APPENDIX J

HYDROGEOLOGIC REPORT

Hydrogeologic Report

The Big Still Oil Treatment Facility

Lea County, New Mexico

C-137 Surface Waste Management Facility Application

April 2025

Prepared for:

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Hydrogeologic Report
THE BIG STILL OIL TREATMENT FACILITY

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CERTIFICATION PAGE

I, Matthew Earthman, a registered professional geologist, certify that this hydrogeologic report was prepared by me or under my direct supervision, and that the data and facts stated herein are true, correct, and complete to the best of my knowledge

_____

Matthew A. Earthman, P.G.

Professional Geologist License: 8881905-2250
State of Utah
Expiration: March 31, 2027

The Big Still Oil Treatment Facility
HYDROGEOLOGIC REPORT
NM OCD C-137 Facility Application

1.0 INTRODUCTION

The Moonshine Energy, LLC Big Still Oil Treatment Facility (Facility) is a proposed surface waste treatment facility which will be established and operated in accordance with New Mexico Oil Conservation Division (NM OCD) regulations as outlined and defined in 19.15.36 New Mexico Administrative Code (NMAC). The purpose of the facility will include processing tank bottoms, produced water, or other hydrocarbons from oil and gas operations to separate usable hydrocarbon material for sale and processing. No solid waste, contaminated media, or other hazardous materials will be accepted or processed at the Facility.

1.1 Purpose

This Hydrogeologic Report has been prepared to provide a summary of existing geologic and hydrologic conditions in the area of the proposed facility and provide details on the local subsurface conditions which were determined via a soil boring investigation completed in November, 2024.

1.2 General Information

The proposed Facility will be located near mile marker 37.3 on New Mexico Highway 128, approximately 15 miles west of the City of Jal, New Mexico. The property is located within Township 24 South, Range 34 East, Section 25, and consists of a 5.4± acre parcel leased to Moonshine Energy, LLC. The facility will utilize the entire parcel, and will consist of a fenced, cleared and leveled area with caliche surface cover allowing for access and maneuvering of large trucks and equipment. Three tank batteries will be located on the facility for processing tank bottoms, hydrocarbons, or produced water delivered to the facility. Two tank batteries, located in the west-central portions of the property, will be used for the receipt of waste and for storage of reclaimed hydrocarbons prior to sale. Each of the two batteries will consist of ten (10) 500 barrel (bbl) (21,000 gallon) capacity steel frac tanks, situated within a secondary containment area constructed of 3-foot steel walls lined with a with a 40-mil High Density Polyethylene (HDPE) liner to prevent release of any spilled material. An additional tank battery consisting of four (4) 750 bbl (31,500 gallon) fiberglass tanks situated within secondary containment (also steel walls with a 40-mil HDPE liner) will be located on the southeast portion of the Facility and be utilized to store saltwater until it is removed for disposal. A site map with the proposed facility plan is included as Figure 8.

2.0 REGIONAL GEOLOGY

2.1 Regional Geologic Setting

The proposed Facility is located on the eastern edge of the Delaware Basin, a structural feature and depositional basin that covers over 13,000 square miles in southeastern New Mexico and west Texas (Fichera, et al,. 2024). The Delaware basin is contained within the larger Permian Basin. The Delaware basin consists of marine sediments deposited in the Permian Period which were subsequently covered by fluvial river sediments after the retreat of sea level during the Triassic Period. The area was later uplifted

as part of the Laramide Orogeny and erosion and weathering has shaped the area into the topography currently existing today. The buried marine organisms from the Permian Period, including corals and other organic material, were subjected to heat and pressure after burial and eventually formed the oil and gas deposits which are currently being extracted from the area.

The local surface geology of the area surrounding the proposed Facility was mapped at a 1:250,000 scale by Barnes et al. in 1976, and is now summarized as part of the Geologic Atlas of Texas database. A portion of the geologic map prepared for the area, as sourced from the Geologic Atlas of Texas online GIS database, is included as Figure 2. A west-east geologic cross section of the area prepared by Fichera et al. (2024) is included as Figure 2A., and a north-south geologic cross section of the area prepared by Meyer et al. (2012) is included as Figure 2B.

2.2 Regional Stratigraphy and Geologic Units

A summary of the predominant geological formations found near the project area is included below. The descriptions are organized by the age of the units (youngest to oldest) and are excerpted from Barnes et al. (1976) and Meyer et al. (2012). The thickness indicated in the unit descriptions are estimated and reflect approximate depths of each unit as determined through review of well logs completed by Barnes et al. and Meyer et al.

2.2.1 Cenozoic Units

Quaternary Eolian Deposits

The majority of the ground surface in the proposed Facility area is covered by Quaternary windblown sands or other Eolian deposits, and consists of generally fine to medium-grained sands and silts which are red-brown to brown in color. Local intervals of caliche, which is generally lighter in color and more consolidated, are commonly present.

Quaternary Tahoka Formation

The Tahoka Formation is a lacustrine unit consisting of clay, silt, sand, and gravels. The unit is weakly consolidated, ranges in color from light gray to bluish-gray, and is distinctly to massively bedded.

Tertiary Ogallala Formation

The Tertiary Ogalla consists of unconsolidated, fluvial sand, silt, clay, and gravel capped by caliche. Sands are fine-to-medium-grained and quartz-rich, red, reddish brown, dusky red, and pink. The unit has an estimated maximum thickness of up to 100 feet in the area.

2.2.2 Mesozoic Units

Triassic Chinle Formation

The Triassic Chinle Formation consists of greenish-red micaceous claystone and shales interbedded with thin, fine-grained sandstones. The Chinle has an estimated thickness of up to 300 feet in the project area.

Dockum Group

The Dockum Group and Dewey Lake Formations are Triassic to Permian-aged, and commonly uncomfortably underly much younger sediments including Quaternary eolian deposits and the Tertiary Ogallala Formation. The Dockum Group is thought to be generally Triassic in age, and consists of alternating shale, sandstone and siltstone units deposited in terrestrial environments. The Santa Rosa

Sandstone, which occurs relatively continuously through much of eastern and northeastern New Mexico is included in the Dockum Group. The Dewey Lake Formation consists of Permian-aged redbed sandstone, siltstones, and shales deposited in environments similar to the Dockum Group. The units are relatively similar and not mapped separately in the subsurface, and have a combined thickness of approximately 800 to 1,300 feet in some areas. Near the proposed Facility, significant portions of the upper Dockum group have been eroded, and the thickness is expected to be approximately 350 feet (Fichera & Attia, 2022). The Santa Rosa Sandstone, present in the lower portions of the Dockum Group, is an aquifer in southeast New Mexico and western Texas. The top of the Santa Rosa Formation is present at a depth of approximately 200 feet near the Facility (Fichera & Attia, 2022).

Rustler Formation

The Dockum Group and Dewey Lake Formations are underlain by the Rustler Formation. This unit is Triassic to Permian-aged and consists primarily of carbonaceous limestones, dolomite, and mudstone. The unit contains several gypsiferous layers, and ranges in thickness from 40 to 600 feet (Boghici & Broekhoven, 2001). The Rustler formation is considered a minor aquifer to the south in west Texas (Meyer et al., 2012). Near the facility, the top of the Rustler Formation is present at a depth of approximately 900 feet, as determined from the drilling log of a nearby water supply well.

2.2.2 Paleozoic Units

Salado and Castile Formations

The Salado and Castile Formations are Permian-aged units underlying the Rustler formation in the Jal area. Near the Facility, the top of the Salado and Castile Formations is present at a depth of approximately 2,200 feet (Meyer et al., 2012). These units are composed of evaporite deposits with minor fine-grained clastic beds. The Salado Formation consists of thick evaporite salt beds, and is the formation housing the storage area of the Waste Isolation Pilot Plant (WIPP) near Carlsbad. The poor water quality and low hydraulic conductivities of the Salado and Castile Formations limit their use as aquifer units in the area.

The Salado Formation can have thicknesses of up to 2,000 feet and can contain saturated intervals containing highly saline brines (Chaturvedi, 1993). The Castile formation underling the Salado consists of carbonate and sulfate-rich evaporite beds interbedded with salt. The Castile formation has a maximum thickness of 1,500 feet and is subject to karstification (sink hole formation caused by dissolution) in the area. The karstic development allows for some limited water storage in the formation; however, water from the unit is typically high in sulfate and total dissolved solids (Stafford, 2013).

Capitan Reef Formation

The Capitan Reef Formation is present below the Salado and Castile Formations in a thin lateral band throughout southeast New Mexico and western Texas. The Capitan Reef is a limestone unit with a thickness up to 2,000 feet formed during the Permian in a shallow-sea environment. The carbonate composition of the reef allows for the development of karst structures, making it a productive aquifer in the region (Uliana, 2001). Near the Facility, the top of the Capitan Reef Formation is present at a depth of approximately 3,300 feet (Meyer et al., 2012).

2.3 Regional Soils

The Proposed Facility is located atop Berino-Cacique loamy fine sands, as mapped by the National Resource Conservation Service (NRCS) Web Soil Survey (Figure 3). The Berino-Cacique association is composed of sandy wind-blown deposits derived from erosion of area sedimentary rocks, likely from the regional Dockum Group. Additional detail on soils observed within the soil boring installed on the property is included in Section 4.2.

2.4 Regional Structure and Seismic Setting

As described in Section 2.1, the proposed facility is located within the far east portions of the Delaware Basin which was formed by subsidence in the region followed by uplift during the Cretaceous Laramide Orogeny, which formed the Rocky Mountains. Deeper basin sediments are relatively continuous (Fichera et al. 2024) and no significant structural deformation or major faults have been mapped within the proposed Facility area.

The proposed facility is located in a Class V seismic area, as measured utilizing the Modified Mercalli Intensity Scale (Figure 4). A class V area indicates relatively stable conditions and predicts that any seismic event (earthquake) occurring in the area in the next 50 years would have moderate strength capable of moving unsecured objects but not capable of causing structural damage. No active Quaternary-aged faults have been identified within 10 miles of the proposed facility; the nearest active fault zones are located in the Guadalupe Mountains over 100 miles to the west-southwest (Figure 4).

Portions of the Delaware Basin, primary west of the project area near Carlsbad, have potential for the formation of sinkholes and karst features as a result of limestone and calcareous units present in the region. However, as illustrated in Figure 5, the proposed Facility is in an area of low karst formation potential.

3.0 REGIONAL HYDROLOGY

3.1 Surface Water Hydrology

Surface water resources near the Facility are managed by the New Mexico Office of the State Engineer (NMOSE) as part of the Southern High Plains Region. Surface water is extremely limited in the region, and communities near the facility, including Eunice and Jal, rely exclusively on groundwater for their pubic water systems. No mapped perennial streams are located in the vicinity of the proposed Facility; the Pecos River located 30 miles to the west near Carlsbad represents the most significant surface water resource in the area.

3.2 Groundwater Hydrology and Area Aquifers

Groundwater in the proposed Facility area is managed by the NMOSE under the Carlsbad underground water basin, which spans an area bounded by the Guadalupe Mountains to the west, Brantley Lake to the north, the City of Jal to the east, and the New Mexico State line to the south. In order to determine commonly utilized aquifer and hydrogeologic conditions in the area, SMA conducted an extensive review of published literature and obtained information on existing water well construction, location, and water quality from the New Mexico Office of the State Engineer (NMOSE) WATERS online database (NMOSE, 2024, see Attachment 4) and the United States Geological Survey (USGS) well database (USGS, 2024).

Information from nearby wells, including depth to water, total depth, and each well's target aquifer is summarized in Table 1. Attachment 4 includes well logs from relevant wells. An aerial photo showing the project site location and surrounding wells on file with the NMOSE is included as Figure 6.

3.2.1 Regional Depth to Groundwater and Flow Direction

A regional framework of the Delaware Basin Aquifer System was prepared and published by Fichera et al. in the New Mexico Bureau of Geology Open File Report 623 (2024). The study indicates that groundwater near the facility is expected at an elevation of approximately 3,150 ft above mean seal level, or a depth of approximately 250 feet bgs. Groundwater flow in the area is to the southeast at a gradient of approximately 25 feet per mile. Figure 7 includes a groundwater potentiometric surface map of the region excerpted from the Fichera et al (2024) study.

3.2.2 Regional Aquifers and Water Quality

Ogallala Aquifer

The Ogallala aquifer is the primary source of drinking water for much of eastern New Mexico and Texas in areas north of the proposed Facility. The Ogallala aquifer is contained within unconfined sediments atop Dockum Group redbeds, and generally produces good quality water at production rates upwards of 500 gallons per minute (gpm) in some areas. The Ogallala has been used extensively for irrigation throughout the Midwest for the past 50 years and groundwater elevations have declined significantly in areas of Lea County north of the proposed Facility (Tillery, 2008).

Dockum Group Aquifer

Sandy units (namely the Santa Rosa Sandstone) within the Dockum Group are utilized as an aquifer in much of Lea County and southeast New Mexico. Water quality within the formation is highly variable, with qualities ranging from acceptable drinking water (total dissolved solids of less than 1,000 mg/l) to highly saline brines with total dissolved solids in excess of 10,000 mg/L (Bradley and Kalaswad, 2003). Wells within Winkler County, TX south of the proposed facility report relatively good water quality from the Santa Rosa Sandstone, with total dissolved solid concentrations ranging from 200 to 1,400 mg/L (Bradley and Kalaswad, 2003), and several communities in western Texas, including Kermit and Pecos, utilize the Dockum group for municipal sources of water.

Water production and yield within the formation varies significantly, ranging from less than 5 gpm reported in wells near the Facility upwards of 400 gpm in areas in Winkler County, Texas. Areas of higher production are often associated with areas of increased fracturing (Meyers et al. 2012). Recharge to the aquifer is thought to occur through precipitation infiltrating the unit in higher portions of southeastern New Mexico, and it is estimated that the unit contains over 100 million acre-feet of water with total dissolved solid concentrations less than 5,000 mg/L (Bradley and Kalaswad, 2003). The depth to the top of the Santa Rosa Formation in the project area is estimated to be between 150-200 feet below ground surface (Fichera & Attia, 2022).

Rustler Formation Aquifer

The Rustler Formation has been widely used in western Texas for irrigation and livestock purposes. The unit can be highly productive, with well productions up to 1,000 gallons per minute being reported in areas of Reeves County, Texas in the 1960s. However, more recent production from these wells is typically lower (Boghici & Broekhoven, 2001). Recharge to the aquifer is thought to be from cross-formational

sources, as water within the formation typically has longer residence times. Water quality in the unit is typically poor and brackish, with the majority of water samples collected in southern New Mexico and Texas having total dissolved solid concentrations in excess of 3,000 mg/L (Boghici & Broekhoven, 2001). Given the high salinity, the Rustler is generally not considered a viable aquifer in the area of the Facility.

Capitan Reef Aquifer

The Capitan Reef Aquifer is a productive aquifer in the southeastern New Mexico and western Texas region, but has highly variable water quality. The aquifer is thought to contain significant quantities of water, with available water within Winkler, Loving, Ward, Reeves, Crane, and Pecos counties (Texas Water Management Area 3) estimated to be over 4,000 acre-feet per year (Bradley, 2011). Recharge to the Capitan Reef is thought to result from the Pecos River system and from precipitation entering exposures of the formation within the Guadalupe and Glass Mountain ranges. Water quality within the unit is highly variable; areas near recharge sources such as Carlsbad have good water quality, which can be used as a municipal source of water. However, further to the south and east, water quality within the formation is much poorer, with average total dissolved solid concentrations in excess of 3,000 mg/L (Uliana, 2001).

3.2.3 Existing Water Supply Wells

Only one production well was identified within one mile of the proposed facility, registered under NMOSE File No. C-04682 (well location included on Figure 6). The production well was installed in January 2023 and is completed to a depth of 290 feet and utilizes what is assumed to the Santa Rosa Formation within the lower Dockum Group, present at a depth of 157-270 feet below ground surface. The well log indicates that in January 2023, the static water level was at a depth of 165 bgs, and the well reported a production of 3 gpm.

In addition to the supply well, 48 monitoring or exploratory wells were listed in the NMOSE database within one mile of the proposed facility. The majority of the wells are shallow, with depths less than 50 feet, and located at a facility 0.9 miles south of the proposed Facility. One monitoring well located 0.5 miles to the northwest of the proposed Facility listed under NMOSE File C-04737 was installed to a depth of 250 feet bgs in April 2023 and did not encounter any groundwater. Wells are summarized in Table 1, and a copy of relevant NMOSE well logs are included in Attachment 3.

4.0 LOCAL GEOLOGY

4.1 Site Setting

4.1.1 Ecoregion

The proposed Facility is located within the Chihuahuan Desert Grasslands Ecoregion (Griffith et al., 2006) at an elevation of 3,420 feet above sea level. This ecoregion is characterized by fine-textured soils including silts and clays with higher water retention than rockier soils at lower elevations. Annual precipitation within these regions is higher than other Chihuahuan Desert subregions, allowing for establishment of grasslands within elevated basins, plateau tops, and north-facing slopes. Typical grasses within the ecoregion include black, blue, and sideoats grama, dropseeds, bush muhly, and tobosa, along with scatted shrubs and cacti including mesquite, creosote, prickly pear, and cholla. Many areas are now dominated by shrubs as erosion, drought, and climate change reduce the extent of grasses (Griffith et al., 2006).

4.1.2 Topography

Topography in the area is relatively flat with a general slope to the east-southeast. The proposed Facility property follows the local topography, with a high elevation of approximately 3,420 ft amsl on the western boundary, sloping down to an elevation of 3,410 ft amsl on the eastern boundary.

4.1.3 Climate

Data from the Western Regional Climate Center (WRCC, 2024) indicates that during the period from 1942 to 2016, the Ochoa, New Mexico Co-Op station, located two miles southwest of the Facility, received an average of 11.8 inches of precipitation per year, with the wettest months occurring from May to October. Evaporation from the region, as indicated by the National Oceanic and Atmospheric Administration Evaporation Atlas (NOAA, 1982) for surface water (shallow lakes) is approximately 80 inches per year. The average daily high temperature in the area is 78°F, and the average daily low temperature is 47°F (WRCC, 2024).

4.2 Soil Boring and Groundwater Investigation

4.2.1 Soil Boring and Lithological Logging

The subsurface underlying the proposed facility was investigated by installing one soil boring within the property boundary on November 20, 2024. The location of the soil boring is indicated on the site map included as Figure 8. The soil boring was advanced by hollow-stem auger drilling methods to a depth of 75 feet below ground surface, and lithology of the boring was logged utilizing cuttings at 5-foot intervals and classified utilizing the United Soil Classification System (UCSC).

The results of the soil boring investigation indicate that the facility is underlain by unconsolidated sediments from the surface to the total depth of 75 feet below ground surface. Soils consisted of a medium-grained sand from the surface to a depth of 5 feet bgs, underlain by a pale-white caliche layer from 7 to 22 feet bgs, and red brown clayey sands to a depth of 75 feet bgs. Attachment 1 includes a soil boring lithologic diagram of the boring.

4.2.2 Geotechnical Analysis

Two soil samples were collected from 0-2 feet and from 10-12 feet within the boring for basic geotechnical analysis including sieve analysis, and Atterberg limits for clays. The samples were analyzed by Inberg-Miller Engineering utilizing an in-house laboratory in Albuquerque, New Mexico.

The results of the sieve analysis are included as Attachment 2. The samples both were classified as silty sands (USCS Classification: SM) and did not contain enough clay to allow for evaluation of Atterberg limits.

4.2.3 Temporary Well Installation and Groundwater Investigation

After reaching target depth, the soil boring was completed as a temporary monitoring well to determine if any groundwater is present at intervals above target depth. The temporary monitoring well consisted of a 2-inch PVC casing with 10 feet of screen which was placed from 65-75 feet bgs. Attachment 3 includes the well record/log and the plugging record as filed with the New Mexico Office of the State Engineer (NMOSE).

Following installation, the temporary well was allowed to equilibrate for five days to provide time for any water to infiltrate the well. The drilling team returned to the property on November 25, 2024 and tagged the observation well for water utilizing an electronic sounder – no water was detected in the well.

Following gauging, the well casing was removed from the boring and the hole was backfilled with drill cuttings from total depth to 10 feet bgs. The upper 10 feet of the boring was plugged with hydrated bentonite pellets.

4.3 Local Depth to Groundwater and Groundwater Quality

As detailed above, groundwater was not encountered above a depth of 75 feet during the facility soil boring investigation, and therefore no groundwater sample could be collected for analysis of groundwater quality immediately below the proposed Facility. However, as detailed in Section 3.2.2, a well located approximately 0.8 miles to the southeast encountered groundwater at a depth of 165 feet bgs. No groundwater quality is available from the well.

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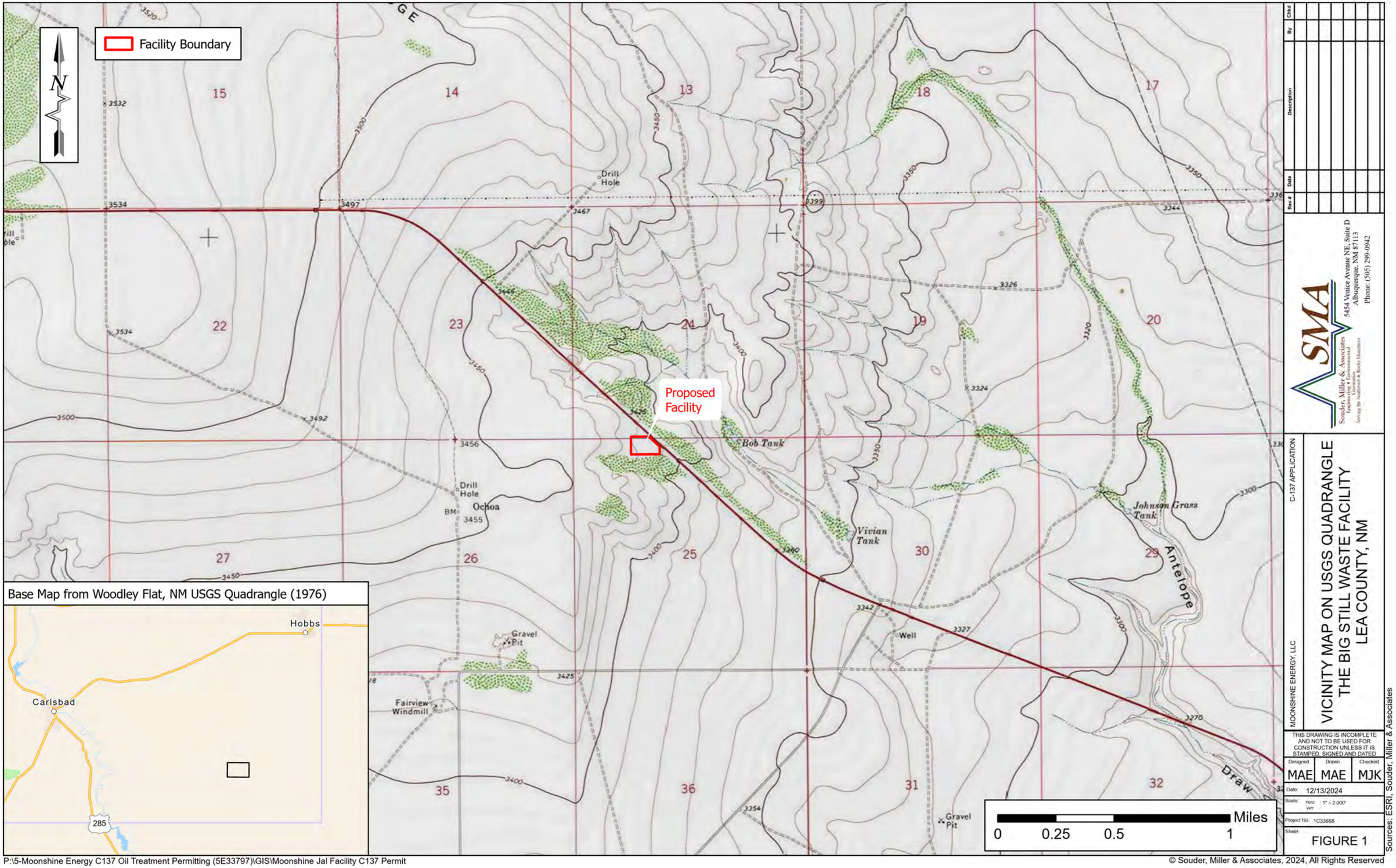
FIGURES



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Rev #	Date	Description	By	Chkd

C-137 APPLICATION

MOONSHINE ENERGY, LLC

VICINITY MAP ON USGS QUADRANGLE THE BIG STILL WASTE FACILITY LEA COUNTY, NM

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Designed	Drawn	Checked
MAE	MAE	MJK

Date: 12/13/2024

Scale: Horiz: 1" = 2,000' Vert:

Project No: 1C33668

Sheet: FIGURE 1

Sources: ESRI, Souder, Miller & Associates

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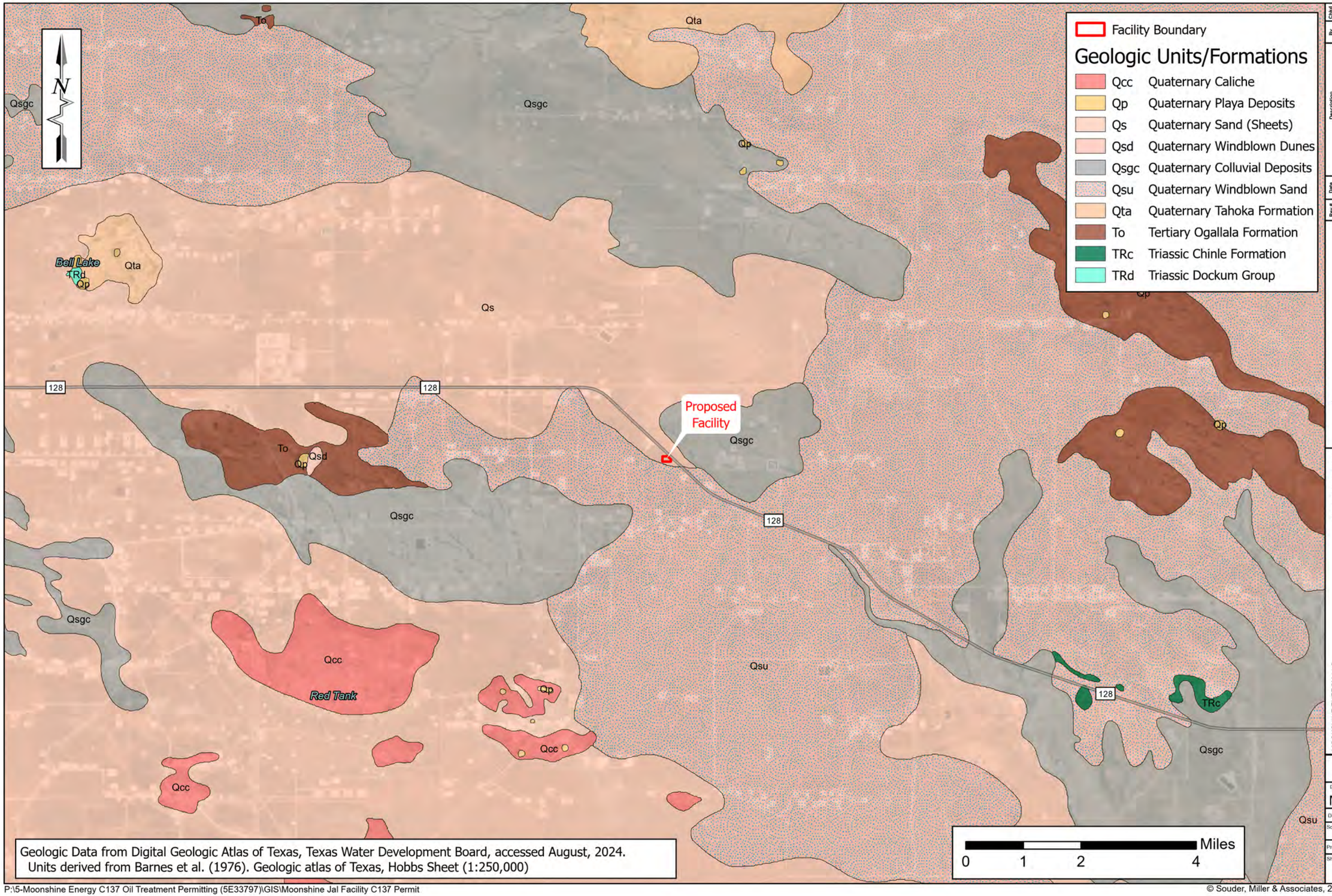

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C-137 APPLICATION
MOONSHINE ENERGY, LLC

SURFICIAL GEOLOGY MAP
THE BIG STILL WASTE FACILITY
LEA COUNTY, NM

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Project No: 1C33668
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Sources: ESRI, Souder, Miller & Associates

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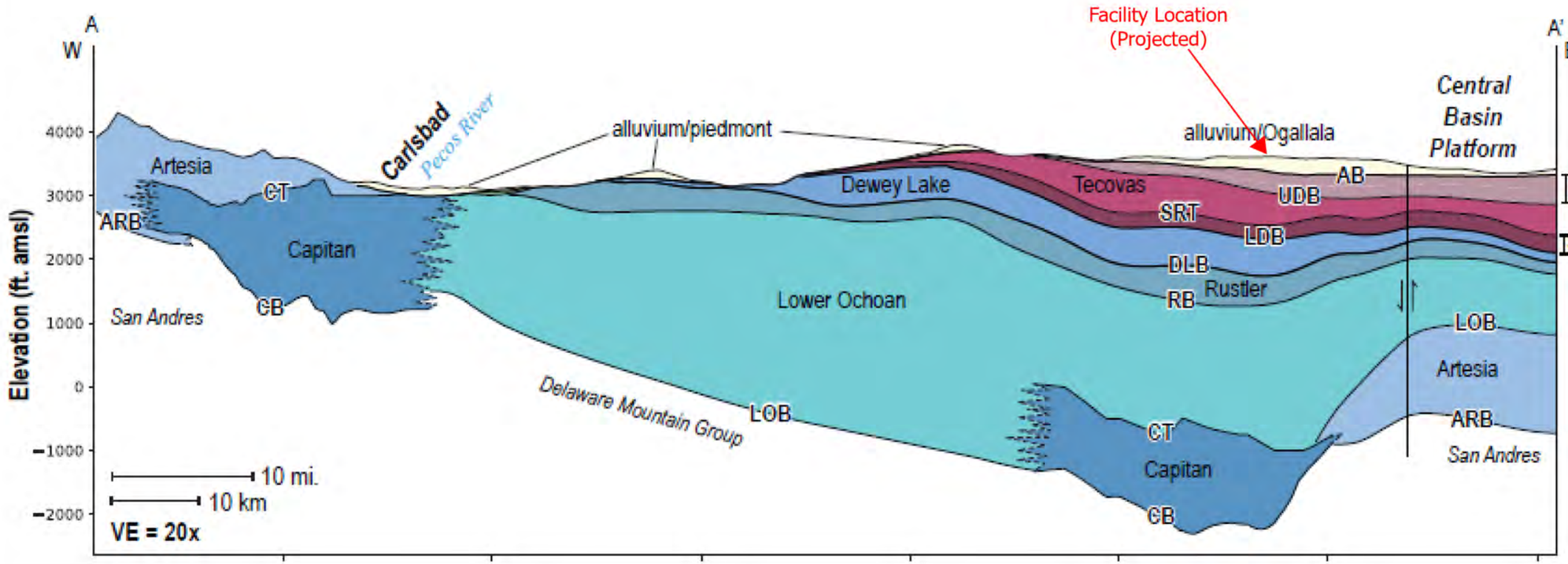

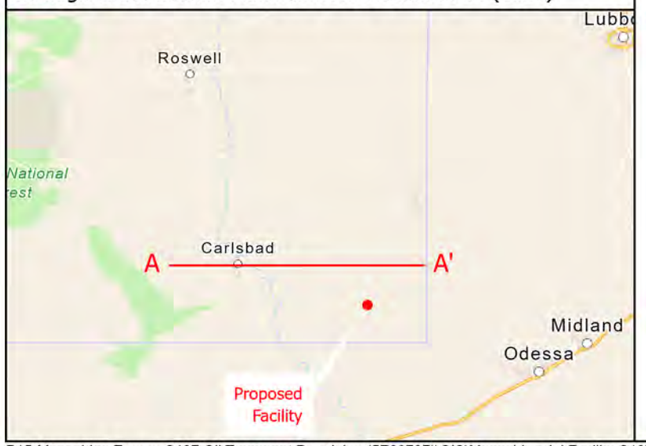

C-137 APPLICATION
MOONSHINE ENERGY, LLC

GEOLOGIC CROSS SECTION A-A'
THE BIG STILL WASTE FACILITY
LEA COUNTY, NM

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Sources: ESRI, Souder, Miller & Associates

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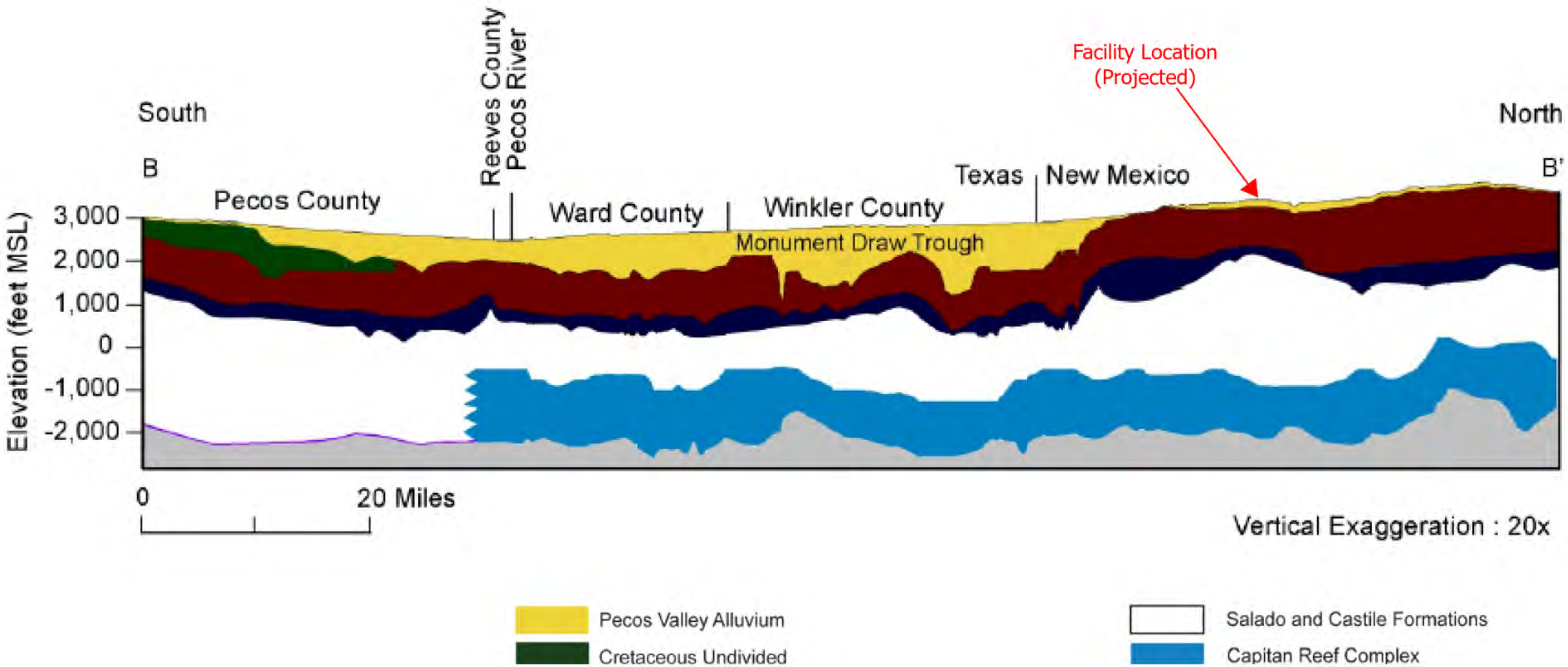
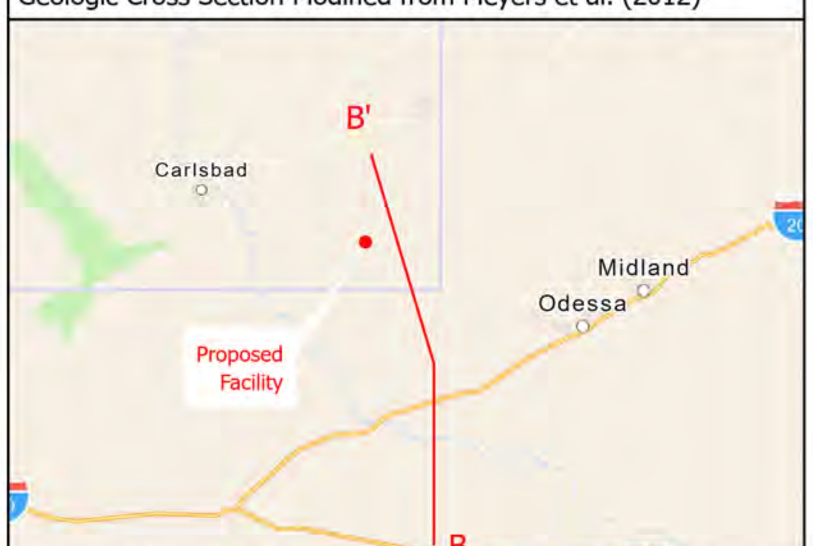


Geologic Cross Section Modified from Meyers et al. (2012)



C-137 APPLICATION

MOONSHINE ENERGY, LLC

GEOLOGIC CROSS SECTION B-B'
THE BIG STILL WASTE FACILITY
LEA COUNTY, NM

Souder, Miller & Associates
5454 Venice Avenue NE, Suite D
Albuquerque, NM 87113
Phone: (505) 299-0942

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED

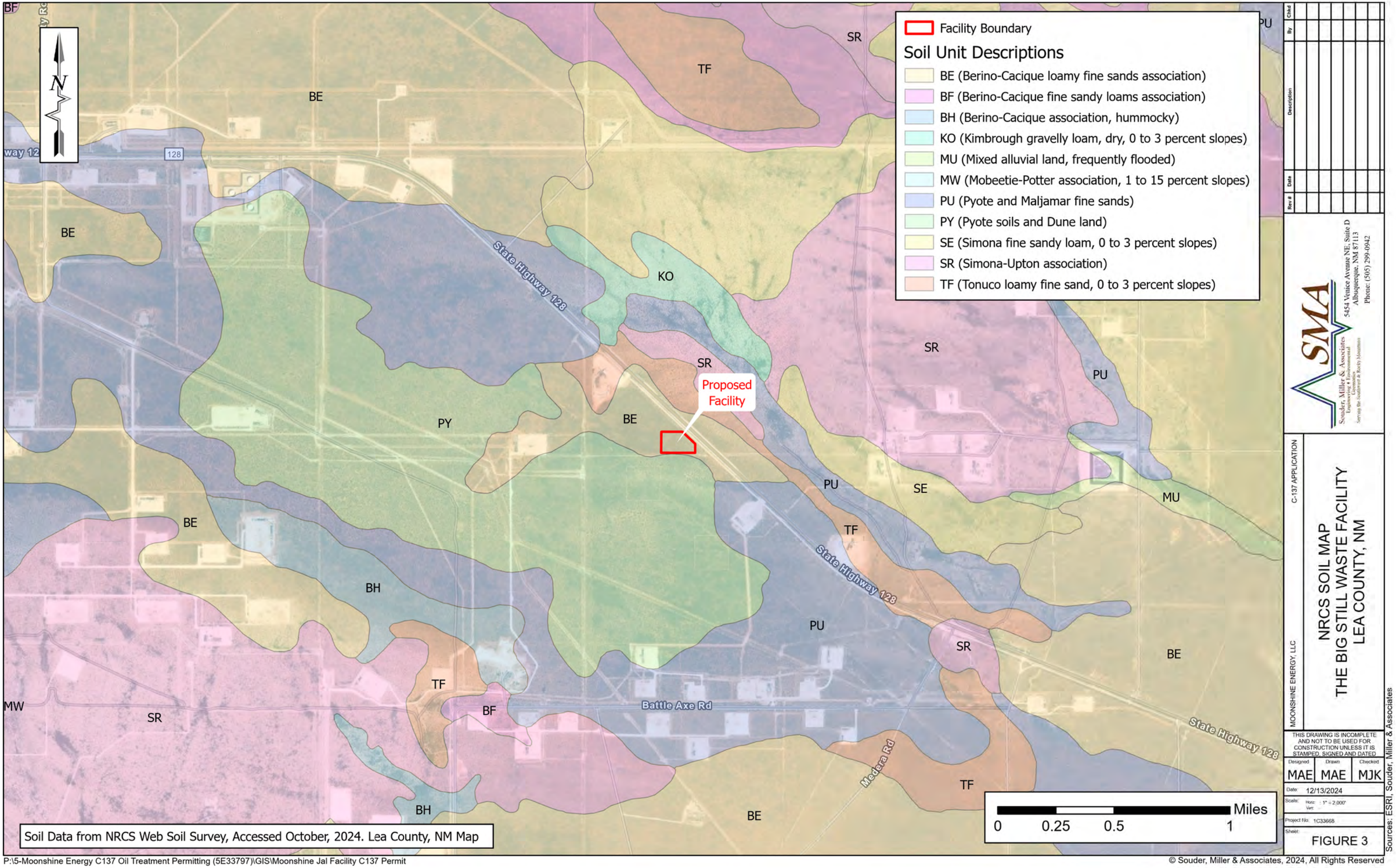
Designed	Drawn	Checked
MAE	MAE	MJK

Date: 12/13/2024

FIGURE 2B

Sources: ESRI, Souder, Miller & Associates

P:\5-Moonshine Energy C137 Oil Treatment Permitting (5E33797)\GIS\Moonshine Jal Facility C137 Permit



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Consultants
Serving the Southwest & Rocky Mountains
5454 Venice Avenue NE, Suite D
Albuquerque, NM 87113
Phone: (505) 299-0942

C-137 APPLICATION

MOONSHINE ENERGY, LLC

NRCS SOIL MAP
THE BIG STILL WASTE FACILITY
LEA COUNTY, NM

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Designed	Drawn	Checked
MAE	MAE	MJK

Date: 12/13/2024

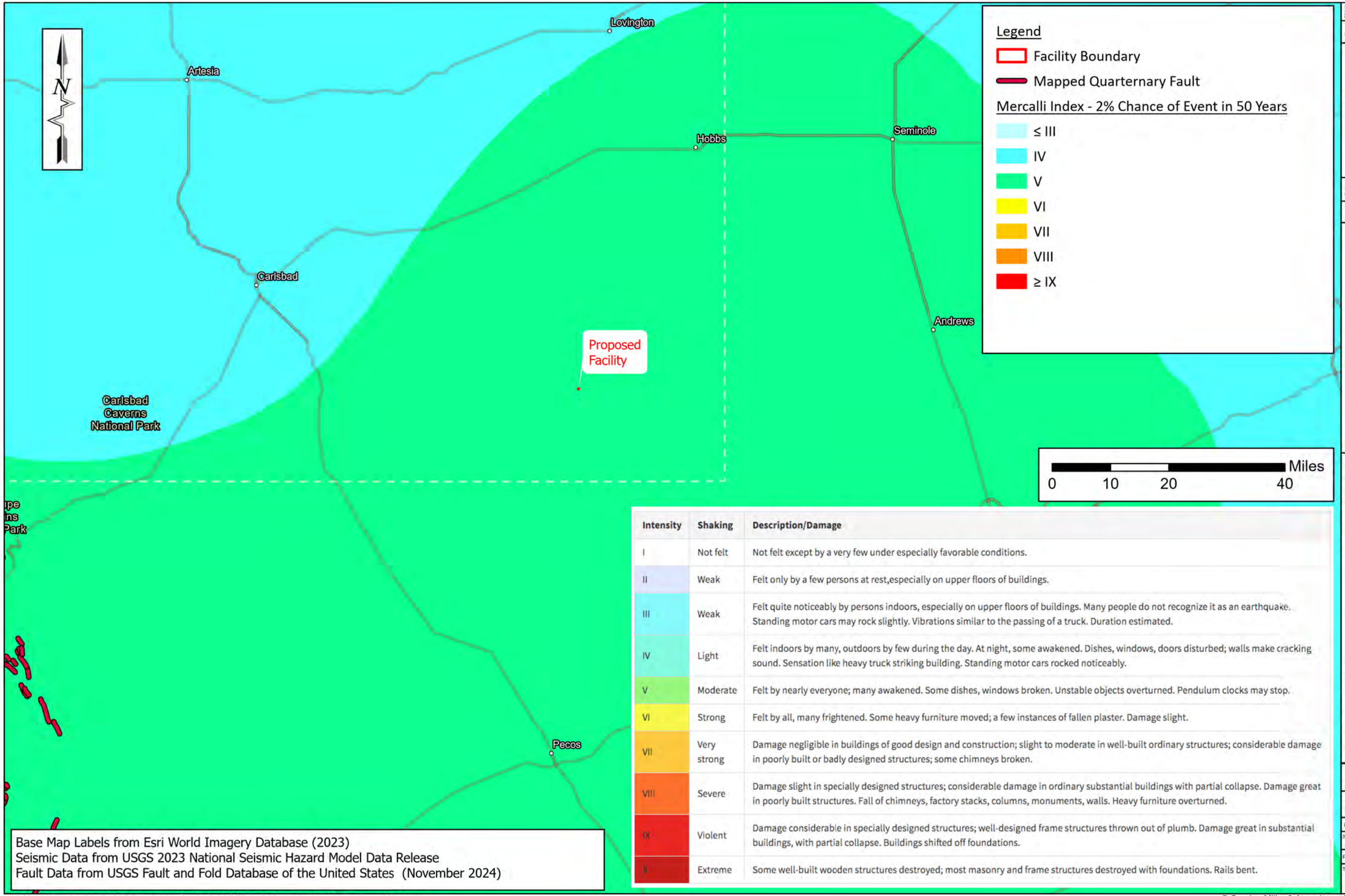
Scale: Horiz: 1" = 2,000' Vert:

Project No: 1C33668

Sheet: FIGURE 3

Sources: ESRI, Souder, Miller & Associates

P:\5-Moonshine Energy C137 Oil Treatment Permitting (5E33797)\GIS\Moonshine Jal Facility C137 Permit



Intensity	Shaking	Description/Damage
I	Not felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest,especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII	Very strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.

Rev # | Date | By | Chkd | Description

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Engineers | Environmental
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Phone: (505) 299-0942

C-137 PERMIT APPLICATION

MOONSHINE ENERGY, LLC

SEISMIC ZONE AND FAULT MAP
THE BIG STILL WASTE FACILITY
LEA COUNTY, NM

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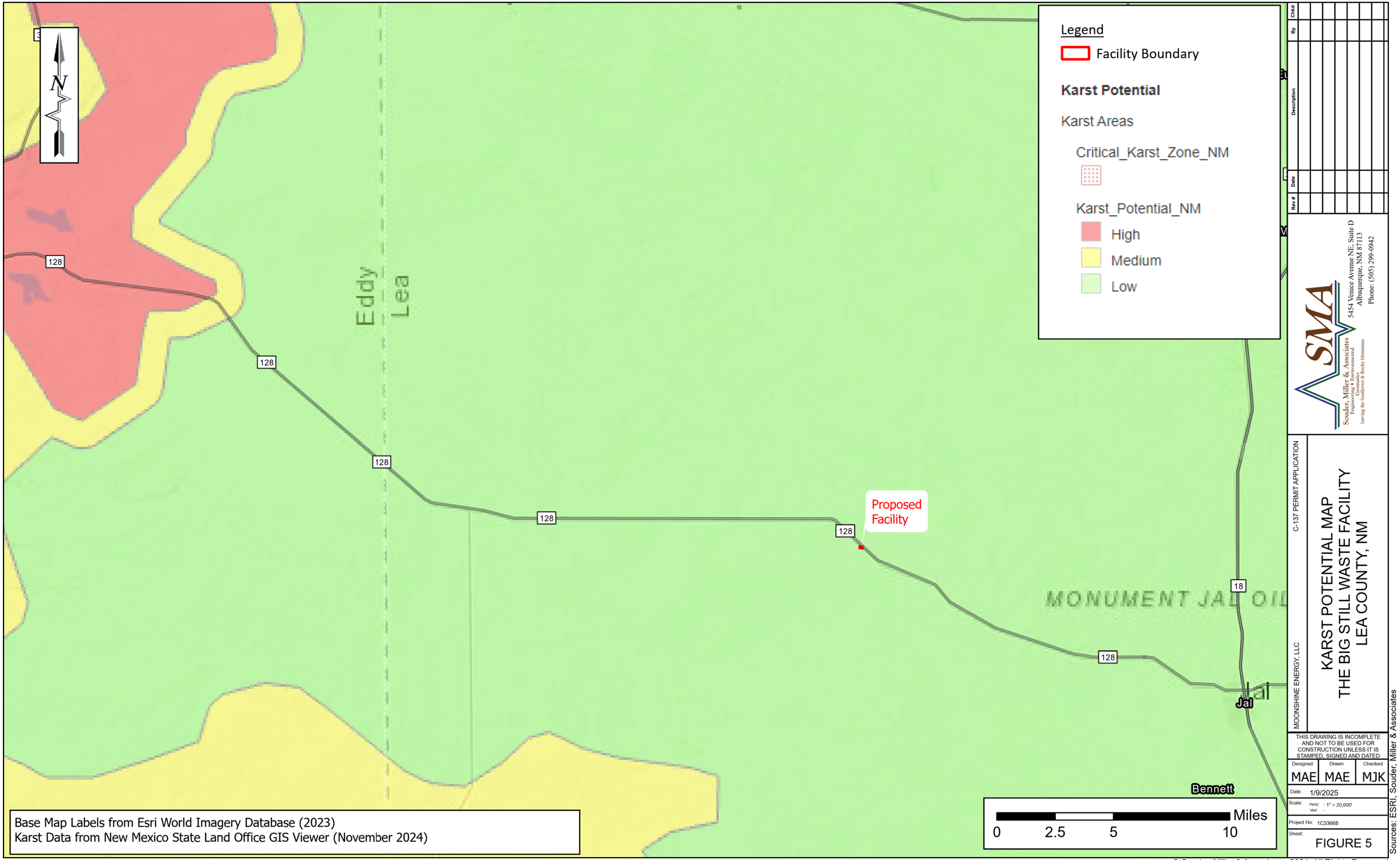
MAE	MAE	MJK

Date: 12/13/2024
Scale: Horz: 1" = 83,333' Vert:
Project No: 1C33668
Sheet: FIGURE 4

Sources: ESRI, Souder, Miller & Associates

P:\5-Moonshine Energy C137 Oil Treatment Permitting (5E33797)\GIS\Moonshine Jal Facility C137 Permit



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C-137 PERMIT APPLICATION

MOONSHINE ENERGY, LLC

KARST POTENTIAL MAP
THE BIG STILL WASTE FACILITY
LEA COUNTY, NM

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Designed	Drawn	Checked
MAE	MAE	MJK

Date: 1/9/2025

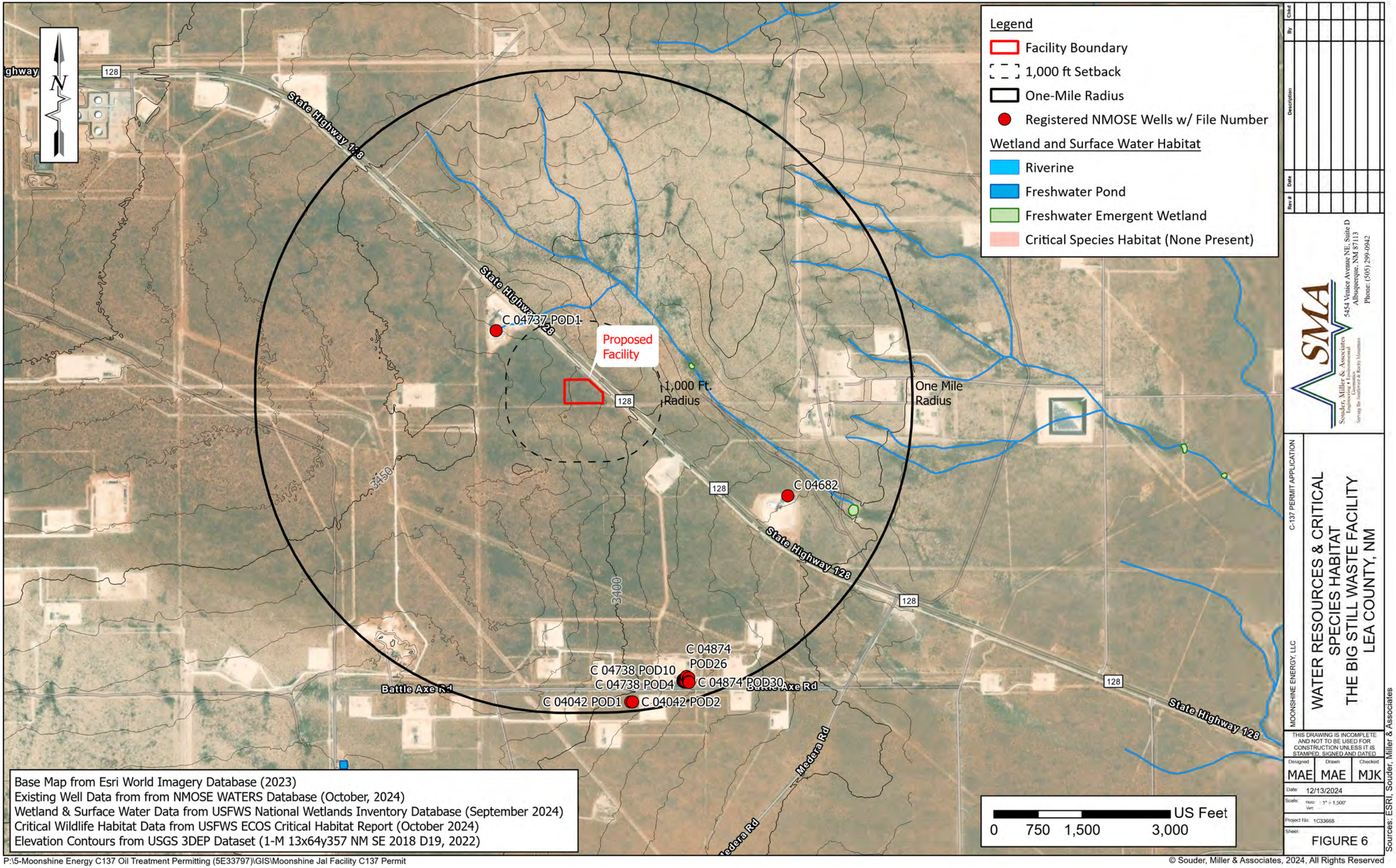
Scale: Horiz: 1" = 20,000'
Vert: -

Project No: 1C33668

Sheet: FIGURE 5

Sources: ESRI, Souder, Miller & Associates

P:\5-Moonshine Energy C137 Oil Treatment Permitting (5E33797)\GIS\Moonshine Jal Facility C137 Permit



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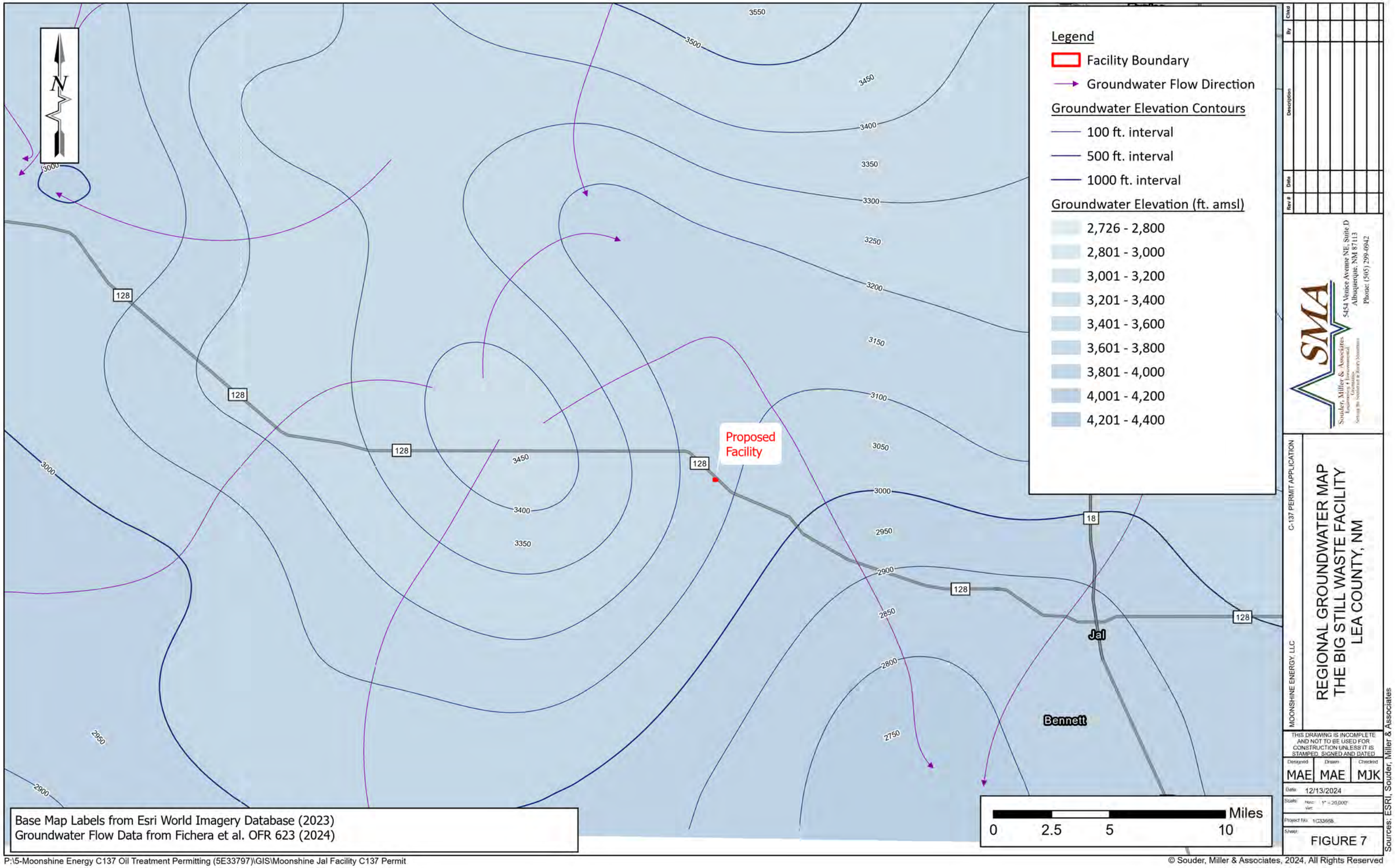

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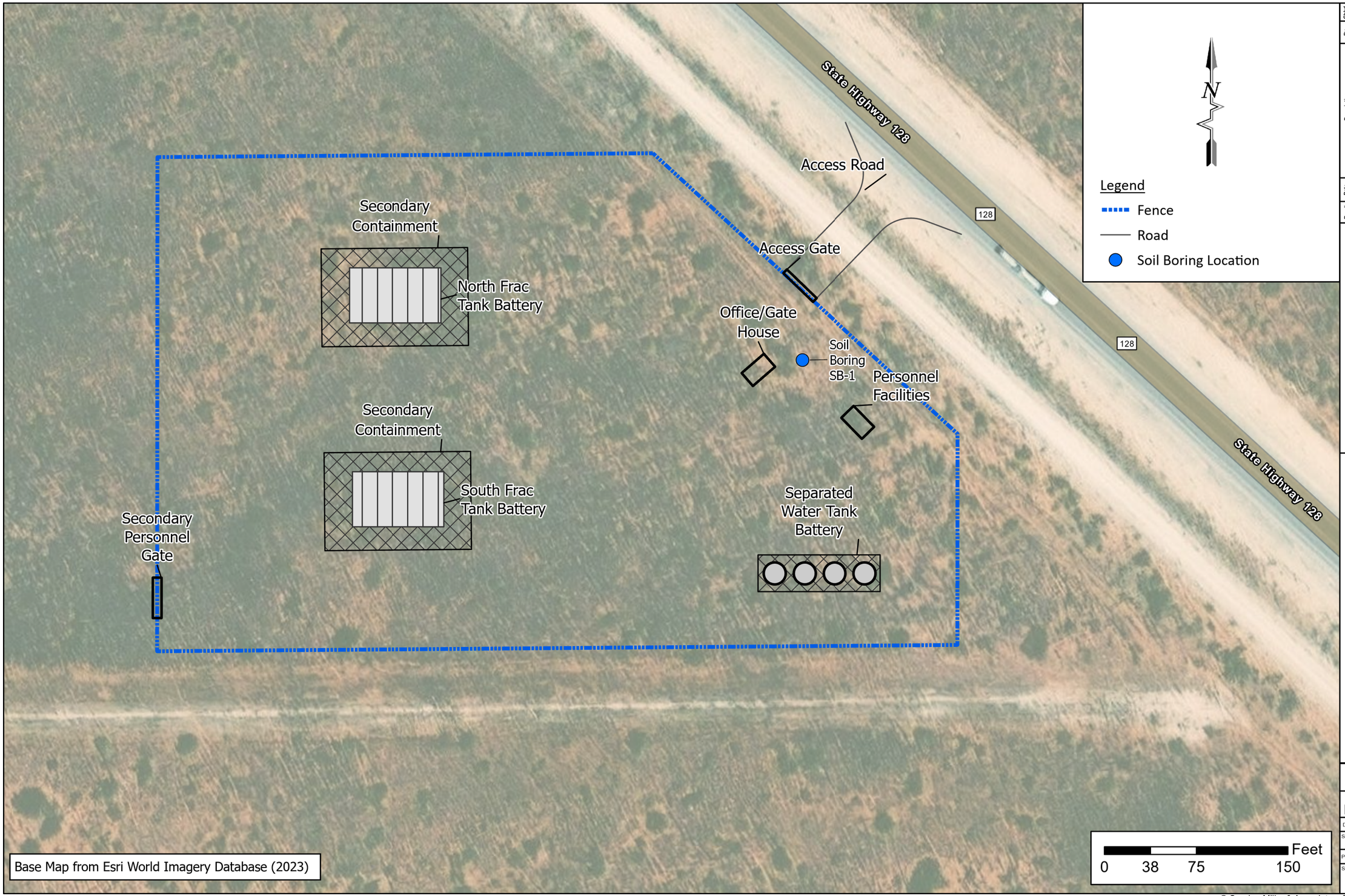

Rev #	Date	Description	By	Chkd

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Geomatics
Serving the Southwest & Rocky Mountains
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Albuquerque, NM 87113
Phone: (505) 299-0942

C-137 APPLICATION

MOONSHINE ENERGY, LLC

FACILITY SITE PLAN
THE BIG STILL WASTE FACILITY
LEA COUNTY, NM

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED

Designed	Drawn	Checked
MAE	MAE	MJK

Date: 1/10/2025

Scale: Horiz: - 1" = 75' Vert: -

Project No: 1C3688

Sheet: FIGURE 8

Sources: ESRI, Souder, Miller & Associates

P:\5-Moonshine Energy C137 Oil Treatment Permitting (5E33797)\GIS\Moonshine Jal Facility C137 Permit

TABLES

Table 1. Active NMOSE-Registered Wells within One-Mile of Proposed Facility

Moonshine M3 Surface Waste Treatment Facility - Lea County

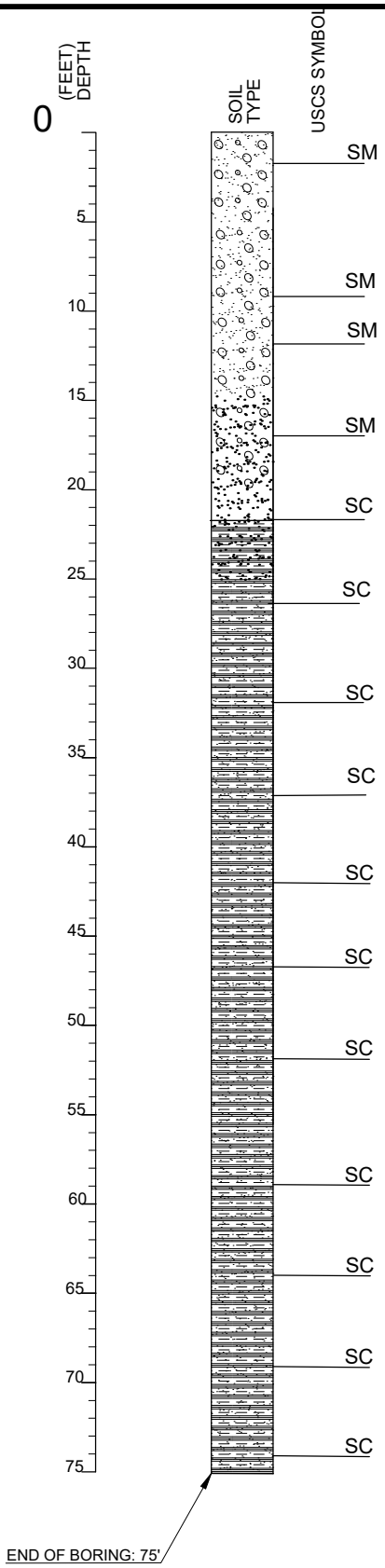
NMOSE File Number (POD)	Easting	Northing	Date Installed	Well Use/ Purpose	Depth of Well (ft bgs)	Depth to Water (ft bgs)	Estimated Production (gpm)	Distance from Facility (feet)
C 04737 POD1	647829	3563471	4/28/2023	MON	250			1829
C 04682	649349	3562622	1/18/2023	DOL	290	180	3	3898
C 04874 POD26	648829	3561679		POL	35			5147
C 04874 POD25	648829	3561676		POL	35			5159
C 04874 POD1	648827	3561672		POL	33			5169
C 04738 POD5	648818	3561667		EXP				5172
C 04738 POD10	648811	3561663		EXP				5179
C 04874 POD28	648840	3561672		POL	55			5183
C 04874 POD5	648816	3561663		POL	33			5183
C 04874 POD4	648822	3561665		POL	33			5186
C 04874 POD7	648814	3561661		POL	33			5188
C 04874 POD2	648827	3561666		POL	33			5188
C 04738 POD7	648818	3561662		EXP				5189
C 04874 POD27	648838	3561669		POL	55			5189
C 04738 POD1	648817	3561661		EXP				5192
C 04874 POD3	648831	3561666		POL	33			5193
C 04874 POD20	648835	3561666		POL	45			5195
C 04738 POD8	648825	3561662		EXP				5196
C 04874 POD11	648813	3561658		POL	33			5197
C 04874 POD9	648819	3561659		POL	33			5199
C 04874 POD8	648824	3561661		POL	33			5199
C 04738 POD4	648810	3561655		EXP				5202
C 04874 POD22	648817	3561657		POL	45			5204
C 04874 POD21	648828	3561659		POL	45			5208
C 04874 POD6	648837	3561663		POL	33			5209
C 04874 POD13	648819	3561655		POL	33			5211
C 04645 POD1	648814	3561653		EXP				5211
C 04874 POD10	648831	3561659		POL	33			5212
C 04805 POD1	648820	3561655	3/7/2024	MON	45			5212
C 04874 POD15	648814	3561652		POL	33			5215
C 04874 POD23	648820	3561654		POL	45			5215
C 04805 POD4	648825	3561656	3/12/2024	MON	45			5216
C 04738 POD2	648824	3561655		EXP				5216
C 04874 POD24	648825	3561654		POL	33			5220
C 04738 POD6	648832	3561656		EXP				5221
C 04805 POD3	648820	3561652	3/13/2024	MON	50			5222
C 04874 POD12	648837	3561658		POL	33			5223
C 04874 POD17	648819	3561651		POL	33			5224
C 04874 POD14	648831	3561655		POL	33			5224
C 04738 POD3	648818	3561650		EXP				5226
C 04805 POD2	648825	3561652	3/7/2024	MON	45			5227
C 04874 POD18	648825	3561650		POL	33			5235
C 04738 POD9	648826	3561650		EXP				5236
C 04874 POD16	648835	3561653		POL	33			5237
C 04874 POD29	648838	3561652		POL	30			5241
C 04874 POD19	648831	3561650		POL	33			5242
C 04874 POD30	648842	3561649		POL	30			5256
C 04042 POD1	648539	3561545	12/20/2017	MON				5334
C 04042 POD2	648549	3561545		MON				5339

Well Coordinates are UTM Zone 13N, NAD83 Datum
ft bgs: feet below ground surface
ft amsl: feet above mean sea level
gpm: gallons per minute

Well Use Legend:
DOL: Domestic & Livestock
POL: Pollution Control Well
SAN: Sanitary/Domestic
MON: Monitoring
EXP: Exploratory Well

ATTACHMENT 1

Soil Boring Lithological Log



SAMPLE DESCRIPTION

0-7' BGS - RED BROWN SAND MEDIUM GRAINED, WELL SORTED. CALICHE MIXED THROUGH.

7-10' BGS - PALE WHITE CALICHE, VERY FINE WITH SMALL PEBBLE SIZED GRAINS MIXED THROUGH WITH SAND

10-15' BGS - PALE WHITE CALICHE, VERY FINE WITH SMALL PEBBLE SIZED GRAINS MIXED THROUGH WITH BROWN SAND

15-22' BGS - PALE WHITE CALICHE, VERY FINE WITH SMALL ROCKS MIXED THROUGH WITH BROWN SAND

22-30' BGS - RED BROWN SAND. MEDIUM GRAINED, WELL SORTED. SMALL PIECES OF CALICHE MIXED THROUGH

30-75' BGS - RED BROWN CLAYEY-SAND. MEDIUM GRAINED, WELL SORTED. SOME CALICHE MIXED THROUGH. SAND 70% - CLAY 30%

DRILLER: ATKINS WELL DRILLING
DATE COMPLETED: NOVEMBER 20, 2024
BOREHOLE DIAMETER: 8" O.D.
SAMPLER TYPE: CUTTINGS
DRILLING METHOD: HOLLOW STEM AUGER
DEPTH TO WATER: NA
TOTAL BORING DEPTH: 75 FT
LOGGED BY: CASSIE PARKER

LOG LEGEND

CLAY
GRAVEL
SILT
SAND

Drawn CRP | Checked MAE | Approved MAE
Date: DECEMBER 2024
Scale: Horiz: NA Vert: NA
Project No: 3432721
Sheet: BH-1

SOIL BORING BH-1 LITHOLOGICAL LOG
MOONSHINE BIG STILL FACILITY C-137 PERMITTING
SECTION 25, TOWNSHIP 24 SOUTH, RANGE 34 EAST

SOUDER, MILLER & ASSOCIATES
5454 VENICE AVE NE, SUITE D
Albuquerque, NM 87113
Phone (505) 299-0942 Fax (505) 293-3430
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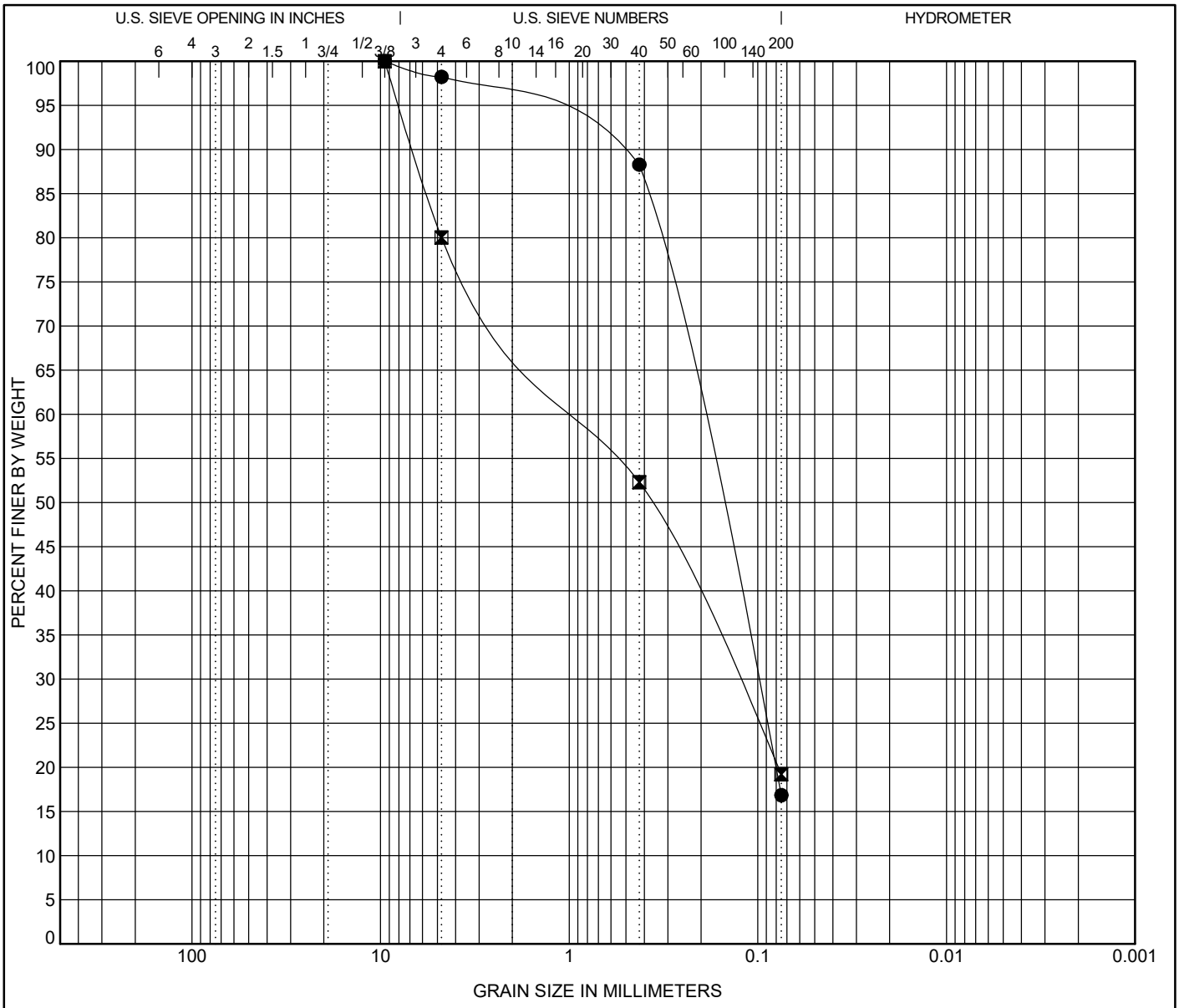
P:\5-Moonshine Energy C137 Oil Treatment Permitting (5E33797)\Well Log\2024-12 Borehole Diagrams.dwg, 12/13/2024 11:40:02 AM MAE

ATTACHMENT 2

Soil Boring Sieve Analyses



Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **BH-1**	**0.0**	**SILTY SAND(SM)**	**NP**	**NP**	**NP**		
⊠ **BH-1**	**10.0**	**SILTY SAND with GRAVEL(SM)**	**NP**	**NP**	**NP**		

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **BH-1**	**0.0**	**9.5**	**0.214**	**0.103**		**1.8**	**81.4**	**16.8**	
⊠ **BH-1**	**10.0**	**9.5**	**0.831**	**0.132**		**20.0**	**60.8**	**19.2**	

PROJECT: Moonshine Energy
JOB NO.: SE33797
CLIENT: Souder Miller
TEST METHOD: ASTM D422

PARTICLE SIZE ANALYSES

INBERG-MILLER ENGINEERS

US_GRAIN_SIZE SE33797- SMA MOONSHINE ENERGY.GPJ US_LAB.GDT 12/2/24

ATTACHMENT 3

On-Site Boring NMOSE Monitoring Well Permit

Atkins ENGINEERING ASSOCIATES INC.
2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

December 5, 2024

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-4904 Pod-1

To whom it may concern:

Attached please find a well log & record and a plugging record, in duplicate, for a one (1) soil borings,C-4904 Pod-1.

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

Lucas Middleton

Enclosures: as noted above

OSE DII ROSWELL NM
5 DEC '24 AM 11:26

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE DII ROSWELL NM
5 DEC '24 AM11:26

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD 1 (TW-1)	N/A	C-4904

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Moonshine Energy	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
3206 Ma Mar Ave	Midland	TX	79705

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	11	43.05	N
	LONGITUDE	103	25	37.01	W

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

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

SE NE NW Sec. 25 T24S R34E, NMPM

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
11/20/2024	11/20/2024	Temporary Well Material	±75	N/A

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

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DATE STATIC MEASURED: 11/25/2024

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

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

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	75	±6.25	Soil Boring	--	--	--	--

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
			N/A		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.	POD NO.	TRN NO.	
LOCATION		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	3	3	Sand, Fine-grained poorly graded, unconsolidated, Brown	Y ✓ N	
3	24	21	Caliche, semi-consolidated, with sand, White/Pink	Y ✓ N	
24	34	10	Sand, Fine-grained poorly graded, unconsolidated, Brownish Tan	Y ✓ N	
34	75	41	Clay, consolidated with fine-grained sand, Brownish Tan	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	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm):

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: Temporary well material removed and soil boring backfilled using drill cuttings from total depth to ten feet below ground surface(bgs), then hydrated bentonite chips ten feet bgs to surface.

OSE DII ROSWELL NM
5 DEC '24 AM 11:27

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

Shane Eldridge, Cameron Pruitt

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:

Jack Atkins (Dec 5, 2024 10:28 MST) — Jackie D. Atkins — 12/05/2024

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

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

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

PLUGGING RECORD

NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4904 POD-1

Well owner: Moonshine Energy Phone No.: 432 315-0641

Mailing address: 3206 Ma Mar Ave

City: Midland State: TX Zip code: 79705

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)

2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/25

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Cameron Pruitt

4) Date well plugging began: 11/25/2024 Date well plugging concluded: 11/25/2024

5) GPS Well Location: Latitude: 32 deg, 11 min, 43.05 sec
Longitude: 103 deg, 25 min, 37.01 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 75 ft below ground level (bgl), by the following manner: water level probe

7) Static water level measured at initiation of plugging: n/a ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 11/06/2024

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

OSE DII ROSWELL NM
5 DEC '24 AM 11:27

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-10' Hydrated Bentonite	Approx. 15 gallons	15 gallons	Boring	
	10'-75' Drill Cuttings	Approx. 103gallons	103 gallons	Boring	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

OSE DII ROSWELL NM
5 DEC '24 AM 11:27

III. SIGNATURE:

I, Jackie D. Atkins, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Jack Atkins (Dec 5, 2024 10:28 MST)

Signature of Well Driller

12/5/2024

Date

Version: September 8, 2009
Page 2 of 2

2024-12-5-WR-20 Well Record and Log-packet-forsign

Final Audit Report 2024-12-05

Created:	2024-12-05
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAADLsXs8cEbXtKGFIJPoYMZW7c_KesGWH9

"2024-12-5-WR-20 Well Record and Log-packet-forsign" History

Document created by Lucas Middleton (lucas@atkinseng.com)
2024-12-05 - 4:30:50 PM GMT

Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2024-12-05 - 4:32:19 PM GMT

Email viewed by Jack Atkins (jack@atkinseng.com)
2024-12-05 - 5:24:50 PM GMT

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2024-12-05 - 5:28:23 PM GMT - Time Source: server

Agreement completed.
2024-12-05 - 5:28:23 PM GMT

ATTACHMENT 4

NMOSE Well Records from Existing Area Wells

OSE DIT JUN 30 2023 PM2:15

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).
POD1	MW-1	C-4737

WELL OWNER NAME(S)	PHONE (OPTIONAL)
NGL Waste Services	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
1008 Southview Circle	Center	TX	75935

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	11	53.12	N
	LONGITUDE	-103	25	53.91	W

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

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

From the intersection of County Rd. B and NM-128, travel E-SE on NM-128 ~2.4mi. Well located ~596' SW of NM-128

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
NM-1800	Jarod M Michalsky	Talon/LPE, Ltd.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
4/25/23	4/28/23	250	251	N/A

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

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DATE STATIC MEASURED: N/A

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)
0	210	8	Sch 80 PVC	Riser	4	0.5	-
210	250	8	Sch 80 PVC	Screen	4	0.5	0.020

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	2	8	Portland Cement	0.13	Tremie
2	195	8	3/8 Bentonite Pellets	12.89	Tremie
195	251	8	8/16 Silica Sand	3.74	Tremie

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO. C-4737-POD 1	POD NO. 1	TRN NO. 745751	
LOCATION Mon 24.34.24.133		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	10	10	SM: Sandy Silt, 20% Fine Grained Sand, 80% Silt, Dry, 7.5YR 8/3, No Odor	Y ✓ N	
10	15	5	SM-SW: Fine, 15% Silt, 45% Sand, 40% pebbles, Dry, 7.5YR 8/4, No Odor	Y ✓ N	
15	20	5	SW: Fine Grained Sand, Dry, 2.5YR 6/6, No Odor	Y ✓ N	
20	45	25	SM: Sandy Silt, 10-20% Fine Sand, 20-80% Silt, Dry, 2.5-5YR 4-5/4, No Odor	Y ✓ N	
45	55	10	SM: Sandy Silt, 10% Fine Grained Sand, 90% Silt, Dry, 10YR 6/2, No Odor	Y ✓ N	
55	60	5	SM: Sandy Silt, 10% Fine Grained Sand, 90% Silt, Dry, 5YR 4/4, No Odor	Y ✓ N	
60	70	10	SM: Sandy Siltstone, Friable, 10% Fine Sand, 90% Silt, Dry, 2.5YR 4/4, No Odo	Y ✓ N	
70	75	5	SW: Fine Grained Sandstone, Dry, 10YR 4/1, No Odor	Y ✓ N	
75	90	15	SM: Sandy Siltstone, Friable, 15% Fine Sand, 85% Silt, Dry, 2.5YR 5/4, No Odo	Y ✓ N	
90	140	50	SM: Silty Sandstone, Friable, 45% Silt, 55% Fine Sand, Dry, 5YR 6/2, No Odor	Y ✓ N	
140	145	5	SW: Fine Grained Sandstone, Dry, 5YR 6/2, No Odor	Y ✓ N	
145	155	15	SM: Sandy Siltstone, Friable, 20% Fine Sand, 80% Silt, Dry, 2.5YR 5/6, No Odo	Y ✓ N	
155	170	15	SW: Sandstone, Friable, 40% Medium Sand, 60% Fine Sand, 2.5YR 6/6 Dry	Y ✓ N	
170	175	5	SM: Silty Sandstone, 20% Silt, 80% Fine Sand, Friable, Dry, 2.5YR 3/4, No Odo	Y ✓ N	
175	185	10	SW: Sandstone, Friable, 40% Medium Sand, 60% Fine Sand, Dry, 2.5YR 4/4	Y ✓ N	
185	200	15	SW: Sandstone, Very Fine to Fine Grained Sand, Dry, 2.5YR 4/4, No Odor	Y ✓ N	
200	205	5	SM: Silty Sandstone, 20% Silt, 80% Fine Sand, Dry, 2.5YR 4/4, No Odor	Y ✓ N	
205	220	15	SW: Silty Sandstone, Fine Grained Sand, Dry, 5YR 5/6, No Odor	Y ✓ N	
220	230	10	SW: Sandstone, 50% Medium Sand, 50% Fine Sand, 2.5YR 4/4, No Odor	Y ✓ N	
230	251	21	SW: Sandstone, Fine Grained Sand, Dense, Damp, 5YR 4/6, No Odor	Y ✓ N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm):

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 JUN 30 2023 PM2:15

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

Zechariah D Moody

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:

Jarod M Michalsky

Digitally signed by Jarod M Michalsky
DN: cn=Jarod M Michalsky, o=Talon/LPE, Ltd., ou, email=jmichalsky@talonlpe.com, c=US
Date: 2023.06.27 10:05:28 -05'00'

Jarod M Michalsky — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

06/27/2023 — DATE

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

FILE NO. C-4737-POD 1	POD NO. 1	TRN NO. 745751	
LOCATION Mon 24.34.24.133		WELL TAG ID NO.	PAGE 2 OF 2

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 745751
File Nbr: C 04737
Well File Nbr: C 04737 POD1

Jun. 30, 2023

WOODY DUNCAN
TALON LPE
921 N BIVINS STREET
AMARILLO, TX 79107

Greetings:

The above numbered permit was issued in your name on 04/14/2023.

The Well Record was received in this office on 06/30/2023, stating that it had been completed on 04/28/2023, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 04/13/2024.

If you have any questions, please feel free to contact us.

Sincerely,

Maret Thompson
(575)622-6521

drywell

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).
C04682 POD 1	211EC	C-04682

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Daniel Baeza	575-390-2569

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
7225 Mockingbird Lane	Hobbs	NM	88240

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	11	24.83242	N
	LONGITUDE	103	24	56.35437	W

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

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

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD1058	GARY KEY	KEY'S DRILLING & PUMP SERVICE, INC

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
12/20/2022	01/19/2023	290	920	180

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

STATIC WATER LEVEL IN COMPLETED WELL (FT): 165FT

DATE STATIC MEASURED: 1-19-2023

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)
0	20	16-3/4"	12" STEEL		12"	.250	
-2	160	9-7/8"	PVC SCH40	SPLINE	4-1/2"	SCH40	
160	290	9-7/8"	PVC SCH40	SPLINE	4-1/2"	SCH40	.032

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	16-3/4"	CEMENT SLURRY	13.09	POUR
0	62	9-7/8"	HYDRATED BENTONITE CHIPS	22.35	TREMIE
62	114	9-7/8"	PEA GRAVEL	21.26	POUR
114	290	9-7/8"	8/16 SILICA SAND	71.98	TREMIE

OSE DIT FEB 8 2023 PM4:02

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO. C-4682 POD 1	POD NO. 1	TRN NO. 738374	
LOCATION DOM+SFK 24.34.25.442		WELL TAG ID NO. 211EC	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	5	5	RED SAND	Y ✔ N	
5	23	18	CALICHE	Y ✔ N	
23	118	95	RED SANDSTONE AND CLAY	Y ✔ N	
118	157	39	BROWN & RED SANDSTONE	Y ✔ N	
157	270	113	RED CLAY & SANDSTONE	✔ Y N	3.00
270	290	20	TAN SANDSTONE	Y ✔ N	
290	324	34	RED CLAY	Y ✔ N	
324	410	86	RED CLAY WITH SANDSTONE STREAKS	Y ✔ N	
410	905	495	RED & GRAY SPECKLED SANDSTONE/MUDSTONE	Y ✔ N	
905	920	15	DOLOMITE-RUSTLER FORMATION	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): 3

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: THIS WELL WAS DRILLED TO 920 AND PLUGGED BACK TO 290FT UNDER WELL PLUGGING PLAN OF OPERATIONS DATED 1-9-2023. THE WELL THEN WAS COMPLETED AS A DOMESTIC WELL.

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

CASEY KEY

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:

GARY KEY — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

2/8/2023 — DATE

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

FILE NO. C-4682-POD 1	POD NO. 1	TRN NO. 738374	
LOCATION 24S.34E.25.442		WELL TAG ID NO. 21EC	PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OCD DIT MAY 20 2024 PM 01:33

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (SVE01)		C-4805

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Plains All American Pipeline	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
PO Box 4648	Houston	TX	77002

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	10	53.71	N
	LONGITUDE	-103	25	17.06	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

Sec 25, T24S, R34E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1868	Robert A Meyer	Talon/LPE, Ltd.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
03/07/2024	03/07/2024	45	45	N/A

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

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DATE STATIC MEASURED: N/A

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

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

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	35	6	Sch 40 PVC	Riser	2"	0.25	-
35	45	6	Sch 40 PVC	Screen	2"	0.25	0.010

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	33	6	Portland Cement I/II	5.76	Tremie
33	35	6	3/8" Hydrated Bentonite	0.35	Tremie
35	45	6	Silica Sand	1.74	Tremie

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO. C-4805-POD1 (SVE01)	POD NO. 1	TRN NO. 755597
LOCATION T24S.R34E.25.434	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	33	33	No Sample	Y ✓ N	
33	35	2	SC, Well-graded clayey sands with fine caliche gravel, moist and firm with slight plasticity, reddish brown in coloration, minor effervescence	Y ✓ N	
35	40	4.5	SC, Poorly-graded fine sands, dry, soft, no plasticity, reddish brown in coloration, minor effervescence	Y ✓ N	
38	38.5	.5	VF sandstone, poor sorted/well grade, gray to light pink w/ minor presence of dark lithics, friable	Y ✓ N	
40	45	5	SP, Medium-graded fine sands with fine caliche gravel, dry, little plasticity, pinkish brown	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):

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 DII MAY 20 2024 PM01:33

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

Jesse W Tausch

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:

Robert A Meyer Digitally signed by Robert A Meyer DN: cn=Robert A Meyer, o=Talon/LPE, Ltd., ou=VP of Drilling, email=rmeyer@talonlpe.com, c=US Date: 2024.05.20 17:17:26 -05'00'

Robert A Meyer — 05/03/2024

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

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

FILE NO. C-4805-POD1(SUE01)	POD NO. 1	TRN NO. 755597	
LOCATION Mon 24.34.25.434		WELL TAG ID NO. ———	PAGE 2 OF 2

GHD

Stratigraphy Log (Overburden)
(Form SP-14)

Project name:	Plains Endurance 6" Release	**Drilling contractor:**	**Talon LPE**	**Hole designation:**	SVE01
Project number:	12632476	**Driller:**	**Jesse Tausch**	**Date/Time started:**	0930 03-07-2024
Client:	Plains All American	**Surface elevation:**	**3363'**	**Date/Time completed:**	1345 03-07-2024
Location:	Rural Jal, NM	**Weather (A.M.):**	**Partly Cloudy, Low 46°**	**Drilling method:**	Hollow Stem Auger
		(P.M.):	**High Winds, Partly Cloudy, High 74°**	**GHD supervisor:**	Liam Giersdorf/Rebeccca Pons

Stratigraphic Intervals (Depths in ft/m BGS)			Sample Description	Sample Details											
			Order of descriptors: Soil type symbol(s) - primary component(s), (nature of deposit), secondary components, relative density/consistency, grain size/plasticity, gradation/structure, colour, moisture content, supplementary descriptors.			Penetration Record Split Spoon Blows (Record N-Values & Recoveries)									
From	At	To	Note: Plasticity determination requires the addition of moisture if the sample is too dry to roll (indicate if moisture was added or not).	Sample Number	Sampling Method	6"	6"	6"	6"	N	R	Sample Interval	PID/FID (ppm)	Chemical Analysis	Grain Size/ Other Analysis
33'		35'	SC, Well-graded clayey sands with fine caliche gravel, moist and firm with slight plasticity, reddish brown in coloration, minor effervescence	SVE0135	Split Spoon							33-35'	1780	8015B/8021B	
35'		40'	SC, Poorly-graded fine sands, dry, soft, no plasticity, reddish brown in coloration, minor effervescence	SVE0140	Auger							35-40'	3598	8015B/8021B	Cuttings
38'		38.5'	Very fine sandstone, poorly sorted/well graded, poss. Lithic Arkose with calcareous matrix, ranges from gray to light pink in coloration with minor presence of dark lithics, friable	-	Split Spoon							38-38.5'	-	-	
40'		45'	SP, Medium-graded fine sands with fine caliche gravel, dry, little plasticity, pinkish brown	SVE0145	Auger							40-45'	4210	8015B/8021B	Cuttings

Notes and Comments

Depth of borehole caving _____ Depth of first groundwater encounter _____ Topsoil thickness _____

Water level in open borehole on completion _____ After _____ Hours _____

Notes: 2" PVC Pipe installed with screen from 35'-45' in depth, packed with sand from TD to top of screen, plugged with 2' of Bentonite, grouted for remaining depth to surface

Mike A. Hamman, P.E.
State Engineer

well Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 755597
File Nbr: C 04805
Well File Nbr: C 04805 POD1

May. 23, 2024

KAROLANNE HUDGENS
PLAINS ALL AMERICAN PIPELINE
1106 GRIFFITH DR.
MIDLAND, TX 79706

Greetings:

The above numbered permit was issued in your name on 02/28/2024.

The Well Record was received in this office on 05/23/2024, stating that it had been completed on 03/07/2024, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 02/27/2025.

If you have any questions, please feel free to contact us.

Sincerely,

Maret Thompson
(575)622-6521

drywell

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 755597
File Nbr: C 04805
Well File Nbr: C 04805 POD1

May. 23, 2024

TJ HALEY
TALON LPE
921 N. BIVINS ST.
AMARILLO, TX 79107

Greetings:

The above numbered permit was issued in your name on 02/28/2024.

The Well Record was received in this office on 05/23/2024, stating that it had been completed on 03/07/2024, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 02/27/2025.

If you have any questions, please feel free to contact us.

Sincerely,

Maret Thompson
(575)622-6521

drywell

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE DIT MAY 23 2024 PM 3:45

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD2 (SVE02)		C-4805

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Plains All American Pipeline	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
PO Box 4648	Houston	TX	77002

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	10	53.61	N
	LONGITUDE	-103	25	16.87	W

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

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

Sec 25, T24S, R34E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1868	Robert A Meyer	Talon/LPE, Ltd.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
03/07/2024	03/07/2024	45	45	N/A

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

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DATE STATIC MEASURED: N/A

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

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

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	35	6	Sch 40 PVC	Riser	2"	0.25	-
35	45	6	Sch 40 PVC	Screen	2"	0.25	0.010

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	33	6	Portland Cement I/II	5.76	Tremie
33	35	6	3/8" Hydrated Bentonite	0.35	Tremie
35	45	6	Silica Sand	1.74	Tremie

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO. C-4805-POD 2 (SVE02)	POD NO. 2	TRN NO. 255597	
LOCATION NMPM 21.34.25.434		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	33	33	No Sample	Y ✓ N	
33	35	2	SC, Well-graded clayey sands w/fine caliche grav, moist/firm w/slight plast, reddish brown, minor effervescence	Y ✓ N	
35	40	4.5	SC, Poorly-graded fine sands, dry, soft, no plasticity, reddish brown in coloration, minor effervescence	Y ✓ N	
38	38.5	.5	VF sandstone, poor sorted/well grade, gray to light pink w/ minor presence of dark lithics, friable	Y ✓ N	
40	45	5	SP, Medium-graded fine sands with fine caliche gravel, dry, little plasticity, pinkish brown	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):

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 23 2024 PM 3:40

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

Jesse W Tausch

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:

Robert A Meyer Digitally signed by Robert A Meyer DN: cn=Robert A Meyer, o=Talon/LPE, Ltd., ou=VP of Drilling, email=rmeyer@talonlpe.com, c=US Date: 2024.05.20 17:16:48 -05'00'

Robert A Meyer — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

05/03/2024 — DATE

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

FILE NO. C-4805-POD 2 (SWE02)	POD NO. 2	TRN NO. 755597	
LOCATION Mon 24.34.25.434		WELL TAG ID NO.	PAGE 2 OF 2

GHD

Stratigraphy Log (Overburden)
(Form SP-14)
Page 1 of 1

Project name:	Plains Endurance 6" Release	**Drilling contractor:**	**Talon LPE**	**Hole designation:**	SVE2
Project number:	12632476	**Driller:**	**Jesse Tausch**	**Date/Time started:**	1630 03-13-2024
Client:	Plains All American	**Surface elevation:**	**3363'**	**Date/Time completed:**	1715 03-13-2024
Location:	Rural Jal, NM	**Weather (A.M.):**	**Clear, Low 47°**	**Drilling method:**	Direct Push Geoprobe
		(P.M.):	**Windy, High 84°**	**GHD supervisor:**	Liam Giersdorf/Rebeccca Pons

Stratigraphic Intervals (Depths in ft/m BGS)			Sample Description	Sample Details											
			Order of descriptors: Soil type symbol(s) - primary component(s), (nature of deposit), secondary components, relative density/consistency, grain size/plasticity, gradation/structure, colour, moisture content, supplementary descriptors.			Penetration Record Split Spoon Blows (Record N-Values & Recoveries)									
From	At	To	Note: Plasticity determination requires the addition of moisture if the sample is too dry to roll (indicate if moisture was added or not).	Sample Number	Sampling Method	6"	6"	6"	6"	N	R	Sample Interval	PID/FID (ppm)	Chemical Analysis	Grain Size/ Other Analysis
20'		25'	SC/SW, Well graded sands with caliche gravel, loose, reddish brown, slightly moist, effervescent	SVE220	Air Rotary							20-25'	847.8	8015B/8021B	
25'		30'	SC/SW, Well graded sands with caliche gravel, loose, reddish brown, slightly moist, effervescent	SVE225	Air Rotary							25-30'	573.9	8015B/8021B	
30'		33'	SC/SW, Well graded sands with caliche gravel, loose, reddish brown, slightly moist, effervescent	SVE230	Air Rotary							30-33'	548.9	8015B/8021B	

Notes and Comments

Depth of borehole caving ________ Depth of first groundwater encounter ________ Topsoil thickness ________

Water level in open borehole on completion ________ After ________ Hours ________

Notes: 2" PVC Pipe installed with screen from 23'-33' in depth, packed with sand from TD to top of screen, plugged with 2' of Bentonite, grouted for remaining depth to surface

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 755597
File Nbr: C 04805
Well File Nbr: C 04805 POD2

May. 23, 2024

TJ HALEY
TALON LPE
921 N. BIVINS ST.
AMARILLO, TX 79107

Greetings:

The above numbered permit was issued in your name on 02/28/2024.

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Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 02/27/2025.

If you have any questions, please feel free to contact us.

Sincerely,

Maret Thompson
(575)622-6521

drywell

Mike A. Hamman, P.E.
State Engineer

well Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 755597
File Nbr: C 04805
Well File Nbr: C 04805 POD2

May. 23, 2024

KAROLANNE HUDGENS
PLAINS ALL AMERICAN PIPELINE
1106 GRIFFITH DR.
MIDLAND, TX 79706

Greetings:

The above numbered permit was issued in your name on 02/28/2024.

The Well Record was received in this office on 05/23/2024, stating that it had been completed on 03/07/2024, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

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Sincerely,

Maret Thompson
(575)622-6521

drywell

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE DIT MAR 23 2024 PM 01:45

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD2 (SVE02)		C-4805

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Plains All American Pipeline	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
PO Box 4648	Houston	TX	77002

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	10	53.61	N
	LONGITUDE	-103	25	16.87	W

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

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

Sec 25, T24S, R34E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1868	Robert A Meyer	Talon/LPE, Ltd.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
03/07/2024	03/07/2024	45	45	N/A

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

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DATE STATIC MEASURED: N/A

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

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

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	35	6	Sch 40 PVC	Riser	2"	0.25	-
35	45	6	Sch 40 PVC	Screen	2"	0.25	0.010

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	33	6	Portland Cement I/II	5.76	Tremie
33	35	6	3/8" Hydrated Bentonite	0.35	Tremie
35	45	6	Silica Sand	1.74	Tremie

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO. C-4805-POD 2 (SVE02)	POD NO. 2	TRN NO. 755597
LOCATION NMPM 24.34.25.434	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	33	33	No Sample	Y ✓ N	
33	35	2	SC, Well-graded clayey sands w/fine caliche grav, moist/firm w/slight plast, reddish brown, minor effervescence	Y ✓ N	
35	40	4.5	SC, Poorly-graded fine sands, dry, soft, no plasticity, reddish brown in coloration, minor effervescence	Y ✓ N	
38	38.5	.5	VF sandstone, poor sorted/well grade, gray to light pink w/ minor presence of dark lithics, friable	Y ✓ N	
40	45	5	SP, Medium-graded fine sands with fine caliche gravel, dry, little plasticity, pinkish brown	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):

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 DII MAY 23 2024 PM 3:46

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

Jesse W Tausch

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:

Robert A Meyer — Digitally signed by Robert A Meyer, DN: cn=Robert A Meyer, o=Talon/LPE, Ltd., ou=VP of Drilling, email=rmeyer@talonlpe.com, c=US, Date: 2024.05.20 17:16:48 -05'00'

Robert A Meyer — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

05/03/2024 — DATE

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

FILE NO. C-4805-POD 2 (SWE02)	POD NO. 2	TRN NO. 755597	
LOCATION Mon 24 34. 25. 434		WELL TAG ID NO.	PAGE 2 OF 2

GHD

Stratigraphy Log (Overburden)
(Form SP-14)

Project name:	Plains Endurance 6" Release	**Drilling contractor:**	**Talon LPE**	**Hole designation:**	SVE2
Project number:	12632476	**Driller:**	**Jesse Tausch**	**Date/Time started:**	1630 03-13-2024
Client:	Plains All American	**Surface elevation:**	**3363'**	**Date/Time completed:**	1715 03-13-2024
Location:	Rural Jal, NM	**Weather (A.M.):**	**Clear, Low 47°**	**Drilling method:**	Direct Push Geoprobe
		(P.M.):	**Windy, High 84°**	**GHD supervisor:**	Liam Giersdorf/Rebeccca Pons

Stratigraphic Intervals (Depths in ft/m BGS)			Sample Description	Sample Details											
			Order of descriptors: Soil type symbol(s) - primary component(s), (nature of deposit), secondary components, relative density/consistency, grain size/plasticity, gradation/structure, colour, moisture content, supplementary descriptors.			Penetration Record Split Spoon Blows (Record N-Values & Recoveries)									
From	At	To	Note: Plasticity determination requires the addition of moisture if the sample is too dry to roll (indicate if moisture was added or not).	Sample Number	Sampling Method	6"	6"	6"	6"	N	R	Sample Interval	PID/FID (ppm)	Chemical Analysis	Grain Size/ Other Analysis
20'		25'	SC/SW, Well graded sands with caliche gravel, loose, reddish brown, slightly moist, effervescent	SVE220	Air Rotary							20-25'	847.8	8015B/8021B	
25'		30'	SC/SW, Well graded sands with caliche gravel, loose, reddish brown, slightly moist, effervescent	SVE225	Air Rotary							25-30'	573.9	8015B/8021B	
30'		33'	SC/SW, Well graded sands with caliche gravel, loose, reddish brown, slightly moist, effervescent	SVE230	Air Rotary							30-33'	548.9	8015B/8021B	

Notes and Comments

Depth of borehole caving _____ Depth of first groundwater encounter _____ Topsoil thickness _____

Water level in open borehole on completion _____ After _____ Hours _____

Notes: 2" PVC Pipe installed with screen from 23'-33' in depth, packed with sand from TD to top of screen, plugged with 2' of Bentonite, grouted for remaining depth to surface

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 755597
File Nbr: C 04805
Well File Nbr: C 04805 POD2

May. 23, 2024

TJ HALEY
TALON LPE
921 N. BIVINS ST.
AMARILLO, TX 79107

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Maret Thompson
(575)622-6521

drywell

Mike A. Hamman, P.E.
State Engineer

well Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 755597
File Nbr: C 04805
Well File Nbr: C 04805 POD2

May. 23, 2024

KAROLANNE HUDGENS
PLAINS ALL AMERICAN PIPELINE
1106 GRIFFITH DR.
MIDLAND, TX 79706

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Sincerely,

Maret Thompson
(575)622-6521

drywell

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OCC DIT MAR 23 2024 #0145

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD3 (OW01)		C-4805

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Plains All American Pipeline	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
PO Box 4648	Houston	TX	77002

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	10	53.60	N
	LONGITUDE	-103	25	17.07	W

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

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

Sec 25, T24S, R34E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1868	Robert A Meyer	Talon/LPE, Ltd.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
03/13/2024	03/13/2024	50	50	N/A

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

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DATE STATIC MEASURED: N/A

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

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

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	25	6	Sch 40 PVC	Riser	2"	0.25	-
25	45	6	Sch 40 PVC	Screen	2"	0.25	0.010

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	23	6	Portland Cement I/II	30.03	Tremie
23	25	6	3/8" Hydrated Bentonite	2.61	Tremie
25	50	6	Silica Sand	32.64	Tremie

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO. C-4805-POD3 (OW01)	POD NO. 3	TRN NO. 755597
LOCATION Non 24.34.25.434	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	20	20	No Sample	Y ✓ N	
20	25	5	SC/SW, Well graded sands with caliche gravel, loose, reddish brown, slightly moist, effervescent	Y ✓ N	
25	30	5	SC/SW, Well graded sands with caliche gravel, loose, reddish brown, slightly moist, effervescent	Y ✓ N	
30	35	5	SC/SW, Well graded sands with caliche gravel, loose, reddish brown, slightly moist, effervescent	Y ✓ N	
35	40	5	SC/SW, Well graded sands with caliche gravel, loose, reddish brown, slightly moist, effervescent	Y ✓ N	
40	45	5	SC/SW, Well graded sands with caliche gravel, very loose, brown, dry, effervescent	Y ✓ N	
45	50	5	SC/SW, Well graded sands with caliche gravel, very loose, brown, dry, effervescent	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):

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 23 2024 PM 3:45

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

Jesse W Tausch

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:

Robert A Meyer — Digitally signed by Robert A Meyer, DN: cn=Robert A Meyer, o=Talon/LPE, Ltd., ou=VP of Drilling, email=rmeyer@talonlpe.com, c=US, Date: 2024.05.20 17:15:56 -05'00'

Robert A Meyer — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

05/03/2024 — DATE

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

FILE NO. C-4805-POD3 (DED01)	POD NO. 3	TRN NO. 755597	
LOCATION Mon 24.34.25.434		WELL TAG ID NO.	PAGE 2 OF 2

GHD

Stratigraphy Log (Overburden)
(Form SP-14)

Project name:	Plains Endurance 6" Release	**Drilling contractor:**	**Talon LPE**	**Hole designation:**	OW1
Project number:	12632476	**Driller:**	**Jesse Tausch**	**Date/Time started:**	0930 03-13-2024
Client:	Plains All American	**Surface elevation:**	**3363'**	**Date/Time completed:**	1100 03-13-2024
Location:	Rural Jal, NM	**Weather (A.M.):**	**Clear, Low 47°**	**Drilling method:**	Hollow Stem Auger
		(P.M.):	**Windy, High 84°**	**GHD supervisor:**	Liam Giersdorf/Rebeccca Pons

Stratigraphic Intervals (Depths in ft/m BGS)			Sample Description	Sample Details											
			Order of descriptors: Soil type symbol(s) - primary component(s), (nature of deposit), secondary components, relative density/consistency, grain size/plasticity, gradation/structure, colour, moisture content, supplementary descriptors.			Penetration Record Split Spoon Blows (Record N-Values & Recoveries)									
From	At	To	Note: Plasticity determination requires the addition of moisture if the sample is too dry to roll (indicate if moisture was added or not).	Sample Number	Sampling Method	6"	6"	6"	6"	N	R	Sample Interval	PID/FID (ppm)	Chemical Analysis	Grain Size/ Other Analysis
20'		25'	SC/SW, Well graded sands with caliche gravel, loose, reddish brown, slightly moist, effervescent	-	Air Rotary							20-25'	794.5	-	
25'		30'	SC/SW, Well graded sands with caliche gravel, loose, reddish brown, slightly moist, effervescent	-	Air Rotary							25-30'	-	-	
30'		35'	SC/SW, Well graded sands with caliche gravel, loose, reddish brown, slightly moist, effervescent	-	Air Rotary							30-35'	930.3	-	
35'		40'	SC/SW, Well graded sands with caliche gravel, loose, reddish brown, slightly moist, effervescent	OW135	Air Rotary							35-40'	434	8015B/8021B	
40'		45'	W, Well graded sands with caliche gravel, very loose, brown, dry, effervesce	OW140	Air Rotary							40-45'	639.9	8015B/8021B	
45'		50'	W, Well graded sands with caliche gravel, very loose, brown, dry, effervesce	OW145	Air Rotary							45-50'	422.3	8015B/8021B	

Notes and Comments

Depth of borehole caving _____ Depth of first groundwater encounter _____ Topsoil thickness _____

Water level in open borehole on completion _____ After _____ Hours _____

Notes: 2" PVC Pipe installed with screen from 25'-45' in depth, packed with sand from TD to top of screen, plugged with 2' of Bentonite, grouted for remaining depth to surface

Mike A. Hamman, P.E.
State Engineer

well Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 755597
File Nbr: C 04805
Well File Nbr: C 04805 POD3

May. 23, 2024

KAROLANNE HUDGENS
PLAINS ALL AMERICAN PIPELINE
1106 GRIFFITH DR.
MIDLAND, TX 79706

Greetings:

The above numbered permit was issued in your name on 02/28/2024.

The Well Record was received in this office on 05/23/2024, stating that it had been completed on 03/13/2024, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 02/27/2025.

If you have any questions, please feel free to contact us.

Sincerely,

Maret Thompson
(575)622-6521

drywell

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 755597
File Nbr: C 04805
Well File Nbr: C 04805 POD3

May. 23, 2024

TJ HALEY
TALON LPE
921 N. BIVINS ST.
AMARILLO, TX 79107

Greetings:

The above numbered permit was issued in your name on 02/28/2024.

The Well Record was received in this office on 05/23/2024, stating that it had been completed on 03/13/2024, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 02/27/2025.

If you have any questions, please feel free to contact us.

Sincerely,

Maret Thompson
(575)622-6521

drywell

OSE DIT MAR 23 2024 PM 01:47

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).
POD4 (OW02)		C-4805

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Plains All American Pipeline	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
PO Box 4648	Houston	TX	77002

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	10	53.72	N
	LONGITUDE	-103	25	16.89	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

Sec 25, T24S, R34E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1868	Robert A Meyer	Talon/LPE, Ltd.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
03/12/2024	03/12/2024	45	45	N/A

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

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DATE STATIC MEASURED: N/A

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

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

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	25	6	Sch 40 PVC	Riser	2"	0.25	-
25	45	6	Sch 40 PVC	Screen	2"	0.25	0.010

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	23	6	Portland Cement I/II	30.03	Tremie
23	25	6	3/8" Hydrated Bentonite	2.61	Tremie
25	45	6	Silica Sand	26.12	Tremie

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO. C-4805-POD4 (OW02) POD NO. 4 TRN NO. 755597

LOCATION Mon 24.34.25.434 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	20	20	No Sample	Y ✓ N	
20	25	5	SC, Well graded clayey sands with caliche gravel, very loose, reddish brown, slightly moist	Y ✓ N	
25	30	5	SC, medium graded clayey sands with caliche gravel, very loose, pinkish brown, slightly most	Y ✓ N	
30	35	5	SC, poorly graded clayey sands, very loose, dark reddish brown, slightly moist	Y ✓ N	
35	40	5	SP, poorly graded sands, very loose, reddish brown, slightly moist	Y ✓ N	
40	45	5	SP, poorly graded sands, very loose, brown, dry	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):

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 OIL MAY 20 2024 PM3:47

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

Jesse W Tausch

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:

Robert A Meyer — Digitally signed by Robert A Meyer DN: cn=Robert A Meyer, o=Talon/LPE, Ltd., ou=VP of Drilling, email=rmeyer@talonlpe.com, c=US Date: 2024.05.20 17:14:49 -05'00'

Robert A Meyer — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

05/03/2024 — DATE

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

FILE NO. C-4805-POD4 (0002)	POD NO. 4	TRN NO. 755597	
LOCATION Mon 24.34.25.434		WELL TAG ID NO. —	PAGE 2 OF 2

GHD

Stratigraphy Log (Overburden)
(Form SP-14)

Project name:	Plains Endurance 6" Release	**Drilling contractor:**	**Talon LPE**	**Hole designation:**	OW2
Project number:	12632476	**Driller:**	**Jesse Tausch**	**Date/Time started:**	0930 03-12-2024
Client:	Plains All American	**Surface elevation:**	**3363'**	**Date/Time completed:**	1430 03-12-2024
Location:	Rural Jal, NM	**Weather (A.M.):**	**Clear, Low 44°**	**Drilling method:**	Hollow Stem Auger
		(P.M.):	**Windy, High 83°**	**GHD supervisor:**	Liam Giersdorf/Rebeccca Pons

Stratigraphic Intervals (Depths in ft/m BGS)			Sample Description	Sample Details											
			Order of descriptors: Soil type symbol(s) - primary component(s), (nature of deposit), secondary components, relative density/consistency, grain size/plasticity, gradation/structure, colour, moisture content, supplementary descriptors.			Penetration Record Split Spoon Blows (Record N-Values & Recoveries)									
From	At	To	Note: Plasticity determination requires the addition of moisture if the sample is too dry to roll (indicate if moisture was added or not).	Sample Number	Sampling Method	6"	6"	6"	6"	N	R	Sample Interval	PID/FID (ppm)	Chemical Analysis	Grain Size/ Other Analysis
20'		25'	SC, Well graded clayey sands with caliche gravel, very loose, reddish brown, slightly moist	-	Air Rotary							20-25'	951	-	
25'		30'	SC, medium graded clayey sands with caliche gravel, very loose, pinkish brown, slightly most	OW225	Air Rotary							25-30'	1051	8015B/8021B	
30'		35'	SC, poorly graded clayey sands, very loose, dark reddish brown, slightly moist	OW230	Air Rotary							30-35'	935	8015B/8021B	
35'		40'	SP, poorly graded sands, very loose, reddish brown, slightly moist	-	Air Rotary							35-40'	569	-	
40'		45'	SP, poorly graded sands, very loose, brown, dry	OW240	Air Rotary							40-45'	321	8015B/8021B	

Notes and Comments

Depth of borehole caving _____ Depth of first groundwater encounter _____ Topsoil thickness _____

Water level in open borehole on completion _____ After _____ Hours _____

Notes: 2" PVC Pipe installed with screen from 25'-45' in depth, packed with sand from TD to top of screen, plugged with 2' of Bentonite, grouted for remaining depth to surface

Soil Classification System (U.S.C.S.)
(ASTM D2488 Visual-Manual Procedure)

Major Divisions			Group Symbol	Typical Description
Highly Organic Soils (see note below)			PT	Peat and other highly organic soils
Coarse-Grained Soils (more than half by weight larger than no. 200 sieve size)	Gravels more than half of coarse fraction larger than no. 4 sieve size	"Clean" Gravels	GW	Well graded gravel, gravel-sand mixtures, ≤ 5% fines
			GP	Poorly graded gravels and gravel-sand mixtures, ≤ 5% fines
		"Dirty" Gravels	GM	Silty gravels, gravel-sand-silt mixtures, ≥ 15% fines
			GC	Clayey gravels, gravel-sand-clay mixtures, ≥ 15% fines
	Sands more than half of coarse fraction smaller than no. 4 sieve size	"Clean" Sands	SW	Well graded sands, gravelly sands, ≤ 5% fines
			SP	Poorly graded sands, or gravelly sands, ≤ 5% fines
		"Dirty" Sands	SM	Silty sands, sand-silt mixtures, ≥ 15% fines
			SC	Clayey sands, sand-clay mixtures, ≥ 15% fines
Fine-Grained Soils (more than half by weight passes no. 200 sieve size)	Silts below "A" line on plasticity chart; negligible organic content		ML	Inorganic silts and very fine sand, rock flour, silty sands of slight plasticity
			MH	Inorganic silts, micaceous or diatomaceous, fine sandy or silty soils
	Clays above "A" line on plasticity chart; negligible organic content		CL	Inorganic clays of low to medium plasticity, gravelly, sandy, or silty clays, lean clays
			CH	Inorganic clays of high plasticity, fat clays
	Organic silts & organic clays below "A" line on plasticity chart		OL	Organic silts and organic silty clays of low plasticity
			OH	Organic clays of high plasticity

Note:

Use dual symbols for coarse-grained soils if soil is estimated to contain 5% to 15% fines (equals "with").

Form SP-14

Non-Cohesive (Granular) Soil

Relative Density	Blows Per Foot (N-Value)
Very Loose	Less than 5
Loose	5 to 9
Compact	10 to 29
Dense	30 to 50
Very Dense	Greater than 50

Cohesive (Clayey) Soil

Consistency	Blows Per Foot (N-Value)
Very Soft	0 to 2
Soft	3 to 4
Firm	5 to 8
Stiff	9 to 15
Very Stiff	16 to 30
Hard	Greater than 30

Grain Size Classification
(based on standard sieve sizes)

Cobbles		Greater than 3 inches (76 mm)
Gravel		3 in. to No. 4 (4.76 mm)
	Coarse Gravel	3 in. to 3/4 in.
	Fine Gravel	3/4 in. to No. 4 (4.76 mm)
Sand		No. 4 (4.76 mm) to No. 200 (0.074 mm)
	Coarse Sand	No. 4 (4.76 mm) to No. 10 (2.0 mm)
	Medium Sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
	Fine Sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt		No. 200 (0.074 mm) to 0.002 mm
Clay		Less than 0.002 mm

Component Percentage Descriptors
(estimate to nearest 5%)

Coarse Grained Soils	
Noun(s) (e.g., sand, gravel)	Major Component
Adjective (e.g., silty, clayey)	Greater than 15%
With (e.g., with silt, with clay)	5% to 15%
Trace (e.g., trace silt, trace clay)	Less than 5%

Fine Grained Soils	
Noun(s) (e.g., silt, clay)	Major Component
Adjective (e.g., sandy, gravelly)	Greater than 30%
With (e.g., with sand)	15% to 30%
Few (e.g., few sand)	5% to 15%
Trace (e.g., trace sand)	Less than 5%

Soil Structure Terms

Stratified	Blocky
Laminated	Lenses/Seams
Fissured	Homogeneous

Moisture

Dry
Moist
Wet

OCC DII MAY 23 2024 PM3:40

July 2015

Mike A. Hamman, P.E.
State Engineer

vell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 755597
File Nbr: C 04805
Well File Nbr: C 04805 POD4

May. 23, 2024

KAROLANNE HUDGENS
PLAINS ALL AMERICAN PIPELINE
1106 GRIFFITH DR.
MIDLAND, TX 79706

Greetings:

The above numbered permit was issued in your name on 02/28/2024.

The Well Record was received in this office on 05/23/2024, stating that it had been completed on 03/12/2024, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 02/27/2025.

If you have any questions, please feel free to contact us.

Sincerely,

Maret Thompson
(575)622-6521

drywell

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 755597
File Nbr: C 04805
Well File Nbr: C 04805 POD4

May. 23, 2024

TJ HALEY
TALON LPE
921 N. BIVINS ST.
AMARILLO, TX 79107

Greetings:

The above numbered permit was issued in your name on 02/28/2024.

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If you have any questions, please feel free to contact us.

Sincerely,

Maret Thompson
(575)622-6521

drywell

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).
SB-1		C-4042

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Concho Resources	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
One Concho Center, 600 W. Illinios Ave.	Midland	TX	79701

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	3	50.26	N
	LONGITUDE	103	58	27.85	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

JR's Horz Fed Com #006H

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1456	John W. White	White Drilling Company, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
12/20/2017	12/20/2017		10.0	Dry

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT)

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

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

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)

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	10.0	6.0	Type 2 Portland Cemt. w/5% Bent. quick gel mix	1.96	Pump Mix w/Tremmie

STATE ENGINEER OFFICE RECEIVED ROSWELL, NEW MEXICO 2017 DEC 29 P 1:43

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. C-4042	POD NO. 1	TRN NO. 605007
LOCATION 4.1-2 24S-34E-36	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)
0.0	1.0	1.0	Caliche w/brown sand	Y ✓ N	
1.0	7.0	6.0	Caliche w/limestone	Y ✓ N	
7.0	10.0	3.0	Brown/red silty sandy shale	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	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

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:

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

William B. Atkins

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 20 DAYS AFTER COMPLETION OF WELL DRILLING:

John White — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

1/10/18 — DATE

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO. C-4042	POD NO. 1	TRN NO. 605007	
LOCATION 4.1.2 24S 34E 34		WELL TAG ID NO. —	PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

STATE ENGINEER OFFICE ROSWELL, NEW MEXICO 2018 JUN 18 AM 11:43

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
SB-2		C-4042

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Concho Resources	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
One Concho Center, 600 W. Illinois Ave.	Midland	TX	79701

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	3	50.26	N
	LONGITUDE	103	58	27.47	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

JR's Horz Fed Com #006H

STATE ENGINEER OFFICE ROSWELL, NEW MEXICO 2018 FEB -1 AM 10:43

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1456	John W. White	White Drilling Company, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
12/20/2017	12/20/2017		25.0	Dry

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT)

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

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

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)

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	25.0	6.0	Type 2 Portland Cemt. w/5% Bent. quick gel mix	4.90	Pump Mix w/Tremmie

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. C-4042	POD NO. 2	TRN NO. 605007	
LOCATION 4.1.2	24S-34E-36	WELL TAG ID NO.	PAGE 1 OF 2

MON-

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)
0.0	7.0	7.0	Brown sand w/caliche gravel	Y ✓N	
7.0	13.0	6.0	Brown/red silty sandy shale	Y ✓N	
13.0	25.0	12.0	Molded brown, yellowish brown and red silty sandy shale	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	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

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: Chlorides present in soil

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

William B. Atkins

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 20 DAYS AFTER COMPLETION OF WELL DRILLING:

John White — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

1.10.18 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO. C-4042	POD NO. 2	TRN NO. 605007	
LOCATION 4.1.2 245-32E-36		WELL TAG ID NO.	PAGE 2 OF 2

APPENDIX K

APPLICABLE CORRESPONDENCE & FIELD VISIT DOCUMENTATION

From: Rodriguez, Stephanie, EMNRD
To: Matthew Earthman
Cc: Tompson, Mike, EMNRD
Subject: [EXTERNAL]RE: Proposed Oil & Gas Treatment Facility - Siting Information
Date: Wednesday, November 6, 2024 10:45:38 AM
Attachments: image001.png
image002.png
image003.png
image004.png

Good morning, Matthew,

The New Mexico Mine Registration Program knows of no aggregate operations in Sections 24 and 25, Township 24 South, Range 34 East.

Thank you,
Stephanie J. Rodriguez
Mining and Minerals Division
Manager, Mine Registration and Reporting Program
stephanie.rodriguez@emnrd.nm.gov
(505) 660-4777
https://www.emnrd.nm.gov/mmd/
MMD Online – searchable database

From: Tompson, Mike, EMNRD <Mike.Tompson@emnrd.nm.gov>
Sent: Wednesday, November 6, 2024 10:22 AM
To: Matthew Earthman <matthew.earthman@soudermiller.com>
Cc: Rodriguez, Stephanie, EMNRD <stephanie.rodriguez@emnrd.nm.gov>
Subject: RE: Proposed Oil & Gas Treatment Facility - Siting Information

Hi Matt,

The New Mexico Abandoned Mine Land Program knows of no abandoned mine features in Sections 24 and 25, Township 24 South, Range 34 East.

I am copying Stephanie Rodriguez of the Mine Registration Program within our Division in case she is aware of something that I am not.

Feel free to ask for more clarification or questions.

Mike Tompson
Manager - New Mexico Abandoned Mine Land Program
Energy, Minerals and Natural Resources Department
Mining and Minerals Division
1220 South St. Francis Drive, Santa Fe, NM 87505
Cell: (505) 690-8063
Mike.Tompson@emnrd.nm.gov

From: Matthew Earthman <matthew.earthman@soudermiller.com>
Sent: Wednesday, November 6, 2024 9:55 AM
To: Tompson, Mike, EMNRD <Mike.Tompson@emnrd.nm.gov>

Subject: [EXTERNAL] Proposed Oil & Gas Treatment Facility - Siting Information

Good morning Mr. Tompson,

I am working on an NM OCD Surface Waste Management Facility Permit (C-137) for a proposed ~5 acre Oil Treating facility to be located approximately 15 miles northwest of Jal along NM-128. I have attached a google .kmz as well as a vicinity map showing the property outline. Would you be able to provide input on if there could be any potential abandoned or inactive mine sites underlying the facility boundary?

Thank you very much for your help,
Matt

Matthew A. Earthman, P.G.
Senior Geoscientist
Direct: 505.595.7762
Mobile: 505.250.2446
Office: 505.299.0942

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Phase I ESA Program (ASTM 1527/2247)
Site Reconnaissance

Project Name: Moonshine Job: _____

Client Name: _____ Date: 11/20/24

Project Address: _____

Latitude (N): _____ Longitude (W): _____

Adjoining Properties

North: Undeveloped

South: Undeveloped

East: Delaware Energy Services MooMaw SWD1

West: Safefill Waste, North Ranch, Striker 4 Slurry Facility

Interviews (use additional interview pages)

☐ Owner: _____ ☐ Manager: _____

☐ Occupant: _____ ☐ Other: _____

Operations on Property ☒ *Undeveloped,* ☐ *Vacant; P=Primary use, S=Secondary use, R=Previous use)*

☐ Agriculture (farm/ranch) ☐ Paper mill ☐ Tannery ☐ Printing / printing supplies

☐ Petroleum storage ☐ Dump or landfill ☐ Metal finishing / fabricating Metal plating

☐ Electronics fabrication/repair ☐ Heavy/industrial engine repair ☐ Service station/vehicle repair

☐ Chemical manufacturing, distribution or storage ☐ Wood preservative / treatment facilities

☐ Pesticide insecticide manufacturing/bulk storage ☐ Bulk transport tank (vehicular or rail car) repair

☐ Other/Notes: _____

General Observations (check all that apply)

☐ Unusual / noxious odors ☐ Dust / smoke ☐ Discolored / unusual smelling water

☐ Railroad tracks or spurs ☐ Trails / dead end roads ☐ Excessive noise from operations

Topography

Surface features: Native grass + Shrub

Surface water (arroyo, creek, stream, pond, stock tank, irrigation, etc.): ☒ none

Drainage (directions, disposition/outlet): ☐ indeterminant Slope downward to northeast

Backfill / soil storage, mounding or piles / pits (drainage or dumping): ☒ none

Regional Geology

Local soils: ☐ not observable

Local hydrology: ☒ not observed/observable

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator: Moonshine Energy, LLC 5006 PORTICO WAY Midland, TX 79707	OGRID: 332360
	Action Number: 472054
	Action Type: [C-137] Non-Fee SWMF Submittal (SWMF NON-FEE SUBMITTAL)

CONDITIONS

Created By	Condition	Condition Date
lbarr	None	6/9/2025