Trinity Oilfield Services & Rentals, LLC

July 16th, 2024

Oil Conservation Division, District I
1625 N. French Drive
Hobbs, NM 88240

Re: **Remediation Closure Request**
North Vacuum Abo Unit #246
Tracking #: NAPP2326134968

Trinity Oilfield Services (Trinity), on behalf of Cross Timbers Energy, LLC, hereby submits the following Remediation Closure Request in response to a release that occurred at the above-referenced location, and further described below.

Site Information	
Incident ID	NAPP2326134968
Site Name	North Vacuum Abo Unit #246
Company	Cross Timbers Energy, LLC
County	Lea
ULSTR	O-24-17S-34E
GPS Coordinates (NAD 83)	32.815127, -103.511931
Lease ID	B018380005
Landowner	State

RELEASE BACKGROUND

On 09/18/2023, Cross Timbers Energy, LLC reported a release at the North Vacuum Abo Unit #246. The release was caused by packing box failure. Approximately 267 sqft. of the Pad was found to be damp upon initial inspection.

Release Information	
Date of Release	09/15/2023
Type of Release	Crude Oil and Produced Water
Source of Release	Equipment Failure
Volume Released – Produced Water	5 bbls
Volume Recovered – Produced Water	4 bbls
Volume Released – Crude Oil	2 bbls
Volume Recovered – Crude Oil	2 bbls
Affected Area – Damp Soil	Pad - Approximately 267 sqft.
Site Location Map	Attached

Cultural Properties Protection:

An ARMS inspection and survey was not required as the release occurred on a previously disturbed area.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

Depth to Groundwater/Wellhead Protection:

Data Source	Well Number	Data Date	Depth (ft.)
NM OSE	L-14650 POD 3	9/17/2022	45'
NM OSE	l-14561 POD 1	5/18/2023	95'

A search of the groundwater well databases maintained by the New Mexico Office of the State Engineer (NMOSE) and the United States Geological Survey (USGS) was conducted to determine if any registered groundwater wells are located within a $^{1}/_{2}$ mile of the release site. The search revealed that Two (2) wells occurred in the databases that meet the NMOCD criteria for the age of data, the distance of the data point well from the release point, and a data point well having a diagram of construction.

General Site Characterization:

Site Assessment	
Karst Potential	Low
Distance to Watercourse	Overlying Wetland
Within 100 yr Floodplain	No
Pasture Impact	No

A risk-based site assessment/characterization was performed following the New Mexico Oil Conservation Division (NMOCD) Rule (Title 19 Chapter 15 Part 29) for releases on oil and gas development and production in New Mexico (effective August 14, 2018). To summarize the site assessment/characterization evaluation, the affected area has Low potential for cave and karst, and no other receptors (residence, school, hospital, institution, church, mining, municipal, or other ordinance boundaries) were located within the regulatorily promulgated distances from the site.

Soil Assessment	
Soil Series	Kimbrough | Kimbrough-Lea
Fragile Soil Interpretive Class	Fragile
Erodibility Value	0.32
Wind Erodibility Group	5
Badland Soils	No
Gypsum Soils	No
Representative Slope	0.01
Depth to Restrictive Feature	25 cm
Depth to Bedrock	>200 cm
Severe Wildland Burn	No

A soil assessment/characterization was performed following the New Mexico State Land Office Environmental Compliance Office (ECO) Spill and Release Reporting Guidelines (Part 2 Letter D). To summarize, the affected area is classified as a sensitive soil.

Closure Criteria:

On-Site & Off-Site 4ft bgs | Recommended Remedial Action Levels (RRALs)	
Chlorides	600 mg/kg
TPH (GRO and DRO and MRO)	100 mg/kg
TPH (GRO and DRO)	NA
BTEX	50 mg/kg
Benzene	10 mg/kg

A reclamation standard of 600 mg/kg chloride and 100 mg/kg TPH was applied to the entire area impacted by the release.

INITIAL ASSESSMENT AND REMEDIATION ACTIVITIES

Initial Sample Activities:

Delineation Summary	
Delineation Dates	11/02/2023 - 03/07/2024
Depths Sampled	0' - 7'
Delineation Map	Attached
Laboratory Results	Table 1

All soil samples were placed into laboratory-supplied glassware, labeled, and maintained on ice until delivery to an NMOCD-approved laboratory (Cardinal Laboratories of Hobbs, NM) for the analysis of chloride using Method SM4500 Cl-B, Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) by EPA Method 8021 B and Total Petroleum Hydrocarbon (TPH) constituents the by EPA 8015M.

Confirmation Activities:

Remediation Summary	
Remediation Dates	05/07/2024 & 05/31/2024
Workplan Approval	At Risk
Liner Variance Request	None
Deferral Request	None
Depths Excavated	5' - 6.5'
Area Represented by the required 5-point Confirmation Samples – Floors and Walls	200 sqft.
Total Volume of Excavated Soil	312 yards
Remediation Map	Attached
Laboratory Results	Table 2

Impacted soil within the release margins was excavated and temporarily stockpiled on-site on a 6-mil plastic sheeting, pending final disposition. Unless a Variance Request has been approved, all Floor and On-Site Walls of the excavated area were advanced until laboratory analytical results from confirmation soil samples indicate Chloride, Benzene, BTEX, and TPH concentrations are below the RRAL NMOCD Closure Criteria listed in the Table above, and all Off-Site Walls were advanced to meet reclamation standards. Confirmation soil samples (five-point composites representing no more than 200 sqft. of the excavated area) were collected from the floor and sidewalls.

Upon receiving laboratory analytical data showing that confirmation soil samples from the excavated areas yield results below the selected NMOCD Table 1 Closure Criteria; the impacted soil was transported under manifest to an NMOCD-approved disposal facility. Upon approval, the excavated area will be backfilled with locally sourced, non-impacted "like" material.

SITE RECLAMATION AND RESTORATION

Areas affected by the release and the associated remediation activities will be restored to a condition that existed before the release to the extent practicable. The affected area will be contoured and/or compacted to provide erosion control, stability, and preservation of surface water flow.

Affected areas disturbed by remediation on native land, not on production pads and/or lease roads, will be reseeded with a prescribed NMSLO seed mixture, as defined in SLO Seed Mix Version 1-200808 for Coarse (CS) Sites, during the first favorable growing season following the closure of the site. Reclamation on State Trust Land will also be documented and monitored for successful vegetation growth and invasive/noxious weed populations. Final reclamation of the well pad shall take place in accordance with 19.15.29.13 NMAC once the site is no longer being used for oil and gas operations.

REQUEST FOR REMEDIATION CLOSURE

Supporting Documentation	
Delineation and Remediation Maps	Attached
Depth to Groundwater Maps and Source	Attached
US NWI Map	Attached
FEMA Flood Hazard Map	Attached
USDA Soil Survey	Attached
SLO Seed Mix	Attached
Site Photography	Attached
Laboratory Analytics with COCs	Attached

The site has been remediated to meet the standards of Table I of 19.15.29.12 NMAC; therefore, Trinity Oilfield Services respectfully requests that the New Mexico Oil Conservation Division grant remediation closure approval for the referenced release.

Sincerely,

Dan Dunkelberg

Dan Dunkelberg
Project Manager

Cynthia Jordan

Cynthia Jordan
Project Scientist

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

CROSS TIMBERS ENERGY, LLC
NORTH VACUUM ABO UNIT #246
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE #: NAPP2326134968

TRINITY OILFIELD SERVICES

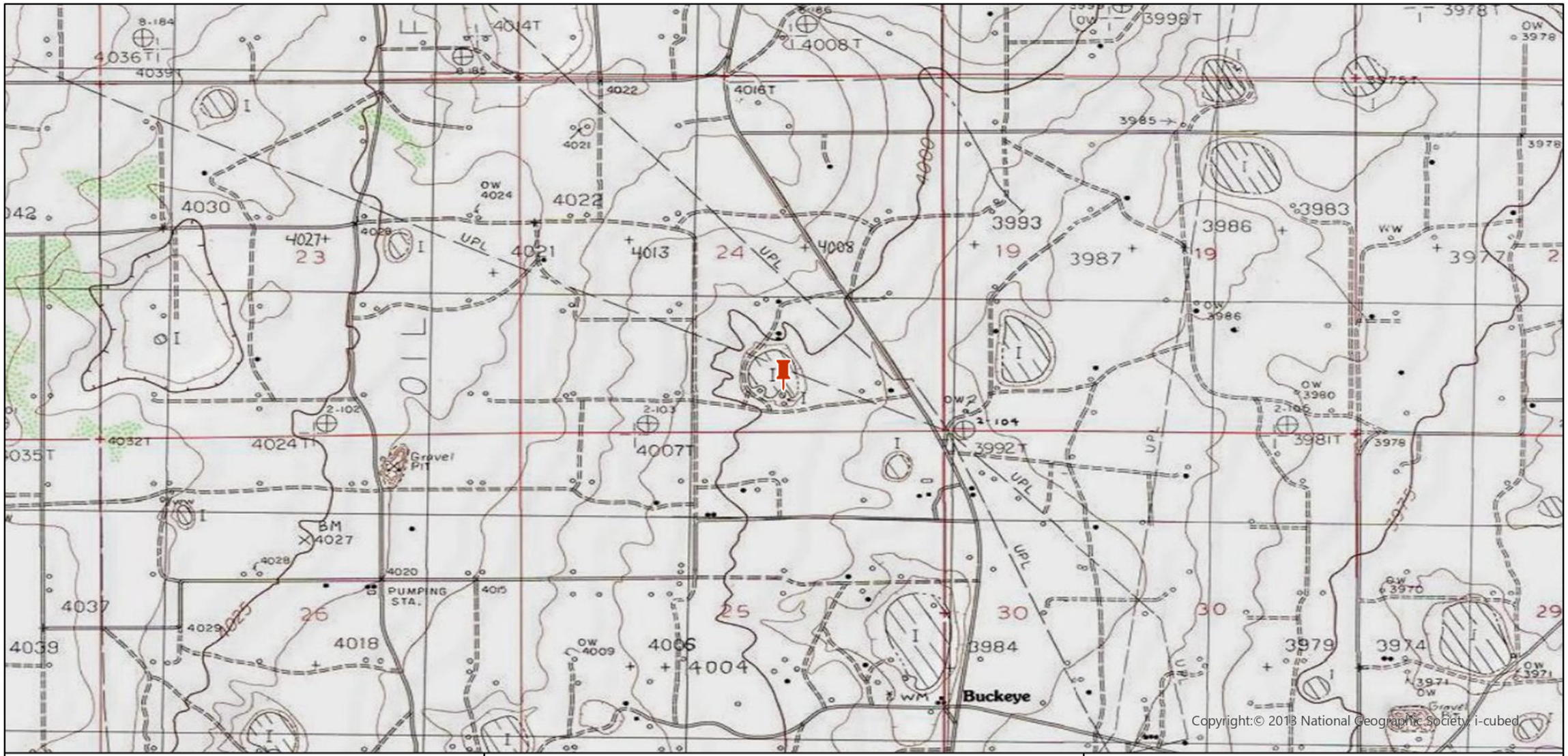
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	VERTICAL/ HORIZONTAL	OFF-SITE/ ON-SITE	SAMPLE TYPE	SOIL STATUS	CHLORIDE (mg/Kg)	TPH C6-C36 (mg/Kg)	GRO+ DRO (mg/kg)	GRO C6-C10 (mg/Kg)	DRO C10-C28 (mg/Kg)	MRO C28-C36 (mg/Kg)	TOTAL BTEX (mg/Kg)	BENZENE (mg/Kg)
On-Site, & Deeper than 4' Pasture							**600**	**100**	**NE**	**NE**	**NE**	**NE**	**50**	**10**
Delineation Special Circumstance, NMOCD Delineation Limits Pasture to 4'							**600**	**100**	**NE**	**NE**	**NE**	**NE**	**50**	**10**
Vertical Delineation														
DV-001.0-00.0-S	0	11/2/2023	Vertical	On-Site	Grab	In-Situ	160.0	45,680.0	36,160.0	1,160.0	35,000.0	9,520.0	56.7	0.79
DV-001.0-01.0-S	1	11/2/2023	Vertical	On-Site	Grab	In-Situ	1,720.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
DV-001.0-03.0-S	3	11/2/2023	Vertical	On-Site	Grab	In-Situ	1,580.0	123.4	65.9	<10.0	65.9	57.5	<10.0	<10.0
DV-001.0-04.0-S	4	3/7/2024	Vertical	On-Site	Grab	In-Situ	1,100.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
DV-001.0-06.0-S	6	3/7/2024	Vertical	On-Site	Grab	In-Situ	480.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
DV-001.0-07.0-S	7	3/7/2024	Vertical	On-Site	Grab	In-Situ	144.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Horizontal Delineation														
DH-001.0-01.0-S	1	11/2/2023	Horizontal	On-Site	Grab	In-Situ	192.0	29.4	<10.0	<10.0	<10.0	29.4	<10.0	<10.0
DH-002.0-01.0-S	1	11/2/2023	Horizontal	On-Site	Grab	In-Situ	128.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
DH-003.0-01.0-S	1	11/2/2023	Horizontal	On-Site	Grab	In-Situ	16.0	1,277.0	676.0	<10.0	676.0	601.0	<10.0	<10.0
DH-003.1-01.0-S	1	11/21/2023	Horizontal	On-Site	Grab	In-Situ	32.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
DH-004.0-01.0-S	1	11/2/2023	Horizontal	On-Site	Grab	In-Situ	32.0	18,840.0	13,000.0	<10.0	13,000.0	5,840.0	<10.0	<10.0
DH-004.1-01.0-S	1	11/21/2023	Horizontal	On-Site	Grab	In-Situ	64.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0

TABLE 2
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

CROSS TIMBERS ENERGY, LLC
NORTH VACUUM ABO UNIT #246
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE #: NAPP2326134968

TRINITY OILFIELD SERVICES

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	FLOOR/ WALL	OFF-SITE/ ON-SITE	SAMPLE TYPE	SOIL STATUS	CHLORIDE (mg/Kg)	TPH C6-C36 (mg/Kg)	GRO+ DRO (mg/kg)	GRO C6-C10 (mg/Kg)	DRO C10-C28 (mg/Kg)	MRO C28-C36 (mg/Kg)	TOTAL BTEX (mg/Kg)	BENZENE (mg/Kg)
NMOCD Closure Limits Pad							**600**	**100**	**NE**	**NE**	**NE**	**NE**	**50**	**10**
NMOCD Closure Limits Pasture to 4'							**600**	**100**	**NE**	**NE**	**NE**	**NE**	**50**	**10**
Remediation Floors														
CF-001.0-05.0-S	5	5/7/2024	Floor	On-Site	Composite	In-Situ	288.0	<10.0	<10.0	<10.0	<10.0	<10.0	<.300	<0.50
CF-002.0-05.0-S	5	5/7/2024	Floor	On-Site	Composite	In-Situ	272.0	<10.0	<10.0	<10.0	<10.0	<10.0	<.300	<0.50
CF-003.0-05.0-S	5	5/7/2024	Floor	On-Site	Composite	In-Situ	288.0	<10.0	<10.0	<10.0	<10.0	<10.0	<.300	<0.50
CF-004.0-06.0-S	6	5/7/2024	Floor	On-Site	Composite	In-Situ	448.0	<10.0	<10.0	<10.0	<10.0	<10.0	<.300	<0.50
CF-005.0-06.0-S	6	5/7/2024	Floor	On-Site	Composite	Excavated	608.0	<10.0	<10.0	<10.0	<10.0	<10.0	<.300	<0.50
CF-005.0-06.5-S	6.5	5/31/2024	Floor	On-Site	Composite	In-Situ	240.0	<10.0	<10.0	<10.0	<10.0	<10.0	<.300	<0.50
Remediation Walls														
CW-001.0-05.0-S	5	5/7/2024	Wall	On-Site	Composite	In-Situ	304.0	<10.0	<10.0	<10.0	<10.0	<10.0	<.300	<0.50
CW-002.0-06.0-S	6	5/7/2024	Wall	On-Site	Composite	In-Situ	576.0	<10.0	<10.0	<10.0	<10.0	<10.0	<.300	<0.50
CW-003.0-06.0-S	6	5/7/2024	Wall	On-Site	Composite	In-Situ	528.0	<10.0	<10.0	<10.0	<10.0	<10.0	<.300	<0.50
CW-004.0-05.0-S	5	5/7/2024	Wall	On-Site	Composite	In-Situ	160.0	<10.0	<10.0	<10.0	<10.0	<10.0	<.300	<0.50



Legend:

Site Location

Site Location Map
Cross Timbers Energy, LLC
North Vacuum Abo Unit #246
Lea, New Mexico
32.815127, -103.511931
NMOCD Reference # NAPP2326134968

0 0.25 0.5 1 Miles

N

TRINITY OILFIELD SERVICES

Legend:

- Vertical Delineation
- Horizontal Delineation
- Release Area
- Above-Ground Lines
  - Steel
- Infrastructure
  - Wellhead
  - Pump Jack

Delineation Map
Cross Timbers Energy, LLC
North Vacuum Abo Unit #246
32.815127, -103.511931
Lea County, New Mexico
NMOCD Reference # NAPP2326134968

0 20 40 80 Feet

N

TRINITY OILFIELD SERVICES

Legend:

- Remediation Wall
- Remediation Floor
- Excavation Area

Above-Ground Lines
- Steel

Infrastructure
- Wellhead
- Pump Jack

Remediation Map
Cross Timbers Energy, LLC
North Vacuum Abo Unit #246
32.815127, -103.511931
Lea County, New Mexico
NMOCD Reference # NAPP2326134968

0 20 40 80 Feet

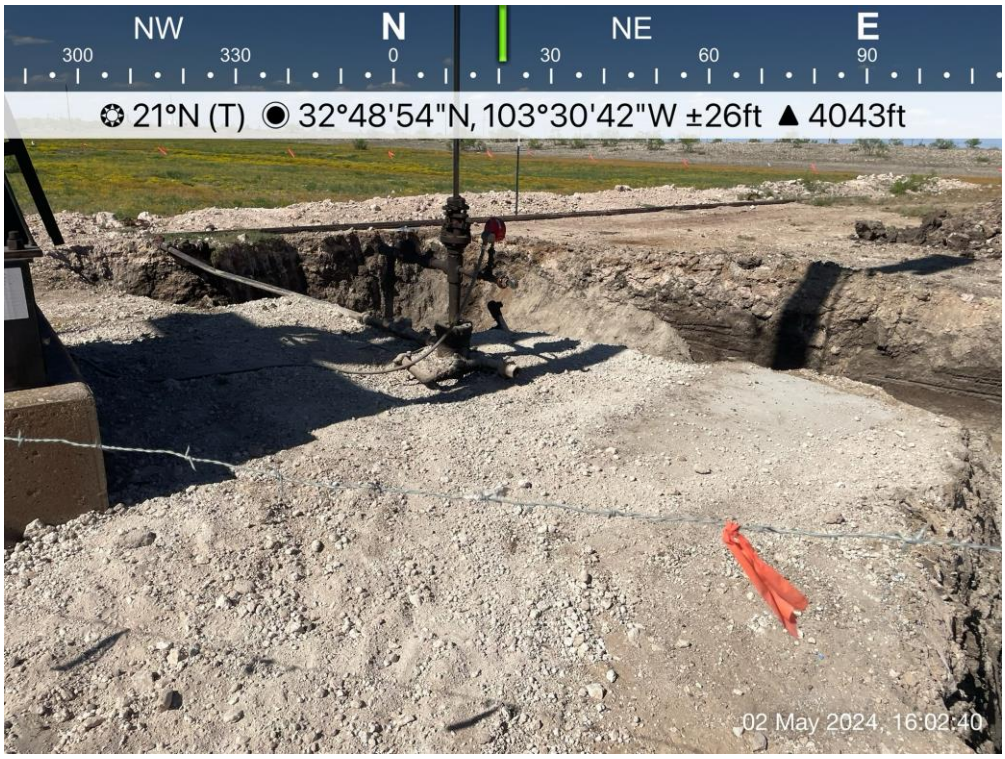
N

TRINITY OILFIELD SERVICES

TRINITY
OILFIELD SERVICES

Excavation

Pad:



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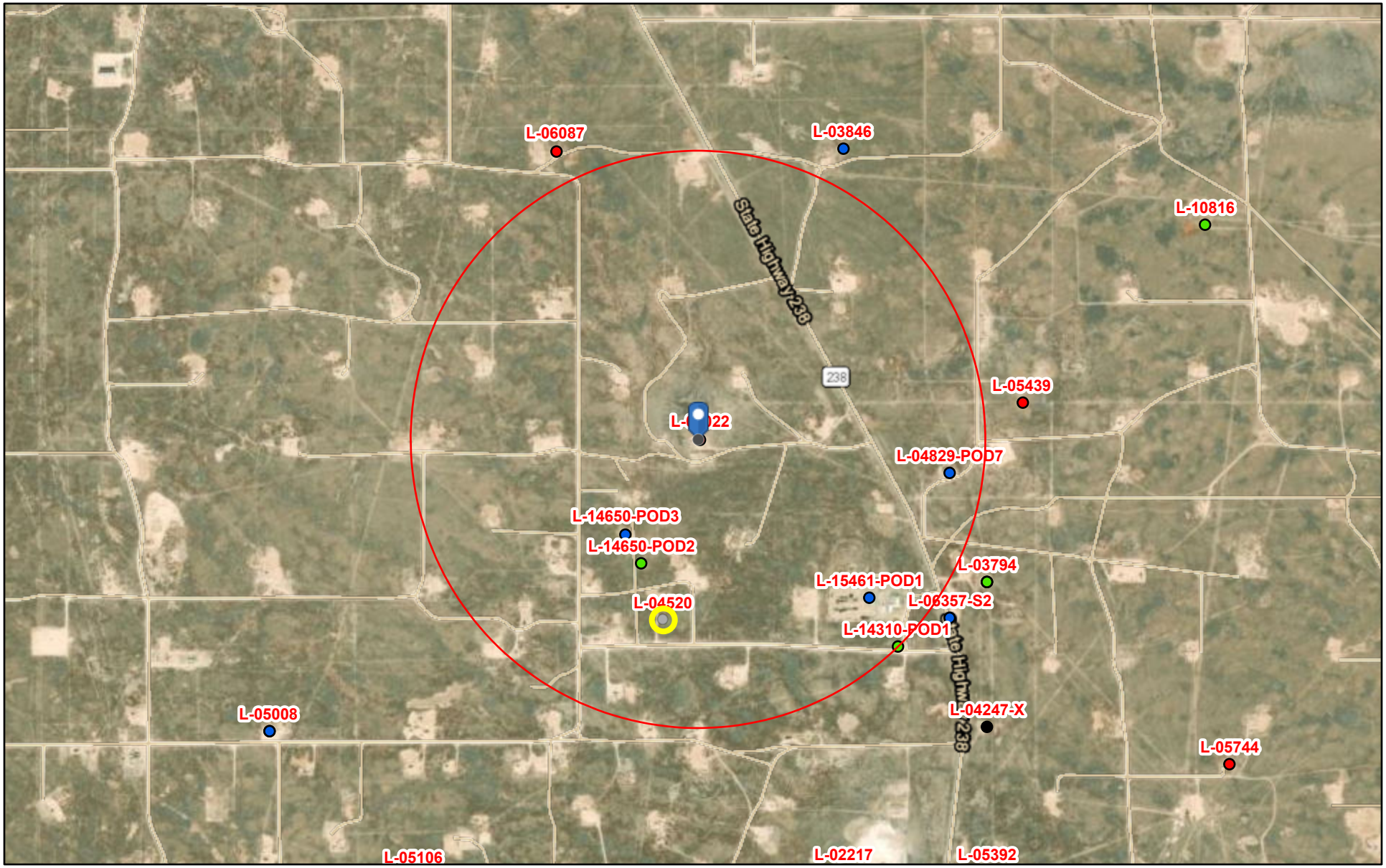
TRINITY
OILFIELD SERVICES

Excavation

Pad:

Pad:

NAPP2326134968 | NORTH VACUUM ABO UNIT #246



11/9/2023, 9:02:38 AM

GIS WATERS PODs

Active

Pending

Inactive

Plugged

1:18,056

0 0.13 0.25 0.5 mi

0 0.2 0.4 0.8 km

Esri, HERE, iPC, Esri, HERE, Garmin, iPC, Maxar

Online web user

This is an unofficial map from the OSE's online application.

U.S. Fish and Wildlife Service
National Wetlands Inventory

NAPP2326134968 | NORTH VACUUM ABO UNIT #246

November 8, 2023

Wetlands

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

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

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

U.S. Fish and Wildlife Service
National Wetlands Inventory

NAPP2326134968 | NORTH VACUUM ABO UNIT #246

June 26, 2024

Wetlands

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

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

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

NAPP2326134968 | NORTH VACUUM ABO UNIT #246

6/26/2024, 3:29:59 PM

OSW Water Bodys

OSE Probable Playas

1:4,514

0 0.03 0.07 0.13 mi

0 0.05 0.1 0.2 km

Maxar, NM OSE

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75: New Mexico Oil Conservation Division

National Flood Hazard Layer FIRMette

FEMA

103°31'2"W 32°49'10"N

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

1:6,000

103°30'24"W 32°48'39"N

Basemap Imagery Source: USGS National Map 2023

Legend

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

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

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

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

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

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

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

N

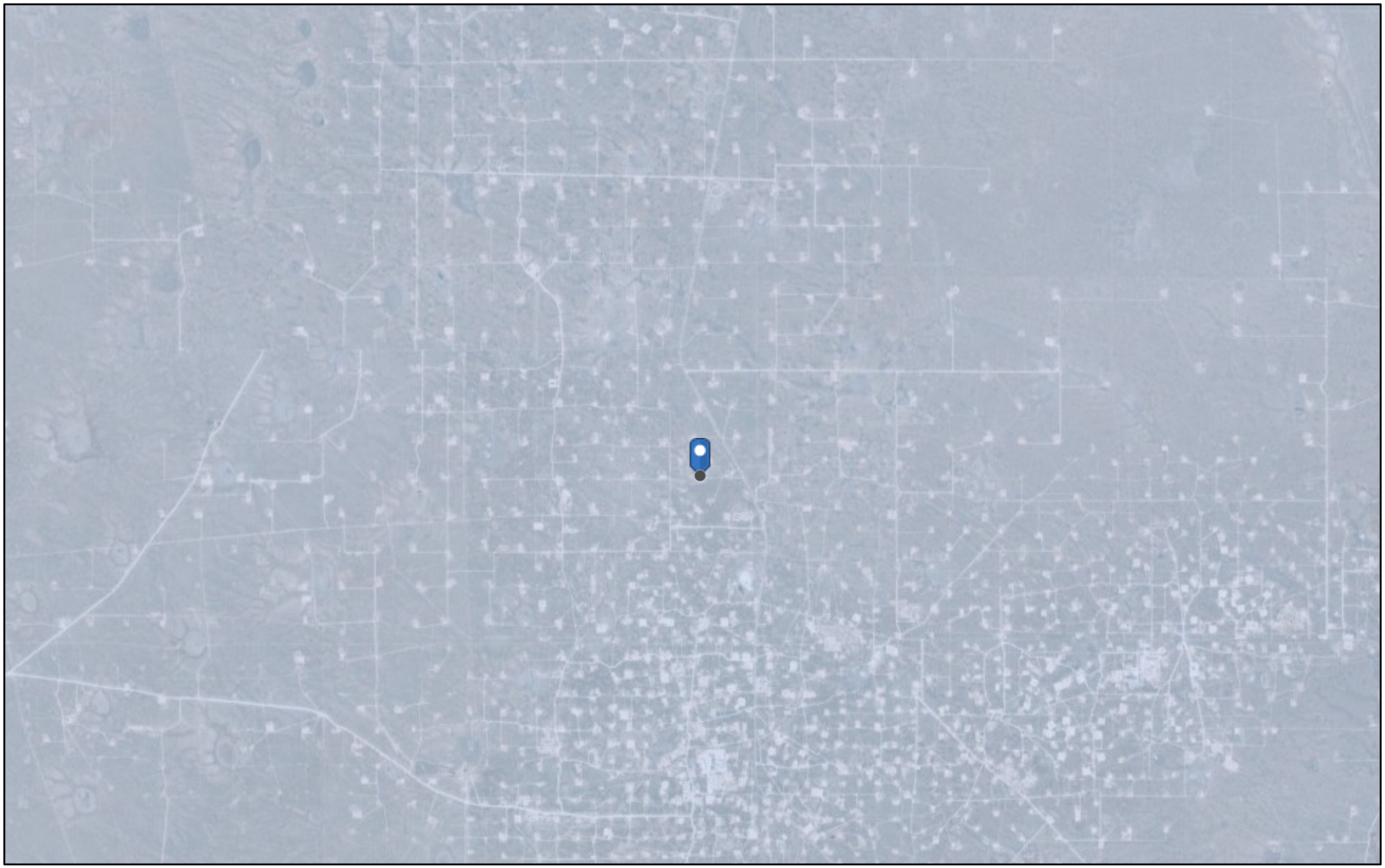
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/8/2023 at 5:51 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

NAPP2326134968 | NORTH VACUUM ABO UNIT #246



11/8/2023, 3:10:39 PM

Karst Occurrence Potential

Low

1:72,224

0 0.5 1 2 mi

0 0.75 1.5 3 km

BLM, OCD, New Mexico Tech, Earthstar Geographics

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75: New Mexico Oil Conservation Division

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for Lea County, New Mexico

NAPP2326134968 | NORTH VACUUM ABO UNIT #246

July 3, 2024

Preface

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

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

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

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

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

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

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Contents

How Soil Surveys Are Made

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

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

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

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

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

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

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

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

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

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

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

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

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

Soil Map

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

Custom Soil Resource Report
Soil Map

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: Lea County, New Mexico
Survey Area Data: Version 20, Sep 6, 2023

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

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

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KO	Kimbrough gravelly loam, dry, 0 to 3 percent slopes	1.6	65.7%
KU	Kimbrough-Lea complex, dry, 0 to 3 percent slopes	0.8	34.3%
Totals for Area of Interest		**2.4**	**100.0%**

Map Unit Descriptions

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

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

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

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

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

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

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

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

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

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

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

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

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

Lea County, New Mexico

KO—Kimbrough gravelly loam, dry, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw43
Elevation: 2,500 to 4,800 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 180 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Kimbrough, dry, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kimbrough, Dry

Setting

Landform: Playa rims, plains
Down-slope shape: Convex, linear
Across-slope shape: Concave, linear
Parent material: Loamy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 3 inches: gravelly loam
Bw - 3 to 10 inches: loam
Bkkm1 - 10 to 16 inches: cemented material
Bkkm2 - 16 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 18 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 95 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: 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: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Minor Components

Eunice

Percent of map unit: 10 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Spraberry

Percent of map unit: 6 percent
Landform: Playa rims, plains
Down-slope shape: Convex, linear
Across-slope shape: Linear
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Kenhill

Percent of map unit: 4 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077DY038TX - Clay Loam 12-17" PZ
Hydric soil rating: No

KU—Kimbrough-Lea complex, dry, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw46
Elevation: 2,500 to 4,800 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 180 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Kimbrough and similar soils: 45 percent
Lea and similar soils: 25 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kimbrough

Setting

Landform: Playa rims, plains
Down-slope shape: Convex, linear
Across-slope shape: Concave, linear
Parent material: Loamy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 3 inches: gravelly loam
Bw - 3 to 10 inches: loam
Bkkm1 - 10 to 16 inches: cemented material
Bkkm2 - 16 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 18 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 95 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: 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: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Description of Lea

Setting

Landform: Plains
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Calcareous, loamy eolian deposits from the blackwater draw formation of pleistocene age over indurated caliche of pliocene age

Typical profile

A - 0 to 10 inches: loam
Bk - 10 to 18 inches: loam
Bkk - 18 to 26 inches: gravelly fine sandy loam
Bkkm - 26 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 22 to 30 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 90 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 3.0

Available water supply, 0 to 60 inches: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R077DY047TX - Sandy Loam 12-17" PZ
Hydric soil rating: No

Minor Components

Kenhill

Percent of map unit: 12 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077DY038TX - Clay Loam 12-17" PZ
Hydric soil rating: No

Douro

Percent of map unit: 12 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077DY047TX - Sandy Loam 12-17" PZ
Other vegetative classification: Unnamed (G077DH000TX)
Hydric soil rating: No

Spraberry

Percent of map unit: 6 percent
Landform: Playa rims, plains
Down-slope shape: Convex, linear
Across-slope shape: Linear
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Other vegetative classification: Unnamed (G077DH000TX)
Hydric soil rating: No

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Soil Health

Soil health interpretations are designed to be used as tools for evaluating and managing a soil's capacity to function as a vital living ecosystem that sustains plants, animals, and humans. Example interpretations include compaction, surface sealing, carbon sequestration, resistance and resilience, management systems and practices, and cover crops.

Fragile Soil Index

SOH - Soil Health

Soils can be rated based on their susceptibility to degradation in the "Fragile Soil Index" interpretation. Fragile soils are those that are most vulnerable to degradation. In other words, they can be easily degradedthey have a low resistance to degradation processes. They tend to be highly susceptible to erosion and can have a low capacity to recover after degradation has occurred (low resilience). Fragile soils are generally characterized by a low content of organic matter, low aggregate stability, and weak soil structure. They are generally located on sloping ground, have sparse plant cover, and tend to be in arid or semiarid regions. The index can be used for conservation and watershed planning to assist in identifying soils and areas highly vulnerable to degradation.

Depending on inherent soil characteristics and the climate, soils can vary from highly resistant, or stable, to vulnerable and extremely sensitive to degradation. Under stress, fragile soils can degrade to a new altered state, which may be less favorable or unfavorable for plant growth and less capable of performing soil functions. To assess the fragility of the soil, indicators of vulnerability to degradation

processes are used. They include organic matter, soil structure, rooting depth, vegetative cover, slope, and aridity.

The organic matter content indicates the capacity of the soil to resist and/or recover from degradation processes. Organic matter improves the soil pore structure, increases water infiltration, and reduces soil compaction and soil erosion. Soil structure indicates the capacity of the soil to resist degradation from accelerated water erosion (by increasing the amount of infiltration). Pore structure is the most important aspect of soil structure as pores provide habitat for organism. Shallow soils are more vulnerable to degradation processes because they have limited rooting depth and have a reduced amount of material from which to form new soil. As erosion removes the upper soil profile, productivity will decline if the subsoil is limiting for crop growth. Vegetative cover is very important as uncovered soil is most vulnerable to the processes of soil erosion, both by wind and water. Slope (a measure of the steepness or the degree of inclination) indicates the degree of vulnerability to erosion and mass movement. Aridity is defined by the shortage of moisture. Lack of water is a main factor limiting biological processes and the ability of the soil to resist and/or recover from degradation.

Soils are placed into interpretive classes based on their index rating, which ranges from 0 to 1. An index rating of 1 is the most fragile, while a rating of zero is the least fragile. Interpretative classes are as follows:

Not Fragile (index rating less than or equal to 0.009) These soils have a very high potential to resist degradation and be highly resilient. They are highly structured with an organic matter content greater than 5.7%, are nearly level, are deep or very deep, have greater than 85% vegetative cover, and are in a climate that is wet or very wet.

Slightly Fragile (index rating less than 0.009 and less than or equal to 0.209) These soils have a high potential to resist degradation and be resilient. They are:

— Poorly structured to weakly structured soils that have an extremely low to moderate content of organic matter, are very deep, have high vegetative cover, occur on nearly level ground, and are in wet or very wet climates;

— Highly structured soils that have a very high content of organic matter, are very shallow to moderately deep, have high vegetative cover, occur on nearly level ground, and are in wet or very wet climates;

— Highly structured soils that have a very high content of organic matter, are very deep, have low to moderately high vegetative cover, occur on nearly level ground, and are in wet or very wet climates;

— Highly structured soils that have a very high content of organic matter, are very deep, have high vegetative cover; are on slopes greater than 3%, and are in wet or very wet climates; or

— Highly structured soils that have a very high content of organic matter, are very deep, have high vegetative cover; occur on nearly level ground, and in semi-dry to mildly wet climates;

Moderately Fragile (index rating greater than 0.209 and less than or equal to 0.409) These soils have a moderate potential to resist degradation and be moderately resilient. They are:

— Highly structured soils that have a very high content of organic matter, are very shallow, have high vegetative cover, occur in nearly level to moderately sloping areas, and are in semi-dry climates;

— Poorly structured soils that have an extremely low content of organic matter, are deep, have low vegetative cover, occur in nearly level areas, and are in wet or very wet climates;

— Poorly structured soils that have an extremely low content of organic matter, occur on gentle to very steep slopes, have high vegetative cover, and are in wet or very wet climates;

— Weakly structured soils that have a very low content of organic matter, are deep, occur in nearly level to gently sloping areas, have high vegetative cover, and are in semi-dry climates; or

— Weakly structured soils that have a very low content of organic matter, are very shallow to very deep, occur in nearly level to strongly sloping areas, have high vegetative cover, and are in mildly wet climates.

Fragile (index rating greater than 0.409 and less than or equal to 0.609) These soils have a low potential to resist degradation and low resilience. They are:

— Well structured soils that have a low content of organic matter, are shallow to very deep, have moderate to moderately high vegetative cover, occur on steep slopes, and are in dry climates;

— Well structured soils that have a low content of organic matter, are shallow to very deep, have a low vegetative cover, occur in nearly level to gently sloping areas, and are in dry climates;

— Well structured soils that have a low content of organic matter, are deep, have low vegetative cover, occur on nearly level to very steep slopes, and are in a semi-dry climate;

— Moderately structured soils that have a very low content of organic matter, are deep, have moderately high vegetative cover, occur on moderately steep to very steep slopes, and are in semi-dry climates; or

— Weakly structured soils that have a low content of organic matter, occur on moderately steep to very steep slopes, have low vegetative cover, and are in wet or very wet climates.

Very Fragile (index rating greater than 0.609 and less than or equal to 0.809) These soils have a very low potential to resist degradation and very low resilience. They are:

— Weakly structured soils that have an extremely low content of organic matter, are deep, have low vegetative cover, occur on nearly level to very steep slopes, and are in dry climates;

— Weakly structured soils that have an extremely low content of organic matter, are shallow to very deep, have low vegetative cover, occur on nearly level to very steep slopes, and are in very dry climates; or

— Poorly structured soils that have an extremely low content of organic matter, are very shallow, have no vegetative cover, occur on steep slopes, and are in mildly wet to wet climates.

Extremely Fragile (index rating greater than 0.809 and less than or equal to 1.0) These soils can have no potential to resist degradation and no resilience. They are:

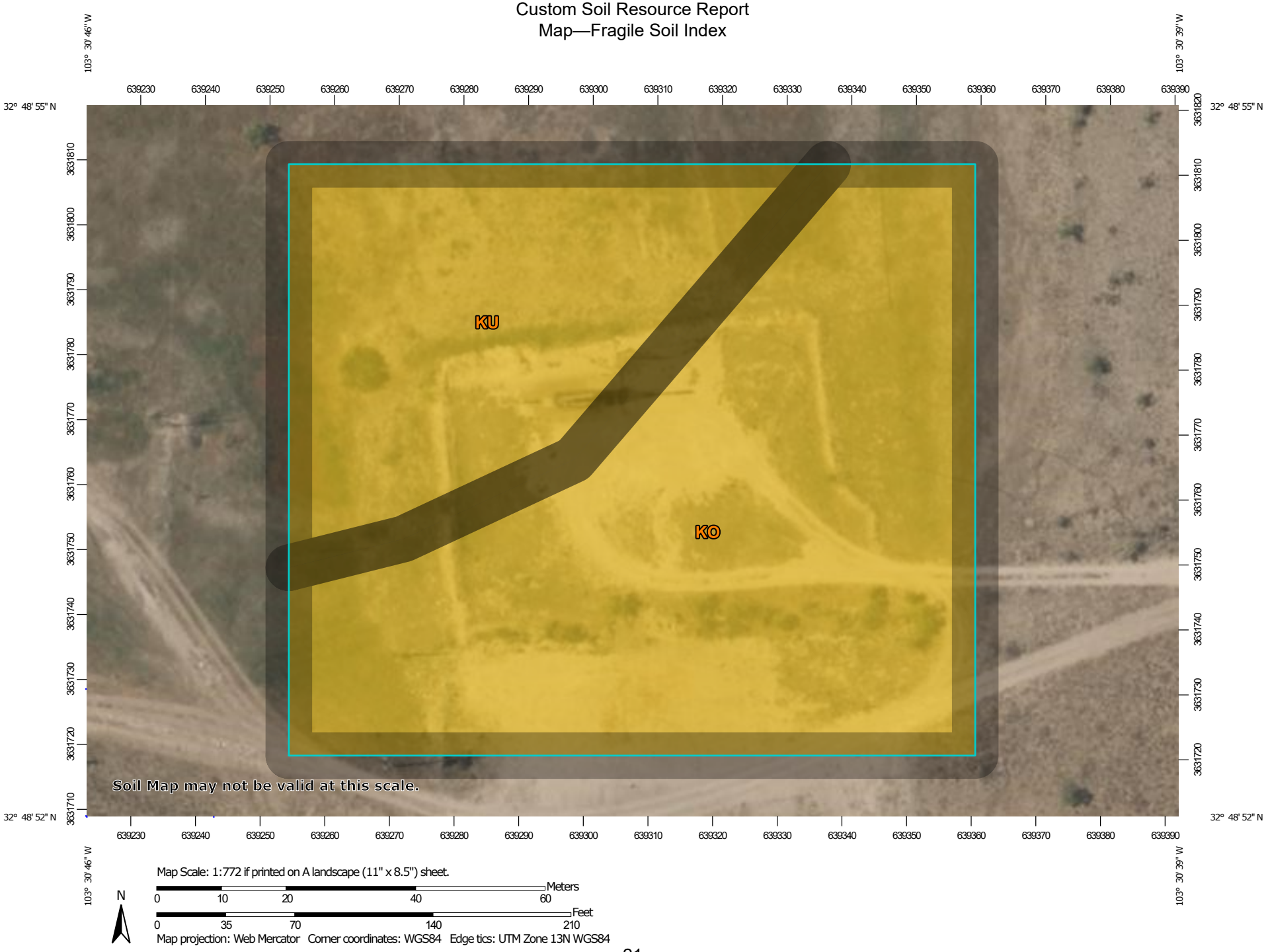
— Poorly structured soils that have an extremely low content of organic matter, are very shallow, have low vegetative cover, occur on very steep slopes, and are in dry or very dry climates;

— Weakly structured soils that have a very low content of organic matter, are nearly level to very deep, have low vegetative cover, occur on very steep slopes, and are in dry climates; or

— Very shallow soils on steep slopes.

The interpretive rating is based on soils that occur in the dominant land use for the map unit component and may not represent soils that occur in site-specific land uses.

Custom Soil Resource Report
Map—Fragile Soil Index



MAP LEGEND

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

Soils

Soil Rating Polygons
- Extremely fragile
- Highly fragile
- Fragile
- Moderately fragile
- Slightly fragile
- Not fragile
- Not rated or not available

Soil Rating Lines
- Extremely fragile
- Highly fragile
- Fragile
- Moderately fragile
- Slightly fragile
- Not fragile
- Not rated or not available

Soil Rating Points
- Extremely fragile
- Highly fragile
- Fragile
- Moderately fragile
- Slightly fragile
- Not fragile
- Not rated or not available

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 20, Sep 6, 2023

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

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

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

Tables—Fragile Soil Index

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
KO	Kimbrough gravelly loam, dry, 0 to 3 percent slopes	Fragile	Kimbrough, dry (80%)	Poor structure (1.00)	1.6	65.7%
				Dry (0.70)		
				Low organic matter (0.69)		
				Shallow (0.65)		
				High vegetative cover (0.07)		
			Eunice (10%)	Extremely low organic matter (0.96)		
				Weakly structured (0.75)		
				Dry (0.70)		
				Shallow (0.60)		
				High vegetative cover (0.07)		
			Spraberry (6%)	Extremely low organic matter (0.97)		
				Weakly structured (0.75)		
				Dry (0.70)		
				Moderately deep (0.45)		
				High vegetative cover (0.07)		
			Kenhill (4%)	Poor structure (1.00)		
				Very low organic matter (0.91)		
				Dry (0.70)		
				Moderately deep (0.27)		
				Moderately-high vegetative cover (0.14)		
KU	Kimbrough-Lea complex, dry, 0 to 3 percent slopes	Fragile	Kimbrough (45%)	Poor structure (1.00)	0.8	34.3%
				Dry (0.70)		
				Low organic matter (0.69)		

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Shallow (0.65)		
				High vegetative cover (0.07)		
			Kenhill (12%)	Poor structure (1.00)		
				Very low organic matter (0.91)		
				Dry (0.70)		
				Moderately deep (0.27)		
				Moderately-high vegetative cover (0.14)		
			Douro (12%)	Extremely low organic matter (0.95)		
				Weakly structured (0.75)		
				Dry (0.70)		
				Moderately deep (0.25)		
				Nearly level (0.02)		
			Spraberry (6%)	Extremely low organic matter (0.97)		
				Weakly structured (0.75)		
				Dry (0.70)		
				Moderately deep (0.45)		
				High vegetative cover (0.07)		
Totals for Area of Interest					**2.4**	**100.0%**

Rating	Acres in AOI	Percent of AOI
Fragile	2.4	100.0%
Totals for Area of Interest	**2.4**	**100.0%**

Rating Options—Fragile Soil Index

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Chemical Properties

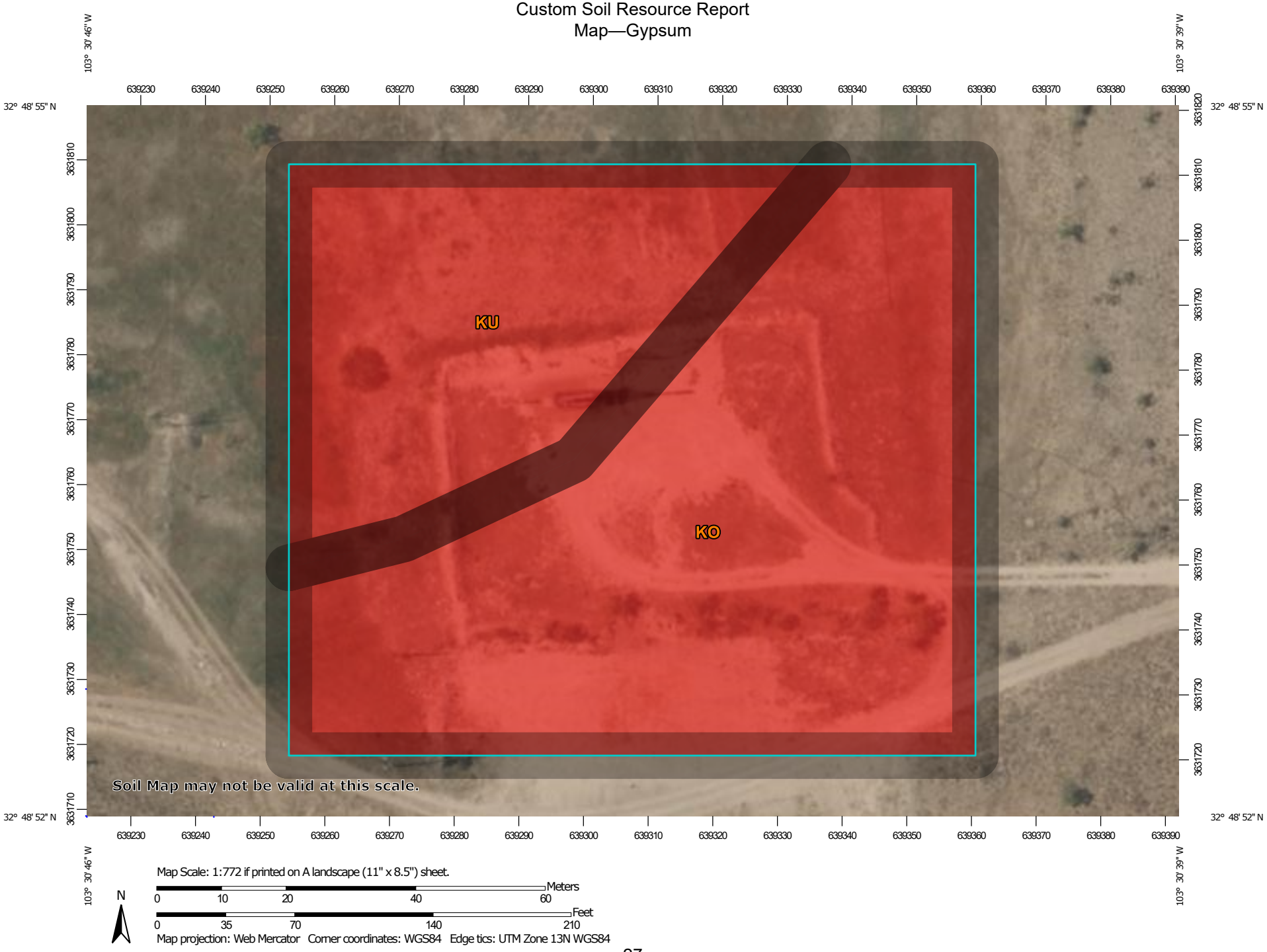
Soil Chemical Properties are measured or inferred from direct observations in the field or laboratory. Examples of soil chemical properties include pH, cation exchange capacity, calcium carbonate, gypsum, and electrical conductivity.

Gypsum

The content of gypsum is the percent, by weight, of hydrated calcium sulfates in the fraction of the soil less than 20 millimeters in size. Gypsum is partially soluble in water. Soils high in content of gypsum, such as those with more than 10 percent gypsum, may collapse if the gypsum is removed by percolating water. Gypsum is corrosive to concrete.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Custom Soil Resource Report
Map—Gypsum



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

= 0

Not rated or not available

Soil Rating Lines

= 0

Not rated or not available

Soil Rating Points

= 0

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 20, Sep 6, 2023

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

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

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

Table—Gypsum

Map unit symbol	Map unit name	Rating (percent)	Acres in AOI	Percent of AOI
KO	Kimbrough gravelly loam, dry, 0 to 3 percent slopes	0	1.6	65.7%
KU	Kimbrough-Lea complex, dry, 0 to 3 percent slopes	0	0.8	34.3%
Totals for Area of Interest			**2.4**	**100.0%**

Rating Options—Gypsum

Units of Measure: percent

Aggregation Method: Dominant Component

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Component" returns the attribute value associated with the component with the highest percent composition in the map unit. If more than one component shares the highest percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher attribute value should be returned in the case of a percent composition tie. The result returned by this aggregation method may or may not represent the dominant condition throughout the map unit.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Interpret Nulls as Zero: Yes

This option indicates if a null value for a component should be converted to zero before aggregation occurs. This will be done only if a map unit has at least one component where this value is not null.

Layer Options (Horizon Aggregation Method): Surface Layer (Not applicable)

For an attribute of a soil horizon, a depth qualification must be specified. In most cases it is probably most appropriate to specify a fixed depth range, either in centimeters or inches. The Bottom Depth must be greater than the Top Depth, and the Top Depth can be greater than zero. The choice of "inches" or "centimeters" only applies to the depth of soil to be evaluated. It has no influence on the units of measure the data are presented in.

When "Surface Layer" is specified as the depth qualifier, only the surface layer or horizon is considered when deriving a value for a component, but keep in mind that the thickness of the surface layer varies from component to component.

When "All Layers" is specified as the depth qualifier, all layers recorded for a component are considered when deriving the value for that component.

Whenever more than one layer or horizon is considered when deriving a value for a component, and the attribute being aggregated is a numeric attribute, a weighted average value is returned, where the weighting factor is the layer or horizon thickness.

Soil Erosion Factors

Soil Erosion Factors are soil properties and interpretations used in evaluating the soil for potential erosion. Example soil erosion factors can include K factor for the whole soil or on a rock free basis, T factor, wind erodibility group and wind erodibility index.

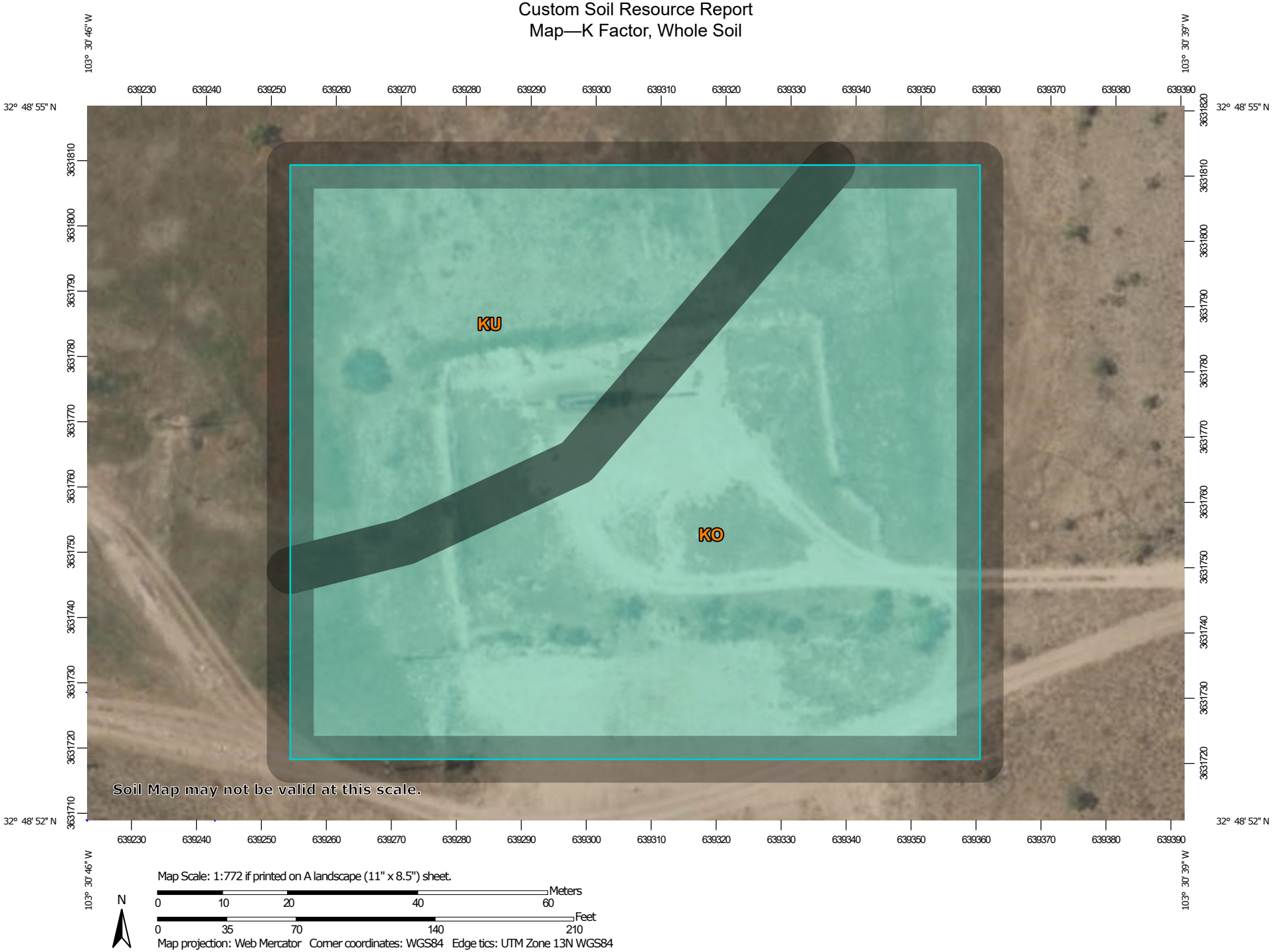
K Factor, Whole Soil

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

"Erosion factor Kw (whole soil)" indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Factor K does not apply to organic horizons and is not reported for those layers.

Custom Soil Resource Report
Map—K Factor, Whole Soil



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- .02
- .05
- .10
- .15
- .17
- .20
- .24
- .28
- .32
- .37
- .43
- .49
- .55
- .64
- Not rated or not available

Soil Rating Lines

- .02
- .05
- .10
- .15
- .17
- .20
- .24
- .28
- .32
- .37
- .43
- .49
- .55
- .64
- Not rated or not available

Soil Rating Points

- .02
- .05
- .10
- .15
- .17
- .20
- .24
- .28
- .32
- .37
- .43
- .49
- .55
- .64
- Not rated or not available

Water Features

- Streams and Canals

Transportation

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

Background

- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 20, Sep 6, 2023

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

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

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

Table—K Factor, Whole Soil

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
KO	Kimbrough gravelly loam, dry, 0 to 3 percent slopes	.32	1.6	65.7%
KU	Kimbrough-Lea complex, dry, 0 to 3 percent slopes	.32	0.8	34.3%
Totals for Area of Interest			**2.4**	**100.0%**

Rating Options—K Factor, Whole Soil

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Layer Options (Horizon Aggregation Method): Surface Layer (Not applicable)

For an attribute of a soil horizon, a depth qualification must be specified. In most cases it is probably most appropriate to specify a fixed depth range, either in centimeters or inches. The Bottom Depth must be greater than the Top Depth, and the Top Depth can be greater than zero. The choice of "inches" or "centimeters" only applies to the depth of soil to be evaluated. It has no influence on the units of measure the data are presented in.

When "Surface Layer" is specified as the depth qualifier, only the surface layer or horizon is considered when deriving a value for a component, but keep in mind that the thickness of the surface layer varies from component to component.

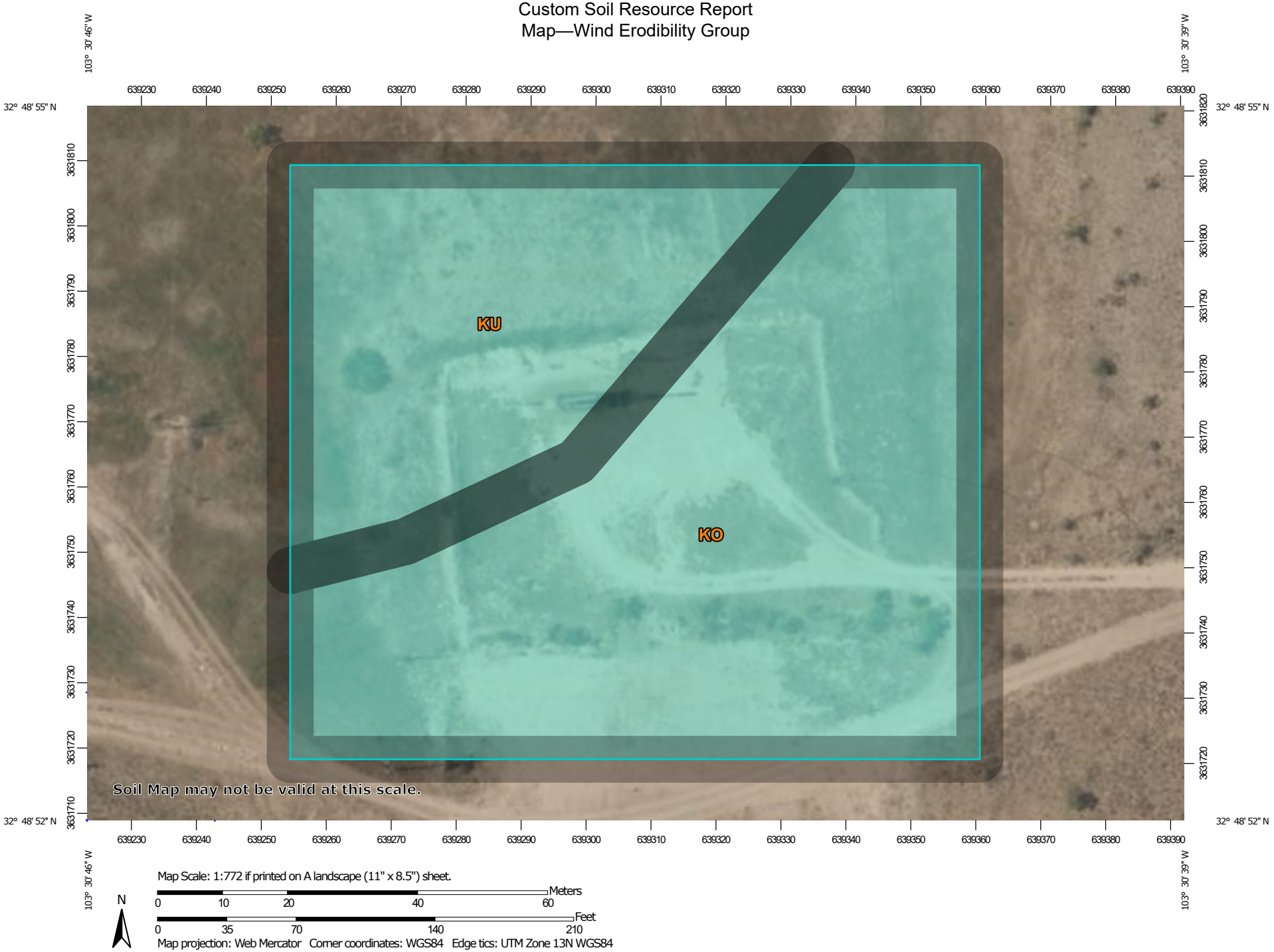
When "All Layers" is specified as the depth qualifier, all layers recorded for a component are considered when deriving the value for that component.

Whenever more than one layer or horizon is considered when deriving a value for a component, and the attribute being aggregated is a numeric attribute, a weighted average value is returned, where the weighting factor is the layer or horizon thickness.

Wind Erodibility Group

A wind erodibility group (WEG) consists of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible.

Custom Soil Resource Report
Map—Wind Erodibility Group



Custom Soil Resource Report

MAP LEGEND

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

Soils

Soil Rating Polygons
- 1
- 2
- 3
- 4
- 4L
- 5
- 6
- 7
- 8
- Not rated or not available

Soil Rating Lines
- 1
- 2
- 3
- 4
- 4L
- 5
- 6
- 7
- 8
- Not rated or not available

Soil Rating Points
- 1
- 2
- 3
- 4
- 4L
- 5
- 6
- 7
- 8
- Not rated or not available

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)

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

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 20, Sep 6, 2023

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

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

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

Table—Wind Erodibility Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
KO	Kimbrough gravelly loam, dry, 0 to 3 percent slopes	5	1.6	65.7%
KU	Kimbrough-Lea complex, dry, 0 to 3 percent slopes	5	0.8	34.3%
Totals for Area of Interest			**2.4**	**100.0%**

Rating Options—Wind Erodibility Group

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

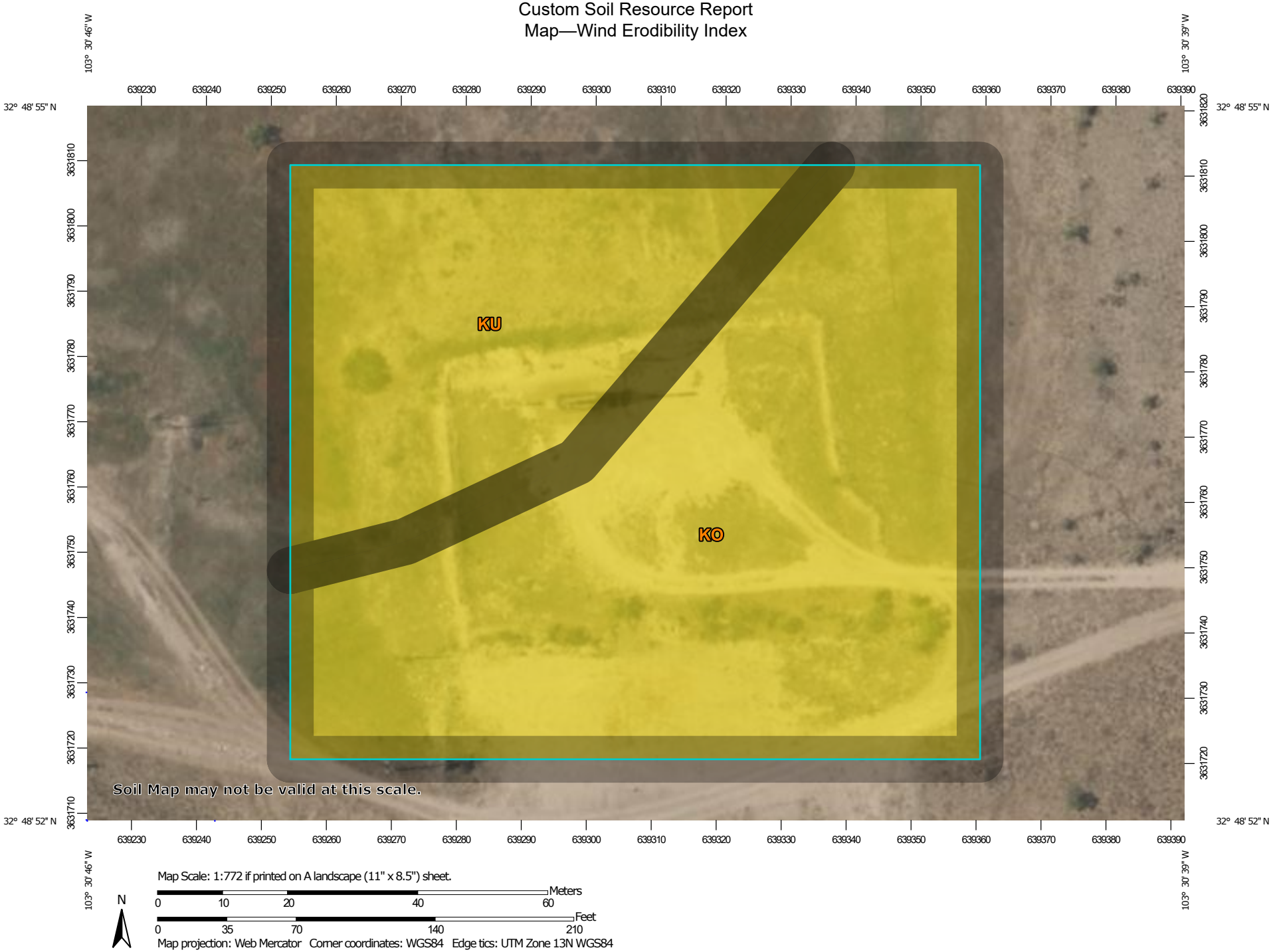
Tie-break Rule: Lower

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Wind Erodibility Index

The wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Custom Soil Resource Report
Map—Wind Erodibility Index



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

0
38
48
56
86
134
160
180
220
250
310
Not rated or not available

Soil Rating Lines

0
38
48
56
86
134
160
180
220
250
310
Not rated or not available

Soil Rating Points

0
38
48
56
86
134
160
180
220
250
310
Not rated or not available

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.

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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)

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Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 20, Sep 6, 2023

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

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

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

Table—Wind Erodibility Index

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
KO	Kimbrough gravelly loam, dry, 0 to 3 percent slopes	56	1.6	65.7%
KU	Kimbrough-Lea complex, dry, 0 to 3 percent slopes	56	0.8	34.3%
Totals for Area of Interest			**2.4**	**100.0%**

Rating Options—Wind Erodibility Index

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be

considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Depth to Bedrock

The term bedrock in soil survey refers to a continuous root and water restrictive layer of rock that occurs within the soil profile.

There are many types of restrictions that can occur within the soil profile but this theme only includes the three restrictions that use the term bedrock. These are:

1) Lithic Bedrock

2) Paralithic Bedrock

3) Densic Bedrock

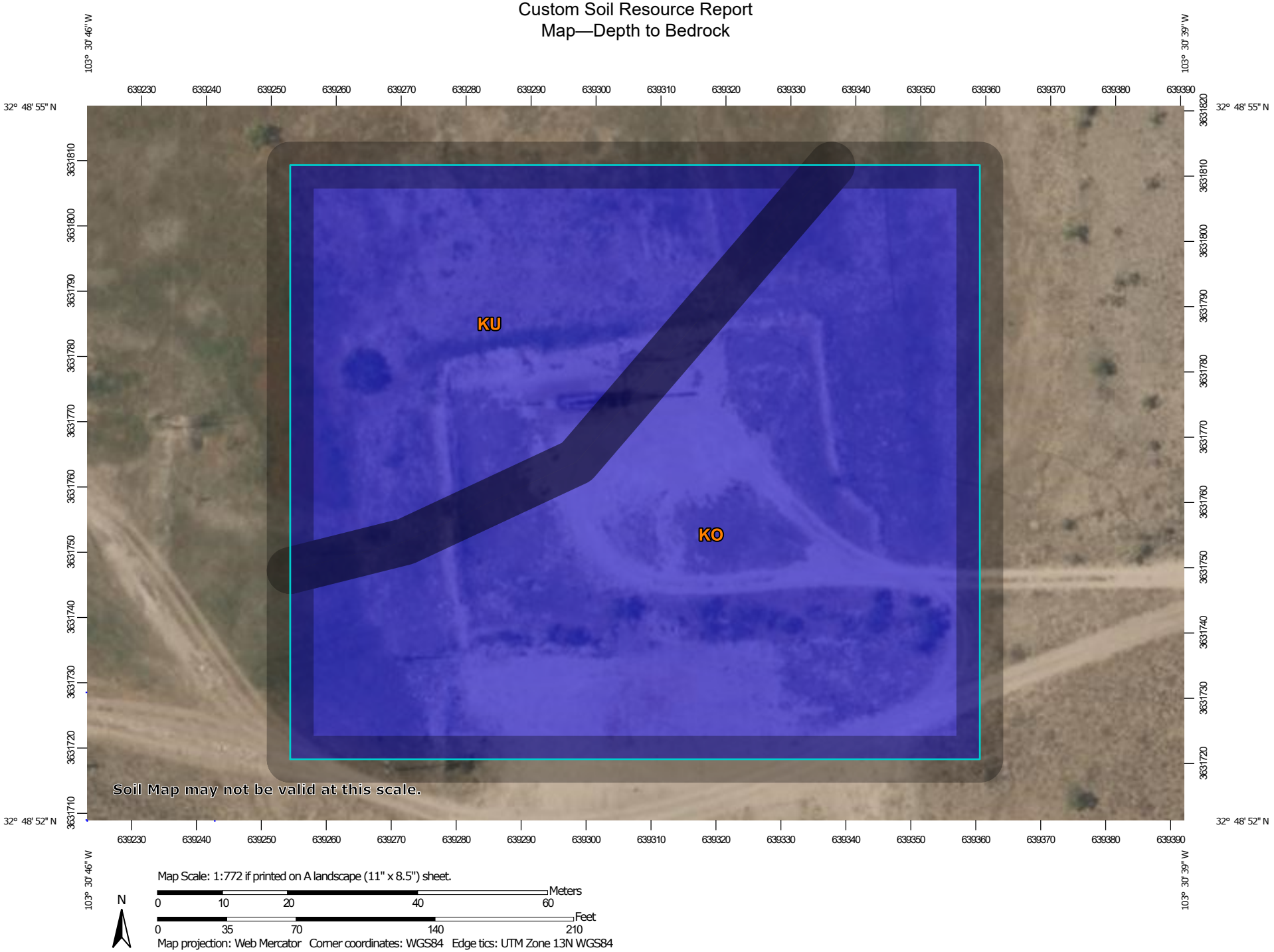
Lithic bedrock and paralithic bedrock are comprised of igneous, metamorphic, and sedimentary rocks, which are coherent and consolidated into rock through pressure, heat, cementation, or fusion. Lithic bedrock represents the hardest type of bedrock, with a hardness of strongly coherent to indurated. Paralithic bedrock has a hardness of extremely weakly coherent to moderately coherent. It can occur as a thin layer of weathered bedrock above harder lithic bedrock. Paralithic bedrock can also be much thicker, extending well below the soil profile.

Densic bedrock represents a unique kind of bedrock recognized within the soil survey. It is non-coherent and consolidated, dense root restrictive material, formed by pressure, heat, and dewatering of earth materials or sediments. Densic bedrock differs from densic materials, which formed under the compaction of glaciers, mudflows, and or human-caused compaction.

If more than one type of bedrock is described for an individual soil type, the depth to the shallowest one is given. If no bedrock is described in a map unit, it is represented by the "greater than 200" depth class.

Depth to bedrock is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Custom Soil Resource Report
Map—Depth to Bedrock



MAP LEGEND

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

Soils

Soil Rating Polygons
- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Soil Rating Lines
- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Soil Rating Points
- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 20, Sep 6, 2023

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

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

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

Table—Depth to Bedrock

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
KO	Kimbrough gravelly loam, dry, 0 to 3 percent slopes	>200	1.6	65.7%
KU	Kimbrough-Lea complex, dry, 0 to 3 percent slopes	>200	0.8	34.3%
Totals for Area of Interest			**2.4**	**100.0%**

Rating Options—Depth to Bedrock

Units of Measure: centimeters

Aggregation Method: Dominant Component

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Component" returns the attribute value associated with the component with the highest percent composition in the map unit. If more than one component shares the highest percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher attribute value should be returned in the case of a percent composition tie. The result returned by this aggregation method may or may not represent the dominant condition throughout the map unit.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Lower

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Interpret Nulls as Zero: No

This option indicates if a null value for a component should be converted to zero before aggregation occurs. This will be done only if a map unit has at least one component where this value is not null.

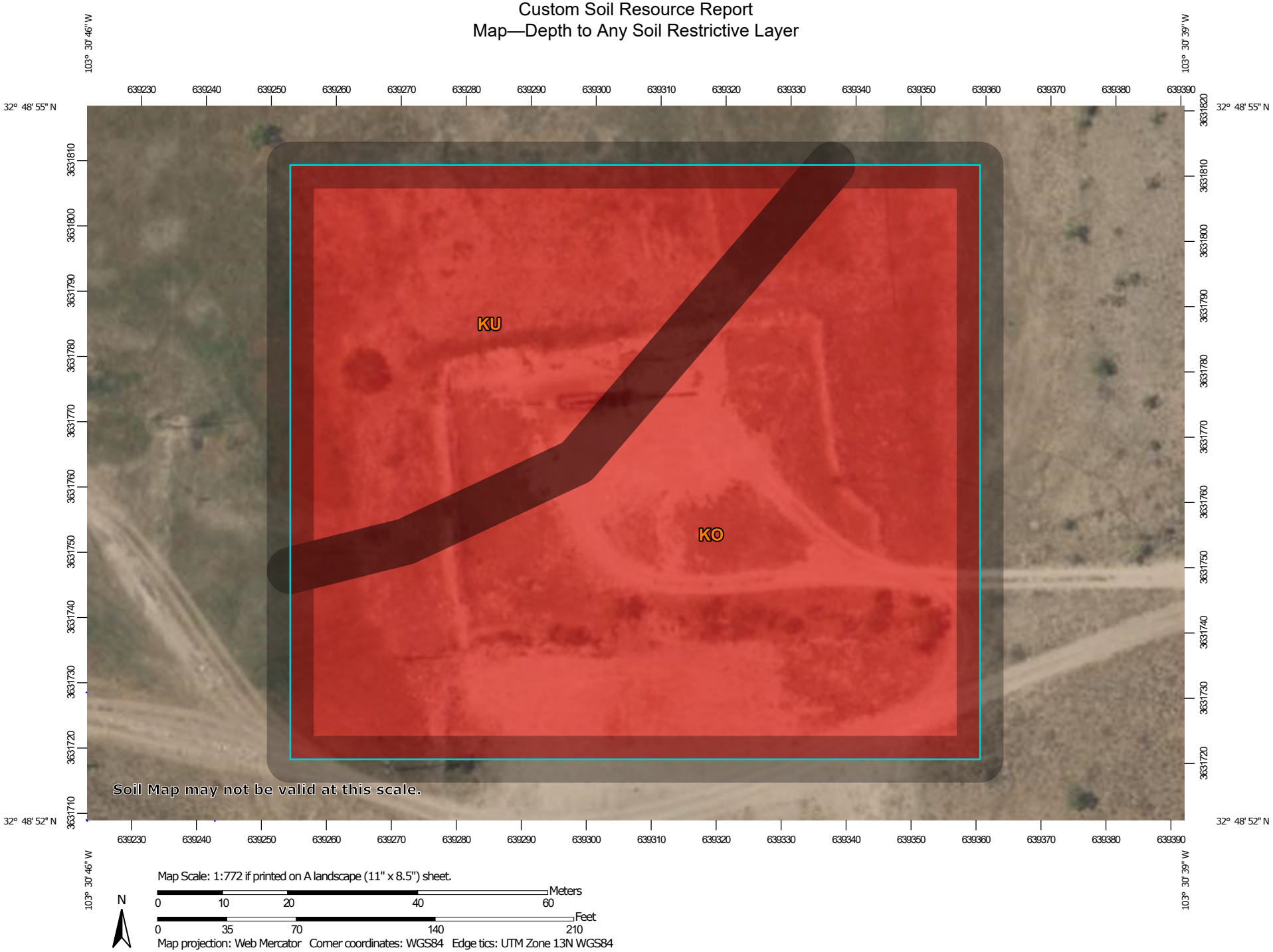
Depth to Any Soil Restrictive Layer

A "restrictive layer" is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers.

This theme presents the depth to any type of restrictive layer that is described for each map unit. If more than one type of restrictive layer is described for an individual soil type, the depth to the shallowest one is presented. If no restrictive layer is described in a map unit, it is represented by the "greater than 200" depth class.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Custom Soil Resource Report
Map—Depth to Any Soil Restrictive Layer



MAP LEGEND

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

Soils

Soil Rating Polygons
- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Soil Rating Lines
- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Soil Rating Points
- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 20, Sep 6, 2023

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

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

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

Table—Depth to Any Soil Restrictive Layer

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
KO	Kimbrough gravelly loam, dry, 0 to 3 percent slopes	25	1.6	65.7%
KU	Kimbrough-Lea complex, dry, 0 to 3 percent slopes	25	0.8	34.3%
Totals for Area of Interest			**2.4**	**100.0%**

Rating Options—Depth to Any Soil Restrictive Layer

Units of Measure: centimeters

Aggregation Method: Dominant Component

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Component" returns the attribute value associated with the component with the highest percent composition in the map unit. If more than one component shares the highest percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher attribute value should be returned in the case of a percent composition tie. The result returned by this aggregation method may or may not represent the dominant condition throughout the map unit.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Lower

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Interpret Nulls as Zero: No

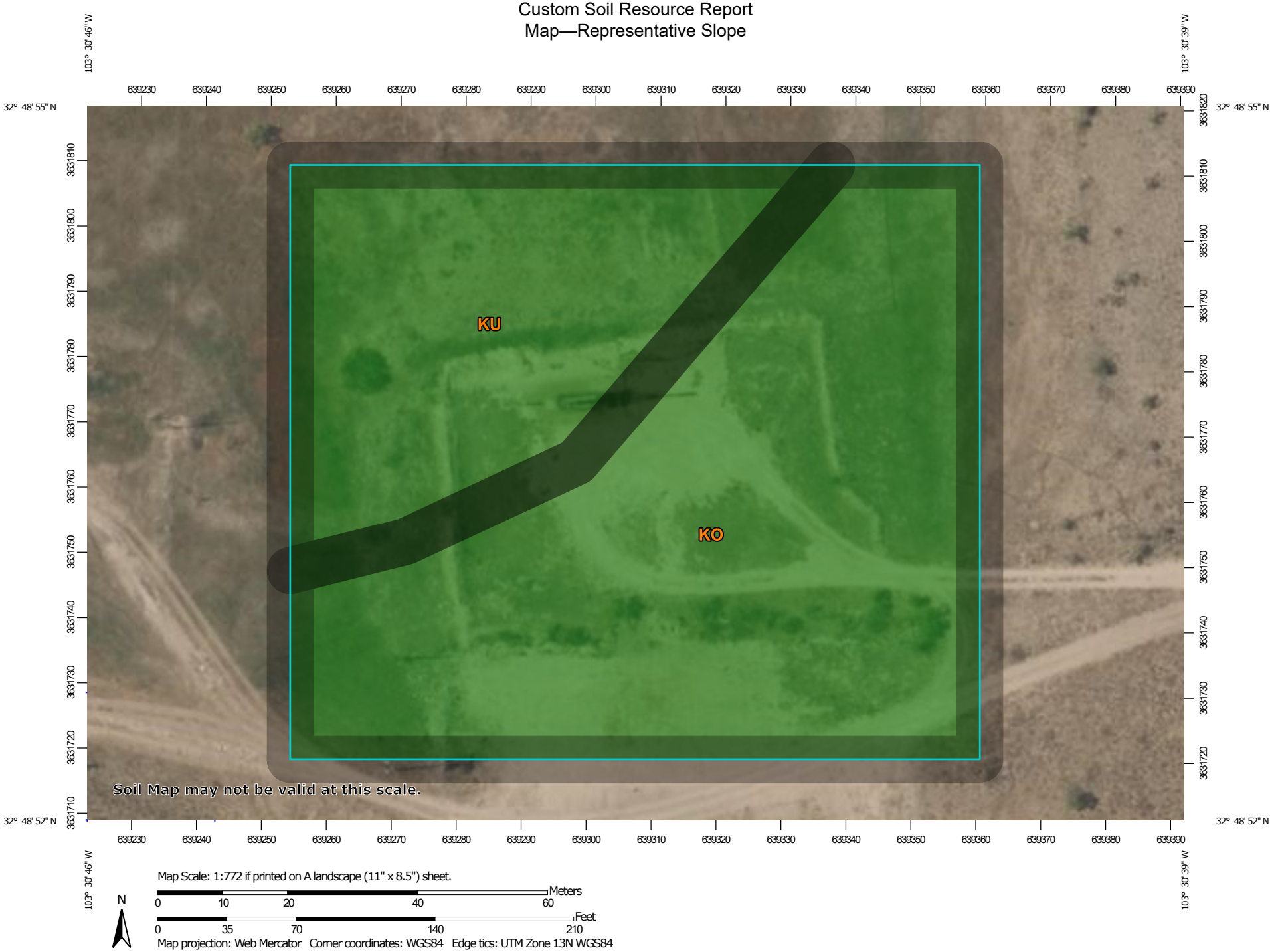
This option indicates if a null value for a component should be converted to zero before aggregation occurs. This will be done only if a map unit has at least one component where this value is not null.

Representative Slope

Slope gradient is the difference in elevation between two points, expressed as a percentage of the distance between those points.

The slope gradient is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Custom Soil Resource Report
Map—Representative Slope



Custom Soil Resource Report

MAP LEGEND

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

Soils

Soil Rating Polygons
- 0 - 5
- 5 - 15
- 15 - 45
- 45 - 60
- 60 - 100
- Not rated or not available

Soil Rating Lines
- 0 - 5
- 5 - 15
- 15 - 45
- 45 - 60
- 60 - 100
- Not rated or not available

Soil Rating Points
- 0 - 5
- 5 - 15
- 15 - 45
- 45 - 60
- 60 - 100
- Not rated or not available

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 20, Sep 6, 2023

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

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

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

Table—Representative Slope

Map unit symbol	Map unit name	Rating (percent)	Acres in AOI	Percent of AOI
KO	Kimbrough gravelly loam, dry, 0 to 3 percent slopes	1.0	1.6	65.7%
KU	Kimbrough-Lea complex, dry, 0 to 3 percent slopes	1.0	0.8	34.3%
Totals for Area of Interest			**2.4**	**100.0%**

Rating Options—Representative Slope

Units of Measure: percent

Aggregation Method: Dominant Component

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Component" returns the attribute value associated with the component with the highest percent composition in the map unit. If more than one component shares the highest percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher attribute value should be returned in the case of a percent composition tie. The result returned by this aggregation method may or may not represent the dominant condition throughout the map unit.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Interpret Nulls as Zero: No

This option indicates if a null value for a component should be converted to zero before aggregation occurs. This will be done only if a map unit has at least one component where this value is not null.

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

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
NA	L 14650 POD3	1	1	2	25	17S	34E	639107	3631506

Driller License: 1737 **Driller Company:** SHADE TREE DRILLING

Driller Name: LOEWEN, PETER B

Drill Start Date:	04/13/2021	**Drill Finish Date:**	04/22/2021	**Plug Date:**	
Log File Date:	09/07/2022	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	220 GPM
Casing Size:	12.00	**Depth Well:**	250 feet	**Depth Water:**	45 feet

Water Bearing Stratifications:	Top	Bottom	Description
	45	205	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	50	250

OSE DIT NOV 22 2022 PM3:07

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
L-14650-Pod 3		L-14650-POD3

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Pearce Trust, Ricky Pearce	(575) 390-0984

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
26 Collier LN R	Tatum	NM	88267

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	48	45.9	N
	LONGITUDE	103	30	50.7	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD1737	Peter B Loewen	Shade Tree Drilling

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
4-13-21	4-22-21	250	250	45

COMPLETED WELL IS: [x] ARTESIAN [ ] DRY HOLE [ ] SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 45

DATE STATIC MEASURED: 4-22-21

DRILLING FLUID: [ ] AIR [x] MUD ADDITIVES – SPECIFY:

DRILLING METHOD: [x] ROTARY [ ] HAMMER [ ] CABLE TOOL [ ] OTHER – SPECIFY:

CHECK HERE IF PITLESS ADAPTER IS INSTALLED [ ]

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	50	18	Steel	Welds	12	.33	
50	250	18	Steel-Perf	Welds	12	.33	5/8

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	20	18	cement	11	Hand Mixed

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO.	L-14650	POD NO.	3	TRN NO.	682828
LOCATION	17S.34E.25.1.1.2			WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	45		Rock	Y N	
45	205		Sand	✔ Y N	220.00
205	230		Yellow Clay	Y N	
230	240		Sand	Y N	
240	242		Brown Clay	Y N	
242	250		Red Clay	Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☑ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 220

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

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PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Peter Loewen Peter B Loewen — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

6/13/2022 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO. L-14650	POD NO. 3	TRN NO. 682828	
LOCATION 17S.34E.25.1.1.2		WELL TAG ID NO.	PAGE 2 OF 2

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
21281	L 15461 POD1	4	2	2	25	17S	34E	639790	3631339

Driller License:	1753	**Driller Company:**	VANGUARD WELL RESOURCES, LLC		
Driller Name:	JACOB FRIESSEN				
Drill Start Date:	05/11/2023	**Drill Finish Date:**	05/12/2023	**Plug Date:**	
Log File Date:	05/18/2023	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	25 GPM
Casing Size:	6.00	**Depth Well:**	234 feet	**Depth Water:**	95 feet

Water Bearing Stratifications:	Top	Bottom	Description
	43	196	Sandstone/Gravel/Conglomerate
	196	223	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	174	234

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
L-15461 POD1	21281	L-15461

WELL OWNER NAME(S)	PHONE (OPTIONAL)
CROSS TIMBERS ENERGY, LLC	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
400 W. 7TH STREET	FORT WORTH	TX	76102

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	48	40	N
	LONGITUDE	103	30	24	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SECTION 25 TOWNSHIP 17S RANGE 34E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1753	JACOB FRIESSEN	VANGUARD

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
05-11-2023	05-12-2023	234	234	95

COMPLETED WELL IS: ☐ ARTESIAN *add Centralizer info below ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 110

DATE STATIC MEASURED: 05-12-2023

DRILLING FLUID: ☐ AIR ☑ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☑

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
-1	174	10.5	BLANK PVC SCH40	GLUE 6.5	6	.25	
174	234	10.5	SCREEN PVC SCH40	GLUE 6.5	6	.25	.035

OSE DII MAY 18 2023 PM2:45

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL *(if using Centralizers for Artesian wells- indicate the spacing below)	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	20	10.5	CONCRETE	7	POURED
20	164	10.5	GRAVEL	53	POURED
164	234	10.5	SILICA SAND	25	POURED

FOR OSE INTERNAL USE WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.	L-15461	POD NO.	1	TRN NO.	746069	
LOCATION	17S.34E.25 422			WELL TAG ID NO.	21281	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	43	43	ROCK/CALICHE LAYERS	Y ✔ N	
43	196	153	SAND	✔ Y N	15.00
196	223	27	FINE GRAVEL CLAY MIXTURE	✔ Y N	10
223	230	7	LIMESTONE	Y ✔ N	
230	234	4	RED CLAY	Y ✔ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☑ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 25

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

OSE DIT MAY 18 2023 PM2:45

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

JACOB FRIESSEN — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

05/15/2023 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.	POD NO.	TRN NO.	
L-15461	1	746069	
LOCATION 175.34E.25 422		WELL TAG ID NO. 21281	PAGE 2 OF 2

NMSLO Seed Mix Coarse (CS)

COARSE (CS) SITES SEED MIXTURE:

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
Grasses:			
Sand bluestem	VNS, Southern	2.0	F
Sideoats grama	Vaughn, El Reno	2.0	F
Blue grama	Hachita, Lovington	1.5	D
Little bluestem	Cimmaron, Pastura	1.5	F
Sand dropseed	VNS, Southern	1.0	S
Plains bristlegrass	VNS, Southern	0.75	D
Forbs:			
Parry penstemon	VNS, Southern	1.0	D
Desert globemallow	VNS, Southern	1.0	D
White prairieclover	Kaneb, VNS	0.5	D
Sulfur buckwheat	VNS, Southern	0.5	D
Shrubs:			
Fourwing saltbush	VNS, Southern	1.0	D
Skunkbush sumac	VNS, Southern	1.0	D
Common winterfat	VNS, Southern	1.0	F
Fringed sagewort	VNS, Southern	0.5	F
	Total PLS/acre	**18.25**	

S = Small seed drill box, D = Standard seed drill box, F = Fluffy seed drill box

- VNS, Southern – No Variety Stated, seed should be from a southern latitude collection of this species.
- Double above seed rates for broadcast or hydroseeding.
- If Parry is not available, substitute firecracker penstemon.
- If desert globemallow is not available, substitute scarlet globemallow.
- If one species is not available, provide a suggested substitute to the New Mexico Land Office for approval. Increasing all other species proportionately may be acceptable.

CARDINAL Laboratories

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

November 10, 2023

DAN DUNKELBERG

TRINITY OILFIELD SERVICES & RENTALS, LLC

P. O. BOX 2587

HOBBS, NM 88241

RE: NVA 246

Enclosed are the results of analyses for samples received by the laboratory on 11/06/23 15:16.

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 accreditated 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,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	11/06/2023	Sampling Date:	11/02/2023
Reported:	11/10/2023	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	HOBBS, NM		

Sample ID: DV-001.0-00.0-S (H236074-01)

BTEX 8021B mg/kg Analyzed By: JH S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	**0.785**	0.200	11/08/2023	ND	2.10	105	2.00	10.6	
Toluene*	**8.97**	0.200	11/08/2023	ND	2.11	105	2.00	10.9	
Ethylbenzene*	**17.0**	0.200	11/08/2023	ND	2.12	106	2.00	11.5	
Total Xylenes*	**30.0**	0.600	11/08/2023	ND	6.54	109	6.00	10.0	
Total BTEX	**56.7**	1.20	11/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *148 %* *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	**160**	16.0	11/08/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**1160**	50.0	11/09/2023	ND	180	89.8	200	2.84	
DRO >C10-C28*	**35000**	50.0	11/09/2023	ND	190	95.2	200	2.82	
EXT DRO >C28-C36	**9520**	50.0	11/09/2023	ND					

Surrogate: 1-Chlorooctane *204 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *1110 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	11/06/2023	Sampling Date:	11/02/2023
Reported:	11/10/2023	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	HOBBS, NM		

Sample ID: DV-001.0-01.0-S (H236074-02)

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	11/08/2023	ND	2.10	105	2.00	10.6	
Toluene*	<0.050	0.050	11/08/2023	ND	2.11	105	2.00	10.9	
Ethylbenzene*	<0.050	0.050	11/08/2023	ND	2.12	106	2.00	11.5	
Total Xylenes*	<0.150	0.150	11/08/2023	ND	6.54	109	6.00	10.0	
Total BTEX	<0.300	0.300	11/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *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	**1720**	16.0	11/08/2023	ND	416	104	400	0.00	

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	11/09/2023	ND	180	89.8	200	2.84	
DRO >C10-C28*	<10.0	10.0	11/09/2023	ND	190	95.2	200	2.82	
EXT DRO >C28-C36	<10.0	10.0	11/09/2023	ND					

Surrogate: 1-Chlorooctane *123 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *136 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	11/06/2023	Sampling Date:	11/02/2023
Reported:	11/10/2023	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	HOBBS, NM		

Sample ID: DV-001.0-03.0-S (H236074-03)

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	11/08/2023	ND	2.10	105	2.00	10.6	
Toluene*	<0.050	0.050	11/08/2023	ND	2.11	105	2.00	10.9	
Ethylbenzene*	<0.050	0.050	11/08/2023	ND	2.12	106	2.00	11.5	
Total Xylenes*	<0.150	0.150	11/08/2023	ND	6.54	109	6.00	10.0	
Total BTEX	<0.300	0.300	11/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *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	**1580**	16.0	11/08/2023	ND	416	104	400	0.00	

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	11/09/2023	ND	180	89.8	200	2.84	
DRO >C10-C28*	**65.9**	10.0	11/09/2023	ND	190	95.2	200	2.82	
EXT DRO >C28-C36	**57.5**	10.0	11/09/2023	ND					

Surrogate: 1-Chlorooctane *116 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *132 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	11/06/2023	Sampling Date:	11/02/2023
Reported:	11/10/2023	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	HOBBS, NM		

Sample ID: DH-001.0-01.0-S (H236074-04)

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	11/08/2023	ND	2.10	105	2.00	10.6	
Toluene*	<0.050	0.050	11/08/2023	ND	2.11	105	2.00	10.9	
Ethylbenzene*	<0.050	0.050	11/08/2023	ND	2.12	106	2.00	11.5	
Total Xylenes*	<0.150	0.150	11/08/2023	ND	6.54	109	6.00	10.0	
Total BTEX	<0.300	0.300	11/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *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	**192**	16.0	11/08/2023	ND	416	104	400	0.00	

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	11/09/2023	ND	180	89.8	200	2.84	
DRO >C10-C28*	<10.0	10.0	11/09/2023	ND	190	95.2	200	2.82	
EXT DRO >C28-C36	**29.4**	10.0	11/09/2023	ND					

Surrogate: 1-Chlorooctane *113 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *126 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	11/06/2023	Sampling Date:	11/02/2023
Reported:	11/10/2023	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	HOBBS, NM		

Sample ID: DH-002.0-01.0-S (H236074-05)

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	11/08/2023	ND	2.10	105	2.00	10.6	
Toluene*	<0.050	0.050	11/08/2023	ND	2.11	105	2.00	10.9	
Ethylbenzene*	<0.050	0.050	11/08/2023	ND	2.12	106	2.00	11.5	
Total Xylenes*	<0.150	0.150	11/08/2023	ND	6.54	109	6.00	10.0	
Total BTEX	<0.300	0.300	11/08/2023	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	**128**	16.0	11/08/2023	ND	416	104	400	0.00	

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	11/09/2023	ND	180	89.8	200	2.84	
DRO >C10-C28*	<10.0	10.0	11/09/2023	ND	190	95.2	200	2.82	
EXT DRO >C28-C36	<10.0	10.0	11/09/2023	ND					

Surrogate: 1-Chlorooctane *119 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *132 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	11/06/2023	Sampling Date:	11/02/2023
Reported:	11/10/2023	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	HOBBS, NM		

Sample ID: DH-003.0-01.0-S (H236074-06)

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	11/07/2023	ND	2.16	108	2.00	8.74	
Toluene*	<0.050	0.050	11/07/2023	ND	2.04	102	2.00	8.71	
Ethylbenzene*	<0.050	0.050	11/07/2023	ND	2.19	109	2.00	8.65	
Total Xylenes*	<0.150	0.150	11/07/2023	ND	6.50	108	6.00	9.10	
Total BTEX	<0.300	0.300	11/07/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.3 %* *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	11/08/2023	ND	416	104	400	0.00	

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	11/09/2023	ND	180	89.8	200	2.84	
DRO >C10-C28*	**676**	10.0	11/09/2023	ND	190	95.2	200	2.82	
EXT DRO >C28-C36	**601**	10.0	11/09/2023	ND					

Surrogate: 1-Chlorooctane *112 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *134 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	11/06/2023	Sampling Date:	11/02/2023
Reported:	11/10/2023	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	HOBBS, NM		

Sample ID: DH-004.0-01.0-S (H236074-07)

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	11/07/2023	ND	2.16	108	2.00	8.74	
Toluene*	<0.050	0.050	11/07/2023	ND	2.04	102	2.00	8.71	
Ethylbenzene*	<0.050	0.050	11/07/2023	ND	2.19	109	2.00	8.65	
Total Xylenes*	<0.150	0.150	11/07/2023	ND	6.50	108	6.00	9.10	
Total BTEX	<0.300	0.300	11/07/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.6 %* *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	11/08/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS **S-06**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	11/09/2023	ND	180	89.8	200	2.84	
DRO >C10-C28*	**13000**	50.0	11/09/2023	ND	190	95.2	200	2.82	
EXT DRO >C28-C36	**5840**	50.0	11/09/2023	ND					

Surrogate: 1-Chlorooctane *116 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *379 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Trinity Oilfield Services		**BILL TO**		
Project Manager:	Dan Dunkelberg		**P.O. #:**		
Address:	8426 N Dal Paso		**Company:**	Cross Timbers Energy	
City:	Hobbs	**State:** NM **Zip:** 88241	**Attn:**	Kevin Bennet	
Phone #:		**Fax #:**	**Address:**		
Project #:		**Project Owner:** (see below)	**City:**		
Project Name:	NVA 246	dan@trinityoilfieldservices.com	**State:**	**Zip:**	
Project Location:			**Phone #:**		
Sampler Name:	PT		**Fax #:**		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL ✓	OTHER :	DATE	TIME	Chloride	TPH	BTEX									
H236074																										
To 11/6/23 1	DV-001.0-00.0-S	G	1			X							11/2/2023		X	X	X									
2	DV-001.0-01.0-S	G	1			X							11/2/2023		X	X	X									
3	DV-001.0-03.0-S	G	1			X							11/2/2023		X	X	X									
4	DH-001.0-01.0-S	G	1			X							11/2/2023		X	X	X									
5	DH-002.0-01.0-S	G	1			X							11/2/2023		X	X	X									
6	DH-003.0-01.0-S	G	1			X							11/2/2023		X	X	X									
7	DH-004.0-01.0-S	G	1			X							11/2/2023		X	X	X									

Relinquished By:	**Date:** 11-6-23 **Time:** 1516	**Received By:**	**Verbal Result:** ☐ Yes ☐ No **Add'l Phone #:**
			All Results are emailed. Please provide Email address:
Relinquished By:	**Date:** **Time:**	**Received By:**	**REMARKS:**

Delivered By: (Circle One)	**Observed Temp. °C** -9.0	**Sample Condition**	**CHECKED BY:**	**Turnaround Time:**	**Bacteria (only) Sample Condition**
Sampler - UPS - Bus - Other:	**Corrected Temp. °C**	Cool: Yes / No — Intact: Yes / No	(Initials)	Standard X / Rush	Cool: Yes / No — Intact: Yes / No — Observed Temp. °C — Corrected Temp. °C
				Thermometer ID #140	
				Correction Factor 0 °C	

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

CARDINAL Laboratories

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

November 29, 2023

DAN DUNKELBERG

TRINITY OILFIELD SERVICES & RENTALS, LLC

P. O. BOX 2587

HOBBS, NM 88241

RE: NVA 246

Enclosed are the results of analyses for samples received by the laboratory on 11/22/23 13:19.

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 accreditated 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,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	11/22/2023	Sampling Date:	11/21/2023
Reported:	11/29/2023	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	HOBBS, NM		

Sample ID: DH-003.1-01.0-S (H236376-01)

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	11/27/2023	ND	1.83	91.5	2.00	12.9	
Toluene*	<0.050	0.050	11/27/2023	ND	1.92	96.2	2.00	12.8	
Ethylbenzene*	<0.050	0.050	11/27/2023	ND	1.94	97.2	2.00	13.1	
Total Xylenes*	<0.150	0.150	11/27/2023	ND	5.84	97.3	6.00	12.7	
Total BTEX	<0.300	0.300	11/27/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *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	11/27/2023	ND	416	104	400	0.00	

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	11/27/2023	ND	212	106	200	0.174	
DRO >C10-C28*	<10.0	10.0	11/27/2023	ND	196	98.2	200	1.33	
EXT DRO >C28-C36	<10.0	10.0	11/27/2023	ND					

Surrogate: 1-Chlorooctane *65.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *74.3 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	11/22/2023	Sampling Date:	11/21/2023
Reported:	11/29/2023	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	HOBBS, NM		

Sample ID: DH-004.1-01.0-S (H236376-02)

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	11/27/2023	ND	1.83	91.5	2.00	12.9	
Toluene*	<0.050	0.050	11/27/2023	ND	1.92	96.2	2.00	12.8	
Ethylbenzene*	<0.050	0.050	11/27/2023	ND	1.94	97.2	2.00	13.1	
Total Xylenes*	<0.150	0.150	11/27/2023	ND	5.84	97.3	6.00	12.7	
Total BTEX	<0.300	0.300	11/27/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *119 %* *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	**64.0**	16.0	11/27/2023	ND	416	104	400	0.00	

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	11/27/2023	ND	212	106	200	0.174	
DRO >C10-C28*	<10.0	10.0	11/27/2023	ND	196	98.2	200	1.33	
EXT DRO >C28-C36	<10.0	10.0	11/27/2023	ND					

Surrogate: 1-Chlorooctane *78.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *86.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Trinity Oilfield Services	BILL TO	
Project Manager:	Dan Dunkelberg	P.O. #:	
Address:	8426 N Dal Paso	Company:	Cross Timbers Energy
City:	Hobbs State: NM Zip: 88241	Attn:	Kevin Bennet
Phone #:	Fax #:	Address:	
Project #:	Project Owner: (see below)	City:	
Project Name:	NVA 246 dan@trinityoilfieldservices.com	State: Zip:	
Project Location:	Lea CO., NM	Phone #:	
Sampler Name:	PT	Fax #:	

FOR LAB USE ONLY: H236376

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Chloride	TPH	BTEX
1	DH-003.1-01.0-S	G	1			X							11/21/2023		X	X	X
2	DH-004.1-01.0-S	G	1			X							11/21/2023		X	X	X

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 analyses. 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 consequental 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 related to 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: 11-22-23 Time: 1319	Received By:	Verbal Result: Yes No Add'l Phone #:
			All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 4.1 Corrected Temp. °C	Sample Condition Cool: Yes / No Intact: Yes / No	CHECKED BY: (Initials)	Turnaround Time: Standard X Rush	Bacteria (only) Sample Condition Cool: Yes / No Intact: Yes / No Observed Temp. °C Corrected Temp. °C
				Thermometer ID #140 Correction Factor 0 °C	

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

CARDINAL Laboratories

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

March 18, 2024

DAN DUNKELBERG

TRINITY OILFIELD SERVICES & RENTALS, LLC

P. O. BOX 2587

HOBBS, NM 88241

RE: NVA 246

Enclosed are the results of analyses for samples received by the laboratory on 03/12/24 15:40.

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 accreditated 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,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	03/12/2024	Sampling Date:	03/07/2024
Reported:	03/18/2024	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CROSS TIMBERS -HOBBS, NM		

Sample ID: DV-001.0-04.0-S (H241260-01)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1100**	16.0	03/14/2024	ND	432	108	400	0.00	

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	03/13/2024	ND	192	95.8	200	3.73	
DRO >C10-C28*	<10.0	10.0	03/13/2024	ND	192	95.9	200	4.29	
EXT DRO >C28-C36	<10.0	10.0	03/13/2024	ND					

Surrogate: 1-Chlorooctane	*97.5 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*120 %*	*49.1-148*

Sample ID: DV-001.0-06.0-S (H241260-02)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**480**	16.0	03/14/2024	ND	432	108	400	0.00	

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	03/13/2024	ND	192	95.8	200	3.73	
DRO >C10-C28*	<10.0	10.0	03/13/2024	ND	192	95.9	200	4.29	
EXT DRO >C28-C36	<10.0	10.0	03/13/2024	ND					

Surrogate: 1-Chlorooctane	*104 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*129 %*	*49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	03/12/2024	Sampling Date:	03/07/2024
Reported:	03/18/2024	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CROSS TIMBERS -HOBBS, NM		

Sample ID: DV-001.0-07.0-S (H241260-03)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	03/14/2024	ND	432	108	400	0.00	

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	03/13/2024	ND	192	95.8	200	3.73	
DRO >C10-C28*	<10.0	10.0	03/13/2024	ND	192	95.9	200	4.29	
EXT DRO >C28-C36	<10.0	10.0	03/13/2024	ND					

Surrogate: 1-Chlorooctane	*98.1 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*121 %*	*49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Trinity Oilfield Services	BILL TO	
Project Manager:	Dan Dunkelberg	P.O. #:	
Address:	8426 N Dal Paso	Company:	Cross Timbers Energy
City:	Hobbs State: NM Zip: 88241	Attn:	Kevin Bennet
Phone #:	Fax #:	Address:	
Project #:	Project Owner: (see below)	City:	
Project Name:	NVA 246 dan@trinityoilfieldservices.com	State: Zip:	
Project Location:	Lea CO., NM	Phone #:	
Sampler Name:	TT	Fax #:	

FOR LAB USE ONLY
P.O. 3/12/24
H241254

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: Chloride	TPH	BTEX
1	DV-001.0-04.0-S	G	1			X							3/7/2024		X	X	
2	DV-001.0-06.0-S	G	1			X							3/7/2024		X	X	
3	DV-001.0-07.0-S	G	1			X							3/7/2024		X	X	

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 analyses. 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 related to 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: 13-12-24 Time: 1540	Received By:	Verbal Result: Yes No Add'l Phone #:
			All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS:

Delivered By: (Circle One)	Observed Temp. °C 2.4	Sample Condition	CHECKED BY:	Turnaround Time:	Bacteria (only) Sample Condition
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool: Yes / No; Intact: Yes / No	(Initials)	Standard X / Rush	Cool: Yes / No; Intact: Yes / No; Observed Temp. °C; Corrected Temp. °C
				Thermometer ID #140 Correction Factor 0 °C	

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

CARDINAL Laboratories

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

May 13, 2024

DAN DUNKELBERG

TRINITY OILFIELD SERVICES & RENTALS, LLC

P. O. BOX 2587

HOBBS, NM 88241

RE: NVA 246

Enclosed are the results of analyses for samples received by the laboratory on 05/07/24 15:37.

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 accreditated 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,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CROSS TIMBERS -HOBBS, NM		

Sample ID: CF-001.0-05.0-S (H242482-01)

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	05/10/2024	ND	1.98	99.1	2.00	2.59	
Toluene*	<0.050	0.050	05/10/2024	ND	2.06	103	2.00	2.05	
Ethylbenzene*	<0.050	0.050	05/10/2024	ND	2.06	103	2.00	1.77	
Total Xylenes*	<0.150	0.150	05/10/2024	ND	6.35	106	6.00	1.83	
Total BTEX	<0.300	0.300	05/10/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *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	**288**	16.0	05/09/2024	ND	448	112	400	0.00	

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	05/09/2024	ND	179	89.4	200	2.28	
DRO >C10-C28*	<10.0	10.0	05/09/2024	ND	176	87.8	200	3.65	
EXT DRO >C28-C36	<10.0	10.0	05/09/2024	ND					

Surrogate: 1-Chlorooctane *87.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *102 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CROSS TIMBERS -HOBBS, NM		

Sample ID: CF-002.0-05.0-S (H242482-02)

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	05/10/2024	ND	1.98	99.1	2.00	2.59	
Toluene*	<0.050	0.050	05/10/2024	ND	2.06	103	2.00	2.05	
Ethylbenzene*	<0.050	0.050	05/10/2024	ND	2.06	103	2.00	1.77	
Total Xylenes*	<0.150	0.150	05/10/2024	ND	6.35	106	6.00	1.83	
Total BTEX	<0.300	0.300	05/10/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *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	**272**	16.0	05/09/2024	ND	448	112	400	0.00	

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	05/09/2024	ND	179	89.4	200	2.28	
DRO >C10-C28*	<10.0	10.0	05/09/2024	ND	176	87.8	200	3.65	
EXT DRO >C28-C36	<10.0	10.0	05/09/2024	ND					

Surrogate: 1-Chlorooctane *81.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CROSS TIMBERS -HOBBS, NM		

Sample ID: CF-003.0-05.0-S (H242482-03)

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	05/10/2024	ND	1.98	99.1	2.00	2.59	
Toluene*	<0.050	0.050	05/10/2024	ND	2.06	103	2.00	2.05	
Ethylbenzene*	<0.050	0.050	05/10/2024	ND	2.06	103	2.00	1.77	
Total Xylenes*	<0.150	0.150	05/10/2024	ND	6.35	106	6.00	1.83	
Total BTEX	<0.300	0.300	05/10/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *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	**288**	16.0	05/09/2024	ND	448	112	400	0.00	

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	05/09/2024	ND	179	89.4	200	2.28	
DRO >C10-C28*	<10.0	10.0	05/09/2024	ND	176	87.8	200	3.65	
EXT DRO >C28-C36	<10.0	10.0	05/09/2024	ND					

Surrogate: 1-Chlorooctane *71.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *84.9 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CROSS TIMBERS -HOBBS, NM		

Sample ID: CF-004.0-06.0-S (H242482-04)

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	05/11/2024	ND	1.98	99.1	2.00	2.59	
Toluene*	<0.050	0.050	05/11/2024	ND	2.06	103	2.00	2.05	
Ethylbenzene*	<0.050	0.050	05/11/2024	ND	2.06	103	2.00	1.77	
Total Xylenes*	<0.150	0.150	05/11/2024	ND	6.35	106	6.00	1.83	
Total BTEX	<0.300	0.300	05/11/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *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	**448**	16.0	05/09/2024	ND	448	112	400	0.00	

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	05/10/2024	ND	194	97.2	200	1.11	
DRO >C10-C28*	<10.0	10.0	05/10/2024	ND	198	99.2	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	05/10/2024	ND					

Surrogate: 1-Chlorooctane *94.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *89.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CROSS TIMBERS -HOBBS, NM		

Sample ID: CF-005.0-06.0-S (H242482-05)

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	05/11/2024	ND	1.98	99.1	2.00	2.59	
Toluene*	<0.050	0.050	05/11/2024	ND	2.06	103	2.00	2.05	
Ethylbenzene*	<0.050	0.050	05/11/2024	ND	2.06	103	2.00	1.77	
Total Xylenes*	<0.150	0.150	05/11/2024	ND	6.35	106	6.00	1.83	
Total BTEX	<0.300	0.300	05/11/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *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	**608**	16.0	05/09/2024	ND	448	112	400	0.00	

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	05/10/2024	ND	194	97.2	200	1.11	
DRO >C10-C28*	<10.0	10.0	05/10/2024	ND	198	99.2	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	05/10/2024	ND					

Surrogate: 1-Chlorooctane *84.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *84.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Trinity Oilfield Services		**BILL TO**		
Project Manager:	Dan Dunkelberg		**P.O. #:**		
Address:	8426 N Dal Paso		**Company:**	Cross Timbers Energy	
City:	Hobbs	**State:** NM **Zip:** 88241	**Attn:**	Kevin Bennet	
Phone #:		**Fax #:**	**Address:**		
Project #:		**Project Owner:** (see below)	**City:**		
Project Name:	NVA 246	dan@trinityoilfieldservices.com	**State:**	**Zip:**	
Project Location:	Lea CO., NM		**Phone #:**		
Sampler Name:	TT		**Fax #:**		

FOR LAB USE ONLY: H242482

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Chloride	TPH	BTEX
1	CF-001.0-05.0-S	C	1			X							5/7/2024		X	X	X
2	CF-002.0-05.0-S	C	1			X							5/7/2024		X	X	X
3	CF-003.0-05.0-S	C	1			X							5/7/2024		X	X	X
4	CF-004.0-06.0-S	C	1			X							5/7/2024		X	X	X
5	CF-005.0-06.0-S	C	1			X							5/7/2024		X	X	X

ANALYSIS REQUEST

Relinquished By:	**Date:** 5-7-24 **Time:** 1537	**Received By:** Tamara Oldaker	**Verbal Result:** ☐ Yes ☐ No **Add'l Phone #:**
			All Results are emailed. Please provide Email address:
Relinquished By:	**Date:** **Time:**	**Received By:**	**REMARKS:**

Delivered By: (Circle One)	**Observed Temp. °C** 0.8	**Sample Condition**	**CHECKED BY:**	**Turnaround Time:** Standard [X] Rush [ ]
Sampler - UPS - Bus - Other:	**Corrected Temp. °C**	Cool: Yes [X] No [ ] Intact: Yes [X] No [ ]	(Initials)	**Thermometer ID #140** **Correction Factor 0 °C**

Bacteria (only) Sample Condition
Cool: Yes [ ] No [ ] Intact: Yes [ ] No [ ] Observed Temp. °C Corrected Temp. °C

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

CARDINAL Laboratories

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

May 13, 2024

DAN DUNKELBERG

TRINITY OILFIELD SERVICES & RENTALS, LLC

P. O. BOX 2587

HOBBS, NM 88241

RE: NVA 246

Enclosed are the results of analyses for samples received by the laboratory on 05/07/24 15:37.

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 accreditated 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,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CROSS TIMBERS -HOBBS, NM		

Sample ID: CW-001.0-05.0-S (H242483-01)

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	05/11/2024	ND	1.98	99.1	2.00	2.59	
Toluene*	<0.050	0.050	05/11/2024	ND	2.06	103	2.00	2.05	
Ethylbenzene*	<0.050	0.050	05/11/2024	ND	2.06	103	2.00	1.77	
Total Xylenes*	<0.150	0.150	05/11/2024	ND	6.35	106	6.00	1.83	
Total BTEX	<0.300	0.300	05/11/2024	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	**304**	16.0	05/10/2024	ND	432	108	400	0.00	

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	05/10/2024	ND	194	97.2	200	1.11	
DRO >C10-C28*	<10.0	10.0	05/10/2024	ND	198	99.2	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	05/10/2024	ND					

Surrogate: 1-Chlorooctane *89.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *88.9 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CROSS TIMBERS -HOBBS, NM		

Sample ID: CW-002.0-06.0-S (H242483-02)

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	05/11/2024	ND	1.98	99.1	2.00	2.59	
Toluene*	<0.050	0.050	05/11/2024	ND	2.06	103	2.00	2.05	
Ethylbenzene*	<0.050	0.050	05/11/2024	ND	2.06	103	2.00	1.77	
Total Xylenes*	<0.150	0.150	05/11/2024	ND	6.35	106	6.00	1.83	
Total BTEX	<0.300	0.300	05/11/2024	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	**576**	16.0	05/10/2024	ND	432	108	400	0.00	

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	05/10/2024	ND	194	97.2	200	1.11	
DRO >C10-C28*	<10.0	10.0	05/10/2024	ND	198	99.2	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	05/10/2024	ND					

Surrogate: 1-Chlorooctane *85.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *85.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CROSS TIMBERS -HOBBS, NM		

Sample ID: CW-003.0-06.0-S (H242483-03)

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	05/11/2024	ND	1.98	99.1	2.00	2.59	
Toluene*	<0.050	0.050	05/11/2024	ND	2.06	103	2.00	2.05	
Ethylbenzene*	<0.050	0.050	05/11/2024	ND	2.06	103	2.00	1.77	
Total Xylenes*	<0.150	0.150	05/11/2024	ND	6.35	106	6.00	1.83	
Total BTEX	<0.300	0.300	05/11/2024	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	**528**	16.0	05/10/2024	ND	432	108	400	0.00	

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	05/10/2024	ND	194	97.2	200	1.11	
DRO >C10-C28*	<10.0	10.0	05/10/2024	ND	198	99.2	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	05/10/2024	ND					

Surrogate: 1-Chlorooctane *83.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *84.9 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CROSS TIMBERS -HOBBS, NM		

Sample ID: CW-004.0-05.0-S (H242483-04)

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	05/11/2024	ND	1.98	99.1	2.00	2.59	
Toluene*	<0.050	0.050	05/11/2024	ND	2.06	103	2.00	2.05	
Ethylbenzene*	<0.050	0.050	05/11/2024	ND	2.06	103	2.00	1.77	
Total Xylenes*	<0.150	0.150	05/11/2024	ND	6.35	106	6.00	1.83	
Total BTEX	<0.300	0.300	05/11/2024	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	**160**	16.0	05/10/2024	ND	432	108	400	0.00	

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	05/10/2024	ND	194	97.2	200	1.11	
DRO >C10-C28*	<10.0	10.0	05/10/2024	ND	198	99.2	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	05/10/2024	ND					

Surrogate: 1-Chlorooctane *82.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *85.7 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Trinity Oilfield Services		**BILL TO**		
Project Manager:	Dan Dunkelberg		**P.O. #:**		
Address:	8426 N Dal Paso		**Company:**	Cross Timbers Energy	
City:	Hobbs	**State:** NM **Zip:** 88241	**Attn:**	Kevin Bennet	
Phone #:		**Fax #:**	**Address:**		
Project #:		**Project Owner:** (see below)	**City:**		
Project Name:	NVA 246	dan@trinityoilfieldservices.com	**State:**	**Zip:**	
Project Location:	Lea CO., NM		**Phone #:**		
Sampler Name:	TT		**Fax #:**		

FOR LAB USE ONLY: H242483

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Chloride	TPH	BTEX
1	CW-001.0-05.0-S	C	1			X							5/7/2024		X	X	X
2	CW-002.0-06.0-S	C	1			X							5/7/2024		X	X	X
3	CW-003.0-06.0-S	C	1			X							5/7/2024		X	X	X
4	CW-004.0-05.0-S	C	1			X							5/7/2024		X	X	X

ANALYSIS REQUEST

Relinquished By:	**Date:** 5-7-24	**Received By:**	**Verbal Result:** ☐ Yes ☐ No **Add'l Phone #:**
	Time: 1537		**All Results are emailed. Please provide Email address:**
Relinquished By:	**Date:**	**Received By:**	**REMARKS:**
	Time:		

Delivered By: (Circle One)	**Observed Temp. °C** 0.8	**Sample Condition**	**CHECKED BY:**	**Turnaround Time:**	**Bacteria (only) Sample Condition**
Sampler - UPS - Bus - Other:	**Corrected Temp. °C**	**Cool** ☐ Yes ☐ No **Intact** ☑ Yes ☐ No	**(Initials)**	**Standard** ☒ **Rush** ☐	**Cool** ☐ Yes ☐ No **Intact** ☐ Yes ☐ No **Observed Temp. °C** **Corrected Temp. °C**
				Thermometer ID #140 **Correction Factor 0 °C**	

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

CARDINAL Laboratories

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

June 05, 2024

DAN DUNKELBERG

TRINITY OILFIELD SERVICES & RENTALS, LLC

P. O. BOX 2587

HOBBS, NM 88241

RE: NVA 246

Enclosed are the results of analyses for samples received by the laboratory on 05/31/24 13:25.

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 accreditated 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,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC
DAN DUNKELBERG
P. O. BOX 2587
HOBBS NM, 88241
Fax To: NONE

Received:	05/31/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	NVA 246	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CROSS TIMBERS -HOBBS, NM		

Sample ID: CF-005.0-06.5-S (H243057-01)

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	06/03/2024	ND	1.77	88.3	2.00	2.68	
Toluene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	0.429	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	93.9	2.00	2.38	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	2.32	
Total BTEX	<0.300	0.300	06/03/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *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	**240**	16.0	06/04/2024	ND	432	108	400	0.00	

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	06/03/2024	ND	182	91.0	200	4.26	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	193	96.3	200	7.71	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					

Surrogate: 1-Chlorooctane *114 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *127 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Trinity Oilfield Services		**BILL TO**		
Project Manager:	Dan Dunkelberg		**P.O. #:**		
Address:	8426 N Dal Paso		**Company:**	Cross Timbers Energy	
City:	Hobbs	**State:** NM **Zip:** 88241	**Attn:**	Kevin Bennet	
Phone #:		**Fax #:**	**Address:**		
Project #:		**Project Owner:** (see below)	**City:**		
Project Name:	NVA 246	dan@trinityoilfieldservices.com	**State:**	**Zip:**	
Project Location:	Lea CO., NM		**Phone #:**		
Sampler Name:	TT		**Fax #:**		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST												
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chloride	TPH	BTEX										
1	CF-005.0-06.5-S	C	1			X							5/31/2024		X	X	X									

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 analyses. 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 related to 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:** 5/31/24	**Received By:**	**Verbal Result:**	Yes	No **Add'l Phone #:**
	Time: 1325		**All Results are emailed. Please provide Email address:**		
Relinquished By:	**Date:**	**Received By:**	**REMARKS:**		
	Time:				

Delivered By: (Circle One)	**Observed Temp. °C**	**Sample Condition**	**CHECKED BY:**	**Turnaround Time:**	**Standard** X	**Bacteria (only) Sample Condition**
Sampler - UPS - Bus - Other:	-0.5	Cool: Yes / No — Intact: Yes / No	(Initials) SR		Rush	Cool: Yes / No — Intact: Yes / No — Observed Temp. °C
	Corrected Temp. °C			**Thermometer ID #140**		**Corrected Temp. °C**
				Correction Factor 0 °C		

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

LEASE OPERATOR/SHIPPER/COMPANY: Cross Timbers	DATE: 5-2-24
LEASE NAME: NVA Unit 246	TIME: 11:33 AM/PM
RIG NAME & NUMBER:	VEHICLE NO: 206
TRANSPORTER COMPANY: Trinity	PHONE:
GENERATOR COMPANY MAN'S NAME: Kevin Bennett	PHONE:

CHARGE TO: Cross Timbers

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content:

[ ] Solids [X] Contaminated Soil [ ] Jet Out _____

Description: OD

VOLUME OF MATERIAL

[ ] BBLS. _____: [X] YARD 12 : [ ] _____

RRC or API # **C-133#** NM

STICKERS, CODES, NUMBERS, ETC.

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: _____
(SIGNATURE)

FACILITY REPRESENTATIVE: _____
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004c

LEASE OPERATOR/SHIPPER/COMPANY:	DATE:
LEASE NAME:	TIME: AM/PM
RIG NAME & NUMBER:	VEHICLE NO:
TRANSPORTER COMPANY:	PHONE:
GENERATOR COMPANY MAN'S NAME:	PHONE:

CHARGE TO:

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content:

[ ] Solids [X] Contaminated Soil [ ] Jet Out _____

Description: _____

VOLUME OF MATERIAL

[ ] BBLS._____: [X] YARD 20 : [ ] _____

RRC or API # **C-133#**

STICKERS, CODES, NUMBERS, ETC.

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DRIVER: _____
(SIGNATURE)

FACILITY REPRESENTATIVE: _____
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004c

LEASE OPERATOR/SHIPPER/COMPANY:	DATE:
LEASE NAME:	TIME: AM/PM
RIG NAME & NUMBER:	VEHICLE NO:
TRANSPORTER COMPANY:	PHONE:
GENERATOR COMPANY MAN'S NAME:	PHONE:

CHARGE TO:

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content: _____

[ ] Solids [ ] Contaminated Soil [ ] Jet Out

Description: _____

VOLUME OF MATERIAL

[ ] BBLS._____: [ ] YARD_____: [ ]_____

RRC or API # C-133#

STICKERS, CODES, NUMBERS, ETC.

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DRIVER: _____
(SIGNATURE)

FACILITY REPRESENTATIVE: _____
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004c

LEASE OPERATOR/SHIPPER/COMPANY:	DATE:
LEASE NAME:	TIME: AM/PM
RIG NAME & NUMBER:	VEHICLE NO:
TRANSPORTER COMPANY:	PHONE:
GENERATOR COMPANY MAN'S NAME:	PHONE:

CHARGE TO:

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content: _____

[ ] Solids [ ] Contaminated Soil [ ] Jet Out

Description: _____

VOLUME OF MATERIAL

[ ] BBLS._____: [ ] YARD_____: [ ] _____

RRC or API # **C-133#**

STICKERS, CODES, NUMBERS, ETC.

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DRIVER: _____
(SIGNATURE)

FACILITY REPRESENTATIVE: _____
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004c

LEASE OPERATOR/SHIPPER/COMPANY:	DATE:
LEASE NAME:	TIME: AM/PM
RIG NAME & NUMBER:	VEHICLE NO:
TRANSPORTER COMPANY:	PHONE:
GENERATOR COMPANY MAN'S NAME:	PHONE:

CHARGE TO:

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content:

[ ] Solids [ ] Contaminated Soil [ ] Jet Out _____

Description: _____

VOLUME OF MATERIAL

[ ] BBLS._____: [ ] YARD_____: [ ] _____

RRC or API # C-133#

STICKERS, CODES, NUMBERS, ETC.

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DRIVER: _____
(SIGNATURE)

FACILITY REPRESENTATIVE: _____
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004c

LEASE OPERATOR/SHIPPER/COMPANY: Cross Timbers	DATE: 5/3/2024
LEASE NAME: NVA 246	TIME: 9:18 AM/PM
RIG NAME & NUMBER:	VEHICLE NO: 52610
TRANSPORTER COMPANY: Trinity	PHONE:
GENERATOR COMPANY MAN'S NAME: Kevin Bennet	PHONE: (575)513-8152

CHARGE TO: Cross Timbers

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content:

[ ] Solids [X] Contaminated Soil [ ] Jet Out _____

Description: OD

VOLUME OF MATERIAL

[ ] BBLS._____: [X] YARD 20 : [ ] _____

RRC or API # C-133# NM

STICKERS, CODES, NUMBERS, ETC.

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: _____
(SIGNATURE)

FACILITY REPRESENTATIVE: Estefania P.
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004c

LEASE OPERATOR/SHIPPER/COMPANY:	DATE:
LEASE NAME:	TIME: AM/PM
RIG NAME & NUMBER:	VEHICLE NO:
TRANSPORTER COMPANY:	PHONE:
GENERATOR COMPANY MAN'S NAME:	PHONE:

CHARGE TO:

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content:

[ ] Solids [X] Contaminated Soil [ ] Jet Out _____

Description: _____

VOLUME OF MATERIAL

[ ] BBLS._____: [X] YARD_____: [ ]_____

RRC or API # C-133#

STICKERS, CODES, NUMBERS, ETC.

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: _____
(SIGNATURE)

FACILITY REPRESENTATIVE: _____
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004c

LEASE OPERATOR/SHIPPER/COMPANY: Ross Timbers	DATE: 5/31/2024
LEASE NAME: NVA 246	TIME: 9:42 AM/PM
RIG NAME & NUMBER:	VEHICLE NO: 699
TRANSPORTER COMPANY: Trinity	PHONE:
GENERATOR COMPANY MAN'S NAME: Kevin Kennt	PHONE: (575)513-5126

CHARGE TO: Ross Timbers

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content:

[ ] Solids [X] Contaminated Soil [ ] Jet Out _____

Description: OD

VOLUME OF MATERIAL

[ ] BBLS._____: [X] YARD 20 : [ ] _____

RRC or API # C-133# NM1

STICKERS, CODES, NUMBERS, ETC.

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DRIVER: Hugo Olivarez
(SIGNATURE)

FACILITY REPRESENTATIVE: Estefania P
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004c

LEASE OPERATOR/SHIPPER/COMPANY:	DATE:
LEASE NAME:	TIME: AM/PM
RIG NAM & NUMBER:	VEHICLE NO:
TRANSPORTER COMPANY:	PHONE:
GENERATOR COMPANY MAN'S NAME:	PHONE:

CHARGE TO:

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content:

[ ] Solids [ ] Contaminated Soil [ ] Jet Out _____

Description: _____

VOLUME OF MATERIAL

[ ] BBLS._____: [ ] YARD_____: [ ] _____

RRC or API # C-133#

STICKERS, CODES, NUMBERS, ETC.

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DRIVER: _____
(SIGNATURE)

FACILITY REPRESENTATIVE: _____
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004c

LEASE OPERATOR/SHIPPER/COMPANY: Cross Timbers	DATE: 5/3/2024
LEASE NAME: NVA 296	TIME: 10:00 AM/PM
RIG NAME & NUMBER:	VEHICLE NO: 526701
TRANSPORTER COMPANY: Trinity	PHONE:
GENERATOR COMPANY MAN'S NAME: Kevin Pennel	PHONE: (575)513-8512

CHARGE TO: Cross Timbers

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content:

[ ] Solids [X] Contaminated Soil [ ] Jet Out _____

Description: OD

VOLUME OF MATERIAL

[ ] BBLS. _____: [X] YARD 20 : [ ] _____

RRC or API # C-133# NM

STICKERS, CODES, NUMBERS, ETC.

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DRIVER: (Jerad) _____
(SIGNATURE)

FACILITY REPRESENTATIVE: Estefania P. _____
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004c

LEASE OPERATOR SHIPPER #:

LEASE NAME:	DATE:
RIG NAME & NUMBER:	TIME: AM/PM
TRANSPORTER COMPANY:	VEHICLE NO:
GENERATOR COMPANY MAN'S NAME:	PHONE:
	PHONE:

CHARGE TO:

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content: _____

[ ] Solids [ ] Contaminated Soil [ ] Jet Out

Description: _____

VOLUME OF MATERIAL

[ ] BBLS._____: [ ] YARD_____: [ ] _____

RRC or API # **C-133#**

STICKERS, CODES, NUMBERS, ETC.

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: _____
(SIGNATURE)

FACILITY REPRESENTATIVE: _____
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004c

Business: (575) 394-2511

LEASE OPERATOR/SHIPPER/COMPANY:	DATE:
LEASE NAME:	TIME: AM/PM
RIG NAME & NUMBER:	VEHICLE NO:
TRANSPORTER COMPANY:	PHONE:
GENERATOR COMPANY MAN'S NAME:	PHONE:

CHARGE TO:

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content: _____

[ ] Solids [ ] Contaminated Soil [ ] Jet Out _____

Description: _____

VOLUME OF MATERIAL

[ ] BBLS._____: [ ] YARD_____: [ ] _____

RRC or API # C-133#

STICKERS, CODES, NUMBERS, ETC.

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White - Sundance Canary - Sundance Acct #1 Pink - Transporter

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LEASE OPERATOR/SHIPPER/COMPANY: Apache Timbers	DATE: 5/6/2024
LEASE NAME: NVA 246	TIME: 1:57 AM/PM
RIG NAME & NUMBER:	VEHICLE NO: 52700
TRANSPORTER COMPANY: Trinity	PHONE:
GENERATOR COMPANY MAN'S NAME: Kevin Peneth	PHONE: (575) 390-1360

CHARGE TO: (Apache)

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content:

[ ] Solids [X] Contaminated Soil [ ] Jet Out _____

Description: _____ (OD)

VOLUME OF MATERIAL

[ ] BBLS._____: [X] YARD 20 : [ ] _____

RRC or API # **C-133#** NM

STICKERS, CODES, NUMBERS, ETC.

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(SIGNATURE)

FACILITY REPRESENTATIVE: _____
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004c

LEASE OPERATOR/SHIPPER/COMPANY:	DATE:
LEASE NAME:	TIME: AM/PM
RIG NAME & NUMBER:	VEHICLE NO:
TRANSPORTER COMPANY:	PHONE:
GENERATOR COMPANY MAN'S NAME:	PHONE:

CHARGE TO:

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content:

[ ] Solids [ ] Contaminated Soil [ ] Jet Out _____

Description: _____

VOLUME OF MATERIAL

[ ] BBLS. _____: [ ] YARD _____: [ ] _____

RRC or API # **C-133#**

STICKERS, CODES, NUMBERS, ETC.

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(SIGNATURE)

FACILITY REPRESENTATIVE: _____
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004c

LEASE OPERATOR/SHIPPER/COMPANY:	DATE: 5/6/2024
LEASE NAME: NVA 296	TIME: 1101 AM/PM
RIG NAME & NUMBER:	VEHICLE NO: 20101
TRANSPORTER COMPANY: Trinity	PHONE:
GENERATOR COMPANY MAN'S NAME: Kevin Perch	PHONE: (432)238150

CHARGE TO: Cross Timbers

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content:

[ ] Solids [X] Contaminated Soil [ ] Jet Out _____

Description: SD

VOLUME OF MATERIAL

[ ] BBLS._____: [X] YARD 20 : [ ] _____

RRC or API # **C-133#** NM1

STICKERS, CODES, NUMBERS, ETC.

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DRIVER: _____
(SIGNATURE)

FACILITY REPRESENTATIVE: _____
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

LEASE OPERATOR/SHIPPER/COMPANY: Timbers	DATE: 5/6/2021
LEASE NAME: NVA 246	TIME: 2:00 AM/PM
RIG NAME & NUMBER:	VEHICLE NO: 526701
TRANSPORTER COMPANY: Trinity	PHONE:
GENERATOR COMPANY MAN'S NAME: Kelvin Benett	PHONE: (575) 213 8150

CHARGE TO: Cross

TYPE OF MATERIAL

[ ] Tank Bottoms [ ] Drilling Fluids [ ] Rinsate [ ] BS&W Content:

[ ] Solids [X] Contaminated Soil (a) [ ] Jet Out

Description:

VOLUME OF MATERIAL [ ] BBLS.: [X] YARD 20 yd: [ ]

RRC or API # C-133# NM

STICKERS, CODES, NUMBERS, ETC.

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DRIVER: H Morales
(SIGNATURE)

FACILITY REPRESENTATIVE: Estefania P.
(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

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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 357854

QUESTIONS

Operator: CROSS TIMBERS ENERGY, LLC 400 West 7th Street Fort Worth, TX 76102	OGRID: 298299
	Action Number: 357854
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2326134968**
Incident Name	**NAPP2326134968 NORTH VACUUM ABO UNIT #246 @ 30-025-28587**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Closure Report Received**
Incident Well	**[30-025-28587] NORTH VACUUM ABO UNIT #246**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	NORTH VACUUM ABO UNIT #246
Date Release Discovered	09/15/2023
Surface Owner	State

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Equipment Failure | Other (Specify) | Crude Oil | Released: 2 BBL | Recovered: 2 BBL | Lost: 0 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure | Other (Specify) | Produced Water | Released: 5 BBL | Recovered: 4 BBL | Lost: 1 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: CROSS TIMBERS ENERGY, LLC 400 West 7th Street Fort Worth, TX 76102	OGRID: 298299
	Action Number: 357854
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

I hereby agree and sign off to the above statement	Name: Dan Dunkelberg Title: Consultant Email: dan@trinityoilfieldservices.com Date: 07/16/2024

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QUESTIONS (continued)

Operator: CROSS TIMBERS ENERGY, LLC 400 West 7th Street Fort Worth, TX 76102	OGRID: 298299
	Action Number: 357854
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 26 and 50 (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 ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Zero feet, overlying, or within area
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between 1000 (ft.) and ½ (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 5 (mi.)
A wetland	Zero feet, overlying, or within area
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (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
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	1720
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	45680
GRO+DRO (EPA SW-846 Method 8015M)	36160
BTEX (EPA SW-846 Method 8021B or 8260B)	56.7
Benzene (EPA SW-846 Method 8021B or 8260B)	0.8
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	05/07/2024
On what date will (or did) the final sampling or liner inspection occur	05/07/2024
On what date will (or was) the remediation complete(d)	05/31/2024
What is the estimated surface area (in square feet) that will be reclaimed	861
What is the estimated volume (in cubic yards) that will be reclaimed	312
What is the estimated surface area (in square feet) that will be remediated	861
What is the estimated volume (in cubic yards) that will be remediated	312
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: CROSS TIMBERS ENERGY, LLC 400 West 7th Street Fort Worth, TX 76102	OGRID: 298299
	Action Number: 357854
	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	Sundance Services, Inc [fKJ1600527371]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Dan Dunkelberg Title: Consultant Email: dan@trinityoilfieldservices.com Date: 07/16/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: CROSS TIMBERS ENERGY, LLC 400 West 7th Street Fort Worth, TX 76102	OGRID: 298299
	Action Number: 357854
	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

District I
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Phone:(575) 393-6161 Fax:(575) 393-0720
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: CROSS TIMBERS ENERGY, LLC 400 West 7th Street Fort Worth, TX 76102	OGRID: 298299
	Action Number: 357854
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**348455**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**05/31/2024**
What was the (estimated) number of samples that were to be gathered	**1**
What was the sampling surface area in square feet	**200**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	861
What was the total volume (cubic yards) remediated	312
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	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	Upon closure request approval, the excavation will be backfilled and reclaimed in accordance with 19.15.29.13 NMAC

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: Dan Dunkelberg Title: Consultant Email: dan@trinityoilfieldservices.com Date: 07/16/2024

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QUESTIONS (continued)

Operator: CROSS TIMBERS ENERGY, LLC 400 West 7th Street Fort Worth, TX 76102	OGRID: 298299
	Action Number: 357854
	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 357854

CONDITIONS

Operator: CROSS TIMBERS ENERGY, LLC 400 West 7th Street Fort Worth, TX 76102	OGRID: 298299
	Action Number: 357854
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	8/23/2024