



April 15, 2024

Vertex Project #: 23E-03658

Spill Closure Report: Siebert #1 Production Facility (Section 15, Township 23 South, Range 28 East)
API: 30-015-26322
County: Eddy
Incident Report: nAPP2111646040

Prepared For: **BTA Oil Producers, LLC**
104 S. Pecos Street
Midland, Texas 79701

New Mexico Oil Conservation Division – District 2

811 S. 1st Street
Artesia, New Mexico 88210

BTA Oil Producers, LLC (BTA) retained Vertex Resource Services Inc. (Vertex) to conduct a Spill Assessment for a release of crude oil from a broken site glass at the Siebert #1 Production Facility, API 30-015-26322, Incident nAPP2111646040 (hereafter referred to as “site”). This letter provides a description of the Spill Assessment and includes a request for Spill Closure. The spill area is located at N 32.31103, W -104.06827.

This letter provides a description of the release assessment and remediation activities and demonstrates that closure criteria established in Table I of 19.15.29.12 *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) are being met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from the New Mexico Oil Conservation Division (NMOCD) for the closure of this release.

Incident Description

The spill occurred on April 24, 2021, due to a sight glass breaking. The spill was reported on April 26, 2021, and involved the release of approximately 10 barrels (bbl.) of crude oil into the unlined earthen-berm containment and oversprayed the adjacent private property. Approximately 5 bbl. of free fluid were removed during the initial spill clean-up. The NMOCD C-141 Report: nAPP2111646040 is included in Attachment 1.

Background

The site is located approximately 2.36 miles northeast of Loving, New Mexico (Google Inc., 2024). The legal location for the site is Section 15, Township 23 South and Range 28 East in Eddy County, New Mexico. The spill area is located on private property. An aerial photograph and site schematic are included in Attachment 2.

The site is typical of oil and gas exploration and production sites on the western portion of the Permian Basin and is currently used for oil and gas production and storage. The following sections specifically describe the release area on the south edge of the constructed pad where the heater treater is located (Attachment 2 – Figure 1).

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The surrounding landscape is associated with the ridges, fans, fan remnants, and alluvial fans with elevations ranging between 1,100 and 5,300 feet. The climate is semiarid with average annual precipitation ranging between 7 and 15 inches. Using information from the United States Department of Agriculture, the dominant vegetation was determined to be principally tobosa, black grama, and blue grama. Grasses with shrubs and half-shrubs dominate the historical plant community (United States Department of Agriculture, Natural Resources Conservation Service, 2024). Limited to no vegetation is allowed to grow on the compacted production pad.

The Geological Map of New Mexico (New Mexico Bureau of Geology and Mineral Resources, 2023) indicates the site's surface geology comprises primarily of Qa – Alluvium Formation (Holocene to upper Pleistocene) and is characterized as gravelly loam. The predominant soil texture on the site is Upton gravelly loam and Upton soils. The soil is well drained with low to high runoff. The karst geology potential for the site is medium (United States Department of the Interior, Bureau of Land Management, 2018).

There is no surface water located at the site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is the Pecos River located approximately 0.45 miles east of the site. There are no continuously flowing or significant watercourses, lakebeds, playa lakes, or other critical water features at the site. The nearest residence is located approximately 166 feet east of the site, which hinders the requirements outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

The nearest active well to the site is an New Mexico Office of the State Engineer (NMOSE) monitoring well located approximately 0.16 miles northeast of the site (New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System, 2023). Data from 2020 shows the NMOSE well had a depth to groundwater of 57 feet below ground surface (bgs). Information pertaining to the depth to groundwater determination is included in Attachment 4.

Closure Criteria Determination

Using site characterization information, a closure criteria determination worksheet (Table 1) 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.

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Table 1. Closure Criteria Worksheet			
Site Name: Siebert #1 Production Facility			
Spill Coordinates:		X: 32.31130	Y: -104.06830
Site Specific Conditions		Value	Unit
1	Depth to Groundwater	<50	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	2,390	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	6,377	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	166	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	771	feet
	ii) Within 1000 feet of any fresh water well or spring		feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	2,420	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	Above 500 year flood level and protected by levee from 100 year flood	year
11	Soil Type	Upton gravelly loam and Upton soils	
12	Ecological Classification	Shallow	
13	Geology	Qa	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	<50'	<50' 51-100' >100'

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Based on the data included in the closure criteria determination worksheet, the release at the site is subject to one of the requirements set forth in Paragraph (4) of Subsection C of 19.15.29.12 NMAC. There is a residence located within 300 feet of the release site; therefore, the closure criteria for the site is determined to be associated with the following constituent concentration limits (Table 2).

Table 2. Closure Criteria for Soils Impacted by a Release		
Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Limit
< 50 feet	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

TDS – Total dissolved solids

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

BTEX – Benzene, toluene, ethylbenzene, and xylenes

Remedial Actions Taken

An initial site inspection of the spill area was completed on April 26, 2021, which identified the area of the spill specified in the initial C-141 Report and estimated the approximate volume of the release. The impacted area was determined to be approximately 96 feet long and 78 feet wide; the total affected area was determined to be 5,222 square feet. The release and overspray areas were sampled during initial characterization in 2021 and samples from the areas were submitted for laboratory analysis that determined the extent of the affected area. Initial characterization screening and laboratory results are included in Table 3 (Attachment 3).

Remediation efforts began on April 28, 2021, and were halted on May 11, 2021. Excavation and confirmation sampling for the release area and overspray area outside of the containment continued on July 31, 2023 and were completed on August 3, 2023. Vertex personnel supervised the excavation of impacted soils during both events. Field screening was completed on a total of 37 sample points from within the excavation inside and outside of the containment area. The soil was removed to depths ranging from 0.5 to 4 feet bgs. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility. The DFR with photographs of the excavation inside and outside of the containment area during both events are presented in Attachment 5. Notifications that confirmatory samples were being collected were provided to NMOCD before each sampling event and are included in Attachment 6, as required by Subparagraph (a) of Paragraph (1) of Subsection D 19.15.29.12 NMAC.

Each composite sample was representative of no more than 200 square feet per the alternate sampling method outlined in Subparagraph (c) of Paragraph (1) of Subsection D 19.15.29.12 NMAC. The composite samples were placed into laboratory-provided containers, preserved on ice, and submitted to a National Environmental Laboratory Accreditation Program-approved laboratory for chemical analysis.

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Laboratory analyses included Method 300.0 for chlorides, Method 8021B for volatile organics, including BTEX, and EPA Method 8015 for TPH, including DRO, MRO, and GRO. Confirmatory sample analytical data are summarized in Table 4 (Attachment 3). Laboratory data reports and chain of custody forms are included in Attachment 7.

Closure Denial – February 7, 2024

Vertex and BTA requested closure for the release through C-141N on September 13, 2023, with the remedial activities described above. On February 7, 2024, closure was denied by NMOCD due to a lack of data on the potentially impacted area between the point of release and the residence adjacent to the site directly to the east. As stated in the initial C-141, the overspray spread onto the adjacent property and the home. The home, outbuildings, pond, and vehicles were pressure washed, and all free liquid was removed. An internal agreement between BTA and the homeowner was reached.

On March 26, 2024, Vertex visited the site to perform additional delineation of the private land between the site and the home. BH24-01 through BH24-08 (Figure 1) were collected at the surface and at 2 feet bgs across the property to confirm that no remnant impacts remained from the historical release. Notification of confirmation sampling for this event was submitted to NMOCD before this event and is included in Attachment 6. All samples were submitted to Cardinal Labs in Hobbs, New Mexico, for chemical analysis. The results are presented in Table 3 and all laboratory data reports with chain of custody forms are included in Attachment 7.

Closure Request

Vertex recommends no additional remediation action to address the release at the site. Laboratory analyses of confirmation samples collected at the site show final confirmatory values below NMOCD closure criteria for areas where depth to groundwater is less than 50 feet bgs. No remnant impacts were identified in all areas impacted by the release. There are no anticipated risks to human, ecological, or hydrological receptors.

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

Vertex requests that this incident (nAPP2111646040) be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. BTA certifies that all information in this report and the attachments is correct and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NMOCD requirements to obtain closure on the release.

Should you have any questions or concerns, please do not hesitate to contact Chance Dixon at 575.988.1472 or cdixon@vertex.ca.

Chance Dixon, B.Sc.
PROJECT MANAGER

Date

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Attachments

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

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References

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Limitations

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

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

ATTACHMENT 1

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	nAPP2111646040
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: BTA Oil Producers, LLC	OGRID: 260297
Contact Name: Bob Hall	Contact Telephone: 432-682-3753
Contact email: bhall@btaoil.com	Incident # (assigned by OCD)
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.31103 Longitude: -104.06827

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Siebert #1 Production Facility	Site Type: Production Facility
Date Release Discovered: 4/24/2021	API# (if applicable) Nearest well: Siebert #1 API #30-015-26322

Unit Letter	Section	Township	Range	County
A	15	23S	28E	Eddy

Surface Owner: State Federal Tribal Private (Name: Wilbur A. Siebert)

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls) 10 BBL	Volume Recovered (bbls) 5 BBL
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Broken Sight Glass.

A broken sight glass on the heater treater allowed approximately 6 barrels of crude oil to be released into the secondary containment of the production facility and released an additional 4 barrels of crude oil by a spray that spread onto adjacent private property and onto a home, several outbuildings, several vehicles, and a fishpond. Five barrels of free oil has been recovered, the top portion of the fishpond was skimmed with a vacuum truck and soap & pressure washing was performed on the home, out buildings and vehicle. (See attached spill calculation spreadsheet.)

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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?	57 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 1/2-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

State of New Mexico
Oil Conservation Division

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

Printed Name: Kelton Beard Title: Environmental Manager

Signature: _____ Date: _____

email: KBeard@btaoil.com Telephone: 432-312-2203

OCD Only

Received by: _____ Date: _____

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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: Kelton Beard Title: Environmental Manager

Signature: _____ Date: _____

email: KBeard@btaoil.com Telephone: 432-312-2203

OCD Only

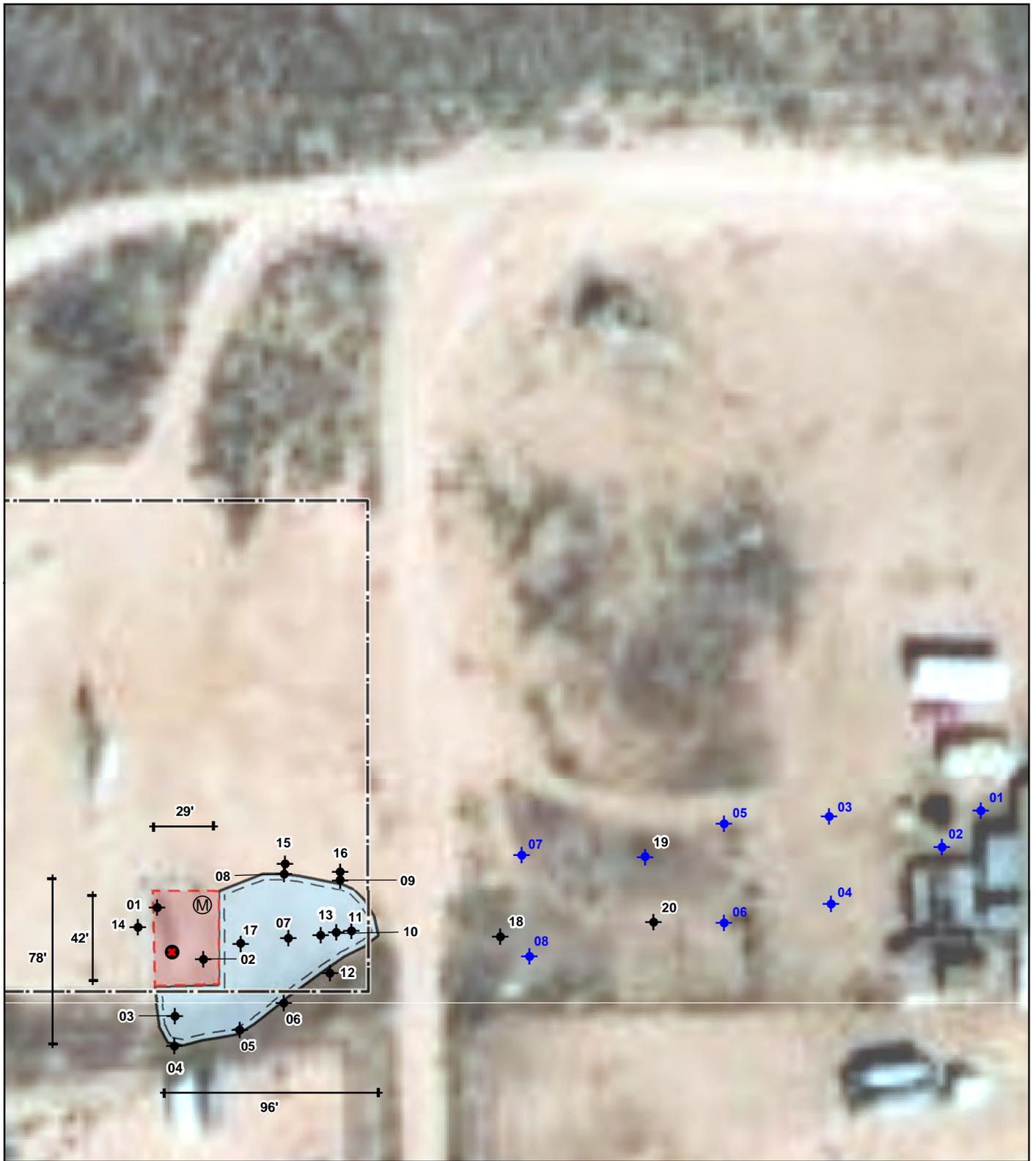
Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

ATTACHMENT 2



- Background Sample (Prefixed by "BG21-") (M) Meter Run
- ◆ Borehole (Prefixed by "BH21-") Excavated ● Point of Release
- ◆ Borehole (Prefixed by "BH24-")
- ⎓ Approximate Lease Boundary
- ⎓ Approximate Release Area Outside Containment (~4,008 sq. ft.)
- ⎓ Approximate Release Area Inside Containment (~1,214 sq. ft.)

Document Path: G:\1-Projects\US PROJECTS\BTA Oil Producers LLC\21E-01340\002- Siebert #1\Figure 1 Characterization Schematic (Siebert #1).mxd



0 12.5 25 50 ft. Map Center:
 Lat: 32.311483,
 NAD 1983 UTM Zone 13N Long:-104.067779
 Date: Oct 25/21



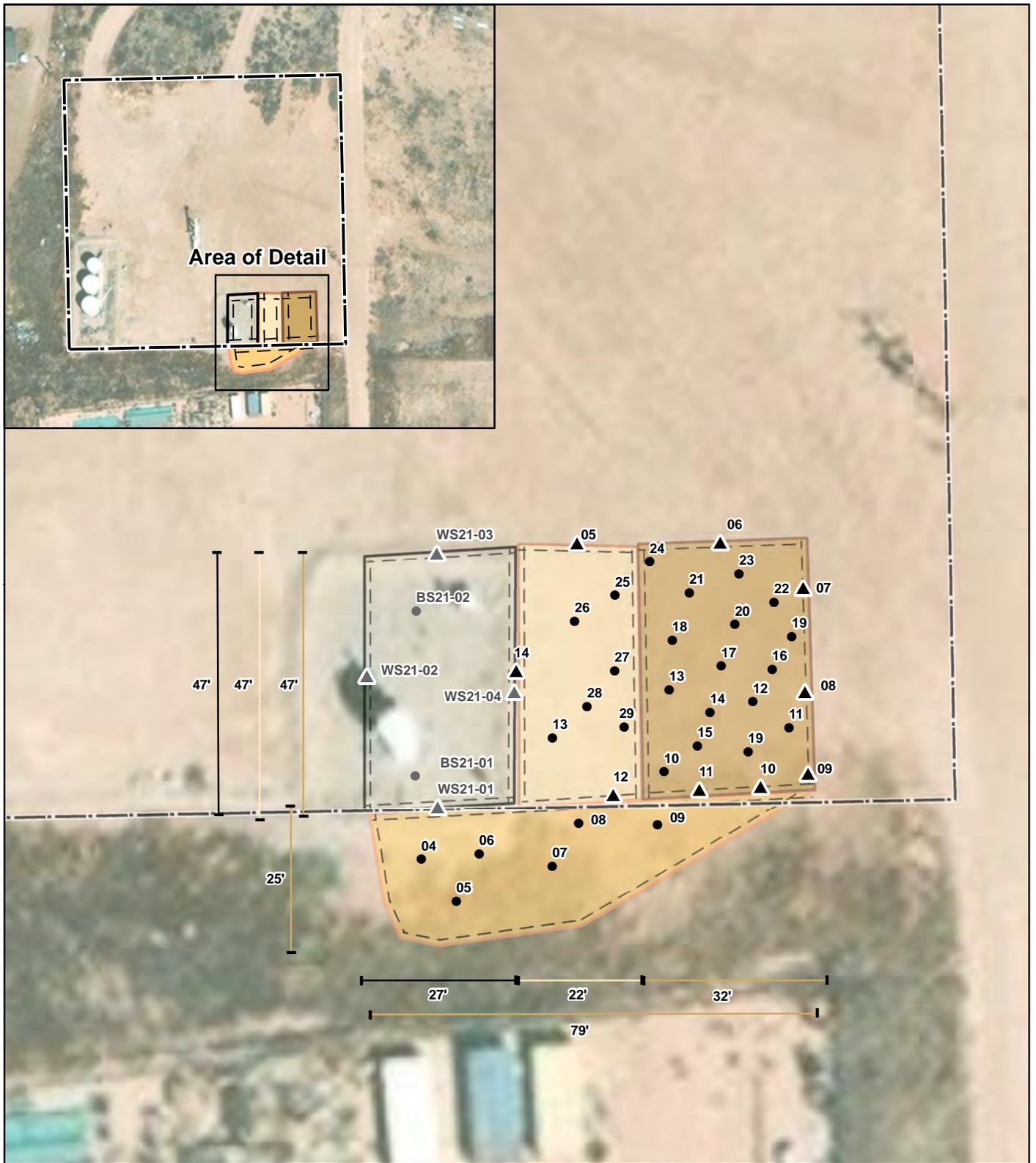
**Characterization Schematic
 Siebert #1**

FIGURE:
1



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 ESRI 2020.



- Base Sample (Prefixed by "BS23-")
- Historical Base Sample
- ▲ Historical Wall Sample
- ▲ Wall Sample (Prefixed by "WS23-")
- Approximate Lease Boundary
- ▭ Excavation to 0.5' bgs (~997 sq.ft.)
- ▭ Containment Excavation to 4' bgs (~1,224 sq.ft.)
- ▭ Pad Excavation to 0.5' bgs (~1,271 sq.ft.)
- ▭ Pad Excavation to 1.5' (~1,378 sq.ft.)



0 5 10 20 ft
 Map Center:
 Lat: 32.311101,
 NAD 1983 UTM Zone 13N Long:-104.068214
 Date: Sep 06/23



**Confirmation Schematic
 Siebert #1**

FIGURE:
2



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 ESRI 2020. Approximate lease boundary from imagery by Vertex Professional Services Ltd. (Vertex), 2023. Site Features from GPS by Vertex, 2022.

Document Path: G:\1-Projects\US PROJECTS\BTA Oil Producers LLC\2023002- Siebert #1\Figure 2 Confirmation 2022 Collector Schematic Siebert #1 (23E-03658) .mxd

ATTACHMENT 3

Client Name: BTA Oil Producers, LLC
 Site Name: Siebert #1
 Project #: 21E-01340-002
 Lab Report: 2104C16, 2105140

Table 3. Initial Characterization Laboratory Results - Depth to Groundwater <50 feet bgs

Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (Petro Flag)	Inorganics (Quantab - High/Low)	Volatile		Extractable					Chloride
						Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
			(ppm)	(ppm)	(+/-)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH21-01	0	4/27/2021	-	-	19,319	0.11	70.91	820	6700	3000	7520	10520	18,000
BH21-01	0.5	4/27/2021	-	11,540	15,458	-	-	-	-	-	-	-	-
BH21-01	1	4/27/2021	-	-	18,628	-	-	-	-	-	-	-	-
BH21-01	2	4/27/2021	-	-	1,751	ND	ND	ND	9.8	ND	9.8	9.8	630
BH21-01	3	4/27/2021	-	-	1,267	-	-	-	-	-	-	-	-
BH21-01	4	4/27/2021	-	113	492	ND	ND	ND	31	ND	31	31	130
BH21-02	0	4/27/2021	-	-	2,679	ND	96.1	1500	13,000	5,200	14,500	19,700	1,100
BH21-02	0.5	4/27/2021	-	-	1,106	-	-	-	-	-	-	-	-
BH21-02	1	4/27/2021	-	-	471	ND	0.11	4.7	390	250	394.7	645	160
BH21-02	2	4/27/2021	-	207	292	-	-	-	-	-	-	-	-
BH21-02	3	4/27/2021	-	102	484	ND	ND	ND	33	ND	33	33	180
BH21-02	4	4/27/2021	-	-	430	-	-	-	-	-	-	-	-
BH21-03	0	4/27/2021	-	750	ND	-	-	-	-	-	-	-	-
BH21-03	0.5	4/27/2021	-	-	278	-	-	-	-	-	-	-	-
BH21-04	0-0.5	4/27/2021	-	72	215	-	-	-	-	-	-	-	-
BH21-05	0-0.5	4/27/2021	-	133	129	-	-	-	-	-	-	-	-
BH21-06	0-0.5	4/27/2021	-	71	ND	ND	0.12	ND	13	ND	13	13	ND
BH21-07	0	4/27/2021	-	5,080	ND	-	-	-	-	-	-	-	-
BH21-07	0.5	4/27/2021	-	763	ND	-	-	-	-	-	-	-	-
BH21-07	1	4/27/2021	-	227	350	ND	ND	ND	33	54	33	87	290
BH21-08	0-0.5	4/27/2021	-	95	14,553	ND	ND	ND	ND	ND	ND	ND	11,000
BH21-09	0-0.5	4/27/2021	-	78	14,011	-	-	-	-	-	-	-	-
BH21-10	0	4/27/2021	-	-	28,628	-	-	-	-	-	-	-	-
BH21-10	0.5	4/27/2021	-	137	8,797	-	-	-	-	-	-	-	-
BH21-10	1	4/27/2021	-	268	6,850	-	-	-	-	-	-	-	-
BH21-11	0-0.5	4/27/2021	-	52	270	ND	ND	ND	ND	ND	ND	ND	170
BH21-12	0-0.5	4/27/2021	-	118	158	-	-	-	-	-	-	-	-
BH21-13	0-0.5	4/27/2021	-	100	3,593	ND	0.16	ND	8.4	ND	8.4	8.4	2,300
BH21-14	0-0.5	4/27/2021	-	19	260	ND	ND	ND	ND	ND	ND	ND	78
BH21-15	0-0.5	4/27/2021	-	-	448	-	-	-	-	-	-	-	-
BH21-16	0-0.5	4/27/2021	-	-	15,344	-	-	-	-	-	-	-	-
BH21-17	1	4/27/2021	-	-	337	-	-	-	-	-	-	-	-
BH21-17	2	4/27/2021	-	208	-	-	-	-	-	-	-	-	-
BH21-18	0-0.5	4/27/2021	-	31	-	ND	ND	ND	ND	ND	ND	ND	ND
BH21-19	0	5/3/2021	-	119	210	ND	ND	ND	ND	ND	ND	ND	ND
BH21-19	0.5	5/3/2021	-	54	130	-	-	-	-	-	-	-	-
BH21-20	0	5/3/2021	-	91	190	ND	ND	ND	ND	ND	ND	ND	ND
BH21-20	0.5	5/3/2021	-	39	110	-	-	-	-	-	-	-	-
BH24-01	0	3/26/2024	-	2	407	ND	ND	ND	ND	ND	ND	ND	192
BH24-01	1	3/26/2024	-	5	562	ND	ND	ND	ND	ND	ND	ND	96
BH24-02	0	3/26/2024	-	91	381	ND	ND	ND	ND	ND	ND	ND	32
BH24-02	1	3/26/2024	-	37	482	ND	ND	ND	ND	ND	ND	ND	256
BH24-03	0	3/26/2024	-	19	562	ND	ND	ND	ND	ND	ND	ND	352
BH24-03	1	3/26/2024	-	10	387	ND	ND	ND	ND	ND	ND	ND	304
BH24-04	0	3/26/2024	-	9	387	ND	ND	ND	ND	ND	ND	ND	32
BH24-04	1	3/26/2024	-	9	367	ND	ND	ND	ND	ND	ND	ND	32
BH24-05	0	3/26/2024	-	8	335	ND	ND	ND	ND	ND	ND	ND	32
BH24-05	1	3/26/2024	-	18	417	ND	ND	ND	ND	ND	ND	ND	48
BH24-06	0	3/26/2024	-	17	372	ND	ND	ND	ND	ND	ND	ND	320
BH24-06	1	3/26/2024	-	11	410	ND	ND	ND	ND	ND	ND	ND	160
BH24-07	0	3/26/2024	-	1	382	ND	ND	ND	ND	ND	ND	ND	96
BH24-07	1	3/26/2024	-	5	450	ND	ND	ND	ND	ND	ND	ND	176
BH24-08	0	3/26/2024	-	2	381	ND	ND	ND	ND	ND	ND	ND	96
BH24-08	1	3/26/2024	-	9	482	ND	ND	ND	ND	ND	ND	ND	176

Bold and shaded indicates exceedance outside of NMOCD Closure Criteria (on pad)

- Denotes no standard/not analyzed



**Table 4. Confirmatory Laboratory Results - Depth to Groundwater <50 feet bgs
BTA Oil Producers, LLC
Siebert #1
NMOCD Tracking #: nAPP2111646040
Project #: 23E-03658
Lab Reports: 2105220, H234254**

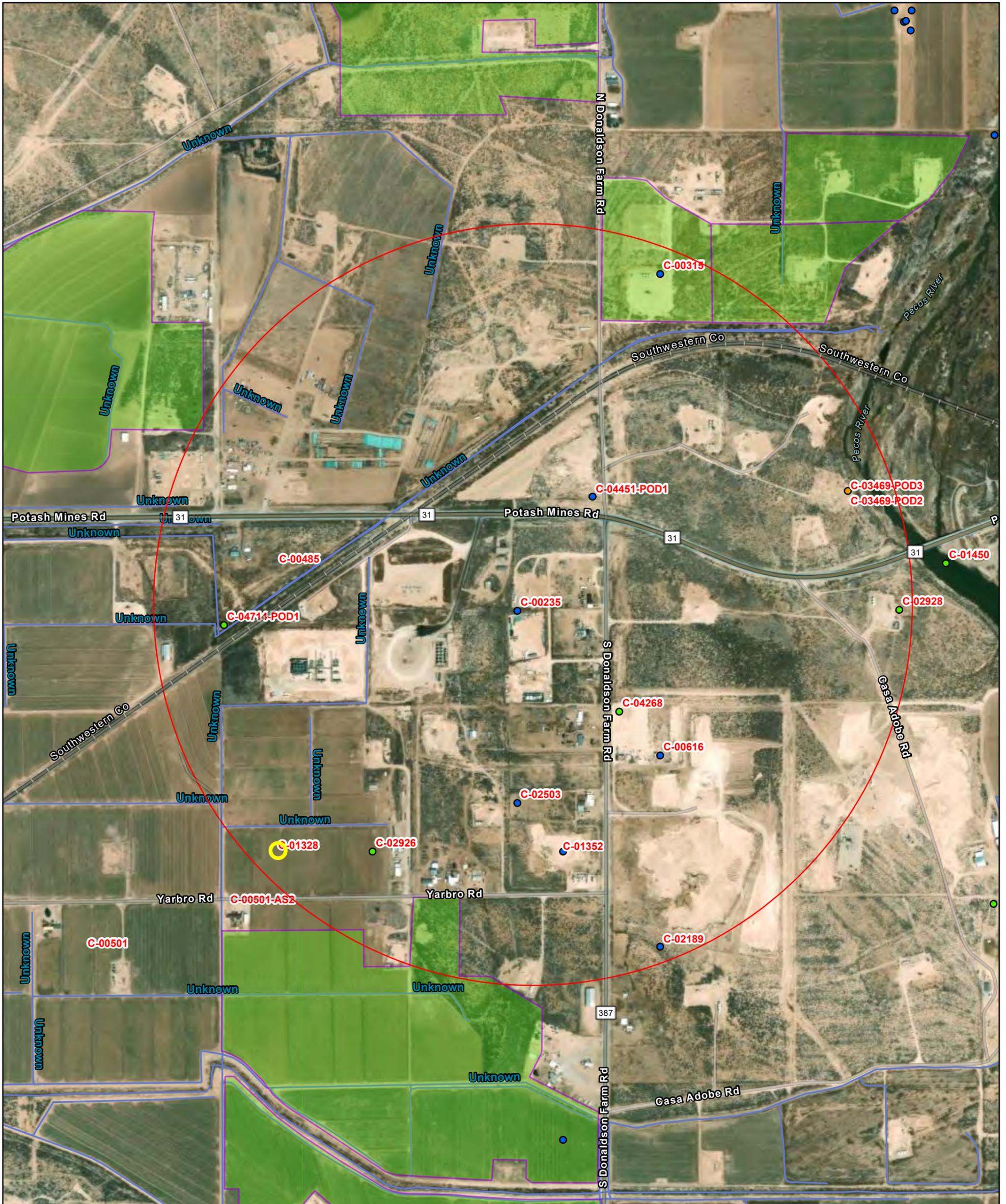
Sample Description			Petroleum Hydrocarbons									Inorganic	
Sample ID	Depth (ft)	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Criteria	NMOCD - NMAC <50 ft 19.15.29 (2018)		10	-	-	-	50	-	-	-	-	100	600
	NMOCD - NMAC 51-100 ft 19.15.29 (2018)		10	-	-	-	50	-	-	-	1000	2500	10000
	NMOCD - NMAC >100 ft 19.15.29 (2018)		10	-	-	-	50	-	-	-	1000	2500	20000
Boreholes													
BS21-01	4	2021-05-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS21-02	4	2021-05-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	78
BS21-03	4	2021-05-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	150
BS23-04	0.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	80
BS23-05	0.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32
BS23-06	0.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	48
BS23-07	0.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-08	0.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	16
BS23-09	0.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-10	1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-11	1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-12	1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-13	1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-14	1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-15	1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-16	1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-17	1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-18	1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32
BS23-19	1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	16
BS23-20	1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32
BS23-21	1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-22	1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-23	1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32
BS23-24	1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	16
BS23-25	0.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	112
BS23-26	0.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	16
BS23-27	0.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	16
BS23-28	0.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32
BS23-29	0.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32
WS21-01	0-4	2021-05-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS21-02	0-4	2021-05-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	66
WS21-03	0-4	2021-05-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS21-04	0-4	2021-05-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS23-05	0-0.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	128
WS23-06	0-1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	48
WS23-07	0-1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32
WS23-08	0-1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	16
WS23-09	0-1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32
WS23-10	0-1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32
WS23-11	0-1.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	48
WS23-12	0-0.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS23-13	0-0.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32
WS23-14	0-0.5	2023-08-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	112

NMAC - New Mexico Administrative Code (Title 19, Chapter 15, Part 29; 2022)
 ND - Not Detected at the Reporting Limit
 - Denotes no standard/not analyzed



ATTACHMENT 4

NMOSE C-04451 0.5-Mile Radius



9/6/2023, 9:28:10 AM

GIS WATERS PODs

- Active
- Pending
- Capped

Water Right Regulations

Negative Easement Area

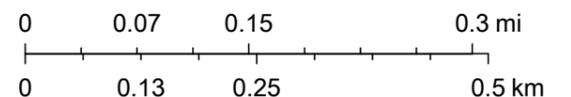
Conveyances

Ditch

OSE District Boundary

Site Boundaries

1:9,028



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New Mexico Office of the State Engineer Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
20C1F	C 04451 POD1	4	4	4	10	23S	28E	587833	3575521

Driller License: 1400 **Driller Company:** SOUTHEAST DRILLING COMPANY

Driller Name: HAMMOND, MARKDALENAIGENER

Drill Start Date: 09/28/2020	Drill Finish Date: 10/01/2020	Plug Date:
Log File Date: 10/14/2020	PCW Rcv Date:	Source: Shallow
Pump Type:	Pipe Discharge Size:	Estimated Yield: 30 GPM
Casing Size: 5.00	Depth Well: 120 feet	Depth Water: 57 feet

Water Bearing Stratifications:	Top	Bottom	Description
	57	75	Limestone/Dolomite/Chalk
	87	100	Limestone/Dolomite/Chalk

Casing Perforations:	Top	Bottom
	60	120

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.



Flowing Water 2,390 ft.



April 27, 2021

Wetlands

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Estuarine and Marine 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.



Playa Lake 6,377 ft.



April 27, 2021

Wetlands

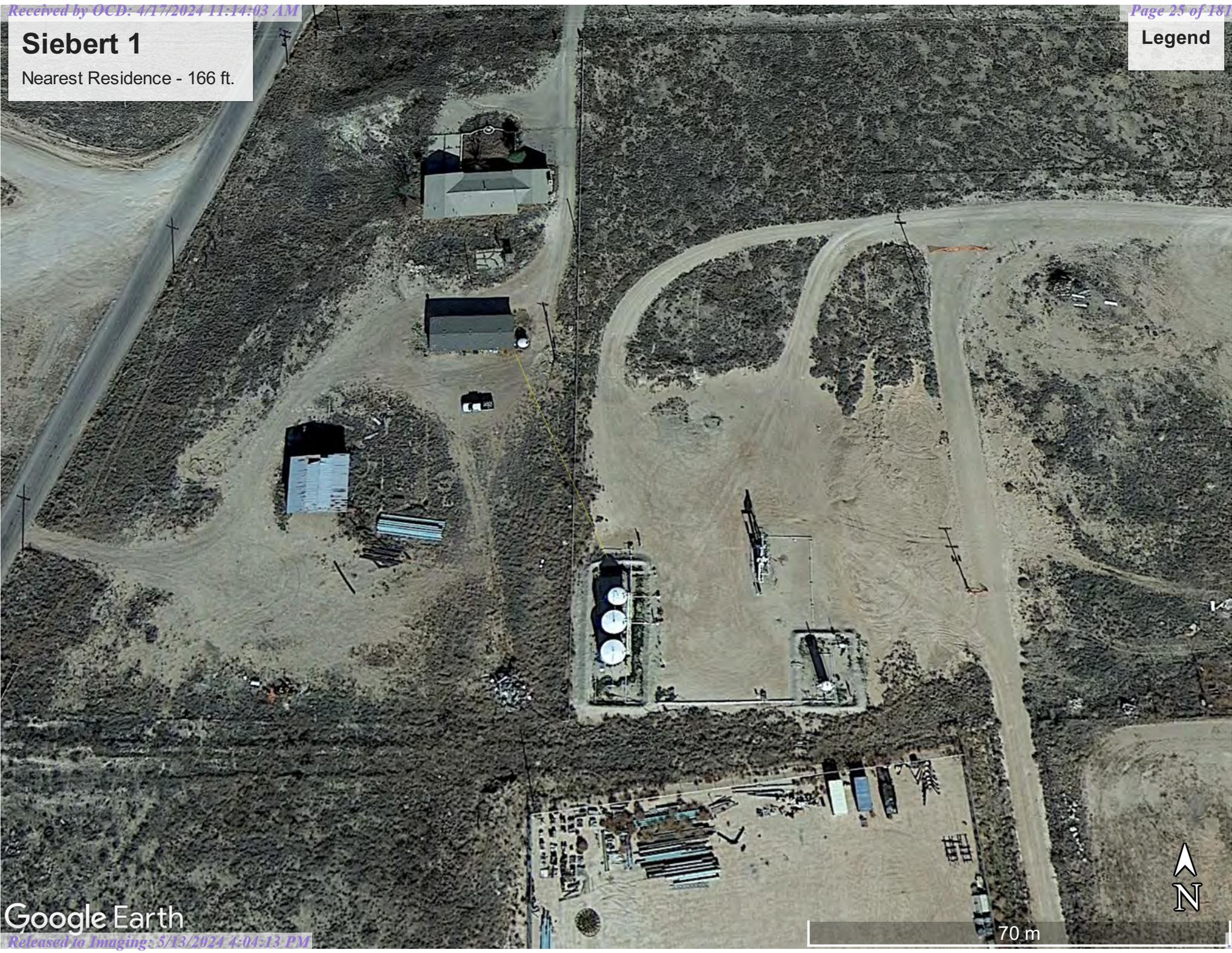
- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Estuarine and Marine Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

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Siebert 1

Nearest Residence - 166 ft.

Legend





New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	(quarters are smallest to largest)				(NAD83 UTM in meters)		Distance			
											q	q	q	q	X	Y				
C 00235	C	STK		3 LEE S. WILLIAMS	ED	C 00235				Shallow	2	2	15	23S	28E	587676	3575280*		53	
C 04451	C	DOL		3 ALFRED CARRASCO	ED	C 04451 POD1	20C1F			Shallow	4	4	10	23S	28E	587833	3575521		235	
C 04268	C	DOM		1 JOSE P VALENCIA	ED	C 04268	20772				1	3	1	14	23S	28E	587894	3575069		315
C 00616	CUB	IRR		0 LEE & WELMA VOIGT	ED	C 00616				Shallow	1	3	1	14	23S	28E	587982	3574978*		441
C 00321	C	DOM		0 W.J. BAILEY	ED	C 00321					4	2	15	23S	28E	587679	3574874*		449	
C 02503	C	DOM		3 JIMMY G TARVIN SR	ED	C 02503				Shallow	4	2	15	23S	28E	587679	3574874*		449	
C 00485	CUB	IRR		0 G.W. CRISP	ED	C 00485					1	1	2	15	23S	28E	587170	3575375*		539
C 00269	C	IRR		3 JOHNNY GIOVENGO JR.	ED	C 00269				Shallow	4	4	2	15	23S	28E	587778	3574773*		554
C 01352	C	DOM		3 D H MAGBY	ED	C 00269				Shallow	4	4	2	15	23S	28E	587778	3574773*		554
					ED	C 01352					4	4	2	15	23S	28E	587778	3574773*		554
C 01364	C	DOM		3 DANIEL H MAGBY	ED	C 00269				Shallow	4	4	2	15	23S	28E	587778	3574773*		554
C 02810	C	DOM		3 JOHN REID	ED	C 02810					4	3	2	15	23S	28E	587373	3574769*		646
C 02926	C	STK		3 JOHNNY L REID	ED	C 02926					4	3	2	15	23S	28E	587373	3574769*		646
C 03469	CUB	POL		0 BTA OIL PRODUCERS, LLC	ED	C 03469 POD2					3	4	3	11	23S	28E	588382	3575506		699
					ED	C 03469 POD1				Shallow	3	4	3	11	23S	28E	588373	3575538		700
					ED	C 03469 POD3					3	4	3	11	23S	28E	588381	3575538		707
C 00315	CUB	IRR		0 JOSE AREVALO	ED	C 00315				Shallow	3	1	3	11	23S	28E	587973	3575995*		722
C 01328	CUB	IRR		0 URQUIDEZ VICENTE L	ED	C 01328					3	3	2	15	23S	28E	587173	3574769*		769

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)
C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

*UTM location was derived from PLSS - see Help

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)										(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE) C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)										
WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q 6416	q 4	Sec	Tws	Rng	X	Y	Distance		
C 02928	C	PUB		0 NEW MEXICO STATE HIGHWAY & T.D	ED	C 02928					2	1	14	23S	28E	588486	3575290*		779	
C 02189	C	PRO		0 RB OPERATING COMPANY	ED	C 02189				Shallow	1	1	3	14	23S	28E	587985	3574572*		800
C 01450	C	PUB		0 GARDNER BRIDGE CO.	ED	C 01450					2	2	1	14	23S	28E	588585	3575389*		880
C 00608	C	DOM		0 JOSE AREVALO	ED	C 00608					3	3	1	11	23S	28E	587970	3576401*		1109
C 00128	C	DOL		3 YLARIO URQUIDEZ	ED	C 00128				Shallow	2	4	4	15	23S	28E	587783	3574162*		1163
C 01446	C	PUB		0 NM STATE HWY DEPT.	ED	C 01446								14	23S	28E	588692	3574670*		1181
C 03460	CUB	EXP		0 HUNGRY HORSE, LLC	ED	C 03460	POD1			Shallow	3	1	2	14	23S	28E	588857	3575004		1193
C 00501	CUB	IRR	93.51	EQUITABLE LIFE ASSURANCE SOCIETY	ED	C 00501					1	2	3	15	23S	28E	586772	3574559*		1207
C 00501 C	CUB	IRR	2.67	CARRASCO CANDELARIO JR	ED	C 00501					1	2	3	15	23S	28E	586772	3574559*		1207
C 00501 CA	CUB	IRR	111	NORWEST BANK NEW MEXICO AS MORTGAGEE	ED	C 00501					1	2	3	15	23S	28E	586772	3574559*		1207
C 01257	CUB	EXP		0 U.S. BORAX & CHEM. CORP.	ED	C 01257					4	1	2	14	23S	28E	588990	3575194*		1289
C 00501	CUB	IRR	93.51	EQUITABLE LIFE ASSURANCE SOCIETY	ED	C 00501 A-S				Shallow	3	2	3	15	23S	28E	586772	3574359*		1343
					ED	C 00501 AS				Shallow	3	2	3	15	23S	28E	586766	3574353		1350
C 00501 A	CUB	IRR	443.64	JACKIE D MCDONALD	ED	C 00501 AS				Shallow	3	2	3	15	23S	28E	586766	3574353		1350
C 00501 D	CUB	IRR	296.46	LIONEL ONSUREZ	ED	C 00501 AS				Shallow	3	2	3	15	23S	28E	586766	3574353		1350
C 00326	CUB	IRR	221.45	HENRY E MCDONALD	ED	C 00326				Shallow	3	3	3	10	23S	28E	586358	3575572*		1371
SP 01955	CUB	IRR	150.8	U.S. BANK NATIONAL ASSO. INTREPID MINING NM LLC	ED	SP 01955								11	23S	28E	588680	3576294*		1374
SP 00302	CUB	IND	4639.5	INTREPID MINING NM LLC US BANK NATIONAL ASSOCIATION	ED	SP 00302					1	4	11	23S	28E	588886	3576107*		1415	
SP 01942	CUB	IND	10868	INTREPID MINING NM LLC US BANK NATIONAL ASSOCIATION	ED	SP 01942					1	4	11	23S	28E	588886	3576107*		1415	
SP 02045	CUB	IND	18100	INTREPID MINING NM LLC US BANK NATIONAL ASSOCIATION	ED	SP 02045					1	4	11	23S	28E	588886	3576107*		1415	
C 04216	CUB	MON		0 ROCKCLIFF OPERATING NM LLC	ED	C 04216	POD4	NA		Shallow	2	4	1	11	23S	28E	588499	3576513		1429
C 00098	CUB	IRR	405.39	JAMES B KENNEY	ED	C 00109		NA		Shallow	1	3	3	04	23S	27E	588485	3576531		1437

*UTM location was derived from PLSS - see Help

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)																			
WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q	q	q	Sec	Tws	Rng	X	Y	Distance
C 00109	CUB	IRR	405.39	MONTIE BUNCH	ED	C 00109	NA			Shallow	1	3	3	04	23S	27E	588485	3576531	1437
C 04219	CUB	PRO	0	ATKINS ENGR ASSOC INC	ED	C 00109	NA			Shallow	1	3	3	04	23S	27E	588485	3576531	1437
C 04216	CUB	MON	0	ROCKCLIFF OPERATING NM LLC	ED	C 04216 POD1	NA			Shallow	2	4	1	11	23S	28E	588488	3576534	1441
					ED	C 04216 POD2				Shallow	1	4	1	11	23S	28E	588464	3576555	1447
C 00072	CUB	IRR	552	J L NYMEYER	ED	C 00072				Shallow	3	3	1	15	23S	28E	586364	3574760*	1456
C 00501 A	CUB	IRR	443.64	JACKIE D MCDONALD	ED	C 00501 A				Shallow	3	3	4	15	23S	28E	587179	3573958*	1463
C 00501 B	CUB	IRR	194.49	UFFIE LAND CO	ED	C 00501 A				Shallow	3	3	4	15	23S	28E	587179	3573958*	1463
C 04216	CUB	MON	0	ROCKCLIFF OPERATING NM LLC	ED	C 04216 POD3	NA			Shallow	1	4	1	11	23S	28E	588501	3576556	1466
C 01256	CUB	EXP	0	U.S. BORAX & CHEM. CORP.	ED	C 01256					3	2	2	14	23S	28E	589196	3575199*	1494
C 00512	CUB	IRR	322.8	ANTONIO C. & GLORIA G. ONSUREZ	ED	C 00512				Shallow	4	1	1	11	23S	28E	588188	3576775	1529
C 03536	C	PRO	0	GLENN'S WATER WELL SERVICE	ED	C 00512				Shallow	4	1	1	11	23S	28E	588188	3576775	1529
C 00512	CUB	IRR	322.8	ANTONIO C. & GLORIA G. ONSUREZ	ED	C 00512 S				Shallow	4	1	1	11	23S	28E	588167	3576806*	1552
C 04252	CUB	MON	0	CHEVRON NORTH AM EXPL & PROD	ED	C 04252 POD1	NA				4	4	3	14	23S	28E	588513	3573957	1585

Record Count: 53

UTMNAD83 Radius Search (in meters):

Easting (X): 587707

Northing (Y): 3575322.99

Radius: 1610

Sorted by: Distance

*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.



New Mexico Office of the State Engineer Water Right Summary



WR File Number: C 04451 **Subbasin:** C **Cross Reference:-**

Primary Purpose: DOL 72-12-1 DOMESTIC AND LIVESTOCK WATERING

Primary Status: PMT PERMIT

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

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

Owner: ALFRED CARRASCO

Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/	Acres	Diversion	Consumptive
			1	2		To			
get images	674777	72121	2020-07-01	PMT	LOG	C 04451 POD1	T		3

Current Points of Diversion

POD Number	Well Tag	Source	Q Q Q				(NAD83 UTM in meters)		Other Location Desc		
			64	16	4	Sec	Tws	Rng		X	Y
C 04451 POD1	20C1F	Shallow	4	4	4	10	23S	28E	587833	3575521	

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.

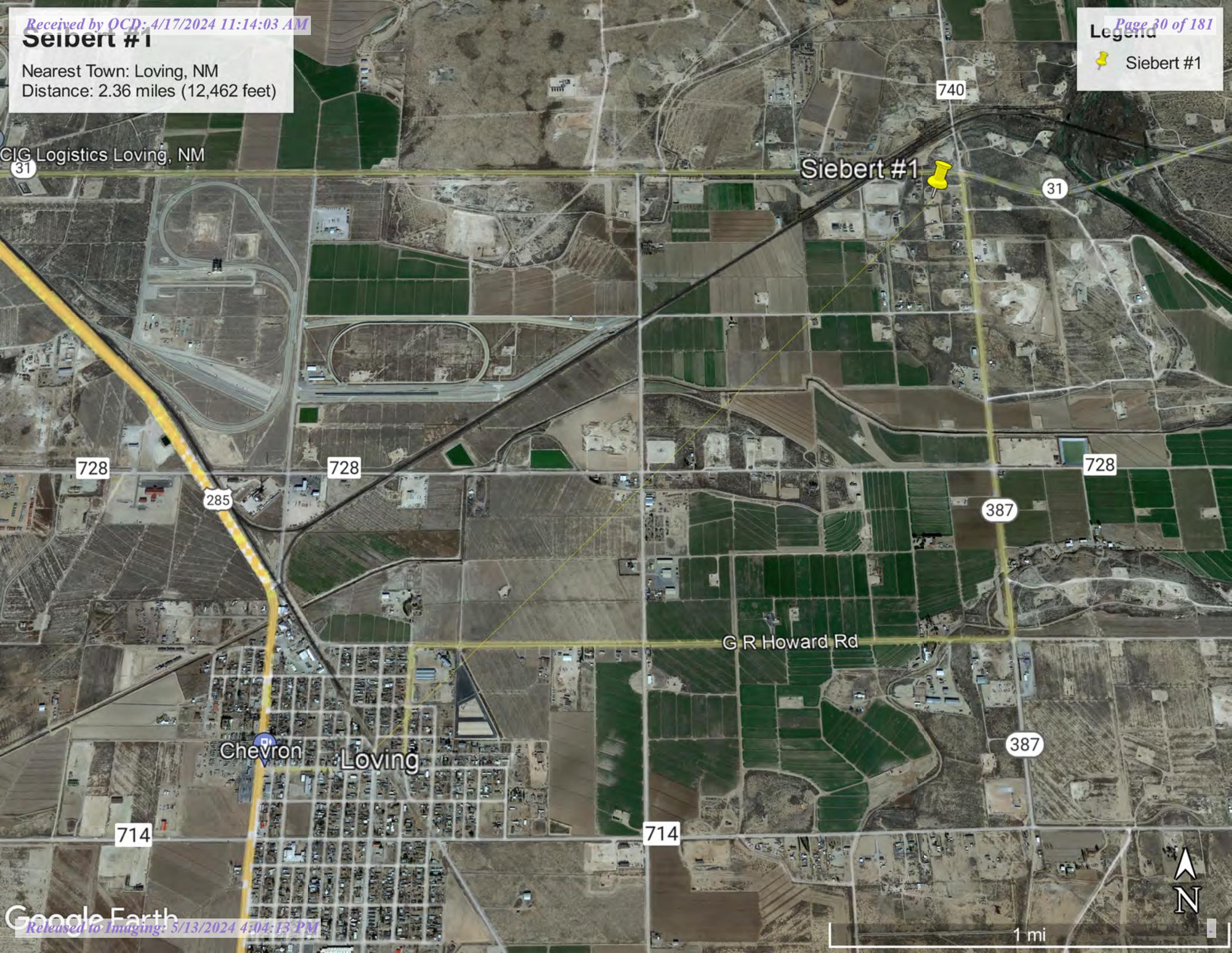
Siebert # 1

Legend

-  Siebert #1

Nearest Town: Loving, NM
 Distance: 2.36 miles (12,462 feet)

CIG Logistics Loving, NM



Chevron

Loving

Siebert #1

G R Howard Rd



Wetland 2,420 ft.



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

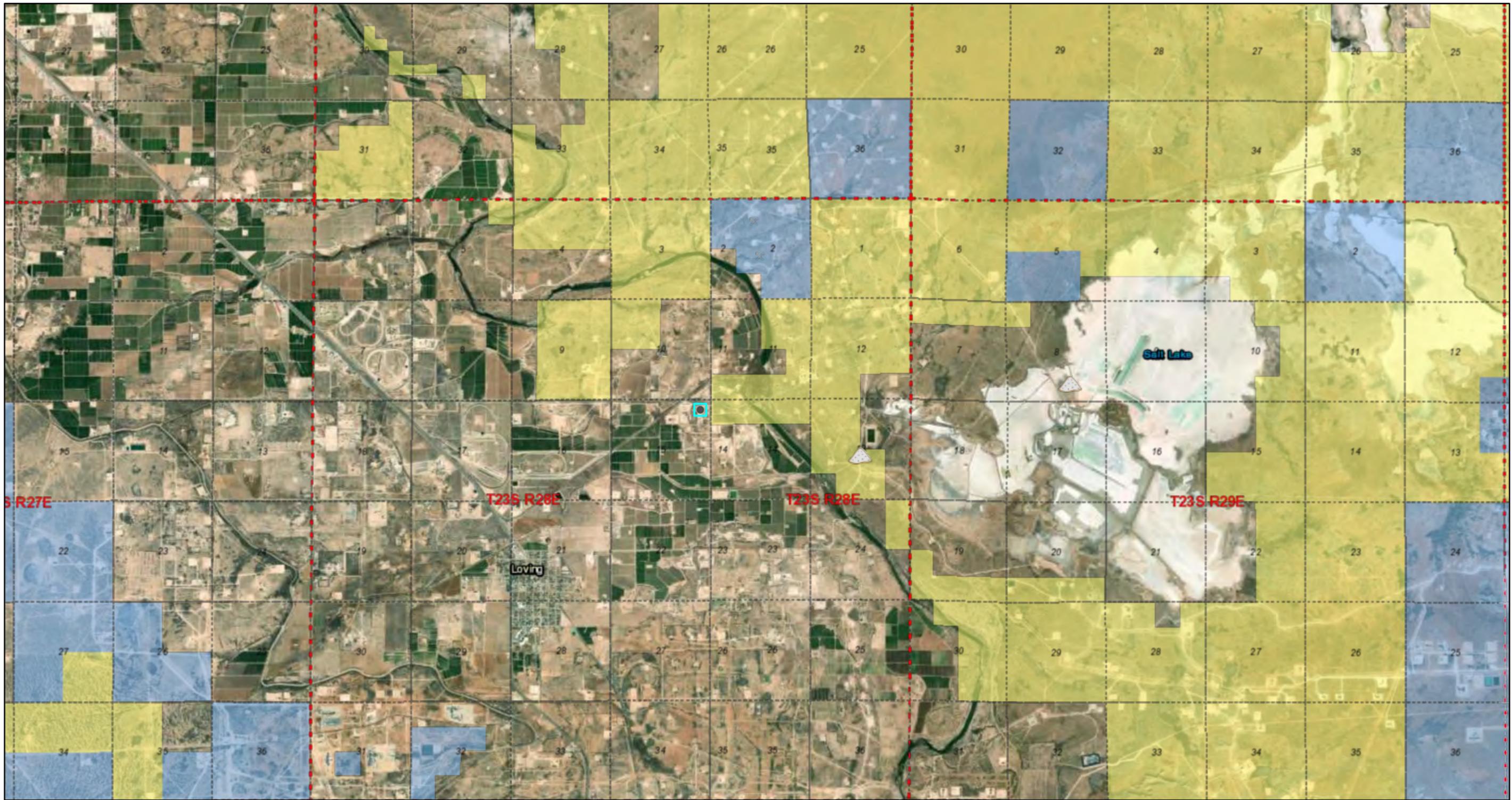
April 27, 2021

Wetlands

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

Active Mines in New Mexico



4/27/2021, 8:55:38 AM

1:72,224

Township / Range

Sections

Land Ownership

Bureau of Land Management

Bureau of Reclamation

Department of Agriculture

Department of Defense

Department of Energy

National Park Service

Private Land

State Game and Fish

State Land

State Parks

Tribal

US Fish and Wildlife Service

US Forest Service

Registered Mines

Aggregate, Stone etc.

Aggregate, Stone etc.

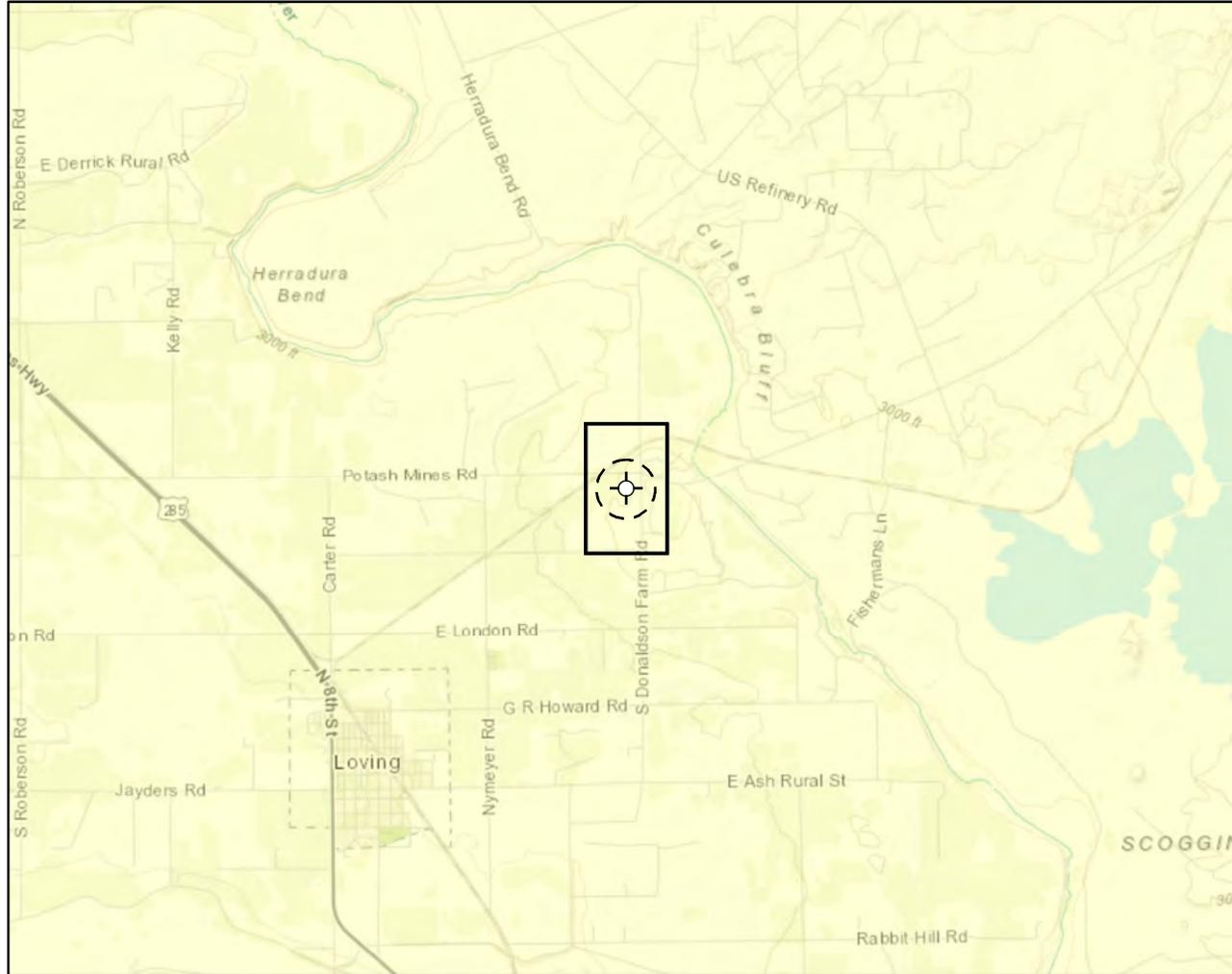
Aggregate, Stone etc.

Salt

0 0.75 1.5 3 mi

0 1.25 2.5 5 km

Esri, HERE, Garmin, U.S. Bureau of Land Management - New Mexico State Office, Earthstar Geographics



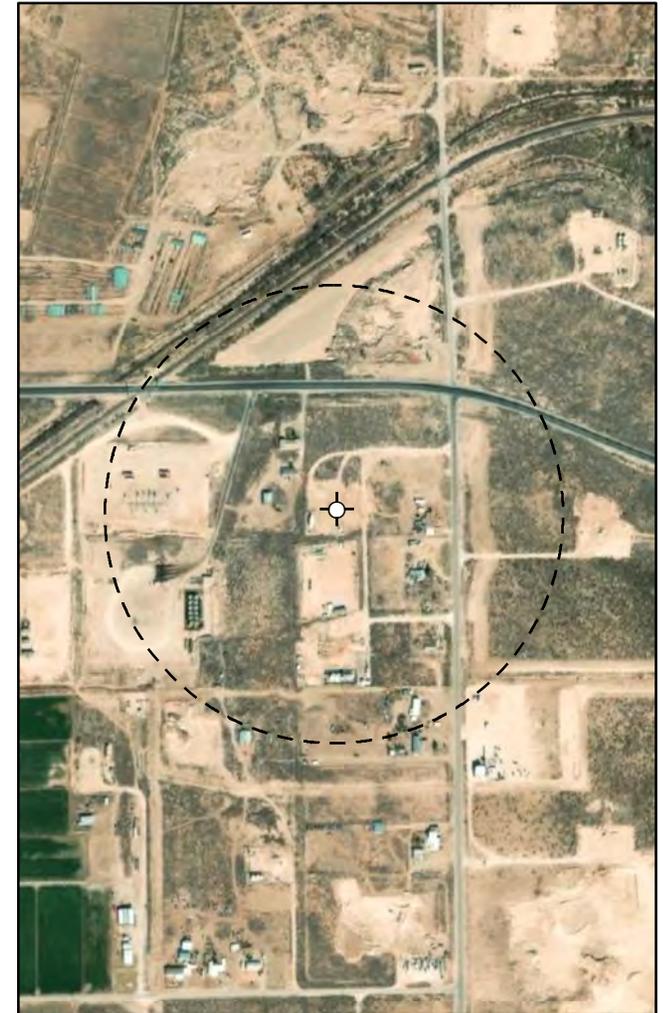
Karst Potential

- 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.



Map Center:
Lat/Long: 32.311300, -104.068300

NAD 1983 UTM Zone 13N
Date: Apr 27/21



**Karst Potential
Siebert #1**

FIGURE:

X



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 2020; Overview Map: ESRI World Topographic

VERSATILITY. EXPERTISE.

National Flood Hazard Layer FIRMette



104°4'25"W 32°18'56"N



Legend

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

- | | | |
|------------------------------------|--|--|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE)
<i>Zone A, V, A99</i> |
| | | With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i> |
| | | 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 <i>Zone X</i> |
| | | Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i> |
| | | Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i> |
| | | Area with Flood Risk due to Levee <i>Zone D</i> |
| OTHER AREAS | | NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i> |
| | | Effective LOMRs |
| GENERAL STRUCTURES | | Area of Undetermined Flood Hazard <i>Zone D</i> |
| | | 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 |
| MAP PANELS | | Coastal Transect Baseline |
| | | Profile Baseline |
| | | Hydrographic Feature |
| | | Digital Data Available |
| | | No Digital Data Available |
| | | Unmapped |



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 4/27/2021 at 11:04 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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



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

Custom Soil Resource Report for Eddy Area, New Mexico



April 27, 2021

Preface

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

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

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

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

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

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

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How Soil Surveys Are Made

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

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

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

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

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

Custom Soil Resource Report

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

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

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

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

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

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

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

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

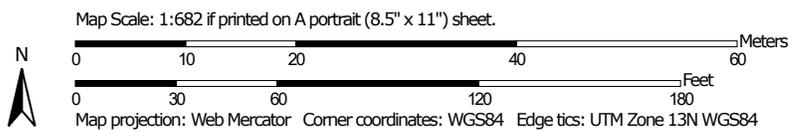
Soil Map

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

Custom Soil Resource Report Soil Map



Soil Map may not be valid at this scale.



Custom Soil Resource Report

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.

Custom Soil Resource Report

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Uo	Upton gravelly loam, 0 to 9 percent slopes	1.5	78.5%
Up	Upton soils, 0 to 1 percent slopes	0.4	21.5%
Totals for Area of Interest		1.9	100.0%

Map Unit Descriptions

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

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

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

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

Custom Soil Resource Report

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

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

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

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

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

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

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

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

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

Custom Soil Resource Report

Eddy Area, New Mexico**Uo—Upton gravelly loam, 0 to 9 percent slopes****Map Unit Setting**

National map unit symbol: 1w67
Elevation: 1,100 to 4,400 feet
Mean annual precipitation: 7 to 15 inches
Mean annual air temperature: 60 to 70 degrees F
Frost-free period: 200 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Upton and similar soils: 96 percent
Minor components: 4 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

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: R042XC025NM - Shallow
Hydric soil rating: No

Custom Soil Resource Report

Minor Components

Atoka

Percent of map unit: 1 percent
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

Atoka

Percent of map unit: 1 percent
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

Reagan

Percent of map unit: 1 percent
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

Upton

Percent of map unit: 1 percent
Ecological site: R042XC025NM - Shallow
Hydric soil rating: No

Up—Upton soils, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 1w68
Elevation: 1,100 to 4,400 feet
Mean annual precipitation: 7 to 14 inches
Mean annual air temperature: 60 to 70 degrees F
Frost-free period: 200 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Upton and similar soils: 98 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

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 8 inches: gravelly loam
H2 - 8 to 18 inches: gravelly loam
H3 - 18 to 40 inches: cemented
H4 - 40 to 60 inches: very gravelly loam

Custom Soil Resource Report

Properties and qualities

Slope: 0 to 1 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 1.9 inches)

Interpretive groups

Land capability classification (irrigated): 4s

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: R042XC025NM - Shallow

Hydric soil rating: No

Minor Components

Upton

Percent of map unit: 1 percent

Ecological site: R042XC025NM - Shallow

Hydric soil rating: No

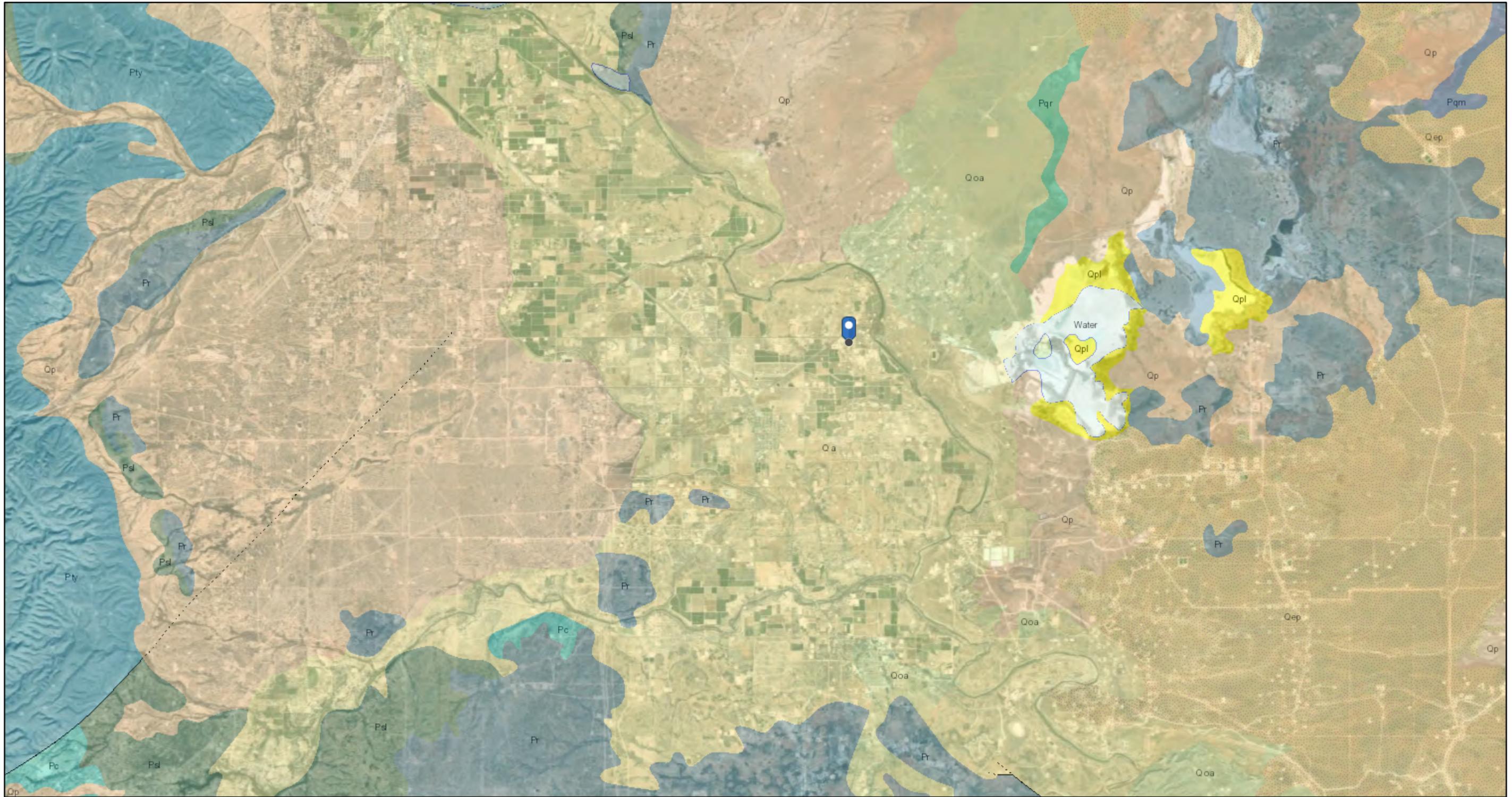
Atoka

Percent of map unit: 1 percent

Ecological site: R042XC007NM - Loamy

Hydric soil rating: No

Sibert #1

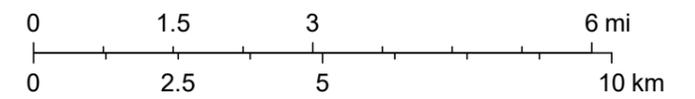


4/29/2021, 10:43:41 AM

1:144,448

Faults

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



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

ATTACHMENT 5



Daily Site Visit Report

Client:	<u>BTA Oil Producers LLC</u>	Inspection Date:	<u>8/22/2023</u>
Site Location Name:	<u>Siebert #001</u>	Report Run Date:	<u>8/22/2023 10:44 PM</u>
Client Contact Name:	<u>Bob Hall</u>	API #:	<u>30-015-26322</u>
Client Contact Phone #:	<u>432-312-2203</u>		
Unique Project ID	<u></u>	Project Owner:	<u></u>
Project Reference #	<u></u>	Project Manager:	<u></u>

Summary of Times

Arrived at Site	<u>8/22/2023 3:40 PM</u>
Departed Site	<u>8/22/2023 4:03 PM</u>

Field Notes

- 15:57** Arrived on site for pictures and measurements of excavation depths.
- 15:58** Finished the tasks.

Next Steps & Recommendations

1



Daily Site Visit Report

Site Photos

Viewing Direction: South



Excavation facing south

Viewing Direction: East



East side of excavation; deeper side

Viewing Direction: Southwest



Excavation facing southwest

Viewing Direction: West



Excavation facing west



Daily Site Visit Report



Excavation facing northwest



Excavation facing East



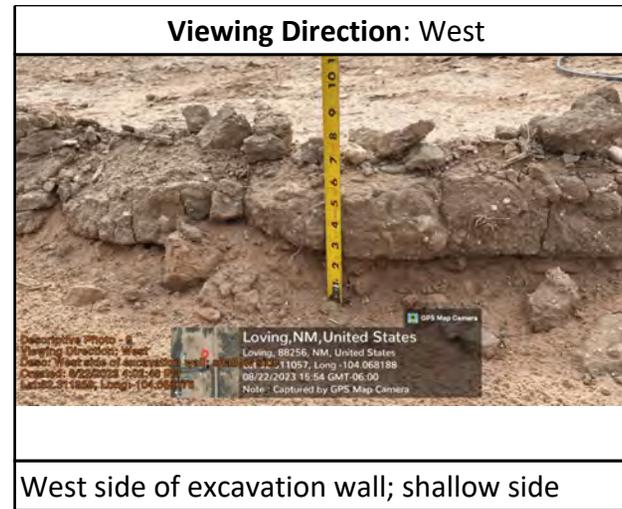
Excavation facing north



Excavation facing northeast



Daily Site Visit Report



Daily Site Visit Report



Daily Site Visit Signature

Inspector: Angela Mohle1

Signature: 
Signature



Daily Site Visit Report

Client	BTA Oil Producers LLC	Inspection Date	3/26/2024
Site Location Name	Siebert #001	API #	30-015-26322
Client Contact Name	Kelton Baird	Project Owner	
Client Contact Phone #	432-312-2203	Project Manager	
Project Reference #			
Unique Project ID			

Summary of Times

Arrived at Site	3/26/2024 8:51 AM
Departed Site	3/26/2024 11:30 AM

Field Notes

- 8:52** Arrived on site to collect eight boreholes at surface and 1' bgs between the location and the house adjacent to the property. The owner of the house has approved the sampling and I am cleared to proceed.
- 10:54** Collected BH24-01 through BH24-08 at 0' and 1' bgs. All samples field screened below NMOCD's strictest closure criteria. I was the only one on site during the sampling activities.

Next Steps & Recommendations

- 1** Send all samples to lab for analysis.

Daily Site Visit Report



Site Photos

Viewing Direction: Southeast



Descriptive Photo - 1
Viewing Direction: Southeast
Date: Sample area for BH24-01
Created: 3/25/2024 10:58:36 AM
Lat:32.311932, Long:-104.067144

Sample area for BH24-01

Viewing Direction: East



Descriptive Photo - 2
Viewing Direction: East
Date: Sample area for BH24-02
Created: 3/25/2024 10:57:02 AM
Lat:32.311935, Long:-104.067241

Sample area for BH24-02

Viewing Direction: East



Descriptive Photo - 3
Viewing Direction: East
Date: Sample area for BH24-03
Created: 3/25/2024 10:57:35 AM
Lat:32.311936, Long:-104.067169

Sample area for BH24-03

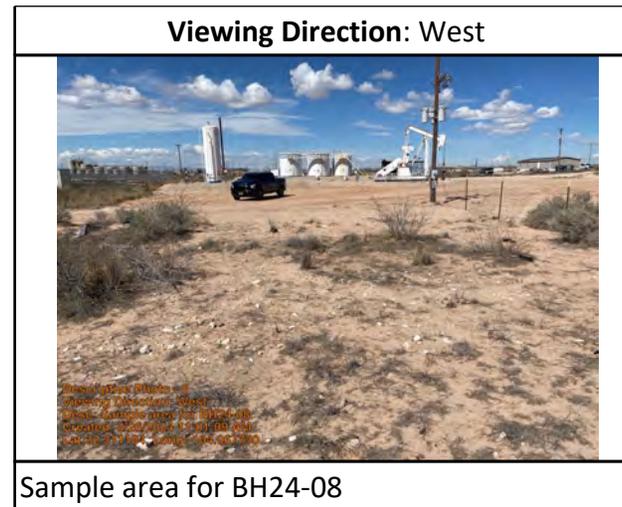
Viewing Direction: East



Descriptive Photo - 4
Viewing Direction: East
Date: Sample area for BH24-04
Created: 3/25/2024 10:57:54 AM
Lat:32.311938, Long:-104.067353

BH24-04

Daily Site Visit Report



Daily Site Visit Report



Daily Site Visit Signature

Inspector: Chance Dixon

Signature:

A handwritten signature in black ink, appearing to be 'CD' with a long horizontal stroke extending to the right.

Signature

ATTACHMENT 6

Monica Peppin

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Sent: Monday, May 3, 2021 4:57 PM
To: Enviro, OCD, EMNRD
Cc: John Hurt; BHall@btaoil.com; Monica Peppin
Subject: 48 HR Notification of Confirmation Sampling Siebert 1 nAPP2111646040

All,

Please accept this email as 48-hour notification that Vertex Resource Services has scheduled confirmatory sampling to be conducted at Siebert #1 Production Facility for the following release:

nAPP2111646040 DOR: April 24, 2021

On Wednesday, May 5, 2021 and possibly into Thursday May 6, 2021 at approximately 8:00 AM, Monica Peppin will be onsite to conduct confirmatory sampling after excavation has been completed. She 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.
3101 Boyd Drive,
Carlsbad, NM 88220

P 575.725.5001 Ext. 711
C 575.361.9880
F

www.vertex.ca

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Dhugal Hanton <vertexresourcegroupusa@gmail.com>

nAPP2111646040 Confirmatory Sampling Notice Siebert #1

2 messages

Dhugal Hanton <vertexresourcegroupusa@gmail.com>
To: "Enviro, OCD, EMNRD" <OCD.Enviro@emnrd.nm.gov>
Cc: KBeaird@btaoil.com

Wed, Jul 26, 2023 at 8:27 AM

All,

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

nAPP2111646040 DOR: 04/24/2021 Site Name: Siebert #1 Production Facility

This work will be completed on behalf of BTA Oil Producers, LLC

On Monday, July 31, 2023 at approximately 8:00 a.m. continuing through Friday August 4, 2023 at 5:00 p.m., Monica Peppin will be on site to conduct confirmatory sampling. She can be reached at 575-361-9880. If you need directions to the site, please do not hesitate to contact her. If you have any questions or concerns regarding this notification, please give me a call at 575-361-9880.

Thank you,

Monica Peppin, A.S.

Project Manager

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

P 575.725.5001 Ext. 711

C 575.361.9880

F

www.vertex.ca

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Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
To: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Cc: "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>, "Hamlet, Robert, EMNRD" <Robert.Hamlet@emnrd.nm.gov>

Wed, Jul 26, 2023 at 9:32 AM

Hi Monica,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

[Shelly Wells](#) * Environmental Specialist-Advanced

Administrative Permitting Program

EMNRD-Oil Conservation Division

[1220 S. St. Francis Drive|Santa Fe, NM 87505](#)

[\(505\)469-7520](tel:(505)469-7520)|Shelly.Wells@emnrd.nm.gov

<http://www.emnrd.state.nm.us/OCD/>

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>

Sent: Wednesday, July 26, 2023 8:27 AM

To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>

Cc: KBeaird@btaoil.com

Subject: [EXTERNAL] nAPP2111646040 Confirmatory Sampling Notice Siebert #1

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

[Quoted text hidden]

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

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

QUESTIONS

Action 325813

QUESTIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 325813
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2111646040
Incident Name	NAPP2111646040 SIEBERT #1 PRODUCTION FACILITY @ 30-015-26322
Incident Type	Oil Release
Incident Status	Initial C-141 Received
Incident Well	[30-015-26322] SIEBERT #001

Location of Release Source	
Site Name	SIEBERT #1 PRODUCTION FACILITY
Date Release Discovered	04/24/2021
Surface Owner	Private

Sampling Event General Information	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	3,200
What is the estimated number of samples that will be gathered	16
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	03/26/2024
Time sampling will commence	09:30 AM
Please provide any information necessary for observers to contact samplers	Chance Dixon with Vertex will be on site to collect confirmation samples. He can be reached at 575-988-1472. If you need directions to the site or any other information, do not hesitate to contact him.
Please provide any information necessary for navigation to sampling site	32.311483, -104.067779

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 325813

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 325813
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
btavertex	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	3/22/2024

ATTACHMENT 7



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

May 03, 2021

Monica Peppin

Vertex Resource Group Ltd.

3101 Boyd Drive

Carlsbad, NM 88220

TEL: (505) 506-0040

FAX:

RE: Siebert 1

OrderNo.: 2104C16

Dear Monica Peppin:

Hall Environmental Analysis Laboratory received 12 sample(s) on 4/29/2021 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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **2104C16**

Date Reported: 5/3/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.

Client Sample ID: BH21-01 0'

Project: Siebert 1

Collection Date: 4/27/2021 7:45:00 AM

Lab ID: 2104C16-001

Matrix: MEOH (SOIL)

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	6700	93		mg/Kg	10	4/29/2021 10:35:04 AM
Motor Oil Range Organics (MRO)	3000	470		mg/Kg	10	4/29/2021 10:35:04 AM
Surr: DNOP	0	70-130	S	%Rec	10	4/29/2021 10:35:04 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	820	21		mg/Kg	5	4/29/2021 9:46:08 AM
Surr: BFB	825	70-130	S	%Rec	5	4/29/2021 9:46:08 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	0.11	0.11		mg/Kg	5	4/29/2021 9:46:08 AM
Toluene	6.8	0.21		mg/Kg	5	4/29/2021 9:46:08 AM
Ethylbenzene	10	0.21		mg/Kg	5	4/29/2021 9:46:08 AM
Xylenes, Total	54	0.43		mg/Kg	5	4/29/2021 9:46:08 AM
Surr: 4-Bromofluorobenzene	187	70-130	S	%Rec	5	4/29/2021 9:46:08 AM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	18000	1500		mg/Kg	500	4/29/2021 2:13:53 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 Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2104C16**

Date Reported: 5/3/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.

Client Sample ID: BH21-01 2'

Project: Siebert 1

Collection Date: 4/27/2021 8:00:00 AM

Lab ID: 2104C16-002

Matrix: MEOH (SOIL)

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	9.8	8.6		mg/Kg	1	4/29/2021 10:32:49 AM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	4/29/2021 10:32:49 AM
Surr: DNOP	101	70-130		%Rec	1	4/29/2021 10:32:49 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	4/29/2021 3:15:38 PM
Surr: BFB	101	70-130		%Rec	1	4/29/2021 3:15:38 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	4/29/2021 3:15:38 PM
Toluene	ND	0.034		mg/Kg	1	4/29/2021 3:15:38 PM
Ethylbenzene	ND	0.034		mg/Kg	1	4/29/2021 3:15:38 PM
Xylenes, Total	ND	0.069		mg/Kg	1	4/29/2021 3:15:38 PM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	4/29/2021 3:15:38 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	630	60		mg/Kg	20	4/29/2021 10:55:21 AM

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

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

Analytical Report

Lab Order **2104C16**

Date Reported: 5/3/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.

Client Sample ID: BH21-01 4'

Project: Siebert 1

Collection Date: 4/27/2021 8:10:00 AM

Lab ID: 2104C16-003

Matrix: MEOH (SOIL)

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	31	9.0		mg/Kg	1	4/29/2021 10:42:07 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	4/29/2021 10:42:07 AM
Surr: DNOP	108	70-130		%Rec	1	4/29/2021 10:42:07 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/29/2021 10:33:34 AM
Surr: BFB	98.8	70-130		%Rec	1	4/29/2021 10:33:34 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	4/29/2021 10:33:34 AM
Toluene	ND	0.046		mg/Kg	1	4/29/2021 10:33:34 AM
Ethylbenzene	ND	0.046		mg/Kg	1	4/29/2021 10:33:34 AM
Xylenes, Total	ND	0.093		mg/Kg	1	4/29/2021 10:33:34 AM
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	4/29/2021 10:33:34 AM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	130	60		mg/Kg	20	4/29/2021 11:07:46 AM

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

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

Analytical Report

Lab Order **2104C16**

Date Reported: 5/3/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.

Client Sample ID: BH21-02 0'

Project: Siebert 1

Collection Date: 4/27/2021 8:20:00 AM

Lab ID: 2104C16-004

Matrix: MEOH (SOIL)

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	13000	860		mg/Kg	100	4/29/2021 3:49:36 PM
Motor Oil Range Organics (MRO)	5200	4300		mg/Kg	100	4/29/2021 3:49:36 PM
Surr: DNOP	0	70-130	S	%Rec	100	4/29/2021 3:49:36 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	1500	24		mg/Kg	5	4/29/2021 10:57:14 AM
Surr: BFB	1420	70-130	S	%Rec	5	4/29/2021 10:57:14 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	4/29/2021 10:57:14 AM
Toluene	8.1	0.24		mg/Kg	5	4/29/2021 10:57:14 AM
Ethylbenzene	16	0.24		mg/Kg	5	4/29/2021 10:57:14 AM
Xylenes, Total	72	4.9		mg/Kg	50	4/29/2021 2:52:15 PM
Surr: 4-Bromofluorobenzene	117	70-130		%Rec	50	4/29/2021 2:52:15 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	1100	61		mg/Kg	20	4/29/2021 11:20:10 AM

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

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

Analytical Report

Lab Order **2104C16**

Date Reported: 5/3/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.

Client Sample ID: BH21-02 1'

Project: Siebert 1

Collection Date: 4/27/2021 8:30:00 AM

Lab ID: 2104C16-005

Matrix: MEOH (SOIL)

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	390	8.5		mg/Kg	1	4/29/2021 12:07:09 PM
Motor Oil Range Organics (MRO)	250	43		mg/Kg	1	4/29/2021 12:07:09 PM
Surr: DNOP	103	70-130		%Rec	1	4/29/2021 12:07:09 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	4.7	4.0		mg/Kg	1	4/29/2021 3:38:57 PM
Surr: BFB	135	70-130	S	%Rec	1	4/29/2021 3:38:57 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.020		mg/Kg	1	4/29/2021 3:38:57 PM
Toluene	ND	0.040		mg/Kg	1	4/29/2021 3:38:57 PM
Ethylbenzene	ND	0.040		mg/Kg	1	4/29/2021 3:38:57 PM
Xylenes, Total	0.11	0.080		mg/Kg	1	4/29/2021 3:38:57 PM
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	4/29/2021 3:38:57 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	160	60		mg/Kg	20	4/29/2021 11:32:35 AM

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E 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 Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2104C16**

Date Reported: **5/3/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.

Client Sample ID: BH21-02 3'

Project: Siebert 1

Collection Date: 4/27/2021 8:40:00 AM

Lab ID: 2104C16-006

Matrix: MEOH (SOIL)

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	33	9.2		mg/Kg	1	4/29/2021 10:51:27 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/29/2021 10:51:27 AM
Surr: DNOP	105	70-130		%Rec	1	4/29/2021 10:51:27 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/29/2021 11:44:06 AM
Surr: BFB	100	70-130		%Rec	1	4/29/2021 11:44:06 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/29/2021 11:44:06 AM
Toluene	ND	0.048		mg/Kg	1	4/29/2021 11:44:06 AM
Ethylbenzene	ND	0.048		mg/Kg	1	4/29/2021 11:44:06 AM
Xylenes, Total	ND	0.097		mg/Kg	1	4/29/2021 11:44:06 AM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/29/2021 11:44:06 AM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	180	60		mg/Kg	20	4/29/2021 11:44:59 AM

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

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

Analytical Report

Lab Order **2104C16**

Date Reported: 5/3/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.

Client Sample ID: BH21-06 0-0.5'

Project: Siebert 1

Collection Date: 4/27/2021 9:20:00 AM

Lab ID: 2104C16-007

Matrix: MEOH (SOIL)

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	13	8.8		mg/Kg	1	4/29/2021 11:00:48 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	4/29/2021 11:00:48 AM
Surr: DNOP	100	70-130		%Rec	1	4/29/2021 11:00:48 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	4/29/2021 12:07:38 PM
Surr: BFB	108	70-130		%Rec	1	4/29/2021 12:07:38 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.021		mg/Kg	1	4/29/2021 12:07:38 PM
Toluene	ND	0.043		mg/Kg	1	4/29/2021 12:07:38 PM
Ethylbenzene	ND	0.043		mg/Kg	1	4/29/2021 12:07:38 PM
Xylenes, Total	0.12	0.086		mg/Kg	1	4/29/2021 12:07:38 PM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	4/29/2021 12:07:38 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	ND	60		mg/Kg	20	4/29/2021 11:57:23 AM

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

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

Analytical Report

Lab Order **2104C16**

Date Reported: 5/3/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.

Client Sample ID: BH21-08 0-0.5'

Project: Siebert 1

Collection Date: 4/27/2021 9:35:00 AM

Lab ID: 2104C16-008

Matrix: MEOH (SOIL)

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	4/29/2021 11:10:12 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	4/29/2021 11:10:12 AM
Surr: DNOP	105	70-130		%Rec	1	4/29/2021 11:10:12 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	4/29/2021 12:31:23 PM
Surr: BFB	97.0	70-130		%Rec	1	4/29/2021 12:31:23 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	4/29/2021 12:31:23 PM
Toluene	ND	0.039		mg/Kg	1	4/29/2021 12:31:23 PM
Ethylbenzene	ND	0.039		mg/Kg	1	4/29/2021 12:31:23 PM
Xylenes, Total	ND	0.077		mg/Kg	1	4/29/2021 12:31:23 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/29/2021 12:31:23 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	11000	600		mg/Kg	200	4/29/2021 2:26:17 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 Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2104C16**

Date Reported: 5/3/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.

Client Sample ID: BH21-11 0-0.5'

Project: Siebert 1

Collection Date: 4/27/2021 9:55:00 AM

Lab ID: 2104C16-009

Matrix: MEOH (SOIL)

Received Date: 4/29/2021 7:35:00 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	4/29/2021 11:19:37 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/29/2021 11:19:37 AM
Surr: DNOP	100	70-130		%Rec	1	4/29/2021 11:19:37 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	4/29/2021 12:55:06 PM
Surr: BFB	102	70-130		%Rec	1	4/29/2021 12:55:06 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.021		mg/Kg	1	4/29/2021 12:55:06 PM
Toluene	ND	0.041		mg/Kg	1	4/29/2021 12:55:06 PM
Ethylbenzene	ND	0.041		mg/Kg	1	4/29/2021 12:55:06 PM
Xylenes, Total	ND	0.082		mg/Kg	1	4/29/2021 12:55:06 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/29/2021 12:55:06 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	170	61		mg/Kg	20	4/29/2021 12:22:12 PM

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	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 Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2104C16**

Date Reported: **5/3/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.

Client Sample ID: BH21-13 0-0.5'

Project: Siebert 1

Collection Date: 4/27/2021 10:30:00 AM

Lab ID: 2104C16-010

Matrix: MEOH (SOIL)

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	8.4	7.4		mg/Kg	1	4/29/2021 11:29:04 AM
Motor Oil Range Organics (MRO)	ND	37		mg/Kg	1	4/29/2021 11:29:04 AM
Surr: DNOP	102	70-130		%Rec	1	4/29/2021 11:29:04 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/29/2021 1:18:36 PM
Surr: BFB	112	70-130		%Rec	1	4/29/2021 1:18:36 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/29/2021 1:18:36 PM
Toluene	ND	0.048		mg/Kg	1	4/29/2021 1:18:36 PM
Ethylbenzene	ND	0.048		mg/Kg	1	4/29/2021 1:18:36 PM
Xylenes, Total	0.16	0.095		mg/Kg	1	4/29/2021 1:18:36 PM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	4/29/2021 1:18:36 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	2300	150		mg/Kg	50	4/29/2021 2:38:42 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 Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2104C16**

Date Reported: **5/3/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.

Client Sample ID: BH21-14 0-0.5'

Project: Siebert 1

Collection Date: 4/27/2021 10:35:00 AM

Lab ID: 2104C16-011

Matrix: MEOH (SOIL)

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	ND	8.4		mg/Kg	1	4/29/2021 11:38:33 AM
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	4/29/2021 11:38:33 AM
Surr: DNOP	105	70-130		%Rec	1	4/29/2021 11:38:33 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	4/29/2021 2:05:28 PM
Surr: BFB	97.8	70-130		%Rec	1	4/29/2021 2:05:28 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	4/29/2021 2:05:28 PM
Toluene	ND	0.038		mg/Kg	1	4/29/2021 2:05:28 PM
Ethylbenzene	ND	0.038		mg/Kg	1	4/29/2021 2:05:28 PM
Xylenes, Total	ND	0.075		mg/Kg	1	4/29/2021 2:05:28 PM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	4/29/2021 2:05:28 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	78	61		mg/Kg	20	4/29/2021 1:11:50 PM

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	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 Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2104C16**

Date Reported: **5/3/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.

Client Sample ID: BH21-07 1'

Project: Siebert 1

Collection Date: 4/27/2021 11:30:00 AM

Lab ID: 2104C16-012

Matrix: MEOH (SOIL)

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	33	9.4		mg/Kg	1	4/29/2021 1:01:46 PM
Motor Oil Range Organics (MRO)	54	47		mg/Kg	1	4/29/2021 1:01:46 PM
Surr: DNOP	88.1	70-130		%Rec	1	4/29/2021 1:01:46 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	4/29/2021 2:28:50 PM
Surr: BFB	97.3	70-130		%Rec	1	4/29/2021 2:28:50 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.020		mg/Kg	1	4/29/2021 2:28:50 PM
Toluene	ND	0.040		mg/Kg	1	4/29/2021 2:28:50 PM
Ethylbenzene	ND	0.040		mg/Kg	1	4/29/2021 2:28:50 PM
Xylenes, Total	ND	0.080		mg/Kg	1	4/29/2021 2:28:50 PM
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	4/29/2021 2:28:50 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	290	60		mg/Kg	20	4/29/2021 1:24:14 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 Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104C16

03-May-21

Client: Vertex Resource Group Ltd.

Project: Siebert 1

Sample ID: MB-59700	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59700	RunNo: 77029								
Prep Date: 4/29/2021	Analysis Date: 4/29/2021	SeqNo: 2731376	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59700	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59700	RunNo: 77029								
Prep Date: 4/29/2021	Analysis Date: 4/29/2021	SeqNo: 2731377	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 Quantitative 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#: 2104C16

03-May-21

Client: Vertex Resource Group Ltd.

Project: Siebert 1

Sample ID: MB-59699	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59699	RunNo: 77044								
Prep Date: 4/29/2021	Analysis Date: 4/29/2021	SeqNo: 2730878	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.3		10.00		83.0	70	130			

Sample ID: LCS-59699	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59699	RunNo: 77044								
Prep Date: 4/29/2021	Analysis Date: 4/29/2021	SeqNo: 2730879	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.7	68.9	141			
Surr: DNOP	4.3		5.000		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 Quantitative 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#: 2104C16

03-May-21

Client: Vertex Resource Group Ltd.

Project: Siebert 1

Sample ID: mb	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: G77045		RunNo: 77045							
Prep Date:	Analysis Date: 4/29/2021		SeqNo: 2731167		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		96.2	70	130			

Sample ID: 2.5ug gro lcs	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: G77045		RunNo: 77045							
Prep Date:	Analysis Date: 4/29/2021		SeqNo: 2731168		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.8	78.6	131			
Surr: BFB	1100		1000		107	70	130			

Sample ID: 2104c16-002ams	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: BH21-01 2'	Batch ID: G77045		RunNo: 77045							
Prep Date:	Analysis Date: 4/29/2021		SeqNo: 2731183		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.4	17.21	0	101	61.3	114			
Surr: BFB	810		688.2		117	70	130			

Sample ID: 2104c16-002amsd	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: BH21-01 2'	Batch ID: G77045		RunNo: 77045							
Prep Date:	Analysis Date: 4/29/2021		SeqNo: 2731184		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.4	17.21	0	99.6	61.3	114	1.16	20	
Surr: BFB	810		688.2		118	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative 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#: 2104C16

03-May-21

Client: Vertex Resource Group Ltd.

Project: Siebert 1

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: B77045	RunNo: 77045								
Prep Date:	Analysis Date: 4/29/2021	SeqNo: 2731214	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		100	70	130			

Sample ID: 100ng btex lcs	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: B77045	RunNo: 77045								
Prep Date:	Analysis Date: 4/29/2021	SeqNo: 2731215	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	70	130			

Sample ID: 2104c16-003ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: BH21-01 4'	Batch ID: B77045	RunNo: 77045								
Prep Date:	Analysis Date: 4/29/2021	SeqNo: 2731231	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.023	0.9259	0	103	76.3	120			
Toluene	0.96	0.046	0.9259	0	103	78.5	120			
Ethylbenzene	0.94	0.046	0.9259	0	102	78.1	124			
Xylenes, Total	2.8	0.093	2.778	0	101	79.3	125			
Surr: 4-Bromofluorobenzene	0.98		0.9259		106	70	130			

Sample ID: 2104c16-003amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: BH21-01 4'	Batch ID: B77045	RunNo: 77045								
Prep Date:	Analysis Date: 4/29/2021	SeqNo: 2731232	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.023	0.9259	0	101	80	120	2.57	20	
Toluene	0.94	0.046	0.9259	0	102	80	120	1.68	20	
Ethylbenzene	0.93	0.046	0.9259	0	100	80	120	1.36	20	
Xylenes, Total	2.8	0.093	2.778	0	101	80	120	0.205	20	
Surr: 4-Bromofluorobenzene	0.99		0.9259		107	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative 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
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: **Vertex Resource Group Ltd.** Work Order Number: **2104C16** RcptNo: 1

Received By: **Juan Rojas** 4/29/2021 7:35:00 AM *Juan Rojas*

Completed By: **Cheyenne Cason** 4/29/2021 7:48:42 AM *Cason*

Reviewed By: **SGC 4/29/21**

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? Yes No
(Note discrepancies on chain of custody)
- 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? Yes No
(If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: JR 4/29/21

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.6	Good				

Chain-of-Custody Record

Client: Vortex

Mailing Address:

Phone #:

Email or Fax#:

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation: Az Compliance

NELAC Other

EDD (Type)

Turn-Around Time: 5 days

Standard Rush Same day

Project Name: Siebert #1

Project #: 21E-01340

Project Manager: Monica Peppin

Sampler: MJP

On Ice: Yes No

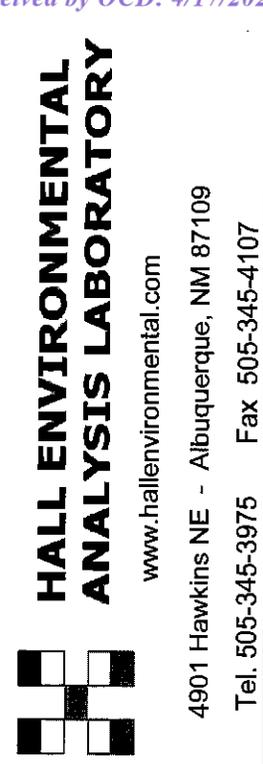
of Coolers: 1

Cooler Temp (including CF): 3.7 - 0.1 = 3.6 (°C)

Container Type and # 402 ice

Preservative Type ice

HEAL No. 2104C16



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

Analysis Request

<input checked="" type="checkbox"/> BTEX / MTBE / TMB's (8021)	<input checked="" type="checkbox"/>
TPH:8015D(GRO / DRO / MRO)	<input checked="" type="checkbox"/>
8081 Pesticides/8082 PCB's	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	
<input checked="" type="checkbox"/> Cl ⁻ , Br ⁻ , NO ₃ ⁻ , NO ₂ ⁻ , PO ₄ ⁻ , SO ₄ ⁻	<input checked="" type="checkbox"/>
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
4/27	7:45	Soil	BH21-01	0'	ice	001
	8:00		BH21-01	2'		002
	8:10		BH21-01	4'		003
	8:20		BH21-02	0'		004
	8:30		BH21-02	1'		005
	8:40		BH21-02	3'		006
	9:20		BH21-06	0-0.5'		007
	9:35		BH21-08	0-0.5'		008
	9:55		BH21-11	0-0.5'		009
	10:30		BH21-13	0-0.5'		010
	10:35		BH21-14	0-0.5'		011
	11:30	Per sample see 4/28/24	BH21-07	1'		012

Received by: [Signature] Date: 4/29/24 Time: 0900

Relinquished by: [Signature]

Received by: [Signature] Date: 4/29/21 Time: 7:35

Relinquished by: [Signature]

Via: courier

Remarks: BTA 011



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

May 11, 2021

Monica Peppin

Vertex Resources Services, Inc.

3101 Boyd Drive

Carlsbad, NM 88220

TEL: (505) 506-0040

FAX:

RE: Siebert 1

OrderNo.: 2105140

Dear Monica Peppin:

Hall Environmental Analysis Laboratory received 3 sample(s) on 5/5/2021 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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **2105140**

Date Reported: **5/11/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH21-18 0-0.5'

Project: Siebert 1

Collection Date: 5/3/2021 7:45:00 AM

Lab ID: 2105140-001

Matrix: MEOH (SOIL)

Received Date: 5/5/2021 7:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	5/5/2021 10:36:55 AM	59816
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: BRM
Gasoline Range Organics (GRO)	ND	2.8		mg/Kg	1	5/5/2021 11:38:09 AM	C77154
Surr: BFB	94.6	70-130		%Rec	1	5/5/2021 11:38:09 AM	C77154
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/5/2021 10:53:10 AM	59811
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/5/2021 10:53:10 AM	59811
Surr: DNOP	98.2	70-130		%Rec	1	5/5/2021 10:53:10 AM	59811
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: BRM
Benzene	ND	0.014		mg/Kg	1	5/5/2021 11:38:09 AM	A77154
Toluene	ND	0.028		mg/Kg	1	5/5/2021 11:38:09 AM	A77154
Ethylbenzene	ND	0.028		mg/Kg	1	5/5/2021 11:38:09 AM	A77154
Xylenes, Total	ND	0.056		mg/Kg	1	5/5/2021 11:38:09 AM	A77154
Surr: 1,2-Dichloroethane-d4	119	70-130		%Rec	1	5/5/2021 11:38:09 AM	A77154
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	5/5/2021 11:38:09 AM	A77154
Surr: Dibromofluoromethane	118	70-130		%Rec	1	5/5/2021 11:38:09 AM	A77154
Surr: Toluene-d8	110	70-130		%Rec	1	5/5/2021 11:38:09 AM	A77154

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 Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2105140**

Date Reported: **5/11/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH21-19 0'

Project: Siebert 1

Collection Date: 5/3/2021 10:00:00 AM

Lab ID: 2105140-002

Matrix: MEOH (SOIL)

Received Date: 5/5/2021 7:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	5/5/2021 10:49:20 AM	59816
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: BRM
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	5/5/2021 12:05:12 PM	C77154
Surr: BFB	96.6	70-130		%Rec	1	5/5/2021 12:05:12 PM	C77154
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	5/5/2021 1:18:09 PM	59811
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/5/2021 1:18:09 PM	59811
Surr: DNOP	97.3	70-130		%Rec	1	5/5/2021 1:18:09 PM	59811
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: BRM
Benzene	ND	0.016		mg/Kg	1	5/5/2021 12:05:12 PM	A77154
Toluene	ND	0.032		mg/Kg	1	5/5/2021 12:05:12 PM	A77154
Ethylbenzene	ND	0.032		mg/Kg	1	5/5/2021 12:05:12 PM	A77154
Xylenes, Total	ND	0.065		mg/Kg	1	5/5/2021 12:05:12 PM	A77154
Surr: 1,2-Dichloroethane-d4	117	70-130		%Rec	1	5/5/2021 12:05:12 PM	A77154
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	5/5/2021 12:05:12 PM	A77154
Surr: Dibromofluoromethane	112	70-130		%Rec	1	5/5/2021 12:05:12 PM	A77154
Surr: Toluene-d8	114	70-130		%Rec	1	5/5/2021 12:05:12 PM	A77154

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 Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order 2105140

Date Reported: 5/11/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH21-20 0'

Project: Siebert 1

Collection Date: 5/3/2021 10:10:00 AM

Lab ID: 2105140-003

Matrix: MEOH (SOIL)

Received Date: 5/5/2021 7:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	5/5/2021 11:01:45 AM	59816
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: BRM
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	5/5/2021 12:32:16 PM	C77154
Surr: BFB	96.9	70-130		%Rec	1	5/5/2021 12:32:16 PM	C77154
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/5/2021 12:58:39 PM	59811
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/5/2021 12:58:39 PM	59811
Surr: DNOP	105	70-130		%Rec	1	5/5/2021 12:58:39 PM	59811
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: BRM
Benzene	ND	0.016		mg/Kg	1	5/5/2021 12:32:16 PM	A77154
Toluene	ND	0.033		mg/Kg	1	5/5/2021 12:32:16 PM	A77154
Ethylbenzene	ND	0.033		mg/Kg	1	5/5/2021 12:32:16 PM	A77154
Xylenes, Total	ND	0.066		mg/Kg	1	5/5/2021 12:32:16 PM	A77154
Surr: 1,2-Dichloroethane-d4	119	70-130		%Rec	1	5/5/2021 12:32:16 PM	A77154
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	5/5/2021 12:32:16 PM	A77154
Surr: Dibromofluoromethane	114	70-130		%Rec	1	5/5/2021 12:32:16 PM	A77154
Surr: Toluene-d8	111	70-130		%Rec	1	5/5/2021 12:32:16 PM	A77154

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2105140

11-May-21

Client: Vertex Resources Services, Inc.

Project: Siebert 1

Sample ID: MB-59816	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59816	RunNo: 77148								
Prep Date: 5/5/2021	Analysis Date: 5/5/2021	SeqNo: 2736489	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59816	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59816	RunNo: 77148								
Prep Date: 5/5/2021	Analysis Date: 5/5/2021	SeqNo: 2736490	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.2	90	110			

Sample ID: 2105035-001AMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: 59816	RunNo: 77148								
Prep Date: 5/5/2021	Analysis Date: 5/5/2021	SeqNo: 2736515	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	30	7.5	15.00	16.29	91.1	36.7	168			

Sample ID: 2105035-001AMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: 59816	RunNo: 77148								
Prep Date: 5/5/2021	Analysis Date: 5/5/2021	SeqNo: 2736516	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	27	7.5	15.00	16.29	70.4	36.7	168	10.9	20	

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

May 11, 2021

Monica Peppin

Vertex Resources Services, Inc.

3101 Boyd Drive

Carlsbad, NM 88220

TEL: (505) 506-0040

FAX:

RE: Siebert 1

OrderNo.: 2105220

Dear Monica Peppin:

Hall Environmental Analysis Laboratory received 7 sample(s) on 5/6/2021 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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **2105220**

Date Reported: **5/11/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS21-01 4'

Project: Siebert 1

Collection Date: 5/5/2021 8:00:00 AM

Lab ID: 2105220-001

Matrix: MEOH (SOIL)

Received Date: 5/6/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	5/6/2021 11:07:48 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/6/2021 11:07:48 AM
Surr: DNOP	103	70-130		%Rec	1	5/6/2021 11:07:48 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	5/6/2021 12:31:32 PM
Surr: BFB	92.6	70-130		%Rec	1	5/6/2021 12:31:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	5/6/2021 12:31:32 PM
Toluene	ND	0.038		mg/Kg	1	5/6/2021 12:31:32 PM
Ethylbenzene	ND	0.038		mg/Kg	1	5/6/2021 12:31:32 PM
Xylenes, Total	ND	0.077		mg/Kg	1	5/6/2021 12:31:32 PM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	5/6/2021 12:31:32 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	ND	60		mg/Kg	20	5/6/2021 11:31:43 AM

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

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

Analytical Report

Lab Order **2105220**

Date Reported: **5/11/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS21-02 4'

Project: Siebert 1

Collection Date: 5/5/2021 8:10:00 AM

Lab ID: 2105220-002

Matrix: MEOH (SOIL)

Received Date: 5/6/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	5/6/2021 11:31:49 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/6/2021 11:31:49 AM
Surr: DNOP	103	70-130		%Rec	1	5/6/2021 11:31:49 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	5/6/2021 12:54:52 PM
Surr: BFB	91.8	70-130		%Rec	1	5/6/2021 12:54:52 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	5/6/2021 12:54:52 PM
Toluene	ND	0.035		mg/Kg	1	5/6/2021 12:54:52 PM
Ethylbenzene	ND	0.035		mg/Kg	1	5/6/2021 12:54:52 PM
Xylenes, Total	ND	0.070		mg/Kg	1	5/6/2021 12:54:52 PM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	5/6/2021 12:54:52 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	78	60		mg/Kg	20	5/6/2021 11:44:07 AM

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	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 Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2105220**

Date Reported: **5/11/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS21-03 4'

Project: Siebert 1

Collection Date: 5/5/2021 8:20:00 AM

Lab ID: 2105220-003

Matrix: MEOH (SOIL)

Received Date: 5/6/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/6/2021 12:00:32 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/6/2021 12:00:32 PM
Surr: DNOP	98.0	70-130		%Rec	1	5/6/2021 12:00:32 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	5/6/2021 1:42:02 PM
Surr: BFB	91.1	70-130		%Rec	1	5/6/2021 1:42:02 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.016		mg/Kg	1	5/6/2021 1:42:02 PM
Toluene	ND	0.033		mg/Kg	1	5/6/2021 1:42:02 PM
Ethylbenzene	ND	0.033		mg/Kg	1	5/6/2021 1:42:02 PM
Xylenes, Total	ND	0.066		mg/Kg	1	5/6/2021 1:42:02 PM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	5/6/2021 1:42:02 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	150	61		mg/Kg	20	5/6/2021 11:56:32 AM

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

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

Analytical Report

Lab Order **2105220**

Date Reported: **5/11/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS21-01 0-4'

Project: Siebert 1

Collection Date: 5/5/2021 8:30:00 AM

Lab ID: 2105220-004

Matrix: MEOH (SOIL)

Received Date: 5/6/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	5/6/2021 12:13:06 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/6/2021 12:13:06 PM
Surr: DNOP	98.4	70-130		%Rec	1	5/6/2021 12:13:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	5/6/2021 2:05:29 PM
Surr: BFB	91.4	70-130		%Rec	1	5/6/2021 2:05:29 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	5/6/2021 2:05:29 PM
Toluene	ND	0.035		mg/Kg	1	5/6/2021 2:05:29 PM
Ethylbenzene	ND	0.035		mg/Kg	1	5/6/2021 2:05:29 PM
Xylenes, Total	ND	0.069		mg/Kg	1	5/6/2021 2:05:29 PM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	5/6/2021 2:05:29 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	ND	60		mg/Kg	20	5/6/2021 12:08:56 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 Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

August 15, 2023

CHANCE DIXON

VERTEX RESOURCE GROUP

420 SOUTH MAIN, SUITE 202

TULSA, OK 74103

RE: SIEBERT #1

Enclosed are the results of analyses for samples received by the laboratory on 08/09/23 13:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/03/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: BS 23 - 04 0.5 (H234254-01)

BTEX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594	
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	08/10/2023	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	167	83.6	200	2.47	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	164	81.9	200	8.72	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 82.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received: 08/09/2023
 Reported: 08/15/2023
 Project Name: SIEBERT #1
 Project Number: 23E-
 Project Location: BTA

Sampling Date: 08/03/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: BS 23 - 05 0.5 (H234254-02)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/10/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	167	83.6	200	2.47		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	164	81.9	200	8.72		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 80.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/03/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: BS 23 - 06 0.5 (H234254-03)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/10/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	167	83.6	200	2.47		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	164	81.9	200	8.72		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 79.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/03/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: BS 23 - 07 0.5 (H234254-04)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/10/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/15/2023	ND	167	83.6	200	2.47		
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	164	81.9	200	8.72		
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND						

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received: 08/09/2023
 Reported: 08/15/2023
 Project Name: SIEBERT #1
 Project Number: 23E-
 Project Location: BTA

Sampling Date: 08/03/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: BS 23 - 08 0.5 (H234254-05)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/10/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	167	83.6	200	2.47		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	164	81.9	200	8.72		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 81.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/03/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: BS 23 - 09 0.5 (H234254-06)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/10/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	167	83.6	200	2.47		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	164	81.9	200	8.72		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 83.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/03/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: BS 23 - 10 1.5 (H234254-07)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/10/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	167	83.6	200	2.47		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	164	81.9	200	8.72		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 79.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received: 08/09/2023
 Reported: 08/15/2023
 Project Name: SIEBERT #1
 Project Number: 23E-
 Project Location: BTA

Sampling Date: 08/03/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: BS 23 - 11 1.5 (H234254-08)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/10/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	167	83.6	200	2.47		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	164	81.9	200	8.72		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 76.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/03/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: BS 23 - 12 1.5 (H234254-09)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/10/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	167	83.6	200	2.47		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	164	81.9	200	8.72		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 83.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.4 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/03/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: BS 23 - 13 1.5 (H234254-10)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/10/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	167	83.6	200	2.47		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	164	81.9	200	8.72		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 76.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received: 08/09/2023
 Reported: 08/15/2023
 Project Name: SIEBERT #1
 Project Number: 23E-
 Project Location: BTA

Sampling Date: 08/03/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: BS 23 - 14 1.5 (H234254-11)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/10/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	167	83.6	200	2.47		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	164	81.9	200	8.72		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 72.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/03/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: BS 23 - 15 1.5 (H234254-12)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/10/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	167	83.6	200	2.47		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	164	81.9	200	8.72		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 76.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 69.8 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/03/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: BS 23 - 16 1.5 (H234254-13)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/10/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	167	83.6	200	2.47		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	164	81.9	200	8.72		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 80.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.2 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received: 08/09/2023
 Reported: 08/15/2023
 Project Name: SIEBERT #1
 Project Number: 23E-
 Project Location: BTA

Sampling Date: 08/03/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: BS 23 - 17 1.5 (H234254-14)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/10/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	167	83.6	200	2.47		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	164	81.9	200	8.72		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 78.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.6 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received: 08/09/2023
 Reported: 08/15/2023
 Project Name: SIEBERT #1
 Project Number: 23E-
 Project Location: BTA

Sampling Date: 08/03/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: BS 23 - 18 1.5 (H234254-15)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/10/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 74.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.8 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/03/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: BS 23 - 19 1.5 (H234254-16)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/10/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 74.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.6 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received: 08/09/2023
 Reported: 08/15/2023
 Project Name: SIEBERT #1
 Project Number: 23E-
 Project Location: BTA

Sampling Date: 08/03/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: BS 23 - 20 1.5 (H234254-17)

BTEX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594	
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 74.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received: 08/09/2023
 Reported: 08/15/2023
 Project Name: SIEBERT #1
 Project Number: 23E-
 Project Location: BTA

Sampling Date: 08/03/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: BS 23 - 21 1.5 (H234254-18)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/10/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 71.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/03/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: BS 23 - 22 1.5 (H234254-19)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	1.97	98.6	2.00	0.594		
Toluene*	<0.050	0.050	08/11/2023	ND	1.88	94.0	2.00	0.772		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	1.88	93.8	2.00	0.515		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	5.52	92.0	6.00	0.312		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/10/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 72.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/03/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: BS 23 - 23 1.5 (H234254-20)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49		
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/10/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 66.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 58.6 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received: 08/09/2023
 Reported: 08/15/2023
 Project Name: SIEBERT #1
 Project Number: 23E-
 Project Location: BTA

Sampling Date: 08/04/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: BS 23 - 24 (H234254-21)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49		
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103		
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789		
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508		
Total BTEX	<0.300	0.300	08/11/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/10/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11		
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83		
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND						

Surrogate: 1-Chlorooctane 78.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.6 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/04/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: BS 23 - 25 (H234254-22)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49	
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 77.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.2 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received: 08/09/2023
 Reported: 08/15/2023
 Project Name: SIEBERT #1
 Project Number: 23E-
 Project Location: BTA

Sampling Date: 08/04/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: BS 23 - 26 (H234254-23)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49	
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 75.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received: 08/09/2023
 Reported: 08/15/2023
 Project Name: SIEBERT #1
 Project Number: 23E-
 Project Location: BTA

Sampling Date: 08/04/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: BS 23 - 27 (H234254-24)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49	
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 76.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/04/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: BS 23 - 28 (H234254-25)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49	
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 77.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/04/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: BS 23 - 29 (H234254-26)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49	
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 71.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.0 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/04/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: WS 23 - 05 (H234254-27)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49	
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 68.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.0 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received: 08/09/2023
 Reported: 08/15/2023
 Project Name: SIEBERT #1
 Project Number: 23E-
 Project Location: BTA

Sampling Date: 08/04/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: WS 23 - 06 (H234254-28)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49	
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 65.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 65.7 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/04/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: WS 23 - 07 (H234254-29)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49	
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 62.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 60.0 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/04/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: WS 23 - 08 (H234254-30)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49	
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 78.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.5 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/04/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: WS 23 - 09 0-1.5 (H234254-31)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49	
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 65.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 64.2 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/04/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: WS 23 - 10 0-1.5 (H234254-32)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49	
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 78.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.1 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/04/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: WS 23 - 11 0.5-1.5 (H234254-33)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49	
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 71.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.6 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/04/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: WS 23 - 12 0-0.5 (H234254-34)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49	
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	176	87.8	200	6.11	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	181	90.3	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 76.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/04/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: WS 23 - 13 0-0.5 (H234254-35)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49	
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	174	87.0	200	3.56	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	178	88.8	200	2.20	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 79.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	08/09/2023	Sampling Date:	08/04/2023
Reported:	08/15/2023	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	** (See Notes)
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA		

Sample ID: WS 23 - 14 0-0.5 (H234254-36)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2023	ND	2.08	104	2.00	1.49	
Toluene*	<0.050	0.050	08/11/2023	ND	2.16	108	2.00	0.103	
Ethylbenzene*	<0.050	0.050	08/11/2023	ND	2.20	110	2.00	0.789	
Total Xylenes*	<0.150	0.150	08/11/2023	ND	6.75	112	6.00	0.508	
Total BTEX	<0.300	0.300	08/11/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	08/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2023	ND	174	87.0	200	3.56	
DRO >C10-C28*	<10.0	10.0	08/10/2023	ND	178	88.8	200	2.20	
EXT DRO >C28-C36	<10.0	10.0	08/10/2023	ND					

Surrogate: 1-Chlorooctane 78.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.0 % 49.1-148

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Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: **BTA Oil Vertex**
 Project Manager: **Chance Dixon**
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone #: _____ Fax #: _____
 Project #: **23E-** Project Owner: **Kurtis Beard**
 Project Name: **Sibert #1**
 Project Location: **Sibert #1**
 Sampler Name: **mjp**

P.O. #: _____
 Company: **BTA**
 Attn: _____
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone #: _____ Fax #: _____

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
HE34254	B523-04									8/3	7:30	BTEX
	05										7:35	PH
	06										7:40	CI
	07										7:45	
	08										7:50	
	09										7:55	
	10										8:00	
	11										8:05	
	12										8:10	
	13										8:15	

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Relinquished By: _____
 Date: **8-9-23**
 Time: **1300**
 Received By: _____
 Date: _____
 Time: _____

Verbal Result: Yes No Add'l Phone #: _____
 All Results are emailed. Please provide Email address: _____
 REMARKS: **Direct to BTA**
CCI: cdixon@vertex.ca

Delivered By: (Circle One) _____
 Observed Temp. °C: **29.4**
 Corrected Temp. °C: _____
 Sample Condition: Intact Cool Yes No No
 CHECKED BY: _____ (Initials)
 Turnaround Time: Standard Rush
 Bacteria (only) Sample Condition Cool Intact Yes No No
 Thermometer ID: **440**
 Correction Factor: **0.00**
 Date: **8/9/23**
 Corrected Temp. °C: _____

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
 (575) 393-2326 FAX (575) 393-2476

Company Name: **BTA / VerTex**
 Project Manager: **Chance Dixon**
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone #: _____ Fax #: _____
 Project #: _____ Project Owner: _____
 Project Name: **Sibert #1**
 Project Location: _____
 Sampler Name: **MSP**
 P.O. #: _____ Company: **BTA**
 Attn: _____ Address: _____
 City: _____ State: _____ Zip: _____
 Phone #: _____ Fax #: _____

BILL TO ANALYSIS REQUEST

FOR LAB USE ONLY

Lab I.D. _____ Sample I.D. _____

Matrix: GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: _____

Preserv: ACID/BASE: _____ ICE / COOL OTHER: _____

DATE: _____ TIME: _____

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV	SAMPLING	DATE	TIME	BTEX	TPH	CI
H234254	B523-14						8/3	8:20			
12	15						8:25	8:30			
13	16						8:35	8:40			
14	17						8:45	8:50			
15	18						8:55	9:00			
16	19						9:05				
17	20										
18	21										
19	22										
20	23										

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Relinquished By: _____ Date: **8-9-23** Time: **1:30**
 Received By: **Amara Delacruz**
 Verbal Result: Yes No Add'l Phone #:
 All Results are emailed. Please provide Email address:
 REMARKS:

Delivered By: (Circle One) _____
 Sampler - UPS - Bus - Other: _____
 Observed Temp. °C: **29.4**
 Corrected Temp. °C: _____
 Sample Condition: Cool Intact Yes No
 CHECKED BY: (Initials) **A.D.**
 Turnaround Time: Standard Rush
 Bacteria (only) Cool Intact Yes No
 Sample Condition: Observed Temp. °C: _____
 Corrected Temp. °C: _____

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



101 East Marland, Hobbs, NM 88240
 (575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: _____ Project Manager: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____ Project #: _____ Project Owner: _____ Project Name: <u>Siport #1</u> Project Location: _____ Sampler Name: _____ <small>FOR LAB USE ONLY</small>		BILL TO P.O. #: _____ Company: <u>BTA</u> Attn: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____		ANALYSIS REQUEST	
Lab I.D. _____ Sample I.D. _____ H234254 B523-24 21 25 22 26 23 27 24 28 25 29 26 30 27 08 28 09 29 07 30 08	(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : _____ ACID/BASE: ICE / COOL OTHER : _____	MATRIX PRESERV. SAMPLING	DATE 8/14 8:00 8:05 8:10 8:15 8:20 8:25 8:30 8:35 8:40 9:45	TIME 8:00 8:05 8:10 8:15 8:20 8:25 8:30 8:35 8:40 9:45	BTEX TPH CI
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or resulting from the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.					
Relinquished By: _____ Date: _____ Time: _____		Received By: <u>Lawrence Clarke</u> Date: <u>8-9-23</u> Time: <u>1300</u>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: _____ All Results are emailed. Please provide Email address: _____	
REMARKS: _____					
Delivered By: (Circle One) Sampler - UPS - Bus - Other: _____ Observed Temp. °C <u>29.4</u> Corrected Temp. °C _____ Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Checked By: (Initials) <u>AE</u>		Turnaround Time: <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush Thermometer ID 444 <u>#140</u> <u>8/9/23</u> Correction Factor 0.00 <u>0.00</u> Bacteria (only) <input type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Sample Condition <input type="checkbox"/> Observed Temp. °C _____ Corrected Temp. °C _____		Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com	

Analytical Report

Lab Order **2105220**

Date Reported: **5/11/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS21-02 0-4'

Project: Siebert 1

Collection Date: 5/5/2021 8:40:00 AM

Lab ID: 2105220-005

Matrix: MEOH (SOIL)

Received Date: 5/6/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	5/6/2021 11:55:50 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	5/6/2021 11:55:50 AM
Surr: DNOP	102	70-130		%Rec	1	5/6/2021 11:55:50 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	5/6/2021 2:29:10 PM
Surr: BFB	88.6	70-130		%Rec	1	5/6/2021 2:29:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	5/6/2021 2:29:10 PM
Toluene	ND	0.036		mg/Kg	1	5/6/2021 2:29:10 PM
Ethylbenzene	ND	0.036		mg/Kg	1	5/6/2021 2:29:10 PM
Xylenes, Total	ND	0.071		mg/Kg	1	5/6/2021 2:29:10 PM
Surr: 4-Bromofluorobenzene	98.7	70-130		%Rec	1	5/6/2021 2:29:10 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	66	60		mg/Kg	20	5/6/2021 12:21:21 PM

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	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 Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2105220**

Date Reported: **5/11/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS21-03 0-4'

Project: Siebert 1

Collection Date: 5/5/2021 8:50:00 AM

Lab ID: 2105220-006

Matrix: MEOH (SOIL)

Received Date: 5/6/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	5/6/2021 11:44:08 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	5/6/2021 11:44:08 AM
Surr: DNOP	98.2	70-130		%Rec	1	5/6/2021 11:44:08 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	5/6/2021 2:52:32 PM
Surr: BFB	92.6	70-130		%Rec	1	5/6/2021 2:52:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	5/6/2021 2:52:32 PM
Toluene	ND	0.038		mg/Kg	1	5/6/2021 2:52:32 PM
Ethylbenzene	ND	0.038		mg/Kg	1	5/6/2021 2:52:32 PM
Xylenes, Total	ND	0.077		mg/Kg	1	5/6/2021 2:52:32 PM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	5/6/2021 2:52:32 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	ND	60		mg/Kg	20	5/6/2021 12:33:45 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 Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2105220**

Date Reported: **5/11/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS21-04 0-4'

Project: Siebert 1

Collection Date: 5/5/2021 9:00:00 AM

Lab ID: 2105220-007

Matrix: MEOH (SOIL)

Received Date: 5/6/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/6/2021 11:53:43 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/6/2021 11:53:43 AM
Surr: DNOP	98.4	70-130		%Rec	1	5/6/2021 11:53:43 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	5/6/2021 3:16:00 PM
Surr: BFB	91.8	70-130		%Rec	1	5/6/2021 3:16:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.015		mg/Kg	1	5/6/2021 3:16:00 PM
Toluene	ND	0.031		mg/Kg	1	5/6/2021 3:16:00 PM
Ethylbenzene	ND	0.031		mg/Kg	1	5/6/2021 3:16:00 PM
Xylenes, Total	ND	0.062		mg/Kg	1	5/6/2021 3:16:00 PM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	5/6/2021 3:16:00 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	ND	61		mg/Kg	20	5/6/2021 12:46:10 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 Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2105220

11-May-21

Client: Vertex Resources Services, Inc.

Project: Siebert 1

Sample ID: MB-59840	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59840	RunNo: 77183								
Prep Date: 5/6/2021	Analysis Date: 5/6/2021	SeqNo: 2737988	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59840	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59840	RunNo: 77183								
Prep Date: 5/6/2021	Analysis Date: 5/6/2021	SeqNo: 2737989	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.5	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 Quantitative 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#: 2105220

11-May-21

Client: Vertex Resources Services, Inc.

Project: Siebert 1

Sample ID: MB-59839	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59839	RunNo: 77188								
Prep Date: 5/6/2021	Analysis Date: 5/6/2021	SeqNo: 2737171	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		91.2	70	130			

Sample ID: LCS-59839	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59839	RunNo: 77188								
Prep Date: 5/6/2021	Analysis Date: 5/6/2021	SeqNo: 2737173	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.2	68.9	141			
Surr: DNOP	4.6		5.000		92.4	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative 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#: 2105220

11-May-21

Client: Vertex Resources Services, Inc.

Project: Siebert 1

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: G77197	RunNo: 77197								
Prep Date:	Analysis Date: 5/6/2021	SeqNo: 2737844	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	850		1000		84.6	70	130			

Sample ID: 2.5ug gro lcs	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: G77197	RunNo: 77197								
Prep Date:	Analysis Date: 5/6/2021	SeqNo: 2737845	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	97.7	78.6	131			
Surr: BFB	1000		1000		100	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2105220

11-May-21

Client: Vertex Resources Services, Inc.

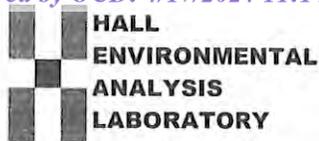
Project: Siebert 1

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: B77197	RunNo: 77197								
Prep Date:	Analysis Date: 5/6/2021	SeqNo: 2737892	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		93.6	70	130			

Sample ID: 100ng btex lcs	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: B77197	RunNo: 77197								
Prep Date:	Analysis Date: 5/6/2021	SeqNo: 2737893	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		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 Quantitative 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
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: **Vertex Resource Group Ltd.**

Work Order Number: **2105220**

RcptNo: 1

Received By: **Juan Rojas**

5/6/2021 7:30:00 AM

Juan Rojas

Completed By: **Desiree Dominguez**

5/6/2021 7:42:36 AM

Desiree

Reviewed By: *SGC 5/6/21*

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 5/6/21*

Special Handling (if applicable)

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

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.1	Good				

Chain-of-Custody Record

Client: Vertex

Turn-Around Time: Same Day

Standard Rush

Project Name: Sibert #1

Project #: 21E-01340

Project Manager: Monica Peppin

Sampler: MJP

On Ice: Yes No

of Coolers: 1

Cooler Temp (including CF): 0.3-0.226 (°C)

Container Type and # 4 oz

Preservative Type ice

HEAL No. 2105220

Date	Time	Matrix	Sample Name
5/5	8:00	Soil	BS21-01 4'
	8:10		BS21-02 4'
	8:20		BS21-03 4'
	8:30		WS21-01 0-4'
	8:40		WS21-02 0-4'
	8:50		WS21-03 0-4'
	9:00		WS21-04 0-4'

Relinquished by: [Signature]

Date: 5/5/20 Time: 1200

Relinquished by: G. Chum...

Date: 5/5/21 Time: 1900

Received by: [Signature] Via: Aluminum Date: 5/5/21 Time: 1200

Received by: [Signature] Via: Provier Date: 5/6/21 Time: 7:30



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Analysis Request	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl ⁻ , Br ⁻ , NO ₃ ⁻ , NO ₂ ⁻ , PO ₄ ⁻ , SO ₄ ⁻	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
(BTEX) / MTBE / TMB's (8021)	✓					✓			
	✓					✓			
	✓					✓			
	✓					✓			
	✓					✓			
	✓					✓			
	✓					✓			

Remarks:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2105140

11-May-21

Client: Vertex Resources Services, Inc.

Project: Siebert 1

Sample ID: MB-59811	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59811	RunNo: 77152								
Prep Date: 5/5/2021	Analysis Date: 5/5/2021	SeqNo: 2735839	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	9.6		10.00		95.6	70	130			

Sample ID: LCS-59811	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59811	RunNo: 77152								
Prep Date: 5/5/2021	Analysis Date: 5/5/2021	SeqNo: 2735840	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.0	68.9	141			
Surr: DNOP	4.7		5.000		93.8	70	130			

Sample ID: 2105140-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BH21-18 0-0.5'	Batch ID: 59811	RunNo: 77152								
Prep Date: 5/5/2021	Analysis Date: 5/5/2021	SeqNo: 2736208	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	8.9	44.52	0	93.5	15	184			
Surr: DNOP	4.0		4.452		90.3	70	130			

Sample ID: 2105140-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BH21-18 0-0.5'	Batch ID: 59811	RunNo: 77152								
Prep Date: 5/5/2021	Analysis Date: 5/5/2021	SeqNo: 2736209	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	9.8	49.12	0	95.7	15	184	12.1	23.9	
Surr: DNOP	4.7		4.912		94.8	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative 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#: 2105140

11-May-21

Client: Vertex Resources Services, Inc.

Project: Siebert 1

Sample ID: 2105139-002a ms	SampType: MS	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: A77154	RunNo: 77154								
Prep Date:	Analysis Date: 5/5/2021	SeqNo: 2736548			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.018	0.7215	0.009993	109	70	130			
Toluene	0.71	0.036	0.7215	0.008348	97.3	70	130			
Surr: 1,2-Dichloroethane-d4	0.41		0.3608		114	70	130			
Surr: 4-Bromofluorobenzene	0.35		0.3608		96.4	70	130			
Surr: Dibromofluoromethane	0.40		0.3608		111	70	130			
Surr: Toluene-d8	0.35		0.3608		96.2	70	130			

Sample ID: 2105139-002a msd	SampType: MSD	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: A77154	RunNo: 77154								
Prep Date:	Analysis Date: 5/5/2021	SeqNo: 2736549			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.75	0.018	0.7215	0.009993	102	70	130	6.45	20	
Toluene	0.70	0.036	0.7215	0.008348	95.8	70	130	1.49	20	
Surr: 1,2-Dichloroethane-d4	0.40		0.3608		112	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.35		0.3608		97.2	70	130	0	0	
Surr: Dibromofluoromethane	0.39		0.3608		108	70	130	0	0	
Surr: Toluene-d8	0.36		0.3608		99.4	70	130	0	0	

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: A77154	RunNo: 77154								
Prep Date:	Analysis Date: 5/5/2021	SeqNo: 2736550			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.59		0.5000		118	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		108	70	130			
Surr: Dibromofluoromethane	0.57		0.5000		114	70	130			
Surr: Toluene-d8	0.56		0.5000		113	70	130			

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: LCSS	Batch ID: A77154	RunNo: 77154								
Prep Date:	Analysis Date: 5/5/2021	SeqNo: 2736588			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	105	70	130			
Toluene	0.97	0.050	1.000	0	96.9	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 Quantitative 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#: 2105140

11-May-21

Client: Vertex Resources Services, Inc.

Project: Siebert 1

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: LCSS	Batch ID: A77154	RunNo: 77154								
Prep Date:	Analysis Date: 5/5/2021	SeqNo: 2736588			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.59		0.5000		119	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.57		0.5000		113	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative 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#: 2105140

11-May-21

Client: Vertex Resources Services, Inc.

Project: Siebert 1

Sample ID: 2.5ug gro lcs	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: C77154	RunNo: 77154								
Prep Date:	Analysis Date: 5/5/2021	SeqNo: 2736567	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.6	70	130			
Surr: BFB	480		500.0		96.4	70	130			

Sample ID: 2105139-001a ms g	SampType: MS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: BatchQC	Batch ID: C77154	RunNo: 77154								
Prep Date:	Analysis Date: 5/5/2021	SeqNo: 2736568	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.3	16.37	3.890	84.7	49.2	122			
Surr: BFB	310		327.5		93.8	70	130			

Sample ID: 2105139-001a msd g	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: BatchQC	Batch ID: C77154	RunNo: 77154								
Prep Date:	Analysis Date: 5/5/2021	SeqNo: 2736569	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.3	16.37	3.890	80.8	49.2	122	3.68	20	
Surr: BFB	300		327.5		90.1	70	130	0	0	

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: C77154	RunNo: 77154								
Prep Date:	Analysis Date: 5/5/2021	SeqNo: 2736570	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	510		500.0		101	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative 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
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: Vertex Resource Group Ltd. Work Order Number: 2105140 RcptNo: 1

Received By: Juan Rojas 5/5/2021 7:25:00 AM [Signature]

Completed By: Desiree Dominguez 5/5/2021 7:59:40 AM [Signature]

Reviewed By:

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [] Not Present []
2. How was the sample delivered? Courier

Log In

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

of preserved bottles checked for pH: (<2 or >12 unless noted) Adjusted? Checked by: jr 5/5/21

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [] No [] NA [checked]

Person Notified: [] Date: []
By Whom: [] Via: [] eMail [] Phone [] Fax [] In Person []
Regarding: []
Client Instructions: []

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 3.3, Good, [], [], []



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

April 04, 2024

CHANCE DIXON

VERTEX RESOURCE GROUP

420 SOUTH MAIN, SUITE 202

TULSA, OK 74103

RE: SIEBERT #1

Enclosed are the results of analyses for samples received by the laboratory on 03/28/24 13:42.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 01 0' (H241626-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94	
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07	
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99	
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16	
Total BTEX	<0.300	0.300	04/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	04/02/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	6.94	
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	246	123	200	14.3	
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND					

Surrogate: 1-Chlorooctane 78.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 01 1' (H241626-02)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94	
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07	
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99	
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16	
Total BTEX	<0.300	0.300	04/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	04/02/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	6.94	
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	246	123	200	14.3	
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND					

Surrogate: 1-Chlorooctane 87.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.1 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 02 0' (H241626-03)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94	
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07	
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99	
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16	
Total BTEX	<0.300	0.300	04/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/02/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	6.94	
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	246	123	200	14.3	
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 02 1' (H241626-04)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94	
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07	
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99	
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16	
Total BTEX	<0.300	0.300	04/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	04/02/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	6.94	
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	246	123	200	14.3	
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND					

Surrogate: 1-Chlorooctane 78.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 03 0' (H241626-05)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94	
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07	
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99	
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16	
Total BTEX	<0.300	0.300	04/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	04/02/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	6.94	
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	246	123	200	14.3	
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND					

Surrogate: 1-Chlorooctane 77.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 03 1' (H241626-06)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94	
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07	
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99	
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16	
Total BTEX	<0.300	0.300	04/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	04/02/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	6.94	
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	246	123	200	14.3	
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND					

Surrogate: 1-Chlorooctane 77.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 04 0' (H241626-07)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94	
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07	
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99	
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16	
Total BTEX	<0.300	0.300	04/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.1 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/02/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	6.94	
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	246	123	200	14.3	
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND					

Surrogate: 1-Chlorooctane 92.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 04 1' (H241626-08)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94	
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07	
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99	
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16	
Total BTEX	<0.300	0.300	04/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/02/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	6.94	
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	246	123	200	14.3	
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND					

Surrogate: 1-Chlorooctane 68.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.1 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 05 0' (H241626-09)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94	
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07	
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99	
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16	
Total BTEX	<0.300	0.300	04/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/02/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	6.94	
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	246	123	200	14.3	
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND					

Surrogate: 1-Chlorooctane 81.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.4 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 05 1' (H241626-10)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94	
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07	
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99	
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16	
Total BTEX	<0.300	0.300	04/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	04/02/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	6.94	
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	246	123	200	14.3	
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND					

Surrogate: 1-Chlorooctane 89.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 06 0' (H241626-11)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94	
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07	
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99	
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16	
Total BTEX	<0.300	0.300	04/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	04/02/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	6.94	
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	246	123	200	14.3	
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND					

Surrogate: 1-Chlorooctane 81.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 06 1' (H241626-12)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94	
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07	
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99	
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16	
Total BTEX	<0.300	0.300	04/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	04/02/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	6.94	
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	246	123	200	14.3	
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND					

Surrogate: 1-Chlorooctane 84.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 07 0' (H241626-13)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94		
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07		
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99		
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16		
Total BTEX	<0.300	0.300	04/02/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	04/02/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	6.94		
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	246	123	200	14.3		
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND						

Surrogate: 1-Chlorooctane 89.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 07 1' (H241626-14)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94		
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07		
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99		
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16		
Total BTEX	<0.300	0.300	04/02/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	04/02/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	6.94		
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	246	123	200	14.3		
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND						

Surrogate: 1-Chlorooctane 82.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.1 % 49.1-148

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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 08 0' (H241626-15)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94		
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07		
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99		
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16		
Total BTEX	<0.300	0.300	04/02/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	04/02/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	4.88		
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	235	117	200	7.61		
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND						

Surrogate: 1-Chlorooctane 77.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

VERTEX RESOURCE GROUP
 CHANCE DIXON
 420 SOUTH MAIN, SUITE 202
 TULSA OK, 74103
 Fax To: NA

Received:	03/28/2024	Sampling Date:	03/26/2024
Reported:	04/04/2024	Sampling Type:	Soil
Project Name:	SIEBERT #1	Sampling Condition:	Cool & Intact
Project Number:	23E-	Sample Received By:	Tamara Oldaker
Project Location:	BTA - CARLSBAD		

Sample ID: BH 24 - 08 1' (H241626-16)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2024	ND	2.18	109	2.00	3.94	
Toluene*	<0.050	0.050	04/02/2024	ND	2.14	107	2.00	4.07	
Ethylbenzene*	<0.050	0.050	04/02/2024	ND	2.08	104	2.00	3.99	
Total Xylenes*	<0.150	0.150	04/02/2024	ND	6.04	101	6.00	4.16	
Total BTEX	<0.300	0.300	04/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	04/02/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/01/2024	ND	229	115	200	4.88	
DRO >C10-C28*	<10.0	10.0	04/01/2024	ND	235	117	200	7.61	
EXT DRO >C28-C36	<10.0	10.0	04/01/2024	ND					

Surrogate: 1-Chlorooctane 81.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.0 % 49.1-148

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Notes and Definitions

- BS-3 Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
** Samples not received at proper temperature of 6°C or below.
*** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
 (575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Verter / BTA Project Manager: Chance Dixon Address: On File City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____ Project #: _____ Project Owner: _____ Project Name: S. Ebert #1 Project Location: Carlsbad Sampler Name: Chance Dixon		P.O. #: _____ Company: BTA Attn: KUTON BEARD Address: On File City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____	
FOR LAB USE ONLY Lab I.D. _____ Sample I.D. _____ HA11626		BILL TO ANALYSIS REQUEST	
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Relinquished By: _____ Date: 3/20/24 Time: 1:42 Received By: _____ Date: _____ Time: _____		DATE TIME 3/26 4:00 4:05 4:10 4:15 4:20 4:25 4:30 4:35 4:40 4:45	
Delivered By: (Circle One) _____ Observed Temp. °C 1.9 Corrected Temp. °C _____ Sampler - UPS - Bus - Other: _____		CHECKED BY: _____ (Initials) Turnaround Time: _____ Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Thermometer ID # 410 <input checked="" type="checkbox"/> Bacteria (only) <input type="checkbox"/> Correction Factor 3/24 <input type="checkbox"/> Cool Intact <input type="checkbox"/> Sample Condition Observed Temp. °C _____ Corrected Temp. °C _____	
Relinquished By: _____ Date: _____ Time: _____ Received By: _____ Date: _____ Time: _____		REMARKS: Direct Bill BTA Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: _____ All Results are emailed. Please provide Email address: _____	

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

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

QUESTIONS

Action 334360

QUESTIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 334360
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2111646040
Incident Name	NAPP2111646040 SIEBERT #1 PRODUCTION FACILITY @ 30-015-26322
Incident Type	Oil Release
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-26322] SIEBERT #001

Location of Release Source

Please answer all the questions in this group.

Site Name	SIEBERT #1 PRODUCTION FACILITY
Date Release Discovered	04/24/2021
Surface Owner	Private

Incident Details

Please answer all the questions in this group.

Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Cause: Equipment Failure Separator Crude Oil Released: 10 BBL Recovered: 5 BBL Lost: 5 BBL.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	Not answered.
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	A broken sight glass on the heater treater allowed approximately 6 barrels of crude oil to be released into the secondary containment of the production facility and released an additional 4 barrels of crude oil by a spray that spread onto adjacent private property and onto a home, several outbuildings, several vehicles, and a fishpond. Five barrels of free oil has been recovered, the top portion of the fishpond was skimmed with a vacuum truck and soap & pressure washing was performed on the home, out buildings and vehicle.

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QUESTIONS, Page 2

Action 334360

QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 334360
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	<i>Unavailable.</i>

With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	<i>Not answered.</i>

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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

I hereby agree and sign off to the above statement	Name: BTA VERTEX Title: Environmental Manager Email: kbeaird@btaoil.com Date: 04/17/2024
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QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID:	260297
	Action Number:	334360
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Less than or equal 25 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1000 (ft.) and ½ (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 100 and 200 (ft.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 500 and 1000 (ft.)
Any other fresh water well or spring	Between 500 and 1000 (ft.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 500 and 1000 (ft.)
A wetland	Between 1000 (ft.) and ½ (mi.)
A subsurface mine	Between 1 and 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1000 (ft.) and ½ (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	18000
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	19700
GRO+DRO (EPA SW-846 Method 8015M)	14500
BTEX (EPA SW-846 Method 8021B or 8260B)	96.1
Benzene (EPA SW-846 Method 8021B or 8260B)	0.1

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	04/28/2021
On what date will (or did) the final sampling or liner inspection occur	08/03/2023
On what date will (or was) the remediation complete(d)	08/03/2023
What is the estimated surface area (in square feet) that will be reclaimed	4870
What is the estimated volume (in cubic yards) that will be reclaimed	310
What is the estimated surface area (in square feet) that will be remediated	4870
What is the estimated volume (in cubic yards) that will be remediated	310

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 334360

QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 334360
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:

(Select all answers below that apply.)

(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	Not answered.
OR which OCD approved well (API) will be used for off-site disposal	30-015-26322 SIEBERT #001
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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

I hereby agree and sign off to the above statement	Name: BTA VERTEX Title: Environmental Manager Email: kbeaird@btaoil.com Date: 04/17/2024
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The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5

Action 334360

QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 334360
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only

Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.

Requesting a deferral of the remediation closure due date with the approval of this submission	No
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QUESTIONS, Page 6

Action 334360

QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 334360
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	325813
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	03/26/2024
What was the (estimated) number of samples that were to be gathered	16
What was the sampling surface area in square feet	3200

Remediation Closure Request	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	4870
What was the total volume (cubic yards) remediated	310
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	4870
What was the total volume (in cubic yards) reclaimed	310
Summarize any additional remediation activities not included by answers (above)	The closure report includes delineation activities to address the closure denial that was issued on February 7, 2024.

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

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

I hereby agree and sign off to the above statement	Name: BTA VERTEX Title: Environmental Manager Email: kbeaird@btaoil.com Date: 04/17/2024
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QUESTIONS, Page 7

Action 334360

QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 334360
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report

Only answer the questions in this group if all reclamation steps have been completed.

Requesting a reclamation approval with this submission	No
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CONDITIONS

Action 334360

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 334360
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	This Remediation Closure Report is approved. Areas reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as they are no longer reasonably needed. A report for reclamation and revegetation will need to be submitted and approved prior to this incident receiving the final status of "Restoration Complete".	5/13/2024
scott.rodgers	The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater; and a revegetation plan.	5/13/2024