Remediation Summary and Closure Request

Harvard Petroleum Company, LLC
Pure Gold C-17 Fed #003
Eddy County, New Mexico
Unit L, Section 17, Township 23 South, Range 31 East
Latitude 32.30236° North, Longitude -103.793167° West
NM OCD Incident #nAPP2334138591

Prepared For:

Harvard Petroleum Company
3737 Buffalo Speedway, Suite 1600
Houston, Texas 77098

Prepared By:

COMM Engineering, Inc
1319 W Pinhook Rd., Suite 401
Lafayette, Louisiana 70503

January 31st, 2025

January 31st, 2025 Project #: 240247

Remediation Closure Report: Pure Gold C-17 Fed #003
Unit L, Section 17, Township 23 South, Range 31East
Eddy County, New Mexico
API: 30-015-27152
Incident: nAPP2334138591

Prepared For: Harvard Petroleum Company
3737 Buffalo Speedway, Suite 1600
Houston, Texas 77098

New Mexico Oil Conservation Division – District 2 – Artesia
506 W. Texas
Artesia, NM 88210

Harvard Petroleum Company, LLC (Harvard Petroleum) retained COMM Engineering, Inc. (COMM), to conduct a spill assessment/characterization and remediation for the December 5th, 2023, release that occurred at the Pure Gold C-17 Fed #003, API 30-015-27152 (hereafter referred to as "Pure Gold C-17 Fed 3"). Harvard Petroleum provided notification of the release to New Mexico Oil Conservation Division (NMOCD) District 2, via submission of an initial C-141 Release Notification on December 7th, 2023.

This letter provides a description of the spill assessment/characterization and remediation activities and demonstrates that closure criteria established in 19.15.29.12 NMAC have been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from New Mexico Oil Conservation Division for the closure of this release.

Background:

The most recent C-141 submission for closure request was rejected for multiple reasons which are hereby addressed individually:

OCD statements in rejection letter to Application ID: 370871

- **Confirmation soil samples must consist of five-point composite samples from the sidewall and base of the excavation and individual grab samples from any wet or discolored areas, representing a surface area of no more than 200 ft^2 unless otherwise approved.**

The excavated area measuring 2,304 ft^2, requiring 12 five-point composite samples to be obtained was completed on 6/18/2024. Following the removal of impacted soil, five-point composite soil samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Due to the shallow depth of the excavation, sidewall samples were incorporated into the floor samples.

Sample points PG-VA-1, PG-TP-6, PG-TP-8, PG-TP-11, PG-TP-12 were obtained from the sidewalls. No wet or discolored areas that would require individual grab samples were visible.

- **There are incongruencies between the 5/24/24 rejected report and this report which should be addressed in resubmittal. Explain why in the current remediation summary it says you re-excavated to a "depth of 7.5 inches but collected confirmation samples at a depth of 9". In this report it states: "On April 16th, 2024, COMM Engineering collected 8 soil samples with a soil probe and/or hollow-stem auger at 6 inches below ground surface." However, in the 5/24/24 rejected report you stated: "North Side of Containment – Excavation began, and contaminated soil testing followed." You went on to say 6 samples were collected.**

The re-excavation that took place on June 18th, 2024, was to a depth of 7.5". All floor samples were obtained at the depth of 7.5". At the recorded depth of 9" bgs, that depth recording included the additional approximate depth to include the sample itself utilizing a factor of 1.5", totaling 9" for the sample depth reported. In hindsight, it is clear that the sample depths should have been reported to match the depth of the excavation to the floor exactly; which was 7.5". Said samples were collected at a depth of 7.5" bgs.

The 6 samples referenced in the 5/24/24 rejected report was reported in error. On April 16th, 2024, 8 confirmation samples and 3 background samples were obtained and relinquished to Cardinal Laboratories on April 17th, 2024.

- **The photos submitted with each report have been too blurry to see depth of excavation. Photos need to be clear and include date and time stamp.**

COMM Engineering now utilizes high resolution cameras for photographs that include the date, time, GPS coordinates, and compass.

- **BG1 from 5/24/24 rejected report exceeded Table I < 50 depth to groundwater standards and still needs remediation.**

The impacted area where the BG1 sample was collected on 4/16/2024, has been remediated to Table I < 50 depth to groundwater closure criteria.

- **Each report should stand alone and provide all the data on the release, including the tables showing soil sampling results. In next submission, include everything for this release in report. Resubmit the report to the OCD by 10/11/24.**

This *Remediation Summary and Closure Request* report has been amended to include everything for this release, including tables showing all soil sampling results.

As depth to groundwater evidence was not acceptable, Harvard Petroleum chooses to remediate impacted soils under Table 1 Closure Criteria for groundwater at a depth of 50 feet or less.

On June 18th, 2024, the area impacted by a release at the Pure Gold C-17 Fed #003 was excavated further and 12 samples at a depth of 7.5 inches were collected from the floor and sidewalls of the excavated area not to exceed representation of 200 sq ft. All Site characterization data required per 19.15.29(A) NMAC, is submitted within this report.

Site Information:

The Pure Gold C17 Fed 3 is located approximately 17.72 miles East of Loving, New Mexico. The legal description is Unit L, Section 17, Township 23 South and Range 31 East in Eddy County, New Mexico. The latitude and longitude for this site is 32.30236° North and -103.793167° West.

Groundwater and Site Characterization:

Based on the New Mexico Office of the State Engineer Database, the nearest reported groundwater depth is 105 ft bgs and located at SW ¼ of SW ¼ Section 9, Township 23 South and Range 31 East, 32.31190° North, -103.789500° West. No groundwater data within 0.5 miles was found and COMM Engineering will remediate impacted soils to the strictest limits within *Table 1 Closure Criteria for Soils Impacted by a Release.*

There is no surface water located on-site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is an unnamed stream located 3.91 miles southwest of the site and Dog Town Draw located 5.57 miles southwest of the site. Soil at the unnamed stream is primarily composed of Tonuco loamy fine sand while soil at Dog Town Draw is primarily composed of Likes loamy fine sand. There are no continuously flowing watercourses or significant watercourses, lakebeds, sinkholes, playa lakes, or other critical water or community features as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC within a half mile of the release. This release is located in a low risk karst area.

According to the soil survey provided by the United States Department of Agriculture National Resources Conservation Services, the soils in the area are primarily composed of Kermit-Berino fine sands, 0 to 3 percent slopes that are well drained to excessively drained.

The release is not within range of any of the following:

- 300 feet of any continuously flowing watercourse or any other significant watercourse
- 200 feet of any lakebed, sinkhole or a playa lake
- 300 feet from an occupied permanent residence, school, hospital, institution or church
- 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes

- 1000 feet of any freshwater well or spring
- Incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978
- 300 feet of a wetland
- Area overlying a subsurface mine
- Unstable area
- 100-year floodplain

Incident Description:

On December 7th, 2023, Harvard Petroleum reported a 4 bbls crude oil release at the Pure Gold C-17 Fed 3 site (Incident # nAPP2334138591). Harvard Petroleum representatives arrived at the spill site and determined that 4 bbls of crude oil were released due to a separator issue, and 4 bbls of crude oil were recovered.

Site Assessment Activities:

COMM Engineering was contracted to begin site assessment/characterization with initial soil testing in preparation for completing remediation and site reclamation.

A summary of the initial site assessment is as follows:

Found no surface or underground oil or chloride spillage within the spill area. There was very light oil staining to the northwest of the vessel area. There was no oil spillage or staining around the vessels.

- The light oil staining to the northwest measured 64 feet by 36 feet, equaling 2,304 sq ft.
- The soil in this area was tested and identified to contain TPH levels exceeding State of New Mexico (OCD) Oil Conservation Division thresholds.

Remediation Activities:

On April 16th, 2024, upon client authorization, COMM Engineering excavated petroleum hydrocarbon and chloride impacted soils. Excavated area was 64’ L X 36’ W X 3” D, totaling 2,304 sq ft and 21.33 cu yds of contaminated soil removed. Contaminated soil was transported to OWL Landfill Services, LLC (Northern Delaware Basin Landfill), Manifest #0307777.

On April 16th, 2024, COMM Engineering collected 8 soil samples with a soil probe and/or hollow-stem auger at 2 inches below ground surface. Soil samples were maintained on ice, in custody of COMM Engineering personnel while they were transported and then relinquished on April 17th, 2024, to Cardinal Laboratories located in Hobbs, New Mexico for certified analytical testing.

Upon receiving certified laboratory analysis from Cardinal Laboratories confirming soil contamination to be within range of NMOCD *Table I Closure Criteria for Soils Impacted by a Release* for depth of water 51-100 feet, the excavated area was backfilled with fresh caliche. The area was backfilled and contoured to maximize achieved erosion control and long-term stability. And the soil was constructed to the site’s pre-existing grade to prevent ponding of water and

erosion. The backfilled area was compacted and stabilized to minimize dust and erosion. Final remediation was completed in accordance with 19.15.29.12 NMAC. No material or equipment was left on location.

Because NMOCD did not accept the depth to groundwater data submitted in the previous closure request, on June 18th, 2024, COMM Engineering re-excavated 64 feet by 36 feet to a depth of 7.5 inches below ground surface, totaling 2,304 sq ft and 53.33 cu yds of contaminated soil was removed. Contaminated soil was transported to OWL Landfill Services, LLC (Northern Delaware Basin Landfill), Manifest #6262024.

On June 18th, 2024, COMM Engineering collected 12 five-point composite confirmation soil samples with a soil probe and/or hollow-stem auger at 7.5 inches below ground surface. Soil samples were maintained on ice, in custody of COMM Engineering personnel while they were transported and then relinquished on June 18th, 2024, to Cardinal Laboratories located in Hobbs, New Mexico for certified analytical testing.

On November 14th, 2024, COMM Engineering excavated 10 feet by 20 feet where the BG1 sample collected on 4/16/24 was collected from to a depth of 7.5 inches below ground surface, totaling 200 sq ft and 4.63 cu yds of contaminated soil was removed. Contaminated soil was transported to OWL Landfill Services, LLC (Northern Delaware Basin Landfill), Manifest #0389702.

Upon receiving certified laboratory analysis from Cardinal Laboratories on November 19th, 2024 confirming soil contamination to be within range of NMOCD *Table I Closure Criteria for Soils Impacted by a Release* for depth of water < 50 feet, the excavated area was backfilled with fresh caliche. The area was contoured to maximize achieved erosion control and long-term stability and the soil was constructed to the site's pre-existing grade to prevent ponding of water and erosion. The backfilled area was compacted and stabilized to minimize dust and erosion. Final remediation was completed in accordance with 19.15.29.12 NMAC on November 20th, 2024. No material or equipment was left on location.

Remediation Activities Summary:

- Excavated and removed 21.33 cu yds of contaminated soil.
- Soil samples were obtained and analytical was found within range of soil thresholds established within *19.15.29 NMAC Table I Closure Criteria for Soils Impacted by a Release* for depth to water at 51-100 ft bgs.
- Area was backfilled and leveled with fresh caliche.
- Re-excavated and removed 53.33 cu yds of contaminated soil.
- Soil samples were obtained and analytical was found within range of soil thresholds established within *19.15.29 NMAC Table I Closure Criteria for Soils Impacted by a Release* for depth to water at < 50 ft bgs.
- Area was backfilled and leveled with fresh caliche.

- All contaminates exceeding NMOCD requirements established in 19.15.29 NMAC, have been remediated utilizing the soil thresholds established within *19.15.29 NMAC Table I Closure Criteria for Soils Impacted by a Release* for depth to water at < 50 ft bgs.
- All areas were backfilled and contoured to maximize achieved erosion control and long-term stability. The soil was constructed to the site's pre-existing grade to prevent ponding of water and erosion.
- Backfilled areas were compacted and stabilized to minimize dust and erosion.
- Excavated and removed 4.63 cu yds of contaminated soil.
- Soil samples were obtained and analytical was found within range of soil thresholds established within *19.15.29 NMAC Table I Closure Criteria for Soils Impacted by a Release* for depth to water at < 50 ft bgs.
- Area was backfilled and leveled with fresh caliche.
- All contaminates exceeding NMOCD requirements established in 19.15.29 NMAC, have been remediated utilizing the soil thresholds established within *19.15.29 NMAC Table I Closure Criteria for Soils Impacted by a Release* for depth to water at < 50 ft bgs.
- All areas were backfilled and contoured to maximize achieved erosion control and long-term stability. The soil was constructed to the site's pre-existing grade to prevent ponding of water and erosion.
- Backfilled areas were compacted and stabilized to minimize dust and erosion.
- Final remediation was completed in accordance with 19.15.29.12 NMAC on November 16th, 2024.
- All contaminated soil excavated was not stored at the facility and was transported to OWL Landfill Services, LLC, and Lazy Ace Landfarm, LLLP, licensed soil disposals for the State of New Mexico.
- No topsoil was left on site; all material delivered to the spill area was properly used for the project.
- No equipment was left on site; all trucks, backhoes, and loaders were picked up and removed.

Table 1 Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Method	Limit
< 50 feet	Total Chlorides	EPA 300.0 or SM4500 CI B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Soil Laboratory Data Table

Table 2 Certified Analytical Results										
Sample Id	Date	Depth	TPH C6-C36 (mg/kg)	GRO C6-C10 (mg/kg)	DRO C10-C28 (mg/kg)	GRO + DRO C6-C28 (mg/kg)	EXT DRO C28-C36 (mg/kg)	Chloride (mg/kg)	BTEX (mg/kg)	Benzene (mg/kg)
PG-VA-1	4-16-2024	3”	720.8	12.8	400	412.8	308	1340	<0.300	<0.050
PG-VA-2	4-16-2024	3”	943.4	15.4	740	755.4	188	1800	<0.300	<0.050
PG-BG-1	4-16-2024	3”	162.7	<10.0	131	131	31.7	64	<0.300	<0.050
PG-BG-2	4-16-2024	3”	<10.0	<10.0	12.1	12.1	<10.0	32	<0.300	<0.050
PG-BG-3	4-16-2024	3”	<10.0	<10.0	<10.0	<10.0	<10.0	16	<0.300	<0.050
PG-TP-1	4-16-2024	3”	759.4	23.4	470	493.4	266	352	<0.300	<0.050
PG-TP-2	4-16-2024	3”	424.3	<10.0	342	342	82.3	64	<0.300	<0.050
PG-TP-3	4-16-2024	3”	85.7	<10.0	85.7	85.7	<10.0	48	<0.300	<0.050
PG-TP-4	4-16-2024	3”	630	<10.0	428	428	202	272	<0.300	<0.050
PG-TP-5	4-16-2024	3”	940.7	63.7	550	613.7	327	432	<0.300	<0.050
PG-TP-6	4-16-2024	3”	304.3	<10.0	251	251	53.3	64	<0.300	<0.050

Soil Laboratory Data Table

Table 3 Certified Analytical Results										
Sample Id	Date	Depth	TPH C6-C36 (mg/kg)	GRO C6-C10 (mg/kg)	DRO C10-C28 (mg/kg)	GRO + DRO C6-C28 (mg/kg)	EXT DRO C28-C36 (mg/kg)	Chloride (mg/kg)	BTEX (mg/kg)	Benzene (mg/kg)
PG-VA-1	6-18-2024	7.5”	12.6	<10.0	12.6	12.6	<10.0	32	<0.300	<0.050
PG-VA-2	6-18-2024	7.5”	<10.0	<10.0	<10.0	<10.0	<10.0	64	<0.300	<0.050
PG-TP-3	6-18-2024	7.5”	<10.0	<10.0	<10.0	<10.0	<10.0	16	<0.300	<0.050
PG-TP-4	6-18-2024	7.5”	12.1	<10.0	12.1	12.1	<10.0	64	<0.300	<0.050
PG-TP-5	6-18-2024	7.5”	<10.0	<10.0	<10.0	<10.0	<10.0	272	<0.300	<0.050
PG-TP-6	6-18-2024	7.5”	<10.0	<10.0	<10.0	<10.0	<10.0	528	<0.300	<0.050
PG-TP-7	6-18-2024	7.5”	<10.0	<10.0	<10.0	<10.0	<10.0	32	<0.300	<0.050
PG-TP-8	6-18-2024	7.5”	<10.0	<10.0	<10.0	<10.0	<10.0	48	<0.300	<0.050
PG-TP-9	6-18-2024	7.5”	<10.0	<10.0	<10.0	<10.0	<10.0	400	<0.300	<0.050
PG-TP-10	6-18-2024	7.5”	<10.0	<10.0	<10.0	<10.0	<10.0	160	<0.300	<0.050
PG-TP-11	6-18-2024	7.5”	<10.0	<10.0	<10.0	<10.0	<10.0	384	<0.300	<0.050
PG-TP-12	6-18-2024	7.5”	<10.0	<10.0	<10.0	<10.0	<10.0	496	<0.300	<0.050
PG-BG-1	6-18-2024	7.5”	17.7	<10.0	17.7	17.7	<10.0	48	<0.300	<0.050
PG-BG-2	6-18-2024	7.5”	<10.0	<10.0	<10.0	<10.0	<10.0	32	<0.300	<0.050

Soil Laboratory Data Table

Table 4 Certified Analytical Results										
Sample Id	Date	Depth	TPH C6-C36 (mg/kg)	GRO C6-C10 (mg/kg)	DRO C10-C28 (mg/kg)	GRO + DRO C6-C28 (mg/kg)	EXT DRO C28-C36 (mg/kg)	Chloride (mg/kg)	BTEX (mg/kg)	Benzene (mg/kg)
F1 7.5”	11-16-2024	7.5”	<10.0	<10.0	<10.0	<10.0	<10.0	132	<0.300	<0.050
SW1	11-16-2024	7.5”	<10.0	<10.0	<10.0	<10.0	<10.0	216	<0.300	<0.050
D1 3”	11-16-2024	3”	<10.0	<10.0	<10.0	<10.0	<10.0	288	<0.300	<0.050
D1 6”	11-16-2024	6”	<10.0	<10.0	<10.0	<10.0	<10.0	179	<0.300	<0.050
D2 3”	11-16-2024	3”	<10.0	<10.0	<10.0	<10.0	<10.0	121	<0.300	<0.050
D2 6”	11-16-2024	6”	<10.0	<10.0	<10.0	<10.0	<10.0	164	<0.300	<0.050
D3 3”	11-16-2024	3”	<10.0	<10.0	<10.0	<10.0	<10.0	318	<0.300	<0.050
D3 6”	11-16-2024	6”	<10.0	<10.0	<10.0	<10.0	<10.0	247	<0.300	<0.050

CONFIRMATION OF REMEDIATION COMPLETION – nAPP2334138591

This site has been remediated using the standards and requirements established within the guidelines of the New Mexico (OCD) Oil Conservation Division as pursuant to the Conditional Reinstatement Lease Agreement.

All violations listed within the lease agreement have been remediated utilizing the soil thresholds established within *Table 1 of 19.15.29 NMAC.*

COMM Engineering is a licensed and registered environmental company working in conjunction with Harvard Petroleum Company, LLC, whom is the agreed lease owner of oil and gas production sites listed within the OCD as the agreed company of record.

This remediation record will be kept at the office for a minimum of five (5) years.

Remediation completed on November 20th, 2024.
Performed by:

Signature
Kevin L. Robinson, CESCO, ESP-E, FLIR1, NORM CERTIFIED
Field Inspector

Limitations:

This report has been prepared for the sole benefit of Harvard Petroleum Company, LLC. This document may not be used by any other person or entity, with exception of the New Mexico Oil Conservation Division. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report, are the sole responsibility of the user.

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

Closure Request:

COMM Engineering, Inc., requests that incident nAPP2334138591 be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. Harvard Petroleum Company, LLC, certifies that all information in this report and the attachments is correct, and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NMOCD requirements to obtain closure on the open release at Pure Gold C-17 Fed #003.

If there are any questions regarding this report, please contact Ryan Gleason at rlgleason@commengineering.com

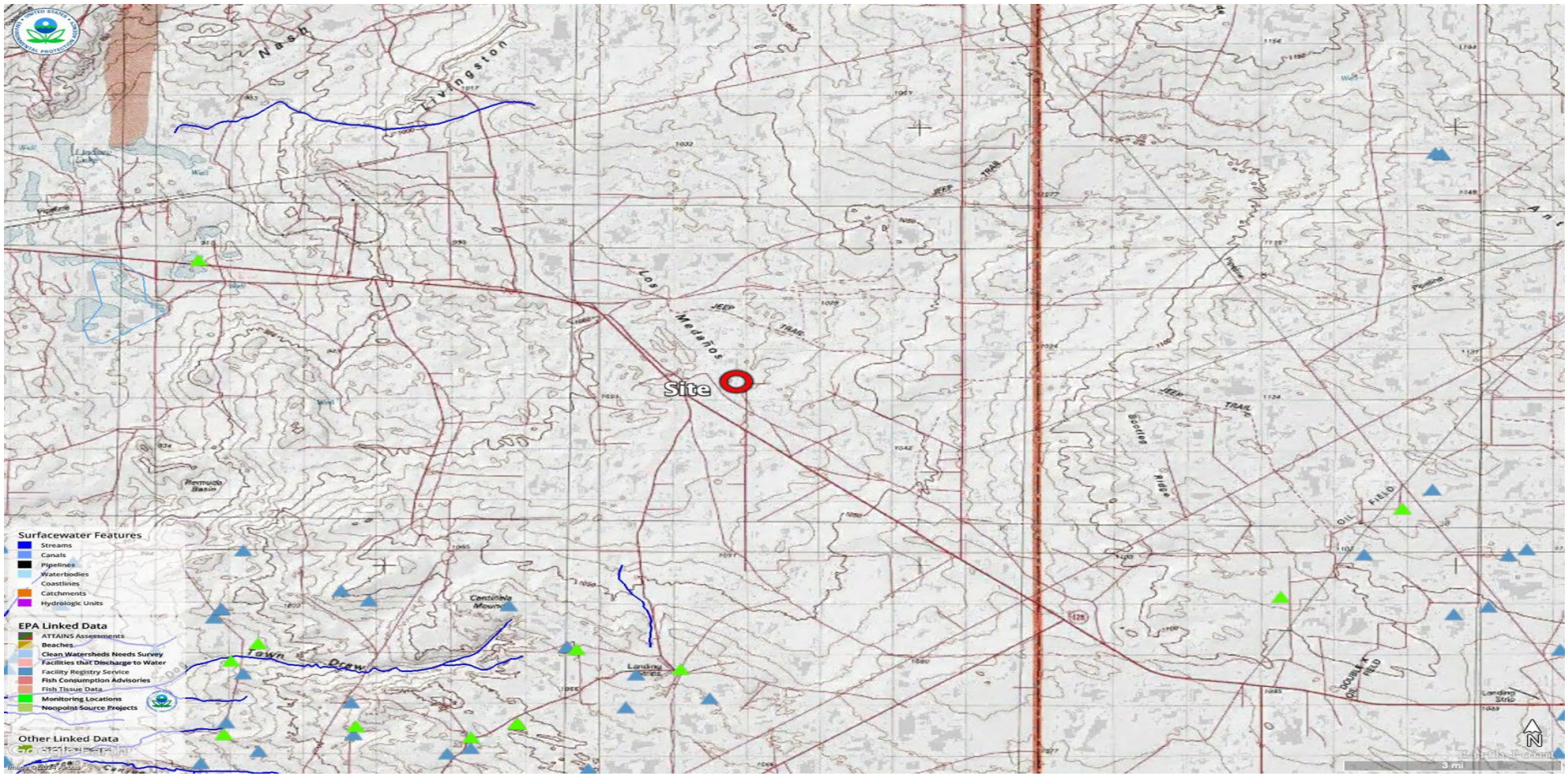
Sincerely,

Ryan Gleason
Environmental Specialist
COMM Engineering
rlgleason@commengineering.com

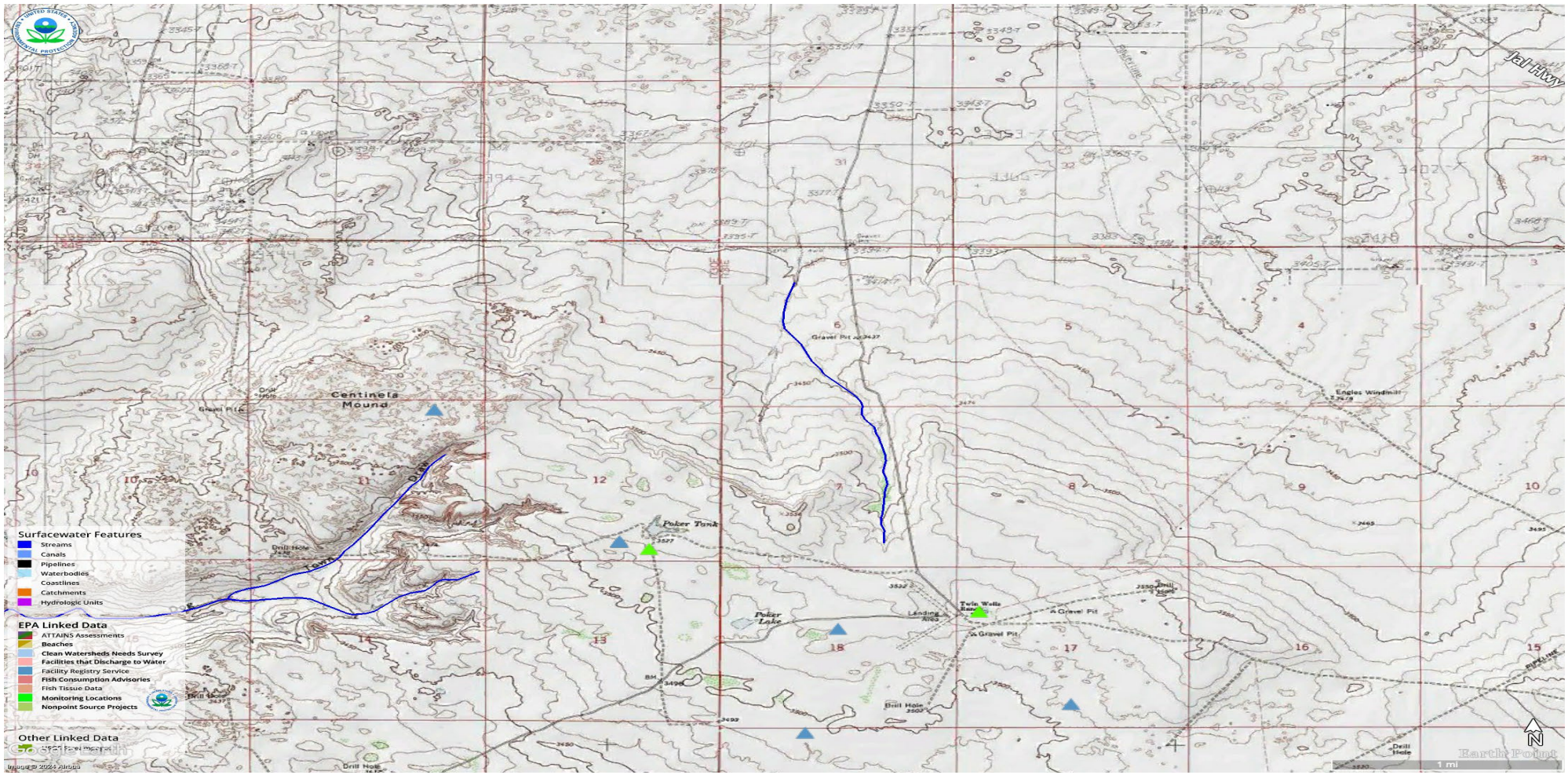
Figures:

Attachments:

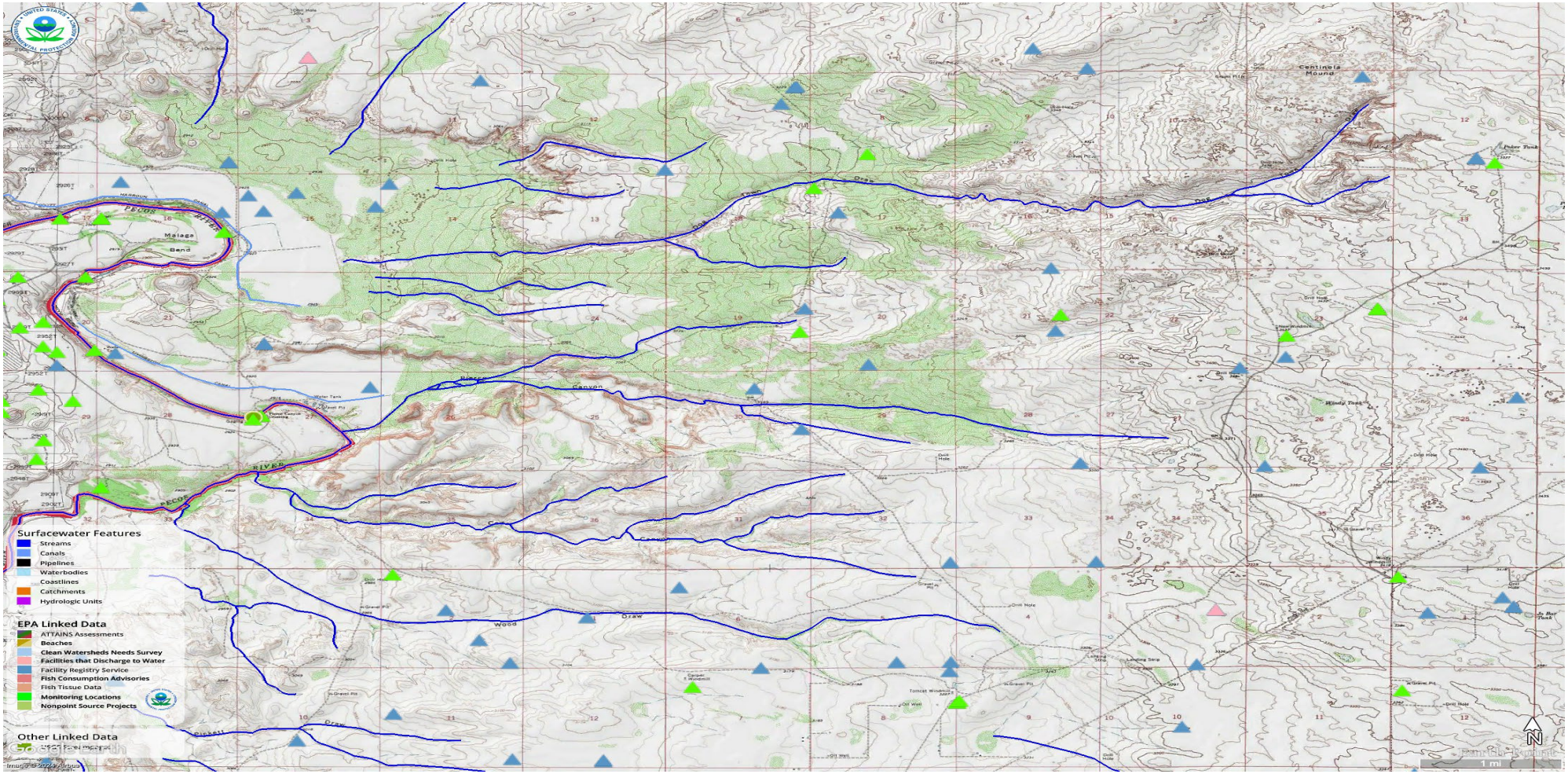
FIGURES



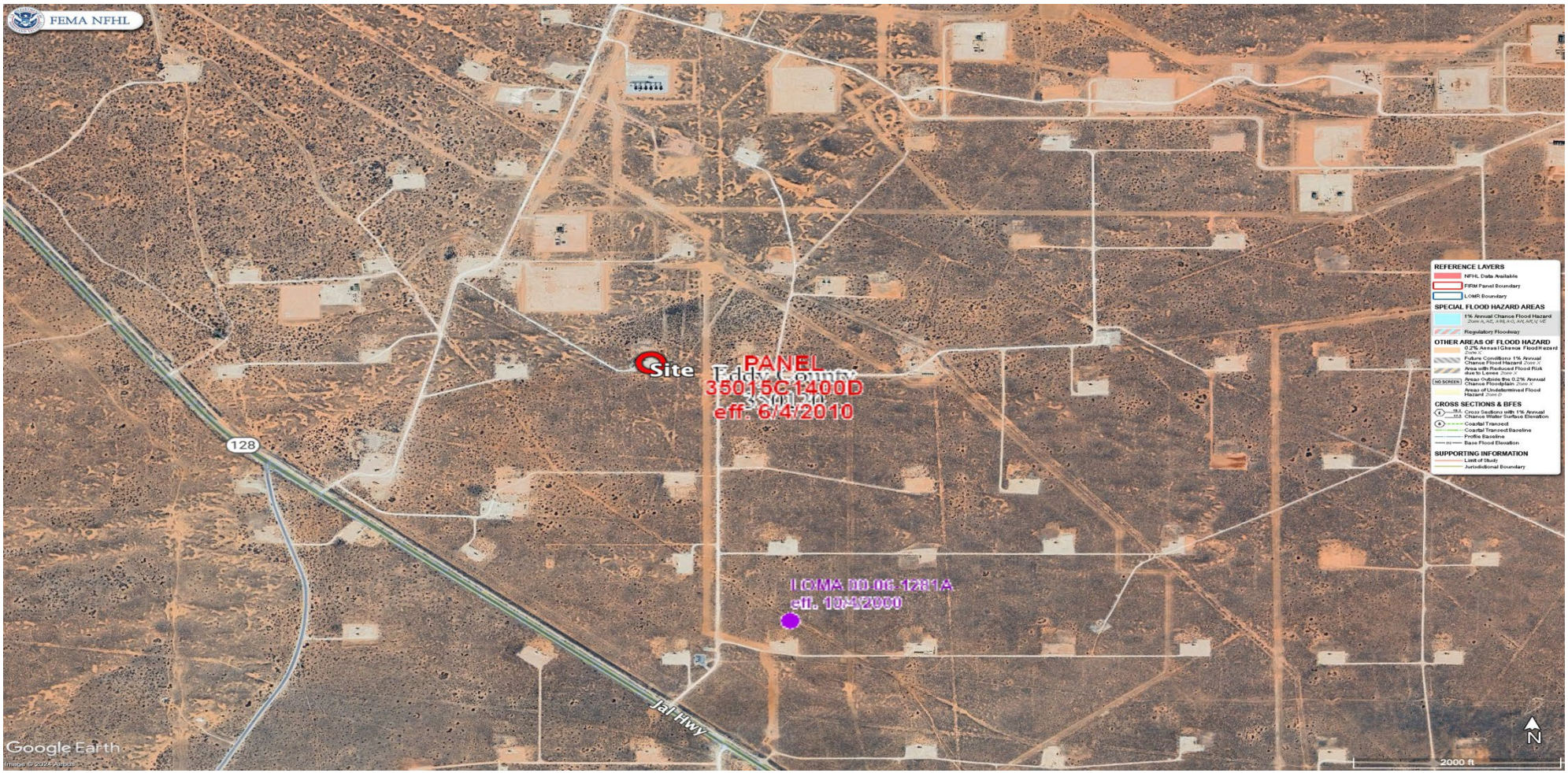
COMM ENGINEERING	**Significant Watercourse** Harvard Petroleum Company, LLC Pure Gold C-17 Fed 3 32.30236° North, -103.793167° West Unit L, Sec. 17, T23S, R31E Eddy County, New Mexico	**FIGURE** 1



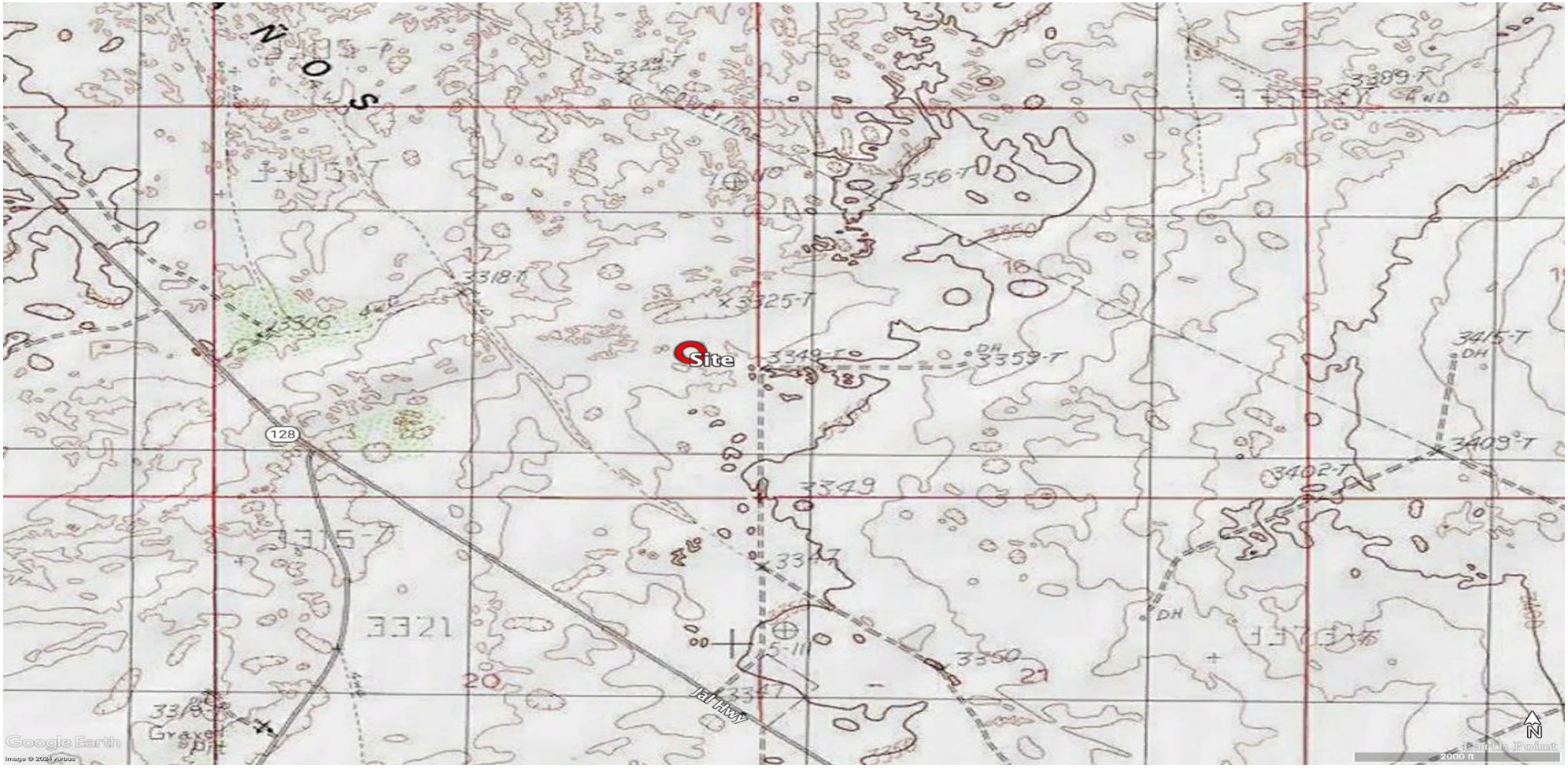
COMM ENGINEERING	**Significant Watercourse** Harvard Petroleum Company, LLC Pure Gold C-17 Fed 3 32.30236° North, -103.793167° West Unit L, Sec. 17, T23S, R31E Eddy County, New Mexico	**FIGURE** 2



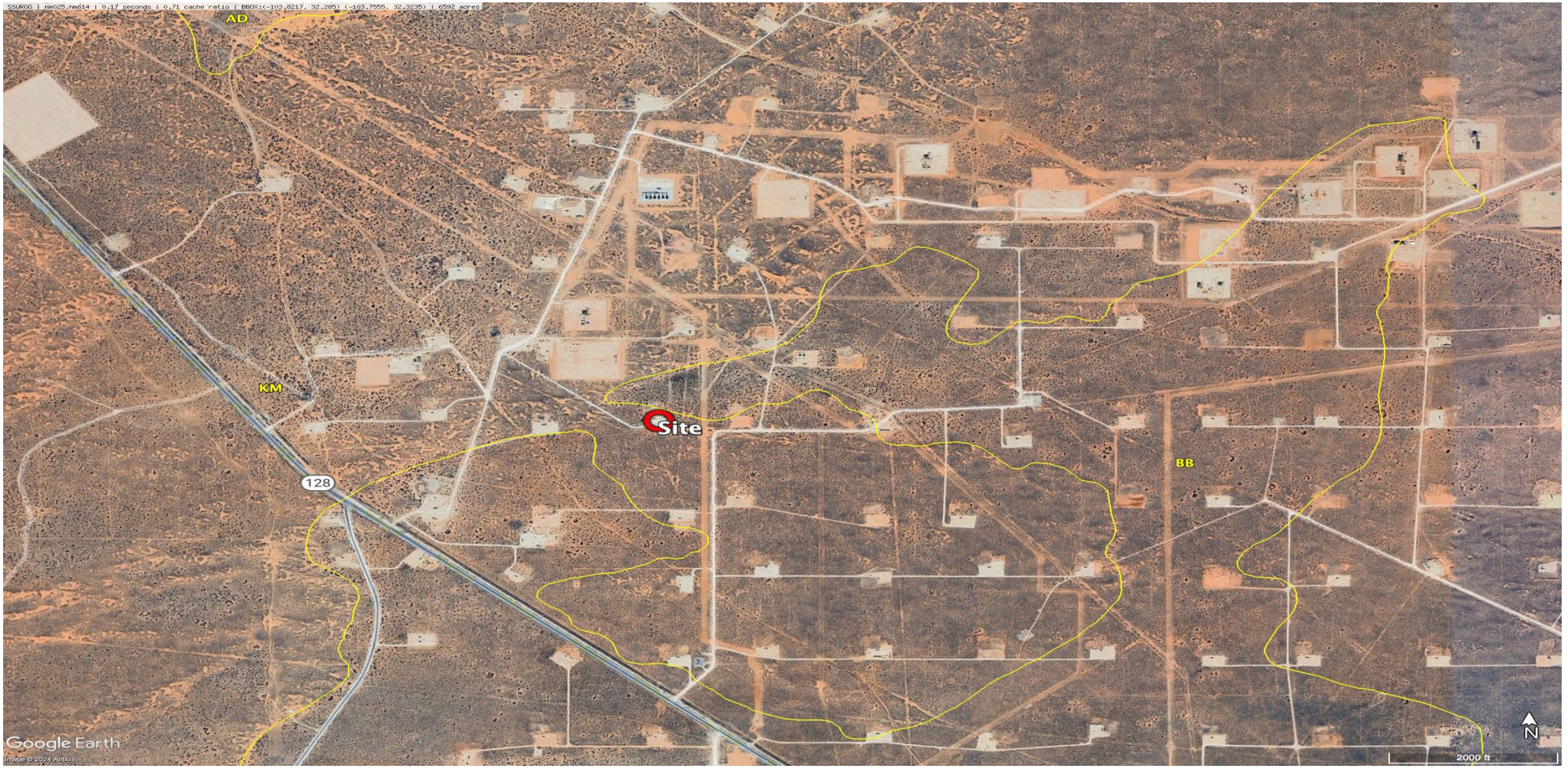
COMM ENGINEERING	**Significant Watercourse** Harvard Petroleum Company, LLC Pure Gold C-17 Fed 3 32.30236° North, -103.793167° West Unit L, Sec. 17, T23S, R31E Eddy County, New Mexico	**FIGURE** 3



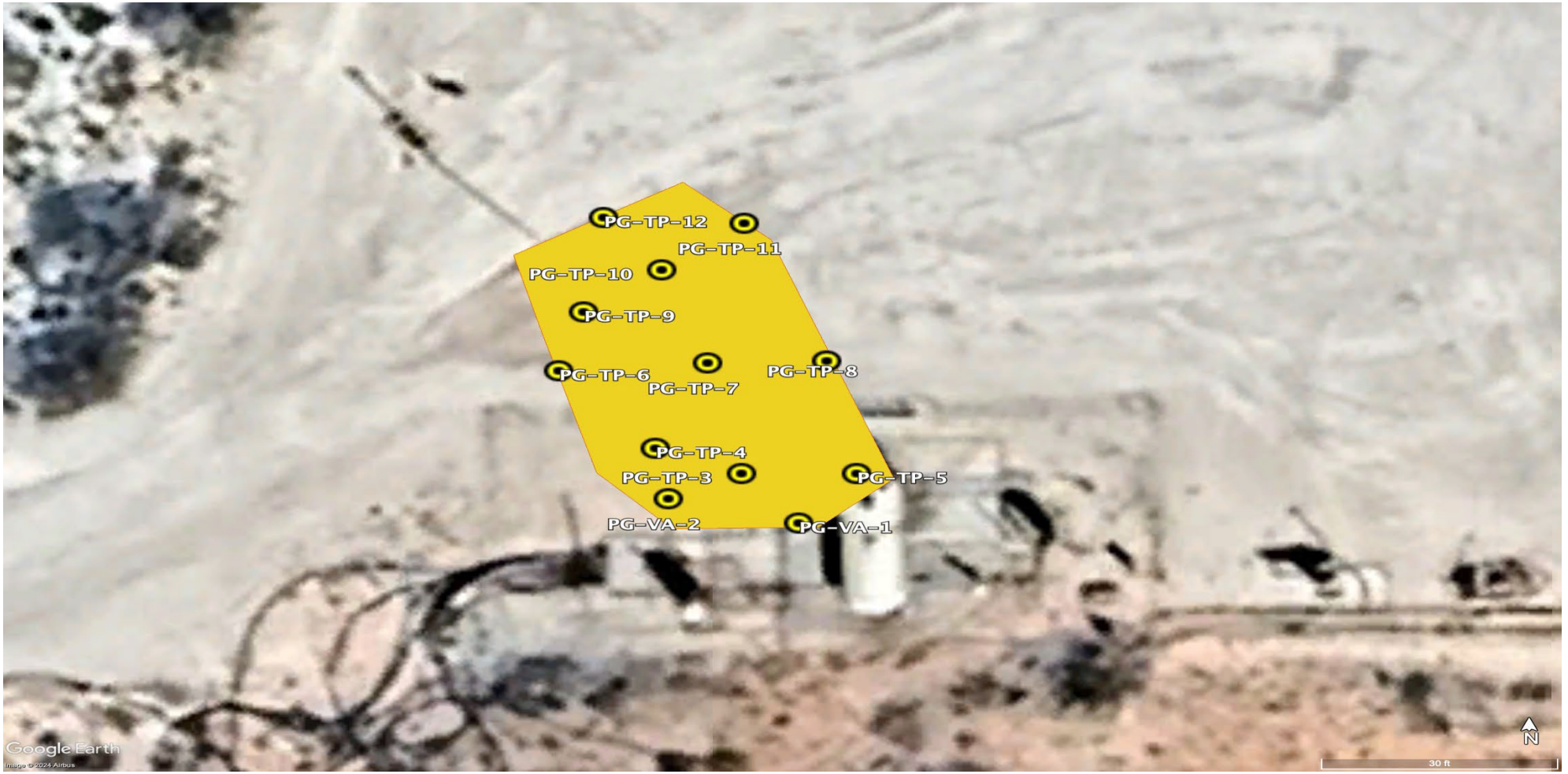
COMM ENGINEERING	**FEMA-NFHL** Harvard Petroleum Company, LLC Pure Gold C-17 Fed 3 32.30236° North, -103.793167° West Unit L, Sec. 17, T23S, R31E Eddy County, New Mexico	**FIGURE** **4**



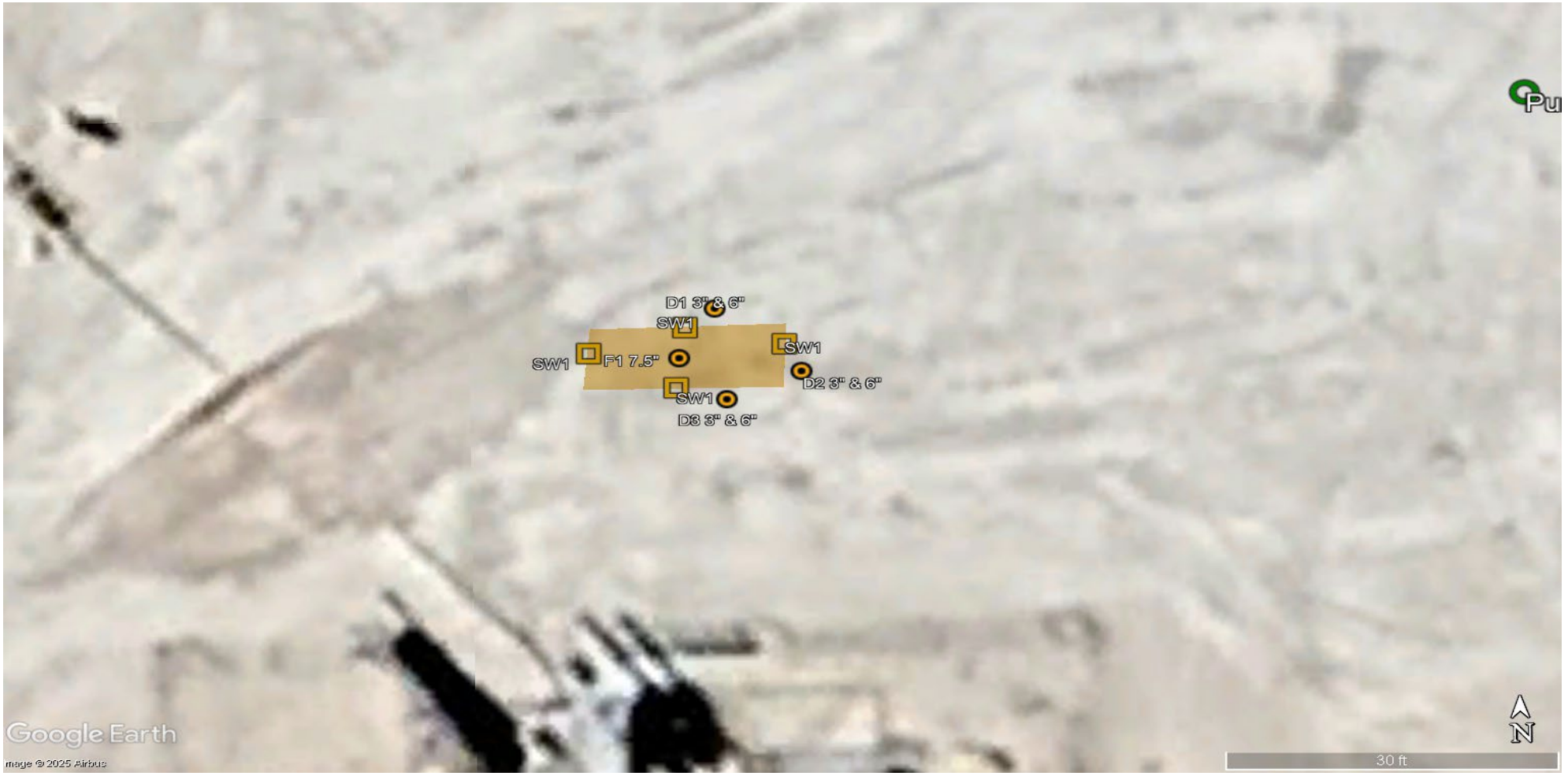
COMM ENGINEERING	**USGS 7.5-minute quadrangle Topo** Harvard Petroleum Company, LLC Pure Gold C-17 Fed 3 32.30236° North, -103.793167° West Unit L, Sec. 17, T23S, R31E Eddy County, New Mexico	**FIGURE** 5



COMM ENGINEERING	**SSURGO-SoilWeb** Harvard Petroleum Company, LLC Pure Gold C-17 Fed 3 32.30236° North, -103.793167° West Unit L, Sec. 17, T23S, R31E Eddy County, New Mexico	**FIGURE** 6



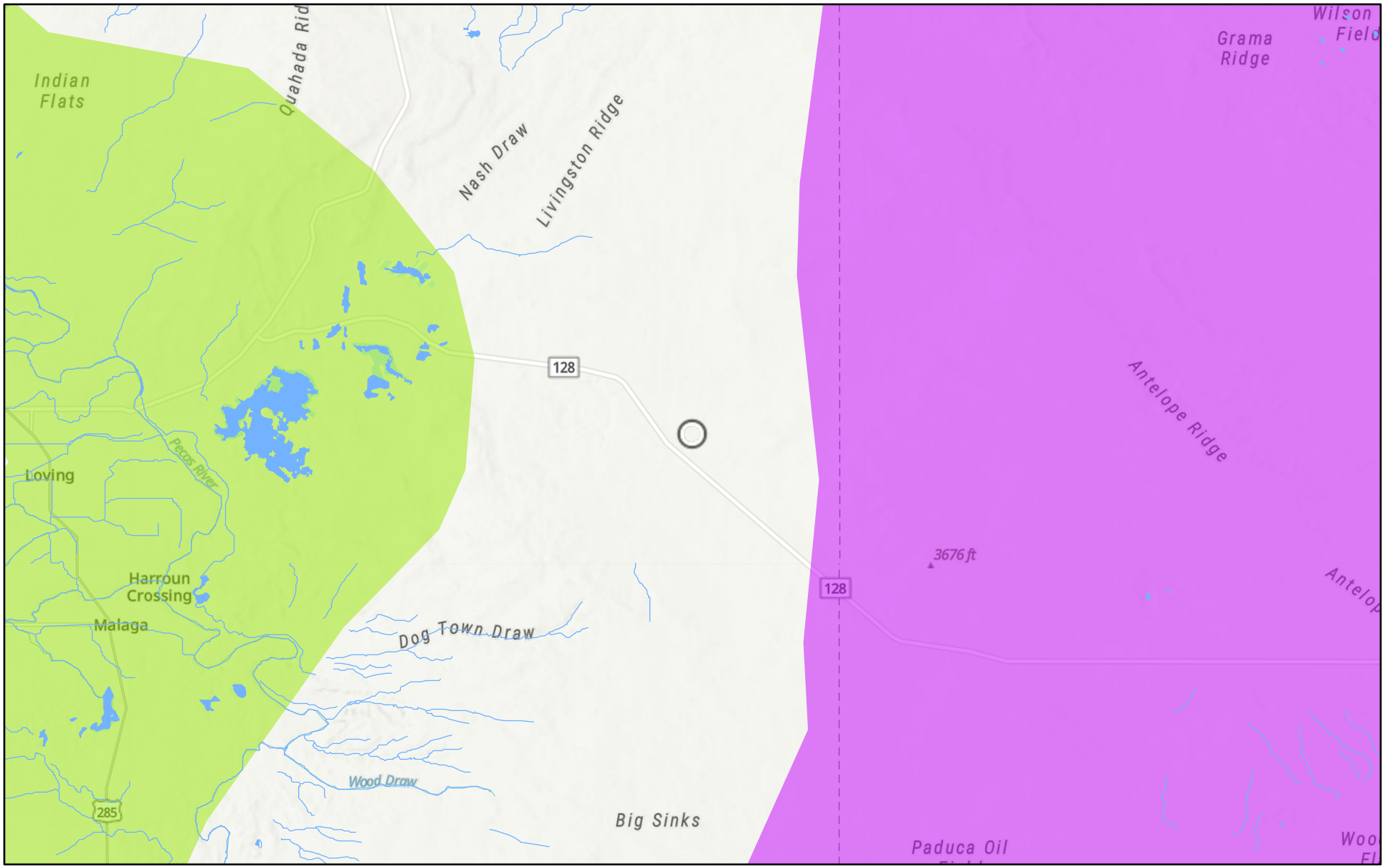
COMM ENGINEERING	**Confirmation Sample Points** Harvard Petroleum Company, LLC Pure Gold C-17 Fed 3 32.30236° North, -103.793167° West Unit L, Sec. 17, T23S, R31E Eddy County, New Mexico	**FIGURE** 7



COMM ENGINEERING	**Confirmation Sample Points** Harvard Petroleum Company, LLC Pure Gold C-17 Fed 3 32.30236° North, -103.793167° West Unit L, Sec. 17, T23S, R31E Eddy County, New Mexico	**FIGURE** 8

ATTACHMENTS

Pure Gold C-17 Fed 3



7/31/2024

Waterbodies
- Lakes, Ponds, Reservoirs, and Estuaries
- Rivers and Streams

Flowlines
- ≤100
- Non-Network

USA Karst (Features)
- Erosional
- Gypsum

World Hillshade

1:288,895

0 2 4 8 mi

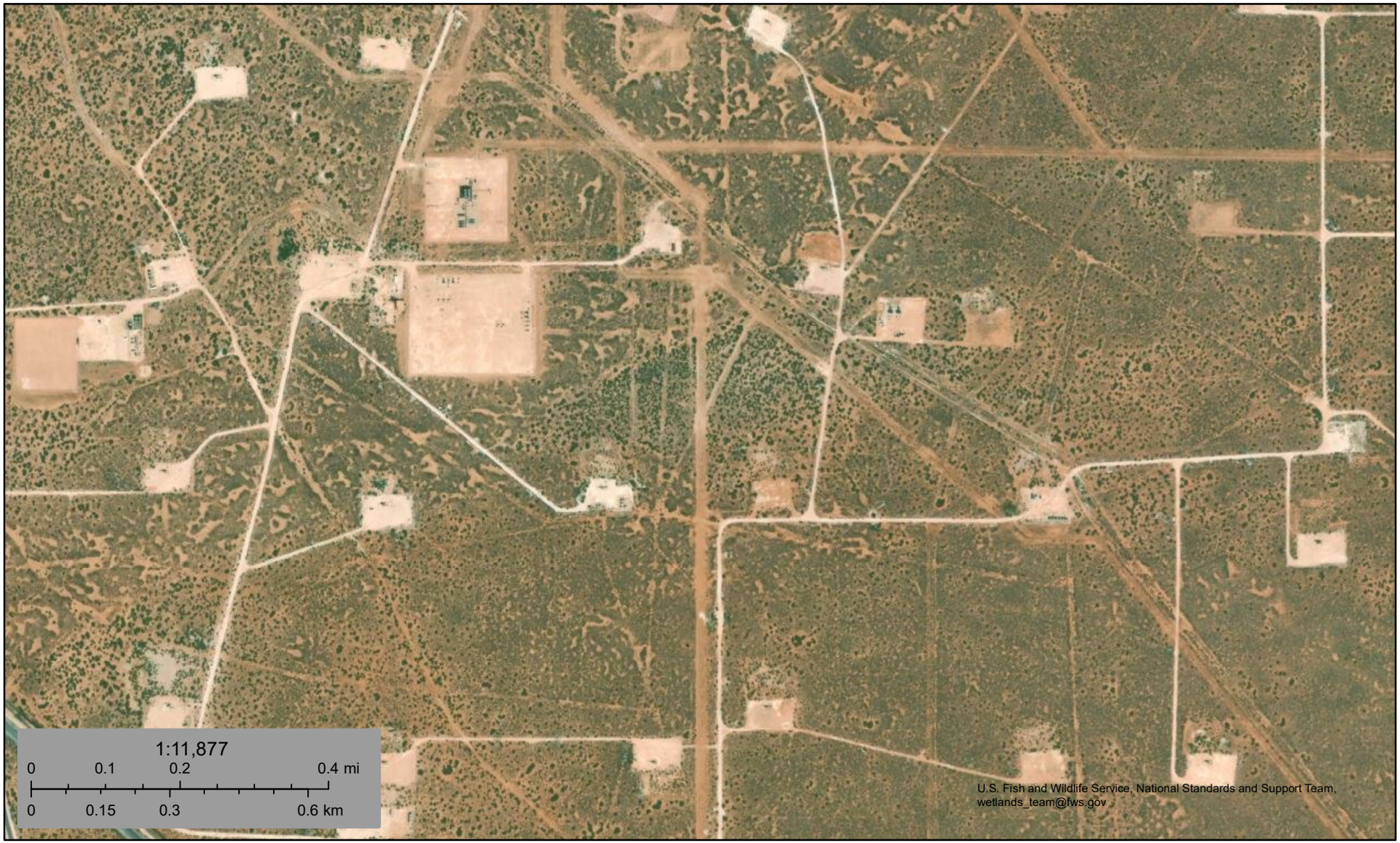
0 3.25 6.5 13 km

Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, METI/ NASA, USGS, EPA, NPS, USDA, USFWS, Esri, NASA, NGA, USGS

U.S. Fish and Wildlife Service

National Wetlands Inventory

Pure Gold C-17 Fed #003



January 30, 2025

Wetlands

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

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

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

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for Eddy Area, New Mexico

July 30, 2024

Preface

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

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

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

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

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

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

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

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Soil Map

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

Custom Soil Resource Report
Soil Map

Map Scale: 1:707 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 10 20 40 60

Feet
0 30 60 120 180

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

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 19, Sep 7, 2023

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

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

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KM	Kermit-Berino fine sands, 0 to 3 percent slopes	2.2	100.0%
Totals for Area of Interest		**2.2**	**100.0%**

Map Unit Descriptions

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

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

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

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

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

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

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

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

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

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

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

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

Eddy Area, New Mexico

KM—Kermit-Berino fine sands, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w4q
Elevation: 3,100 to 4,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 60 to 64 degrees F
Frost-free period: 190 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Kermit and similar soils: 50 percent
Berino and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kermit

Setting

Landform: Plains, alluvial fans
Landform position (three-dimensional): Talf, rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 7 inches: fine sand
H2 - 7 to 60 inches: fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R070BD005NM - Deep Sand
Hydric soil rating: No

Description of Berino

Setting

Landform: Plains, fan piedmonts
Landform position (three-dimensional): Riser

Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 17 inches: fine sand
H2 - 17 to 50 inches: fine sandy loam
H3 - 50 to 58 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Active dune land

Percent of map unit: 15 percent
Hydric soil rating: No

Photographic Log
Harvard Petroleum Company, LLC
Pure Gold C-17 Fed #003
Incident: nAPP2334138591

Photograph: 1	Date: 04/16/2024
Description: Showing excavated area and some of the sample points.	

Photograph: 2	Date: 04/24/2024
Description: Showing impacted after backfill.	

Photographic Log
Harvard Petroleum Company, LLC
Pure Gold C-17 Fed #003
Incident: nAPP2334138591

Photograph: 3	Date: 06/18/2024
Description: Showing impacted area before excavation. View: East	

Photograph: 4	Date: 06/18/2024
Description: Showing impacted area after excavation. View: Southwest	

Photographic Log
Harvard Petroleum Company, LLC
Pure Gold C-17 Fed #003
Incident: nAPP2334138591

Photograph: 5	Date: 06/18/2024
Description: Showing impacted area after excavation. View: Southwest	

Photograph: 6	Date: 06/18/2024
Description: Showing impacted area after excavation. View: Southwest	

Photographic Log
Harvard Petroleum Company, LLC
Pure Gold C-17 Fed #003
Incident: nAPP2334138591

Photograph: 7	Date: 06/18/2024
Description: Showing impacted area after excavation. View: West	

Photograph: 8	Date: 06/18/2024
Description: Showing impacted area after excavation. View: West	

Photographic Log
Harvard Petroleum Company, LLC
Pure Gold C-17 Fed #003
Incident: nAPP2334138591

Photograph: 9	Date: 06/29/2024
Description: Showing impacted area after backfilling. View: Southwest	

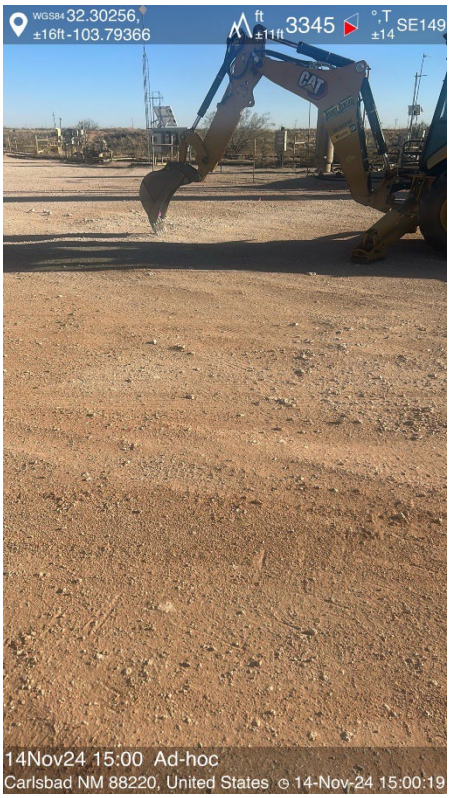
Photograph: 10	Date: 06/29/2024
Description: Showing impacted area after backfilling. View: Southwest	

Photographic Log
Harvard Petroleum Company, LLC
Pure Gold C-17 Fed #003
Incident: nAPP2334138591

Photograph: 11	Date: 06/29/2024
Description: Showing impacted area after backfilling. View: Southwest	

Photograph: 12	Date: 06/29/2024
Description: Showing impacted area after backfilling. View: West	

Photographic Log
Harvard Petroleum Company, LLC
Pure Gold C-17 Fed #003
Incident: nAPP2334138591



Photograph: 13	Date: 11/14/2024
Showing impacted area before excavation.	

Photograph: 14	Date: 11/14/2024
Showing impacted area before excavation.	

Photographic Log
Harvard Petroleum Company, LLC
Pure Gold C-17 Fed #003
Incident: nAPP2334138591

Photograph: 15	Date: 11/14/2024
Showing impacted area after excavation.	

Photograph: 16	Date: 11/14/2024
Showing impacted area after excavation.	

Photographic Log
Harvard Petroleum Company, LLC
Pure Gold C-17 Fed #003
Incident: nAPP2334138591

Photograph: 17	Date: 11/16/2024
Showing impacted area after excavation.	

Photograph: 18	Date: 11/16/2024
Showing impacted area after excavation.	

Photographic Log
Harvard Petroleum Company, LLC
Pure Gold C-17 Fed #003
Incident: nAPP2334138591

Photograph: 19	Date: 11/16/2024
Showing impacted area after excavation.	

Photograph: 20	Date: 11/16/2024
Showing impacted area after excavation.	

CARDINAL Laboratories

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

April 23, 2024

KEVIN ROBINSON

COMM ENGINEERING

1319 W. PINHOOK, SUITE 400

LAFAYETTE, LA 70503

RE: PURE GOLD C17 FED #3

Enclosed are the results of analyses for samples received by the laboratory on 04/17/24 11:40.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	23064	Sample Received By:	Dionica Hinojos
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: PG - VA - 1 (H242032-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/18/2024	ND	2.06	103	2.00	0.499	
Toluene*	<0.050	0.050	04/18/2024	ND	2.01	101	2.00	0.608	
Ethylbenzene*	<0.050	0.050	04/18/2024	ND	2.05	102	2.00	0.667	
Total Xylenes*	<0.150	0.150	04/18/2024	ND	6.14	102	6.00	0.414	
Total BTEX	<0.300	0.300	04/18/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1340**	16.0	04/18/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**12.8**	10.0	04/17/2024	ND	196	98.0	200	1.90	
DRO >C10-C28*	**400**	10.0	04/17/2024	ND	191	95.7	200	2.75	
EXT DRO >C28-C36	**308**	10.0	04/17/2024	ND					

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

Surrogate: 1-Chlorooctadecane *105 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	23064	Sample Received By:	Dionica Hinojos
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: PG - VA - 2 (H242032-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/18/2024	ND	2.06	103	2.00	0.499	
Toluene*	<0.050	0.050	04/18/2024	ND	2.01	101	2.00	0.608	
Ethylbenzene*	<0.050	0.050	04/18/2024	ND	2.05	102	2.00	0.667	
Total Xylenes*	<0.150	0.150	04/18/2024	ND	6.14	102	6.00	0.414	
Total BTEX	<0.300	0.300	04/18/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1800**	16.0	04/18/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**15.4**	10.0	04/17/2024	ND	196	98.0	200	1.90	
DRO >C10-C28*	**740**	10.0	04/17/2024	ND	191	95.7	200	2.75	
EXT DRO >C28-C36	**188**	10.0	04/17/2024	ND					

Surrogate: 1-Chlorooctane *81.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *105 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	23064	Sample Received By:	Dionica Hinojos
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: PG - BG - 1 (H242032-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/18/2024	ND	2.06	103	2.00	0.499	
Toluene*	<0.050	0.050	04/18/2024	ND	2.01	101	2.00	0.608	
Ethylbenzene*	<0.050	0.050	04/18/2024	ND	2.05	102	2.00	0.667	
Total Xylenes*	<0.150	0.150	04/18/2024	ND	6.14	102	6.00	0.414	
Total BTEX	<0.300	0.300	04/18/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	04/18/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/17/2024	ND	196	98.0	200	1.90	
DRO >C10-C28*	**131**	10.0	04/17/2024	ND	191	95.7	200	2.75	
EXT DRO >C28-C36	**31.7**	10.0	04/17/2024	ND					

Surrogate: 1-Chlorooctane *73.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *92.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

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Received:	04/17/2024	Sampling Date:	04/16/2024
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Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	23064	Sample Received By:	Dionica Hinojos
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: PG - BG - 2 (H242032-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/18/2024	ND	2.06	103	2.00	0.499	
Toluene*	<0.050	0.050	04/18/2024	ND	2.01	101	2.00	0.608	
Ethylbenzene*	<0.050	0.050	04/18/2024	ND	2.05	102	2.00	0.667	
Total Xylenes*	<0.150	0.150	04/18/2024	ND	6.14	102	6.00	0.414	
Total BTEX	<0.300	0.300	04/18/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	04/18/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/18/2024	ND	196	98.0	200	1.90	
DRO >C10-C28*	<10.0	10.0	04/18/2024	ND	191	95.7	200	2.75	
EXT DRO >C28-C36	<10.0	10.0	04/18/2024	ND					

Surrogate: 1-Chlorooctane *77.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *93.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	23064	Sample Received By:	Dionica Hinojos
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: PG - BG - 3 (H242032-05)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/18/2024	ND	2.06	103	2.00	0.499	
Toluene*	<0.050	0.050	04/18/2024	ND	2.01	101	2.00	0.608	
Ethylbenzene*	<0.050	0.050	04/18/2024	ND	2.05	102	2.00	0.667	
Total Xylenes*	<0.150	0.150	04/18/2024	ND	6.14	102	6.00	0.414	
Total BTEX	<0.300	0.300	04/18/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	04/18/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/18/2024	ND	196	98.0	200	1.90	
DRO >C10-C28*	<10.0	10.0	04/18/2024	ND	191	95.7	200	2.75	
EXT DRO >C28-C36	<10.0	10.0	04/18/2024	ND					

Surrogate: 1-Chlorooctane *74.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *90.0 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	23064	Sample Received By:	Dionica Hinojos
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: PG - TP - 1 (H242032-06)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/18/2024	ND	2.06	103	2.00	0.499	
Toluene*	<0.050	0.050	04/18/2024	ND	2.01	101	2.00	0.608	
Ethylbenzene*	<0.050	0.050	04/18/2024	ND	2.05	102	2.00	0.667	
Total Xylenes*	<0.150	0.150	04/18/2024	ND	6.14	102	6.00	0.414	
Total BTEX	<0.300	0.300	04/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**352**	16.0	04/18/2024	ND	400	100	400	14.8	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**23.4**	10.0	04/18/2024	ND	196	98.0	200	1.90	
DRO >C10-C28*	**470**	10.0	04/18/2024	ND	191	95.7	200	2.75	
EXT DRO >C28-C36	**266**	10.0	04/18/2024	ND					

Surrogate: 1-Chlorooctane *80.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *113 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	23064	Sample Received By:	Dionica Hinojos
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: PG - TP - 2 (H242032-07)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/18/2024	ND	2.06	103	2.00	0.499	
Toluene*	<0.050	0.050	04/18/2024	ND	2.01	101	2.00	0.608	
Ethylbenzene*	<0.050	0.050	04/18/2024	ND	2.05	102	2.00	0.667	
Total Xylenes*	<0.150	0.150	04/18/2024	ND	6.14	102	6.00	0.414	
Total BTEX	<0.300	0.300	04/18/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	04/18/2024	ND	400	100	400	14.8	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/18/2024	ND	196	98.0	200	1.90	
DRO >C10-C28*	**342**	10.0	04/18/2024	ND	191	95.7	200	2.75	
EXT DRO >C28-C36	**82.3**	10.0	04/18/2024	ND					

Surrogate: 1-Chlorooctane *70.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *89.3 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	23064	Sample Received By:	Dionica Hinojos
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: PG - TP - 3 (H242032-08)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/18/2024	ND	2.06	103	2.00	0.499	
Toluene*	<0.050	0.050	04/18/2024	ND	2.01	101	2.00	0.608	
Ethylbenzene*	<0.050	0.050	04/18/2024	ND	2.05	102	2.00	0.667	
Total Xylenes*	<0.150	0.150	04/18/2024	ND	6.14	102	6.00	0.414	
Total BTEX	<0.300	0.300	04/18/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	04/18/2024	ND	400	100	400	14.8	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/18/2024	ND	196	98.0	200	1.90	
DRO >C10-C28*	**85.7**	10.0	04/18/2024	ND	191	95.7	200	2.75	
EXT DRO >C28-C36	<10.0	10.0	04/18/2024	ND					

Surrogate: 1-Chlorooctane *67.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *82.7 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	23064	Sample Received By:	Dionica Hinojos
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: PG - TP - 4 (H242032-09)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/18/2024	ND	2.06	103	2.00	0.499	
Toluene*	<0.050	0.050	04/18/2024	ND	2.01	101	2.00	0.608	
Ethylbenzene*	<0.050	0.050	04/18/2024	ND	2.05	102	2.00	0.667	
Total Xylenes*	<0.150	0.150	04/18/2024	ND	6.14	102	6.00	0.414	
Total BTEX	<0.300	0.300	04/18/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**272**	16.0	04/18/2024	ND	400	100	400	14.8	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/18/2024	ND	196	98.0	200	1.90	
DRO >C10-C28*	**428**	10.0	04/18/2024	ND	191	95.7	200	2.75	
EXT DRO >C28-C36	**202**	10.0	04/18/2024	ND					

Surrogate: 1-Chlorooctane *67.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *84.3 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	23064	Sample Received By:	Dionica Hinojos
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: PG - TP - 5 (H242032-10)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/18/2024	ND	2.06	103	2.00	0.499	
Toluene*	<0.050	0.050	04/18/2024	ND	2.01	101	2.00	0.608	
Ethylbenzene*	<0.050	0.050	04/18/2024	ND	2.05	102	2.00	0.667	
Total Xylenes*	<0.150	0.150	04/18/2024	ND	6.14	102	6.00	0.414	GC-NC
Total BTEX	<0.300	0.300	04/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *148 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**432**	16.0	04/18/2024	ND	400	100	400	14.8	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**63.7**	10.0	04/18/2024	ND	196	98.0	200	1.90	
DRO >C10-C28*	**550**	10.0	04/18/2024	ND	191	95.7	200	2.75	
EXT DRO >C28-C36	**327**	10.0	04/18/2024	ND					

Surrogate: 1-Chlorooctane *83.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *104 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	23064	Sample Received By:	Dionica Hinojos
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: PG - TP - 6 (H242032-11)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/18/2024	ND	2.06	103	2.00	0.499	
Toluene*	<0.050	0.050	04/18/2024	ND	2.01	101	2.00	0.608	
Ethylbenzene*	<0.050	0.050	04/18/2024	ND	2.05	102	2.00	0.667	
Total Xylenes*	<0.150	0.150	04/18/2024	ND	6.14	102	6.00	0.414	
Total BTEX	<0.300	0.300	04/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *117 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	04/18/2024	ND	400	100	400	14.8	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/18/2024	ND	196	98.0	200	1.90	
DRO >C10-C28*	**251**	10.0	04/18/2024	ND	191	95.7	200	2.75	
EXT DRO >C28-C36	**53.3**	10.0	04/18/2024	ND					

Surrogate: 1-Chlorooctane *72.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *88.2 %* *49.1-148*

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CARDINAL Laboratories

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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Page #1

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: COMM ENGINEERING
Project Manager: K. Robinson
Address: 1319 W. Pinhook Ste 400
City: Lafayette State: LA Zip: 70503
Phone #: 405-820-2069 Fax #:
Project #: 230604 Project Owner: Harvard Buckhorn
Project Name: Pure Gold C17 Fed #3
Project Location: 21 miles SE of Carlsbad, NM
Sampler Name: K. Robinson

BILL TO
P.O. #:
Company:
Attn: Same
Address:
City:
State: Zip:
Phone #:
Fax #:

FOR LAB USE ONLY

Lab I.D. H242032	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	ANALYSIS REQUEST: TPH Chloride BTEX Benz (Full meal Deal)
1	PG-VA-1					X							4-16-24	930A	X
2	PG-VA-2					X							〃	〃	X
3	PG-BG-1					X							〃	〃	X
4	PG BG-2					X							〃	〃	X
5	PG BG-3					X							〃	〃	X
6	PG														
7	PG														
8	PG														
9	PG														
10	PG														

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Relinquished By: K. Robinson Date: 04/17/24 Time: 11:40 Received By: [signature]
Relinquished By: Date: Time: Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:

REMARKS:

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Observed Temp. °C 3.3
Corrected Temp. °C

Sample Condition
Cool Intact
☑ Yes ☑ Yes
☐ No ☐ No

CHECKED BY: (Initials) [initials]

Turnaround Time: Standard ☐ Rush ☐
Thermometer ID #140
Correction Factor 0°C

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

FORM-006 R 3.4 07/11/23

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

CARDINAL Laboratories

Page #2

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

		BILL TO	
Company Name:	COMM ENGINEERING	P.O. #:	
Project Manager:	K Robinson	Company:	
Address:	1319 W. Pinhook Ste 400	Attn:	
City:	LAfayette State: LA Zip: 70503	Address:	
Phone #:	405-820-2069 Fax #:	City:	
Project #:	230604 Project Owner: Harvard Buckhorn	State: Zip:	
Project Name:	Pure GOLD C17 FED #3	Phone #:	
Project Location:	21 miles SE of Carlsbad, NM	Fax #:	
Sampler Name:	K Robinson		

FOR LAB USE ONLY: H240032

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	MATRIX: WASTEWATER	MATRIX: SOIL	MATRIX: OIL	MATRIX: SLUDGE	MATRIX: OTHER:	PRESERV.: ACID/BASE:	PRESERV.: ICE / COOL (circled)	PRESERV.: OTHER:	SAMPLING: DATE	SAMPLING: TIME	ANALYSIS REQUEST: TPH CHLORIDE BETX Benz (Full meal deal)
11	PG-TP-1					X							4-16-24	930A	X
12	PG-TP-2					X							4-16-24	930A	X
13	PG-TP-3					X							4-16-24	930A	X
14	PG-TP-4					X							4-16-24	930A	X
15	PG-TP-5					X							4-16-24	930A	X
16	PG-TP-6					X							4-16-24	930A	X

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Relinquished By: K Robinson	Date: 4-17-24 Time: 11:40	Received By: [signature]	Verbal Result: ☐ Yes ☐ No Add'l Phone #: All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 3.3 Corrected Temp. °C	Sample Condition Cool Intact ☑ Yes ☑ Yes ☐ No ☐ No / CHECKED BY: (Initials) DH	Turnaround Time: Standard ☐ Rush ☐ Thermometer ID #140 Correction Factor 0°C / Bacteria (only) Sample Condition Cool Intact ☐ Yes ☐ Yes ☐ No ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.4 07/11/23

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CARDINAL Laboratories

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

June 24, 2024

KEVIN ROBINSON

COMM ENGINEERING

1319 W. PINHOOK, SUITE 400

LAFAYETTE, LA 70503

RE: PURE GOLD C17

Enclosed are the results of analyses for samples received by the laboratory on 06/18/24 16:47.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	06/18/2024	Sampling Date:	06/18/2024
Reported:	06/24/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	35 MILES WEST OF HOBBS, NM		

Sample ID: PG - VA - 1 (H243582-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/21/2024	ND	1.88	93.9	2.00	1.60	
Toluene*	<0.050	0.050	06/21/2024	ND	1.97	98.4	2.00	1.91	
Ethylbenzene*	<0.050	0.050	06/21/2024	ND	2.05	102	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/21/2024	ND	6.12	102	6.00	2.04	
Total BTEX	<0.300	0.300	06/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	198	99.2	200	4.77	
DRO >C10-C28*	**12.6**	10.0	06/20/2024	ND	192	96.1	200	5.36	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *104 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *96.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	06/18/2024	Sampling Date:	06/18/2024
Reported:	06/24/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	35 MILES WEST OF HOBBS, NM		

Sample ID: PG - VA - 2 (H243582-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/21/2024	ND	1.88	93.9	2.00	1.60	
Toluene*	<0.050	0.050	06/21/2024	ND	1.97	98.4	2.00	1.91	
Ethylbenzene*	<0.050	0.050	06/21/2024	ND	2.05	102	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/21/2024	ND	6.12	102	6.00	2.04	
Total BTEX	<0.300	0.300	06/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *115 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	198	99.2	200	4.77	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	192	96.1	200	5.36	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *93.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *89.8 %* *49.1-148*

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CARDINAL Laboratories

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Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	06/18/2024	Sampling Date:	06/18/2024
Reported:	06/24/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	35 MILES WEST OF HOBBS, NM		

Sample ID: PG - TP - 1 (H243582-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/21/2024	ND	1.88	93.9	2.00	1.60	
Toluene*	<0.050	0.050	06/21/2024	ND	1.97	98.4	2.00	1.91	
Ethylbenzene*	<0.050	0.050	06/21/2024	ND	2.05	102	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/21/2024	ND	6.12	102	6.00	2.04	
Total BTEX	<0.300	0.300	06/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *119 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	198	99.2	200	4.77	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	192	96.1	200	5.36	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *98.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *94.8 %* *49.1-148*

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Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	06/18/2024	Sampling Date:	06/18/2024
Reported:	06/24/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	35 MILES WEST OF HOBBS, NM		

Sample ID: PG - TP - 4 (H243582-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/21/2024	ND	1.88	93.9	2.00	1.60	
Toluene*	<0.050	0.050	06/21/2024	ND	1.97	98.4	2.00	1.91	
Ethylbenzene*	<0.050	0.050	06/21/2024	ND	2.05	102	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/21/2024	ND	6.12	102	6.00	2.04	
Total BTEX	<0.300	0.300	06/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *119 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	198	99.2	200	4.77	
DRO >C10-C28*	**12.1**	10.0	06/20/2024	ND	192	96.1	200	5.36	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *103 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *97.9 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	06/18/2024	Sampling Date:	06/18/2024
Reported:	06/24/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	35 MILES WEST OF HOBBS, NM		

Sample ID: PG - TP - 5 (H243582-05)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/21/2024	ND	1.88	93.9	2.00	1.60	
Toluene*	<0.050	0.050	06/21/2024	ND	1.97	98.4	2.00	1.91	
Ethylbenzene*	<0.050	0.050	06/21/2024	ND	2.05	102	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/21/2024	ND	6.12	102	6.00	2.04	
Total BTEX	<0.300	0.300	06/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *117 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**272**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	198	99.2	200	4.77	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	192	96.1	200	5.36	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *106 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *99.2 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	06/18/2024	Sampling Date:	06/18/2024
Reported:	06/24/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	35 MILES WEST OF HOBBS, NM		

Sample ID: PG - TP - 6 (H243582-06)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/21/2024	ND	1.88	93.9	2.00	1.60	
Toluene*	<0.050	0.050	06/21/2024	ND	1.97	98.4	2.00	1.91	
Ethylbenzene*	<0.050	0.050	06/21/2024	ND	2.05	102	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/21/2024	ND	6.12	102	6.00	2.04	
Total BTEX	<0.300	0.300	06/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *117 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**528**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	198	99.2	200	4.77	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	192	96.1	200	5.36	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *108 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *101 %* *49.1-148*

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CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	06/18/2024	Sampling Date:	06/18/2024
Reported:	06/24/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	35 MILES WEST OF HOBBS, NM		

Sample ID: PG - TP - 7 (H243582-07)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/21/2024	ND	1.88	93.9	2.00	1.60	
Toluene*	<0.050	0.050	06/21/2024	ND	1.97	98.4	2.00	1.91	
Ethylbenzene*	<0.050	0.050	06/21/2024	ND	2.05	102	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/21/2024	ND	6.12	102	6.00	2.04	
Total BTEX	<0.300	0.300	06/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *122 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	198	99.2	200	4.77	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	192	96.1	200	5.36	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *104 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *96.3 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	06/18/2024	Sampling Date:	06/18/2024
Reported:	06/24/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	35 MILES WEST OF HOBBS, NM		

Sample ID: PG - TP - 8 (H243582-08)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/21/2024	ND	1.88	93.9	2.00	1.60	
Toluene*	<0.050	0.050	06/21/2024	ND	1.97	98.4	2.00	1.91	
Ethylbenzene*	<0.050	0.050	06/21/2024	ND	2.05	102	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/21/2024	ND	6.12	102	6.00	2.04	
Total BTEX	<0.300	0.300	06/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *114 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	198	99.2	200	4.77	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	192	96.1	200	5.36	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *106 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *100 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	06/18/2024	Sampling Date:	06/18/2024
Reported:	06/24/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	35 MILES WEST OF HOBBS, NM		

Sample ID: PG - TP - 9 (H243582-09)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/21/2024	ND	1.88	93.9	2.00	1.60	
Toluene*	<0.050	0.050	06/21/2024	ND	1.97	98.4	2.00	1.91	
Ethylbenzene*	<0.050	0.050	06/21/2024	ND	2.05	102	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/21/2024	ND	6.12	102	6.00	2.04	
Total BTEX	<0.300	0.300	06/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *122 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**400**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	191	95.4	200	3.33	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	204	102	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *96.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *107 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	06/18/2024	Sampling Date:	06/18/2024
Reported:	06/24/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	35 MILES WEST OF HOBBS, NM		

Sample ID: PG - TP - 10 (H243582-10)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/21/2024	ND	1.88	93.9	2.00	1.60	
Toluene*	<0.050	0.050	06/21/2024	ND	1.97	98.4	2.00	1.91	
Ethylbenzene*	<0.050	0.050	06/21/2024	ND	2.05	102	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/21/2024	ND	6.12	102	6.00	2.04	
Total BTEX	<0.300	0.300	06/21/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	191	95.4	200	3.33	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	204	102	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *101 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *111 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	06/18/2024	Sampling Date:	06/18/2024
Reported:	06/24/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	35 MILES WEST OF HOBBS, NM		

Sample ID: PG - TP - 11 (H243582-11)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/21/2024	ND	1.88	93.9	2.00	1.60	
Toluene*	<0.050	0.050	06/21/2024	ND	1.97	98.4	2.00	1.91	
Ethylbenzene*	<0.050	0.050	06/21/2024	ND	2.05	102	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/21/2024	ND	6.12	102	6.00	2.04	
Total BTEX	<0.300	0.300	06/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *121 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**384**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	191	95.4	200	3.33	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	204	102	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *95.7 %* *48.2-134*

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	06/18/2024	Sampling Date:	06/18/2024
Reported:	06/24/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	35 MILES WEST OF HOBBS, NM		

Sample ID: PG - TP - 12 (H243582-12)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/21/2024	ND	1.88	93.9	2.00	1.60	
Toluene*	<0.050	0.050	06/21/2024	ND	1.97	98.4	2.00	1.91	
Ethylbenzene*	<0.050	0.050	06/21/2024	ND	2.05	102	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/21/2024	ND	6.12	102	6.00	2.04	
Total BTEX	<0.300	0.300	06/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *114 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**496**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	191	95.4	200	3.33	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	204	102	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *106 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *117 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	06/18/2024	Sampling Date:	06/18/2024
Reported:	06/24/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	35 MILES WEST OF HOBBS, NM		

Sample ID: PG - BG - 1 (H243582-13)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/21/2024	ND	1.88	93.9	2.00	1.60	
Toluene*	<0.050	0.050	06/21/2024	ND	1.97	98.4	2.00	1.91	
Ethylbenzene*	<0.050	0.050	06/21/2024	ND	2.05	102	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/21/2024	ND	6.12	102	6.00	2.04	
Total BTEX	<0.300	0.300	06/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *121 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	191	95.4	200	3.33	
DRO >C10-C28*	**17.7**	10.0	06/20/2024	ND	204	102	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *106 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *118 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	06/18/2024	Sampling Date:	06/18/2024
Reported:	06/24/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	35 MILES WEST OF HOBBS, NM		

Sample ID: PG - BG - 2 (H243582-14)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/21/2024	ND	1.88	93.9	2.00	1.60	
Toluene*	<0.050	0.050	06/21/2024	ND	1.97	98.4	2.00	1.91	
Ethylbenzene*	<0.050	0.050	06/21/2024	ND	2.05	102	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/21/2024	ND	6.12	102	6.00	2.04	
Total BTEX	<0.300	0.300	06/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *119 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	191	95.4	200	3.33	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	204	102	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *107 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *115 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Comm Engineering
Project Manager: K. Robinson
Address: 1319 W Pinhook Ste 400
City: Lafayette State: LA Zip: 70503
Phone #: 405-820-2069 Fax #:
Project #: Project Owner: Harvard Petroleum
Project Name: Pure Gold C17
Project Location: 35 miles west of Hobbs, NM
Sampler Name: K. Robinson

BILL TO
P.O. #:
Company:
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	TPH, Chloride, BTEX, Benz
H243582													6-18-24	900A	X
1	PG-VA-1					X									X
2	PG-VA-2					X									X
3	PG-TP-3					X									X
4	PG-TP-4					X									X
5	PG-TP-5					X									X
6	PG-TP-6					X									X
7	PG-TP-7					X									X
8	PG-TP 8					X									X
9	PG-TP 9					X									X
10	PG TP 10					X									X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: K. Robinson Date: 6/18/24 Time: 1047 Received By:
Relinquished By: Date: Time: Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 33 Corrected Temp. °C
Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) AD

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #140 Correction Factor 0°C
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.4 07/11/23

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

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Comm Engineering
Project Manager: K Robinson
Address: 1319 W Pinhook Ste 400
City: LAfayette State: LA Zip: 70503
Phone #: 405-820-2069 Fax #:
Project #: Project Owner: HARVARD Petroleum
Project Name: Pure Gold C17
Project Location: 35 miles West of Hobbs NM
Sampler Name: K Robinson

BILL TO
P.O. #:
Company:
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST: TPH Chloride BTEX, Benz

Lab I.D. (FOR LAB USE ONLY)	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	TPH Chloride BTEX, Benz
H243582															
11	PG-TP-11					X							6-18-24	900A	X
12	PG TP-12					X							"	"	X
13	PG-BG-1					X							"	"	X
14	PG-BG-2					X							"	"	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: K Robinson Date: 6/18/24 Time: 1447 Received By: aDams
Relinquished By: Date: Time: Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
REMARKS:

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:
Observed Temp. °C 3.3
Corrected Temp. °C 3.3
Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No
CHECKED BY: (Initials) AD

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #140
Correction Factor 0°C
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No; Observed Temp. °C; Corrected Temp. °C

FORM-006 R 3.4 07/11/23

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

CARDINAL Laboratories

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

November 19, 2024

KEVIN ROBINSON

COMM ENGINEERING

1319 W. PINHOOK, SUITE 400

LAFAYETTE, LA 70503

RE: PURE GOLD C17 FED #3

Enclosed are the results of analyses for samples received by the laboratory on 11/18/24 8:17.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	11/18/2024	Sampling Date:	11/16/2024
Reported:	11/19/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	240247	Sample Received By:	Shalyn Rodriguez
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: F1 7.5" (H247006-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.14	107	2.00	2.28	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	106	2.00	4.86	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.26	113	2.00	8.60	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.81	113	6.00	9.50	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.3 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**132.0**	16.0	11/18/2024	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	209	104	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	202	101	200	5.17	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *98.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *104 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	11/18/2024	Sampling Date:	11/16/2024
Reported:	11/19/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	240247	Sample Received By:	Shalyn Rodriguez
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: SW 1 (H247006-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.14	107	2.00	2.28	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	106	2.00	4.86	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.26	113	2.00	8.60	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.81	113	6.00	9.50	
Total BTEX	<0.300	0.300	11/18/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**216.0**	16.0	11/18/2024	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	209	104	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	202	101	200	5.17	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *102 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *109 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	11/18/2024	Sampling Date:	11/16/2024
Reported:	11/19/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	240247	Sample Received By:	Shalyn Rodriguez
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: D1 3'' (H247006-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.14	107	2.00	2.28	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	106	2.00	4.86	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.26	113	2.00	8.60	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.81	113	6.00	9.50	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**288.0**	16.0	11/18/2024	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	209	104	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	202	101	200	5.17	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *105 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *112 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	11/18/2024	Sampling Date:	11/16/2024
Reported:	11/19/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	240247	Sample Received By:	Shalyn Rodriguez
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: D1 6" (H247006-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.14	107	2.00	2.28	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	106	2.00	4.86	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.26	113	2.00	8.60	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.81	113	6.00	9.50	
Total BTEX	<0.300	0.300	11/18/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**179.0**	16.0	11/18/2024	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	209	104	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	202	101	200	5.17	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *102 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *107 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	11/18/2024	Sampling Date:	11/16/2024
Reported:	11/19/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	240247	Sample Received By:	Shalyn Rodriguez
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: D2 3" (H247006-05)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.14	107	2.00	2.28	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	106	2.00	4.86	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.26	113	2.00	8.60	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.81	113	6.00	9.50	
Total BTEX	<0.300	0.300	11/18/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**121.0**	16.0	11/18/2024	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	209	104	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	202	101	200	5.17	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *103 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *108 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	11/18/2024	Sampling Date:	11/16/2024
Reported:	11/19/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	240247	Sample Received By:	Shalyn Rodriguez
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: D2 6" (H247006-06)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.14	107	2.00	2.28	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	106	2.00	4.86	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.26	113	2.00	8.60	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.81	113	6.00	9.50	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.4 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**164.0**	16.0	11/18/2024	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	209	104	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	202	101	200	5.17	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *96.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *105 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	11/18/2024	Sampling Date:	11/16/2024
Reported:	11/19/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	240247	Sample Received By:	Shalyn Rodriguez
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: D3 3'' (H247006-07)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.14	107	2.00	2.28	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	106	2.00	4.86	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.26	113	2.00	8.60	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.81	113	6.00	9.50	
Total BTEX	<0.300	0.300	11/18/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**318.0**	16.0	11/18/2024	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	209	104	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	202	101	200	5.17	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *97.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *104 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Analytical Results For:

COMM ENGINEERING
KEVIN ROBINSON
1319 W. PINHOOK, SUITE 400
LAFAYETTE LA, 70503
Fax To:

Received:	11/18/2024	Sampling Date:	11/16/2024
Reported:	11/19/2024	Sampling Type:	Soil
Project Name:	PURE GOLD C17 FED #3	Sampling Condition:	Cool & Intact
Project Number:	240247	Sample Received By:	Shalyn Rodriguez
Project Location:	21 MILES SE OF CARLSBAD, NM		

Sample ID: D3 6" (H247006-08)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.14	107	2.00	2.28	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	106	2.00	4.86	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.26	113	2.00	8.60	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.81	113	6.00	9.50	
Total BTEX	<0.300	0.300	11/18/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**247.0**	16.0	11/18/2024	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	209	104	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	202	101	200	5.17	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *97.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *104 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: COMM Engineering
Project Manager: Ryan Gleason
Address: 1319 W. Pinhook Rd., Ste 401
City: Lafayette State: LA Zip: 70505
Phone #: 405.209.6859 Fax #:
Project #: 240247 Project Owner: Harvard Petr.
Project Name: Pure Gold C-17 Fed 3
Project Location: 32.30236 -103.79317
Sampler Name: Ryan Gleason

BILL TO
P.O. #:
Company: SAME
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	Cl, TPH, BTEX
H247006															
1	F1 7.5"	C				X					X		11/16/24	8:30am	X
2	SW1	C													
3	D1 3"	G													
4	D1 6"	G													
5	D2 3"	G													
6	D2 6"	G													
7	D3 3"	G													
8	D3 6"	G													

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Date: 11/19/24 Time: 8:17am Received By: SRodriguez
Relinquished By: Date: Time: Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
REMARKS:

Turnaround Time: Standard ☒ Rush ☐ 24 hr. Rush
Thermometer ID #140 Correction Factor 0°C

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 3.4 Corrected Temp. °C 2.8
Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) SR

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

FORM-006 R 3.4 07/11/23

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

OWL Landfill Services, LLC
DBA: Northern Delaware Basin Landfill
8201 Preston Rd., Suite 520
Dallas, TX 75225
214.292.2011
ar@ndblandfill.com

COMPANY MAN: Kevin (Authorized Agent's Printed Name and Title)
SIGNATURE: Robinson
COMPANY MAN EMAIL: 405 820
COMPANY MAN PHONE: 7069

MANIFEST # 0307777

Part 1 - Generator

COMPANY NAME: Harvard
LEASE: Pure Gold C-17 Fed 3
AFE #: _____ API: 3001527152
RIG NAME: _____ WELL #: _____
STATE & COUNTY ORIGIN: Eddy

DATE: _____
PHONE: _____

QUANTITY: _____ ☐ BBLS
20 ☑ YARDS

Waste Description (check only one box)	☐ RCRA Exempt	☐ RCRA Non-Exempt

☐ Water Based Cuttings (DRY)	☐ Water Based Cuttings (WET)	☑ Contaminated Soil	☐ Produced Sands
☐ Oil Based Cuttings (DRY)	☐ Oil Based Cuttings (WET)	☐ Injectable Fluids	☐ Non-Injectable Fluids
☐ Oil Base Mud	☐ Water Base Mud	☐ Muds w/Cement	☐ Tank Bottoms
☐ Rig Trash	☐ Pit Liners		
☐ Other: _____		Authorize Washout? ☐ Yes ☐ No	

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☐ RCRA EXEMPT: Oilfield wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (NDBL Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oilfield waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ SDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFIELD: Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a description of that waste must accompany this form)

(Print) Authorized Agent's Name _____ Date _____ Signature _____

Part 2 - Transporter

TO BE COMPLETED BY THE TRANSPORTER WHILE THE GENERATOR IS PRESENT

COMPANY NAME: Mata Trucking
ADDRESS: _____
YARD #: _____ WHP #: _____ TRUCK #: _____
TICKET #: _____ ROLL OFF BIN#: _____ TRAILER #: _____

DATE RECEIVED: _____ TIME RECEIVED: _____ ☐ AM ☐ PM
DISPATCHER NAME: _____ DISPATCHER PHONE #: _____

The following statement must be signed by the truck driver prior to unloading at disposal facility:
"I CERTIFY THAT NO OTHER MATERIAL HAS BEEN PLACED IN THIS VESSEL SINCE LOADING OF MATERIAL DESCRIBED IN PART 1 ABOVE."

DRIVER: Jose Espinoza (Driver's Name Printed) DRIVER'S SIGNATURE: _____

I, (TRANSPORTER), CERTIFY THAT THE INFORMATION GIVEN ON THIS MANIFEST IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Part 3 - Disposal Facility

TO BE COMPLETED BY OWL LANDFILL EMPLOYEES

FACILITY RECEIVED AT (Check One):

☐ Northern Delaware Basin Landfill
2029 W. NM Highway 128 | Jal, New Mexico 88252

DATE: 4/14/22 TIME IN: 1208 AM / PM
TIME OUT: _____ AM / PM

WASHOUT BY: _____
WASHOUT: TIME IN: _____ TIME OUT: _____

ACCEPTANCE TESTING: PAINT FILTER: PASS FAIL N/A
TCLP: PASS FAIL N/A
TOX: PASS FAIL N/A

NORM TESTING: _____ (Less than 50 MCR)

Shake Out:			
	1	2	3
H_2O			
S			

238851
Gallon Test: _____

SERVICE NOTES:
This is to certify that: Jazmine (Employee (Printed Name)) has received the above indicated waste, waste has passed all acceptances testing of this facility and the waste has been disposed of in an authorized manner at a permitted site.

EMPLOYEE SIGNATURE: _____

White Copy: Disposal Facility Yellow: Transporter Pink: Generator

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-138
Revised August 1, 2011

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:** Harvard Comm Engineering — CODE: — AFE:
2. **Originating Site:** Pure Gold C-17 Fed #003 — WELL: — RIG:
3. **Location of Material (Street Address, City, State or ULSTR):** Eddy — API: 3001527152
4. **Source and Description of Waste:** Contaminated Soil — Hydro Vac | Frac Tank | Vac Truck | End Dump | Roll Off | Belly Dump | Dump Truck

Estimated Volume ____ yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 20 yd³ / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Kevin R., representative or authorized agent for _____ do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ *Monthly* ☐ *Weekly* ☐ *Per Load*

☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, _____, representative for _____ do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. **Transporter:** M Mata — Driver/Truck #: Jorge Espinoza

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Northern Delaware Bason Landfill/ NM1-63

Address of Facility: 2029 W NM Highway 128, Jal NM 88252

TICKET # 238851

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☒ Landfill ☐ Other Truck#_____

Waste Acceptance Status:

☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: Geraldine Cabellos TITLE: _____ DATE: 4/16/24

SIGNATURE: Geraldine TELEPHONE NO.: _____

Surface Waste Management Facility Authorized Agent

Manifest # 6262024

Lazy Ace Landfarm

Lease Operator Information:

Name: HARVARD PETROLEUM CO. LLC

Address: 3737 Buffalo Speedway, Suite 1600

Phone #: 575-208-7135

Originating Location of waste material:

Lease Name: Pure Gold CTB FED #3

Sec. 17 T 23S R 31E

Transporter Information:

Name: MANTA TRUCKING

Address: Hobbs, NM

Phone #: 575-631-3231

Driver Signature: Manuel Rueta

Date: 6-26-2024

Non-Hazardous Hydro-Carbons: Total Yards: 54

Waste material placed in cell number: A11

Lazy Ace Landfarm, LLLP
P.O. Box 130
Eunice, NM 88231

Permit # NM 01-0041
W1/2SW1/4 S22T20SR34E

Contacts:
Danny Berry
(575) 393-6964 - Home
(575) 369-5266 - Cell

" As a condition of acceptance for disposal, I hereby certify that this waste is an exempt waste as defined by the Environmental Protection Agency (EPA). The waste are: generated from oil and gas exploration and production operations, exempt from Resource Conservation and Recovery Act (RCRA) Subtitle C Regulations: and not mixed with non-exempt waste."

Facility Representative: Danny Berry Date: 6/26/24

White - Original **Canary - Invoice** **Pink - Trucker**

OWL Landfill Services, LLC
DBA: Northern Delaware Basin Landfill
3889 Maple Ave. Suite 300
Dallas, TX 75219
505.231.1212
ar@ndblandfill.com

COMPANY MAN: Ryan Gleason Env Spec.
(Authorized Agent's Printed Name and Title)
SIGNATURE: [signature]
COMPANY MAN EMAIL: rgleason@commenceng...
COMPANY MAN PHONE: 405.209.6859

MANIFEST #
0389702

Part 1 - Generator

COMPANY NAME: Harvard Petroleum
DATE: 11/20/24
LEASE: Pure Gold C-17 Fed 3
PHONE: 405.209.6859
AFE #:
API: 30-015-2?152
QUANTITY: 5 ☐ BBLS ☑ YARDS
RIG NAME:
WELL #: 3
STATE & COUNTY ORIGIN: NM Eddy Co.

Waste Description (check only one box) ☑ RCRA Exempt ☐ RCRA Non-Exempt

☐ Water Based Cuttings (DRY) ☐ Water Based Cuttings (WET) ☑ Contaminated Soil ☐ Produced Sands
☐ Oil Based Cuttings (DRY) ☐ Oil Based Cuttings (WET) ☐ Injectable Fluids ☐ Non-Injectable Fluids
☐ Oil Base Mud ☐ Water Base Mud ☐ Muds w/Cement ☐ Tank Bottoms
☐ Rig Trash ☐ Pit Liners
☐ Other:
Authorize Washout? ☐ Yes ☐ No

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☑ RCRA EXEMPT: Oilfield wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (NDBL Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oilfield waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ SDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFIELD: Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a description of that waste must accompany this form)

(Print) Authorized Agent's Name Ryan Gleason Date 11/20/24 Signature [signature]

Part 2 - Transporter

TO BE COMPLETED BY THE TRANSPORTER WHILE THE GENERATOR IS PRESENT

COMPANY NAME: AGuplus Services
YARD #:
WHP #:
TRUCK #:
ADDRESS: 3204 Rebecca Rd Hobbs NM
TICKET #:
ROLL OFF BIN#:
TRAILER #:
DATE RECEIVED: 11-20-24
TIME RECEIVED: 11 ☑ AM ☐ PM
DISPATCHER NAME:
DISPATCHER PHONE #:

The following statement must be signed by the truck driver prior to unloading at disposal facility:
"I CERTIFY THAT NO OTHER MATERIAL HAS BEEN PLACED IN THIS VESSEL SINCE LOADING OF MATERIAL DESCRIBED IN PART 1 ABOVE."

DRIVER: Gustavo Trillo
(Driver's Name Printed)
DRIVER'S SIGNATURE: [signature]

I, (TRANSPORTER), CERTIFY THAT THE INFORMATION GIVEN ON THIS MANIFEST IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Part 3 - Disposal Facility

TO BE COMPLETED BY OWL LANDFILL EMPLOYEES

FACILITY RECEIVED AT (Check One):
DATE: 11-20-24
TIME IN: 2:19 AM / PM (PM circled)
TIME OUT: AM / PM

☐ Northern Delaware Basin Landfill
2029 W. NM Highway 128 | Jal, New Mexico 88252

WASHOUT BY:
WASHOUT: TIME IN: TIME OUT:

ACCEPTANCE TESTING: PAINT FILTER: PASS FAIL N/A
TCLP: PASS FAIL N/A
TOX: PASS FAIL N/A

NORM TESTING: (less than 50 MCR)

Shake Out: 1 2 3
H_2O N/A
S

285386

Gallon Test:

SERVICE NOTES:
This is to certify that: ______ (Employee Printed Name) *has received the above indicated waste, waste has passed all acceptances testing of this facility and the waste has been disposed of in an authorized manner at a permitted site.*

EMPLOYEE SIGNATURE: [signature]

White Copy: Disposal Facility Yellow: Transporter Pink: Generator

Subject: RE: [EXTERNAL] Harvard Petroleum Company - Pure Gold C-17 Fed #3 - Incident ID (n#) nAPP2334138591
Date: Tuesday, June 18, 2024 at 11:35:56 AM Central Daylight Time
From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
To: Ryan Gleason <rlgleason@commengineering.com>
CC: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Attachments: image001.png

Good morning Ryan,

The extension request for NAPP2334138591 PURE GOLD C-17 FED #3 is approved. Because the OCD Permitting site only allows for 90 day extensions the new due date to submit your remediation closure report to the OCD is September 16, 2024. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Kind regards,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520|Shelly.Wells@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Ryan Gleason <rlgleason@commengineering.com>
Sent: Tuesday, June 18, 2024 10:28 AM
To: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Subject: [EXTERNAL] Harvard Petroleum Company - Pure Gold C-17 Fed #3 - Incident ID (n#) nAPP2334138591

Hi Shelly,

On behalf of Harvard Petroleum Company, I'm emailing in reference to incident ID (n#) nAPP2334138591 at the Pure Gold C-17 Fed #3. We have completed further remediation, but are awaiting certified analytical results on soil samples. Can we receive a 30-day deadline extension? The site does not threaten human health, the surface environment, or the groundwater table.

Thanks,

Ryan Gleason | Environmental Specialist

COMM Engineering
1319 W. Pinhook Road, Ste 401 | Lafayette, LA 70503
Office: 337.237.4373
Cell: 405.209.6859

Tuesday, June 18, 2024 at 13:22:30 Central Daylight Time

Subject:	RE: [EXTERNAL] Harvard Petroleum Company - Pure Gold C-17 Fed #3 - Incident ID (n#) nAPP2334138591
Date:	Tuesday, June 18, 2024 at 11:35:56 AM Central Daylight Time
From:	Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
To:	Ryan Gleason <rlgleason@commengineering.com>
CC:	Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Attachments:	image001.png

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To: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Subject: [EXTERNAL] Harvard Petroleum Company - Pure Gold C-17 Fed #3 - Incident ID (n#) nAPP2334138591

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

Hi Shelly,

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Thanks,

Ryan Gleason | Environmental Specialist
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Sante Fe Main Office
Phone: (505) 476-3441

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

QUESTIONS

Action 427160

QUESTIONS

Operator: HARVARD PETROLEUM COMPANY, LLC P.O. Box 936 Roswell, NM 88202	OGRID: 10155
	Action Number: 427160
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2334138591**
Incident Name	**NAPP2334138591 PURE GOLD C-17 FED #3 @ 30-015-27152**
Incident Type	**Oil Release**
Incident Status	**Remediation Closure Report Received**
Incident Well	**[30-015-27152] PURE GOLD C-17 FEDERAL #003**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	PURE GOLD C-17 FED #3
Date Release Discovered	12/05/2023
Surface Owner	Federal

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

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

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QUESTIONS (continued)

Operator: HARVARD PETROLEUM COMPANY, LLC P.O. Box 936 Roswell, NM 88202	OGRID: 10155
	Action Number: 427160
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**More info needed to determine if this will be treated as a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	*Unavailable.*
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

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

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

I hereby agree and sign off to the above statement	Name: Roni Kidd Email: rkidd@hpcnm.com Date: 12/07/2023

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QUESTIONS (continued)

Operator: HARVARD PETROLEUM COMPANY, LLC P.O. Box 936 Roswell, NM 88202	OGRID: 10155
	Action Number: 427160
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 26 and 50 (ft.)
What method was used to determine the depth to ground water	Estimate or Other
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between ½ and 1 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 500 and 1000 (ft.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	1800
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	943.4
GRO+DRO (EPA SW-846 Method 8015M)	755.4
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	04/16/2024
On what date will (or did) the final sampling or liner inspection occur	11/16/2024
On what date will (or was) the remediation complete(d)	11/20/2024
What is the estimated surface area (in square feet) that will be reclaimed	2504
What is the estimated volume (in cubic yards) that will be reclaimed	58
What is the estimated surface area (in square feet) that will be remediated	2504
What is the estimated volume (in cubic yards) that will be remediated	58
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: HARVARD PETROLEUM COMPANY, LLC P.O. Box 936 Roswell, NM 88202	OGRID: 10155
	Action Number: 427160
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	OWL LANDFILL JAL [fJEG1635837366]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Roni Kidd Title: Business Manager Email: rkidd@buckhornproduction.com Date: 02/04/2025
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: HARVARD PETROLEUM COMPANY, LLC P.O. Box 936 Roswell, NM 88202	OGRID: 10155
	Action Number: 427160
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only *Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.*	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

Operator: HARVARD PETROLEUM COMPANY, LLC P.O. Box 936 Roswell, NM 88202	OGRID: 10155
	Action Number: 427160
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**403192**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**11/16/2024**
What was the (estimated) number of samples that were to be gathered	**5**
What was the sampling surface area in square feet	**200**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	2504
What was the total volume (cubic yards) remediated	58
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	Due to the groundwater depth provided not being acceptable, the entire impacted area of the release was re-excavated to a deeper depth to meet the most stringent closure criteria. This is why the volume of the remediation is reported as 58 cu yds as opposed to 78 cu yds.

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

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

I hereby agree and sign off to the above statement	Name: Roni Kidd Title: Business Manager Email: rkidd@buckhornproduction.com Date: 02/04/2025

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QUESTIONS (continued)

Operator: HARVARD PETROLEUM COMPANY, LLC P.O. Box 936 Roswell, NM 88202	OGRID: 10155
	Action Number: 427160
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 427160

CONDITIONS

Operator: HARVARD PETROLEUM COMPANY, LLC P.O. Box 936 Roswell, NM 88202	OGRID: 10155
	Action Number: 427160
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
scwells	Remediation closure approved.	3/6/2025