix:** SOIL **Received Date:** 10/30/2021 8:40:00 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	11/2/2021 6:11:26 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/2/2021 6:11:26 PM
Surr: DNOP	78.7	70-130		%Rec	1	11/2/2021 6:11:26 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/2/2021 8:47:00 PM
Surr: BFB	93.8	70-130		%Rec	1	11/2/2021 8:47:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.024		mg/Kg	1	11/2/2021 8:47:00 PM
Toluene	ND	0.049		mg/Kg	1	11/2/2021 8:47:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	11/2/2021 8:47:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	11/2/2021 8:47:00 PM
Surr: 4-Bromofluorobenzene	99.9	70-130		%Rec	1	11/2/2021 8:47:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	ND	60		mg/Kg	20	11/3/2021 2:53:22 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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 **2110E14**
Date Reported: **11/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: WS21-07 9'
Project: Rushing
Collection Date: 10/28/2021 8:40:00 AM
Lab ID: 2110E14-011 **Matrix:** SOIL **Received Date:** 10/30/2021 8:40:00 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	11/2/2021 6:22:21 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/2/2021 6:22:21 PM
Surr: DNOP	76.1	70-130		%Rec	1	11/2/2021 6:22:21 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/2/2021 9:06:00 PM
Surr: BFB	96.4	70-130		%Rec	1	11/2/2021 9:06:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **mb**
Benzene	ND	0.023		mg/Kg	1	11/2/2021 9:06:00 PM
Toluene	ND	0.047		mg/Kg	1	11/2/2021 9:06:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	11/2/2021 9:06:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	11/2/2021 9:06:00 PM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	11/2/2021 9:06:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	ND	60		mg/Kg	20	11/3/2021 3:30:34 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	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		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2110E14**
05-Nov-21

Client: Lucid Energy Delaware
Project: Rushing

Sample ID: **MB-63727** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **63727** RunNo: **82554**
Prep Date: **11/3/2021** Analysis Date: **11/3/2021** SeqNo: **2930747** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-63727** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **63727** RunNo: **82554**
Prep Date: **11/3/2021** Analysis Date: **11/3/2021** SeqNo: **2930748** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.5	90	110			

Sample ID: **MB-63727** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **63727** RunNo: **82555**
Prep Date: **11/3/2021** Analysis Date: **11/3/2021** SeqNo: **2931033** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-63727** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **63727** RunNo: **82555**
Prep Date: **11/3/2021** Analysis Date: **11/3/2021** SeqNo: **2931034** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.7	90	110			

Sample ID: **MB-63728** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **63728** RunNo: **82555**
Prep Date: **11/3/2021** Analysis Date: **11/3/2021** SeqNo: **2931035** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-63728** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **63728** RunNo: **82555**
Prep Date: **11/3/2021** Analysis Date: **11/3/2021** SeqNo: **2931036** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.9	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	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#: **2110E14**
05-Nov-21

Client: Lucid Energy Delaware
Project: Rushing

Sample ID: **MB-63679**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **63679**	RunNo: **82502**
Prep Date: **11/1/2021**	Analysis Date: **11/2/2021**	SeqNo: **2928393** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.1		10.00		91.5	70	130			

Sample ID: **LCS-63679**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **63679**	RunNo: **82502**
Prep Date: **11/1/2021**	Analysis Date: **11/2/2021**	SeqNo: **2928446** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.0	68.9	135			
Surr: DNOP	4.6		5.000		91.4	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2110E14**

05-Nov-21

Client: Lucid Energy Delaware

Project: Rushing

Sample ID: **mb-63669**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **63669**	RunNo: **82500**
Prep Date: **11/1/2021**	Analysis Date: **11/2/2021**	SeqNo: **2928816** 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		102	70	130			

Sample ID: **lcs-63669**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **63669**	RunNo: **82500**
Prep Date: **11/1/2021**	Analysis Date: **11/2/2021**	SeqNo: **2928836** 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	105	78.6	131			
Surr: BFB	1100		1000		112	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#: **2110E14**
05-Nov-21

Client: Lucid Energy Delaware
Project: Rushing

Sample ID: **mb-63669**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **63669**	RunNo: **82500**
Prep Date: **11/1/2021**	Analysis Date: **11/2/2021**	SeqNo: **2928969** 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		105	70	130			

Sample ID: **lcs-63669**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **63669**	RunNo: **82500**
Prep Date: **11/1/2021**	Analysis Date: **11/2/2021**	SeqNo: **2928976** 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	94.2	80	120			
Toluene	0.96	0.050	1.000	0	96.4	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	98.2	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	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

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: Lucid Energy Delaware Work Order Number: 2110E14 RcptNo: 1

Received By: Juan Rojas 10/30/2021 8:40:00 AM

Completed By: Juan Rojas 10/30/2021 9:04:43 AM

Reviewed By: 10/30/2021

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: JN 10/30/21

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	2.4	Good				
2	0.6	Good				

Released to Imaging: 2/2/2022 8:53:27 AM
Received by OCD: 1/12/2022 4:50:28 AM

Chain-of-Custody Record

Client: Lucid

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: ~~3 Day~~ EC
☒ Standard ☐ Rush 5 Days

Project Name: Rushing

Project #: 21E-02589-001

Project Manager: Michael Moffit

Sampler: CD

On Ice: ☑ Yes ☐ No

# of Coolers: 2

Cooler Temp(including CF): 2.7-0.3=2.4 (°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. 6.9-0.3=6.6 2110E14	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)
10/28	9:30	Soil	BSZ1-01 16'	4 OZ	Ice	-001	✓	✓					✓			
	8:00		BSZ1-02 10'			-002										
	8:10		BSZ1-03 10'			-003										
	9:40		BSZ1-04 16'			-004										
	8:20		WSZ1-01 9'			-005										
	9:50		WSZ1-02 14'			-006										
	10:00		WSZ1-03 14'			-007										
	10:10		WSZ1-04 14'			-008										
	8:30		WSZ1-05 9'			-009										
	10:20		WSZ1-06 14'			-010										
	8:40		WSZ1-07 9'			-011										

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
				-	10/28/21	805
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
				courier	10/30/21	8:40

Remarks: CC: Chance Dixon
Direct Bill Lucid Energy
Per Mike Gant Run 5 day Standard

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

December 14, 2021

Michael Gant

Lucid Energy
201 South 4th St.
Artesia, NM 88210
TEL:
FAX:

RE: Rushing OrderNo.: 2112618

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/9/2021 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 **2112618**
Date Reported: **12/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy **Client Sample ID:** WS21-08 10'
Project: Rushing **Collection Date:** 12/7/2021 11:15:00 AM
Lab ID: 2112618-001 **Matrix:** MEOH (SOIL) **Received Date:** 12/9/2021 10:05:00 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	12/9/2021 11:47:05 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/9/2021 11:47:05 AM
Surr: DNOP	87.7	70-130		%Rec	1	12/9/2021 11:47:05 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	12/9/2021 1:10:00 PM
Surr: BFB	89.2	70-130		%Rec	1	12/9/2021 1:10:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.015		mg/Kg	1	12/9/2021 1:10:00 PM
Toluene	ND	0.031		mg/Kg	1	12/9/2021 1:10:00 PM
Ethylbenzene	ND	0.031		mg/Kg	1	12/9/2021 1:10:00 PM
Xylenes, Total	ND	0.061		mg/Kg	1	12/9/2021 1:10:00 PM
Surr: 4-Bromofluorobenzene	80.6	70-130		%Rec	1	12/9/2021 1:10:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	ND	60		mg/Kg	20	12/9/2021 1:48:08 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2112618**
14-Dec-21

Client: Lucid Energy
Project: Rushing

Sample ID: **MB-64406**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **64406**	RunNo: **84430**
Prep Date: **12/9/2021**	Analysis Date: **12/9/2021**	SeqNo: **2965973** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-64406**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **64406**	RunNo: **84430**
Prep Date: **12/9/2021**	Analysis Date: **12/9/2021**	SeqNo: **2965974** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.8	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#: **2112618**

14-Dec-21

Client: Lucid Energy

Project: Rushing

Sample ID: **LCS-64391**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **64391**	RunNo: **84388**
Prep Date: **12/9/2021**	Analysis Date: **12/9/2021**	SeqNo: **2964799** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.1	68.9	135			
Surr: DNOP	3.8		5.000		76.5	70	130			

Sample ID: **MB-64391**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **64391**	RunNo: **84388**
Prep Date: **12/9/2021**	Analysis Date: **12/9/2021**	SeqNo: **2964801** 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	8.2		10.00		82.0	70	130			

Sample ID: **LCS-64414**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **64414**	RunNo: **84438**
Prep Date: **12/9/2021**	Analysis Date: **12/10/2021**	SeqNo: **2967457** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.8		5.000		76.7	70	130			

Sample ID: **MB-64414**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **64414**	RunNo: **84438**
Prep Date: **12/9/2021**	Analysis Date: **12/10/2021**	SeqNo: **2967458** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.5		10.00		85.0	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#: **2112618**
14-Dec-21

Client: Lucid Energy
Project: Rushing

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **R84405**	RunNo: **84405**							
Prep Date:	Analysis Date: **12/9/2021**	SeqNo: **2965226**	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	1300		1000		129	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **R84405**	RunNo: **84405**							
Prep Date:	Analysis Date: **12/9/2021**	SeqNo: **2965227**	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		86.4	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2112618**
14-Dec-21

Client: Lucid Energy
Project: Rushing

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R84405**	RunNo: **84405**
Prep Date:	Analysis Date: **12/9/2021**	SeqNo: **2965236** 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	91.7	80	120			
Toluene	0.93	0.050	1.000	0	93.4	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.5	80	120			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.4	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R84405**	RunNo: **84405**
Prep Date:	Analysis Date: **12/9/2021**	SeqNo: **2965237** 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	0.80		1.000		79.6	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

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: Lucid Energy | Work Order Number: 2112618 | RcptNo: 1

Received By: Cheyenne Cason 12/9/2021 10:05:00 AM

Completed By: Sean Livingston 12/9/2021 10:26:38 AM

Reviewed By: 12/9/21

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: JR 12/9/21

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	5.2	Good				

Chain-of-Custody Record

Client: Lucid

Michael Grant

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: Same Day

☑ Standard ☐ Rush

Project Name: Rushing

Project #: 21E-02589

Project Manager:

Sampler: MJP

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 5.2 - 0 = 5.2 (°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. 2112618	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)
12/7	11:15	Soil	WS21-08 10'	4 oz	ice	001	✓	✓					✓			

Analysis Request

Relinquished by: Date: 12/8 Time: 835

Received by: Via: Date: 12/8/21 Time: 835

Relinquished by: Date: 12/8/21 Time: 1900

Received by: Via: Date: 12/9/21 Time: 1605

Remarks:

CC: M. Moffitt & M. Peppin

Direct Bill Lucid

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.

Received by OCD: 1/12/2022 4:50:28 AM

Released to Imaging: 2/2/2022 8:53:27 AM

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

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

CONDITIONS

Action 71850

CONDITIONS

Operator: FRONTIER FIELD SERVICES, LLC 10077 Grogans Mill Rd. The Woodlands, TX 77380	OGRID: 221115
	Action Number: 71850
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	2/2/2022